

## REPORT OF THE SECRETARIAT – ACTIVITIES IN SUPPORT OF THE IOTC SCIENCE PROCESS IN 2024

PREPARED BY: IOTC SECRETARIAT, 2 NOVEMBER 2024

### PURPOSE

To inform the Scientific Committee (SC) of work undertaken by the IOTC Secretariat in 2024 in support of the IOTC Science process, endorsed by the Commission.

### DISCUSSION

#### *IOTC meetings – Working parties*

In 2024, eleven (11) Working Party and Working Group meetings were organised and facilitated by the IOTC Secretariat (**Table 1**). The current Chairs and Vice-Chairs for each Committee and Working Party are provided in [Appendix I](#).

[Appendix II](#) lists the documents produced by the IOTC Secretariat in support of Working Party meetings held in 2024. In addition, the IOTC Secretariat produced revised Executive Summaries for all of the IOTC stocks, as well as for sharks, seabirds, marine turtles and cetaceans in association with various experts, totalling 26 Executive Summaries.

The IOTC Secretariat facilitated the participation of invited experts that were selected to attend some of the Working Party meetings in 2024 (**Table 1**).

**Table 1.** Working party and Working Group meetings in 2024

Working Party	Session	Date and place	Invited expert
Ad hoc Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS)	04	5-7 Jun, Virtual	
MSE Task Force of the Working Party on Methods Meeting (WPM_MSE)		10-14 Apr, Virtual	
Working Group on FADs (WGFAD)	07	10-11 Jun, Virtual	
Working Party on Tropical tunas (Data preparatory) (WPTT_DP)	26	12-14 Jun, Virtual	
Working Party on Neritic Tunas (WPNT)	4	8-12 Jul, Seychelles	
Working Party on Billfish (WPB)	22	4-7 Sep, Seychelles	Dr Robert Humphreys
Working Party on Ecosystems and Bycatch (Assessment meeting) (WPEB)	20	9-13 Sep, Seychelles	Dr Reza Shahifar
Working Party on Methods (WPM)	15	24-26 Oct, Seychelles	
Working Party on Socio-Economics (WPSE)	01	25 Oct, Thailand	
Working Party on Tropical Tunas (WPTT)	26	28 Oct-2 Nov, Seychelles	Andam Langley
Working Party on Data Collection and Statistics (WPDCS)	20	26-30 Nov, South Africa	

#### **IOTC meetings – Meeting Participation Fund**

The IOTC Meeting Participation Fund (MPF) was utilised for the indicated scientific meetings and/or Working Parties indicated in **Table 1**. In 2024, the Secretariat facilitated the participation of 34 individuals from developing Members of the IOTC to the Working Party meetings held in 2024 as detailed in **Table 2**.

The total level of participation (including the Scientific Committee) by MPF recipients was 34 in 2024, compared with 2023 (42) 2022(25), 2021(0), 2020(0) and 2019(77) (Table 2).

**Table 2.** Scientific Meetings held in 2024, prior to the 27<sup>th</sup> Session of the IOTC Scientific Committee meeting. Numbers in brackets represent numbers for the previous Working Party meetings.

Working Party	Date and place of most recent meeting	No. of participants							Meeting Participation Fund							No. of documents (and for the previous meeting)
		2018	2019	2020	2021	2022	2023	2024	2018	2019	2020	2021	2022	2023	2024	
<b>Working Groups</b>																
Electronic Monitoring Programme Standards	5-7 June, Virtual				79	104	89	80				0	0	0	0	Total: 13(9) Working papers: 12(6) Information papers: 1 (3)
FADs	10-11 May, Virtual				93	111	75 116	90				0	0	0	0	Total: 10(31) Working papers: 6(28) Information papers: 4(3)
<b>Working Parties</b>																
Neritic Tunas	8–12 July, Seychelles	18	18	43	33	36	35	47	6	6	0	0	0	8	6	Total: 26(20) Working papers: 19(20) Information papers: 7 (0)
Temperate Tunas	No meeting in 2024		19 23			51 42				1 4			0 0			Total: - (30) Working papers: - (29) Information papers: - (1)
Billfish	4–7 September, Seychelles	20	25	55	55	51	97	47	5	9	0	0	0	8	5	Total: 34(36) Working papers: 25 (30) Information papers: 9(6)
Ecosystems and Bycatch	9–13 September, Seychelles	40	41	108	68 93	103	100	92	7	13	0	0 0	0	7	6	Total: 95(76) Working papers: 60(35) Information papers: 35(41)
Methods	10-13 April, Virtual	23	37	55	41	46	31	18	2	7	0	0	0	0	0	Total: 19(22) Working papers: 14 (22) Information papers: 5 (0)
	24–26 October, Seychelles				54	60	39	46				0	0	3	3	
Tropical Tunas	12–14 June, Virtual	57	68	62	80	67	76	72	7	13	0	0	0	0	0	Total: 39(51) Working papers: 35 (38) Information papers: 4(13)
	28 October – 2 November, Seychelles			111	108	113	91	92				0	0	0	4	2
Data Collection and Statistics	26– 30 November, South Africa	52	41	76	94	117	55	xxx	7	9	0	0	0	4	3	Total: TBC (37) Working papers: TBC (34) Information papers: TBC (3)

Scientific Committee	2 – 6 December, South Africa	73	43	141	130	129	106	xxx	12	15	0	0	8	9	9	Working papers: TBC (11) Executive Summaries: TAC (26) Information papers: TBC (2)
----------------------	------------------------------	----	----	-----	-----	-----	-----	-----	----	----	---	---	---	---	---	--

## Data-related activities – General

A large proportion of time from the IOTC Data Section staff is dedicated to the acquisition and processing of the data required under various IOTC Resolutions. These are utilised in support of scientific analyses necessary for the assessment of the status of stocks, and in monitoring the compliance of CPCs with respect to currently standing data reporting requirements. The Data Section of the Secretariat also regularly addresses some data requests from the CPCs as well as from academics and other Regional Fishery Bodies.

