
OUTCOMES OF THE 24TH SESSION OF THE SCIENTIFIC COMMITTEE

PREPARED BY: IOTC SECRETARIAT, LAST UPDATED: 8TH NOVEMBER 2022

Purpose

To inform participants at the 18th Working Party on Data Collection and Statistics (WPDCS18) of the recommendations arising from the 24th Session of the Scientific Committee (SC24) that was held online from 6 - 10 December 2021, and specifically relating to the work of the WPDCS.

Background

At the 24th Session of the SC held by videoconference, the SC noted and considered the recommendations made by the WPDCS in 2021.

Based on the recommendations arising from the WPDCS17, the SC24 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 26th Session held in Seychelles in May 2022. A separate paper, IOTC-2022-WPDCS18-04 addresses the responses and actions of the Commission.

In addition, the SC24 reviewed and endorsed a Program of Work for the WPDCS. A separate paper (IOTC-2022-WPDCS18-09) will outline the review and further development of a *Program of Work* for the WPDCS for the next five years.

Discussion

In addition to the recommendations outlined in [Appendix A](#), the following extracts from the SC24 Report (IOTC-2021-SC24-R) are provided here for the consideration and action of the WPDCS18:

Report of the Secretariat – Activities in support of the IOTC science process in 2021

(Para. 12) The SC NOTED although all meetings had been successful held virtually in 2021, they were shortened to facilitate the virtual platform. The SC AGREED that in the future virtual meetings may still be conducted for certain meetings (such as Data preparatory meetings) in order to reduce the expenses travel imposes on CPCs as well as the IOTC MPF, but for those meetings requiring closer collaborations in person, physical meetings will be continued as required.

(Para. 15) The SC NOTED paper IOTC-2021-SC24-INF11 which provided an overview of the development of a sampling scheme to support the collection of biological samples and their analysis to provide improved estimates of age, growth and reproduction of tropical tunas, swordfish and blue sharks for the IOTC.

(Para. 16) The SC SUPPORTED a key recommendation from the study that proposed the development of a database and tissue bank for the biological information and samples collected during the study, to be added to and increased as additional studies are conducted in the future. The SC further REQUESTED that the project collaborators with assistance from the Secretariat and other interested CPC scientists and institutions provide a cost estimation for this activity so that the Commission could consider its viability

National Reporting to the Scientific Committee: overview

- (Para. 20) The SC RECALLED that the submission of a National Report is mandatory, irrespective of whether a CPC intends on attending the annual meeting of the SC or not and shall be submitted no later than 15 days prior to the SC meeting. In 2021, of the 21 National Reports submitted, 2 were submitted after the deadline. The SC NOTED that the National Report does not replace the need for submission of data according to the IOTC Mandatory Data Requirements listed in the relevant IOTC Resolution (currently Resolution 15/02 *On mandatory statistical reporting requirements for IOTC Contracting Parties and Cooperating Non-Contracting Parties (CPCs)*).
- (Para. 21) The SC NOTED the importance of consistency and standardisation in the format of reporting on fisheries in National Reports and REQUESTED that CPCs follow the reporting template agreed by the Commission. The SC NOTED that in 2021, no National Report was submitted using older reporting templates that do not include the latest requirements stipulated by the active CMMs. The Secretariat informed the SC that the latest template will continue to be published on the IOTC webpage (<https://iotc.org/science>), the SC meeting page as requested by the SC in 2020.
- (Para. 22) In addition, the SC NOTED that the availability for download of the revised National Report templates from the IOTC Website was announced through IOTC Circular 2021/41 sent on the 27th of July 2021 as well as through the IOTC Science mailing list.
- (Para. 25) The SC AGREED that if required, interested CPCs should seek assistance from the IOTC Secretariat in the development of National Reports. Requests should be made as early as possible so that the IOTC Secretariat may be able to better coordinate the resources available.

