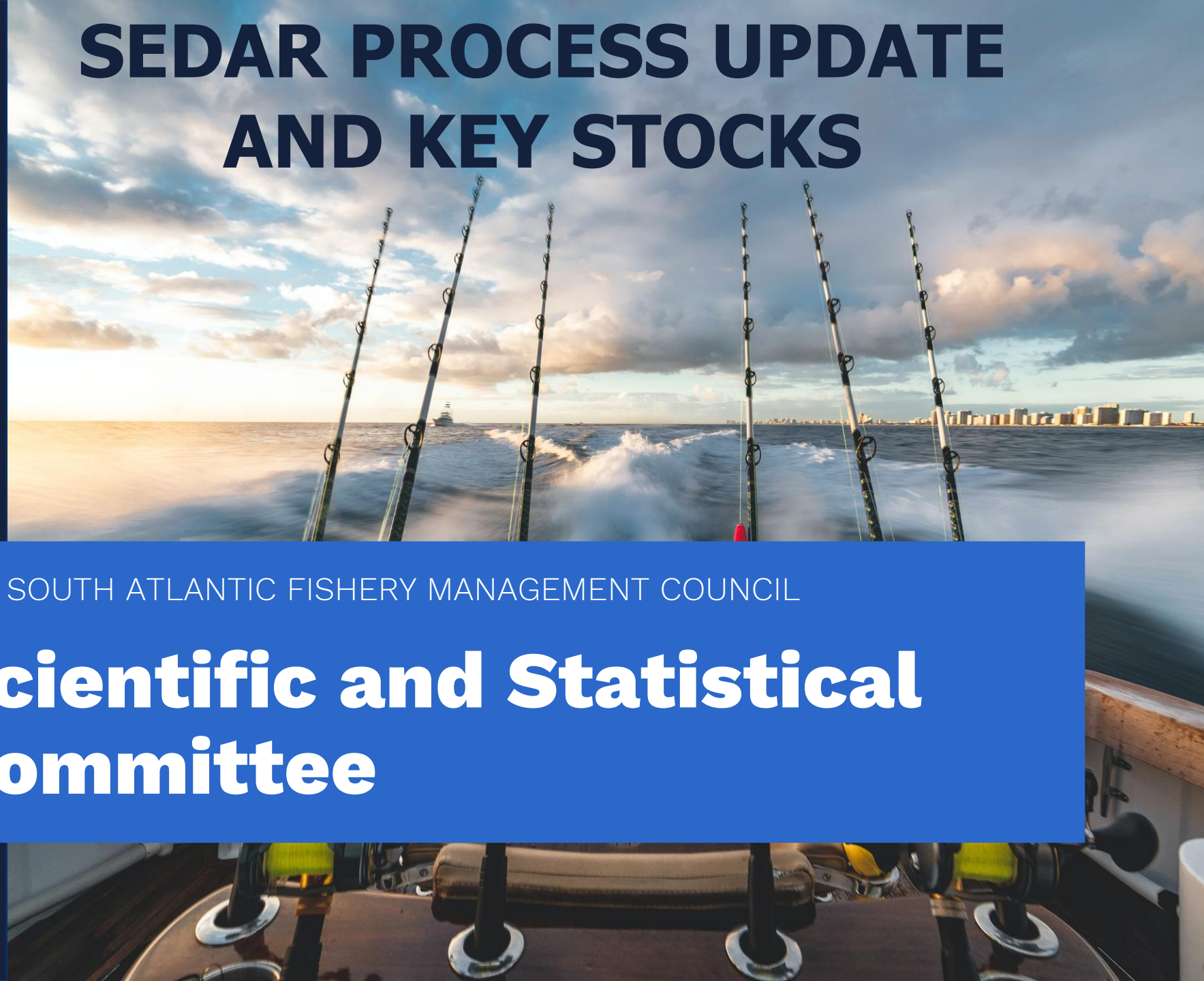
SEDAR PROCESS UPDATE AND KEY STOCKS



THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

Scientific and Statistical Committee

October 2024 Meeting Report

SEDAR PROCESS UPDATE

- Concern for increase of ambiguity in SSC roles and expectations => new structure will make anticipated SSC workload more uncertain.
- Some resistance to removal of standardized nomenclature => maximizing production typically comes with standardization.
- Retain Scope of Work (or similar) prior to drafting TORs to specify assessment components & needs.
- Possibly leverage partners (States and Universities) to conduct assessments and expand capacity.

