Atlantic States Marine Fisheries Commission

Atlantic Croaker and Spot Stock Assessment Subcommittee and Technical Committees Call

Draft Agenda

December 7, 2022

2:00 p.m. - 4:00 p.m.

The times listed are approximate; the order in which these items will be taken is subject to change; other items may be added as necessary.

Webinar: https://meet.goto.com/499167013
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Access Code: 499-167-013

1.	Welcome & Introductions (*S. Smott*/*H. Rickabaugh*)	2:00 p.m.
2.	Review Terms of Reference and Preliminary Timeline (*K. Anstead*)	2:10 p.m.
3.	Review Data Request Template *(J. Kipp)*	3:10 p.m.
4.	Tasks and Next Steps	3:55 p.m.
5.	Adjourn	4:00 p.m.

TERMS OF REFERENCE

For the 2024 ASMFC Atlantic Croaker and Spot Benchmark Stock Assessments

Board Approved [Month and Year]

Terms of Reference for the Atlantic Croaker and Spot Assessments

1. Define population structure based on available data. If alternative population structures are used in the models (e.g., coast-wide or regional), justify use of each population structure.
2. Evaluate new information on life history such as growth rates, size-at-maturation, natural mortality rate, and migrations and review potential impacts of environmental change on these characteristics. Explore possible impacts of environmental change on life history characteristics.
3. Characterize precision and accuracy of fishery-dependent and fishery-independent data used in the assessment, including the following but not limited to:
    a. Provide descriptions of each data source (e.g., geographic location, sampling methodology, potential explanation for outlying or anomalous data).
    b. Describe calculation and potential standardization of abundance indices. Consider the consequences of environmental factors on the estimates of abundance or relative indices derived from surveys.
    c. Discuss trends and associated estimates of uncertainty (e.g., standard errors).
    d. Justify inclusion or elimination of available data sources.
    e. Discuss the effects of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, ageing accuracy, sample size) on model inputs and outputs.
4. Develop models used to estimate population parameters (e.g., *F*, biomass, abundance) and biological reference points, and analyze model performance.
    a. Briefly describe history of model usage, its theory and framework, and document associated peer-reviewed literature. If using a new model, test using simulated data.
    b. Clearly and thoroughly explain model strengths and limitations.
    c. Justify choice of CVs, effective sample sizes, or likelihood weighting schemes.
    d. Describe stability of model (e.g., ability to find a stable solution, invert Hessian).

e. Perform sensitivity analyses for starting parameter values, priors, etc. and conduct other model diagnostics as necessary.

f. If multiple models were considered, justify the choice of preferred model and the explanation of any differences in results among models.

5. State assumptions made for all models and explain the likely effects of assumption violations on synthesis of input data and model outputs. Examples of assumptions may include (but are not limited to):

    a. Choice of stock-recruitment function.

    b. No error in the catch-at-age or catch-at-length matrix.

    c. Calculation of *M*. Choice to use (or estimate) constant or time-varying *M* and catchability.

    d. Choice of equilibrium reference points or proxies for MSY-based reference points.

    e. Choice of a plus group for age-structured species.

6. Characterize uncertainty of model estimates and biological or empirical reference points.

7. Perform retrospective analyses, assess magnitude and direction of retrospective patterns detected, and discuss implications of any observed retrospective pattern for uncertainty in population parameters (e.g., *F*, SSB), reference points, and/or management measures.

8. Recommend stock status as related to reference points (if available).

9. Compare stock status and management advice from the assessment with the results of the traffic light analysis currently used for management. If outcomes differ, discuss potential causes of observed discrepancies and preferred method.

10. If a minority report has been filed, explain majority reasoning against adopting approach suggested in that report. The minority report should explain reasoning against adopting approach suggested by the majority.

11. Develop detailed short and long-term prioritized lists of recommendations for future research, data collection, and assessment methodology. Highlight improvements to be made by next benchmark review.

12. Recommend timing of next benchmark assessment and intermediate updates, if necessary relative to biology and current management of the species.

Terms of Reference for the Atlantic Croaker and Spot Peer Review

1. Evaluate the thoroughness of data collection and the presentation and treatment of fishery-dependent and fishery-independent data in the assessment, including the following but not limited to:
    a. Presentation of data source variance (e.g., standard errors).
    b. Justification for inclusion or elimination of available data sources.
    c. Consideration of data strengths and weaknesses (e.g., temporal and spatial scale, gear selectivities, aging accuracy, sample size).
    d. Calculation and/or standardization of abundance indices.
    e. Consideration of the potential impacts of environmental change.
2. Evaluate the methods and models used to estimate population parameters (e.g., *F*, biomass, abundance) and biological reference points, including but not limited to:
    a. Evaluate the choice and justification of the preferred model(s). Was the most appropriate model (or model averaging approach) chosen given available data and life history of the species?
    b. If multiple models were considered, evaluate the analysts' explanation of any differences in results.
    c. Evaluate model parameterization and specification (e.g., choice of CVs, effective sample sizes, likelihood weighting schemes, calculation/specification of *M*, stock-recruitment relationship, choice of time-varying parameters, plus group treatment).
3. Evaluate the diagnostic analyses performed, including but not limited to:
    a. Sensitivity analyses to determine model stability and potential consequences of major model assumptions.
    b. Retrospective analysis.
4. Evaluate the methods used to characterize uncertainty in estimated parameters. Ensure that the implications of uncertainty in technical conclusions are clearly stated.
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. Recommend best estimates of stock biomass, abundance, and exploitation from the assessment for use in management, if possible, or specify alternative estimation methods.

7. Evaluate the choice of reference points and the methods used to estimate them. Recommend stock status determination from the assessment, or, if appropriate, specify alternative methods/measures.
8. Review the research, data collection, and assessment methodology recommendations provided by the SAS and TC and make any additional recommendations warranted. Clearly prioritize the activities needed to inform and maintain the current assessment, and provide recommendations to improve the reliability of future assessments.
9. Recommend timing of the next benchmark assessment and updates, if necessary, relative to the life history and current management of the species.
10. Prepare a peer review panel terms of reference and 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 four weeks of workshop conclusion.

2017 Assessment Schedule:

- September 21-24, 2015: Data Workshop (Raleigh)
- February 8-10, 2016: Assessment Workshop I (Charleston)
- August 9-11, 2016: Assessment Workshop II (Arlington)
- April 18-20, 2017: Peer Review Workshop (Raleigh)

Proposed 2024 Assessment Schedule:

- Late November/early December, 2022: TC planning call (TORs, timeline, data requests, etc.); Board nominates SAS members
- December, 2022: SAS call to discuss assessment and data request forms
- January, 2023: Circulate data request forms to states
- Mid-March, 2023: Data templates due with a 2022 terminal year
- April ~15th: Landings validated via ACCSP
- May, 2023: Data Workshop (virtual)
- September, 2023: Assessment Workshop I (virtual or in-person)
- February, 2023: Assessment Workshop II (virtual or in-person)
- Summer, 2023: Peer Review Workshop
- Annual Meeting, 2023: Present Assessment and Peer Review Reports to the Board