

SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON TERMS OF REFERENCE
FOR STOCK ASSESSMENT AND METHODOLOGY REVIEW PANELS

The Scientific and Statistical Committee (SSC) addressed two issues under this agenda item: 1) it identified a list of potential methods to be reviewed at the methodology reviews scheduled for 2011, and 2) it provided a final review of the Terms of Reference (TOR) for the coastal pelagic species (CPS) stock assessments and methodology reviews.

Potential methods for review during 2011

Three proposals were presented to the SSC for consideration for methodology review during 2011: 1) the use of satellite imagery during aerial photographic surveys, 2) the use of acoustic and (associated trawl) surveys for abundance estimation, and 3) calibration of aerial photographic surveys using lidar and acoustics. A trawl survey for Pacific sardine in Canadian waters had originally been mentioned as potentially being reviewed for use in the September 2011 assessment. However, no proposal related to this survey was presented to the SSC. The SSC considered what information would be available for a Panel to review, and how the methodology could be used in stock assessments and when specifying overfishing limits.

(1) Methodology Panel 1 (early 2011)

The SSC recommends that this Panel focus on reviewing the coastwide acoustic (and associated trawl) surveys conducted by the Southwest Fisheries Science Center (SWFSC) in 2006, 2008, and 2010. These surveys have the potential to provide estimates of abundance for Pacific sardine, jack mackerel, Northern anchovy, and Pacific mackerel. This Panel should also allocate time to provide recommendations for how a pilot study related to the use of satellite imagery could be conducted. The SSC considers the use of satellite imagery as being sufficiently promising that time spent on this topic would be beneficial. However, this methodology is not currently sufficiently well developed that results could be included in the September 2011 assessment of Pacific sardine. Experts in satellite imagery and analysis would be members of the Review Panel.

(2) Methodology Panel 2 (May 2011)

The SSC notes that there is an opportunity to conduct a methodology review in parallel with the STAR Panel for Pacific mackerel and suggests that this review consider the aerial photographic surveys being conducted off southern California at present. Analysis of the data from these surveys will not be completed by the first methodology panel. Delaying the review until May 2011 should allow sufficient time for initial analyses to be conducted.

The SSC re-emphasizes the importance of the availability of complete documentation and data during the methodology reviews to allow a thorough review of the methodologies and to permit analyses to be conducted during the Panel meeting. Following Council decisions regarding which methodology will be reviewed during 2011, the chair of the SSC Coastal Pelagic Species (CPS) Subcommittee will coordinate with Council staff, SWFSC staff and the proponents of the various methodologies to organize agendas, and arrange SSC members of the Panel.

Terms of Reference for CPS

All remaining issues relating to the TORs for CPS stock assessment review process and methodology review have been resolved between the SSC and the Coastal Pelagic Species Management Team (CPSMT). In the stock assessment TOR, the present draft includes all changes, specifically language relating to the qualifications of review panel members, the procedure for bringing forward ecological considerations, and review of harvest control rules. The SSC endorses these changes.

Changes to the methodology review TOR were agreed between the SSC and the CPSMT, but the document has not yet been updated. The following outlines the issues that were resolved and changes that will be made. The SSC also endorses these changes.

- Methodological reviews are appropriate when a major new data source is introduced into a stock assessment or when a major change in the stock assessment modelling is contemplated. In both cases, a methodological review is needed when the change(s) from how assessments have been conducted in the past are deemed to be more than what a STAR Panel can reasonably be expected to handle. For example, the introduction of a new survey will generally require a methodological review; as will a change to a new stock assessment model platform. However, changes to the structure of a previously reviewed assessment model (e.g., changes in selectivity year-blocking) fall within the scope of what a STAR Panel would be expected to review as part of its normal activities. *This change will be addressed by removing c) on page 3, next to last paragraph.*
- Some aspects of changes to the control rules could also be considered by a methodological review. In this case, however, care must be taken to separate the scientific analysis supporting the change (e.g. the structure and technical aspects of simulation studies used to compare a revised control rule against the *status quo*) and the management objectives used to measure performance (e.g. minimize year-to-year catch variance, maximize long-term average catch, etc.). The former are amenable to methodological review (provided adequate background analyses have been completed), but the latter are management decisions – not well suited to a methodological review. *This paragraph will be included above the last paragraph on page 3.*

PFMC
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