

Sustainable Fisheries Committee (Tab E, No. 5)

SSC Review and Recommendations for:

1. Discussion on MRIP Cumulative Estimate Reporting.
2. Technical Guidance for National Standard 1
Reference Points and Status Determinations.
3. Evaluation of Interim Analysis Process.

Discussion on MRIP Cumulative Estimate Reporting

- Dr. Richard Cody (OST) outlined a cumulative approach to reporting private recreational landings estimates.
- To align with standardized best practices, OST is cumulatively adding landings data every two months to improve estimate precision.
 - This will result in annual or fishing year-only estimates being presented
- Wave-specific recreational landings data may still be requested from OST, but will no longer be immediately publicly available.

- The SSC noted that masking imprecise estimates by aggregating landings was not an optimal approach.
- The SSC encouraged OST to investigate how the MRIP survey design may be contributing to the uncertainty of the estimates.
- The SSC supported the OST proposed next step to work with SEFSC and SERO staff to develop a protocol for addressing survey outliers.
- Dr. Cody indicated that the Gulf state agencies have also expressed interest in helping review situations where outliers were identified.

Technical Guidance for National Standard 1 Reference Points and Status Determinations

- Dr. Richard Methot (NOAA Headquarters) provided updated technical guidance for National Standard 1 with regards to reference points and stock status determination.
- There has been substantial research over the past 25 years on the scientific basis for reference points and their performance during stock assessment implementation.

- Research efforts included:
 - methods regarding management strategy evaluation (MSE);
 - evolution of integrated analysis assessment methods;
 - development of methods to provide advice for data-limited stocks;
 - development of additional ecosystem-based fishery management tools; and,
 - investigation of changes in productivity due to regime shifts and climate change.
- Discussions about setting catch advice for stocks where recent recruitment has been observed to decline (possible regime shift):
 - Determination of a regime shift, based on a few recent years of recruitment, should be approached cautiously; because once there is a decreased shift in a biomass benchmark, the stock may present a robustness to current fishing levels that is not, in fact, sustainable.
 - Dr. Methot recommended focusing on long-term effects when considering a possible regime shift.

- Discussions on considerations for %SPR.
 - Dr. Methot stated that while MSE approaches could help address this issue, they tend to be broad and not focused on reference points.
 - He highlighted the difficulty in separating the effect on the reference points and on management targets.
 - Similarly, he noted that there are challenges when considering only biological yields of the stock (MSY) with OY, which incorporates ecosystem, social, and economic factors.

Evaluation of Interim Analysis Process

- Dr. Katie Siegfried (SEFSC) gave an updated presentation on the interim analysis process.
- With respect to using buffers or a number of years to average an index, the SEFSC recommends considering index noise and the life history of a species before deciding.
- If stable catch is the goal, choose longer averages or larger buffers.
- If quicker responses to changes or episodic mortality is a management goal, smaller buffers or shorter averages will be nimbler.

- Dr. Siegfried noted that the number of years a trend continues, up or down, should be investigated; especially if a decline is observed, to avoid an overfished condition.
- She added that the level of conservatism should also consider whether the species is in a rebuilding plan.
- When considering multiple indices for use in an interim analysis, the SEFSC would ideally like to test each index in an MSE to determine which is appropriate, but that effort is resource-intensive.
- Dr. Siegfried indicated that the OFL and ABC for a stock can be updated in an interim analysis, assuming that F_{MSY} or its proxy is steady and that only the biomass has changed.

- The SEFSC is working towards automating many of the interim analyses, once the representative index is identified and the analytical method is set for a species.
- Dr. Siegfried asked about fixing other parameters that normally require more composition data (e.g., selectivity and retention).
- The SSC did not see an issue with fixing those parameters to complete such an analysis, so long as previous management measures had not changed in such a way that would result in assumptions about those parameters being violated.
- The SSC thought this approach was more defensible for modifying catch advice compared to the current interim analysis approach.

