



IOTC-2022-SCAF19-02[E]

#### REPORT OF THE IOTC SECRETARIAT ON THE YEAR 2021

Prepared by: IOTC Secretariat

#### **PURPOSE OF THIS DOCUMENT**

To inform the Standing Committee on Administration and Finance (SCAF) about the activities undertaken by the IOTC Secretariat in 2021. A list of acronyms is provided in Appendix 4.

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## 1) Membership of the IOTC in 2021

- 1. **30 Contracting Parties**: Australia, Bangladesh, China, Comoros, Eritrea, European Union, France (OT), India, Indonesia, Iran (Islamic Rep. of), Japan, Kenya, Korea (Rep. of), Madagascar, Malaysia, Maldives, Mauritius, Mozambique, Oman, Pakistan, Philippines, Seychelles, Somalia, South Africa, Sri Lanka, Sudan, Tanzania (United Rep. of), Thailand, United Kingdom and Yemen. Sierra Leone was deemed to have withdrawn itsMembership of IOTC on 5 February 2021, leaving 30 Contracting Parties.
- 2. **2 Cooperating Non-Contracting Parties (CNCP)**: Liberia and Senegal. The CNCP status of Liberia was not renewed in June 2021.

# 2) Mission and staffing of the IOTC Secretariat

### The mission of the IOTC Secretariat is:

"To facilitate the processes required to implement the policies and activities of the Commission, whose goal is to achieve the objectives stated in the IOTC Agreement."

- 3. In essence, these processes include the acquisition, processing and dissemination of information that constitutes the basis for informing the Commission's decisions, as well as supporting the actions taken by Contracting Parties (Members) and Cooperating Non-Contracting Parties (CNCPs) (collectively termed CPCs) to effectively implement those decisions.
- 4. The structure of the IOTC Secretariat in 2021 is provided in Figure 1.

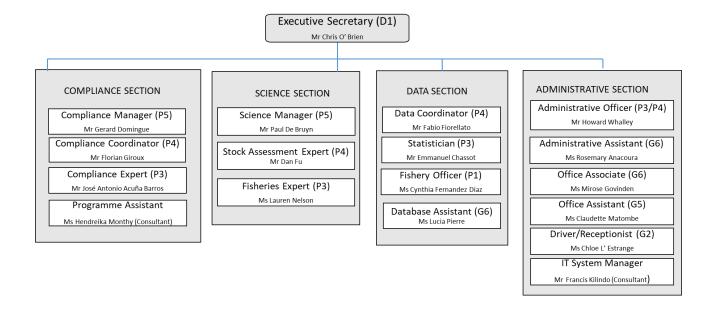


Figure 1: IOTC Staff Structure 2021

#### Professional Staff – Recruitment activities

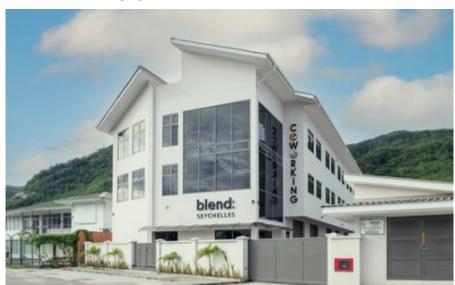
- 5. The IOTC Secretariat had its full complement of staff by the end of 2021.
- 6. The new P3 Fisheries Officer (Compliance), Mr José Antonio Acuña Barros [click here], joined the Secretariat in November 2021..

## General Service Staff – Recruitment activities

7. The General Service Staff positions remained filled throughout 2021.

# 3) THE EFFECTS OF THE COVID-19 PANDEMIC AND RELOCATING THE IOTC OFFICE ON THE WORK OF THE SECRETARIAT

- 8. Seychelles was relatively unaffected by the pandemic until December 2020. However, in December case numbers started to rise and by the start of 2021 restrictions and lockdowns were enforced by the Seychelles Government. A business continuity plan was put in place and although the Secretariat staff mostly worked from their homes until Q3 2021, the work of the Secretariat was able to be completed.
- 9. No in-person meetings were held in 2021. All meetings were held by videoconference, and most had reduced agendas. In-country capacity development activities requiring international travel also ceased, although some capacity development activities for compliance were able to be held in Seychelles and some were able to be conducted by videoconference.
- 10. On 15 October 2021, a major fire caused serious structural damage to Le Chantier Mall the building hosting the IOTC Secretariat. The Mall was evacuated, and staff were again required to work from home. The Secretariat was extremely grateful to the Seychelles Fishing Authority for their rapid and generous response to help the Secretariat relocate the IOTC servers to a safe location on their premises.
- 11. In December, the government informed the Secretariat that Le Chantier Mall was to close and the IOTC Secretariat would need to find new offices.
- 12. A search for new premises began in January 2022 and in February the Secretariat moved into new offices in the Abis Centre 2 building located in Providence, where we will occupy the entire 2<sup>nd</sup> floor. The Secretariat would like to acknowledge the tremendous efforts of the United Nations Resident Coordinator's Office for Mauritius and Seychelles, the Seychelles Ministry of Foreign Affairs, and the Seychelles Fishing Authority in helping us find our new home and expediting the tenancy of the premises. A special thank you goes to the Seychelles Fishing Authority who moved all the Secretariat's belongings into its new offices.



#### 4) FUNCTIONAL AREAS OF WORK

- 13. To facilitate accountability, the activities of the IOTC Secretariat in 2021 have been grouped into six major functional areas which reflect the 'Program of work and budget' approved by the Commission at its 25<sup>th</sup> Session in 2021, as follows:
  - **1. Support to meetings**: Logistic support in the facilitation of meetings, preparation of reports and maintenance of the meetings calendar.
  - 2. Support to scientific activities: The acquisition and processing of scientific data, as required by the Scientific Committee to conduct stock status analyses. Supply of stock assessment services as required by the working groups.
  - **3. Support to compliance activities**: Maintenance of lists of vessels and compliance databases, reporting on compliance by Contracting Parties and Cooperating Non-Contracting Parties (CPCs). Providing support to CPCs in the implementation of IOTC Resolutions.

- **4. Communications and public information**: Considered essential in allowing CPCs to follow the progress of the Commission's work in a transparent way, and to increase the visibility of the Commission's activities to the general public.
- **5. Information Technology**: Provide basic computer infrastructure, including maintenance of the network and servers, as well as Internet support.
- **6. Administration**: Financial administration in conjunction with FAO, administration of extra-budgetary funds, travel arrangements, general logistical support to the activities of the technical sections.

## **FUNCTIONAL AREA 4.1 SUPPORT TO MEETINGS**

#### Logistic support in the facilitation of meetings

- 14. The IOTC Secretariat organised and supported 31 meetings in 2021 (Appendix 1). 16 meetings were facilitated by the Science and data teams; 6 meetings were facilitated by the Compliance team (WPICMM, CoC, 3xVMWG; and CDSWG); and 9 meetings were facilitated by the Executive Secretary (SCAF, S25, 2xHODs 2xSpecial Sessions and 3xTCAC meetings).
- 15. Due to travel restrictions enforced by the COVID-19 pandemic, new meeting formats were explored and introduced in 2020 and these continued to be used in 2021. These included, virtual working parties, teleconferences, meetings by correspondence and hybrid meetings using both virtual platforms and correspondence.
- 16. A technical hub was set up in Bangkok for the delivery of interpretation services and interpreters were hired directly from Thailand to service the TCAC, S26, SS, TCMP and SC meetings via a Zoom platform specially developed for FAO interpreters.

## **Preparation of reports**

- 17. The IOTC Secretariat staff provided the necessary support to all IOTC meetings in 2021 related to the development and dissemination of meeting reports. All IOTC meeting reports were developed, finalised and disseminated efficiently and in a short timeframe to ensure CPCs had access to the most recent meeting findings and recommendations soon after the completion of a meeting. This process took a little longer in some cases due to the added time required for the editing and clearance process by correspondence. All final documents were readily available in French soon after the final adoption.
- 18. The IOTC Secretariat continues to work with several translators for the provision of translation services and in 2021 worked again with two translators. Documents are prepared in both languages of the Commission for the Sessions of the Commission, and all Committees.
- 19. Appendix 2 lists the documents produced by the IOTC Secretariat in support of all the 2021 meetings of IOTC bodies.

### Meeting Participation Fund usage

- 20. The Secretariat administers the IOTC Meeting Participation Fund (MPF). The MPF currently serves nine scientific bodies (seven working parties, the Technical Committee on Management Procedures and the Scientific Committee); and six non-scientific bodies (the Technical Committee on Allocation Criteria, the Technical Committee on Performance Review, the Working Party on the Implementation of Conservation and Management Measures, the Standing Committee on Administration and Finance, the Compliance Committee and the Commission)
- 21. Due to COVID-19 travel restrictions there was no travel in 2021. Details of the fund are provided in IOTC-2022-SCAF19-06.

