New England Fishery Management Council
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Daniel Salerno, *Chair* | Cate O'Keefe, PhD, *Executive Director*

MEMORANDUM

DATE: October 28, 2025

TO: Cate O'Keefe, Ph.D., Executive Director

FROM: Scientific and Statistical Committee

SUBJECT: Response to Terms of Reference - Overfishing Limits and Acceptable Biological Catches for Atlantic sea scallops for FY 2026 and 2027

The Scientific and Statistical Committee (SSC) met in person and via webinar on October 8, 2025, to address Terms of Reference (TOR) for Atlantic sea scallops.

SSC members in attendance: Dr. Edward Camp (Vice-Chair), Dr. Anna Birkenbach, Dr. Adrian Jordaan, Dr. Lisa Kerr, Dr. Gareth Lawson, Dr. Kai Lorenzen, Dr. Jason McNamee, Dr. Richard Merrick, and Dr. Hiro Uchida. This report was reviewed by other SSC members as well.

TERMS OF REFERENCE

A. Consider information provided by the Scallop Plan Development Team on survey data and methods to develop fishing mortality reference points and targets based on the 2025 research track assessments and recommendations of the SSC made in August 2025. Provide the Council with a recommendation as to whether these methods are appropriate.

B. Review assumptions used in the Scallop Area Management Simulation (SAMS) model to project biomass, including natural mortality assumptions. Provide the Council with a recommendation as to whether these methods are appropriate.

C. Recommend OFLs and ABCs for Atlantic sea scallops for FY 2026 and 2027 (default) that will prevent overfishing, are consistent with the Council's scallop ABC control rule, and consider the Council's Risk Policy Statement.

ATLANTIC SEA SCALLOPS

The SSC received a presentation from Council staff on the work by the Northeast Fisheries Science Center and the Scallop PDT on stock status, projections and other information associated with the development of Atlantic sea scallop OFLs and ABCs for 2026 and the default values for 2027 through Framework Adjustment 40. The most recent stock assessment was the 2025 research track assessment that found that the stock was not overfished and overfishing was not occurring. Spawning stock biomass, fishing mortality estimates and biological reference points are derived using the Catch-at-Size Analysis (CASA) assessment model and Stochastic Yield Model, respectively. The SAMS model is a size and area structured projection model used to produce area-specific projections of total meat weight.

TERMS OF REFERENCE FINDINGS

The SSC reviewed the assumptions of the SAMS approach for projecting biomass and landings, including changes to the use of survey information, adjustments to the Shell Height Meat Weight (SHMW) relationship, and changes in growth and natural mortality calculations. The SSC found these changes to be justified and appropriate for use in projections.

The SSC recommends an OFL for Atlantic sea scallops of 19,645 mt for FY 2026 and 21,741 mt for FY 2027. The SSC recommends an ABC of 15,412 mt for FY 2026 and 17,060 mt for FY 2027. This advice is based on combined Mid-Atlantic and Georges Bank reference points from the 2025 research track assessment ($F_{OFL} = 0.49$; $F_{ABC} = 0.36$), and the SAMS model's area specific population projections. The Atlantic sea scallop ABC control rule generates advice that has a 75% probability that F is less than F_{MSY} ($F_{ABC} = 0.36$ for Georges Bank and the Mid-Atlantic combined). The recommended OFLs and ABCs aim to prevent overfishing, are consistent with the Council's ABC control rules, and consider the Council's Risk Policy Statement.

Rationale Including Significant Sources of Uncertainty

The SSC's recommendation for Atlantic sea scallops OFLs and ABCs was informed by the peer-reviewed 2025 research track assessment, the ABC control rule, and the advice of the PDT. Atlantic sea scallops are managed as a unit stock, and the SSC's recommended ABCs are not likely to result in overfishing at this spatial scale, even if the SSC's recommended ABC were in fact landed. The PDT provided evidence suggesting it is unlikely that the ABC the SSC recommended would be landed, however, given spatial area closures and the process by which any Council-approved ABC would be translated to days-at-sea for the fleet.