The IOTC databases are constantly revised and updated, and the migration towards a fully integrated IOTC data repository continues to be under way to improve several aspects of the IOTC statistical data management workflow, including the proper attribution of metadata to all managed datasets, the addition of new ancillary data sources such as cannery sales data, daily buoy positions, scientific observer, tagging, biological, and socio-economic data, as well as the implementation of a two-way integration process with the [e-MARIS platform](#). In October, an IT consultant from the FAO visited the Secretariat to review the IT systems, including the webpage, servers, and online hosting. As part of the assessment, he provided feedback on our current database infrastructure and workflows and offered advice on how to align it with FAO's corporate solutions going forward.

Significant effort is also dedicated to improving the range of fisheries indicators currently included in all Secretariat papers on data and statistics presented at the IOTC working parties, as well as the data-specific sections of the IOTC website and the [interactive data browser](#), to allow filtering and displaying information of several of the main IOTC datasets.

The standard IOTC statistical datasets have been produced and supplied to all scientists engaged in stock assessment activities and to stakeholders involved in management initiatives; reports on the status of all IOTC databases have been produced for all relevant Working Parties and SC, as well as for the preparation of the Country Reports of the Compliance Committee

During 2024 the IOTC Secretariat has continued with its efforts to rationalise and streamline the submission of statistical data by designing and trialling new versions of the IOTC [data reporting forms](#) and their accompanying online validators, implementing an online [Reference Data Catalogue](#), and progress with a more systematic definition and identification of the fisheries of relevance to the IOTC. The new forms will be implemented for the 2024 data cycle.

The IOTC Secretariat's capacity has been affected due to the Data Coordinator's resignation in March 2024. Other staff members in the data section have taken on extra tasks and responsibilities, such as further developing the TCAC simulation tool and compiling stock assessment input datasets.

## Data-related activities – Capacity building and other initiatives

The IOTC Secretariat continues to fulfil its mandate by providing direct support to and facilitating the work of developing coastal states, primarily through fund from the IOTC capacity building budget and other collaborating agencies, including the European Union, the UK, the Indian Ocean Commission ([IOC](#)), and the Overseas Fishery Cooperation Foundation of Japan ([OFCF](#)). In the past, the IOTC Secretariat also collaborated with the World Bank, NOAA, WWF-Pakistan, WWF-USA, and the Fisheries Improvement Project [SIOTI](#) on capacity building activities, some of which were specifically conducted in support of the implementation of the IOTC Regional Observer Scheme.

Regarding data collation and management, the Secretariat collaborates with FAO through the Coordinating Working Party on Fishery Statistics ([CWP](#)), the Fisheries Global Information System ([FIGIS](#)), and the Fisheries and Resources Monitoring System ([FIRMS](#)) via the Global Tuna Atlas ([GTA](#)). The GTA also offers opportunities to engage with data teams from other tuna Regional Fisheries Management Organisations on data management and dissemination tools. Furthermore, the Secretariat collaborates with several non-governmental organisations on data-related matters, including the International Seafood Sustainability foundation ([ISSF](#)), the International Pole and Line Foundation ([IPNLF](#)), the International Game Fish Association ([IGFA](#)), and [Marine Megafauna](#).

In 2024, the Secretariat conducted several data missions and workshops in line with the Programme of Work of the 26<sup>th</sup> session of the SC to provide support and build capacity of the CPCs on data collection and reporting (**Table 3**).

**Table 3.** Activities of the IOTC Secretariat in relation to science and data-related capacity building activities in the Indian Ocean in 2024

