SOUTH ATLANTIC FISHERY MANAGEMENT COUNCIL

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SEDAR 104 South Atlantic Dolphin MSE
Review Workshop
Terms of Reference

FINAL: 3/6/2026

1. Evaluate the types and ranges of uncertainty used in the MSE. Explicitly consider uncertainty in data, life history, process error, nonstationarity (i.e., environmental variability and oceanographic changes), and if appropriate, fishery dynamics.
    a. Were selected axes of uncertainty relevant to the stock and fishery and appropriately characterized? If relevant, were uncertainties highlighted by managers and stakeholders included?
    b. Did levels of uncertainty for each axis meaningfully and reasonably encompass plausible uncertainty?
    c. Were uncertainties appropriately classified into reference (primary) or robustness (secondary) set and sufficiently explained?
2. Evaluate the strengths and weaknesses of methods used to simulate the stock.
    a. Are methods to generate operating models scientifically sound?
    b. Did methods meet the needs of stakeholders and/or research questions (i.e., appropriate spatial resolution, time-step, ability to measure key performance statistics)?
    c. If data were unavailable to parameterize the model, were the assumptions used to overcome this limitation reasonable and/or multiple assumptions included as an axis of uncertainty?
    d. Was plausibility weighting of reference operating models appropriate and sufficiently justified?
    e. Does the robustness of the operating model grid allow the management procedure to fail?
3. Evaluate operating model conditioning.
    a. Did conditioning the operating model on available data result in simulated data with reasonable statistical properties relative to what would be available to the management procedure?
4. Evaluate MSE projections.
    a. Did the operating models project data that would be available to the management procedure?
    b. Were projection assumptions reasonable and appropriate for the stock (e.g., decisions about future parameter estimates and uncertainty; resampling approaches to generate future data; future nonstationarity, productivity, etc.)?

5. Evaluate performance metrics.
    a. Do performance metrics include all legally mandated management objectives as outlined in the Magnuson-Stevens Fishery Conservation and Management Act (i.e., to include status determination criteria with suitable risk tolerance to measure probability of overfishing and overfished status; and rebuild overfished stock in accordance with rebuilding requirements)?
    b. Did performance metrics sufficiently capture additional manager and/or stakeholder objectives to achieve optimum yield, if relevant (i.e., to include desired management objectives such as: total catch, catch rate, catch size, fishing opportunity/season length, etc.)?
6. Evaluate candidate management procedures.
    a. Did the candidate management procedures only utilize data available for the stock in practice?
    b. Did the management procedure explore management tools and controls that are applicable to the stock (e.g., appropriate management procedure archetype)?
    c. Were top-performing management procedures tuned to minimally achieve all satisficing criteria?
    d. If empirical management procedure, does the MSE include a mechanism to periodically update stock status?
7. Provide or comment on recommendations to improve the MSE.
8. Prepare a Review Workshop Summary Report describing the Panel's evaluation of the MSE and addressing each TOR.