

SEDAR

SouthEast Data, Assessment, and Review

South Atlantic Fishery Management Council
Gulf of Mexico Fishery Management Council
Caribbean Fishery Management Council
NOAA Fisheries
Atlantic States Marine Fisheries Commission
Gulf States Marine Fisheries Commission

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DRAFT Terms of Reference South Atlantic Vermilion Snapper Assessment Update

1. Update the SEDAR 2 assessment of South Atlantic vermilion snapper with data through 2005(6?).
2. Document any changes or corrections made to input datasets, all additional data added for the update, and any modifications applied to the additional data.
3. Document any changes in assessment methodology incorporated in the update as well as changes made to correct any errors identified in the SEDAR 2 benchmark assessment.
4. Incorporate the model changes accepted for SEDAR 4: annual CV's for catch datasets, trend in catchability for the headboat index. (*Other specific changes to note? Is this change appropriate?*)
5. Estimate and provide complete tables of stock parameters, including but not necessarily limited to the following:
 - Population abundance at age
 - Population biomass
 - Spawning stock biomass
 - Fishery selectivity at age and size
 - Fishing mortality at age
 - Yield
 - Stock-recruitment relationship
6. Update measures of uncertainty and provide representative measures of precision for stock parameter estimates.
7. Update estimates of stock status and SFA parameters and provide declarations of stock status relative to SFA criteria. The following quantities are to be provided as required for Amendment 13B to the snapper-grouper FMP:
(*COUNCIL STAFF MAY MODIFY IF APPROPRIATE*)
 1. MSY (pounds, to the pound)
 2. MFMT = Fmsy
 3. Foy and OY based on:
 - 65% of Fmsy, 75% of Fmsy, and 85% of Fmsy; (pounds to the pound)
 4. MSST, based on (1-M)SSBmsy, (pounds to the pound). (Preferred is 75%.)
 5. Bcurrent/MSST and Fcurrent/MFMT
 6. Tmin and generation time

8. Evaluate future stock status using the following criteria:
- 1) Provide a baseline rebuilding time (T_{min}) based on $F=0$. If this exceeds 10 years, provide the estimated maximum rebuilding time based on $T_{min} + 1$ generation time.
 - 2) Estimate average landings in 5 year blocks under exploitation rates of
 - i) $F = F_{msy}$;
 - ii) $F = F_{oy}$;
 - iii) $F = F_{rebuild}$ (maximum F that will rebuild in allotted time).
 - iv) $F =$ current average, (last 3 years estimated).
 - 3) Determine the maximum constant landings that will allow the stock to rebuild in the allotted time and estimate associated annual fishing mortality rates.

Caveats:

- Any management changes should be assumed to take effect
(*COUNCIL STAFF PROVIDE*)
- Exploitation during the period between the terminal year of the assessment and (*COUNCIL STAFF PROVIDE*) should be assumed equal to the average of the last 3 years estimated in the assessment.
- There are three alternative F_{oy} values under consideration in amendment 13B. Under item 2.ii above, the first priority is to analyze $F_{oy@75\%}$ of F_{msy} followed by $F_{oy@85\%}$ of F_{msy} . If time allows, $F_{oy@65\%}$ of F_{msy} should also be analyzed. (*COUNCIL STAFF review and update if appropriate*)

9. Recommend sampling intensity in terms of the number of sampling events and the quantity of individual lengths measured and age structures taken by gear, quarter, state, market category, fishery, and area in order to complete the ACCSP sampling design matrix.
10. Review the research recommendations from the previous assessment, note any which have been completed, and make any necessary additions or clarifications.
11. Develop a stock assessment workshop report to fully document the input data, methods, and results of the stock assessment update.

It is not required that this report be as detailed as the standard benchmark assessment report. For example, it will not require a separate Data Workshop report segment and may rely on citation of the previous benchmark report for specific details.

The report should include tables of all input data in the assessment report, including landings statistics by state, gear, year, and fishery; biological sampling intensity; biological characteristics of the catch (e.g., length and age compositions); survey CPUE values, and all life history characteristics. Data may be summarized in the report and provided in their entirety in spreadsheet format (i.e., items such as length compositions, size data, and maturity may be

presented in figures with data provided separately. Nonetheless, the report shall include complete tabulation of input data and stock assessment results as noted above.

The report should include additional information as needed to comply with suggestions provided by recent review panels. These include:

1. Provide complete input and model specification details and a summary of sampling intensity to correct shortcomings noted in the CIE review report for SEDAR 2;
2. As requested by the Review Panel for SEDAR 4, provide complete tabulation of model equations, parameter definitions, and parameter values;
3. As requested by the Review Panel for SEDAR 4, clearly differentiate between fixed parameters, estimated parameters, derived quantities, and observations.

The report shall be provided to the SAFMC no later than (*TBD, SSC and SEDAR Committee, Decemer 2006 meetings*).

NOTE: Council requests that biomass values be reported in pounds.