SSC Reports
December 2020 SAFMC Meeting

SSC_Oct2020_Report_FINAL.pdf

Report of SSC Meeting
October 13-15, 2020

SSC Report To the Council
Session II
December 2020 SAFMC Meeting

SSC_Oct2020_Report_FINAL.pdf

Report of SSC Meeting
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Acceptable Biological Catch (ABC) Control Rule - ORCS

Are assumptions of Carruthers paper being met in South Atlantic fisheries using ORCS? Which stocks does the study apply to?

- Some SA stocks evaluated using ORCS are bycatch-only and/or rarely encountered in surveys
- Such attributes are not reflected in the Carruthers simulation study

Acceptable Biological Catch (ABC) Control Rule - ORCS

Is there any evidence that stocks managed by ABCs based on the ORCS method have experienced overfishing, become overfished, or show any other signs of declining stock status?

- Most stocks managed using ORCS have no information on population trends
- Therefore, cannot determine if these stocks are overfished or experiencing overfishing
- There is flexibility to deviate from ORCS if stock has a concerning trend or life history trait (e.g., Scamp and Hogfish)

Acceptable Biological Catch (ABC) Control Rule - ORCS

The SSC recommends formation of a Working Group to:

- Carefully explore SSC procedures and most recent literature on performance of landings-only approaches, including, but not limited to, ORCS
- Recommend potential biological and fishery characteristics (e.g. bycatch vs. directed) that would suggest the use of alternative data poor approaches
- Consider, if available and adequate, effort, length, and fishery independent data
- Examine correlations in landings across species, geographic location, and fisheries (e.g., recreational and commercial) at a given point in time
- Make a recommendation to the SSC for a revised Decision Tree for Category 4 of the ABC Control Rule

Acceptable Biological Catch (ABC) Control Rule - Risk

Review the P* comparison and provide feedback on implications of this comparison for the new ABC Control Rule methodology

- Methodology appears reasonable and seems to be performing as anticipated
- Recommend presenting as percentages
- Recommend supporting tables be clearly explained in the associated documentation. Details in SSC report.

Acceptable Biological Catch (ABC) Control Rule - Risk

Review the document describing Risk Score calculation (Attachment 19) and provide feedback on potential use of this calculation moving forward.

- Recommend no penalty for unknown attributes. Note - negative incentives for data collection may be created when there are no penalties for missing attributes.
- Recommend a default of “moderate” for species with no attribute scores in a particular category
- Recommend exploring the option to scale scoring by standard deviations from the mean risk score

Acceptable Biological Catch (ABC) Control Rule - Risk

- Recommend that clear written explanation and documentation accompany the risk analysis table
- Need to clarify exactly what is meant by short vs. long-term socioeconomic impacts. Suggestions provided, but may vary by fishery depending on fishery size and incentives.
- Recommend all associated documentation make clear that socioeconomic attributes reflect long-term impacts to the fishery
- Recommend short-term socioeconomic impacts be distinguished from long-term impacts and assessed as well

Acceptable Biological Catch (ABC) Control Rule – Phase-In

Review previous recommendations and provide further feedback on when phase-ins should/should not be allowed, also considering recent guidance from NMFS

- Greater uncertainty as projections extend beyond the terminal year
- Therefore, it may be necessary to phase in more or less of the decrease in the second year than the first due to the increase in uncertainty
- Length of the phase-in period should be considered in the context of the projection time period
- Recommend allowing the use of phase-ins for ABC increases as well as decreases

Acceptable Biological Catch (ABC) Control Rule - Phase-In

Should allowable phase-in time periods be tied to relative biomass levels, uncertainty, or stock characteristics?

- Agreed all 3 aspects be considered when determining phase-ins.
- Also recommend considering recruitment, biomass trends, uncertainty in biomass, etc.
- Noted either a substantial decrease or increase in biomass may warrant a phase-in of the ABC
- Noted large increases or decreases in supply may affect price and profitability. The Council may wish to consider the elasticity of price for fisheries when setting the buffer between ABC and ACL.
- Recommend lifespan or generation time be considered when determining phase-ins

Acceptable Biological Catch (ABC) Control Rule - Phase-In

Should the SSC provide recommendations on allowable phase-in time periods?

