

## REPORT OF THE SECRETARIAT – ACTIVITIES IN SUPPORT OF THE IOTC SCIENCE PROCESS IN 2013

PREPARED BY: IOTC SECRETARIAT, 15 NOVEMBER 2013

### PURPOSE

- To inform the Scientific Committee (SC) of work undertaken by the IOTC Secretariat in 2013 in support of the IOTC Science process, endorsed by the Commission.

### DISCUSSION

#### Staffing

- Administration Officer: Mr. Steven Ciocca joined the Secretariat in June 2013.
- Fishery Officer (Science): The selection process for the position is currently being finalised, with the aim of bringing the successful candidate into the IOTC Secretariat team in early 2014.

#### IOTC meetings – Working parties

- In 2013, five Working Party 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 at [Appendix I](#).

**Table 1.** Scientific Meetings held in 2013, prior to the 16<sup>th</sup> Session of the IOTC Scientific Committee meeting. Working Parties not held in 2013 are also shown for completeness. Numbers in brackets represent numbers for the previous working party meeting.

Working Party	Date and place of most recent meeting	No. of participants				Meeting Participation Fund				No. of documents (previous meeting)
		2010	2011	2012	2013	2010	2011	2012	2013	
Neritic Tunas	2–5 July, Bali, Indonesia	–	28	35	42	–	9 <sup>1</sup>	10	11	Total: 40 (24) Working papers: 34 (23) Information papers: 6 (1)
Ecosystems and Bycatch	12–16 September, La Réunion, France	37	49	48	32	9 <sup>2</sup>	7 <sup>3</sup>	7	11	Total: 64 (64) Working papers: 47 (40) Information papers: 17 (24)
Billfish	18–22 September, La Réunion, France	12	27	23	24	0	5	5	10	Total: 35 (32) Working papers: 32 (21) Information papers: 3 (12)
Tropical Tunas	24–29 October, San Sebastian, Spain	39	49	47	46	11	13	8	10	Total: 57 (51) Working papers: 42 (40) Information papers: 15 (11)
Data Collection and Statistics	29–30 November, Busan, Rep. of Korea	28	21	–	TBA	–	2	–	5	Total: 14 (21) Working papers: 13 (12) Information papers: 1 (9)
Scientific Committee	2–6 December, Busan, Rep. of Korea	41	50	54	TBA	7	10	12	11	Working papers: 16 (11) Executive Summaries: 25 Information papers: 4 (11)
<b>Working Parties not held in 2013</b>										
Methods	22–23 October, Mauritius	18*	–	22	–	–	–	1	–	Total: 15 (–) Working papers: 4 (–) Information papers: 11 (–)
Temperate Tunas	20–22 August, Shanghai, China	15*	16	26	–	–	2	3	–	Total : 28 (25) Working paper : 19 (19) Information papers : 9 (6)

\*2008.

<sup>1</sup> Another 7 scientists were supported by IOTC through the Capacity Building funds as they were also attending the capacity building workshop in Chennai, India (WPNT01)

<sup>2</sup> 6 scientists attended both the WPTT and WPEB

<sup>3</sup> 3 scientists attended both the WPTT and WPEB

5. Appendix B lists the documents produced by the Secretariat in support of Working Party meetings held in 2013. In addition, the 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, totalling 25 Executive Summaries.
6. The Secretariat also facilitated the participation of invited experts that were selected to attend each of the Working Party meetings in 2013. The names and affiliations of each of the Invited Experts for 2013 are provided in [Table 2](#).

**Table 2.** Invited Experts for Working Party meetings in 2013.

Working Party	Date and place	Name	Affiliation
Neritic Tunas	2–5 July, Bali, Indonesia	Dr. Shiji Zhou	CSIRO, <b>Australia</b>
Ecosystems and Bycatch	12–16 September, La Réunion, France	Dr. Ronel Nel	Dr. Ronel Nel, Nelson Mandela Metropolitan University, <b>South Africa</b>
Billfish	18–22 September, La Réunion, France	Dr. Humber Andrade	Universidade Federal Rural de Pernambuco, <b>Brazil</b>
Tropical Tunas	24–29 October, San Sebastian, Spain	Dr. Andrew Cooper	Simon Fraser University, <b>Canada</b>

7. The Secretariat assisted in the coordination of Working Party activities for the IOTC species, contributing a number of supporting analyses, full stock assessments for skipjack tuna and discussion papers on improving the IOTC stock assessment process (see list of WPs in [Appendix II](#)). The Secretariat represented the IOTC in the broader fisheries community, e.g. by participating as an invited experts at various meetings.