# FUNCTIONAL AREA 4.2 SUPPORT TO SCIENTIFIC ACTIVITIES IN 2021

- 22. The IOTC Secretariat's scientific support services area was staffed as follows:
  - Science Manager (P5)
  - Stock Assessment Expert (P4)
  - Data Coordinator (P4)
  - Data Management Assistant (G6)
  - Fisheries Officer Data (P1)

- Fishery Officer-Statistician (P3)
- Fishery Officer-Science (P3)

#### The role of the IOTC Secretariat in scientific matters

- 23. The IOTC Secretariat currently provides the following services to the scientific processes of the Commission:
  - Advice and training in data collection and reporting
  - Advice and training on stock assessment methods
  - Advice, management, and coordination of a range of scientific activities, including research projects
  - Preparation and provision of summary mandatory fisheries statistics for use by CPCs for research and the production of stock assessments (e.g. catch at size and catch at age)
  - Preparation and reporting on the status of the IOTC databases to Working Parties
  - Drafting of species Executives Summaries
  - Drafting and production of the Working Party and Scientific Committee reports
  - Organisation of the Working Parties and Scientific Committee
  - Preparation of background documents for the Working Parties and the Scientific Committee
  - Stock assessments on species as determined by the Scientific Committee
  - IOTC scientific meetings Working Parties & Scientific Committee.
- 24. In 2021, 15 technical (science) meetings and one Scientific Committee meeting were organised and facilitated by the IOTC Secretariat (Appendix 1). The numbers of attendees at each meeting are provided in IOTC-2021-SC24-R. The numbers of attendees supported by the IOTC Meeting Participation Fund at each meeting are provided in IOTC-2022-SCAF19-06. The current Chairs and Vice-Chairs for each Committee and Working Party are listed in Appendix 2.
- 25. Appendix 3 lists the documents produced by the IOTC Secretariat in support of the scientific meetings held in 2021. In addition, the IOTC Secretariat produced revised Executive Summaries for all of the IOTC stocks, as well as for sharks, seabirds and marine turtles in association with various experts.

#### Science activities in 2021

- IOTC Species ID guides: Work is ongoing to translate, typeset, format and print the IOTC species identification guides into the priority languages identified by the SC. The current set of identification guides available is provided [here].
- Bigeye thresher shark tagging: A consortium has been established 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 popup archival satellite tags are in the process of being deployed. An update was provided in IOTC-2021-WPEB17INF02.
- Yellowfin tuna stock assessment: The IOTC stock assessment scientist was part of a group of assessment modellers who carried out a stock assessment of yellowfin tuna (1950-2020) using stock synthesis III. The updated yellowfin assessment was not considered for management advice in 2020, however, the current revisions to the model have resolved many of the previous issues and this has enabled the WPTT to provide management advice in 2021.
- Neritic tuna stock assessment: The IOTC stock assessment scientist carried out stock assessments for neritic tuna species (Indo-Pacific King Mackerel, Frigate tuna and Bullet tuna) using data poor assessment techniques.
- Blue Sharks stock assessment: A Stock Assessment consultant funded by the IOTC regular budget, conducted a stock assessment for Blue Sharks, and conducted a catch estimation exercise to fill data gaps and improve the information available for the Assessment. The assessment was carried out using stock synthesis III.
- Cetacean by-catch: The IOTC Secretariat participated in a pre-meeting workshop of the WPEB in collaboration with the International Whaling Commission, to discuss cetacean by-catch issues in the Indian Ocean.
- Yellowfin and bigeye tuna MSE: A Stock Assessment consultant funded by a contribution from Australia conducted MSE for yellowfin and bigeye tuna. This voluntary contribution by Australia provided ongoing funding for this work through 2021.
- Skipjack MSE: A Stock Assessment consultant funded by the IOTC regular budget, conducted MSE for skipjack tuna.

The consultant worked to update the skipjack harvest control rule and develop a fully specified MP based on the updated stock assessment for the species.

- Albacore MSE: A Stock Assessment consultant funded by the IOTC regular budget, conducted MSE for albacore tuna. The consultant worked to update OM based on the updated stock assessment for the species.
- Swordfish MSE: A PhD student partially funded by an EU grant administered by the IOTC Secretariat as well as funding from the IOTC regular budget continued the work on swordfish MSE.
- Biological Sampling Project: In 2020 a Contract was signed for the development and implementation of a sampling scheme to support the collection of biological samples and conduct analysis on these samples to provide improved estimates of age, growth and reproduction of tropical tunas, swordfish, and blue sharks for the Indian Ocean. The results of this project were presented to several IOTC working parties in 2021. This project was funded by a Grant provided by the EU.
- Implementation for the ROS and E-Monitoring. In 2021 a project to implement the ROS in four member countries, as well as a project on a Pilot study for EMS in small scale vessels in Sri Lanka was continued withfunding provided by the EU.
- Longline size data analysis: A consultant conducted a review of data collection and processing systems for size data from longline fleets in the Indian Ocean. This information was presented to the WPTT in 2021.
- Size data modelling: The IOTC stock assessment scientist carried out a preliminary analysis to develop model-based
  estimates of length compositions. The model was applied to the commercial catch samples of yellowfin tuna to
  derive standardised length distributions. This information was presented to the WPM in 2021
- Natural mortality estimates for tropical tunas: A consultant conducted a review of natural mortality estimates for Tropical tunas in the Indian Ocean. This information was presented to the WPTT in 2021.

#### Stock assessment consultants

- Dr Charles Edwards: skipjack tuna management strategy evaluation (MSE) funded by IOTC regular budget.
- Dr. Simon Hoyle: provided natural mortality and tagging mortality estimates as well as a review of size
  frequency data for tropical tuna stock assessments. He also investigated spatio-temporal patterns in growth
  parameters for albacore tuna. this work was funded by the IOTC regular budget.
- Dr Iago Mosqueira (University of Wageningen): albacore tuna management strategy evaluation (MSE) funded by IOTC regular budget.
- Dr Joel Rice: stock assessment of blue sharks in the Indian Ocean funded by IOTC regular budget.

#### Data activities in 2021

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

- 26. The IOTC Secretariat continued with its mandate to provide direct support to and facilitate the work of developing coastal states, mainly through funds from the IOTC capacity building budget and other collaborating agencies. The European Union and the Overseas Fishery Cooperation Foundation of Japan (OFCF), in particular, provided resources and advice for the strengthening of data collection systems in more than 20 countries in the region over the last fifteen years.
- 27. In addition, the IOTC Secretariat cooperates with several other stakeholders that include COI-SmartFish, , the ABNJ Tuna Project, the International Seafood Sustainability Foundation, the World Bank, CMS and IOSEA, to coordinate and execute capacity building and research activities in developing coastal states of the Indian Ocean. The IOTC Secretariat also continued collaborations with NOAA, WWF-Pakistan, WWF-USA and SIOTI on capacity building activities to specifically support the implementation of the Regional Observer Scheme.
- 28. Table 1 provides a summary of the main capacity building activities undertaken in 2021, which can be broadly categorised into the following activities:
  - a) Data compliance and support missions: these are aimed at facilitating improvements in the validation and reporting of core statistical datasets to the IOTC Secretariat (i.e., nominal catches, catch-and-effort, and size data), to assess current shortcomings concerning the collection and management of fisheries data, and to agree on a plan of action with the CPC required to deliver improvements on their levels of reporting.

- In 2021, due to the pandemic and the consequent restrictions on travel, no in-the-field support could be provided to CPCs although staff members from the data Section of the IOTC Secretariat engaged in remote meeting and workshops with selected CPCs (e.g., Somalia) and participated remotely to the annual sessions of the EU-sponsored *Regional Coordination Group on Large Pelagics* (RCGLP, June 2021).
- b) **Technical assistance missions**: including capacity building in data collection, support for the development of national fisheries databases and statistical systems, or other issues related to fisheries data management.
  - Due to the pandemic, no direct support for these activities were provided to CPCs through on-site missions, although some activities were carried on through remote meetings and workshops with selected CPCs (e.g., Somalia, Indonesia) and with regional and international stakeholders such as the World Bank.
- c) Support for implementation of the Regional Observer Scheme and implementation of the ROS Pilot Project: ROS-related capacity building activities cover several components, including the further development and improvements of the IOTC ROS e-tools, as well as studies on the implementation of electronic monitoring systems (EMS) on small-scale fisheries.
  - Work on the ROS electronic tools and ROS regional database was ongoing in 2021, to account for the feedback on malfunctioning and usability issues reported by end-users, as is the work on establishing direct integration mechanisms between ObServe data and the ROS regional database. This was undertaken in collaboration with scientists from IRD.
  - Following a proposal on minimum standards for the design and implementation of EMS in Indian Ocean tuna fisheries presented at the SC in 2020, the Secretariat also supported the establishment and delivery of the 1<sup>st</sup> ad-hoc Working Group on EMS (November 2021).

