SEDAR

SouthEast Data, Assessment, and Review

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SEDAR 40 Atlantic Menhaden Assessment:

Terms of Reference

Review Workshop Terms of Reference

1. Evaluate the data used in the assessment.
    a. Are data decisions made during the DW and AW justified (i.e. sound and robust)?
    b. Are input data series reliable and sufficient to support the assessment approach and findings?
    c. Are data applied properly within the assessment?
    d. Are data uncertainties acknowledged, reported, and within normal or expected levels?

2. Evaluate the methods used to assess the stock, taking into account available data.
    a. Are methods scientifically sound and robust?
    b. Are assessment models configured properly and used consistent with standard practices?
    c. Are the methods appropriate for the available data?
    d. If multiple models or model configurations were considered, evaluate the explanation of any differences in results and justification of a base model.

3. Consider how uncertainties in the assessment, and their potential consequences, are addressed.
    a. Comment on the degree to which methods used to evaluate uncertainty reflect and capture the significant sources of uncertainty in the population, data sources, and assessment methods.
    b. Are the implications of uncertainty on technical conclusions are clearly stated?

4. Evaluate the assessment findings with respect to the following:

    a. Are estimates of biomass, abundance, and exploitation rate reliable and consistent with input data and population biological characteristics? Are they useful to support inferences on stock status?

    b. Is the stock overfished relative to biomass or abundance threshold reference points? Where is the stock relative to biomass or abundance management targets? What information supports this conclusion?

    c. Is the stock undergoing overfishing relative to fishing mortality threshold reference points? Where is the stock relative to fishing mortality management targets? What information supports this conclusion?

    d. Is there an informative stock recruitment relationship? Is the stock recruitment curve reliable and useful for evaluation of productivity and future stock conditions?

e. Are the quantitative estimates of the threshold reference points reliable for this stock? If not, are there other indicators that may be used to inform managers about stock trends and conditions?

5. If a minority report has been filed, review minority opinion and any associated analyses. If possible, make recommendation on current or future use of alternative assessment approach presented in minority report.

6. Review the Technical Committee's recommendations on research, data collection, and assessment methodology and make any additional recommendations or prioritizations, if warranted.

7. Provide guidance on key improvements in data or modeling approaches which should be considered when scheduling the next assessment.

8) Provide feedback on the proposed ecological reference points that account for Atlantic menhaden's role as a forage fish. Evaluate the appropriateness and feasibility of the proposed approach. Provide alternative suggestions, if necessary. *Note: this TOR is aimed at obtaining preliminary feedback on a proposed reference point development approach that would inform future ecosystem-based management plans. Further technical development and peer review would be required before these reference points would be used in management.*

9. Prepare a peer review panel advisory report summarizing the panel's evaluation of the stock assessment and addressing each peer review term of reference. Develop a list of tasks to be completed following the workshop. Complete and submit the report within 4 weeks of workshop conclusion.