SEDAR PROCESS UPDATE

Timeliness and scheduling considerations:

- Timely availability of data is critical in assessment process and timing.
  Often bottleneck, needs to be addressed for new format success.
- Time to complete assessment will depend on complexity of assessment.
  Is there sufficient timing flexibility in new process?
- Consider less complex assessment methods for certain stocks =>
  More timely results, but trade-off between timeliness and uncertainty.
- Currently no “slot” for non-key stocks. Leave one “slot” open for non-key stocks or unplanned assessment requests.
- Maintain data progress from previous assessments => increase efficiency.
- Assess species with similar life histories as complex => reducing # “slots”.

KEY STOCKS

- *Additional information to consider:*
  - Economic information, status determination criteria, availability of (fisheries-independent) indices, recruitment trends, age validation.
  - Volatility of key assessment outputs,
    more volatile stocks may need more frequent assessments.

- *Information needed for*

  Catch level recomm.: Stock status with uncertainty estimates.

  "Health Check": All available updated data, but at minimum:
  index trends, catch trends, economic info, if and when ACL was reached.

KEY STOCKS

Species considerations:

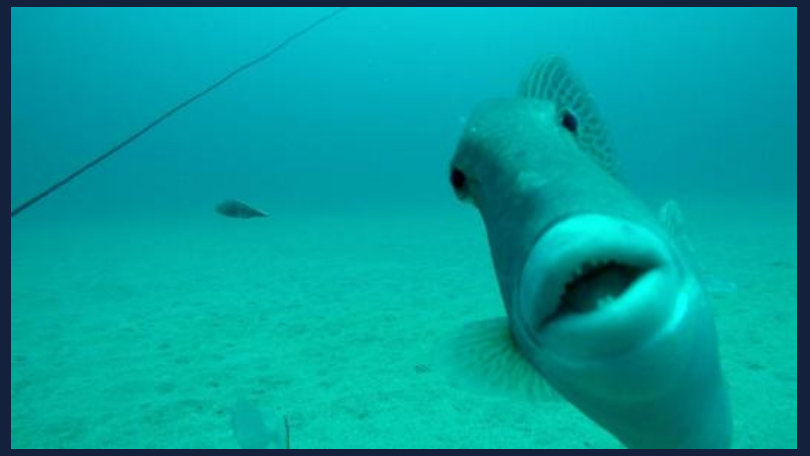
White Grunt & Gray Triggerfish (but other species need to be removed).

