

**FINAL**

**ISC/21/PLENARY/10**



## **PLENARY 10**

*21<sup>st</sup> Meeting of the  
International Scientific Committee for Tuna  
and Tuna-Like Species in the North Pacific Ocean  
Held Virtually  
July 12-20, 2021*

### **ISC Stock Assessment Review Process Proposal United States**

US National Marine Fishery Service  
Southwest Fisheries Science Centre  
La Jolla, CA, USA

**July 2021**

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## ISC review process proposal

**The need/problem:**

Instituting an independent and rigorous peer review process for stock assessments was a recommendation from the 2013 review of ISC's function (Ault et al. 2013). External, independent peer review of the scientific underpinnings of stock assessments is one way to provide the ISC plenary and stakeholders assurances that assessments and any subsequent management decisions are based upon the best readily available scientific information.

**Objective**

The objective is to respond to the recommendations of the 2013 review to enhance the rigor and independence of reviews of ISC scientific products in order to better ensure the best available information is incorporated into fisheries management. While ISC's review of assessments is similar to the review processes used by other organizations who assess HMS stocks, some organizations have undertaken independent reviews of specific assessments. Along those lines, we propose conducting additional review of those assessments for which there are technical concerns or of assessments for stocks at risk.

Scientific and technical peer review is widely applied across numerous scientific disciplines to assure products are of high quality, reflect solid scholarship, and that the information contained is accurate and based on rigorous, sound scientific methods. In any review, the intent is to provide an assessment of the work product that is balanced, fairly represents all reviewer evaluations, and provides feedback that is actionable.

Based on the 2013 recommendations, in 2019, ISC's review process was evaluated and recommendations were provided for incorporating a more rigorous review process into ISC's framework (Ault and Matsuda, 2019). While these recommendations were centered on expert participation in assessments, this proposal recommends a review process independent of the working group framework to ensure objectivity.

The structure and operation of the ISC review should be designed to ensure the quality, relevance, and independence of the reviews. Independence is maintained by eliminating any role for working group members in selecting the reviewers or in approving the contents of reviewers' reports.

To begin the annual cycle of ISC reviews, ISC Plenary will consider proposed reviews to prioritize and schedule. Proposed reviews will include information on the assessment, type of review, number of reviewers, the expertise required, location, and schedule. Prioritization factors include:

- the economic impact, controversy, or potential for establishing a precedent;
- the potential for the science to lead to a new or substantially changed management action;

- new or innovative research with clear application to living marine resource management; and
- the time elapsed since the previous review of the assessment.

Once a prioritization and schedule are agreed upon, the relevant working group chair will develop the terms of reference (TOR), which will define the purpose and structure of the review (Figure 1). The TOR would then be reviewed by working group members and approved by the ISC Plenary and incorporated in the Statement of Work (SW) for prospective reviewers. The SW will provide background information and specify requirements for the number and expertise of reviewers, the schedule of activities required of them, and the outline for any report that each reviewer must produce. While the Statement of Work is being developed, the reviewer selection would proceed as specified below. To ensure independence, the working group chair has no role in this part of the process. Once suitable candidates have been identified, the ISC contacts each expert to determine interest and availability. Following approval of the reviewers, the ISC develops a final budget and organizes logistics.

Schedules could vary with circumstances, but typically reviewers would have two weeks following an in-person, on-site review meeting to produce draft reports and submit them to the ISC. The ISC chair and working group chair review the draft reviewer reports and make a final determination as to whether the reports meet the Statement of Work requirements. The ISC chair would share the reports with the working group and work on the subsequent distribution.

The reviews could happen under two different scenarios.

**Scenario 1: After the assessment is complete and before the plenary.** Ideally, the working group would have time to address potential panel suggestions before presenting the assessment report to the plenary. The ISC Plenary would take the results from the review under advisement.