- Yes, the SSC would appreciate the opportunity to provide biological and socioeconomic information regarding phase-ins as well as phase-in time periods.

Acceptable Biological Catch (ABC) Control Rule – Carry-Over

Review previous recommendations and further feedback on when carry-overs are allowable, also considering recent guidance from NMFS.

- NMFS guidance states that ACLs underages can already be carried over into the next year's ACL as long as that revised ACL does not exceed the next year's ABC
- But SSC notes that the Council does not currently have buffers between the ABC and ACL for most species. This will limit the Council's options.

Acceptable Biological Catch (ABC) Control Rule – Carry-Over

- SSC will have to consider whether a carryover that requires an increase in the ABC will result in overfishing, which will in turn depend on the existing buffer between the ABC and OFL
  - Smaller buffers will mean that carryover options are more limited.
  - Any changes to the ABC must account for scientific uncertainty per NS1 guidelines and the Council's risk policy
- Request opportunity to review the issue of carry-overs more carefully at a future meeting
- Committee confirmed our continued support for our previous ABC CR recommendations

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Acceptable Biological Catch (ABC) Control Rule – Carry-Over

Should allowable carry-over amounts be determined by relative biomass levels, risk, or fishery characteristics?

- The SSC did not have time to address this question

Joint Gulf/SA SSC Report December 2020 SAFMC Meeting

SAGulf_SSCs_Oct2020_Joint_webinar_Report_FINAL.pdf

Report of Joint Gulf and South Atlantic SSC Meeting
October 30, 2020

SSC Report To the Snapper Grouper Committee December 2020 SAFMC Meeting

Report of Joint Gulf and South Atlantic SSC Meeting
October 30, 2020

SAGulf_SSCs_Oct2020_Joint_webinar_Report_FINAL.pdf

Joint SSC Catch Level Recommendations for Yellowtail Snapper

- Recommend P* value of 37.5% to produce the ABCs for 2021-2025
- Recommend projections used in ABC calculations assume 2020 landings = average landings from 2017-2019
- Recommend the Council consider adjusting the ACL or ACT for management uncertainty (e.g., 75% F30%SPR)

Table 1. Yellowtail Snapper projected landings in millions of pounds under five projection scenarios. ABC recommendation of the SSCs (P = 0.375 scenario) highlighted in yellow.*

Year	Projection Scenario				
	$F_{30\%SPR}$	P* = 0.375	75% of $F_{30\%SPR}$	$F_{current}$	$F_{40\%SPR}$
2021	4.754	4.655	3.758	3.494	3.199
2022	4.301	4.242	3.649	3.454	3.227
2023	4.028	3.991	3.576	3.427	3.247
2024	3.863	3.836	3.526	3.408	3.259
2025	3.756	3.736	3.492	3.393	3.267

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Top of Page 5

Joint SSC Comments
Uncertainty - Yellowtail Snapper

- The SSCs emphasized uncertainty in the assessment is likely underestimated and expressed concern regarding several potential biases:
  - Unit stock assumption given mixing rates between sub-units and differences in fishing capacities between sub-units
  - Change in estimated magnitude of stock biomass with this assessment (due to incorporation of variability in catch weights-at-age across fleets)
  - Uncertainty in projected recruitment
    - Terminal year recruitment estimate uninformed
    - Apparent declining trend in recruitment despite increasing trend in spawning stock biomass

Joint SSC Comments
Uncertainty - Yellowtail Snapper

- SSCs expressed concern with the likely underestimation of uncertainties from certain platforms, particularly Stock Synthesis (e.g., Yellowtail Snapper)
- Recommended assessment teams in Gulf and South Atlantic regions consider and evaluate:
  a) how these models characterize uncertainties in estimated benchmarks, and
  b) how these uncertainties are carried forward into projections

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SSC Report To the Habitat Protection and Ecosystem Based Management Committee
December 2020 SAFMC Meeting

Report of South Atlantic SSC Meeting
October 30, 2020

Ecopath with Ecosim Review

Review the EwE model, considering the review done by the SSC's EwE Working Group.