## Other data initiatives

- 29. Consolidated List of Authorized Vessels: the IOTC Secretariat is responsible for the coordination of the activities of the Consolidated List of Authorized Vessels (CLAV), an evolving, global list of authorized vessels collated from data sourced by the five t-RFMOs. Since 2015, the CLAV has been further enhanced using funds from the FAO Common Oceans/ABNJ Tuna Project, with the main objective of ensuring that its updates occur in as close-to real time as possible. In January 2021, the IT infrastructure supporting the CLAV and hosted by the IOTC Secretariat stopped operations due to unforeseen technical issues. Because of the increased workload on the Secretariat's staff responsible for its management, the system components responsible for data updates were temporarily put on hold, resulting in the CLAV not having been updated since then. The efforts required to resolve the issue will be put in place as soon as circumstances will allow.
- 30. **FIRMS Global Tuna Atlas**: the IOTC continued with its contribution to the provision of updated and harmonized geo-referenced monthly catches and total catches of main IOTC species to the Global Tuna Atlas. The resulting product (which is now part of the offering of FAO / FIRMS) provides a combined global overview of the extent and magnitude of commercial tuna fisheries across all major oceans, including data sourced from the five tRFMOs and the collated and harmonized dataset it manages has been used to support the work of the 2<sup>nd</sup> ad-hoc IOTC Working Group on FADs in October 2021, among others.
- 31. Regional Observer Scheme: key areas of progress during 2021 include:
  - conclusion of the Electronic Monitoring Systems trial project for small-scale fisheries in Sri Lanka: the
    equipment was successfully installed onboard four vessels and the final sets of equipment have been delivered
    and were ready for installation onboard two further vessels by the Sri Lanka Ministry of Fisheries and Aquatic
    Resources. Remote training sessions were delivered to selected Sri Lankan observers and their coordinators
    and initial data from the trials were collected and analysed.
  - awarding a contract for the development of training materials and supporting national observer schemes in six IOTC CPCs between 2019 and 2020, with project activities that were postponed in Q2 2020 due to travel restrictions resulting from the pandemic. Project activities resumed in Q3 2021 and a package of training manuals and supporting documents were presented at the WPDCS17. Due to many CPCs being unable to meet the requirements set out for participating in the pilot project, the number of participating countries has now been reduced to four.
- 32. **Processing of cannery sales data from ISSF-affiliated companies**: the IOTC Secretariat has been receiving quarterly summaries of the products offloaded at several canneries associated with the International Seafood Sustainability

Foundation (ISSF) since 2010. The highly variable nature of the data formats used by each company, together with the lack of dedicated personnel for its processing, has been problematic for the use and interpretation of this valuable information. Starting in Q2 2020, the IOTC Secretariat put forward an initiative, with some support from the ISSF, to clean-up the cannery data submissions , with the aim of eventually being able to compare species composition estimated from cannery data with that from IOTC data submissions. The ISSF funded a consultancy to clear, harmonize and compile all tuna factory quarterly reports submitted between 2010 and 2021; upload these reports into a relational database; and to improve data quality and traceability going forward. In parallel, a master's student from the Department of Environmental Sciences of the University of Seychelles analysed this information to cross-validate official sources of data available to tRFMOs and improve the understanding of the extent of tuna fishery activities, assess the levels of worldwide tuna trading and identify potential trends in commercial size categories of traded fish. Data from ISSF-affiliated canneries continue to be received by the Secretariat, with the Data Section staff of the Secretariat regularly engaged in the update of the cleaned-up dataset.

33. **Socio-economic data**: In 2021 the IOTC Secretariat has started a collaboration with the FAO GLOBEFISH project to develop a procedure of exchange of socio-economic data sets (e.g., monthly time series of FAO tuna price index) of interest for the scientific analyses conducted during the IOTC Working Parties.

## FUNCTIONAL AREA 4.3 SUPPORT TO COMPLIANCE ACTIVITIES IN 2021

# **Compliance Section Staffing**

- 34. The IOTC Secretariat's compliance support services area was staffed by two full-time positions until November 2021, with assistance provided by a local consultant with data processing duties. The new P3 Compliance Officer arrived in Seychelles in November. The staff are as follows:
  - Compliance Manager (P5)
  - Compliance Coordinator (P4)
  - Compliance Officer (P3) from November 2021
  - Consultant

The Compliance Section also benefitted from the support of a consultant funded by the IOC-SWIOFish 2 (World Bank) Project, throughout 2021. His role was to provide support to the IOTC CPCs who are beneficiaries of the SWIOFish 2 Project. The SWIOFish 2 Project also supported two short-term consultants to undertake support activities related to the implementation of port State measures and flag State responsibilities in beneficiary countries. However, COVID-related travel restrictions and border closures in most of the countries delayed or limited the number of activities planned for 2021.

#### Role of the IOTC Secretariat in technical matters

- 35. The IOTC Secretariat currently provides the following services in the compliance processes of the Commission:
  - Maintain all vessels' lists (Active, Authorised and IUU)
  - Maintain the Bigeye Tuna Statistical Document Programme (validation information and tables of import/reexport statistics)
  - Maintain the e-PSM application
  - Advice and training in the implementation of CMMs (Compliance Support Mission)
  - Advice and training in the implementation of PSM (Port State Measures training)
  - Training on the use of a specialised application for implementing port State Measures (e-PSM application)
  - Preparation and reporting on the status of compliance by CPCs
  - Drafting and production of the Working Party and Compliance Committee reports
  - Coordinate the work of ad-hoc Working Groups (Catch Documentation Scheme and Vessel Monitoring System)
  - Preparation of meeting documents for the Working Groups, Working Party and the Compliance Committee
  - Assist in the preparation of meeting documents for the SCAF and Commission (compliance related activities)
  - Supervise the implementation of Regional Observer Programme to monitor transhipments at sea, including dissemination of deployment reports to the fleets participating in the Programme.

36. In addition to the above listed core duties, staff of the Compliance Section supervised several projects undertaken by consultants through extra-budgetary funding, in response to work tasked to the IOTC Secretariat by the Commission.

#### Meetings supported by the Compliance team: the WPICMM and CoC

- 37. Five meetings of the Vessel Monitoring Systems Working Group (VMSWG) were called in 2021; 30 March, 21 April, 19 May, 17 September and 13 December. The first two meetings were cut short due to an extremely low number of participants. The level of participations in the following three meetings varied from 14 to 23 participants (5-6 Member States, one observer and Invited Experts).
- 38. The Catch Documentation Scheme Working Group (CDSWG) held two meetings in 2021; 28 April and 20/21 October. A total of 20 participants (12 Member States and Invited Experts) attended the first meeting and 23 participants (12 Member States and three Observers) attended the second meeting.
- 39. The 4<sup>th</sup> Session of the Indian Ocean Tuna Commission's (IOTC) Working Party on Implementation of Conservation and Management Measures (WPICMM) was held via videoconference, from 15 to 17 February 2021. A total of 69 participants (14 Members and four observers) attended the Session.
- 40. The 18<sup>th</sup> Session of the Compliance Committee (CoC) of the Indian Ocean Tuna Commission (IOTC) was held in by videoconference, from 30 May to 1 June 2021. 25 Contracting Parties (Members), 1 Cooperating Non-Contracting Party, 11 Observers and 6 Invited Experts participated in the meeting.
- 41. The VMSWG, CDSWG, WPICMM and CoC meetings were facilitated by the Secretariat's Compliance team. Appendix 3 lists the documents produced by the IOTC Secretariat in support of the VMSWG, CDSWG, WPICMM and CoC meetings.

### Other meetings

42. Staff members of the Compliance Section also participated in a number of virtual meetings throughout 2021. The number of virtual meetings that compliance staff were invited to contribute to or expected to attend increased significantly in 2021. The range of time zones over which many of these meetings took place meant that staff members often had to give up their own time to participate.

