

OUTCOMES OF THE 22nd SESSION OF THE SCIENTIFIC COMMITTEE

PREPARED BY: IOTC SECRETARIAT, 18 JUNE 2020

PURPOSE

To inform participants at the 10th Working Party on Neritic Tunas (WPNT10) of the recommendations arising from the 22nd Session of the IOTC Scientific Committee (SC) held from 2 – 6 December 2019, specifically relating to the work of the WPNT.

BACKGROUND

At the 22nd Session of the SC, the SC noted and considered the recommendations made by the WPNT in 2019 that included requests for CPCs to improve data collection and reporting, recommendation for developing mechanisms to improve scientific advice and for funds made available to capacity building activities, or data compliance and support missions.

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 WPNT09, the SC22 adopted a set of recommendations, provided in [Appendix A](#) of this paper.

The recommendations contained in [Appendix A](#) will be provided to the Commission for consideration at its 23rd Session to be held in November 2020.

In addition, the SC22 reviewed and endorsed a Program of Work (2020–24) for the WPNT, including a revised stock assessment schedule, as detailed in [Appendix B](#) and [Appendix C](#). A separate paper (IOTC–2020–WPNT10–08) 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 9th Session of the Working Party on Neritic Tunas (WPNT09)

The SC **NOTED** the report of the 9th Session of the Working Party on Neritic Tunas (IOTC–2019–WPNT09–R), including the consolidated list of recommendations provided as an appendix to the report. The meeting was attended by 18 participants (cf. 18 in 2018), including 6 recipients of the MPF (cf. 6 in 2018).

Data quality issues

The SC **NOTED** that the catches of most neritic species in the Indian Ocean have reached their highest reported levels, and neritic tunas currently account for around 40% of the total catches of IOTC species.

The SC **NOTED** that there are considerable uncertainties with the IOTC catch estimates of neritic species due to ongoing issues related to data collection and reporting; notwithstanding this, the nominal catches in the IOTC database are considered the best scientific estimates for stock assessment purposes. The SC further **NOTED** that compliance with data reporting obligations remains low for neritic tuna species, and **REQUESTED** CPCs do their best to collect data and comply with data reporting requirements adopted by the IOTC.

Assessment and status of neritic tunas

The SC **NOTED** the workshop for training national scientists on applications using the catch-only methods, which includes hands-on exercises on the use of the R Software. The SC **AGREED** that these capacity building workshops are very useful to assist national scientists improve their understanding of data-limited methodologies and encouraged CPCs to assess the data-poor stocks using suitable techniques.

The SC **NOTED** that work was conducted to revise the optimized catch only method (OCOM) and a undertake a preliminary exploration to apply the revised method to a suite of neritic tuna species. The SC **NOTED** that management advice for several neritic tuna species is currently based on assessments using the OCOM method. The SC **ACKNOWLEDGED** the importance of the work conducted to improve the OCOM method.

The SC **NOTED** the availability of CPUE standardizations of four neritic tuna species from Iranian drifting gillnet fleet. These are a first attempt to estimate a relative abundance index from Iranian gillnet fishery for potential consideration in the assessments of neritic tuna stocks.

The SC **NOTED** that longtail tuna and Spanish mackerel are the only species that are currently assessed to be in the red quadrant of the Kobe plot. The SC **NOTED** the 2017 assessment for longtail tuna and Spanish mackerel was conducted at the ocean-basin level combining all the catch data across all the CPCs (the same for other neritic tuna species). The SC **NOTED** the stock structure of Indian Ocean neritic tuna species remain unknown and it is possible that some coastal waters may support sub populations which experience different fishing pressure and population trends. The SC **AGREED** that a better knowledge of the stock structure will help determine the appropriate spatial units for assessing and managing these important coastal species.

Program and schedule of work

The SC **NOTED** the program of work has given high priorities to data mining, CPUE standardisation and stock assessment. The SC **AGREED** that stock assessments be conducted on a three years cycle and stock indicators be developed and used for monitoring the stocks in non-assessment years.

Working party attendance and the MPF

The SC **NOTED** that in response to the recommendation of the SC, the capacity building workshop on the ‘optimized catch-only method’ was conducted back-to-back with the working party meeting to encourage CPCs to send their most appropriate scientists to the meeting and the workshop.

Stock status guide and other business

The SC **NOTED** the current research priority for neritic tunas is for CPUE standardisations and improvement of the stock assessment methods. The SC **SUGGESTED** that MSE framework can also be developed in the future to provide management advice for neritic tuna.

The SC **NOTED** that some CPCs are well advanced in the assessment and management of neritic tuna species in their coastal waters. The SC **ENCOURAGED** these CPCs to share their experience at the relevant IOTC working parties. The SC **AGREED** that improved knowledge and understanding of the stock structure of neritic species will enable the development of more appropriate assessment and management methods for these species.