National Reporting to the Scientific Committee: Contracting Parties (Members)

- (Para. 30) NOTING the 21 National Reports submitted to the IOTC Secretariat in 2021 (and 1 in 2022) by Contracting Parties (Members), the SC expressed concern about the difference between the catches submitted in some National Reports and total catches, by fleet, in the IOTC database. The IOTC Secretariat uses the information from the National Report to update estimates of nominal catches, in the case of revisions to the data or when CPCs have not submitted any catch data; however, the time available between submission of the National Reports and the Scientific Committee makes it difficult to update the IOTC nominal database prior to the annual Session. The quality of the National Reports is highly variable and interested CPCs should contact the IOTC Secretariat prior to the report deadline to ensure their reports are compliant with the guidelines. An explanation of the technical differences between the IOTC nominal database and the scientific best estimates data base is provided in document IOTC-2021-WPTT23-03_Rev1.
- (Para. 31) The SC NOTED that scientific and statistical information such as discard levels, observer coverage, fleet statistics etc., which are of particular relevance for several IOTC Resolutions (e.g. 15/02, 16/04, 17/05 etc.), is often only reported by CPCs in their national reports but not made available to the IOTC Secretariat in due time in accordance with the reporting requirements prescribed in the resolutions. For this reason, the SC REQUESTED all CPCs to ensure that the information presented in the respective national reports and the official submissions available to the IOTC are in agreement.

Report of the 11th Session of the Working Party on Neritic Tunas (WPNT11)

- (Para. 35) The SC NOTED that the main outcomes from the 11th Session of the Working Party on Neritic Tunas highlight the level of non-reporting or partial reporting of nominal catch, catch-and-effort and size data for many fisheries, and consequently the lack of reliable data to conduct the assessments of neritic species.
- (Para. 36) The SC RECALLED the need for all concerned CPCs to ensure that the catch, effort and size data for these fisheries are systematically reported to the Secretariat in accordance with Resolution 15/02.

Report of the 19th Session of the Working Party on Billfish (WPB19)

- (Para. 42) RECALLING that one of the Indian Ocean billfish species (shortbill spearfish, *Tetrapturus angustirostris*) is currently not listed among the species managed by IOTC and considering the ocean-wide distribution of this

species, its highly migratory nature, and that it is a common bycatch in IOTC managed fisheries, the SC reiterated its previous RECOMMENDATION that shortbill spearfish be included as an IOTC species.

(Para. 44) The SC ACKNOWLEDGED the potential interest of considering size limits (e.g., approximated by size at maturity) as a complementary management measure for billfish species but NOTED that this was not discussed at the WPB. As such, the SC REQUESTED the WPB to review the available information on size at its next session to be held in 2022, further NOTING that information on post-release mortality would be required for assessing the efficacy of such measures.

(Para. 57) The SC further NOTED the major uncertainties associated with the catches of gillnet fisheries, which catch in particular black marlin, striped marlin and Indo-Pacific sailfish, and RECALLED the need for all concerned CPCs to ensure that the catch, effort and size data for these fisheries are systematically reported to the Secretariat in accordance with Resolution 15/02.

Report of the 17th Session of the Working Party on Ecosystems and Bycatch (WPEB17)

(Para. 64) The SC NOTED that in 2021, a stock assessment was completed for blue sharks using an integrated age-structured model (SS3). The SC NOTED that uncertainty in data inputs and model configuration were explored through sensitivity analysis (...)

(Para. 68) The SC NOTED that there was a continual increase in catches derived from the miscellaneous states in coastal waters, however the majority of CPUE indices are derived from distant water fleets fishing the open ocean – the exception being South Africa and EU, France (La Réunion).

(Para. 69) The SC NOTED that the current biological studies on blue shark are encouraging, however there are still gaps in important information sources for this species (i.e., fleet-specific size composition data).

Report of the 23rd Session of the Working Party on Tropical Tunas (WPTT23)

(Para. 87) The SC REQUESTED that the Secretariat, with the assistance of the CPCs, provide a preliminary examination of the level and trend in fishing effort of the fishing fleets that captured YFT over the last 10 years. This analysis should look to utilise the best indicator of fishing effort for each fleet, including where actual fishing effort data is not available, proxy information such as the number of fishing vessels, their dimensions in length and tonnage or other information that can help estimate deployed fishing effort.

(Para. 88) The Secretariat is also REQUESTED to identify the possible gaps in the reporting of the required information and to propose solutions to fill the most relevant gaps.

(Para. 108) The SC NOTED the importance of environmental data, particularly in relation to the understanding of the impact of climate change on tropical tuna fisheries. The SC NOTED the suggestion to investigate the potential incorporation of the climate change effect into the CPUE standardisation processes.

