

OUTCOMES OF THE 25th SESSION OF THE SCIENTIFIC COMMITTEE

PREPARED BY: IOTC SECRETARIAT, JUNE 2023

PURPOSE

To inform participants at the 13th Working Party on Neritic Tunas (WPNT13) of the recommendations arising from the 25th Session of the IOTC Scientific Committee (SC) held from 5 – 9 December 2022, specifically relating to the work of the WPNT.

BACKGROUND

At the 25th Session of the SC, the SC noted and considered the recommendations made by the WPNT in 2022 that included: requests for CPCs to improve data collection and reporting; a note on the plan to hold a CPUE workshop prior to the next WPNT meeting to develop CPUEs for stock assessment inputs; a recommendation for the Commission to take measures to reduce catches of longtail tuna and narrow-barred Spanish mackerel to MSY levels (due to these stocks having been assessed as overfished and subject to overfishing); and recommendations for developing mechanisms to improve scientific advice and for funds made available to capacity building activities, or data compliance and support missions. These requests were made in order to be able to properly assess the stock status of these species.

IOTC code	English name	Scientific name
LOT	Longtail tuna	<i>Thunnus tonggol</i>
FRI	Frigate tuna	<i>Auxis thazard</i>
BLT	Bullet tuna	<i>Auxis rochei</i>
KAW	Kawakawa	<i>Euthynnus affinis</i>
COM	Narrow-barred Spanish mackerel	<i>Scomberomorus commerson</i>
GUT	Indo-Pacific king mackerel	<i>Scomberomorus guttatus</i>

Based on the recommendations arising from the WPNT12, the SC25 adopted a set of recommendations, provided in [Appendix A](#) of this paper.

The recommendations contained in [Appendix A](#) were provided to the Commission for consideration at its 27th Session which was held in May 2023.

In addition, the SC25 reviewed and endorsed a Program of Work (2023–27) for the WPNT, including a revised stock assessment schedule, as detailed in [Appendix B](#) and [Appendix C](#). A separate paper (IOTC–2023–WPNT13–08) will outline the review and development process for a Program of Work for the WPNT for the next five years.

DISCUSSION

In addition to the recommendations outlined in [Appendix A](#), [Appendix B](#) and [Appendix C](#), the SC made several other comments relevant to the WPNT, which participants are asked to consider:

Report of the 12th Session of the Working Party on Neritic Tunas (WPNT12)

(para 37) The SC **NOTED** the report of the 12th Session of the Working Party on Neritic Tunas ([IOTC–2022–WPNT12–R](#)), including the consolidated list of recommendations provided as an appendix to the report. The meeting was attended by 36 participants (cf. 33 in 2021). No MPF funding was provided as the meeting was held online.

(para 38) The SC **NOTED** that for the neritic tuna species, an understanding of stock structure is of great importance as these species are coastal in nature and mixing between different regions across the Indian Ocean may be low. This is important when providing the scientific advice on stock status, as these species are assumed to have one stock for

modelling purposes. The genetic stock structure project completed in 2020 indicated that there may be multiple stocks for some neritic tuna species (notably longtail tuna and Spanish mackerel) and this should be taken into account in future stock status estimations. The SC **NOTED** that the WPNT has prioritised stock structure studies in the future to build on the recently completed study.

(para 39) The SC **NOTED** the lack of data available for this species and the effect this has on providing stock status advice. The SC **NOTED** that CKMR techniques may be a useful way of supplementing the current information and providing a clearer picture of current stock status for these species. Further discussions would be needed to determine the feasibility of this approach in this circumstance.

(para 40) The SC **NOTED** that assessment models for these species have relied on data poor methods including catch only models. The SC **ACKNOWLEDGED** the limitations of these techniques and **NOTED** the intention of the WPNT to hold a CPUE workshop prior to the next WPNT meeting to develop CPUEs for stock assessment input to improve the assessment models.

(para 41) The SC **NOTED** with concern the stock status of Longtail tuna and Narrow-barred Spanish Mackerel. The SC further **NOTED** that the stock statuses for these species have been in the red for at least the past 5 years with a high probability and are showing no sign of recovery. As such, the SC **RECOMMENDED** that the Commission take measures to reduce the catches (to at least MSY levels) of these species and develop management measures that will facilitate the recovery of these stocks.

(para 42) One of the Participants suggested the removal of the neritic tunas from the management regime of the Commission, reasoning that many of these species, especially mackerels, reside exclusively in the EEZs of the coastal states. However, there was no consensus on this suggestion.

Executive summaries for neritic tuna species

The SC also adopted revised Executive Summaries for each of the neritic tuna species that can be found as appendices to the SC25 report, and which can be downloaded from the IOTC website in English and French:

English: <http://iotc.org/science/scientific-committee>

French: <https://iotc.org/fr/science/comité-scientifique>

RECOMMENDATION/S

That the WPNT:

- 1) **NOTE** paper IOTC–2023–WPNT13–03 which outlined the main outcomes of the 25th Session of the Scientific Committee (SC25), specifically related to the work of the WPNT.
- 2) **CONSIDER** how best to progress these issues at the present meeting.