#### Compliance related activities

- 43. The IOTC Record of Authorised Vessels often requires additional attention from the IOTC Secretariat to ensure its accuracy. The processing and quality assurance of IOTC data sets continues to require substantial resources from the IOTC Secretariat, and often involves repeat requests for clarification of data issues between IOTC Secretariat staff and data liaison officers in national fisheries organisations. Just under 12,756 records were processed during 2021; this includes the addition, deletion and updating the history of vessels in the record. This represents a decrease of about 16% over the number of records processed in the previous year. Substantial work has gone into encouraging CPCs to submit information on the reporting new requirements introduced in Resolution 19/04.
- 44. The maintenance of the IOTC Record of Active Vessels also requires the active follow-up by staff of the IOTC Secretariat to ensure timely data submissions by CPCs. Discrepancies and inconsistencies in the datasets are the main issues that require staff to resolve, through contacts with the various parties involved. During 2021 a total of 3,619 records of active vessels were processed: representing a decrease of about 17% over the previous year. These included both vessels reported by flag States and foreign vessels reported by coastal States under licensing agreements.
- 45. The impact of pandemic on the Regional Observer Programme (ROP) to monitor transhipments at sea for large-scale tuna longline vessels continued to be felt throughout most of 2021. Toward the end of the first quarter of 2021 the fleets participating in the programme were informed that a gradual resumption of observer deployment was being considered; however, due to delays to amend the contract with the ROP Consortium to cater for observer quarantine it was not until the last quarter of the year that the Secretariat could consider approving the deployment of observers. The contract with the ROP Consortium was extended in June 2021, to cover the period May 2021 to April 2022, for a value of €350,000.00, bringing the total contract value for the period May 2018 to April 2022 to €2,268,500.00.
- 46. In the absence of observer on board the majority of carrier vessels in 2021, the Consortium has continued to assume responsibility of producing reports under the programme, based on transhipment declarations submitted by the carrier vessels either directly to the Consortium or to the IOTC Secretariat. The Consortium had also

expanded extra efforts to work closer with carrier vessel operators to ensure that only days of relevance are billed to the programme.

#### Capacity building activities: Compliance Support Missions

47. Compliance Support Missions (CSM) are intended to bring the work of the Commission and the Compliance Committee closer to the CPCs. The follow-up CSM are a combination of capacity building and planning exercise to engage in activities that would support the issues that were identified during the review of country-based Compliance Report at the last session of the Compliance Committee. The CSMs are carried by the IOTC Secretariat staff over a period of three days, to an audience composed of national officers in offices involved in the implementation of IOTC Resolutions. The outcome is a Compliance Action Plan and an agreed timeline with the CPC on addressing outstanding compliance issues. The easing of travel restrictions in the second half of the year permittedan in-person follow-up Compliance Support Mission to take place. Two virtual missions were also conducted 2021: a training on the completion of data reporting templates for reporting requirements under Resolution 01/06, and a follow-up Compliance Support Mission.

#### Capacity building activities: Training in Port State Measures

48. This other component is specific to the implementation of Resolution 16/11 on Port State Measures to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing. This training is primarily intended for field personnel and their supervisors, as it focuses more on the operational aspects of the Resolution on Port State Measures. It implements at national level, a training course for government officials on IOTC Port State Measures for CPCs in the region. To support this activity, one training package has been developed relating to the implementation of Port State Measures to prevent, deter and eliminate illegal, unreported and unregulated (IUU) fishing activities. Three PSM/e-PSM missions were undertaken during 2021; two in Seychelles and one in Kenya.

#### **Funding of Compliance related activities**

- 49. Funding for these activities is being provided through cooperation with several initiatives, following presentation of the capacity building initiatives to potential financing agencies. Table 1 summarises all the missions relating to compliance, including those undertaken by consultants supported by the IOC-SWIOFish 2 (World Bank) Project.
- 50. The IOTC Secretariat received financing from the World Bank Project (SWIOFish 2) administered by the Indian Ocean Commission with financing support to undertake, in qualifying countries, Compliance Support Missions, PSM trainings, develop a monitoring and reporting information system (e-MARIS) and other activities related to flag State obligations in 2021.

#### FUNCTIONAL AREA 4.4 COMMUNICATIONS AND PUBLIC INFORMATION

51. The IOTC Secretariat continues with the publication of all reports of the Commission and its subsidiary bodies on the IOTC website. All reports are published in electronic format only following the decision by the Commission at its 17th Session to go paperless.

## **FUNCTIONAL AREA 4.5 INFORMATION TECHNOLOGY**

- 52. The provision of computer infrastructure, including maintenance of the network and servers, as well as internet support was provided by a consultant paid under the provisions of the Headquarters Agreement with the Republic of Seychelles. These services were also extended to general meeting support and IOTC website maintenance. All additional contributions for these services, including some arrears for 2019-2020, were received from Seychelles in 2021.
- 53. Additional improvements were made to the monitoring software in 2021 and new software was purchased. Equipment purchases included new desktop computers, new laptops and new UPS system components. Asset control mechanisms are in place and continue to be monitored carefully, especially under teleworking conditions.
- 54. The Internet bandwidth increase introduced in 2020 proved to be a major improvement for the IOTC internet performance. This was especially important now that there is a full complement of staff and the need to facilitate videoconference meetings. The IOTC internet capacity is currently provided on a dedicated (individual) connection and the bandwidth requirements will be closely assessed again in 2022 in the search for future improvements.

**Table 1**. Missions undertaken by staff from the IOTC Secretariat during 2021 in relation with capacity building activities.

Country	Date	Staff	Description
Science and data			
Indonesia —by videoconference	May 2021	IOTC Data Coordinator IOTC Fishery Statistician IOTC Fishery Officer (data) IOTC Data assistant Representatives from the Ministry of Marine Affairs and Fisheries of Indonesia, national research institutions, IPNLF	<ul> <li>i) Recall the reasons that led the IOTC Scientific Committee to request for a revision of Indonesia's artisanal catches</li> <li>ii) Present the rationale of these re-estimations, including their more recent revisions</li> <li>iii) Present the results of the re-estimations compared to official catch data for the period 2010-2019</li> <li>iv) Discuss about past issues affecting data collection and reporting in Indonesia and how these have been or could be resolved</li> <li>v) Assess the extent of the improvements in data collection and reporting introduced by the One Data initiative</li> </ul>
Indonesia —by videoconference	Sep 2021	IOTC SC Chair IOTC WPDCS Chair IOTC Data Coordinator IOTC Fishery Statistician IOTC Fishery Officer (data) IOTC Data assistant Ministry of Marine Affairs and Fisheries of Indonesia, national research institutions, IPNLF	i) Continuation of the discussions held during the 1st technical workshop in May 2021  ii) Further assessment of the improvements introduced by the One Data initiative  Identification of a way forward to improve the catch re-estimations in collaboration with national scientists and considering the improved data collection workflow at national level
Somalia	Sep 2021	IOTC Data Coordinator Compliance Expert Representatives from Somalia	i) General overview of IOTC  ii) Introduction to the main data collection and reporting requirements  Discussions on the current state of the art of fishery data collection in Somalia
Sri Lanka —by videoconference	Sep 2021	IOTC Data Coordinator IOTC Fishery Statistician IOTC Fishery Officer (science) Marine Instruments AZTI-Tecnalia	Assess the status of implementation of the EMS trial onboard selected small-scale coastal gillnet/longline vessels for what concern:  i) Finalization of the installation of EMS onboard 6 gillnet / longline vessels selected for the pilot trials  ii) Current EMS data collection procedures and identification of the technical issues (complete or partial data loss) encountered during the pilot trials  iii) Status of the remote training delivered by the service provider  iv) Options to continue and potentially extend the project to other CPCs
Compliance			
Sri Lanka (by videoconference)	25 August	Compliance Manager	Training on completion of data reporting templates for Resolution 01/06 - Bigeye Tuna Statistical Document Programme
Somalia (by videoconference)	14 - 16 September	SWIOFish 2 Project staff – MCS Expert	Follow-up Compliance Support Mission
Seychelles (In-person)	11 October	Compliance Coordinator	Capacity building on the implementation of the IOTC Resolution 16/11 - On port State measures
Seychelles (In-person)	18 – 29 October	SWIOFish 2 Project staff – PSM Expert	Compliance Support Mission – Port State Measures

Kenya (In-person)	31 October –	SWIOFish 2 Project staff – PSM	Gap Compliance Support Mission – Port State
	13	Expert	Measures
	November		

- 55. The meeting room now hosts a SMART television connected to a high-definition camera. Together with other audio accessories purchased recently, the Secretariat now has a range of up-to-date equipment for virtual meetings. New USB headsets were also purchased to improve the sound quality of staff during meetings.
- 56. Some technical improvements/modifications were made to the IOTC website after consultation with users and the webpages were updated.
- 57. A fire caused serious structural damage to the IOTC building in October and this forced all staff to work temporarily from home. Moreover, the electricity was permanently turned off in the building, affecting the IOTC servers which are normally serviced by a UPS. Emergency action was taken to move the servers to a new location offered by the Republic of Seychelles and to connect to a new internet connection. This resulted in only a few days of downtime for the servers and the IOTC systems and databases continued without any reported problems.
- 58. The IOTC server, technical facilities and equipment were all transferred to the new temporary office in February 2022.

## **FUNCTIONAL AREA 4.6 ADMINISTRATION**

#### **Administrative Staff**

- 59. The IOTC Secretariat's Administrative Unit was staffed as follows:
  - Administrative Officer (P3)
  - Administrative Assistant (G6)
  - Office Associate (G6)
  - Administrative Assistant (G5)
  - Driver/Receptionist (G2)
  - IT System Manager (consultant)
  - A part-time cleaner was also part of the administration team.
- 60. The Administrative Unit was fully staffed in 2021.