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

8. The IOTC Meeting Participation Fund (MPF) was established during the 14th Session of the Commission (2010), held in Busan, Republic of Korea, through Resolution 10/05 on the establishment of a meeting participation fund for developing IOTC Members and Non-contracting Cooperating Parties (CPCs). The MPF was established for the purposes of supporting scientists and representatives from IOTC Members and Cooperating non-Contracting Parties (CPCs) who are developing States to attend and/or contribute to the work of the Commission, the Scientific Committee and its Working Parties. The MPF was initially financed by an allocation of USD\$200,000 from IOTC's accumulated funds in 2010 and was subsequently replenished to USD\$200,000 by the Commission at its 15th Session held in Colombo, Sri Lanka, and again at its 16th Session held in Fremantle, Australia, an 17th Session held in Mauritius. However, the long-term sustainability of the MPF is still a concern as a procedure to replenish the fund is yet to be determined by the Commission.
9. Noting that the intention of the MPF was to utilise the funds, as a first priority, to support the participation of scientists from developing CPCs in scientific meetings of the IOTC, including Working Parties, in 2013, the Secretariat facilitated the participation of 47 individuals from developing CPCs of IOTC to the five (5) Working Party meetings held in 2013 as detailed in [Table 1](#). The total level of participation (including the Scientific Committee) by MPF recipients has continued to increase in 2013 (58), up from 46 in 2012, 33 in 2011 and 19 in 2010.
10. MPF recipients presented TBA working documents in 2013 (36 in 2012) to the various Working Party meetings, and TBA National Reports (12 in 2012) to the Scientific Committee, as detailed in [Table 1](#).

#### *IOTC Seabird workshops*

11. The 1<sup>st</sup> Technical Workshop for the implementation of measures to reduce seabird bycatch in IOTC longline fisheries, was held in Bali, Indonesia, from 8 to 9 July 2013. A total of 19 participants attended the workshop. In response to the IOTC Resolution on seabird bycatch mitigation (Res 12/06), Japan offered support for a technical workshop to provide training for national fleets to become familiar with options required in the new Resolution. BirdLife International (Dr. Ross Wanless) provided the technical expertise and the IOTC Secretariat (Dr. David Wilson) facilitated the workshop and lead discussions on data submissions, observer programmes and reporting to IOTC.
12. The Workshop objectives were:
  - Provide training and demonstrations of practical options for longline fishing vessels to become compliant with IOTC Resolution 12/06, which will come into force on 1 July 2014. Specifically the workshop presented the three seabird bycatch mitigation measures (bird scaring lines, line weighting options and night setting) to fishery managers and industry representatives;

- Discuss safety and other practical concerns that may be raised in relation to implementation of the seabird bycatch mitigation measure requirements;
- Highlight data collection and reporting obligations relevant to longline fishing in the Southern Ocean, to improve the IOTC's capacity to understand and manage fishing impacts on seabirds.

13. A second workshop will be held immediately prior to the SC meeting, in Busan, Rep. of Korea with similar objectives.

#### ***Stock assessment training***

14. A five day workshop was held in Bangkok, Thailand covering numerous topics on stock assessment. A total of 28 participants from 6 CPC's and 2 observer countries attended. The countries were India, Sri Lanka, Thailand, Myanmar, Indonesia, Malaysia, Maldives and Bangladesh. The course was delivered by Dr. Sharma (IOTC Secretariat), Dr. Ianelli (NOAA) and Dr. Kolody (CSIRO) on stock assessment methodology and what kind of data should be collected and for what purposes. The overall objective of workshop was three-fold:

- To convey the basic understanding of data collection programs and their use;
- To demonstrate how these could be used in an assessment through population dynamic models;
- To convey basic interactions of fish within an ecosystem.

15. Material presented in the workshop can be accessed at the following website link: (<https://sites.google.com/site/stockassessmentbkk2013/home>). Workshop effectiveness was evaluated with a feedback survey and there was a clear demand for more such trainings in the region. In addition, the course had very positive feedback, all participants learned a lot, and wished that more such trainings were available and more time would be given to these workshops.