APPENDICES

Appendix A: Consolidated set of recommendations of the 25th Session of the Scientific Committee to the Commission, relevant to the Working Party on Neritic Tunas.

Appendix B: Schedule of stock assessments for the WPNT (2023–27).

APPENDIX A

CONSOLIDATED SET OF RECOMMENDATIONS OF THE 25th SESSION OF THE SCIENTIFIC COMMITTEE (5-9 December 2022) TO THE COMMISSION RELEVANT TO THE WORKING PARTY ON NERITIC TUNAS

Extract of the Report of the 25th Session of the Scientific Committee

(IOTC–2022–SC25–R[E]; Appendix 38, Page 261)

STATUS OF TUNA AND TUNA-LIKE RESOURCES IN THE INDIAN OCEAN

Tuna and seerfish – Neritic species

SC25.03 (para. 161) The SC **RECOMMENDED** that the Commission note the management advice developed for each neritic tuna (and mackerel) species under the IOTC mandate, as provided in the Executive Summary for each species, and the combined Kobe plot for the three species assigned a stock status in 2022 (Fig. 2):

- Bullet tuna (*Auxis rochei*) – [Appendix 17](#)
- Frigate tuna (*Auxis thazard*) – [Appendix 18](#)
- Kawakawa (*Euthynnus affinis*) – [Appendix 19](#)
- Longtail tuna (*Thunnus tonggol*) – [Appendix 20](#)
- Indo-Pacific king mackerel (*Scomberomorus guttatus*) – [Appendix 21](#)
- Narrow-barred Spanish mackerel (*Scomberomorus commerson*) – [Appendix 22](#)

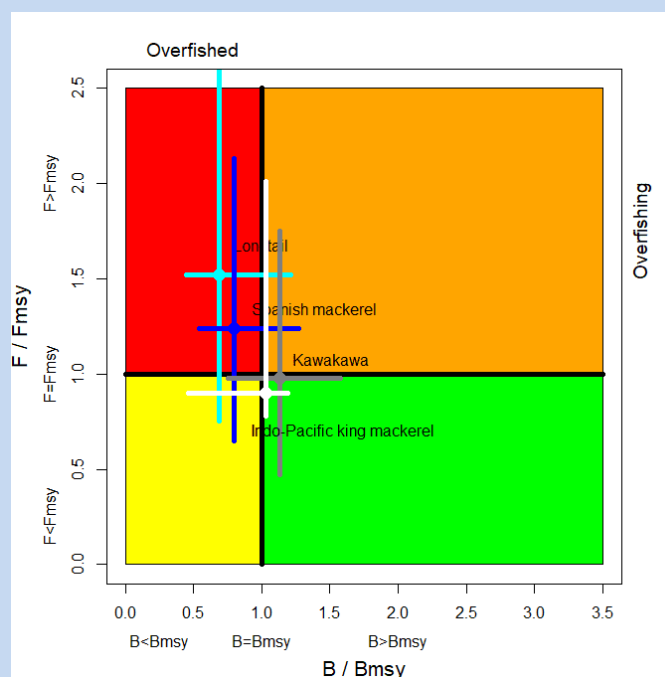


Fig. 2. Combined Kobe plot for longtail tuna (cyan), narrow-barred Spanish mackerel (blue), kawakawa (grey) (all for 2018 with assessment carried out in 2020, white) and Indo-Pacific king mackerel (2019 with assessment carried out in 2021 (white)), showing the estimates of stock size (B) and current fishing mortality (F) in relation to optimal biomass and optimal fishing mortality. Cross bars illustrate the range of uncertainty from the model runs. Given unresolved uncertainty in the assessment, status for bullet tuna, frigate tuna and Narrow-barred Spanish mackerel should be interpreted with caution.

REPORT OF THE 12TH SESSION OF THE WORKING PARTY ON NERITIC TUNAS (WPNT12)

SC25.09 (para. 41) The SC **NOTED** with concern the stock status of Longtail tuna and Narrow-barred Spanish Mackerel. The SC further **NOTED** that the stock statuses for these species have been in the red for at least the past 5 years with a high probability and are showing no sign of recovery. As such, the SC **RECOMMENDED** that the Commission take measures to reduce the catches (to at least MSY levels) of these species and develop management measures that will facilitate the recovery of these stocks.

GENERAL RECOMMENDATIONS TO THE COMMISSION, TO SPECIFIC CPCs AND/OR OTHER BODIES

SUMMARY DISCUSSION OF MATTERS COMMON TO WORKING PARTIES (CAPACITY BUILDING ACTIVITIES – STOCK ASSESSMENT COURSE; CONNECTING SCIENCE AND MANAGEMENT, ETC.)

National Reports from CPCs

SC25.08 (para. 30) The SC **RECOMMENDED** that the Compliance Committee and Commission note the lack of compliance by 5 Contracting Parties (Members) that did not submit a National Report to the Scientific Committee in 2022, **NOTING** that the Commission agreed that the submission of the annual reports to the Scientific Committee is mandatory.