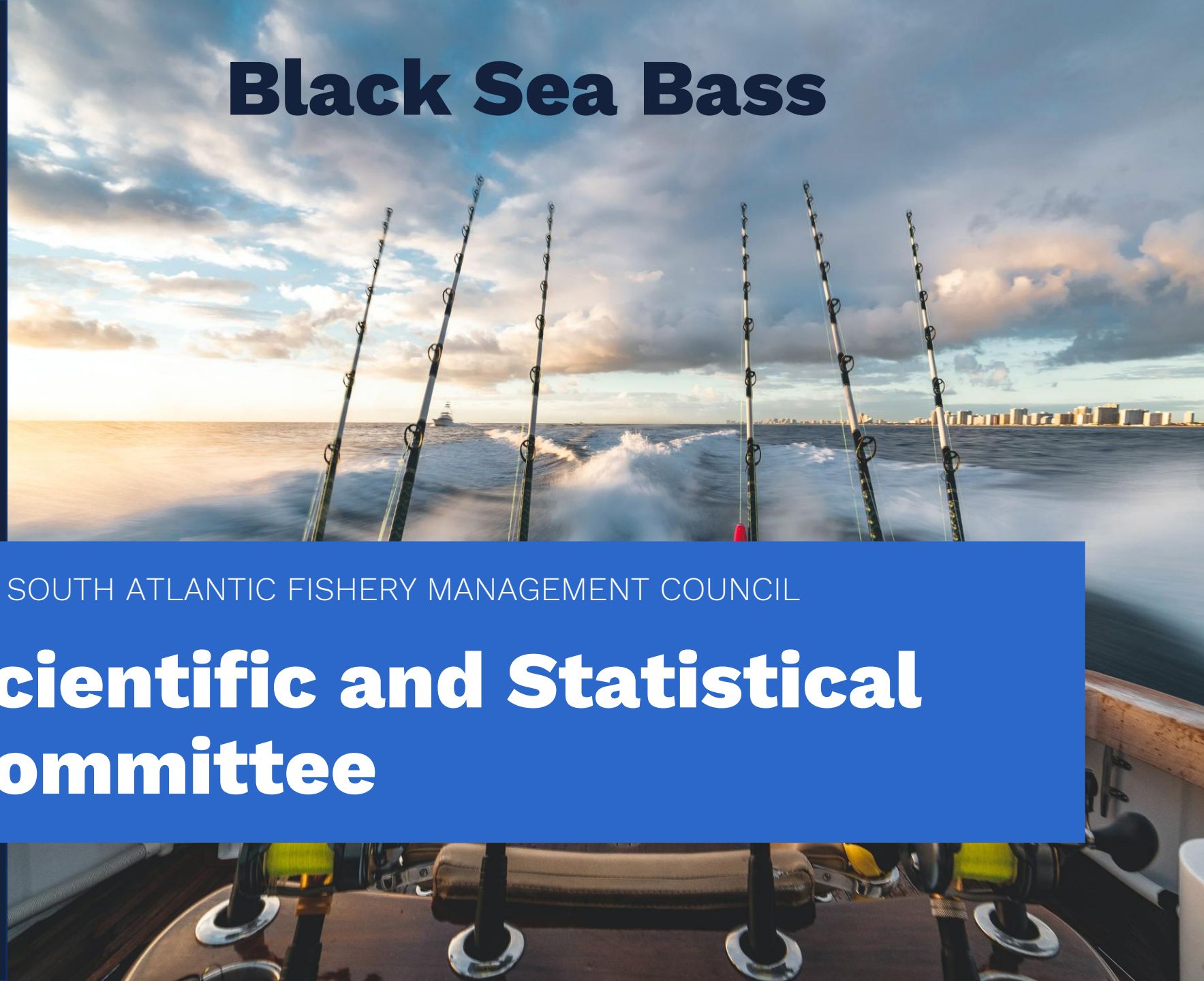
Other considerations:

Interim analyses, updates, or other methods can be used for 'UM'

- Methods will depend on available time and data.
- More comprehensive methods may reduce uncertainty, but take more time.

Stocks assessed by partners are part of SSC workload and should be added to overall schedule.





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Black Sea Bass

Review Projections

No rebuilding

Provide ABC recommendation for 2026 based on $SPR_{40\%}$, P* 30%, and recent recruitment

(note: terminal year 2021 - old ABC CR)

Black Sea Bass

SSC reviewed and discussed updated projections.

Dr. Williams (SEFSC SSC liaison) recommended not using projections for management recommendation because projection assumptions no longer valid:

- Projections included 4 interim years with propagation of bias since terminal year.
- Available data show that fishery-independent index value continued to go down in recent years, while projected index value is going up.
- MRIP removals (including discards) are higher than realized values.
- Stock is at historically low values. Potential ABC based on current projections would increase catch relative to recent realized catch, even with these low abundances.

Black Sea Bass

SSC was informed that there was no immediate urgency (at his meeting) to provide catch level recommendations, but Council needs ABC for 2026 and possibly 2027 soon to move forward with amendment.

SSC discussed 5 potential options:

Black Sea Bass

SSC was informed that there was no immediate urgency (at this meeting) to provide catch level recommendations, but Council needs ABC for 2026 and possibly 2027 soon to move forward with amendment.

