OUTCOMES OF THE 28TH SESSION OF THE SCIENTIFIC COMMITTEE

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Purpose

This report aims to inform participants at the 22nd Session of the IOTC Working Party on Data Collection and Statistics (WPDCS22) of the outcomes and recommendations arising from the 28th Session of the Scientific Committee (SC28), held in Shanghai, China, and online from 1 to 5 December 2025, specifically concerning the work of the WPDCS.

The WPDCS is invited to:

1) **NOTE** paper IOTC-2026-WPDCS22-03, outlining the main outcomes of SC28 relevant to the work of the WPDCS.

2) **CONSIDER** how best to address the issues raised by SC28, particularly those concerning data quality assessment, data revisions and version management, ROS reporting and coverage, and the timeliness and completeness of data submissions.

Abstract

This paper summarises the main outcomes and recommendations of the 28th Session of the IOTC Scientific Committee (SC28) relevant to the work of the WPDCS, highlighting issues related to data collection, reporting, quality assessment and management that require further consideration or follow-up.

Background

At its 28th Session, the Scientific Committee (SC) considered the outcomes of WPDCS21, held immediately before SC28. The WPDCS21 report had not yet been finalised at the time of the SC meeting. The SC also reviewed and endorsed the Programme of Work for the WPDCS for 2026–2030 (Appendix 37F of the SC28 report). Relevant recommendations submitted to the Commission are identified in Appendix A of this paper.

Discussion

The following extracts from the SC28 report (IOTC-2025-SC28-R) are provided for consideration by WPDCS22. Paragraph numbers refer to the original SC28 report; passages retain the Committee's reporting terminology.

Report of the 21st Session of the WPDCS - data quality and reporting

(Para. 227) The SC **NOTED** that while there have been rapid advances with emerging AI algorithms, AI methods are not yet sufficiently mature to produce reliable species-specific catch estimates. The SC **AGREED** that an important contribution from the IOTC will be the collection and annotation of images with verified species identifications to support algorithm training, as initiated under the IOTC-OFCF project.

(Para. 228) The SC **NOTED** that quality scores estimated by the Secretariat for tropical tuna data have been very high in recent years, with more than 90% of retained catches fully or partially reported in line with IOTC standards. However, the SC also **NOTED** that some critical issues in the catch data were identified during the 2025 WPTT.

(Para. 229) The SC **RECALLED** that the quality scoring procedure for retained catches is limited to reporting criteria – specifically timeliness and compliance with IOTC standards (i.e., resolutions, formats and code lists) – and that the general lack of ancillary information prevents assessments of the accuracy and precision of the catch data submitted to the IOTC.

(Para. 230) The SC further **RECALLED** that the provisions of Resolution 15/02 include the routine submission of documentation on sampling design and extrapolation procedures, which could support data quality assessments; however, the Secretariat currently holds limited information on such documentation.

(Para. 231) The SC **RECALLED** that Data Preparatory meetings for the WPTT take place before the data submission deadline (i.e., 30 June), and therefore the time series of catches used as inputs for tropical tuna stock assessments are updated after these meetings. The SC **NOTED** that the Secretariat will undertake work in the coming years to improve dataset version management, including through the use of Digital Object Identifiers (DOIs), to better track and describe changes in the data over time.

(Para. 232) NOTING that certain catch data were submitted only days before the 2025 WPTT, thereby providing insufficient time for the Secretariat to update the assessment input datasets, the SC **QUERIED** what the most appropriate procedure would be for treating such late submissions.

(Para. 233) The SC **AGREED** on the need for flexibility in accommodating late submissions, **ACKNOWLEDGING** that the best scientific information available should inform scientific advice. The SC **NOTED** that work will be conducted in 2026 to accelerate and improve the procedure for raising catch data.

Oceanographic atlas and data dissemination

(Para. 234) The SC **NOTED** that some funds have been allocated for the 2026 development of an interactive oceanographic Atlas for the IOTC Area of Competence, intended to support studies on the impacts of climate change on tuna fisheries, and **THANKED** Sri Lanka for proposing to host the oceanographic Atlas server.

(Para. 235) The SC **ACKNOWLEDGED** that maintaining the oceanographic Atlas over the medium and long term would incur costs, **NOTING** that initial storage of around 300 GB would be required, with further storage needs expected subsequently. The SC **AGREED** that detailed budget requirements should be evaluated once the oceanographic Atlas is operational.

Review of ROS data fields and electronic monitoring

(Para. 237) The SC **NOTED** the report of the 5th ad hoc working group meeting on Electronic Monitoring Standards (IOTC-2025-WGEMS05-R). The meeting was attended by 43 participants (cf. 80 in 2024).

(Para. 238) The SC **ACKNOWLEDGED** that the WPDCS conducted a comprehensive review of all ROS data fields for purse seine, longline, and pole-and-line fisheries but did not address the gillnet-specific fields due to the absence of gillnet fishery experts at the meeting.