## **Activities of the IOTC Administrative Unit**

- 61. The human resources and administration functions of the IOTC are managed through various FAO electronic systems. The Global Resource Management System (GRMS) covers the administration of all funds, travel arrangements, HR support and procurement. Projects are managed through the Field Programme Management Information System and the integrated Management Information System is used to generate up-to date reports on all areas of administration. Using these systems and in liaison with FAO HQ, the unit provided administrative support to all activities of the Secretariat, in particular:
  - Procurement of goods and services including tenders and contract processing
  - Recruitment and management of staff and consultant contracts
  - Financial management and reporting including budget monitoring, contribution tracking, asset control and banking
  - Project management support and liaison with donors
  - Travel of staff, consultants and meeting participants, and the management of the Meeting Participation
     Fund
  - Meeting planning and logistics
  - Correspondence and communication management
  - IT support
  - Data preparation for reports to the SCAF which advises the Commission on administrative and financial matters such as the financial status and the provisional budget for the ensuing year
  - Facilities Management
  - Guidance and advice to staff about IOTC and FAO rules and procedures.

#### **New Systems and Procedures in 2021**

- 62. New FAO Administrative Guidelines (V.6-8) were introduced in 2021 which included a range of measures aimed at helping to deal with the issues encountered during the COVID-19 pandemic. These included more flexible work arrangements, clearer travel rules and more flexibility concerning the rules for recruiting project consultants.
- 63. All recruitment of both staff and consultants is now managed through the TALEO system and the Secretariat staff have received training and are now fully proficient. TALEO ensures a more effective and transparent recruitment process from the screening of candidates to the final selection.

## Fire in the IOTC Office Building

64. The fire in the IOTC building forced some changes in the administrative procedures while working from home and conforming with FAO rules and procedures. Some physical exchanges of signed documentation were necessary and these were organised through the Driver and other staff. Virtual meetings between staff increased and other activities such as annual performance evaluation were carried out virtually. The Secretariat staff rallied together to ensure that the administrative processes continued to operate seamlessly.

## 5) OTHER ACTIVITIES

#### Collaborations with other organisations

- 65. The IOTC Secretariat routinely maintains contacts with other organisations in the region with the purpose of coordinating scientific and compliance activities to the extent possible. This is essential to avoid duplication of efforts with similar organisations (e.g. other tuna RFMOs CCSBT, IATTC, ICCAT and WCPFC).
- 66. Inter-Governmental Organisations (IGOs): The IOTC Secretariat maintains links with the Indian Ocean Commission (IOC) primarily through the discussions of possible future coordination and cooperation in fisheries projects involving tuna fisheries. The IOTC Secretariat is currently involved in a number of joint activities with the IOC SWIOFISH Project. The IOTC Secretariat also maintained close contacts with the Secretariat of the Memorandum of Understanding on Port State Control for the Indian Ocean Region (IOMOU) to fulfil the objectives of the Letter of Intent which was signed at the beginning of 2021.
- 67. In 2021, the Secretariat continued its collaboration with the Overseas Fishery Cooperation Foundation (OFCF) on improving statistical systems for tuna resources. This included receiving the final outputs on the work undertaken to develop a Fisheries Satellite Account for Seychelles and receiving support for the publication of species identification guides. The Secretariat also continued its collaboration the GEF-FAO ANBJ Tuna Project.

#### 6) SUGGESTED ACTION BY THE STANDING COMMITTEE ON ADMINISTRATION AND FINANCE

68. That the SCAF NOTE paper IOTC–2022–SCAF19–02 which provides the SCAF with an update on the activities of the IOTC Secretariat in 2021.

# APPENDIX 1 2021: CALENDAR OF IOTC MEETINGS

Meeting (all by videoconference)	Date
Working Party on Implementation of Conservation and Management Measures (WPICMM)	15-17 February
MSE Task Force	1-5 March
Special Session (SS4)	8-12 March
Technical Committee on Allocation Criteria (TCAC) 1 <sup>st</sup> meeting	22-25 March
Working Party on Ecosystems & Bycatch – data preparation (WPEB-DP)	12-14 April
Heads of Delegations (HOD-TCAC)	4 May
Working Party on Tropical Tunas – data preparation (WPTT-DP)	10-14 May
Vessel Monitoring System Working Group (VMSWG)	19 May
Compliance Committee (CoC)	30 May – 1 June
Standing Committee on Administration and Finance (SCAF)	2 June
Report adoption: CoC (am) / SCAF (pm)	3 June
Heads of Delegations (HOD-S25)	3 June
Technical Committee on Management Procedures (TCMP)	4-5 June
Commission (S25)	7-11 June
Technical Committee on Allocation Criteria (TCAC) 2 <sup>nd</sup> meeting	21-24 June
Working Party on Neritic Tunas (WPNT)	5-9 July
Working Party on Ecosystems and Bycatch (WPEB)	6-10 September
Working Party on Billfish (WPB)	13-16 September
Vessel Monitoring System Working Group (VMSWG)	17 September
Ad hoc Working Group on FADs (WGFAD)	4-6 October
Working Party on Methods (WPM)	18-20 October
Catch Documentation Scheme Working Group (CDSWG)	20-22 October
Working Party on Tropical Tunas (WPTT)	21-26 October
Technical Committee on Allocation Criteria (TCAC) 3 <sup>rd</sup> meeting	2-3 November
Working Party on Temperate Tunas – data preparation (WPTmT-DP)	Postponed
Working Group on Electronic Monitoring Systems (EMSWG)	15-17 November
Special Session (SS5)	29 November
Working Party on Data Collection and Statistics (WPDCS)	1-3 December
Scientific Committee (SC)	6-10 December
Vessel Monitoring System Working Group (VMSWG)	13 December

APPENDIX 2
LIST OF MEETING CHAIRS IN 2021

Meeting			CPC/Affiliation	Starting	Ending	Term
Commission (S)	Chair	Ms Jung Re Kim	Rep. of Korea	2021	2023	1
	1 <sup>st</sup> Vice-Chair	Mr Adam Ziyad	Maldives	2021	2023	1
	2 <sup>nd</sup> Vice-Chair	Mr Qayiso Mketsu	South Africa	2021		
Compliance Committee (CoC)	Chair	Ms Anne-France Mattlet	EU, France	2019	2023	2
	Vice-Chair	Dr. Indra Jaya	Indonesia	2019	2023	2
Scientific Committee (SC)	Chair	Dr Toshihide Kitakado	S. Africa	2019	2023	2
	Vice-Chair	Dr Denham Parker	Japan	2019	2023	2
Standing Committee on Administration and Finance (SCAF)	Chair	Mr Hussain Sinan	Maldives	2018	2023	2
	Vice-Chair	Mr Muhammad Farhan Khan	Pakistan	2018	2023	2
Technical Committee on Allocation Criteria (TCAC)	Chair	Ms Nadia Bouffard	Independent	2020	-	-
Technical Committee on Management Procedures (TCMP)	Co-Chairs	Commission and SC Chairs	-	-	-	-
Technical Committee on Performance Review TCPR	Chair	-	-	-	-	
	Vice-Chair	-	-	-	-	
Working Party on Billfish (WPB)	Chair	Dr Denham Parker	S. Africa	2019	2023	2
	Vice-Chair	Dr Jie Cao	China	2019	2023	2
Working Party on Data Collection and Statistics WPDCS	Chair	Dr Julien Barde	EU, France	2021	2023	1
	Vice-Chair	Mr Nuwan Gunawardane	Sri Lanka	2021	2023	1
Working Party on Ecosystems and Bycatch WPEB	Chair	Dr. Mariana Tolotti	EU,France	2021	2023	1
	Vice-Chair	Dr. Mohamed Koya	India	2021	2023	1
	2 <sup>nd</sup> Vice-Chair	Dr Charlene da Silva	South Africa	2021		
Working Party on Implementation of Conservation and Management Measures (WPICMM)	Chair	Mr Roy Clarisse	Seychelles	2019	2021	2