SSC discussed 5 potential options:

1 Disagree with the SEFSC liaison's recommendation and provide ABC recommendations based on projections.

SSC did not recommend #1 based on expressed concerns.

2-5 Agree with the SEFSC liaison's recommendation, do not provided ABC recommendation at this time, but recommend alternatives.

Black Sea Bass

Options 2-4:

2 Do not provide ABC recommendations and not recommend a path forward until the SSC has additional information and guidance.

3 Deviate from the ABC Control rule. Likely result in "ORCS-like approach".

4 Recommend an interim analyses based on available (index) data.

SSC did not recommend options 2-4 at this time:

- Approach expected to take considerable time for discussion. (2-4)
- Outcome would be uncertain => can SSC provide ABC? (2-4)
- Uncertain what additional information would be needed. (2)
- Many current SSC members are not familiar with ORCS approach. (3)
- Interim analysis not been used by SAFMC's SSC for ABC recommendation. (4)

Black Sea Bass

5 Propose additional model/projection runs using all available, updated information.

SSC recommends option #5 at this time:

- **addresses projection concerns,**
- **expected to provide information that SSC could use directly for 2026 ABC,**
- **may allow for an extension of projection timeframe,**
- **may allow simultaneous start working on rebuilding scenarios,**
- **but getting data asap is critical.** (SERFS trap index data available through at least 2023)

- Dr. Williams indicated that this approach was doable and feasible in a reasonable timeframe if given a high priority. Specific timeframe was not provided.

Black Sea Bass

Additional considerations:

- Option 5 review may necessitate extra SSC meeting.
- Reminder that Council requested ABC by sector and bycatch projected by sector.
- Given the likely delay until management can address rebuilding, Council may want to protect available spawners in the population to increase the chance of better recruitment. Delaying action may further delay rebuilding.
- Old or new ABC CR? Scoring Risk tolerance

SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

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SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- Commended analytical team on MSE study.
- Earlier recommendations and comments addressed and included in results.
- Operating model based on approved stock assessments with some uncertainties.
- Base model results may be optimistic in some cases -> operating models use long-term average recruitment.
- Can be a valuable tool to develop management.

SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- Regional and depth strata selected after previous model review improved spatial structure.

- Fisheries represented properly, but management regulations in state waters may differ from federal waters.

- Model addressed uncertainties requested by SSC. Further explore:
  - Recent recruitment vs. long-term average recruitment.
  - Effort changes: trends in rec. licenses & vessel registrations, increases in catch efficiency with gear/technology improvements.

SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- Management options were appropriately included in projection analyses given the number of projection scenarios explored.
- Both dynamic management options and dynamic responses should be considered where possible.
- Consider changes to levels of compliance in management options.

SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- *Results*
  - Model is appropriate as a basis for developing management recommendations.

  - Relative nature of comparisons serves as excellent framework for comparing management strategies, but
    - most useful at identifying management strategies that will not work, so that those can be avoided,
    - difficult to make quantitative predictions (e.g., probability of rebuilding).

