INTER-AMERICAN TROPICAL TUNA COMMISSION

98TH MEETING

(by videoconference)

23 – 27 August 2021

DOCUMENT IATTC-98 INF-E

STAFF'S ADJUSTMENTS TO STOCK ASSESSMENT SCHEDULE CONSIDERING CPC PROPOSALS FOR CONSERVATION OF THE TROPICAL TUNA IN 2022-2024

SUMMARY

There are two main types of management proposals under consideration for the 98th IATTC meeting: 1) Individual Vessel Limits (IVLs) on BET catch and 2) limits on number of purse-seine sets on floating objects (Set Limits). If adopted, both will determine different stock assessment needs for providing scientific advice for management. This document describes alternative adjustments to the stock assessment work schedule originally recommended by the staff. The alternatives are discussed in regard to the science needs for the different proposals made by CPCs (IVLs or Set Limits).

CORRECTING BIAS IN THE CATCH ESTIMATES BY SPECIES FOR 2020 AND 2021

- The COVID-19 pandemic greatly impacted the staff's port sampling operations, which has likely biased the best scientific estimates (BSE) of catch (C_{BSE}) for the tropical tuna.
- C_{BSE} is needed for conducting the stock assessments. Correcting for the effect of COVID on catch estimates falls within the methods proposed in the comprehensive plan to improve the current BSE approach (see Document IATTC-98 INF-D).
- The staff plans to have corrections for C_{BSE} available in time for any stock assessments to be presented at the 2023 SAC (see below).

INDIVIDUAL VESSEL LIMIT (IVL) SCHEME ON BIGEYE CATCHES

Bigeye ASSESSMENTS

- Evaluation of the effectiveness of the BET IVL scheme in terms of maintaining the fishing mortality at or below the 2017-2019 *status quo* requires an estimate of fishing mortality for each year within the 2022-2024 period. These estimates could be derived using the BET stock assessment model and after fishing years have been completed.
- 2023 BET update[1] assessment (new addition to assessment schedule): To evaluate the effectiveness of the IVL scheme implemented in 2022 in not exceeding the *status quo*, the staff proposes to conduct a BET update assessment to be presented at the 2023 SAC.
- 2024 BET benchmark[2] assessment (as previously planned): The already planned 2024 BET benchmark assessment will be used to: 1) evaluate the efficiency of the IVL scheme implemented in 2022 and 2023 in maintaining fishing mortality below the *status quo* conditions; and 2) conduct an evaluation of the BET stock status and risk analysis with respect to the reference points defined in the IATTC harvest control rule to provide advice on management for the next management cycle beginning in 2025.

[1] Update assessment: New or updated data are analyzed using the most recent benchmark stock assessment.

[2] Benchmark assessment: All the major assumptions are reviewed and improved in the stock assessment.

Skipjack assessments (also see Document IATTC-98 INF-F)

- The implementation of an IVL scheme for only bigeye will break the relationship between the status of bigeye and skipjack and the staff will no longer be able to use the PSA rationale (Document IATTC-97-02) as an interim means to evaluate the stock status for skipjack. Therefore, an alternative form of interim assessment will be needed for skipjack while the staff completes the IATTC's Regional Tuna Tagging Program in 2022 (Project E.4.a), analyzes the tagging data in 2022 and 2023, and delivers a benchmark assessment for skipjack in 2023.
- 2022 SKJ interim[3] assessment (new addition to assessment schedule): To address external concerns on the status of skipjack in the EPO, the staff proposes conducting a skipjack interim assessment for the 2022 SAC.
- 2023 benchmark tagging assessment (changed from 2024 to 2023 in the assessment schedule).

SET LIMITS

Bigeye assessments

- Evaluation of the effectiveness of any floating-object set limit measure in terms of the 2017-2019 *status quo* in fishing mortality requires an estimate of fishing mortality for 2022-2024.
- No update assessments are needed: A relationship has been established between fishing mortality and the number of sets. Therefore, the number of sets can be monitored to determine if $F_{status\ quo}$ has been exceeded and no update assessments are needed for this purpose. This will allow the staff to remain focused on the original work plan to improve the stock assessments and risk analysis for the tropical tuna.
- 2024 BET benchmark assessment (as previously planned): A benchmark assessment will be conducted in 2024 as originally planned.

Skipjack assessmentS

- If set limits apply to floating-object sets only, then the PSA rationale will be broken and an alternative form to evaluate the stock status of skipjack will be needed. The same skipjack assessment schedule described above for an IVL bigeye scheme will apply (see Document IATTC-98 INF-F).

[3] Interim assessment: A form of stock status evaluation that is applied while a conventional stock assessment is not available.