SSC Report to NEFMC

NEFMC Meeting
September 28, 2022
Lisa Kerr, SSC Chair
Topics

The SSC meeting on August 4, 2022 focused on overfishing limits and acceptable biological catches for Atlantic herring for FY2023-2025.
Atlantic Herring

Terms of Reference

• Review information provided by the Council’s Herring Plan Development Team and the results of recent 2022 Atlantic herring management track stock assessment.

• Recommend overfishing limits (OFLs) and acceptable biological catches (ABCs) for Atlantic herring for fishing years 2023, 2024, and 2015 that will prevent overfishing, meet the management objective to rebuild, are consistent with the Council’s ABC control rule and rebuilding plan, and consider the Council’s Risk Policy Statement.
Atlantic Herring

• The 2022 management track assessment for Atlantic herring indicated that the stock is overfished and overfishing is not occurring.

• SSC accepted the continued use of the ASAP model with new treatment of BRPs and projections for setting catch advice.

• SSC endorsed the Atlantic herring PDT recommendations for setting OFL and ABC for fishing years 2023 to 2025 based on the Council’s herring ABC control rule.
Atlantic Herring

**Rationale**

- SSC discussed two proposals for catch advice setting:
  1. Application of the Atlantic herring harvest control rule
  2. Holding ABC constant over the three-year period with the value based on the 2023 ABC derived from the harvest control rule.

- SSC expressed concern that projections have been consistently overly optimistic and there is no evidence of improved recruitment.

- SSC noted that OFL and ABC projections increased with changes made to calculation of BRPs and expressed concern about the magnitude of increase in ABC for a stock that is in a rebuilding plan.

- A proposal for setting catch advice constant was considered, but the SSC decided not to deviate from the harvest control rule in setting catch advice.
Atlantic Herring

Rationale

• SSC supported using the harvest control rule for setting catch advice.

• While there is still scientific uncertainty in the stock assessment (i.e., retrospective patterns) and projections, improvements were made to the model:
  1. Long-term projections used to define BRPs accounted for mortality from the fixed gear fishery, and
  2. Recruitment stanza used to define BRPs was shortened (1992-2019) to represent the current lower productivity regime of Atlantic herring.

• Recommended OFL and ABC projections were consistent with the Council’s ABC control rule, based on the rebuilding plan with updates to recruitment assumptions, incorporated an estimate of catch from the Canadian fixed gear fishery, and used the most updated data available.
Atlantic Herring

Research Recommendations

• SSC recommends continued investigation of the mechanisms affecting the current low recruitment of Atlantic herring.

• Retrospective patterns remain an issue and will be evaluated in the Atlantic herring research track assessment to be initiated in 2024.

• Exploration of approaches to resolve potential misspecified natural mortality and examination of issues of stock structure and movement.
Atlantic Herring

**Research Recommendations**

- SSC suggests informing projections based on recruits per spawner for consistency with change point analysis used to provide a revised recruitment stanza in the projections and BRPs.

- Investigate whether the MSYproxy (F40%) needs to be reduced in a lower productivity regime (i.e. a higher percentile of SPR) or consider estimation of FMSY directly, rather than use of a proxy.

- Consider incorporating younger ages in fully selected fishing mortality (currently ages 7 and 8 are the only fully selected ages).

- Further exploration of use of seabird diet information to develop an index of age-1 abundance.
Atlantic Herring

Summary of Recommendations
The SSC supports the PDT recommendations for OFL and ABC values for FY2023 – 2025 for Atlantic herring based on application of the Council’s herring ABC control rule.

The SSC recommends the following OFLs and ABCs:

<table>
<thead>
<tr>
<th>Year</th>
<th>OFL(mt)</th>
<th>ABC(mt)</th>
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<tbody>
<tr>
<td>2023</td>
<td>29,138</td>
<td>16,649</td>
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<td>2024</td>
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<td>2025</td>
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Questions?