

## SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON STOCK ASSESSMENT IMPROVEMENT PLAN COMMENTS

The Scientific and Statistical Committee (SSC) reviewed the draft document “Implementing A Next Generation Stock Assessment Enterprise: An Update to NOAA Fisheries’ Stock Assessment Improvement Plan” (Agenda Item C.5, Attachment 1, June 2017). Unlike the previous Stock Assessment Improvement Plan, which included tactical suggestions that resulted in changes to procedures, the current document takes a higher-level view with fewer details that could be implemented.

Although many aspects of the updated plan are likely to improve future stock assessments, other parts of the plan need more clarification. While social and economic data and analyses have an important role in fisheries management to evaluate impacts, it is unclear how social and economic data can be directly used within stock assessments as opposed to Management Strategy Evaluations. The role of social and economic data and analyses needs to be more clearly defined and examples of potential use provided, or else their inclusion in the plan should be reconsidered. The plan also describes new approaches to characterize stock assessment uncertainty to assist in decision-making. The plan should include discussion of how the outcomes of new approaches, such as ensemble modeling, could be used within the context of Council decision making and how this will lead to demonstrable benefits in management outcomes.

The plan notes that the number of assessments desired generally exceeds the capacity of the system to produce them. To address this issue, the plan should put greater emphasis on training and retention of stock assessment scientists, as the number of qualified scientists limits the quantity and quality of assessments. One of the major successes of the original stock assessment improvement plan was to train highly-skilled assessment scientists, many of whom consequently joined stock assessment programs throughout the nation.

Streamlining the assessment and review process is another solution for increasing the number of stock assessments conducted. However the current review process appears to be working reasonably well for the Pacific region with respect to the number of assessments and thoroughness of review. Streamlining the process may be beneficial, but should not come at the expense of assessment quality and review thoroughness.

The plan could be improved by more careful use of terminology. For example, the term “process error” is not carefully defined, and is used in places to refer to model uncertainty. Another example is the use of the terms “operational models” and “research models.” The practice of doing benchmark or full assessments followed by one or more update assessments is well established at Pacific Fishery Management Council. It is unclear how the distinction between operational and research models relates to benchmark and update assessments, nor is it clear how making this distinction would help to streamline the assessment process. The SSC also notes that collaboration on stock assessments includes organizations beyond those listed in the plan, such as states and tribal partners, and that these partners also provide data for inclusion in assessments.

Finally, although the majority of the plan is aimed at strategic issues, some aspects of the plan have a more narrow and prescriptive focus than is desirable. In particular, Box 10.2, which addresses assessment terms of reference for the peer-review process, may be better handled regionally based on national standard guidelines, rather than in a strategic science plan. Similarly, the part of the document that provides details on scoring for stock assessment prioritization seems out of place in a science planning document.

PFMC  
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