Country / CPC	Dates	Executing agencies / staff	Description of activities
<b>Tanzania</b> (in person, Zanzibar)	26 Feb-1 Mar 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data) IOTC Data Assistant	Technical Assistance Mission to: <ul style="list-style-type: none"> <li>Assess the progress made following the recommendations of the mission conducted by the Secretariat in July 2023</li> <li>Review the Fisheries Information Platforms in use and their integration to fill in data reporting gaps</li> <li>Further clarify any outstanding aspects of the IOTC data reporting process and proposing potential improvements</li> <li>Better understand the factors explaining the discrepancies in data reported to the IOTC</li> <li>Evaluate the best approach to harmonise the time series of historical Tanzanian catches and efforts.</li> </ul>
<b>Bangladesh</b> (in person, Dhaka and Chittagong)	17-22 Mar 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data) IOTC Fisheries Statistician	Technical Assistance Mission to: <ul style="list-style-type: none"> <li>Assess the status of the data collection and reporting systems in place</li> <li>Have a better understanding of the fisheries that catch tuna and tuna-like species in Bangladesh</li> <li>Provide technical advice to improve the collection and reporting of data to the IOTC.</li> </ul>
<b>Thailand</b> (in person, Bangkok)	15-18 Apr 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data) IOTC Data Assistant IOTC Fisheries Statistician  12 participants from China, Indonesia, Malaysia, Maldives, Pakistan, Sri Lanka, Philippines, and Thailand.	Capacity Building Workshop (Eastern Indian Ocean) to assist CPCs in effectively formatting and reporting fisheries data to the Secretariat in accordance with IOTC data reporting requirements. The regional data reporting workshop included training sessions focused on formatting and reporting fisheries data to the Secretariat to ensure compliance with IOTC data reporting obligations using the new forms developed by the Secretariat, together with the updated edition of the IOTC Data Reporting Guidelines and associated data tools such as the Fisheries Wizard, Data Validators and the IOTC Data Reference Catalogue.
<b>Indonesia</b> (in person, Jakarta)  (in person, Jakarta)	19-26 Apr 2024 <b>COMPLETED</b>  18-20 Oct 2024 <b>COMPLETED</b>	IOTC Fisheries statistician IOTC Data Assistant Representatives from: <ol style="list-style-type: none"> <li>Ministry of Marine Affairs and Fisheries of Indonesia</li> <li>National research institutions</li> <li>FAO (Fisheries Statistics Division)</li> <li>International Pole and Line Foundation</li> </ol>	Technical support mission: <p>Continuation of the previous remote / in person meetings held in 2021, 2022, and 2023 to discuss the current state-of-the-art in terms of re-estimation procedures for Indonesia's annual catches.</p> <ul style="list-style-type: none"> <li>Review the approach used by Indonesia to address the issues in historical catch estimates</li> <li>Provide feedback and technical assistance on the method, with a major focus on coastal fisheries</li> <li>Develop a methodology to re-estimate the catches of all fisheries for the period prior to 2010 to have a continuity in the time series of catch.</li> </ul>
<b>Mozambique</b> (in person, Maputo)	3-8 May 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data) IOTC Data Assistant	Data Technical Assistance Mission to: <ul style="list-style-type: none"> <li>Assess the status of the existing data collection and reporting systems, to better understand the</li> </ul>

			<p>fisheries targeting tuna and tuna-like species in Mozambique</p> <ul style="list-style-type: none"> <li>• Provide technical advice to improve data collection and reporting to the IOTC.</li> <li>• Give an overview of data reporting requirements to the IOTC and present the tools recently developed by the Secretariat to assist in data submission.</li> </ul>
<b>Kenya</b> (in person, Nairobi)	27-30 May 2024 <b>COMPLETED</b>	<p>IOTC Fishery Officer (data) IOTC Data Assistant IOTC Fisheries Statistician</p> <p>17 participants from Comoros, European Union, I.R. Iran, Kenya, Madagascar, Mozambique, Oman, Seychelles, Somalia, and Tanzania, Bangladesh, and India.</p>	Capacity Building Workshop (Western Indian Ocean) to assist CPCs in effectively formatting and reporting fisheries data to the Secretariat in accordance with IOTC data reporting requirements. The regional data reporting workshop included training sessions focused on formatting and reporting fisheries data to the Secretariat to ensure compliance with IOTC data reporting obligations using the new forms developed by the Secretariat, together with the updated edition of the IOTC Data Reporting Guidelines and associated data tools such as the Fisheries Wizard, Data Validators and the IOTC Data Reference Catalogue.
<b>Annual meeting of the EU RCG on Large Pelagics</b> (virtual, Olhao, Portugal)	24-26 Jun 2024 <b>COMPLETED</b>	IOTC Fisheries Statistician	Presentation of a summary on data needs and gaps regarding large pelagic data in the IOTC, with a summary of EU data reporting status.
<b>Open ASFA (Aquatic Sciences and Fisheries Abstracts) Working Group</b> (virtual)	3 Jul 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data) IOTC Data Assistant	Revision of the ASFA terms of reference, updates and collaboration with partners.
<b>Seychelles International Fisheries Workshop</b> (in person, Victoria)	19 Jul 2024 <b>COMPLETED</b>	IOTC Fisheries Statistician	Overview presentation on IOTC mandate, functioning, fisheries, and data reporting obligations and workflow.
<b>Oman Technical meeting</b> (in person, Victoria)	29-30 Jul 2024 <b>COMPLETED</b>	<p>IOTC Fishery Officer (data) IOTC Data Assistant Ministry of Agriculture and Fisheries of Oman</p>	Overview of Oman's fishery statistics system and catch estimation methodology for Omani artisanal fisheries, and discussions on review project of data sampling and processing procedures, with a focus on yellowfin tuna.
<b>G16 International Fisheries Workshop</b> (virtual, Dubai, UAE)	22-26 Jul 2024 <b>COMPLETED</b>	<p>IOTC Fishery Officer (data) IOTC Data Assistant</p>	General presentation on IOTC mandate, functioning, and activities related to science, compliance, and data collation and management.
<b>EU,France Technical meeting</b> (in person, Victoria)	3 Sep 2024 <b>COMPLETED</b>	<p>IOTC Fisheries Statistician IOTC Data Assistant Dr. Sylvain Bonhommeau (Ifremer)</p>	Review of the data status and gaps for the coastal fisheries of Reunion and Mayotte (EU,France) to revise and harmonise historical catch and effort data and improve future data submissions.
<b>EU Liaison meeting</b> (virtual)	24 - 25 Sep 2024 <b>COMPLETED</b>	IOTC Fishery Officer (data)	Overview presentation on the status of the statistical data available at the Secretariat for EU fisheries, including identification of issues and improvement prospects.
<b>Sri Lanka</b> (in person, Colombo)	30 Oct–4 Nov 2024 <b>COMPLETED</b>	<p>IOTC data assistant IOTC Fisheries statistician Consultant (Dr Paul Medley)</p>	<p>IOTC Data Support Mission to:</p> <ul style="list-style-type: none"> <li>• Assess the status of the fisheries of Sri Lanka in the context of IOTC data requirements (Item 3 of the Programme Work of the WDPCS19). Work would also focus on the transition to the new IOTC forms for reporting data to the Secretariat.</li> </ul>