Yellowfin tuna catch limits for 2025 and 2026

(Para. 239) The SC **NOTED** that the WPDCS has reviewed and **ENDORSED** the estimates of catch limits of yellowfin tuna for 2025 and 2026 (see document IOTC-2025-WPDCS21-DATA1 for details on computations).

(Para. 240) The SC **RECALLED** how due to the unavailability of catch data for 2025 (to be provided by the deadline of 30 June 2026) all presented catch limits for 2026 are estimated with the assumption that catches for 2025 will be aligned with the CPC-specific established catch limits for the year.

(Para. 241) The SC also **RECALLED** that in agreement with the text of Res. 21/01, provided catch limits refer to CPCs, and not distinct fleets, and therefore shall be calculated as such.

(Para. 242) Considering this, the SC **ENDORSED** the annual catch limits for 2025 (calculated) and 2026 (estimated) as deriving from Res. 19/01 and 21/01 and presented in Appendix 35 as Table 1 and Table 2, respectively.

(Para. 243) The SC **NOTED** that catch limits for yellowfin tuna for 2025 and 2026 have been computed by the Secretariat in accordance with Resolutions 18/01, 19/01, and 21/01, and presented to the WPDCS for information. The SC **ENCOURAGED** all CPCs to review the estimates included in spreadsheet IOTC-2025-SC28-DATA01 and provide feedback to the Secretariat for formal confirmation, **NOTING** that a Circular containing the final catch estimates will be disseminated by the Secretariat before the end of 2025.

Data preparatory meetings and late data revisions

(Para. 253) The SC **NOTED** that some CPCs have provided CPUE data after the data preparatory meetings have concluded and requested the inclusion of their CPUE indices in the assessments, which is problematic as the data has not been fully discussed and their inclusion may not be justified. The SC **NOTED** that at least the methodology for developing a CPUE series should be explained during the data preparatory meeting with the full CPUE being submitted well ahead of the assessment meeting.

(Para. 254) The SC also **NOTED** issues arising from CPCs submitting revisions to data after the official deadline, which complicates the compilation of catch datasets for assessments. The SC **AGREED** that while it is important to ensure the most accurate and up-to-date data are included in assessments – and to accommodate revisions where possible – it is also necessary to consider the time constraints of the data compilation process. Therefore, in some cases, a firm cut-off date may be required.

Data collection

(Para. 258) The SC **NOTED** that the ability to determine the success of any management measure adopted by IOTC will depend on the availability of the necessary monitoring information. This relates not only to the types of data being collected, but also their spatio-temporal resolution and the ability of CPCs to report these data in a timely manner.

Implementation of the Regional Observer Scheme

(Para. 276) The SC **NOTED** paper IOTC-2025-SC28-07 which provided an update on the status of implementation and reporting to the IOTC Secretariat set out by Resolution 22/04 On a Regional Observer Scheme (ROS) including the coverage estimated for both the longline and purse seine industrial fisheries from concerned CPCs, and how these compare to the expected minimum coverage level.

(Para. 277) The SC **NOTED** that the ROS reporting forms were updated according to the minimum fields agreed by the SC last year and consolidated as the mandatory format to report observer data. The SC also **NOTED** that the forms are available on the IOTC website providing descriptions for each of the form's sections and fields. The SC **THANKED** and **CONGRATULATED** the Secretariat for the work done and **AGREED** with the proposal of dedicated ROS reporting workshops to be done in 2026 to assist the CPCs in the implementation of the ROS IOTC forms.

(Para. 278) The SC **NOTED** that the ROS forms include specific fields for reporting bycatch species such as sharks, including information on their fate, and **REITERATED** the importance of collecting and submitting these data to improve knowledge of species that are otherwise not assessed due to the current lack of information.

(Para. 279) The SC **NOTED** that the supporting documentation for the ROS implementation, including standards, training and reporting materials, were updated and are available on the IOTC website. The SC further **NOTED** that the Secretariat will update the observers manual and develop ROS reporting guidelines, along with a data check system for data validation as the one already available for the mandatory statistical datasets.

(Para. 280) The SC **NOTED** that the ROS database architecture is under revision to accommodate the requested revision of the minimum data fields and data standards and incorporate the most recent ROS datasets received at the Secretariat. The SC **THANKED** the Secretariat for the compilation of the historical data submitted as trips reports to consolidate the main ROS datasets and support the IOTC work.

(Para. 281) The SC **NOTED** that half of the longline fleets reporting ROS data shows stable reporting and increasing coverage trends with only four fleets with coverage levels above of the 5% required in the recent years. The SC **URGED** the missing CPCs to address the provision of observer's data. The SC further **NOTED** that the observer coverage was above the minimum required for the purse seine fleets providing observer data in recent years (2022 to 2024).

(Para. 282) The SC **NOTED** that Resolution 25/06 requires that landings from artisanal fishing vessels be monitored at the landing place by field samplers, with a minimum coverage level at 5% of the total levels of vessel activity. The SC further **NOTED** that there are currently no standards defined for the monitoring of artisanal fisheries as part of the ROS while the active coastal fishing vessel reporting remains voluntary, impeding the estimation of coverage for artisanal fisheries.

