

Gulf and South Atlantic Council
Scientific and Statistical Committees
Scope of Work
February 25 – 26, 2025
Tampa, Florida

This portion of the SSC meeting will be convened by the Gulf and South Atlantic Council SSCs for the purpose of reviewing the stock assessments of shared species. The joint meeting will begin at 8:30 am on February 25, and conclude at 12:00 pm on February 26, 2025.

Agenda Item III: Southeast Data, Assessment, and Review (SEDAR) 79: Southeastern U.S. Mutton Snapper Stock Assessment

Action: Presentation, discussions, and recommendations

Committee input and next steps: Dr. Shanae Allen (Florida Fish and Wildlife Conservation Commission [FWC]) will present SEDAR 79, which is a stock assessment of southeastern U.S. mutton snapper. This stock assessment uses the State of Florida's State Reef Fish Survey (SRFS) in place of the Marine Recreational Information Program's Fishing Effort Survey (MRIP-FES) data for recreational private vessel landings. SRFS was considered appropriate for inclusion in this assessment since the vast majority (>95%) of mutton snapper are landed off Florida, and while estimating a lower level of landings, SRFS demonstrates improved precision compared to MRIP-FES for mutton snapper. Dr. Allen will review a bridging analysis from the previous model used in SEDAR 15A to the current model, updates to discard mortality estimates, and model sensitivities and diagnostics. The SSCs should review the presentations and information presented and make final model recommendations and parameterize projections. Dr. Allen will present any modeling updates and final catch projections on the following day (February 26).

Agenda Item IV: Southeast Data, Assessment, and Review (SEDAR) 96: Southeastern U.S. Yellowtail Snapper Stock Assessment

Action: Presentation, discussions, and recommendations

Committee input and next steps: Dr. Chris Swanson (FWC) will present SEDAR 96, which is a stock assessment of southeastern U.S. yellowtail snapper. This stock assessment uses SRFS in place of MRIP-FES data for recreational private vessel landings. SRFS was considered appropriate for inclusion in this assessment since the vast majority (>95%) of yellowtail snapper are landed off Florida, and while estimating a lower level of landings, SRFS demonstrates improved precision compared to MRIP-FES for yellowtail snapper. Dr. Swanson will review a bridging analysis from the previous model used in the SEDAR 64 Update to the current model, and model sensitivities and diagnostics. The SSCs should review the presentations and information presented and make final model recommendations and parameterize projections. Dr.

Swanson will present any modeling updates and final catch projections on the following day (February 26).

Agenda Item V: Public Comment

Action: Information

Committee input and next steps: Members of the public will be able to address the SSCs directly with respect to the topics discussed during this meeting, and other matters, as time allows.

Agenda Item VI: Review: SEDAR 79: Southeastern U.S. Mutton Snapper Catch Limit Projections

Action: Presentation, discussions, and recommendations

Committee input and next steps: Dr. Allen will review SSCs' recommended model modifications and resulting stock status determination for mutton snapper. The SSCs will then make a recommendation about whether the SEDAR 79 stock assessment is consistent with the best scientific information available. If so, the SSCs will apply the South Atlantic Fishery Management Council's (SAFMC) Acceptable Biological Catch (ABC) Control Rule, which is used to determine the scientific uncertainty for calculating the difference between the overfishing limit (OFL) and the ABC. The SSCs will then make formal OFL and ABC recommendations for mutton snapper to the Councils.

Motion/recommendation to Councils expected

Agenda Item VII: Review: SEDAR 96: Southeastern U.S. Yellowtail Snapper Catch Limit Projections

Action: Presentation, discussions, and recommendations

Committee input and next steps: Dr. Swanson will review SSCs' recommended model modifications and resulting stock status determination for yellowtail snapper. The SSCs will then make a recommendation about whether the SEDAR 96 stock assessment is consistent with the best scientific information available. If so, the SSCs will apply the SAFMC ABC Control Rule, which is used to determine the scientific uncertainty for calculating the difference between the OFL and the ABC. The SSCs will then make formal OFL and ABC recommendations for yellowtail snapper to the Councils.

Motion/recommendation to Councils expected

This concludes the joint meeting of the Gulf and South Atlantic SSCs

The meeting for the Gulf SSC begins after lunch on February 26, 2025

Agenda Item II: Review of SEDAR 88 Stock Assessment of Gulf Red Grouper

Action: Discussion and recommendations

Committee input and next steps: Dr. Francesca Forrestal (Southeast Fisheries Science Center [SEFSC]) will present SEDAR 88, which is a stock assessment of Gulf red grouper. This stock assessment uses SRFS in place of MRIP-FES data for recreational private vessel landings. SRFS was considered appropriate for inclusion in this assessment since the vast majority (>95%) of red grouper are landed off Florida, and while estimating a lower level of landings, SRFS demonstrates improved precision compared to MRIP-FES for red grouper. At its December 2024 webinar, the SSC provided recommendations for certain aspects of the base model to the SEFSC for consideration. Dr. Forrestal will review a bridging analysis from the previous model used in SEDAR 61 to the current base model, and model sensitivities and diagnostics. The SSCs should review the presentations and information presented and make final model recommendations and parameterize projections. Dr. Forrestal will present any modeling updates and final catch projections thereafter.