			<ul style="list-style-type: none"> <li>• Evaluate the availability of fisheries data for deriving indices of abundance from gillnet CPUE time series as requested by the SC26 and S28.</li> <li>• Assess the status of the EM project and determine which support could be provided by the Secretariat for its continuation.</li> </ul>
--	--	--	---

### Data capacity building activities planned for 2025 (to align with SC Programme of Work)

1. Regional workshop(s) on IOTC data reporting to provide support for the adoption of the new reporting forms and validation tools developed by the Secretariat (also recommended by the Compliance Committee)
2. Data compliance and support missions: priority countries to be confirmed (also based on the PoW agreed by the 20<sup>th</sup> Working Party on Data Collection and Statistics), but tentatively to include:
  - Madagascar and Comoros to review the data collection, processing and reporting systems for their coastal fisheries
  - India to improve compliance with IOTC data reporting requirements
  - I.R. Iran and Pakistan to assess the recent developments in national data collection systems and ensure reporting of data by IOTC standards
  - Oman, to better understand the factors driving the recent increases in reported catches from their handline fisheries.

### Science activities (2024)

CPC contributions to the Scientific Work of the IOTC: These contributions, as requested in Para 16 of IOTC-2018-SC21-R are provided in [Appendix III](#). The text below contains links from the individual activities to the grants they are supported by.

IOTC Species ID guides: Work is ongoing to translate, typeset, format and print the IOTC Species ID guides into the priority languages identified by the SC. Funding for translating and delivering ID cards was provided by OFCF. In 2024, IOTC ID cards have been translated and printed: Hindi, Bengali, Thai, Malay, Swahili and the languages of Sri Lanka (Sinhalese and Tamil). OFCF has also started to develop a suite of web-based tools including YouTube videos, ODK Apps, and an online library of fish species photos, to support species identification. OFCF has been testing these tools with field enumerators in collaboration with Seychelles Fishing Authority. The current set of identification guides available is provided here: [www.iotc.org/science/species-identification-cards](http://www.iotc.org/science/species-identification-cards).

IOTC Species ID Workshop: The Secretariat is in the process of organising an IOTC regional workshop on species identification and best practices in sampling and sample management in December 2024 in Sri Lanka for the Western Indian Ocean CPCs, followed by another workshop in 2025 for the Eastern Indian Ocean CPCs. The workshop shall focus on tuna and tuna-like species including billfish as well as commonly caught shark and ray species. Two consultants have been recruited to develop the training materials and lead the capacity building training. The workshop intends to train the trainers who can train enumerators in species identification and sampling in their countries. The Sri Lanka workshop will be conducted in collaboration of the Department of Fisheries and Aquatic Resources (DFAR) and The National Aquatic Resources Research and Development Agency (NARA) of Sri Lanka who shall provide the technical and logistical assistance. The workshop will be supported by the IOTC regular budget as well as the grant provided by the UK.

Bigeye thresher shark tagging: A consortium was established in 2017 to work jointly on a tagging project to evaluate the post-release mortality of bigeye thresher sharks and the effectiveness of the no retention measure in Resolution 12/09. Scientists are working with observers to deploy tags on sharks released according to routine practices from the fleets of Japan, China, Taiwan, China, EU, Portugal, EU, France and South Africa. Fifty-four pop-up archival satellite tags have been purchased and are in the process of being deployed. The COVID-19 pandemic has heavily affected

and slowed down and currently the active collaborators are limited to two fleets: France (Reunion) and South Africa. A very preliminary estimation of post-release survival rate for bigeye thresher shark caught and released by pelagic longline fleet in the Indian Ocean is 50.0%. The project is expected to conclude in 2027. An update was provided in [IOTC-2024-WPEB20\(AS\)-27](#).

Yellowfin tuna stock assessment: The IOTC stock assessment officer position has been vacant since March 2024. The IOTC Secretariat is in the process of recruiting a new stock assessment expert. The 2024 Yellowfin tuna assessment (using Stock Synthesis) in 2024 was led by AZTI Scientists, with the assistance of a consultant (Adam Langley), and the IOTC Secretariat who facilitated the compilation of the model inputs. The assessment aims to address the recommendation and suggestions made during the 2023 yellowfin assessment expert review workshop (6 – 10 February in Rome).

Neritic tuna assessments: The IOTC Secretariat carried out stock assessments of three neritic tuna species including bullet tuna, frigate tuna, and Indo-Pacific king mackerel (1950-2022) using several data limited methods. The catch data for frigate and bullet tuna are very uncertain and as such only preliminary stock status indicators can be used. The results for the Indo-Pacific king mackerel indicated that the stock is currently not overfished and is not subject to overfishing.

RECOFI technical workshop: The Regional Commission for Fisheries (RECOFI) held a technical workshop on the assessment and management of narrow-barred Spanish mackerel in the RECOFI Region (Muscat, 23-25 September 2024). This species is under the IOTC mandate and RECOFI is requesting IOTC participation. The Chairperson of the WPNT (Farhad Kaymaram) attended this meeting as an IOTC representative and delivered presentations on the latest assessment and research work and participated the discussions of management measures for this species in the RECOFI region.

Bigeye tuna MSE: IOTC initiated the review of bigeye tuna MSE in 2022. The project has been delayed due to a combination of factors including the difficulty in recruiting a suitable MSE expert. In 2024 a consultant was identified and recruited under the IOTC regular budget. The review will take place in early 2025, with initial results expected to be reported back to the MSE task force meeting in 2025.