(Para. 283) The SC **NOTED** that in the absence of effort reported as operations/sets for most longline fleets, coverage estimates continue to be based on the number of hooks observed, while coverage estimates for purse seine fleets are based on observed operations/sets. The SC **RECALLED** the recommendation made in 2022 at the 25th session of the SC for the Commission to endorse the mandatory reporting of geo-referenced effort data as number of sets/operations for longline and surface fisheries to complement the current requirements of Res. 15/02, for the Secretariat to accurately and independently calculate the ROS coverage.

Appendix A – Relevant recommendations to the Commission

The following SC28 recommendations are particularly relevant to the work of the WPDCS. Refer to Appendix 40 of IOTC-2025-SC28-R for their complete adopted wording:

Consolidated set of recommendations of the 28th Session of the Scientific Committee (1-5 December 2025) to the Commission, relevant to the Working Party on Data Collection and Statistics

Extracts from Appendix 40 of the Report of the 28th Session of the Scientific Committee (IOTC-2025-SC28-R).

Report of the 15th Session of the Working Party on Neritic Tunas (WPNT15)

SC28.10 (para. 71) ACKNOWLEDGING the difficulties associated with deriving geo-referenced size-frequency data at the spatial resolution of 5° grids in most coastal longline and surface fisheries, and the fact that most analyses currently used in the assessments, do not require such fine resolution, the SC **RECOMMENDED** the Commission to align the spatial resolution of size-frequency data with that of geo-referenced catch and effort data. Consequently, the data may be provided using an alternative geographical area if it better represents the fishery concerned. The SC **NOTED** that this recommendation is relevant for many IOTC species and has been reiterated by other WPs.

Report of the 23rd Session of the Working Party on Billfish (WPB23)

SC28.11 (para. 98) The SC **NOTED** that, for several years, joint analyses combining catch and effort data from major longline fleets have been proposed to improve the CPUE index for billfish species, and that the WPEB had previously recommended investigating methods to compare CPUE indices across fleets and to develop joint CPUE indices for bycatch species. The SC also **NOTED** that these joint analyses could harmonize standardization methods, reconcile conflicts between indices developed from different fleets, and potentially produce more robust indices with broader spatial and temporal coverage. The SC further **NOTED** that it is at the discretion of CPCs to determine the feasibility of such collaboration, considering data confidentiality agreements and other logistical arrangements. The SC **AGREED** on the importance of establishing a process to discuss how to move forward. **NOTING** that joint CPUE analysis arrangements already exist for the standardization of tropical and temperate tuna, the SC **RECOMMENDED** that the Commission urge CPCs to explore ways to extend joint analyses to non-targeted species, such as marlins.

Report of the 21st Session of the Working Party on Ecosystems and Bycatch (WPEB21)

SC28.13 (para. 116) NOTING that data for bycatch species in IOTC fisheries are severely lacking, the SC **RECOMMENDED** that the Commission and Compliance Committee **ENCOURAGE** CPCs to provide observer data and work to reach at least the 5% minimum coverage level as required by Resolution 25/06.

SC28.14 (para. 118) NOTING that Resolution 15/01 includes a list of species for which reporting catch data is mandatory/optional and that varies by gear and by fishery type (i.e. artisanal vs commercial fisheries), the SC **NOTED** that many species of interest to the WPEB are not mandatory for reporting for all gears or fishery type. The SC **NOTED** concerns from some CPCs that making these species mandatory for reporting for all gears and fleets (including artisanal fleets) could place additional burden on many CPCs. This is particularly the case for many coastal fleets which are not necessarily targeting only tuna but instead target a wide range of species, making data collection complex. The SC therefore **RECOMMENDED** that the Commission review the list of species that are mandatory for reporting to species level while considering the feasibility of such data collection for all CPCs. The SC included the following suggested changes:

- Silky sharks to be added also for gillnets fisheries

- Hammerhead sharks to be reported at species level at least for scalloped, smooth and great hammerhead sharks for all gear types (explicitly including purse seine fisheries)
- Mantas and devil rays to be reported at species level differentiating at least between manta ray (giant manta and reef manta) and other devil rays adding them for mandatory reporting at least for purse seine fisheries and for gillnet fisheries instead of optional
- Great white sharks as mandatory for all gear types
- Oceanic whitetip sharks as mandatory for all gear types

Summary discussion of matters common to Working Parties

IOTC species identification guides: Tuna and tuna-like species

SC28.29 (para. 262) 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.

Programme of Work and schedule of Working Party and Scientific Committee meetings

Data preparatory meetings and hybrid meetings

SC28.32 (para. 295) 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 in addition to stock assessment meetings for the main IOTC species. The SC **RECOMMENDED** that data preparatory meetings could continue to be held virtually so as not to increase the travel and costs required for the already full IOTC timetable of meetings.