

SCIENTIFIC AND STATISTICAL REPORT ON  
STOCK ASSESSMENT METHODOLOGY REVIEW TOPIC SELECTION

The Scientific and Statistical Committee (SSC) reviewed two proposals for stock assessment methodology review included in the advance briefing book and another proposal submitted as a supplemental report. In addition, the SSC considered potential topics for which official proposals have not yet been submitted. The SSC recommends delaying final action on this agenda item until the November Council meeting. Many of the personnel that would have contributed to the development of proposals were occupied with finalizing stock assessments, providing limited time for proposal preparation. In addition, a second meeting would allow time for proponents to respond to preliminary comments by the SSC and prepare complete proposals. The SSC provides the following comments on each of the proposals reviewed and considered at this meeting.

New proposals for reviews included in the advance briefing book:

- ***Improving Catch Estimation Methods in Sparsely Sampled Mixed Stock Fisheries ([Agenda Item E.3, Attachment 1](#))***: The SSC recommends the proposed methodology move forward for review as it has the potential to help resolve historical catch compositions for which there are limited data to parse mixed market categories to species using methods that are more consistent, potentially more accurate, and that provide estimates of uncertainty. The recommended timing of the review is winter of 2018.
- ***Proposal for a Methodological Review of the Data-Limited Methods Toolkit (DLMtool) for Use in the Pacific Fishery Management Council's Stock Assessment Review (STAR) Process ([Agenda Item E.3, Attachment 2](#))***: The SSC acknowledges the potential benefit of evaluating the applicability of the DLMtool to the stocks in the groundfish fishery management plan (FMP) to improve assessments, conduct management strategy evaluations, and identify data that is most informative in assessing data limited stocks. Crafting specific Terms of Reference (TOR) for this methodology review is recommended to help focus efforts on aspects of the tool that are new to the Council process and compatible with the current management framework of harvest control rules.

New proposals for reviews provided in the supplemental briefing book:

- ***Oregon Department of Fish and Wildlife (ODFW) Remotely Operated Vehicles (ROV) Survey***: The ODFW submitted a proposal outlining ROV based surveys in nearshore waters as a supplemental report ([Agenda Item E.3.a, Supplemental ODFW Report 1](#)). The proposed methods could provide an index of abundance and potentially provide an absolute estimate of abundance for nearshore species. A need was identified for additional details prior to review on how to account for detection probability and expansion to unsampled habitat. In addition, the format and content of the proposal were not consistent with the requirements for proposals under the TOR for Methodology Review. For example, the proposal should also contain the means by which the results would be used in assessment.

Postponing final action on this agenda item until November would provide the time necessary to address the outstanding questions.

Analyses initially reviewed by the groundfish subcommittee on August 29<sup>th</sup>:

- ***Adjustments to Sigma based on Age of Assessment ([Agenda Item E.9, Attachment 4](#)):*** At the August 29<sup>th</sup> SSC Groundfish Subcommittee meeting, methods accounting for the time since the last assessment based on projections from the base and low states of nature from decision tables were presented. The SSC agrees that this adjustment has value in better accounting for scientific uncertainty assessments and analyses should continue.
- ***Updating of Sigma Values for Scientific Uncertainty in Stock Assessments ([Agenda Item E.9, Attachment 5](#)):*** As part of the ongoing review efforts, updated estimates of sigma and potential additional methods for estimation were presented to the SSC Groundfish Subcommittee on August 29<sup>th</sup>. While updating estimates using the original method requires less scrutiny, new methods would require further review.

Other potential review topics were discussed by the SSC for which no proposals have been submitted. If complete proposals are developed for these topics they could be submitted for consideration at the November Council meeting:

- ***Washington Department of Fish and Wildlife (WDFW) Nearshore Setline Survey:*** The WDFW has been conducting gear testing in the past three years to develop an abundance survey for nearshore species. The proposed survey would provide an index of abundance, as well as length and age data for use in stock assessments. This study would help fill data gaps identified in recent assessments for fishery-independent data for nearshore species that inhabit rocky reef habitat.
- ***California Department of Fish and Wildlife (CDFW) ROV Survey:*** The CDFW and Marine Applied Research Exploration (MARE) have collected data from ROV surveys conducted as part of monitoring of fish size and abundance in marine protected areas and associated reference sites open to fishing.
- ***Updating and Improvement of Depth-Dependent Mortality Rates reflecting Surface Release of Rockfish and Mortality Rates for other Groundfish Species:*** In 2008 the Groundfish Management Team developed depth-dependent mortality rates currently applied in estimating discard mortality in catch estimates and stock assessments for the recreational and nearshore commercial fisheries. The greatly increased sample size and more representative estimates of long-term mortality now available would provide more accurate estimates of discard mortality. In addition, improved mortality rates for big skate and long-nosed skate are needed to improve historical catch estimates used in assessments.

The ODFW and CDFW ROV surveys as well as the WDFW setline survey could potentially be combined into a single methodology review focused on enhancement of fishery independent data for stock assessments of nearshore species.

The SSC notes that the format, content and timeline for submission of proposals are defined in the TOR, which should be followed in the future to facilitate timely review.

PFMC  
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