Skipjack MSE: A MSE consultant (Charles Edwards), funded by the IOTC regular budget, conducted MSE for skipjack tuna. The consultant was working to update the skipjack harvest control rule and develop a fully specified MP based on the updated stock assessment for the species. The project was concluded in 2024 when the new MP was adopted by the Commission through Resolution 24/07. The new MP will be run in 2025.

Albacore and Swordfish MSE: A MSE consultancy with the University of Wageningen funded by the EU Grant, conducted MSE for albacore tuna and swordfish. For albacore tuna, the University is collaborating with CSIRO scientists to develop a new approach to build the OM. For Swordfish, the work has focused on developing and evaluating MPs using an OM which is based on the Swordfish stock assessment. The Swordfish MP was adopted by the Commission through Resolution 24/08. The new Swordfish MP will be run in 2024.

Gillnet CPUE Standardization for Tropical tuna: A consultant (Paul Medley), funded by the IOTC regular budget participated in a data support mission to Sri Lanka 30 September–4 October 2024 during which he evaluated the collection and management of catch effort data from the gillnet fishery and assessed the feasibility of developing a CPUE index from the fishery. Analytic scripts were developed during the mission which can be applied to the dataset for calculating the CPUE index. The mission also identified potential obstacles for access to commercial sensitive data and recommend further actions for future collaborations.

Close-Kin Mark Recapture design study for shortfin mako: A consultancy with CSIRO funded by the EU grant has started a design study for a CKMR project for shortfin mako in the Indian Ocean. This will assess the feasibility of the CKMR approach to estimate population status of shortfin mako for the IOTC given logistical limitations and with respect to hypothetical stock structure considerations and, will update the understanding of population structure and connectivity of shortfin mako in the Indian Ocean using modern genetic markers. These activities will lay the groundwork for a future full Close Kin Mark Recapture study for shortfin mako in the Indian Ocean. The project has started in 2024 but will continue on through to October 2025.

CITES shark proposals: The Secretariat participated in a series of workshops/side events to provide information on how IOTC regulations are related to the CITES and RFMO processes in light of the recent listing of a range of shark species in CITES Appendix II (including blue sharks).

IOTC MSE capacity building workshop: The Secretariat facilitated a MSE capacity building workshop held in Bandos Island, Maldives, from 26 to 28, August 2024. The workshop was targeted at fishery managers in coastal countries



and provided training on basic elements of the MSE process. The objective of the workshop was to increase participation in Commission discussions/decisions and allow them to prepare for discussions about trade-offs between management options. The workshop was funded through the Fisheries Sector Management in South-West Indian Ocean Region and Maldives Project, World Bank, and supported by The Pew Charitable Trusts (Pew), The Ocean Foundation, International Seafood Sustainability Foundation (ISSF), and IOTC. The workshop was led by Graham Piling (SPC) who was also the main instructor, as well as by Toshi Kitakado (IOTC Scientific Committee chair), Hilario Murua (IOTC Working Party on Methods Chair), and Dan Fu (IOTC Secretariat)

GEF Common Oceans Tuna and Climate initiative Project Steering Committee: The Secretariat participated in the first meeting of the project steering committee in October 2024. This steering committee has been formed to review progress and endorse or recommend revisions to the workplan for the GEF Common Oceans and Climate initiative project. This project is a continuation of the earlier Areas Beyond National Jurisdiction (ABNJ) Phase I Tuna Project. The activities under this project are specifically designed to improve our understanding of the potential impacts of climate change on tuna fisheries globally by applying the SEAPODYM model to global tuna fisheries.

CCRUN Pelagic Group Working Group Meeting: The Secretariat participated Pelagic Fisheries Working Group of the Advisory Council for the Outermost Regions in March 2024 and delivered a presentation on the factual information on status of IOTC tuna stocks.

Harvest Strategies 2024 Webinar: The Secretariat participated in the Harvest Strategies 2024 webinar: What to Expect from the Tuna RFMOs This Year. The webinar was cohosted by Seafood Source and [Harveststrategies.org](https://www.harveststrategies.org), with support from the Common Oceans Tuna Fisheries Project funded by GEF and implemented by the United Nations FAO. The Webinar was to provide an update on harvest strategy development and implementation status at each of the tRFMOs and outline the expected progress and decisions to be made in 2024. The Secretariat delivered a presentation on the progress and status of MSE development for IOTC species.

## Other RFMO activities

SIOFA Scientific Committee meeting: In 2024 the IOTC Secretariat attended the SIOFA SC meeting.

## IOTC publications and information products

### *Documents*

In 2024, the Secretariat (including consultants) produced 90 (83 in 2023, 91 in 2022, 77 in 2021, 59 in 2020, 71 in 2019 and 62 in 2018) papers/reports ([Appendix II](#)) in support of the IOTC Science process, not including the reports of the various working parties and working groups (11) or the species Executive Summaries (26).

### *IOTC Website*

The IOTC website continues to be a portal for communicating science related information to a variety of audiences. The Secretariat completed development of a new website in 2025, as requested by the Commission, which include:

- **Stock assessment:** Input and output files for yellowfin tuna stock assessments.
- **Species ID guides:** translated versions are being made available online as they are produced.

The Secretariat is also in the process of linking the publicly disseminated executive summaries of all IOTC species with the corresponding entries in the FAO / FIRMS stocks and fisheries map viewer as well as with the FAO / FIRMS Global Record of Stocks and Fisheries (GRSF) to enhance information sharing and standardized access to stock statuses and related resources. In addition, a new page was created in 2022 to provide capacity building tools for MSE.