Agenda Item III: SEDAR 100: Gulf Gray Triggerfish Participants for Data, Assessment, and Review Phases

Action: Discussion and recommendations

Committee input and next steps: Council staff will request volunteers from the SSC for participation in the data phase of the upcoming SEDAR 100 stock assessment for Gulf gray triggerfish. The assessment will begin with data scoping in April 2025, and conclude with an in-person Review Workshop in February 2027. Participants for the other phases of the assessment will be solicited at the SSC's May 2025 meeting in Tampa, FL. SSC members should review the terms of reference and proposed schedule for the assessment before volunteering to participate.

Agenda Item IV: Review of SEDAR 88 Stock Assessment of Gulf Red Grouper

Action: Discussion and recommendations

Committee input and next steps: Dr. Forrestal will review SSC's recommended model modifications and resulting stock status determination for Gulf red grouper. The SSC will then make a recommendation about whether the SEDAR 88 stock assessment is consistent with the best scientific information available. If so, the SSCs will evaluate the scientific uncertainty for

calculating the difference between the OFL and the ABC. The SSC will then make formal OFL and ABC recommendations for red grouper to the Council.

Motion/recommendation to Councils expected

Agenda Item V: Public Comment

Action: Information

Committee input and next steps: Members of the public will be able to address the SSC directly with respect to the topics discussed during this meeting, and other matters, as time allows.

The following portion of the Gulf SSC meeting will focus on reviewing Return 'Em Right science

Agenda Item VI: Review: Determination of Predation Mortality, Barotrauma Survival, and Emigration Patterns for Catch-and-released Red Snapper

Action: Presentation and questions

Abstract: The objective in this study was to compare release survival among drop-weight release (SeaQualizer), surface release and cage release methods in Red Snapper, *Lutjanus campechanus*. We tagged and released 722 Red Snapper with conventional tags on 12 reef sites and released 67 Red Snapper with attached transmitters on six telemetry sites using the three release methods.

Up to 19 Jul 2024, there were 215 recaptures of conventionally tagged Red Snapper with 33.2 % cage released, 27.3 % drop-weight released, and 28.9 % surface released. There was little indication that release methods differed in their recapture rates when pooled over all sites (Chi-Square = 2.08, P = 0.354), or when compared among sites (F_{2,35} = 1.42, P = 0.26). Similarly, a comparison by depth zone and release method did not detect significant differences in recapture rates among release methods (F_{2,35} = 1.84, P = 0.18) or a release method*depth interaction effect (F_{6,35} = 0.95, P = 0.48). However, there was a significantly lower recapture rate at the deeper depths (41-44 m) on the edge of the continental shelf compared to shallower (24-37 m) depth zones (F_{3,35} = 5.82, P = 0.004).

For transmitter tagged fish we successfully tracked 59 fish for 1–224 days. There were significant differences in survival among release methods where cage released fish showed the greatest survival (100 %), drop-weight released fish had intermediate survival (84 %), and surface released fish had the lowest survival (47%; Chi-Square = 18.02, P < 0.001. The drop-weight release mortality (16 %) was attributable to predation based on video observations of predation and known tracking patterns of Sandbar Shark, *Carcharhinus plumbeus*.

Agenda Item VII: Review: Do Descender Devices Increase Opportunities for Depredation? A Gulf- wide Examination of Descender Device Depredation Rates and Depredating Species