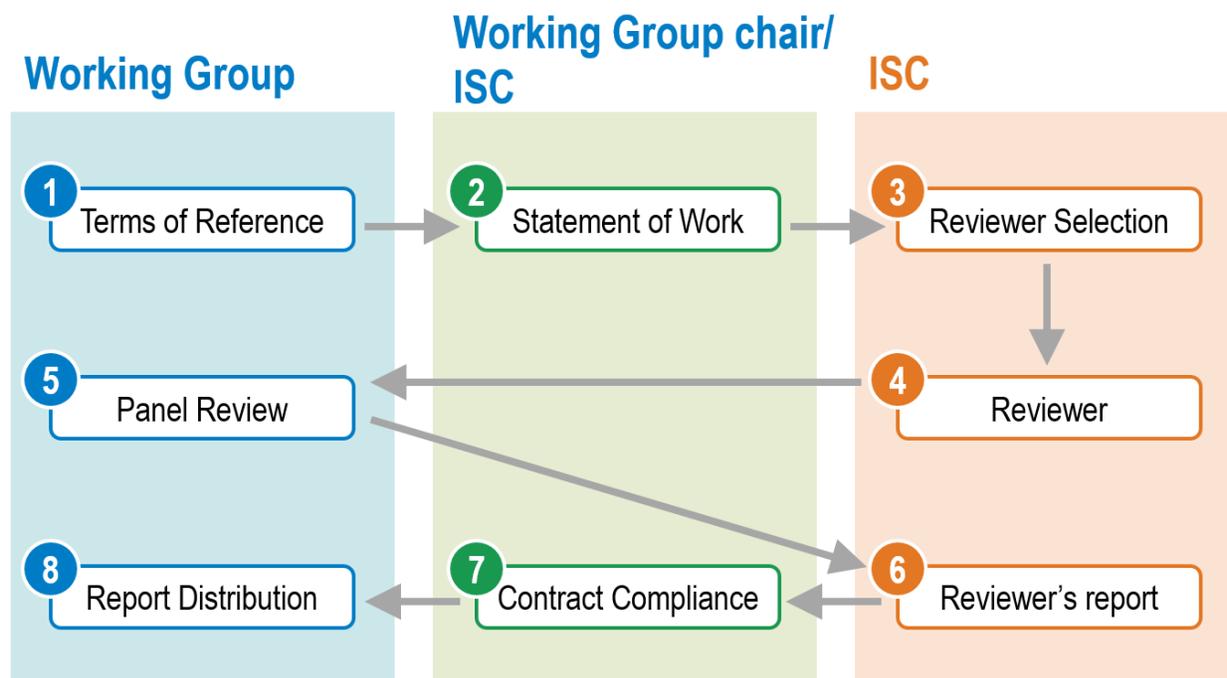
Pro: This scenario provides a rigorous review process in advance of the product being presented to the plenary and potentially used for management.

Con: However, for this scenario to become a viable option, the data preparatory and assessment workshops would have to be convened earlier in the year which may mean one less year of data being used in the assessment for some stocks.

**Scenario 2: After the assessment is complete and after the plenary.** The review would be conducted on the most recent stock assessment. The panel would provide recommendations for improving the assessment before the following stock assessment.

Pro: Under this scenario, the stock assessment meetings schedule would likely remain the same.

Con: Under this scenario, the assessment would not have gone under a rigorous review before presented to the plenary and potentially used for management, and the WG will be required to attend an additional meeting.



### Funding options

1. 3 ISC members offer to fund 1 reviewer each. The funding members arrange logistics for the reviewer selected.
2. ?

### Selecting reviewers

Each member who is willing to fund a reviewer will identify at least three qualified reviewers. If there are three member countries willing to fund one reviewer each, then each will provide a list of at least three reviewers. ISC members will vote on the suite of possible reviewer slate options to prioritize whose services will be solicited.

### References

[Ault, J. and H. Matsuda, 2019. Peer Review Report of the Function of the ISC Stock Assessment Review Process. Plenary Document 11.](#)

[Ault, J. H. Matsuda, C.I. Zhang. 2013. Report of Peer Review of Function. Plenary Document 10.](#)