Invited Expert(s) at the WP meetings

SC25.29 (para. 151) Given the importance of external independent review for working party meetings, the SC **RECOMMENDED** the Commission continue to allocate sufficient budget for invited scientific experts to be regularly invited to scientific working party meetings.

Meeting participation fund

SC25.30 (para. 153) The SC reiterated its **RECOMMENDATION** that the IOTC Rules of Procedure (2014), for the administration of the Meeting Participation Fund, be modified so that applications are due not later than 60 days, and that the full Draft paper be submitted no later than 45 days before the start of the relevant meeting. The aim is to allow the Selection Panel to review the full paper rather than just the abstract, and provide guidance on areas for improvement, as well as the suitability of the application to receive funding using the IOTC MPF. The earlier submission dates would also assist with visa application procedures for candidates.

IOTC species identification guides: Tuna and tuna-like species

SC25.31 (para. 154) The SC reiterated its **RECOMMENDATION** that the Commission allocates budget towards continuing the translation and printing of the IOTC species ID guides so that hard copies of the identification cards can continue to be printed as many CPC scientific observers, both on board and at port, need to have hard copies.

Chairpersons and Vice-Chairpersons of the SC and its subsidiary bodies

SC25.32 (para. 156) **ACKNOWLEDGING** the need to have officers with sufficient experience and capability to serve as Chairs and Vice-chairs of the SC Working Parties and Working Groups, the SC **RECOMMENDED** that the Commission revise the current Rules of Procedure (if necessary) to allow Chairs to serve an additional year or years beyond two terms if no suitable candidates are available to replace them once their terms are completed

SC25.33 (para. 157) The SC **RECOMMENDED** that the Commission note and endorse the Chairpersons and Vice-Chairpersons for the SC and its subsidiary bodies for the coming years, as provided in [Appendix 7](#).

IMPLEMENTATION OF THE REGIONAL OBSERVER SCHEME

SC25.34 (para. 172) The SC **RECOMMENDED** that the Commission **ENDORSE** the mandatory reporting of geo-referenced effort data as number of sets/operations for longline and surface fisheries (according to the definitions in Res 15/02) to complement the current requirements of Res. 15/02, in order for the Secretariat to accurately and independently calculate the ROS coverage in agreement with the provisions of Res. 22/04.

PROGRAM OF WORK AND SCHEDULE OF WORKING PARTY AND SCIENTIFIC COMMITTEE MEETINGS

Consultants

SC25.35 (para. 186) Noting the highly beneficial and relevant work done by IOTC stock assessment consultants in previous years, the SC **RECOMMENDED** that the engagement of consultants be continued for each

coming year based on the Program of Work. Consultants will be hired to supplement the skill set available within the IOTC Secretariat and CPCs.

Data preparatory meetings and Hybrid meetings

- SC25.36 (para. 188) **ACKNOWLEDGING** that holding data preparatory meetings prior to stock assessments is considered to be best practice and noting that since 2019 data preparatory meetings were successfully held for the WPTmT, WPTT and WPEB, the SC **AGREED** to continue the practice of having data preparatory meetings prior to stock assessment meetings for the major IOTC species. The SC **RECOMMENDED** that data preparatory meetings continue to be held virtually so as not to increase the travel and costs required for the already full IOTC timetable of meetings.
- SC25.37 (para. 189) The SC **NOTED** the utility of facilitating both in-person and virtual participation at future meetings to ensure increased participation and reduce the logistical costs for many CPCs. As such, the SC **RECOMMENDED** that future working party and Scientific Committee meetings are held in a hybrid format.

APPENDIX B**ASSESSMENT SCHEDULE FOR IOTC SPECIES AND SPECIES OF INTEREST FROM 2023–2027***Extract of the Report of the 25th Session of the Scientific Committee**(IOTC–2022–SC25–R; Appendix 36, Page 257)*

The SC **ADOPTED** a revised assessment schedule, ecological risk assessment and other core projects for 2023–27, for the tuna and tuna-like species under the IOTC mandate, as well as the current list of key shark species of interest, as outlined in Appendix 36 (IOTC–2022–SC25–R, Para. 185).

<i>Working Party on Neritic Tunas</i>					
Species	2023*	2024*	2025**	2026*	2027*
Bullet tuna	Data preparation	Assessment	Data preparation	Data preparation	Assessment
Frigate tuna	Data preparation	Assessment	Data preparation	Data preparation	Assessment
Indo-Pacific king mackerel	Data preparation	Assessment	Data preparation	Data preparation	Assessment
Kawakawa	Assessment	Data preparation	Data preparation	Assessment	Data preparation
Longtail tuna	Assessment	Data preparation	Data preparation	Assessment	Data preparation
Narrow-barred Spanish mackerel	Assessment	Data preparation	Data preparation	Assessment	Data preparation

* Including data-limited stock assessment methods;

** Including species-specific catches, CPUE, biological information and size distribution as well as identification of data gaps and discussion of improvements to the assessments (stock structure);

Note: the assessment schedule may be changed dependent on the annual review of fishery indicators, or SC and Commission requests