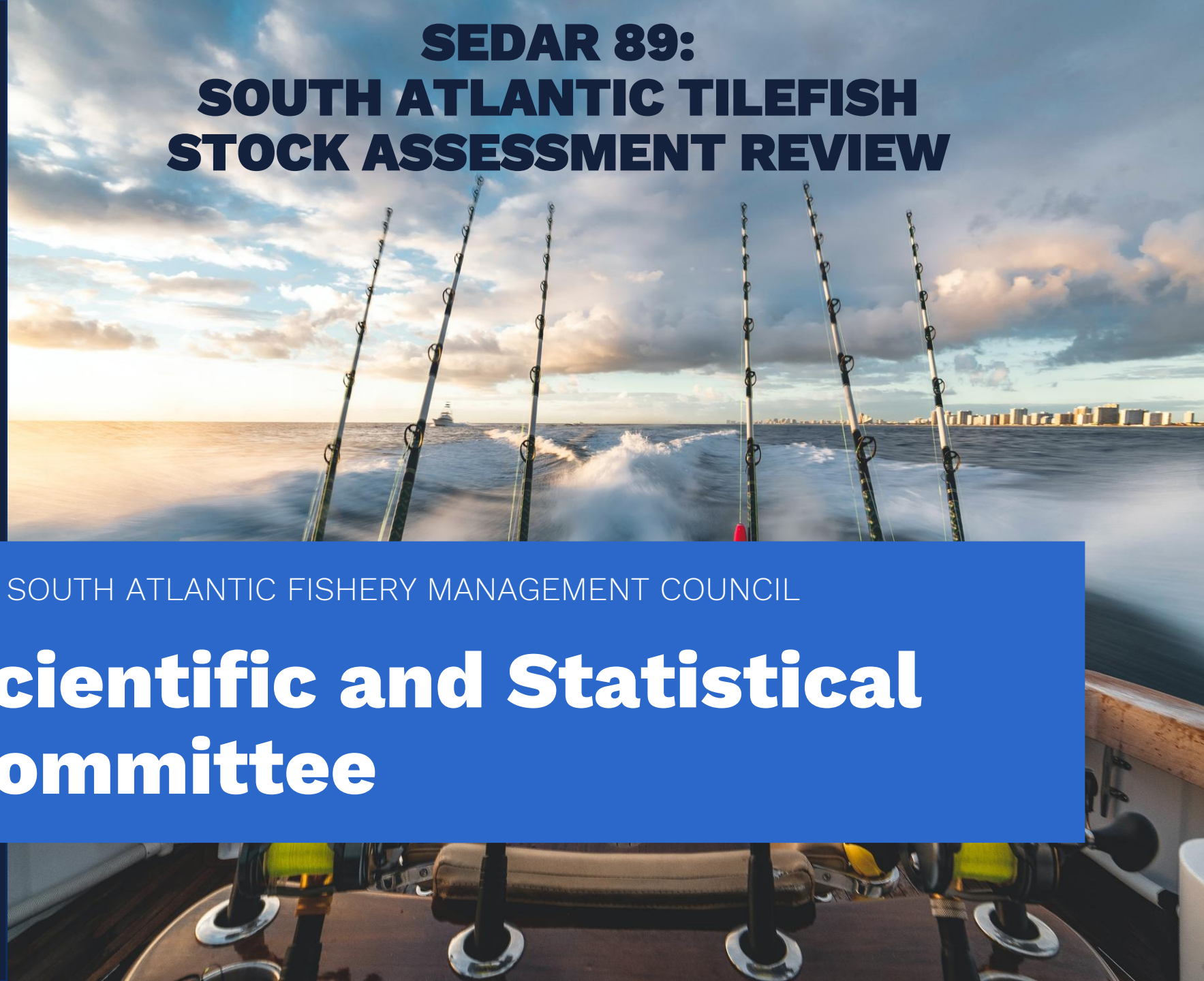
SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- Strategies that could meet goals for reducing discards and rebuilding.

  - Neither Gag nor BSB would rebuild under any management scenario.
  - General recreational fishery relative effort reduction scenarios have highest probability meeting rebuilding targets.
  - Red Snapper – moving effort offshore
  - Gag – moving effort nearshore

SNAPPER GROUPER MANAGEMENT STRATEGY EVALUATION

- *Future MSE explorations:*
  - Option allowing some fishing in nearshore areas as State regulations may differ from those in Federal waters.
  - Effort reduction and sector caps.
  - Re-calculation of reference points (e.g., dynamic ref. points).
  - Recreational fleet responses to management actions, especially to inshore/offshore shifts and season length changes.
  - Compliance rates and measure of angler satisfaction.
  - Additional species and species interactions in population dynamics.