(Extracts from SC22 Report, paras. 32 – 40 and 94 - 95).

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 SC22 report, and which can be downloaded from the IOTC website in English and French:

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

French: <http://iotc.org/fr/science/comit%C3%A9-scientifique>

These Executive Summaries are also available via the IOTC **Stock Status dashboard**:

www.iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc

RECOMMENDATION/S

That the WPNT:

- 1) **NOTE** paper IOTC–2020–WPNT10–03 which outlined the main outcomes of the 22nd Session of the Scientific Committee (SC22), 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 22nd 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 (2020–24).

APPENDIX A

CONSOLIDATED SET OF RECOMMENDATIONS OF THE 22nd SESSION OF THE SCIENTIFIC COMMITTEE (2–6 December 2019) TO THE COMMISSION RELEVANT TO THE WORKING PARTY ON NERITIC TUNAS

Extract of the Report of the 22nd Session of the Scientific Committee

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

Tuna and seerfish – Neritic species

SC22.03 (para. 119) 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 2019 (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](#)

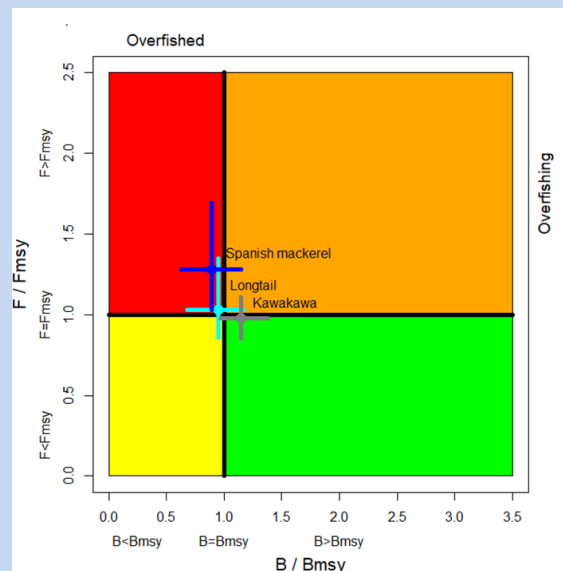


Fig. 2. Combined Kobe plot for longtail tuna, narrow-barred Spanish mackerel and kawakawa, showing the estimates of stock size (B) and current fishing mortality (F) in 2015 in relation to optimal spawning stock size and optimal fishing mortality. Cross bars illustrate the range of uncertainty from the model runs.

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.)

Invited Expert(s) at the WP meetings

SC22.18 (para. 104) Given the importance of external independent review for working party meetings, the SC **RECOMMENDED** the Commission continues to allocate sufficient budget for invited scientific experts to be regularly invited to scientific working party meetings.

Meeting participation fund

SC22.19 (para. 105) 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

- SC22.20 (para. 106) 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 CPCs scientific observers, both on board and port, still do not have smart phone technology/hardware access and need to have hard copies on board.

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

- SC22.21 (para. 107) 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

- SC22.22 (para. 127) The SC **ACKNOWLEDGED** that estimation of ROS coverage for the purse seine fleets is adversely impacted by the lack of uniformity in reporting effort data to the IOTC Secretariat, and **AGREED** that this information, which is particularly useful to assess the performance of Resolution 11/04, should be further standardized. As such, the SC **RECOMMENDED** that all purse seine fleets reporting effort as fishing hours or fishing days begin to submit this information as ‘number of sets’ instead, in particular when fulfilling the reporting requirements of Resolution 15/02.

PROGRESS ON THE IMPLEMENTATION OF THE RECOMMENDATIONS OF THE PERFORMANCE REVIEW PANEL

- SC22.23 (para. 133) The SC **RECOMMENDED** that the Commission note the updates on progress regarding Resolution 16/03, as provided at [Appendix 33](#).

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

Consultants

- SC22.24 (para. 150) 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.

APPENDIX B

ASSESSMENT SCHEDULE FOR IOTC SPECIES AND SPECIES OF INTEREST FROM 2020–2024

Extract of the Report of the 22nd Session of the Scientific Committee

(IOTC–2019–SC22–R; Appendix 36, PAGE 196)

The SC **ADOPTED** a revised assessment schedule, ecological risk assessment and other core projects for 2020–24, 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–2019–SC22–R, Para. 148).

<i>Working Party on Neritic Tunas</i>					
Species	2020*	2021**	2022***	2023*	2024
Bullet tuna	Assessment	Data preparation	Data preparation	Assessment	Data preparation
Frigate tuna	Assessment	Data preparation	Data preparation	Assessment	Data preparation
Indo-Pacific king mackerel	Assessment	Data preparation	Data preparation	Assessment	Data preparation
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;

*** 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