## Recommendation

That the Scientific Committee **NOTE** paper IOTC–2024–SC27–05 which provides the report of the IOTC Secretariat for 2024.

## Appendices

**Appendix I:** [List of Chairs, Vice-Chairs and their respective terms for IOTC Science meetings.](#)

**Appendix II:** [Papers from the IOTC Secretariat \(or co-authorship\) submitted to the IOTC Working Parties or Scientific Committee in 2024.](#)

**Appendix III:** [IOTC Extra-Budgetary Funded Projects related to science](#)

## APPENDIX I

## List of Chairs, Vice-Chairs and their respective terms for the IOTC Scientific Committee and its subsidiary bodies

Group	Chair/Vice-Chair	Chair	CPC/Affiliation	1 <sup>st</sup> Term commencement date	Term expiration date (End date is until replacement is elected)	Comments
SC	Chair	Dr Toshihide Kitakado	Japan	10–Dec–19	End of SC in 2023	2 <sup>nd</sup> term
	Vice-Chair	Dr Gorka Merino	Dr Gorka Merino	8–Dec–23	End of SC in 2025	1 <sup>st</sup> term
WPB	Chair	Dr Jie Cao	China	08–Sep–23	End of WPB in 2025	1 <sup>st</sup> term
	Vice-Chair	Dr Sylvain Bonhommeau	EU,France	08–Sep–23	End of WPB in 2025	1 <sup>st</sup> term
WPTmT	Chair	Dr Toshihide Kitakado	Japan	29–July–22	End of WPTmT in 2028	1 <sup>st</sup> term
	Vice-Chair	Dr Jiangfeng Zhu	China	29–July–22	End of WPTmT in 2028	1 <sup>st</sup> term
WPTT	Chair	Dr Gorka Merino	EU,Spain	03–Nov–23	End of WPTT in 2025	Ext 2 <sup>nd</sup> term
	Vice-Chair	Dr Shiham Adam	IPNLF	03–Nov–23	End of WPTT in 2025	Ext 2 <sup>nd</sup> term
WPEB	Chair	Dr Mariana Tolotti	EU,France	15–Sept–21	End of WPEB in 2025	2 <sup>nd</sup> term
	1 <sup>st</sup> Vice-Chair	Dr Mohamed Koya	India	15–Sept–21	End of WPEB in 2025	2 <sup>nd</sup> term
	2 <sup>nd</sup> Vice-Chair	Dr Charlene da Silva	South Africa	15–Sept–21	End of WPEB in 2025	2 <sup>nd</sup> term
WPNT	Chair	Dr Farhad Kaymaram	I.R. Iran	7–July–23	End of WPNT in 2025	1 <sup>st</sup> term
	Vice-Chair	Mr Bram Setyadji	Indonesia	7–July–23	End of WPNT in 2025	1 <sup>st</sup> term
WPDCS	Chair	Dr Julien Barde	EU,France	3–Dec–21	End of WPDCS in 2025	2 <sup>nd</sup> term
	Vice-Chair	Mr Nuwan Gunawardane	Sri Lanka	3–Dec–21	End of WPDCS in 2025	2 <sup>nd</sup> term
WPM	Chair	Dr Hilario Murua	ISSF	28–Oct–23	End of WPM in 2025	Ext term
	Vice-Chair	Dr Ann Preece	Australia	28–Oct–23	End of WPM in 2025	1 <sup>st</sup> term
WPSE	Chair	Dr Umi Muawanah	Indonesian	25–Oct–24	End of WPSE in 2025	1 <sup>st</sup> term
	Vice-Chair	Ms Sheriffa Morel	Seychelles	25–Oct–24	End of WPSE in 2025	1 <sup>st</sup> term
WGFAD	Co-Chair	Dr Gorka Merino	EU,Spain	06–Oct–21	End of WGFAD in 2025	2 <sup>nd</sup> term
	Co-Chair	Mr Avelino Munwane	Mozambique	03–Oct–22	End of WGFAD in 2026	2 <sup>nd</sup> term
WGEMS	Chair	Dr Hilario Murua	ISSF	17–Nov–21	End of WGEMS in 2025	2 <sup>nd</sup> term
	Vice-Chair	Dr Don Bromhead	Australia	17–Nov–21	End of WGEMS in 2025	2 <sup>nd</sup> term

## APPENDIX II

## Papers from the IOTC Secretariat (or co-authorship) submitted to the IOTC Working Parties or Scientific Committee in 2024

