Snapper Grouper Management Strategy Evaluation

Input needed from the SSC – October 2025

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MSE for the Snapper Grouper Fishery

- Management of Red Snapper has been challenging.
- The MSE will be used to compare management alternatives but not to develop acceptable biological catch levels or annual catch limits.
- Many stocks are in rebuilding plans and stock must be rebuilt.
- Number of discards has been increasing and limit potential landings in the fishery.
- The Council and Stakeholders desire for a new approach to manage the fishery.

Background for the Snapper Grouper MSE

- In 2022, the SAFMC contracted with Blue Matter Science to develop a management strategy evaluation.
  - Input – BAM assessments for Black Sea Bass, Gag, and Red Snapper
  - Evaluated – Status quo, full retention, minimum size limits, and spatial closures
  - Performance – probability of rebuilding, relative short-term landings, relative long-term landings, and fraction discarded
  - Robustness test – difference in natural mortality, recreational catch levels, effort, and recent recruitment

Snapper Grouper MSE Outputs

- Developed a modeling framework to work with multiple snapper grouper species.
- Operating Model - Matched the BAM assessment outputs.
- Developed 132 different management scenarios.
  - Five management categories –status quo, full retention, minimum size limits, nearshore spatial closures, and offshore spatial closures.
  - Combined different management approaches.
  - Evaluated different levels of recreational effort.
- Included spatial structure.
  - 3 areas (South of Cape Canaveral, CC to GA/SC, SC and NC)
  - 2 depth-based zones (nearshore <100ft and offshore >100ft)

Trade-Off Plot

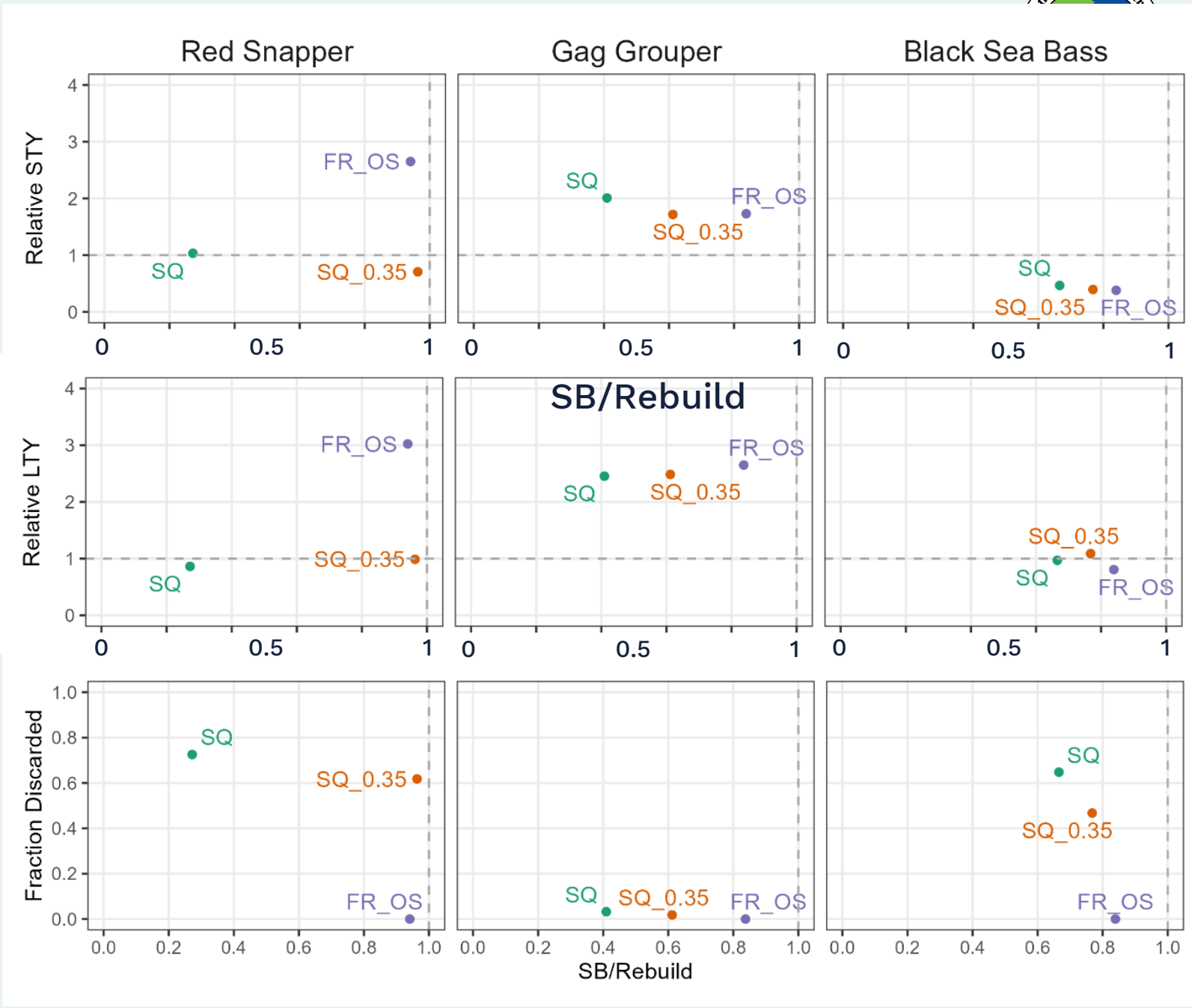
Trade-offs for Red Snapper, Gag, and Black Seas Bass under four objectives