The SSC noted several concerns related to two overarching uncertainties. The first uncertainty pertains to the spatial resolution of reference points and catch advice for Atlantic sea scallops. The SSC discussed how this stock has relatively fine-scale and detailed survey information, biological information (e.g., growth, natural mortality), spatial fishery regulations, and catch projections, yet the OFL and ABC catch advice is made at a single large spatial scale (combined Mid-Atlantic, Georges Bank, and Gulf of Maine). The SSC also noted that the combined-region MSY reference point from which the catch advice is derived ($F_{MSY} = 0.49$) is greater than that of Georges Bank $F_{MSY} = 0.36$), driven largely by a Mid-Atlantic $F_{MSY} = 1.56$, which peer reviewers of the 2025 research track assessment noted concerns of being poorly defined. The SSC discussed that this stock-wide reference point is questionable, and allowing this high Mid-Atlantic F_{MSY} to influence the intensity of fishing recommended for Georges Bank was concerning. However, the SSC also noted that its remit is to recommend catch advice only at the stock-wide scale, that the specification of F_{ABC} was stipulated given the ABC control rule, and also that the SSC had not reviewed any information indicating that the control rule-based, combined-regional advice would be expected to result in overfishing at the sub-region (e.g., Georges Bank) spatial scale.

The second major uncertainty that the SSC discussed was the apparent declining trends in Atlantic sea scallops, apparent at the stock and regional scales. These trends have generally been more severe in the Mid-Atlantic than Georges Bank, but differ across space, time, and metrics (e.g., landings, recruitment, assessed natural mortality, etc.). There is more direct evidence of declining recruitment and increasing natural mortality and less certainty on the magnitude and spatial scale of trends. The SSC discussed how the drivers of these declines remain uncertain, and even if the proximate drivers of decline might well be environmental or ecological (e.g., warming bottom temperatures and/or increased predation pressure), these could still have implications for the sustainability of fishing.

Additional Comments and Research Recommendations

In concert, the two uncertainties noted above suggest caution is warranted, and the SSC made several recommendations for future research. The foremost was to reconsider the spatial structure of the stock, and specifically to research the possibility of managing Atlantic Sea Scallops as multiple stocks. Relatedly, the SSC also recommended the continued pursuit of GeoSAMS, and exploring options for spatially explicit management even if the stock structure is not reconsidered (e.g., setting catch and/or days-at-sea assignments separately for different regions). The SSC noted that the information presented on spatiotemporal changes in biological parameters such as growth and mortality justified these recommendations.

The SSC also recommended developing decision-support tools that might help the PDT accomplish finer-scale spatial or temporal (e.g., in-season) management. This recommendation followed the PDT's description of a need for tools that could help them explore more flexible approaches and to consider uncertainty and socioeconomic implications associated with alternative decisions.

Summary of Recommendations

1. **The SSC recommends OFLs of 19,645 mt for FY 2026 and 21,741 mt for FY 2027 (default) for Atlantic sea scallops.**

2. **The SSC recommends ABCs of 15,412 mt for FY 2026 and 17,060 mt for FY 2027 (default) for Atlantic sea scallops.**

3. **The SSC recommends caution is appropriate given the uncertainty regarding stock spatial structure, concerns over the reference points from the research track assessment, and declining trends in the stock. The highest prioritized research recommendations were to reconsider the spatial stock structure and to develop tools to aid flexible management at finer spatiotemporal scales.**

Fishing Year	OFL (mt)	ABC (mt)
2026	19,645 mt	15,412 mt
2027 (default)	21,741 mt	17,060 mt

DOCUMENTS

To address the TORs, the SSC considered the following information:

1. Scallop Plan Development Team
    a. Presentation by Council staff
    b. Presentation by Dr. Dvora Hart, NEFSC

c. Scallop PDT memo to SSC re FY 2026-2027 OFLs and ABCs for Atlantic sea scallops, October 1, 2025
d. Risk Policy Matrix for scallops

2. Scallop Fishery Information
   a. *Affected Environment for Scallop Framework Adjustment 39*, including background information on the social and economic status of the fishery (see p. 82-1119)
   b. Fishery Performance Report – Scallop landings, grades, and LPUE (GARFO)

3. Previous SSC recommendations regarding scallops
   a. Meeting materials, October 9, 2024
   b. SSC report (OFLs and ABCs), October 29, 2024
   c. Meeting materials, August 19, 2025,
   d. SSC report (reference points), August 31, 2025

4. Hart, D.R. 2013. Quantifying the tradeoff between precaution and yield in fishery reference points. *ICES Journal of Marine Science*, 70: 591-603.

Background Documents

1. The Council's Risk Policy Statement and Concept, implemented January, 2025
2. NOAA/NEFSC 2025 State of the Ecosystem Reports for the Northeast U.S. Shelf