#### ***Data-related activities – General***

16. A large proportion of the Data Section staff time is currently devoted to the acquisition and editing of the data required under the IOTC Resolutions. These data are utilised in monitoring compliance or in scientific analyses necessary for the assessment of the status of stocks. The IOTC databases are constantly revised and updated. The IOTC Secretariat is undergoing a migration of data from the old structure to the new structure is under way and should be finalised by the end of 2014.

17. The regular suite of datasets have been supplied for all scientists engaged in stock assessment activities and reports on status of IOTC databases produced for relevant Working Parties and SC, and for the preparation of the Country Reports of the Compliance Committee. In addition to the standard fishery datasets, the Secretariat has completed an update of the tagging datasets, through further validation, verification and correction of the data from the small-scale projects, as well as for the RTTP-IO, undertaken in 2013.

#### ***Data-related activities – IOTC-OFCF Project and other initiatives***

18. The IOTC Secretariat continues facilitating support to developing coastal states using funds from the IOTC or through the IOTC-OFCF Project, which has provided resources and advice for the strengthening of data collection systems in more than 20 countries in the region since its inception in 2002. In addition, the IOTC Secretariat is cooperating with COI-SmartFish, the BOBLME Project, the ISSF, and other initiatives in the coordination and execution of capacity building activities in developing coastal states of the Indian Ocean.

19. Phase III of the IOTC-OFCF Project came to an end in March 2013. All activities undertaken during Phase III of the Project are summarised in the IOTC-OFCF Project Comprehensive Report<sup>4</sup>, which can be made available upon request. In addition, as part of the ongoing cooperation between the EU-funded Project COI-SmartFish and the IOTC the IOTC Secretariat has coordinated the implementation of data collection activities in Madagascar and Comoros. Finally, the IOTC Secretariat is working with the Bay of Bengal Large Marine Ecosystems (BOBLME) Project to strengthen data collection and processing in Sri Lanka, as a continuation to activities previously covered by the IOTC-OFCF Project. Following is a summary of the activities undertaken since the end of SC15:

- a) Support to the organisation of a Catch Estimation Workshop in Indonesia (March 2012): In 2012, the Directorate General of Capture Fisheries of Indonesia (DGCF) and the IOTC-OFCF Project agreed to conduct a Catch Estimation Workshop for the Fisheries of Indonesia, with focus on small and medium-scale fisheries. The workshop was held in March 13–15, 2012 with participation from DGCF, RCCF (Research Center for Capture Fisheries), RIMF (Research Institution for Marine Fisheries), the IOTC and OFCF. CSIRO (Commonwealth Scientific and Industrial Research organisation of Australia), NRIFSF

<sup>4</sup> IOTC-OFCF Project (2013). Comprehensive Report IOTC-OFCF Project (Phase III) June 2010 – March 2013.

(National Research Institute of Far Seas Fisheries in Japan) and WWF (World Wide Fund for Nature). The objective of the Workshop was to review the current data collection and estimation procedures in Indonesia and revision of current and past catch figures, as required. Reports from the Workshop, in English or Indonesian, can be made available upon request.