Scenarios

- Status Quo (SQ, green),
- Status Quo with 35% of current recreational effort (SQ_.35, orange),
- full retention with all fishing effort moved to Offshore (FR_OS, purple).

Results

- Status quo performed worst for spawning stock biomass
- Full retention offshore tend to perform better for Red Snapper and Gag but worse for Black Sea Bass



MSE Continuation

- New contract with Blue Matter through September 2026 to revise the MSE.
  - Management scenarios need to be refined
  - Explore other objectives
  - Address additional uncertainties
  - Revised MSE to be presented to SSC in April 2026.
- Other ongoing work
  - Situation Assessment (University of Florida)
    - Investigated perspectives among stakeholders to help gather future stakeholder input.
  - Stakeholder Input (University of Florida)
    - Panel to help develop survey and aid in the MSE development
    - Survey to gather input from the public on different management scenarios

Select MSE Management Scenarios

- Management scenarios the Council recommended to explore.

  Primary management scenarios to investigate:

  ✓Aggregate bag limits

  ✓Mandatory stopping

  If appropriate, explore use of:

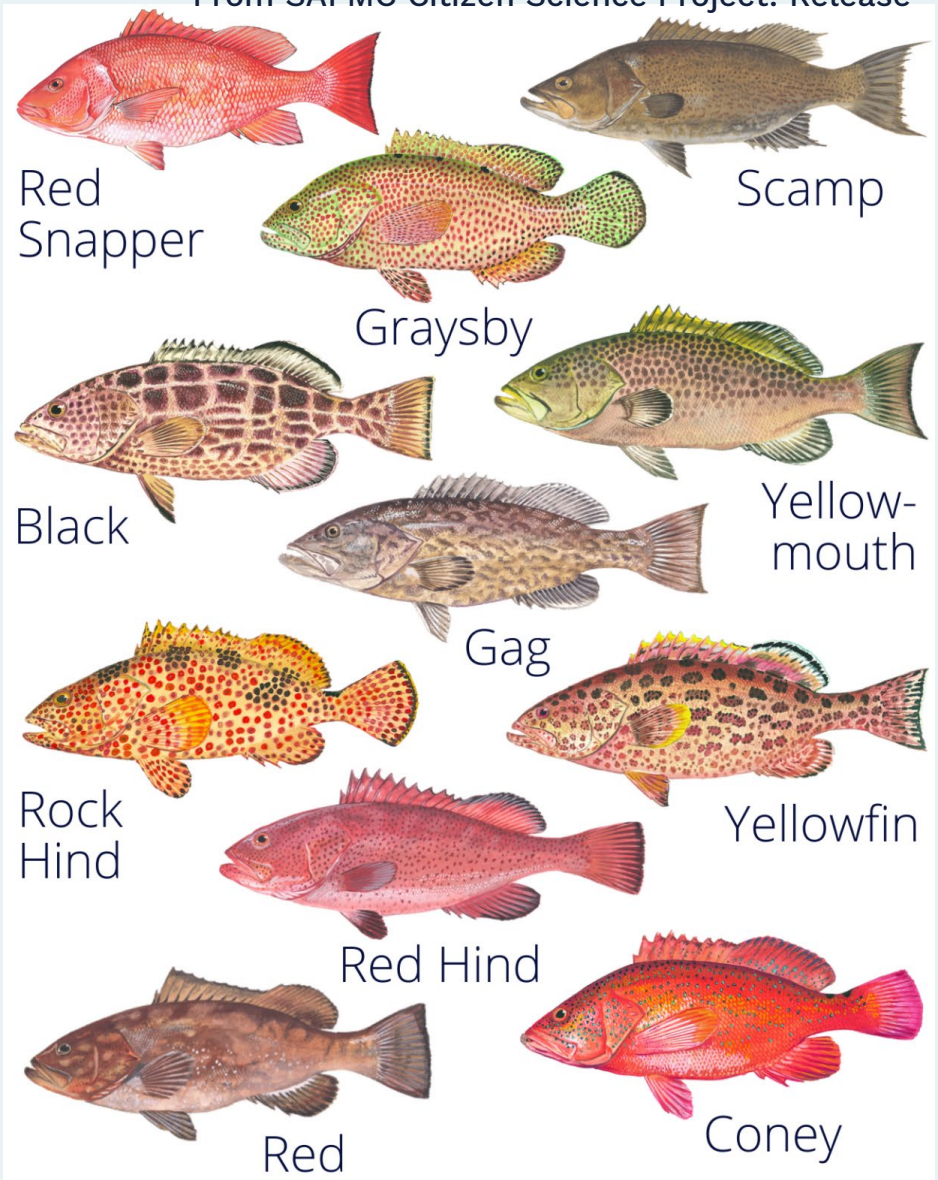
  ✓Spatial management

  ✓Seasonal management

MSE Species

- What species to include in revised MSE?
  - ✓Council recommended 5 to 6 species be selected per state with Florida having zones north and south of Cape Canaveral.