	Vice-Chair	Mr Benedict Kiilu	Kenya	2019	2021	2
Working Party on Methods (WPM)	Chair	Dr Hilario Murua	ISSF	2019	2023	2
	Vice-Chair	Vacant				
Working Party on Neritic Tunas (WPNT)	Chair	Ms Ririk Sulistyaningsih	Indonesia	2019	2023	2
	Vice-Chair	Dr Farhad Kaymaram	I.R. Iran	2019	2023	2
Working Party on Temperate Tunas (WPTmT)	Chair	Dr Jiangfeng Zhu	China	2019	2022	2
	Vice-Chair	Dr Toshihide Kitakado	Japan	2019	2022	2
Working Party on Tropical Tunas (WPTT)	Chair	Dr Gorka Merino	EU,Spain	2018	2023	2
	Vice-Chair	Dr Shiham Adam	IPNLF	2018	2023	2
Catch Documentation Scheme Working Group (CDSWG)	Chair	Dr Indra Jaya	Indonesia	2020	2022	1
Working Group on Electronic Monitoring systems (EMSWG)	Chair	Dr Hilario Murua	ISSF	2021	2023	1
	Vice-Chair	Dr Don Bromhead	Australia	2021	2023	1
Ad hoc Working Group on FADs (WGFAD)	Co-Chair	Dr Gorka Merino	EU, Spain	2021	2023	1
	Co-Chair	Mr Abdirahim Sheik Heile	Somalia	2021	2023	1
Vessel Monitoring System Working Group (VMSWG)	Chair	Mr Stephen Ndegwa	Kenya	2021	2023	1
Management Strategy Evaluation Task Force	Chair	WPM Chair				

# APPENDIX 3 LIST OF DOCUMENTS PRODUCED BY IOTC SECRETARIAT STAFF IN 2021

# 25<sup>th</sup> Session of the Commission

IOTC-2021-S25-01a	Provisional agenda for S25 (v8April).
IOTC-2021-S25-01b	Provisional agenda for S25 (v9May).
IOTC-2021-S25-01c	Provisional agenda for S25 (v5June)
IOTC-2021-S25-02	Progress on the requests for action made to the Secretariat.
IOTC-2021-S25-03_Rev1	Regarding the development of a proposal for a permanent procedure to select the Executive Secretary
IOTC-2021-S25-03_add1_rev1	Regarding the development of a proposal for a permanent procedure to select the Executive Secretary
IOTC-2021-S25-04	Conservation and management measures that include a reference to the year 2020 or 2021.
IOTC-2021-S25-05	Review of objections received under Article IX.5 of the IOTC Agreement.
IOTC-2021-S25-06	Proposed Letter of Intent between the Indian Ocean Tuna Commission (IOTC) and the Southern Indian Ocean Fisheries Agreement (SIOFA)
IOTC-2021-S25-07	Implementation of paragraph 6 of the UNGA Resolution 73/295 (FAO)
IOTC-2021-S25-08	Additional information related to the IOTC provisional IUU vessels list
IOTC-2021-S25-R	Meeting report

# 4<sup>th</sup>Special Session of the Commission

IOTC-2021-SS4-01a	Draft agenda for SS4 (v 7Jan).
IOTC-2021-SS4-01b	Draft agenda for SS4 (v 2Mar).
IOTC-2021-SS4-01c	SS4 adopted agenda.
IOTC-2021-SS4-02	List of documents.
IOTC-2021-SS4-R	Meeting Report

# 5<sup>th</sup>Special Session of the Commission

IOTC-2021-SS5-01	Draft agenda for SS5 (v 29Oct).
IOTC-2021-SS5-02	On the challenge to the result of the vote held on PropE_rev2
IOTC-2021-SS5-R	Meeting Report

# **Compliance Committee**

IOTC-2021-CoC18-01a	Final Agenda for the Eighteenth Session of the Compliance Committee
IOTC-2021-CoC18-01b	Final Annotated Agenda for the Eighteenth Session of the Compliance Committee
IOTC-2021-CoC18-02	List of documents for the Eighteenth Session of the Compliance Committee
IOTC-2021-CoC18-03_Rev3	Summary report on the level of compliance
IOTC-2021-CoC18-04a	Report on Transhipment Resolution 19/06 – Secretariat's Report
IOTC-2021-CoC18-04c	Indonesia's pilot project for monitoring at sea transhipments
IOTC-2021-CoC18-04c_Add1	Analysis by the IOTC Secretariat of Indonesia's pilot project for monitoring at sea transhipments

IOTC-2021-CoC18-05	Implementation of reporting obligations of nominal catch data (IOTC Resolution 18/07)
IOTC-2021-CoC18-06	Request from the TCAC for advice
IOTC-2021-CoC18-07b	Summary report on possible infractions observed under the Regional Observer Programme in 2020
IOTC-2021-CoC18-08	The IOTC Draft IUU Vessels List
IOTC-2021-CoC18-08_Add1	Communication from India concerning the vessel, ARARAT/RESHMITHA IND-TN-15-MM8297
IOTC-2021-CoC18-08_Add2	Communication from the UK concerning nine vessels on the IOTC Draft IUU Vessels List
IOTC-2021-CoC18-08_Add3	Communication from Sri Lanka concerning eight vessels on the IOTC Draft IUU Vessels List
IOTC-2021-CoC18-09_Rev1	Implementation of Recommendations from CoC17 & S24
IOTC-2021-CoC18-10	Summary of Compliance with the drifting FADs Management Plans
IOTC-2021-CoC18-10_Add1	Collection of drifting Fish Aggregating Devices Management Plans
IOTC-2021-CoC18-12_Rev3	Summary report on Compliance Support Activities
IOTC-2021-CoC18-13	Progress reports of the WPICMM, CDSWG, VMSWG & VGMFG.
IOTC-2021-CoC18-CNCP01	Senegal CNCP status renewal
IOTC-2021-CoC18-CNCP02	Liberia CNCP status renewal
IOTC-2021-CoC18-CR01	Australia
IOTC-2021-CoC18-CR02	Bangladesh
IOTC-2021-CoC18-CR03_Rev1	China
IOTC-2021-CoC18-CR04	Comoros
IOTC-2021-CoC18-CR05	Eritrea
IOTC-2021-CoC18-CR06_Rev1	European Union
IOTC-2021-CoC18-CR07	France (OT)
IOTC-2021-CoC18-CR08	India
IOTC-2021-CoC18-CR09	Indonesia
IOTC-2021-CoC18-CR10	Iran, Islamic Republic of
IOTC-2021-CoC18–CR11_Rev1	Japan
IOTC-2021-CoC18-CR12	Kenya
IOTC-2021-CoC18-CR13	Korea, Republic of
IOTC-2021-CoC18-CR14	Madagascar
IOTC-2021-CoC18-CR15	Malaysia
IOTC-2021-CoC18–CR16_Rev2	Maldives
IOTC-2021-CoC18–CR17_Rev1	Mauritius
IOTC-2021-CoC18-CR18	Mozambique
IOTC-2021-CoC18-CR19	Oman
IOTC-2021-CoC18–CR20_Rev1	Pakistan
IOTC-2021-CoC18–CR21	Philippines
IOTC-2021-CoC18-CR22	Seychelles
IOTC-2021-CoC18-CR23	Somalia
	1

IOTC-2021-CoC18–CR24_Rev1	South Africa
IOTC-2021-CoC18-CR25	Sri Lanka
IOTC-2021-CoC18-CR26	Sudan
IOTC-2021-CoC18-CR27_Rev1	Tanzania, United Republic of
IOTC-2021-CoC18-CR28_Rev1	Thailand
IOTC-2021-CoC18-CR29	United Kingdom
IOTC-2021-CoC18-CR30	Yemen
IOTC-2021-CoC18-CR31	Liberia
IOTC-2021-CoC18-CR32	Senegal
IOTC-2021-CoC18-R	Report of the 18th Session of the Compliance Committee

# Scientific Committee

IOTC-2021-SC24-03	Outcomes of the 25th Session of the Commission (IOTC Secretariat)
IOTC-2021-SC24-04	Previous decisions of the Commission (IOTC Secretariat)
IOTC-2021-SC24-05	Report of the Secretariat – Activities in support of the IOTC science process in 2021 (IOTC Secretariat)
IOTC-2021-SC24-06	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-2021-SC24-07	2021: Update on the implementation of the regional observer scheme (IOTC Secretariat)
IOTC-2021-SC24-08	Revision of the program of work (2022–2026) for the IOTC science process (IOTC Secretariat)
IOTC-2021-SC24-09	Proposed schedule of Working Party and Scientific Committee meetings for 2022 and 2023 (IOTC Secretariat)
IOTC-2021-SC24-10	Progress on recommendations from SC23 (IOTC Secretariat)
IOTC-2021-SC24-R	Meeting report

# Standing Committee on Administration and Finance

IOTC-2021-SCAF18-01a	Draft agenda for SCAF18
IOTC-2021-SCAF18-02	List of documents
IOTC-2021-SCAF18-03	Report of the IOTC Secretariat on the year 2020
IOTC-2021-SCAF18-04	Financial Statement for 2020
IOTC-2021-SCAF18-05	Contributions Outstanding
IOTC-2021-SCAF18-06	IOTC Meeting Participation Fund
IOTC-2021-SCAF18-07	Mid-Term Financial report 2021
IOTC-2021-SCAF18-08	Provisional Program of work and budget for 2022 (and Indicative Budget for 2023)
IOTC-2021-SCAF18-09	On employer contributions
IOTC-2021-SCAF18-10	Finalising the IOTC financial regulations (2019)
IOTC-2021-SCAF18-01a	Draft agenda for SCAF18
IOTC-2021-SCAF18-02	List of documents
IOTC-2020-SCAF18-R	Meeting report