SEDAR 89: SOUTH ATLANTIC TILEFISH STOCK ASSESSMENT REVIEW

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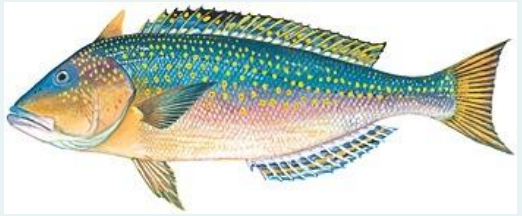
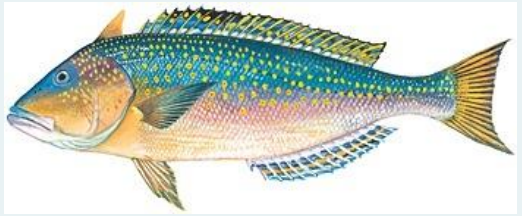


SEDAR 89:
SOUTH ATLANTIC TILEFISH
STOCK ASSESSMENT REVIEW

- Addressed TORs including sub-bullets.
- Meets BSIA guidance and practices.

- Many model parameters were updated.
- Appropriate changes in selectivity were made
- Good fits to landings, indices, and age-comps.
- Reasonable good fits to length-comps.

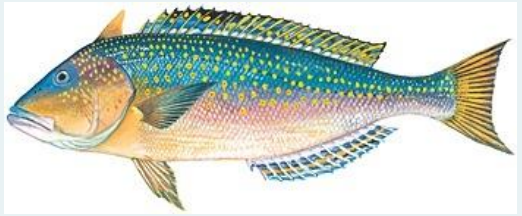


SEDAR 89: SOUTH ATLANTIC TILEFISH STOCK ASSESSMENT REVIEW

Contributions to risk and uncertainty:

- Stock-recruit relationship used to derive MSY.
- Significant uncertainty in steepness distribution (fixed prev. – estimated S89).
- F_init parameter has high uncertainty.
- Selectivity (flat topped, except recently)
  Dome selectivity sensitivity run -> significant change in stock size and SSB.
- Lack of indices of abundance for recent years.

- Change in spawning input (gonad weight to fecundity may affect SSB).
  Comparison of two methods -> very little difference in stock status.
- Substantial retrospective bias in biomass in terminal year (Fig. 34)
  => explained by introduction of new selectivity block.



SEDAR 89: SOUTH ATLANTIC TILEFISH STOCK ASSESSMENT REVIEW

Stock status.

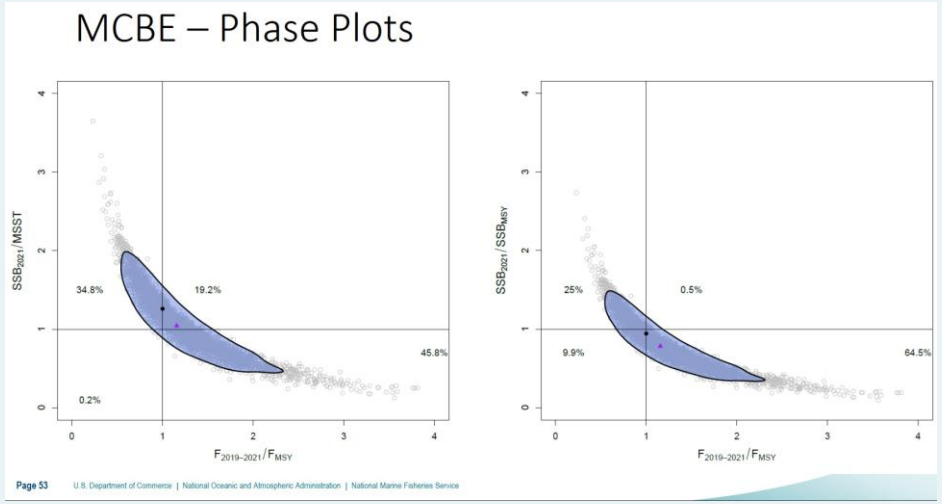
- Stock status is reliable.
- Both SSB and F indicators close to what is expected when managed to MSY.
- However, noticeable difference between base model values and median MCBE values -> affects stock status determination.

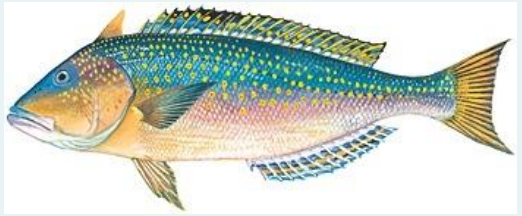
$SSB_{2022}/MSST$ = 1.26 => not overfished.