- b) Support to the implementation of a Census (funds from OFCF) and implementation of data collection and processing systems for the marine fisheries of the Union of Comoros (funds from the IOTC and COI-SmartFish). The IOTC-OCF Project coordinated activities in Comoros, in cooperation with the “Centre National de Ressources Halieuthiques”. It also provided assistance in database development and estimation of catches, using the data collected, which included new estimates of catch for the year 2011 and a review of the historical catch series for the period 1995-2010, and previous years.
  - c) Support to data collection and processing systems for the fisheries of Sri Lanka (funds from OFCF and BOBLME), including assistance in a review of the sampling design, and support to the strengthening of data collection and processing activities. Both the Statistical Unit of the Ministry of Fisheries and Aquatic Resources and the National Aquatic Resources and Development Agency of Sri Lanka are implementing these activities with the support of the IOTC and the BOBLME.
  - d) Support to the implementation of a Pilot Project to assess the importance of catches of IOTC species and sharks in Madagascar, including monitoring of traditional, artisanal, and semi-industrial fisheries operated in different locations along the coast of Madagascar (funds from COI-SmartFish). Activities include a review of the sampling design, training of fisheries officers and enumerators under the Project and from the “Ministère de Pêche et Ressources Halieuthiques (MPRH)” of Madagascar, and support to the implementation of data collection and processing activities.
  - e) Support to an evaluation of data collection and processing systems for the small-scale fisheries of Mauritius (funds from OFCF and the IOTC) and Seychelles (funds from the IOTC). A consultant was hired to carry out an evaluation of the fisheries statistical systems used in both countries. The results of this work were summarised in a report, which also included recommendations to improve the fisheries statistical system in each country, to be implemented by the institutions concerned.
  - f) Support to the purchase of hardware and sampling tools in Iran, with a view to strengthen the collection of length frequency data from the fisheries in this country (funds from the OFCF).
20. A new Memorandum of Understanding (MOU) between the IOTC and the OFCF was signed in June 2013, focusing on strengthening statistical systems for tuna fisheries, including the provision of funds and detachment of an OFCF Expert to the IOTC Secretariat to coordinate the activities of the Project, along with the IOTC Data Coordinator and other staff from the Secretariat, as required. The duration of Phase IV of the Project is three years, until March 2016, with funds committed for each year and extension of the Project agreed through exchange of letters between the IOTC and the OFCF. The fisheries of Indonesia, Thailand, and Malaysia will be the focus of activities during the first year of Phase IV of the Project.

**Table 3.** Missions of staff from the IOTC Secretariat during 2013 in relation with the IOTC-OCF Project and other capacity building activities in the Indian Ocean.

Country	Date	Staff	Description
Comoros, Iran, Sri Lanka, Mauritius	Various	Project Manager	Administrative arrangements and evaluation of financial reports
Sri Lanka	Oct. 1–5	Project Manager Fisheries Statistician Data Coordinator	Strengthening of data collection activities
Sri Lanka	Nov. 11–16	Project Manager	Training on data collection
Comoros & Madagascar	Mar.	Data Coordinator	Identification of local consultants to execute activities under the IOC-SmartFish
Sri Lanka	Jul.	Data Coordinator	Database training (Pelagis)
Indonesia	Jun. 20–26	Data Coordinator	Albacore Catch Estimation Workshop
Mauritius		Fisheries Expert (Consultant)	Evaluation fisheries statistical system of Mauritius (small-scale fisheries)
Seychelles	Nov. 5–15	Fisheries Expert (Consultant)	Evaluation fisheries statistical system of Seychelles (small-scale fisheries)

*Data-related activities – Reviews of scientific estimates of catch for the stock assessments of IOTC species*

21. In June 2013, in response to a request from the Directorate General of Capture Fisheries of Indonesia, the IOTC Data Coordinator visited Indonesia to assist in the organisation of an Albacore Catch Estimation Workshop. The main purpose of this mission was to respond to a request from the Commission for a review of the catch series of albacore for the fleets based in Indonesia. The results of the Workshop and new catches of albacore estimated for the fisheries of Indonesia are available in the Report from the Workshop, which was disseminated to all participants in the Workshop, and the Commission, through IOTC Circular 2013–96, (October 2013). The IOTC Secretariat updated the catches of albacore in the IOTC database using the new series agreed at the workshop.
22. In 2012–13 the IOTC Secretariat conducted a major review of the catches of the artisanal fisheries in the Union of Comoros, using information that the “Direction Générale des Ressources Halieuthiques” collected with the support of the IOTC and the OFCF. The results of the above reviews and changes to the IOTC databases were presented to the IOTC species working parties. More information about these reviews is presented in a separate document, as requested by the IOTC Scientific Committee in 2012 (IOTC–2013–SC16–10).