Document number	Title
<b>4th Ad-hoc Working Group on the Development of Electronic Monitoring Programme Standards</b>	
IOTC-2024-WGEMS04-04	Outcomes of the 28th session of the Commission and the 26th session of the Scientific Committee relating to the WGEMS (IOTC Secretariat)
IOTC-2024-WGEMS04-05	Regional observer scheme data field reporting rates
<b>6th Working Group on FADs</b>	
IOTC-2024-WGFAD06-03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WGFAD06-04	Outcomes of 28th Session of the Commission (IOTC Secretariat)
IOTC-2024-WGFAD06-05	Review of the statistical data on FADs (IOTC Secretariat)
<b>15th Working Party on Methods Management Strategy Evaluation Task Force (WPM/MSE)</b>	
IOTC-2024-WPM15(MSE)-03	Further MP simulation testing for Indian Ocean skipjack tuna (Edwards C)
IOTC-2024-WPM15(MSE)-04	Conditioning IOTC Albacore OMs using the ABC approach (Hillary R, Mosqueira I)
IOTC-2024-WPM15(MSE)-05	IOTC Swordfish Management Strategy Evaluation Update
<b>20th Working Party on Ecosystems and Bycatch (WPEB): Data preparatory meeting</b>	
IOTC-2024-WPEB20(DP)-03	Review of the statistical data and fishery trends for ecosystems and bycatch species (IOTC Secretariat)
<b>26th Working Party on Tropical Tuna (WPTT): Data preparatory meeting</b>	
IOTC-2024-WPTT26(DP)-03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WPTT26(DP)-04	Outcomes of 28th Session of the Commission (IOTC Secretariat)
IOTC-2024-WPTT26(DP)-05	Review of Conservation and Management Measures relevant to tropical tuna (IOTC Secretariat)
IOTC-2024-WPTT26(DP)-06	Progress made on the recommendations of WPTT24 (IOTC Secretariat)
IOTC-2024-WPTT26(DP)-07	Review of the statistical data available for yellowfin tuna (1950-2022)
IOTC-2024-WPTT26(DP)-16	Effort creep in longline and purse seine CPUE and its application in tropical tuna stock assessments (Hoyle S)
<b>14th Session of the IOTC Working Party on Neritic Tunas</b>	
IOTC-2024-WPNT14-03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WPNT14-04	Outcomes of the 28th Session of the Commission (IOTC Secretariat)
IOTC-2024-WPNT14-05	Review of current Conservation and Management Measures relating to neritic tuna species (IOTC Secretariat)
IOTC-2024-WPNT14-06	Progress made on the recommendations and requests of WPNT13 and SC26 (IOTC Secretariat)
IOTC-2024-WPNT14-07	Review of the statistical data available for the neritic tuna species (IOTC Secretariat)
IOTC-2024-WPNT14-08	Revision of the WPNT Program of Work (2025-2029) (IOTC Secretariat)
IOTC-2024-WPNT14-15	Assessment of Indian Ocean Bullet tuna ( <i>Auxis rochei</i> ) using data-limited methods (Fu D)
IOTC-2024-WPNT14-17	Assessment of Indian Ocean Frigate tuna ( <i>Auxis thazard</i> ) using data-limited methods (Fu D)
IOTC-2024-WPNT14-19	Assessment of Indian Ocean Indo-Pacific King Mackerel ( <i>Scomberomorus guttatus</i> ) using data-limited methods (Fu D)

IOTC-2024-WPNT14-INF01	Draft technical report on the re-estimation of Indonesian annual catch data for 1950-2022
IOTC-2024-WPNT14-INF02	Review of fisheries statistical data available for Indian Ocean bullet tuna
IOTC-2024-WPNT14-INF03	Review of fisheries statistical data available for Indian Ocean narrow-barred Spanish mackerel
IOTC-2024-WPNT14-INF04	Review of fisheries statistical data available for Indian Ocean frigate tuna
IOTC-2024-WPNT14-INF05	Review of fisheries statistical data available for Indian Ocean Indo-Pacific king mackerel
IOTC-2024-WPNT14-INF06	Review of fisheries statistical data available for Indian Ocean kawakawa
IOTC-2024-WPNT14-INF07	Review of fisheries statistical data available for Indian Ocean longtail tuna
IOTC-2024-WPNT14-INF08	Uncertainty in IOTC data for neritics: exploring the interest of catch reconstruction from the sea around us project
IOTC-2024-WPNT14-INF09	Review of the main issues related to data reporting for neritic species
<b>20<sup>th</sup> Working Party on Ecosystems and Bycatch (WPEB)</b>	
IOTC-2024-WPEB20(AS)-03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-04	Outcomes of the 28th Session of the Commission (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-05	Review of Conservation and Management Measures relevant to ecosystems and bycatch (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-06	Progress made on the recommendations and requests of WPEB19 and SC26 (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-07_rev2	Review of the statistical data and fishery trends for ecosystems and bycatch species (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-08_rev1	Status of development and implementation of National Plans of Action for seabirds and sharks, and implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-09	Revision of the WPEB Program of Work (2025–2029) (IOTC Secretariat & Chairperson)
IOTC-2024-WPEB20(AS)-11	Regional observer scheme data on shortfin mako shark CPUE (IOTC Secretariat)
IOTC-2024-WPEB20(AS)-21	IOTC ROS data on mitigation measures and shark catches summary (IOTC Secretariat)
<b>22<sup>nd</sup> Session of the IOTC Working Party on Billfish</b>	
IOTC-2024-WPB22-03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WPB23-04	Outcomes of the 28th Session of the Commission (IOTC Secretariat)
IOTC-2024-WPB23-05	Review of Conservation and Management Measures relevant to billfish (IOTC Secretariat)
IOTC-2024-WPB23-06	Progress made on the recommendations and requests of WPB21 and SC26 (IOTC Secretariat)
IOTC-2024-WPB23-07	Review of the statistical data and fishery trends for billfish species (IOTC Secretariat)
IOTC-2024-WPB23-08	Revision of the WPB Program of Work (2025-2029) (IOTC Secretariat)
IOTC-2024-WPB22-INF03	Draft technical report on the re-estimation of Indonesia's annual catch data for period 1950-2022
IOTC-2024-WPB22-INF04	Status of marlins and sailfish catches- resolution 18/05
IOTC-2024-WPB22-INF05	Review of the statistical data available for Indian Ocean black marlin (1950-2022)
IOTC-2024-WPB22-INF06	Review of the statistical data available for Indian Ocean blue marlin (1950-2022)
IOTC-2024-WPB22-INF07	Review of the statistical data available for Indian Ocean striped marlin (1950-2022)
IOTC-2024-WPB22-INF08	Review of the statistical data available for Indian Ocean Indo-pacific sailfish (1950-2022)
IOTC-2024-WPB22-INF09	Review of the statistical data available for Indian Ocean swordfish (1950-2022)
<b>15<sup>th</sup> Working Party on Methods</b>	
IOTC–2024–WPM15–03	Outcomes of the 26th Session of the Scientific Committee (IOTC Secretariat)
IOTC–2024–WPM15–04	Outcomes of the 28th Session of the Commission (IOTC Secretariat)
IOTC–2024–WPM15–05	Review of Conservation and Management Measures relating to methods (IOTC Secretariat)
IOTC–2024–WPM15–06	Progress made on the recommendations and requests of WPM14 and SC26 (IOTC Secretariat)
IOTC–2023–WPM15–07	Revision of the WPM Program of Work (2025–2029) (IOTC Secretariat & Chairpersons)