$F_{F2020-2022}/F_{MSY}$ = 1 => fully exploited.

Reliable predictions of future conditions to support fishing level recommendations?

- Yes, but with usual caveat that projections get increasingly more uncertain in future.





SEDAR 89: SOUTH ATLANTIC TILEFISH STOCK ASSESSMENT REVIEW

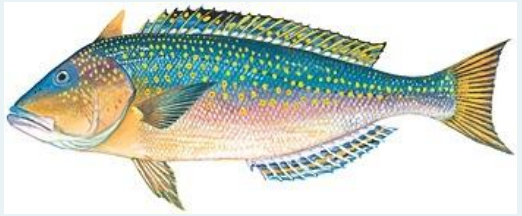
Fishing level recommendations (new ABC-CR).

Table 4
SSC report

Criteria	Value	
Stock Risk Rating	High	
Relative Stock Biomass Level	Moderate	
P-Star	30%	
SSC recommended $P_{Rebuild}$	N/A	

OFL RECOMMENDATIONS		
Year	Landed (lbs gutted weight)	Landed (number)
2025	495,000	75,000
2026	508,000	77,000
2027	517,000	78,000

ABC RECOMMENDATIONS		
Year	Landed (lbs gutted weight)	Landed (number)
2025	407,000	61,000
2026	429,000	64,000
2027	447,000	67,000



SEDAR 89: SOUTH ATLANTIC TILEFISH STOCK ASSESSMENT REVIEW

- *Additional monitoring:*
  - SADLS survey data (in particular abundance and fish size)

- *Research recommendations.*
  - Selectivity pattern: flat topped vs. dome-shaped.
  - Size distributions survey vs. fishery.
  - Age validation and stock structure studies.

- *Next assessment:* - New assessment within 5 years.

- *Assessment Components:* - Inclusion of SADLS (topical working group?).
  - Possible stock ID workshop.
  - SSC review (no CIE review necessary).

Misc. other agenda items

THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

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ABC CR and stock risk ratings

- First time applying new ABC CR,
- Mostly discussed Category 1 stocks,
  Need discuss approaches for Category 2-4 stocks soon.
- Management risk & scientific uncertainty more intertwined in new CR ->
  difficult to isolate scientific uncertainty from management risk.
- Clarified how scientific assessment uncertainty is included in ABC.
- Other methods for characterizing uncertainty can be used in new CR.
- Critical that there is consistency when P* adjustments
  to Stock Risk Ratings are made.
- Recommend compare performance new ABC CR with old ->
  gauge performance & consistency.

ABC CR and stock risk ratings

- First time applying Stock Risk Ratings.
- The two basic biological parameters (M & age/maturity) are appropriate, but possibly consider recruitment attribute.
- Clarify some language in Stock Risk Rating table.

• Tilefish	High risk
• Blueline Tilefish	High risk
• Mutton Snapper	High risk
• Yellowtail Snapper	High risk
• Red Snapper	High risk

SPR PROXIES IN SOUTH ATLANTIC STOCK ASSESSMENTS

THE SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

Scientific and Statistical Committee

October 2024 Meeting Report

SPR PROXIES IN SOUTH ATLANTIC STOCK ASSESSMENTS

- MSY based reference points are preferable to SPR proxies if MSY and the stock-recruitment relationship are well estimated.
- For SAFMC stocks, many SPRs based on assumptions made a long time ago. In retrospect, lower SPRs (e.g., $SPR_{30\%}$) did not keep stocks at MSY.
- Literature in 1990s: SPR in 20% - 40% range, since 2000: 40% - 60% range.
- Zhou (2020): mean SPR_{msy} = 47% for species in database (64% SPR_{msy} > 40%).
- In US, most SPR proxies currently in use are in 30% - 50% range.
- NOAA Techn. Guid. on SPR consistent with NS1, recommends SPRs in 30%-60% range, with 40-45% as default for most stocks.