Action: Presentation and questions

Abstract: Increasing post-release survival of discarded fishes is a critical challenge to effective fisheries conservation and management. Among reef fishes, this challenge is further complicated by pressure-related injuries collectively known as barotrauma. In the U.S. Gulf of Mexico (GoM), the DESCEND Act requires fishermen to have a venting tool or descender device rigged and ready to use when fishing for reef fishes. However, simply requiring possession of descender devices does not guarantee their use. Presently, anglers' concerns about depredation, the partial or complete removal of a captured species by a non-target species, of fishes released on descender devices limit widespread adoption of these devices. Therefore, we sought to assess the prevalence of depredation on fishes released using descender devices across the GoM and identify species responsible for depredation. We partnered with seven charter-for-hire captains and incentivized them to record video footage of SeaQualizer descents using downward-facing GoFish Cams. From March 2022 – March 2024, over 1,000 descents were recorded off Florida, Alabama, Louisiana, and Texas. Approximately half of these were recorded by the charter-for-hire captains, and half were recorded by the project team. Many of the descended fishes were Red Snapper (*Lutjanus campechanus*; more than two-thirds of the descents) or Red Grouper (*Epinephelus morio*; about one-fifth of the descents). The remainder included mostly reef fishes, such as other snappers and groupers, jacks, and triggerfish. The video footage indicates that depredation of fishes returning to depth on descender devices is exceedingly rare. In just two cases, a Blacktip Shark (*Carcharhinus limbatus*) depredated a descending Red Snapper off the coast of Louisiana. These results suggest that depredation, though a significant problem for ascending fishes, is essentially a nonissue for fishes on descender devices. Thus, GoM anglers should embrace the use of descender devices as effective tools for mitigating barotrauma in the reef fish fishery.

Agenda Item VIII: Review: Mitigation of Gag Release Mortality in the Eastern Gulf of Mexico

Action: Presentation and questions

Abstract: Quantifying the effects of barotrauma on individual fish, as well as its mitigation, is paramount to effective fisheries management of Gulf of Mexico (GOM) reef fishes due to high recreational discard rates for many species. Furthermore, assessment of population level effects relies on accurate estimates of release mortality, including reductions achievable via mitigation measures, such as descender devices. Three-dimensional (3D) acoustic telemetry has proven to be the most effective means yet deployed to assess reef fish fate following capture and release. This approach requires deployment of an array of acoustic receivers with between-receiver spacing sufficient to accurately track movement, hence infer fate, of acoustically tagged reef fish over the course of days to weeks following release. Results will be presented from 3D

telemetry studies designed to estimate release mortality and its mitigation for eastern GOM red snapper, gray triggerfish, and gag. Study results will be discussed in the context of previous and ongoing meta-analyses of reef fish release mortality. Lastly, a general stock assessment simulation framework will be presented, along with two recent examples of assessment simulation studies, to demonstrate the utility of simulations to predict population-level responses to release mortality mitigation.

Agenda Item IX: Review: Awareness, Attitudes, Perceptions, and Use of Best Fishing Practices by Recreational Reef Anglers in the Gulf of Mexico

Action: Presentation and questions

Abstract: Previous efforts to reduce barotrauma-related release mortality in the Gulf recreational reef fish fisheries were generally small-scale and consequently have been met with limited success. Simply requiring release tools to be on-board and readily available does not mean anglers will use them properly, or at all. Increased use of fish descending devices and/or venting tools, as well as best practices for handling and releasing fish require educational outreach. This research is part of a project called “Return ‘Em Right” (RER), which aims to provide training and gear to offshore reef anglers to improve reef fish survival. With cooperation from state and project partners an email-based questionnaire was implemented in 2022 to collect baseline data from recreational Gulf anglers on reef fishing behavior, awareness of barotrauma, and best release practices. In 2024, the survey was repeated to determine, with a goal of describing any changes that may have occurred as a result of the RER outreach efforts. For both surveys, the majority population was male (91%), white/Caucasian (91% - 95%), and over 50 years of age. There were minor demographic differences between years and among states. Across most topic areas, we observed an increase in knowledge, use of best handling practices, new anglers who recognized barotrauma symptoms, and a shift in societal norms towards the belief that anglers play an active role in preventing barotrauma symptoms. The 2022 survey was fielded just after the RER program was launched and only 4% had heard of the program. In 2024, that percentage increased to 33%; 12% indicated they received information from RER. A plurality of respondents heard about RER from Facebook and other social media (24%) and other anglers (23%). Additionally, individuals who heard of RER had more knowledge about barotrauma, best handling practices, and FDDs in general.

Agenda Item X: Review: Florida At-sea Observer Data Collection Methods, Results and Analysis

Action: Presentation and questions

Abstract: The FWC-FWRI For-Hire At-Sea Observer Survey is a statewide project that records catch and discard rates, angler effort, and discard behavior directly onboard cooperating headboat and charter boat vessels. This presentation highlights the survey methods and shows an overview of 15 years of data collection and reef fish tagging efforts in the Gulf of Mexico. In Florida, the Gulf of Mexico at-sea survey is primarily funded by the Florida State

Reef Fish Survey with substantial supplemental funding since 2022 provided by a Return ‘Em Right grant administered through the GSMFC. With the onset of Return ‘Em Right support and cooperative efforts with similar at-sea projects conducted by the states of Alabama and Mississippi, the Florida at-sea survey has expanded data collection on factors such as fish descender device use and severity of barotrauma that may enhance the quantity and quality of post-release mortality information in the assessment and management of Gulf of Mexico reef fisheries.