- Some species may be well-represented by a single index, where others may require more information to be present before making recommendations about catch limit modifications.
- The SSC debated the future use of interim analyses against the needs for informing management advice and the availability of data.
 - If a health check is all that is requested, then the SSC might consider assessing changes in trend in the index as opposed to the complete interim analysis.
 - If the trend is moving one way or another, then the SSC could advise the Council on as much and the Council could take proactive steps ahead of a stock assessment.

Mackerel Management Committee (Tab E, No. 5)

SSC Review and Recommendations for:

1. Gulf King Mackerel Interim Analysis.
2. SEDAR 81 Gulf Spanish Mackerel Operational Assessment.

Gulf King Mackerel Interim Analysis

- Dr. Francesca Forrestal (SEFSC) reviewed the Gulf king mackerel interim analysis.
- Indices of relative abundance included the SEAMAP fall groundfish survey and the SEAMAP fall plankton survey.
- Dr. Forrestal described the use of both three- and five-year moving averages for each index, and the effect on the recommended catch advice.
- For the plankton survey, catch would be adjusted down almost 50% for the three-year average, and down a little more than 10% for the five-year moving average.

- For the groundfish survey, catch would be adjusted down by almost 90% for the three-year average, and about 50% down for the five-year moving average.
- Dr. Siegfried added that the last king mackerel assessment found the SSB to be between MSST and SSB_{MSY} , indicating that while not overfished, the stock was not fully healthy.
- The SSC recognized the shortcomings of both indices, their declining trends, and the sparse data in recent years.
- The SSC did not think there was enough data to recommend revising the current catch limits at this time.

SEDAR 81 Gulf Spanish Mackerel Operational Assessment

- Dr. Lisa Ailloud (SEFSC) presented the findings of the SEDAR 81 Operational Assessment of Gulf of Mexico Migratory Group Spanish Mackerel.
- SEDAR 81 resolves several concerns from the previous model (SEDAR 28 2014), and incorporates updated recreational landings data calibrated to MRIP-FES.
- The model starts in 1986 to correspond to the data-rich period of landings data, with the recreational fleet split into its separate components (i.e., private, shore, for-hire).
- The adjustment of the model start year improved model stability. The terminal year for the model is 2021.

- Dr. Ailloud described model diagnostics, which demonstrated a relatively well-behaved base model.
- The SSC noted that there were substantial data limitations for SEDAR 81, and that recommendations should be made with that fact in mind.

Motion: The SSC accepts the SEDAR 81 Gulf of Mexico Spanish Mackerel Operational Assessment as consistent with the best scientific information available. Under the current MSY proxy of $F_{30\%SPR}$, the assessment indicates the stock is not overfished and not overfishing as of 2021.

Motion carried without opposition.

- For projections, Dr. Ailloud noted that the interim years assume the actual landings data for 2022, and a three-year average of 2020 – 2022 for 2023 and 2024.
- SSC members discussed using either a three-year average of 2017 – 2019 for the interim years, or a six-year average using 2017 – 2022. This would result in a modification to the projected catch limits by increasing the assumed landings in the interim years.

Motion: The SSC recommends using the mean of the landings from 2017 – 2019 as the proxy for the interim projection years of 2023 and 2024.

Motion carried 9 – 4, with 4 abstentions and 7 absent.

- The new OFL projections trend down towards the SSB_{MSY} target, and the Acceptable Biological Catch (ABC) trends up towards the F_{MSY} target.

Motion: The SSC sets the OFL for Gulf Spanish mackerel based on SEDAR 81 and the revised projections, using a constant catch of 12.074 mp ww for 2025 – 2027.

Motion carried without opposition and with one abstention.

Motion: The SSC sets the ABC for Gulf Spanish mackerel based on the SEDAR 81 revised projections, using the yield at 75% of $F_{30\%SPR}$. The constant catch for 2025 – 2027 is 9.630 mp ww.

Motion carried without opposition and with one abstention.