



Gulf of Mexico Fishery Management Council

Managing Fishery Resources in the U.S. Federal Waters of the Gulf of Mexico

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Gulf of Mexico Vermilion Snapper Operational Assessment Scope of Work DRAFT: August 9, 2021

1. Update the approved SEDAR 67 Gulf of Mexico vermilion snapper base model with data through 2023.
2. Document any changes or corrections made to model and input datasets and provide updated input data tables.
 - Document changes in MRIP data, both pre- and post-recalibration, in terms of the magnitude of changes to catch and effort. Compare to values from SEDAR 67 (see Table 26 therein).
 - Update life history data (e.g., growth, reproduction, mortality) if warranted.
3. Update model parameter estimates and their variances, model uncertainties, estimates of stock status and management benchmarks, and provide the probability of overfishing occurring at specified future harvest and exploitation levels. Provide commercial and recreational landings and discards in pounds and numbers.
 - Use the following status determination criteria (SDC):
 - $MSY \text{ proxy} = \text{yield at } F_{MSY} \text{ or } F_{Rebuild} \text{ (if overfished)}$
 - $MSST = 0.5 * SSB_{MSY}$
 - $MFMT = F_{MSY} \text{ and } F_{Rebuild} \text{ (if overfished)}$
 - $OY = ACL$ as defined by the Gulf Council in its Generic ACL/AM Amendment
 - If different SDC are recommended, provide outputs for both the current and recommended SDC.
 - Unless otherwise recommended, use the geometric mean of the previous three years' fishing mortality to determine $F_{Current}$. If an alternative approach is recommended, provide justification and outputs for the current and alternative approach.
 - Provide yield and spawning stock biomass streams for the overfishing limit and acceptable biological catch in pounds:
 - Annually for five years
 - Under a "constant catch" scenario for both three and five years
 - For the equilibrium yield at F_{MSY} , when estimable
4. Develop a stock assessment report to address these TORS and fully document the input data and results of the stock assessment model.

Topical Working Groups

A topical working group **is not** recommended for this assessment.