SCIENTIFIC AND STATISTICAL COMMITTEE REPORT ON STOCK ASSESSMENT METHODOLOGY REVIEW

The Scientific and Statistical Committee (SSC) reviewed two proposals for new methodologies to inform future groundfish assessments and management.

The Use of sdmTMB for Index Standardization

The SSC discussed the proposal submitted by Drs. Johnson and Ward (Northwest Fisheries Science Center). Recently, the vector autoregressive spatiotemporal (VAST) framework has been used for index standardization in Pacific Fishery Management Council (Council) stock assessments. At the same time that VAST was adopted, the Species Distribution Model in TMB (sdmTMB) framework was developed, tested, and published. The SSC does not consider a formal methodology review necessary for sdmTMB because it uses the same core algorithms as VAST; therefore, the two frameworks are very similar. Instead of a methodology review, the SSC recommends a Groundfish Subcommittee meeting to review the details of the sdmTMB framework to obtain a better understanding of the features, the strengths and any weaknesses of the method, with a view toward endorsing sdmTMB for use in stock assessments.

Combined Visual-hydroacoustic Survey of Oregon's Nearshore Semi-pelagic Black, Blue, and Deacon rockfish

This request for review was previously endorsed by the SSC and approved by the Council in September 2019. A review was planned for fall 2020; however, the survey and the methodology review were delayed due to the COVID-19 pandemic. The Oregon Department of Fish and Wildlife began the survey in August 2021 and completion of the at-sea work is expected in September 2021. There are no changes to the proposal for a review that was previously endorsed. The SSC endorses conducting a methodology review for this survey, noting that the Center of Independent Experts reviewers should include someone with expertise in acoustics.

Recommended Workshops

Three future workshop topics are recommended for next year to inform the best practices for stock assessments document:

- Examining approaches for applying the approved remotely operated vehicle methods in stock assessments.
- Developing methods for constructing abundance indices based on hook-and-line surveys.
- Exploring approaches to deal with large, closed areas and other spatial issues in stock assessments.

PFMC
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