IOTC–2024–WPM15–08	Conditioning of Indian Ocean albacore OMs using the ABC approach. Hillary R, Mosqueira I)
IOTC–2024–WPM15–09	Running the IOTC bigeye tuna management procedure for 2024 (Ashley W)
IOTC–2024–WPM15–11	Application of the management procedure for Indian Ocean swordfish (Brunel T, Mosqueira I)
IOTC–2024–WPM15–INF01	Exploratory analysis of yellowfin tuna longline catch and effort data using VAST (Langley A)
IOTC-2024- WPM15- INF04	MSE Capacity Building Workshop Summary Report
<b>26<sup>th</sup> Session of the Working Party on Tropical Tunas: Assessment Meeting</b>	
IOTC–2024–WPTT26-05	Revision of the WPTT program of work (IOTC Secretariat)
IOTC–2024–WPTT26-11	Preliminary 2024 stock assessment of yellowfin
IOTC-2024-WPTT26-3.1	Overview of Indian Ocean tropical tuna fisheries (Secretariat)
IOTC-2024-WPTT26-3.2	Review of Indian Ocean skipjack tuna statistical data (Secretariat)
<b>19<sup>th</sup> Working Party on Data Collection and Statistics</b>	
IOTC-2024-WPDCS20-03	Outcomes of the 26th session of the Scientific Committee (IOTC Secretariat)
IOTC-2024-WPDCS20-04	Outcomes of the 28th session of the Commission (IOTC Secretariat)
IOTC-2024-WPDCS20-05	Review of current Conservation and Management Measures relating to the WPDCS (IOTC Secretariat)
IOTC-2024-WPDCS20-06	Progress made on the recommendations of WPDCS19 (IOTC Secretariat)
IOTC-2024-WPDCS20-07	Report on IOTC Data Collection and Statistics (IOTC Secretariat)
IOTC-2024-WPDCS20-08	IOTC capacity building activities in support of developing coastal CPCs (IOTC Secretariat)
IOTC-2024-WPDCS20-09	Revision of the WPDCS Program of Work 2025–2029 (IOTC Secretariat)
IOTC-2024-WPDCS20-10	Updates on the implementation of the IOTC Regional Observer Scheme and its pilot project (IOTC Secretariat)
IOTC-2024-WPDCS20-11	Updated calculations of yellowfin tuna catch limits for 2024 / 2025 (IOTC Secretariat)
IOTC-2024-WPDCS20-12	Summary of updates on data-related requests from other Working Parties (IOTC Secretariat)
IOTC-2024-WPDCS20-23	Updated results on the implementation of the FAO matrix approach for the characterization of selected IOTC fisheries (IOTC Secretariat)
IOTC-2024-WPDCS20-24	IOTC Biological database
<b>26<sup>th</sup> Session of the Scientific Committee</b>	
IOTC–2024–SC27–03	Outcomes of the 27 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2024–SC27–04	Previous decisions of the Commission (IOTC Secretariat)
IOTC–2024–SC27–05	Report of the Secretariat – Activities in support of the IOTC science process in 2023 (IOTC Secretariat)
IOTC–2024–SC27–06	Status of development and implementation of national plans of action for seabirds and sharks, and implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations (IOTC Secretariat)
IOTC–2024–SC27–07	Update on the implementation of the regional observer scheme (IOTC Secretariat)
IOTC–2024–SC27–08	Revision of the program of work (2024–2028) for the IOTC science process (IOTC Secretariat)
IOTC–2024–SC27–09	Proposed schedule of Working Party and Scientific Committee meetings for 2024 and 2025 (IOTC Secretariat)
IOTC–2024–SC27–10	Progress on SC25 recommendations (IOTC Secretariat)
IOTC–2024–SC27–18	Draft IOTC strategic science plan 2025-2029

**APPENDIX III**  
**IOTC Extra-Budgetary Funded Projects related to Science**

<b>Project No.</b>	<b>Area of Work</b>	<b>Donor</b>	<b>Description</b>	<b>Total Funding Amount US\$</b>	<b>Start Date</b>	<b>End date</b>
GCP/INT/1024/EC	Science	EC	Support to the IOTC Scientific and Compliance Committees programmes of work (2023 and 2024)	797,646	01/01/2023	31/12/2025
MPF Extra-budgetary	Meetings	China	Extra funds for meeting participation	18,000	01/01/2024	31/12/2024
Extra-budgetary	Science/Data	UK	Activities related to data improvement and data analysis	60,533	01/04/2023	31/12/2025