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National Standard Two and the Peer Review Process for Stock Assessments in the North Pacific

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Excerpt from the Magnuson-Stevens Act...

E) The Secretary and each Council may establish a peer review process for that Council for scientific information used to advise the Council about the conservation and management of the fishery. The review process, which may include existing committees or panels, is deemed to satisfy the requirements of the guidelines issued pursuant to Information Quality Act (Section 515 of the Treasury and General Government Appropriations Act for Fiscal year 2001 (Public Law 106–554—Appendix C; 114 Stat. 2763A–153))



National Standard Two Guidelines

- “Conservation and management measures shall be based upon the best scientific information available.”
- Guidelines published in the Federal Register on July 19, 2013.
- Provides guidance and standards that should be followed in order to establish a peer review process per Magnuson-Stevens Act section 302(g)(1)(E) covering:
 - Objective or scope of work
 - Form of process
 - Timing
 - Scope of Work
 - Peer review selection
 - Expertise and balance
 - Conflict of interest
 - Independence
 - Transparency

Form of the Review Process

- The North Pacific peer review process is **HIERACHICAL** and **ITERATIVE**.
- CIE reviews are programmatic reviews of the stock assessment of a particular species.
- NMFS response is a multi-year work plan for implementing changes to data inputs and the assessment model.
- Annual assessment process makes use of standing committees (i.e., the Plan Teams and the SSC), rather than external review process (SEDAR, STAR).
- Two Plan Team and SSC meetings in the year allow an opportunity for review and revision.
- Subsequent assessments are required to respond to SSC and Plan Team recommendations.

Timing

- CIE reviews occur roughly on 5-year cycle.
- There is an annual assessment and peer review process conducted by the Plan Teams and the SSC.
- Current year survey data are included in models to provide ABC and OFL recommendations for the following year.

Scope of Work

- CIE reviews are broad programmatic reviews:
 - Data collection procedures including fishery-dependent data, age composition data, and fishery-independent surveys.
 - Analytical methods used to develop model input.
 - Modeling methods, assumptions, and estimation procedures.
 - Reporting of assessment results and characterization of uncertainty.
- Separate CIE review of eastern Bering Sea trawl survey in 2012.
- Plan Team and SSC reviews are focused on identifying a preferred model for status determination and setting OFLs and ABCs.

Expertise and Balance

- Plans Team membership includes stock assessment scientists, marine mammal and seabird experts, ecosystem and socioeconomics researchers, and regional fishery management experts from NMFS, Council staff, state fishery agencies, and universities. More of a management and hands-on stock assessment emphasis (but not exclusively).
- SSC membership includes ADFG, NMFS, and academics. Scientific expertise across a broad range of disciplines, including stock assessment, ecosystems, socioeconomics.
- Typically three CIE reviewers are used, each with expertise in stock assessments.

Conflict of Interest

- NPFMC SSC members annually complete a financial disclosure form.
- Selection criteria for CIE reviews includes screening for conflict of interest.

Independence

- CIE reviewers are required to be completely independent of NMFS.
- SSC review assignments are made to ensure that a member is not reviewing a work product produced by individuals in their chain of command.
- Plan Team members are often co-workers of assessment authors and/or assessment authors themselves, implying a lower degree of independence.

Transparency

- Plan teams and SSC meetings are public.
- Documents are made available two weeks prior to review.
- There are ample opportunities public comment.
- SSC meetings are held in conjunction with Council meetings.

Strengths, Challenges, and Solutions

- Strengths: Good spectrum of review activities from programmatic to targeted. Fast uptake of new information. Transparent review process with good outreach practices. Generally strong stakeholder support for stock assessments in the North Pacific.
- Challenges: Execution sometimes suffers due to compressed schedules. In practice the annual assessment schedule tends to restrict opportunities for improvement.
- Solutions:
 - The review process is a good one.
 - There needs to be a stronger focus on improving assessments.
 - Better follow through of CIE recommendations is needed through development and tracking of work plans for stock assessment improvement.