

INTER-AMERICAN TROPICAL TUNA COMMISSION

**1ST EXTERNAL REVIEW OF DATA USED OF STOCK ASSESSMENTS OF
TROPICAL TUNA IN THE EASTERN PACIFIC OCEAN**

La Jolla, California (USA)
02-06 October 2023
(by videoconference)

TERMS OF REFERENCE

1. GOALS AND OBJECTIVES

The purpose of the external review of data used in stock assessments of tropical tuna in the eastern Pacific Ocean (EPO) is to provide information that will improve the inputs into the stock assessments and consequently the assessments and management advice.

To this end, the goals and objectives of this review are to:

- a. identify the best available science for use of data in the EPO tropical tuna stock assessment and associated analyses (e.g. what data to use, how to analyze it, standardize it, or raise it from samples to the totals);
- b. provide an independent review of the data used in the stock assessments;
- c. provide advice on future research and data collection that will improve the assessment and the provision of management advice.

2. REVIEW PANEL RESPONSIBILITIES

The main responsibility of the Review Panel is to perform an adequate technical review of the data used in the stock assessments of tropical tuna in the EPO and associated analyses of that data. To ensure the greatest objectivity in this exercise, the members of the Panel should disclose any conflicts of interest they may have, including, but not limited to, personal financial interests and investments, employer affiliations, and consulting arrangements, grants, or contracts, etc.

The specific responsibilities of the Panel are to:

- a. be familiar with the Terms of Reference;
- b. review background documents, data, and analytical methods, along with other pertinent information (e.g., previous documents and Review Panel reports);
- c. discuss the technical merits and deficiencies of the data and analytical methods, work with the IATTC staff and contractors to correct deficiencies, and, when possible, suggest new tools, analyses, and data collection methods to improve future assessments; and
- d. draft a report of the meeting, to document the discussions and recommendations.

It is the Panel Chair's responsibility to coordinate the discussions so that the review is completed in the time available.

3. PUBLIC COMMENT

During the meeting, time will be set aside for public comment. The Panel will take these comments into consideration, as appropriate, when developing its report.

4. REQUESTS FOR ADDITIONAL ANALYSES

Since the purpose of the meeting is to conduct a technical review of the data and associated analyses, it may be beneficial to conduct analyses before or during the meeting. The Panel may also request additional details on the data and methods presented, or further analyses of alternative assumptions. However, any such requests must be clear, explicit, and be presented in writing, and be practical in terms of the time available. Such requests should be listed individually in the Panel's report, along with their rationale and the response. To the extent possible, analyses requested by the Panel should be completed during the meeting by the assessment team.

5. PANEL REPORT

The Panel's report should be drafted and approved shortly after the meeting. The report writing process will follow these steps:

- a. Panel outlines report at the meeting;
- b. Panel writes and agrees on the draft report;
- c. Panel provides draft report to IATTC staff for comment on technical accuracy; and
- d. Panel reviews staff comments, and modifies report as necessary.

The report will include:

- a. names and affiliations of Panel members;
- b. brief overview of the meeting (location, agenda, main recommendations by Panel, *etc.*);
- c. brief summary of current data used in the assessment and associated analyses;
- d. list of analyses requested by the Panel, rationale for each request, and brief summary of the responses;
- e. comments on technical merits and/or deficiencies in the data used in the assessments and associated analyses, and recommendations for remedies;
- f. unresolved problems and major uncertainties, *e.g.*, any special issues that complicate the use of the data or the analyses conducted;
- g. data, fishery or analysis related issues raised by the public; and
- h. prioritized recommendations for research and data collection for the subsequent assessments.

The Panel and the IATTC staff will strive to resolve any differences of opinion that may arise regarding the contents of the report. Any unresolved differences of opinion must be documented and reflected in the report, which will be published as an IATTC Special Report.

Appendix: Topics covered

Data collection programs:

- Purse-seine data

- Longline data

- Tagging data

Stock structure & fisheries definitions

- Conceptual model

Catch

Discards

Indices of abundance:

- Indices based on CPUE standardization

- Echosounder buoy index

- Tagging data index

Composition data

- Purse-seine: Length composition from port sampling

- Purse-seine: Size categories (small, medium, large) from observer data

- Longline: length and weight composition data

- Standardized average body weight for longline

- Computation of fisheries and index composition data using spatiotemporal models

How to treat the pandemic years

Biology

- Length – Weight relationships

- Reproductive biology (Maturity, fecundity, etc.)

- Weight – weight conversion factors

Effects of data decisions (Model runs with effect of data uncertainty)