*Other data activities*

23. As from early 2011, the IOTC Secretariat has been responsible for the coordination of activities concerning the global Consolidated List of Authorized Vessels (CLAV), a regularly updated list including the authorized vessels of the five t-RFMOs. The IOTC Data Coordinator acted as moderator in two joint t-RFMO technical meetings, held in February 2011, and June 2012, in Rome (Italy). ISSF provided funds to facilitate the assistance of some of the database experts from the t-RFMO. The first meeting agreed on a mechanism for the exchange of lists of authorized vessels for the CLAV, including standards for the exchange of data and frequency of updates (the report of the meeting can be downloaded from [click here](#)). In addition, a progress report was presented to the KOBE III Meeting in San Diego (July 2011).
24. Collaboration between the IOTC Secretariat and FAO-FIDI continued in 2013 and testing of the new CLAV software is currently under way. In 2014, the CLAV will be further enhanced using funds from a Global Environmental Facility Project on Sustainable Management of Tuna Fisheries and Biodiversity: Conservation in the Areas Beyond National Jurisdiction (ABNJ). The main objective of the CLAV component of the Project is ensuring that updates of the CLAV occur in as close-to real time as possible in the future.
25. In August-October 2013, the IOTC Secretariat hired the services of a Fisheries Expert, Dr Guillermo Moreno, to assist the IOTC Data Coordinator in a review and update of levels of input fishing capacity, in terms of numbers of active fishing vessels, in the Indian Ocean. The results of this work are presented in a separate document (IOTC–2013–SC16–19). The IOTC Secretariat updated the estimates of numbers of fishing vessels (fishing craft statistics) using the new information published.
26. In 2012, the IOTC Secretariat and the Project COI-SMARTFISH agreed to initiate cooperation in the implementation of capacity building activities in coastal countries of the Southwest Indian Ocean, in the areas of MCS and data collection. The Project initiated activities in 2013, as indicated in the previous section.
27. In the area of data collection and processing, and elasmobranch monitoring and management, the IOTC Secretariat is also collaborating with the Bay of Bengal Large Marine Ecosystems Project, and the Marine Resources Assessment Group in the UK (MRAG) and other partners, in the strengthening of sampling activities in Sri Lanka.
28. In 2013 the IOTC Secretariat, in consultation with the Overseas Fisheries Development Council of Taiwan,China (OFDC), conducted a review of the size-frequency data available for the Taiwanese longline to bring attention to recent, and sudden, increases in the average lengths of specimens sampled for lengths, as well as the general lack of coherence with catch-and-effort data. Following the presentation of the results at the meeting of the WPTT15 in 2013 (IOTC–2013–WPTT15–41), the WPTT agreed on the need to extend the duration of the WPDCS to address the issues identified, with the participation of the IOTC Secretariat, invited experts, and scientists from Indonesia, Taiwan,China, Japan and other parties having important longline fisheries in the Indian Ocean. In addition, the WPTT agreed on the value to invite other tuna-RFMO Secretariats to attend the next WPDCS meeting, noting that some of the issues identified for longline fisheries may also affect other oceans.

*Stock assessment*

29. Following the recommendation of the Working Party on Tropical Tunas in 2012, which was endorsed by the Scientific Committee at its 15th Session, a Stock Assessment consultant (Dr. Adam Langley) was hired again to conduct stock assessment analyses on bigeye tuna in 2013.
30. The Fisheries Officer (Stock Assessment) assisted in the coordination of Working Party activities for the main IOTC species (WPNT, WPEB, WPB, WPTT), contributing a number of supporting analyses.
31. A total of four papers were presented by the IOTC Secretariat as primary authors. Two papers were presented at the WPNT. They focussed on data poor approaches to stock assessments and were tested on kawakawa and longtail tuna (IOTC–2013–WPNT03–25). In addition, new CPUE series were developed on Maldivian baitboat data for kawakawa and a traditional method for stock assessment was applied to that (IOTC–2013–WPNT03–23 and 24). In addition, a paper was presented at WPB on data poor approaches to marlins, and tested with swordfish (IOTC–2013–WPNT03–28). An additional paper was presented by the IOTC Secretariat in collaboration with other CPC scientists at IOTC–2013–WPTT15–32 on skipjack tuna CPUE standardisation for the Maldivian pole-and-line fishery. In addition, in collaboration with other scientists, 3 papers were presented as secondary authors (IOTC–2013–WPNT03–25; IOTC–2013–WPB11–32, IOTC–2013–WPTT15–30).
32. An analysis of the recent history of the assessments considered at the Working Parties in the past four years, reveals the value of a mixed approach in which contributions from scientists from CPCs (19) are supplemented by contributions from the IOTC Secretariat (six and collaboration in another seven), consultants (four) or external invited experts (eleven assessments). In particular, given that national scientists usually have a limited time allotted to analyses for IOTC stocks every year due to their other commitments, having stock assessment expertise at the IOTC Secretariat guarantees that there is full time attention given to the assessment work during most of the year, in addition to the training and support given through collaborative work with national scientists.
33. In addition, the first CPUE workshop was facilitated by the IOTC Secretariat in dealing with issues of standardisation of indices of abundance, and how to resolve them. A total of 24 people participated from 15 countries over two days on 21–22 October 2013. A number of issues were identified that the CPC's agreed to resolve inter-sessionally. The Report of the informal workshop is summarised in paper IOTC–2013–SC16–12 and provided as paper IOTC–2013–SCINF03.

