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New England Fishery Management Council

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TO: Paul J. Howard, Executive Director
FROM: Science and Statistical Committee
DATE: April 26, 2011

SUBJECT: Input to the SARC 53 Terms of Reference

The Scientific and Statistical Committee (SSC) was asked to provide input to the Terms of Reference (TORs) for the SARC 53 review of black sea bass and Gulf of Maine cod. This review began during the March 30-31, 2011 meeting of the SSC and continued during the April 12-13, 2011 meeting of the SSC. One recommendation on retrospective analysis of Gulf of Maine cod was agreed during the April meeting, while the larger issue of cod stock structure was discussed at both meetings.

The SSC recommends the following underlined words be added to TOR 3 for Gulf of Maine cod. *Estimate annual fishing mortality, recruitment and stock biomass (both total and spawning stock) for the time series, and estimate their uncertainty. Include a historical retrospective analysis to allow a comparison with previous assessment results. Review the performance of historical projections with respect to forecasts of stock size, catch, recruitment, and fishing mortality.* This addition will provide information regarding the performance of previous projections, and by analogy, what might be expected from future projections used for determining catch advice.

The population structure of cod off New England was initially considered at the March meeting of the SSC. As a continuation of this agenda item, the SSC was given an informational briefing on recent scientific information on population structure of cod during the April meeting. The information is relevant on multiple spatial scales including (1) the small scale distribution of spawning sites, resource distribution and fishing effort within current management units and (2) large scale migrations and potential genetic connectivity between current management units and genetic heterogeneity within current management units.

The SSC took note of the information on cod population structure, but did not evaluate its scientific validity or management implications. However, as a general matter, the SSC advises that both small scale and large scale population structure potentially have important management implications, and recommends that all of the available scientific information on population structure should be taken into account in management.

In summary, the SSC had the following recommendations.

- 1. If time permits, SAW53 on Gulf of Maine cod should consider information on the small scale distribution of cod in the Gulf of Maine and advise on its management implications.**

2. **The Plan Development Team should take account of information on the small scale distribution of cod for both the Gulf of Maine and Georges Bank Management Units for future implementation or amendments of the Multispecies Fishery Management Plan.**
3. **There should be a comprehensive evaluation of scientific information on cod population structure and its management implications, including the possibility of revising management units. This evaluation should occur in time to be taken into account in the next management cycle, beginning with the 2014 fishing year.**

The SSC understands that the SAW/SARC process is being reconfigured with separate operational and research tracks. Accordingly, the SSC recommends that the evaluation in number 3 should be a priority for the research track.