- See Attachment 6 - HabEco_A6_EwE Model Review Report Sept20.pdf
- SSC spent most of the allotted time revising WG's response to some TORs.
- SSC approved the statements and recommendations in the WG report with modifications to several ToRs – details in SSC Report.

Ecopath with Ecosim Review

Overarching conclusions:

- Estimates including food web characteristics and diet overlaps from the base Ecopath model are suitable to inform and complement stock assessment and fisheries management
- Ecopath is well developed. As a tool it is ready to be modified to address specific assessment and management questions
- However, SSC would like to review final pre-balance diagnostics

Ecopath with Ecosim Review

Overarching conclusions (cont'd):

- The base Ecopath model will serve as a living tool to complement stock assessment and fisheries management
- Noted model performance and outcomes may change when the current model configuration changes to address a specific question
- Recommend any application of the EwE model to inform specific assessment or science to support catch level recommendations go through the SEDAR process

Ecopath with Ecosim Review

Regarding model application:

- EwE (and underlying components) can help
  - evaluate the impact of single species management goals on the broader ecosystem
  - evaluate impacts of management actions
  - inform analysts of potential interactions as assessment models are developed
- Caution - this is a tool that should be used in conjunction with assessment modeling and the assessment scientists' understanding of both the species and the fisheries involved

Ecopath with Ecosim Review

Identify, summarize, and discuss uncertainties and limitations of the analysis

- See WG report for modeling details
- SSC noted the EwE base model development is complete.
  - Fine-tuning is an ongoing process based on the question being asked
  - The SSC cannot review goodness of fit until the vulnerability parameters are defined for the primary groups of interest which will be determined by the question being asked

Ecopath with Ecosim Review

Has the performance of the model been tested in the South Atlantic region?

- The SSC recommends a performance evaluation and validation study of the predictability of the model be conducted based on retrospective data fit to a specific set of ecosystem important species

Ecopath with Ecosim Review

How can the model be used to influence or inform management action (Broad)?

- The SSC did not have time to address this question in full.
- However, the WG report identifies a suite of potential applications such as
  - management strategy evaluations
  - informing multi-species management and ecosystem-based management
  - testing hypotheses related to trophic interactions, and
  - evaluating parameter uncertainties at an ecosystem scale

Ecopath with Ecosim Review

How can the model be applied to a fisheries management problem of a Council, Commission, or similar body (Region-Specific)?

- See previous slide
- SSC time-limited…however, discussed that EwE may be useful in helping to address questions about why recruitment failed for a particular species or why a species did not meet its rebuilding target (e.g., red porgy, red snapper)

Ecopath with Ecosim Review

To what extent can the EwE model, in its current state of development, be used to evaluate the following South Atlantic management questions, and does the SSC consider the current input dataset adequate to yield reliable results that could be considered BSIA for any of these questions (Comment on readiness of model vs. data components):

1. Continued poor recruitment in shallow water groupers, Red Porgy, and possibly other species

2. Impact of climate change on species distributions and fisheries

3. Impact of an episodic extremely high Red Snapper recruitment event on the Red Snapper stock, fishery, and other species in the Snapper Grouper complex

4. Benefits to fish stocks from decreases in discard mortality through best practices (SG RA29)

Rank the above questions in order of feasibility to be accomplished by October 2021.

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Ecopath with Ecosim Review

- The SSC did not have time to adequately address this question in full.
- However, when asked by the SSC, the modeling team suggested that the above questions be ranked (highest to lowest) in the order 3 (red snapper), 4 (discard mortality), 1 (red porgy), 2 (climate change).

Ecospace Review

- The SSC did not have time to adequately address the Ecospace questions in full.
- However, several possibilities for Ecospace application were discussed, including (but not limited to):
  - Shifts in distribution of Blueline Tilefish and Black Sea Bass
  - Additional climate change issues

EwE/Ecospace Review

Consider establishing a standing ecosystem model workgroup to help with future updates and developments including the development of Ecospace.

- The SSC agreed with the WG's recommendation that a standing ecosystem model workgroup be created.