(Para. 109) The SC NOTED the WPTT Program of work, with high priorities being given to stock assessment model data review (size and tagging data), development of fleet-specific standardised CPUE indices and fishery-independent indices including acoustic FAD monitoring, and fishery impact analysis.

(Para. 110) Acknowledging that holding data preparatory meetings prior to stock assessments is generally considered to be best practice and in view of the success of the tropical tuna data preparatory meeting in 2021, the SC AGREED to continue to hold data preparatory meetings in addition to stock assessment meetings for the tropical tuna species in 2022.

Report of the 17th Session of the Working Party on Data Collection and Statistics (WPDCS17)

(Para. 129) NOTING that the quality of data available for artisanal fisheries in the Indian Ocean still needs to be improved, and that statistical information (nominal catches, catch-and-effort, size-frequency) is particularly lacking or incomplete for neritic and billfish species, the SC reiterated its REQUEST that the WPDCS continue assisting CPCs in improving the implementation of data collection and sampling activities for small-scale fisheries in particular.

- (Para. 130) The SC CONGRATULATED Indonesia’s progress adopting novel approaches to data collection and analysis at national level, ACKNOWLEDGED that the implementation of initiatives such as the e-logbook and streamlining of procedures for the collection and validation of data are expected to lead to long-term improvements in the quality of Indonesia’s official fisheries statistics and ENDORSED the request that the IOTC Secretariat collaborate with Indonesia to reassess their official data and ensure consistency and coherence in the longer-term catch series for management and stock assessment purposes.
- (Para. 131) The SC RECALLED the importance that documentation on sampling design and raising procedures be provided by CPCs to the Secretariat in agreement with Res. 15/02 and ACKNOWLEDGED that the Secretariat is developing a template for the provision of such information, and that the activity has been included in the WPDCS Program of Work.
- (Para. 132) The SC NOTED that the WPDCS provided two separate tables with estimates of yellowfin tuna catch limits for 2022, one for CPCs bound to Res. 21/01 and one for those bound to Res. 19/01 or preceding Resolutions. The SC NOTED that the 2022 estimates were based on the assumption that yellowfin tuna catch levels for 2021, which are not yet available to the IOTC Secretariat, will be the same values those reported for 2020 (on a CPC and gear basis). The SC NOTED that the catch limits might need updating later in 2022 once information on actual yellowfin tuna catches for 2021 will be submitted by CPCs to the Secretariat.
- (Para. 133) The SC also NOTED that the tables present catch limits by CPC rather than by flag state and RECALLED that this approach was agreed by the S25 to avoid potential inconsistencies with the application of Res. 21/01
- (Para. 134) The SC RECALLED that catch limits estimated for CPCs bound by Res. 21/01 apply to all fisheries and gears, regardless of the nature of the fishing vessels involved, while catch limits estimated for CPCs bound by Res. 19/01 (or preceding) only apply to the fraction of catches for each fishery that are attributed to vessels of LoA > 24m, or less than 24m when fishing outside of their EEZ.
- (Para. 135) In accordance with Para 25 of Res 21/01 which requires the IOTC Secretariat to be advised by the SC on the table of allocated catch limits for yellowfin tuna, the SC ENDORSED the 2022 allocated catch limits and attached them to this report as Appendix 33.
- (Para. 136) NOTING that the WPDCS identified aspects of several data-related resolutions that are either unclear or inconsistent (15/01, 15/02 and 19/02), the SC RECOMMENDED that the Commission consider how to best address these issues at the next revision of each resolution.
- (Para. 137) In particular, the SC NOTED that the following specific clarifications required in the various Resolutions:
- that Silky shark (*Charcharinus falciformis*) be included in the list of “other” species appearing in the gillnet table in Section 2.3 of Annex II of Res. 15/01
 - that the terms “shall be submitted frequently” appearing in para. 4.c of Res. 15/02 be further clarified
 - that para. 5 of Res. 15/02 be amended with the inclusion of “and baitboats” in addition to purse seiners already mentioned in this paragraph
 - that para. 4.c of Res. 15/02 be amended with the inclusion of the request that “Documents describing the extrapolation procedures (including raising factors corresponding to the logbook coverage) shall also be submitted routinely” that already appears in both para. 4.a and 4.b of Res. 15/02
 - that para. 26 of Res. 19/02 be amended to also allow the use of buoy position data for scientific purposes, and to further clarify how to protect business confidentiality aspects as per para. 24 of Res. 19/02
- (Para. 138) The SC NOTED that Japan expressed their interest to participate as reviewer in the peer-review process leading to the finalization of the ROS Observer Training Programme’s outputs, in particular for what concerns the expected updates to the data collection and reporting requirements.