## **Technical Committee on Allocation Criteria**

IOTC-2021-TCAC07-01a Draft Agenda v 12 Feb
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IOTC-2021-TCAC07-R	Meeting Report
IOTC-2021-TCAC08-01a	Draft Agenda v20May
IOTC-2021-TCAC08-R	Meeting Report
IOTC-2021-TCAC09-01a	Draft Agenda v5Oct
IOTC-2021-TCAC09-01b	Adopted Agenda v2Nov
IOTC-2021-TCAC09-R	Meeting Report

# **Technical Committee on Management Procedures**

IOTC-2021- TCMP04-01a	Draft: Agenda of the 4 <sup>th</sup> Technical Committee on Management Procedure Meeting
IOTC-2021- TCMP04-01b	Draft: Annotated agenda of the $4^{\text{th}}$ Technical Committee on Management Procedure Meeting
IOTC-2021- TCMP04-02	Draft: List of documents of the 4 <sup>th</sup> Technical Committee on Management Procedure (TCMP04)
IOTC-2021- TCMP04-03	Outcomes of the 3 <sup>rd</sup> Technical Committee On Management Procedure
IOTC-2021- TCMP04-04	Outcomes of the 24 <sup>th</sup> Session of the Commission and the 4 <sup>th</sup> Special Session of the Commission
IOTC-2021- TCMP04-05	Outcomes of the 23 <sup>rd</sup> Session of the Scientific Committee
IOTC-2021- TCMP04-06	Resolution 16/09 ON ESTABLISHING A TECHNICAL COMMITTEE ON MANAGEMENT PROCEDURES
IOTC-2021- TCMP04-07	Initial developments of an empirical MP for Indian Ocean skipjack tuna
IOTC-2021- TCMP04-08	IOTC Bigeye Tuna Management Procedure Evaluation Update June 2021
IOTC-2021- TCMP04-09	IOTC Bigeye Tuna Management Procedure Evaluation Update June 2021
IOTC-2021- TCMP04-10	Indian Ocean Swordfish Management Procedure - Status Report
IOTC-2021- TCMP04-11	Indian Ocean Albacore Tuna Management Procedures Evaluation: Status Report
IOTC-2021- TCMP04-12	Defining stock status against conservation and management reference points: a global review for informing the process of status determination for key IOTC stocks
IOTC-2021- TCMP04-R	Meeting Report

# Working Party on Billfish

IOTC-2021-WPB19-03	Outcomes of the 23rd Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPB19-04	Outcomes of the 24th and 25th Sessions of the Commission (IOTC Secretariat)
IOTC-2021-WPB19-05	Review of Conservation and Management Measures relevant to billfish (IOTC Secretariat)
IOTC-2021-WPB19-06	Progress made on the recommendations and requests of WPB18 and SC23 (IOTC Secretariat)
IOTC-2021-WPB19-07	Review of the statistical data and fishery trends for billfish species (IOTC Secretariat)
IOTC-2021-WPB19-08	Revision of the WPB Program of Work (2022-2026) (IOTC Secretariat)
IOTC-2021-WPB19-24	Indian Ocean swordfish management strategy evaluation: Operating model (Rosa D, Fu D, Coelho R, Mosqueira I)
IOTC-2021-WPB19-R	

# Working Party on Data Collection and Statistics

IOTC-2021-WPDCS17-03	Outcomes of the 23rd Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPDCS17-05	Review of current Conservation and Management Measures relating to the WPDCS (IOTC Secretariat)
IOTC-2021-WPDCS17-06	Progress on the recommendations of WPDCS16 (IOTC Secretariat)

IOTC-2021-WPDCS17-07	Report on IOTC Data Collection and Statistics (IOTC Secretariat)
IOTC-2021-WPDCS17-08	IOTC capacity building activities in support of developing coastal IOTC CPCs (IOTC Secretariat)
IOTC-2021-WPDCS17-09	Revision of the WPDCS Program of Work (2022-2026) (IOTC Secretariat, Chairperson & Vice-Chairperson)
IOTC-2021-WPDCS17-10	Updates on the implementation of the IOTC Regional Observer Scheme and its pilot project (IOTC Secretariat)
IOTC-2021-WPDCS17-12	Revised electronic templates for the submission of IOTC ROS data (IOTC Secretariat)
IOTC-2021-WPDCS17-23	A proposal for an IOTC interactive statistical data browser (IOTC Secretariat)
IOTC-2021-WPDCS17-24	GLOBEfish (IOTC Secretariat)
IOTC-2021-WPDCS17-25	Morphometric Database (IOTC Secretariat)
IOTC-2021-WPDCS17-26	Sampling templates (IOTC Secretariat)
IOTC-2021-WPDCS17-27	Updates on yellowfin tuna catch limits according to IOTC Resolution 21/01 (IOTC Secretariat)
IOTC-2021-WPDCS17-R	Meeting Report

# Working Party on Ecosystems and Bycatch

IOTC-2021-WPEB17(DP)-03	Outcomes of the 24th Session of the Commission (IOTC Secretariat)
IOTC-2021-WPEB17(DP)-04	Review of the statistical data available for bycatch species (IOTC Secretariat)
IOTC-2021-WPEB17(DP)-12	A review of the data availability, model configuration and catch estimation for the 2017 blue shark (Prionace glauca) stock assessment in the Indian Ocean (Rice J)
IOTC-2021-WPEB17(DP)-INF04	Silky shark synopsis (IOTC Secretariat)
IOTC-2021-WPEB17(DP)-INF05	Blue shark synopsis (IOTC Secretariat)
IOTC-2021-WPEB17(DP)-R	Meeting Report
IOTC-2021-WPEB17-03	Outcomes of the 23rd Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPEB17-04	Outcomes of the 25th Session of the Commission (IOTC Secretariat)
IOTC-2021-WPEB17-05	Review of Conservation and Management Measures relevant to ecosystems and bycatch (IOTC Secretariat)
IOTC-2021-WPEB17-06	Progress made on the recommendations and requests of WPEB16 and SC23 (IOTC Secretariat)
IOTC-2021-WPEB17(-07	Review of the statistical data and fishery trends for ecosystems and bycatch species (IOTC Secretariat)
IOTC-2021-WPEB17-08_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-2021-WPEB17-09	Revision of the WPEB Program of Work (2021–2025) (IOTC Secretariat & Chairperson)
IOTC-2021-WPEB17-14	Catch estimates of blue shark in the IOTC area of competence for the 2021 stock assessment (Rice J)
IOTC-2021-WPEB17-15	Stock assessment of Blue Shark in the Indian Ocean (Rice J)
IOTC-2021-WPEB17-16	Estimates of natural mortality for blue shark in the Indian Ocean (Rice J)
IOTC-2021-WPEB17-29	Report of 2021 Meeting on collaborative activities for cetacean bycatch, IOTC-IWC (IWC/IOTC)
IOTC-2021-WPEB17- INF05	Shark mortality overlap cannot be assessed by fishery overlap alone (Murua H, Griffiths S, Hobday A, Clarke S, Cortés R, Gilman E, Santiago J, Arrizabalaga H, de Bruyn P, Lopez J, Aires-da-Silva A and Restrepo V)
IOTC-2021-WPEB17-R	Meeting Report

# Working Party on Implementation of Conservation and Management Measures

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IOTC-2021-WPICMM04-01a	Provisional agenda of the 4th WPICMM
IOTC-2021-WPICMM04-01b_Rev1	Provisional annotated agenda of the 4th WPICMM
IOTC-2021-WPICMM04-02_Rev3	Draft list of documents of the 4th WPICMM
IOTC-2021-WPICMM04-03	Progress report on the implementation of the WPICMM work plan and on the recommendations of the WPICMM03
IOTC-2021-WPICMM04-04a	Review the possible infractions detected under the Regional Observer Programme in 2020.
IOTC-2021-WPICMM04-04b	Results of investigation received from the fleets on the possible infractions detected under the Regional Observer Programme in 2020.
IOTC-2021-WPICMM04-05	Assessment of CPCs on performance and implementation of CMMs.
IOTC-2021-WPICMM04-06	Review and update of Work Plan WPICMM
IOTC-2021-WPICMM04-07	Assessment criteria for the Compliance Report for CoC18
IOTC-2021-WPICMM04-07 Add1	Assessment criteria for Compliance Report - Country Template for CoC18
IOTC-2021-WPICMM04-07 Add2	Country Compliance Report Template for CoC18
IOTC-2021-WPICMM04-09	VMS Working Group - Progress of work & work plan for 2021
IOTC-2021-WPICMM04-10 Rev1	CDS Working Group - Progress of work & work plan for 2021
IOTC-2021-WPICMM04-11 Rev1	Electronic Monitoring and Reporting Information System (e-MARIS) - Progress of work & presentation of the application (Demo)
IOTC-2021-WPICMM04-R	Report of the 4th Session of the IOTC Working Party on Implementation of Conservation and Management Measures

