



New England Fishery Management Council

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E.F. "Terry" Stockwell III, *Chairman* | Thomas A. Nies, *Executive Director*

MEMORANDUM

DATE: November 8, 2013
TO: Scientific and Statistical Committee (SSC)
FROM: Thomas A. Nies, Executive Director
SUBJECT: **REVISED** November 15, 2013 SSC Meeting - Terms of Reference for Scallops (Three information items have been added).

Terms of Reference

1. Recommend an OFL and ABCs for Atlantic sea scallops consistent with the fishing mortality limit (F_{MSY} or its proxy) and the ABC control rule or rebuilding program for fishing years 2014 and 2015 (default).
2. In considering the recommendations developed at the September 16, 2013 SSC meeting, the Council requests that the SSC review the calculation of discards and incidental mortality that the PDT will provide in more detail. The Council is not requesting that the SSC modify the assumptions or methods approved in the last benchmark assessment for estimating discard and incidental mortality.

Background

Framework 25 to the Scallop FMP will include fishery specifications for 2014, as well as default measures for 2015. The Council requested that the SSC provide an OFL and ABC recommendation for these years, to be included in Framework 25. The SSC already met on September 16, 2013 and reviewed an updated estimate of OFL and ABC for this action, but there was not a quorum of SSC members at that meeting. Additionally, the Council passed the following motion at its September 24-26, 2013 meeting requesting the SSC to consider how discards of scallops were estimated in the development of its OFL and ABC recommendations.

Council Motion 10: Ms. Ramsden moved and Ms. Tooley seconded:

to have the SSC reconvene regarding the recommendations for scallop harvest with particular focus on the calculation of discards for the fishery for the FY 2014-2015.

*The motion **carried** unanimously on a show of hands (16/0/0).*

During the discussion, the Council clarified the intent of this motion. The Council is *not* requesting the SSC modify the assumptions or methods approved in the last benchmark assessment for estimating discard and incidental mortality. Instead, the Council requests the SSC to review an explanation of the assumptions and methods used for OFL and ABC calculations to be provided by the PDT.

The last benchmark assessment for the sea scallop resource was completed in 2010, SAW50. This assessment approved a direct estimate of F_{msy} . Therefore, Amendment 15 replaced the

previous B_{max} and F_{max} used in the overfishing definition with B_{MSY} and F_{msy} . Overfishing occurs when F exceeds F_{msy} , currently estimated as 0.38. Therefore, the F associated with OFL = 0.38.

Amendment 15 also included an ABC control rule that was approved by the SSC and implemented in 2011. The current ABC control rule sets ABC at a level that has a 25-percent probability of exceeding OFL (*i.e.*, a 75-percent probability that it will not exceed OFL). The F rate associated with a 25% chance of exceeding OFL is currently estimated as 0.32. Therefore, the PDT analysis of ABC for this action is based on applying an overall F of 0.32.

A recent paper by Dr. Dvora Hart has been included that summarizes how tradeoffs can be quantified related to setting fishery reference points (Document #2). The methods presented are similar to analyses used by the Scallop PDT to develop the ABC control rule approved in Amendment 15. In addition, staff has prepared a summary of the sea scallop stock status and fishery since the most recent stock assessment in 2010 (Document #3). A brief summary of the alternatives under consideration in Framework 25 is included as well (Document #4).

For this meeting the Scallop PDT will present the same OFL and ABC recommendations for fishing years 2014 and 2015 (default only) based on the same ABC control rule approved in Amendment 15, catch equivalent to the fishing rate that has a 25% probability of overfishing (Document #5). Finally, the memo the SSC approved by email following the last review of this information on September 16, 2013 has been provided again for reference (Document #6).

Documents:

1. November 15, 2013 SSC Meeting Terms of Reference for Sea Scallops
2. Hart, D.R. Quantifying the tradeoff between precaution and yield in fishery reference points. ICES Journal of Marine Science, doi.10.1093/icesjms/fss204.
3. 2013 Summary of Sea Scallop stock status and fishery since last assessment in 2010
4. Draft Framework 25 measures under consideration
5. Scallop PDT recommendations for 2014-2015(default) ABC with summary of relevant assumptions and calculations
6. SSC Memo to Council from September 16, 2013 SSC meeting
7. Summary of discard and incidental mortality calculation from benchmark assessment (SAW50)
8. Caddy, J.F. 1973. Underwater Observations on tracks of dredges and trawls and some effects of dredging on a scallop ground. J. Fish. Res. Board Can. 30: 173-180.
9. Murawski and Serchuk. 1989. Environmental effects of offshore dredge fisheries for bivalves. ICES Fish capture Committee
10. Hart, D.R. 2003. Yield and biomass per recruit analysis for rotational fisheries, with an application to the Atlantic sea scallop (*Plactopecten magellanicus*) Fish. Bull. 101:44-57
[In particular for this meeting – see Table 2 and related discussion]