  - ✓Target species commonly associated with Red Snapper.
    - Council staff is working with Council members to develop the list of species.

From SAFMC Citizen Science Project: Release



Operating Model Development

Estimating Abundance and Biomass (MSE Technical Team Suggestion).

✓Use available assessments

- Results more consistent with stock assessments
- Some stock assessments are old and not using FES

✓Use OpenMSE's Rapid Conditioning Model for unassessed species.

Council Performance Objectives

- ✓Successfully rebuilds overfished stock in rebuilding timeframe or avoiding overfished status
  - Must haves for monitoring health of population
- ✓Short-term landings
  - Use average landings from Yrs 1-3
- ✓Long-term landings
  - Use average landings last 10 years of projection)
- ✓Discard fraction
  - Lower is better
- ✓Access for recreational anglers
  - Angler days or trips
- ❑Economic proxy

SSC Input

Operating Model Approach

- Use past SEDAR assessments where available.
- Use rapid conditioning model for other stocks.
- Note: Goal is to compare alternative management strategies not set ABC.

- Does the SSC have concerns using the past SEDAR assessments or rapid conditioning model?
  - Landings and indices of abundance will be updated, as appropriate.
  - For past SEDAR assessments, are there any diagnostics beyond matching approved assessment the SSC would like to see?
  - What outputs should be included in the report for the rapid conditioning model, if used?