Agenda Item XI: Review: Alabama At-sea Observer Data Collection Methods, Results and Analysis

Action: Presentation and questions

Abstract: The Alabama Department of Conservation and Natural Resources will present an overview of Alabama's At-Sea Observer Program, focusing on the evolution of data collection methods and key findings from 2022 to 2024. It highlights the program's transition from paper-based methods to the use of a BigFin scientific tablet and e-board combination, which has streamlined data collection and post-processing. The discussion will detail the benefits of this technological shift in improving efficiency, accuracy, and consistency across other regions of the Gulf.

The presentation will also provide an in-depth summary of the data collected over the past three years, with a focus on Alabama’s recreational for-hire fishery. Specific topics will include the most commonly caught reef fish species, methods used for tagging and releasing fish, and the occurrence of barotrauma in fish caught at depth. Additionally, the analysis will cover size composition of observed reef fish, providing a comprehensive picture of the fishery's dynamics during this period.

Agenda Item XII: Review: Mississippi At-sea Observer Data Collection Methods, Results and Analysis

Action: Presentation and questions

Abstract: MDMR staff will outline the Mississippi Observer Program funded through Return em’ Right and layout small program differences that occur when compared to other states. They will also outline program results over the history of the project and provide insight into how these might inform future management recommendations.

Agenda Item XIII: Review: Louisiana and Texas Expansion of At-sea Observer Data Collection Methods, Results and Analysis

Action: Presentation and questions

Abstract: The Gulf States Marine Fisheries Commission is expanding coverage of the at-sea observer program into Texas and Louisiana in 2025, supported by \$1 million in new funding from the Inflation Reduction Act. This expansion builds upon existing efforts in Florida, Alabama, and Mississippi, utilizing the same methodology and technology to ensure consistency in data collection. The program aims to support up to 100 offshore sampling trips per year in each new state, enhancing the scientific understanding of fisheries dynamics and improving management strategies. Independent contractors will be trained as field agents to conduct the sampling, with implementation planned for 2025 and 2026. This presentation will provide an overview of the expansion, expected benefits, and next steps for deployment.

Agenda Item XIV: Update: Ongoing Projects

Action: Presentation and questions

Abstract: In November 2024, the Gulf States Marine Fisheries Commission completed the development of the Gulf At-Sea Observer Data Warehouse, a centralized data storage hub designed to streamline data validation, storage, and sharing. This new system enhances data integrity and accessibility, supporting ongoing at-sea sampling efforts across the Gulf. As the program expands to include Texas and Louisiana, the warehouse will provide a standardized platform for data integration, ensuring consistency across participating states. Future enhancements will include the incorporation of tagging and recapture data, further strengthening fisheries monitoring efforts. This presentation will provide an overview of the system's capabilities, followed by a brief demonstration of its features and functionality.

Agenda Item XV: Review: Best Release Practices Manual for Reef Fish and Related Species

Action: Presentation and questions

Abstract: Discard mortality is a significant issue in Gulf fisheries, with millions of reef fish dying after release due to barotrauma, improper handling, predation, and other stressors. This presentation introduces Return 'Em Right's Best Release Practices Manual, a science-based, angler-informed resource developed to improve survival rates.

Building on recommendations from the 2019 Release Mortality Symposium, the manual provides guidance on pre-trip preparation, fishing location selection, and proper techniques for fighting, handling, and releasing fish. It also addresses predation and other practical strategies to minimize discard mortality across different fishing sectors. Designed as a living document, the manual will evolve as new research and technological advances emerge. This presentation will cover how and why the manual was developed and highlight key best release practices for Gulf-wide adoption.

Agenda Item XVI: SSC Recommendations on the Use of Return 'Em Right Science for Informing Fisheries Management

Action: Presentation and questions

Abstract: The SSC will review the Return ‘Em Right research presented and consider how the result of these projects might be used to better inform discarding and associated mortality for federally managed species in the Gulf. These recommendations will then be passed on to the Council for review and consideration in how they might be used to make fisheries management modifications. The Council maintains a general goal of reducing discard mortality to the extent practical for its managed species.

Motion/recommendation to Councils expected

Agenda Item XVII: Public Comment

Action: Information

Committee input and next steps: Members of the public will be able to address the SSC directly with respect to the topics discussed during this meeting, and other matters, as time allows.

Agenda Item XVIII: Other Business

Action: Discussion

Committee Input and Next Steps: Council staff will brief the SSC on the February 2025 meeting format. Additional items may be brought up for discussion by SSC members, time permitting. If the SSC wishes to pursue action, then action can be scheduled at a future SSC meeting.