- (Para. 139) ACKNOWLEDGING that the workload of the Secretariat data team has increased markedly in recent years to manage an increasing number of datasets, provide more data outputs, and improve data access, the SC RECOMMENDED that the Commission consider strengthening the capacity of the Secretariat's Data Group with the addition of an extra staff member.
- (Para. 140) The SC ACKNOWLEDGED the long-term relationship between the OFCF and the IOTC to improve the collection, management and reporting of fisheries statistics and RECOMMENDED the Commission consider the continuation of this collaboration through an appropriate arrangement.
- (Para. 141) The SC NOTED that the 1st meeting of the ad hoc Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS) took place from the 15 – 17 November 2021.
- (Para. 142) The SC NOTED the outcomes and recommendations from the WPDCS specifically regarding the WGEMS, ACKNOWLEDGED that the nature and scope of the Working Group include also elements of compliance, and DISCUSSED whether to maintain the Working Group under direct responsibility of the WPDCS.
- (Para. 143) The SC NOTED the outcomes of the 1st ad-hoc IOTC WGEMS and RECOMMENDED the Commission endorse its continuation in the future and for the Commission to discuss if the WGEMS should remain under the WPDCS or report directly to the SC or CoC. The SC ENDORSED the Terms of Reference and Plan of Work for the WGEMS.

Recommendation

That the WPDCS:

- 1) **NOTE** paper IOTC–2022–WPDCS18–03 which outlined the main outcomes of the 24th Session of the Scientific Committee, specifically related to the work of the WPDCS.
- 2) **CONSIDER** how best to progress these issues at the present meeting.

Appendices

[Appendix A:](#) Consolidated set of recommendations of the 24th Session of the Scientific Committee (6 - 10 December 2021) to the Commission, relevant to the Working Party on Data Collection and Statistics.

Appendix A

Consolidated set of recommendations of the 24th session of the Scientific Committee (6 – 10 December 2021) to the Commission and relevant to the Working Party on Data Collection and Statistics

*Extract of the Report of the 24th Session of the Scientific Committee
(IOTC-2021-SC24-R; Appendix 38, Pages 221-226)*

GENERAL RECOMMENDATIONS TO THE COMMISSION

REPORT OF THE 17TH SESSION OF THE WORKING PARTY ON DATA COLLECTION AND STATISTICS (WPDCS17)

SC24.19 (para. 136) **NOTING** that the WPDCS identified aspects of several data-related resolutions that are either unclear or inconsistent (15/01, 15/02 and 19/02) the SC **RECOMMENDED** that the Commission consider how to best address these issues at the next revision of each resolution.

SC24.20 (para. 139) **ACKNOWLEDGING** that the workload of the Secretariat data team has increased markedly in recent years to manage an increasing number of datasets, provide more data outputs, and improve data access. The SC **RECOMMENDED** that the Commission consider strengthening the capacity of the Secretariat's Data Group with the addition of an extra staff member.

SC24.21 (para. 140) The SC **ACKNOWLEDGED** the long-term relationship between the OFCF and the IOTC to improve the collection, management and reporting of fisheries statistics and **RECOMMENDED** the Commission consider the continuation of this collaboration through an appropriate arrangement.

Update on WGEMS01

SC24.22 (para. 143) The SC **NOTED** the outcomes of the 1st ad-hoc IOTC WGEMS and **RECOMMENDED** the Commission endorse its continuation in the future and for the Commission to discuss if the WGEMS should remain under the WPDCS or report directly to the SC or CoC. The SC **ENDORSED** the Terms of Reference and Plan of Work for the WGEMS.

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

SC24.23 (para. 145) 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

SC24.24 (para. 147) 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

SC24.25 (para. 148) 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.

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

Consultants

SC24.27 (para. 181) 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.