SSC Input

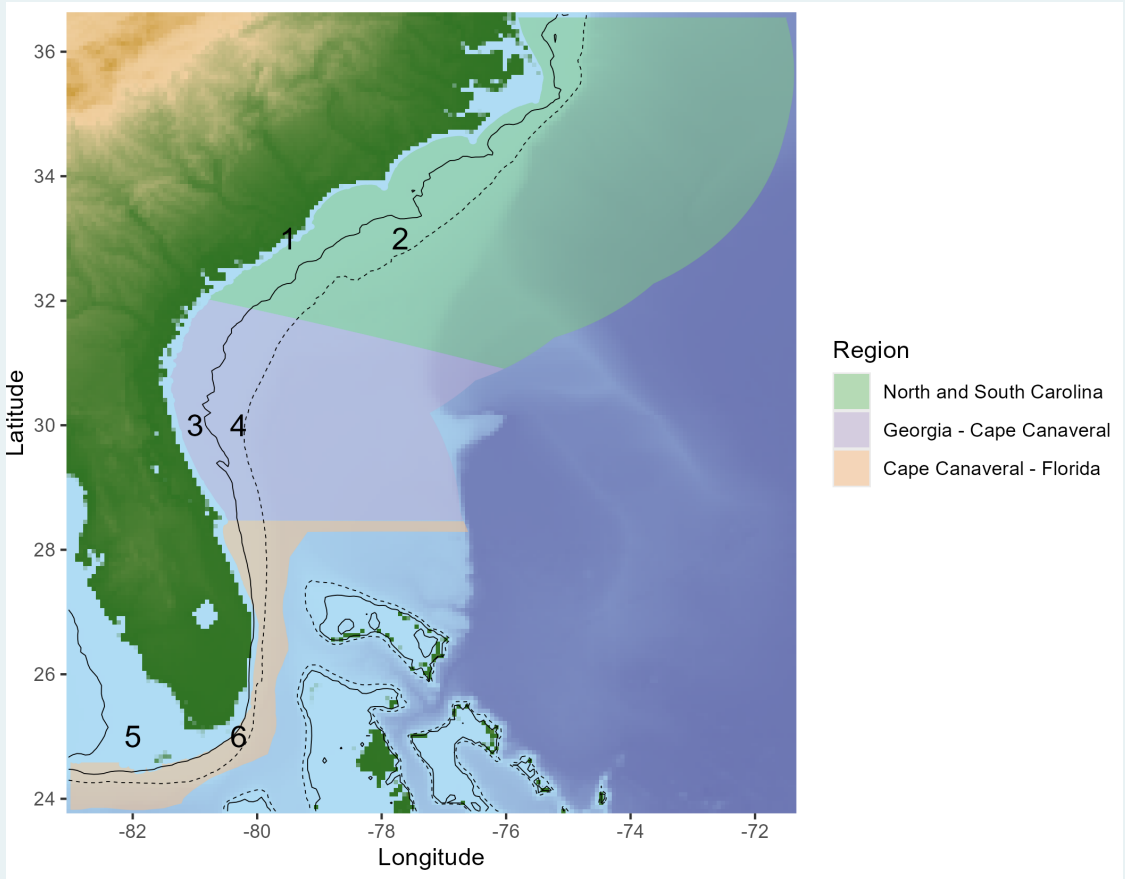
Aggregate Bag Limit Analysis

- Aggregate limits in place for snapper grouper species.
- New aggregate will be added to the current aggregates in place.
- Size limits may need to stay in place for some species.
- Mandatory stopping is needed to reduce discards.

- Aggregate bag limit analysis is complicated, and multi-species will have additional challenges
  - Analysis will focus on data collected through MRIP.
  - Can the SSC provide examples of similar analysis?
- Modeling mandatory stopping
  - Compliance scenarios can be investigated during robustness testing.
    - Provide recommendations on modeling compliance.
    - Are there similar regulations that could be used?

SSC Input

Spatial Analysis



- Current model has multiple areas.
- Spatial dynamics of populations based on Cao et al 2024 and other input.
- May need to model different fleets by area.