SPR PROXIES IN SOUTH ATLANTIC STOCK ASSESSMENTS

Recommendation:
minimum of $SPR_{40\%}$ as an appropriate proxy

- Recent literature and guidance.
- $SPR_{40\%}$ represents the lowest bound of recommended range.
- Recent examples: in Scamp (S68) and Mutton Snapper (S79) assessments, SSB_{msy} was based on stock-recruitment relationship and SPRs were 52% and 40% resp.
- SPR considerations or recreational fisheries are similar to commercial, except that selectivities may be different.
- Zhou (2020): faster-growing, low-survival, short-lived species => higher SPRs.

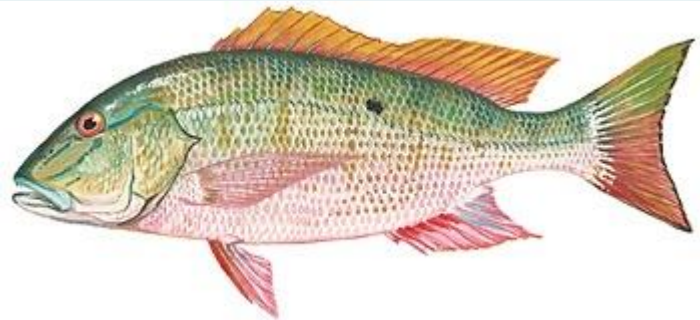
SPR PROXIES IN SOUTH ATLANTIC STOCK ASSESSMENTS

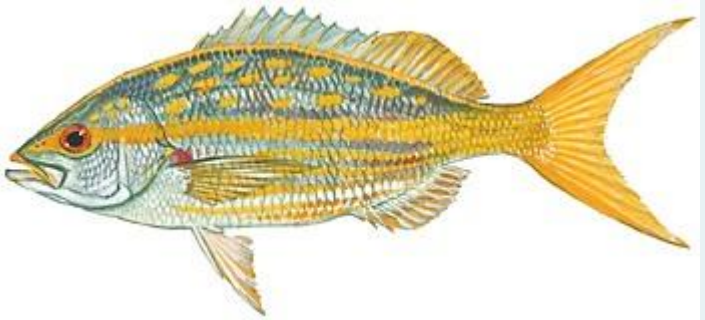
- Investigate why Pacific Fisheries Management Council uses higher SPR proxies (e.g., $SPR_{50\%}$) for additional guidance on factors that may warrant higher SPRs for SAFMC stocks.
- SSC members were wondering if SPR calculations would hold when recruitment is crashing.
- Williams and Shertzer (2003): direct relationship between shape of the SPR-F curve and steepness of Stock-Recruitment relationship. => **productivity of the stock and stock-recruit relationship should be re-evaluated at each stock assessment.**

Other agenda items

MUTTON AND YELLOWTAIL SNAPPER SSC REVIEW

- Approved approach, process, and timeline.
- Nine SSC members volunteered for review subgroup.





Other agenda items

MUTTON AND YELLOWTAIL SNAPPER SSC REVIEW PLAN

SCIENTIFIC COORDINATION COMMITTEE 8TH ANNUAL MEETING

- Received report.
- Discussed three actionable items and will continue discussion.

Other agenda items

MUTTON AND YELLOWTAIL SNAPPER SSC REVIEW PLAN

SCIENTIFIC COORDINATION COMMITTEE 8TH ANNUAL MEETING

SEFSC PRECISION THRESHOLDS WORKGROUP

- Test species:
  - high PSEs and low sample size,
    e.g., Tilefish species & Snowy Grouper.
  - Include Black Sea Bass and unassessed stock (s).
- Review early 2025 – SSC reviewers requested.

Other agenda items

MUTTON AND YELLOWTAIL SNAPPER SSC REVIEW PLAN

SCIENTIFIC COORDINATION COMMITTEE 8TH ANNUAL MEETING

SEFSC PRECISION THRESHOLDS WORKGROUP

SSC WORKGROUPS AND SEDAR PANELS MEMBERSHIP

- No Workgroup activity or updates.
- Next meeting: select chairs and add members where needed.
- Sub-group for joint review of Blueline Tilefish stock assessment:
  - Timeline: early 2025, 3 two-hour webinars, one volunteer.