# SSC Reports December 2021 SAFMC Meeting

SSC\_October2021\_Report\_FINAL.pdf

Report of SSC Meeting October 27-29, 2021

### SSC Report to the Council (Session I) December 2021 SAFMC Meeting

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#### Standard Bycatch Reporting Methodology (SBRM) Review

- Given importance of quantifying discards and discard mortality, this should be a **high priority** for this region
  - Elevate to high priority in the South Atlantic Research and Monitoring Prioritization Plan
- "No discards" is frequently and increasingly reported in South Atlantic Region logbooks
  - Likely not reflective of actual discarding
  - Indicates substantial enforcement challenges for the collection of logbook data in the region
  - Consider alternative survey methodology or incentive mechanism
- Substantial data gaps due to bycatch being primarily selfreported in this Region

# Standard Bycatch Reporting Methodology (SBRM)

- Current observer coverage for headboats by state (Table 1.3.2) may not be representative of fleet distribution
- Limited observer coverage for commercial vessels in South Atlantic Region due to small vessel size, safety at sea, etc.
  - Creates potential for bias in the sampling design (i.e., if observers are only on vessels that can accommodate them)
- Observer presence can also bias data reporting if changes in fishing practices result. Alternatives discussed:
  - Use of ancillary data to quantify compliance and inform estimates
  - Citizen science and/or outreach programs to improve compliance
  - Use of full retention trips via EFPs
  - Examine and potentially incorporate data from "electronic observer" study

# Standard Bycatch Reporting Methodology (SBRM)

- Recommend incentivization of more accurate, compliant reporting to reduce uncertainty in discard estimates:
  - Increased stakeholder involvement/citizen science to improve data collection for management
  - Careful consideration of language used in communications. SEP can provide advice on a positive lexicon for productive stakeholder engagement.
  - Highlight positive case studies and success stories in fisheries management.
- Recommend revising text to reflect range of impacts that different types of discarding can have on stock and ecosystem
- SSC recommendations related to discards and bycatch should be compiled to monitor progress at next review



### SSC Report to the Snapper Grouper Committee December 2021 SAFMC Meeting

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Report of SSC Meeting October 27-29, 2021

#### Ecosystem Impacts of High Red Snapper Recruitment Review

- Qualitative results are reasonable, particularly the finding that increased, high recruitment of red snapper has minor impact on the biomass of other species.
- Results represent ecosystem responses to a generalist predator (red snapper). Impacts may be different for species with a more niche diet (e.g., wahoo).
- Acceleration of the rebuilding schedule would have implications for EwE model outputs and their applicability to management. See sensitivity runs.



#### Ecosystem Impacts of High Red Snapper Recruitment Review

- Caveats/concerns:
  - Diet data available for use in the region limited spatially and temporally
    - Could be better characterized
    - Long-term fishery-independent data sources important
  - Grouping of prey may affect ability of model to estimate species-specific impacts.
  - Model validation and sensitivity analyses were hampered by the large size of the model. Consider a reduced model.
- This EwE modeling tool would need to be further refined and validated before incorporation into management to provide quantitative advice.



- Addressed a majority of ToRs in depth. Recommend future work on ecosystem and climate effect ToRs.
- Assessment represents Best Scientific Information Available for this species and uncertainty characterized thoroughly.
- More work can be undertaken in OA to address some uncertainties, specifically:
  - Selectivity of video and trap surveys
  - Impacts of age and size structure information
  - Estimation of steepness and recruitment via a stock-recruit relationship
- Although model configuration may change during OA, no issues should prevent this assessment tool from providing stock status and fishing level recommendations.

Factors that affect uncertainty:

- Stock-recruitment curve
  - Overestimated recruitment at low stock sizes and vice versa, indicating steepness may not be well determined.
  - Influenced by length of time series, selectivity blocks, and natural mortality
- Mismatch between age and length data
- Potential influence of Chevron trap composition data



Factors that affect uncertainty:

- Assessment of scamp and yellowmouth grouper as a complex
- Commercial and recreational landings uncertainty
- Retrospective analyses, primarily in the F/F<sub>MSY</sub> ratio, suggest potential model misspecification, which could affect uncertainty in stock status



Mycteroperca phenax



Mycteroperca interstitialis

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Long-term research recommendations (beyond next OA):

- 1. Enhanced data collection and generation of length data from the video component of SERFS
- 2. Examine impact of and alternatives to combining the video and Chevron trap into a single index
- 3. Explore species interactions and the impact of climate variability



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#### **Gag Grouper Projections Review**

- Considerable uncertainty in recruitment
- Stock-recruitment curve overestimates recruitment at low stock size
- Lack fisheryindependent information on recent recruitment to compare with model estimates



#### **Gag Grouper Projections Review**

- SSC emphasized that significant reductions in fishing mortality need to occur for stock rebuilding
- Other management actions may have little impact if a reduction in fishing mortality is not achieved
- New MARFIN study (SCDNR) should provide fishery-independent index of recruitment in future assessments
- SSC recommends prioritizing our April 2021 research recommendations to identify recruitment and SSB trends
- Given uncertainty in recruitment, SSC recommends that the Council ensure the next assessment stay on schedule for 2025



#### Gag Grouper Catch Level Recommendations

- SSC recommends ABC be set with a P<sub>Rebuild</sub> of 70% using projections that incorporate recruitment estimates from the stock-recruitment curve.
- If the Council selects a P<sub>Rebuild</sub> of 50%, the SSC would add an additional ad-hoc buffer to its recommended ABC to account for scientific uncertainty in recruitment
- SSC recommends that the Council set the ACL lower than the recommended ABC to account for management uncertainty (e.g., discarding).

#### Gag Grouper Catch Level Recommendations (\*Provisional\*, assuming P<sub>Rebuild</sub>=70%)

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Criteria		Deterministic		Probabilistic
Overfished evaluation		0.15		0.14
(SSB/SSB <sub>MSY</sub> )				
Overfishing evaluation		2.15		2.27
MFMT (F <sub>MSY</sub> )		0.37		0.35
SSB <sub>MSY</sub> (Units)		1563.9		1659.4
MSST (Units)		1172.9		1244.5
MSY (1000 lbs.)		1455.1		1453.5
Y at 75% F <sub>MSY</sub> (1000 lbs.)				
ABC Control Rule		20%		
Adjustment				
P-Star		30%		
SSC recommended PRebuild		70%		
М		0.15		
OFL RECOMMENDATIONS				
Year	Landed LBS	Discard LBS	Landed Numbe	r Discard Number
2023	367	42	36	10
2024	494	48	45	11
2025	605	54	53	13
2026	706	60	60	14
2027	808	64	68	15
ABC RECOMMENDATIONS				
Year	Landed LBS	Discard LBS	Landed Numbe	r Discard Number
2023	176	19	17	5
2024	262	22	23	5
2025	348	26	29	6
2026	435	29	35	7
2027	525	32	41	7