## **Working Party on Methods**

IOTC-2021-WPM12-03	Outcomes of the 23rd Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPM12-04	Outcomes of the 25th Session of the Commission (IOTC Secretariat)
IOTC-2021-WPM12-05	Review of Conservation and Management Measures relating to methods (IOTC Secretariat)
IOTC-2021-WPM12-06	Progress made on the recommendations and requests of WPM11 and SC23 (IOTC Secretariat)
IOTC-2021-WPM12-07	Revision of the WPM Program of Work (2022–2026) (IOTC Secretariat & Chairpersons)
IOTC-2021-WPM12-08	A new simulation platform for Indian Ocean albacore and swordfish (Mosqueira I)
IOTC-2021-WPM12-09	Update of the Indian Ocean albacore Operating Model (Mosqueira I)
IOTC-2021-WPM12-10	Evaluation of empirical control rules for Indian Ocean Skipjack (Edwards C)
IOTC-2021-WPM12-12	Update of the Indian Ocean swordfish operating model (Rosa D, Fu D, Coelho R and Mosqueira I)
IOTC-2021-WPM12-15	Model-based estimates of Length composition time series for Indian Ocean yellowfin tuna fisheries (Fu D)
IOTC-2021-WPM12-R	Meeting Report

## **Working Party on Neritic Tunas**

IOTC-2021-WPNT11-03	Outcomes of the 23 <sup>rd</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPNT11-04	Outcomes of the 24 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC-2021-WPNT11-05	Review of current Conservation and Management Measures relating to neritic tuna species (IOTC Secretariat)
IOTC-2021-WPNT11-06	Progress made on the recommendations and requests of WPNT10 and SC23 (IOTC Secretariat)

IOTC-2021-WPNT11-07	Review of the statistical data available for the neritic tuna species (IOTC Secretariat)
IOTC-2021-WPNT11-08	Revision of the WPNT Program of Work (2022–2026) (IOTC Secretariat)
IOTC-2021-WPNT11-11	Assessment of Indian Ocean Indo-Pacific King Mackerel (Scomberomorus guttatus) using data-limited methods (Fu D)
IOTC-2021-WPNT11-12	Assessment of Indian Ocean Frigate tuna ( <i>Auxis thazard</i> ) using data-limited methods (Fu D)
IOTC-2021-WPNT11-13	Assessment of Indian Ocean Bullet tuna ( <i>Auxis rochei</i> ) using data-limited methods (Fu D)
IOTC-2021-WPNT11-R	Meeting Report

# **Working Party on Temperate Tunas**

No meeting	
No meeting	

# **Working Party on Tropical Tunas**

IOTC-2021-WPTT23(DP)-03	Outcomes of the 23rd Session of the Scientific Committee (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-04	Outcomes of the 24th Session of the Commission and the 4th Special Session of the Commission (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-05	Review of Conservation and Management Measures relevant to tropical tuna (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-06	Progress made on the recommendations of WPTT22 (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-07	Review of the statistical data and fishery trends for tropical tunas (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-08	Review of size data from Indian Ocean longline fleets, and its utility for stock assessment (Hoyle S, Chang S-T, Fu D, Geehan J, Itoh T, Lee SI, Matsumoto T, Yeh Y-M and Wu R-F)
IOTC-2021-WPTT23(DP)-17	Introduction to the IOTC tuna factory sales data flow and database (Bodin N, Pierre L and Fiorellato F)
IOTC-2021-WPTT23(DP)-INF05	Yellowfin tuna Synopsis (IOTC Secretariat)
IOTC-2021-WPTT23(DP)-R	Meeting report
IOTC-2021-WPTT23-03	Review of the statistical data and fishery trends for tropical tunas (IOTC Secretariat)
IOTC-2021-WPTT23-04	Revision of the WPTT Program of Work (2022–2026) (IOTC Secretariat)
IOTC-2021-WPTT23-07	Review of size data from Indian Ocean longline fleets, and its utility for stock assessment (Hoyle S, Chang S-T, Fu D, Itoh T, Lee SI, Lucas J, Matsumoto T, Yeh Y-M, Wu R-F, Lee MK)
IOTC-2021-WPTT23-08	Approaches for estimating natural mortality in tuna stock assessments: application to Indian Ocean yellowfin tuna. (Hoyle, S).
IOTC-2021-WPTT23-12	Preliminary Indian Ocean yellowfin tuna stock assessment 1950-2020 (Stock Synthesis) (Fu et al.)
IOTC-2021-WPTT23-R	Meeting Report

# Catch document Scheme Working Group

IOTC-2021-CDSWG04	Provisional agenda of the Fourth meeting of the CDSWG
IOTC-2021-CDSWG04-R	Meeting Report of the Fourth meeting of the CDSWG
IOTC-2021-CDSWG05-01	Provisional agenda of the Fifth meeting of the CDSWG
IOTC-2021-CDSWG05-R	Meeting Report of the Fifth meeting of the CDSWG

# Working Group on Electronic Monitoring Systems

IOTC-2021-WGEMS01-01a	Draft Agenda for the Ad-Hoc Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS)
IOTC-2021- WGEMS01-01b	Draft Annotated Agenda for the Ad-Hoc Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS)
IOTC-2021- WGEMS01-02	List of Documents for the Ad-Hoc Working Group on the Development of Electronic Monitoring Programme Standards (WGEMS)
IOTC-2021- WGEMS01-09	Update on the Implementation of the IOTC Regional Observer Scheme (Secretariat)
IOTC-2021- WGEMS01-10	Draft Terms of Reference for the ad-hoc Working Group on the Development of Electronic Monitoring programme Standards (WGEMS) (WGEMS Chair and IOTC Secretariat)
IOTC-2021- WGEMS01-11	5 Key Elements for Designing an Electronic Monitoring Program (WGEMS Chair and IOTC Secretariat)
IOTC-2021- WGEMS01-R	Meeting Report

# Ad hoc Working Group on FADs

IOTC-2021-WGFAD02-01a	Draft: Agenda of the 2nd Ad Hoc Working Group on FADs Meeting
IOTC-2021-WGFAD02-01b	Draft: Annotated agenda of the 2nd Ad Hoc Working Group on FADs Meeting
IOTC-2021-WGFAD02-02	Draft: List of documents of the 2nd Ad Hoc Working Group on FADs Meeting
IOTC-2021-WGFAD02-03	Review of the statistical data on FADs (IOTC Secretariat)
IOTC-2021-WGFAD02-07	Spatial management can significantly reduce dFAD beachings in Indian and Atlantic Ocean tropical tuna purse seine fisheries (Imzilen T, Lett C, Chassot E and Kaplan DM)
IOTC-2021-WGFAD02-R	Meeting Report

# Vessel Monitoring System Working Group

IOTC-2021-VMSWG01-R	Meeting Report of the First meeting of the VMSWG
IOTC-2021-VMSWG02-01	Provisional agenda of the Second meeting of the VMSWG
IOTC-2021-VMSWG02-02	Status of progress and Work Plan
IOTC-2021-VMSWG02-R	Meeting Report of the Second meeting of the VMSWG
IOTC-2021-VMSWG03-01	Provisional agenda of the Third meeting of the VMSWG
IOTC-2021-VMSWG03-R	Meeting Report of the Third meeting of the VMSWG

# Management Strategy Evaluation Task Force

IOTC-2021-WPM12(MSE)-01a	Agenda
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#### **APPENDIX 4**

#### **ACRONYMS USED IN THIS REPORT**

CMM Conservation and Management Measure (of the IOTC; Resolutions and Recommendations)

CNCP Cooperating Non-Contracting Party, of the IOTC

CoC Compliance Committee
CPs Contracting Parties

CPCs Contracting Parties and Cooperating non-Contracting Parties
FAO Food and Agriculture Organization of the United Nations

IOTC Indian Ocean Tuna Commission

ISSF International Seafood Sustainability Foundation

IUU Illegal, unreported and unregulated

MPF Meeting participation fund
MSE Management Strategy Evaluation

OFCF Overseas Fishery Cooperation Foundation of Japan

SC Scientific Committee

SCAF Standing Committee on Administration and Finance

TCAC Technical Committee on Allocation Criteria

TCMP Technical Committee on Management Procedures
TCPR Technical Committee on Performance Review

WPB Working Party on Billfish

WPDCS Working Party on Data Collection & Statistics WPEB Working Party on Ecosystems and Bycatch

WPICMM Working party on the Implementation of Conservation and Management Measures

WPM Working Party on Methods
WPNT Working Party on Neritic Tunas
WPTm Working Party on Temperate tunas
WPTT Working Party on Tropical Tunas