## Contacts with other organizations

34. The Secretariat routinely maintains contacts with other organisations in the region with the purpose of coordinating scientific activities to the extent possible. This is essential to avoid duplication of efforts with similar organisations. The Executive Secretary and Deputy Secretary maintain regular contacts with the other tuna RFMOs (CCSBT, IATTC, ICCAT, and WCPFC), although in 2013, did not participate in the meetings of the other tuna RFMOs due to budgetary constraints.
35. As mentioned above, the Secretariat maintains close links with the Commission de l'Océan Indien (COI) primarily through the discussions of possible future coordination and cooperation in fisheries projects involving tuna fisheries. The Secretariat is currently involved in a number of joint activities with the IOC Project Integrated Regional Fisheries Strategy (IRFS) also known as SMARTFish, mostly on Compliance issues, but it is expected that there will be collaboration on data-collection activities between the IRFS and IOTC.
36. The Southwest Indian Ocean Fishery Commission (SWIOFC) is an advisory body under the FAO umbrella that deals with non-tuna species in the EEZ of the member countries. The Southwest Indian Ocean Fishery Project (SWIOFP) is a multinational project partly financed by the World Bank and Global Environment Fund. Although neither of these institutional arrangements have a mandate to manage tuna fisheries, they can contribute actively to the scientific work of IOTC and assist in its management actions, so coordination is essential. To the extent possible the Secretariat attends the meetings of these two organizations. As examples of cooperation, SWIOFC has convened the meeting of its Scientific Committee in conjunction the IOTC cooperation so that national scientists from common Members could attend both meetings. In the case of SWIOFP, it has supported participation of scientists from the region in various meetings of IOTC, and has supported training of observers that would participate in the Regional Observer Scheme.
37. The Secretariat continues its coordination with various intergovernmental and non-governmental organisations interested in the activities of the Commission, including:
  - the **Indian Ocean Sea Turtle Memorandum of Understanding**, an intergovernmental organizations for the protection of sea turtles
  - **BirdLife International**

- **World Wild Fund for Nature, Traffic**
- the **International Sustainability Seafood Foundation**, and has established contacts with the **Agreement on the Conservation of Albatrosses and Petrels (ACAP)** a multilateral agreement to coordinate international activity to mitigate threats to albatross and petrel populations.

### *IOTC publications and information products*

#### **Documents**

38. In 2013, the Secretariat produced 51 (**49 in 2012**) papers/reports ([Appendix II](#)) in support of the IOTC Science process, not including the reports of the various working parties (**5**) or the Executive Summaries (**25**).

#### **IOTC Website**

39. The IOTC website continues to be a portal for communicating science related information to a variety of audiences. The Secretariat has completed the development of a new website, as requested by the Commission. The new website will be demonstrated to the Scientific Committee at its December meeting, and formally launched in early 2014.

#### **Identification cards – sharks, seabirds, marine turtles, billfish and tunas**

40. Following recommendations from the Working Party on Ecosystem and Bycatch and the Scientific Committee to develop identification cards for sharks, marine turtles and seabirds, the Secretariat has developed, finalized and printed the identifications cards for sharks, seabirds, marine turtles and billfish, thanks to the help of the following experts:

- a) **Sharks** – Chairman of the WPEB, Dr. Chares Anderson and Vice-Chair Dr. Evgeny Romanov. These identification cards are developed with sharks and rays illustrations by Roger Swainston and from a collaborative work from the Institut de recherche pour le développement (IRD) and the French National Natural History Museum (MNHN).
- b) **Seabirds** – Birdlife International – Dr. Ross Wanless, from the Secretariat of the Agreement on the Conservation of Albatrosses and Petrels – Mr. Barry Baker and from the Royal Society for the Protection of Birds – Ms. Cleo Small. These identification cards were developed with seabird drawings given by Random House Struik which has the copyright on the illustrations.
- c) **Marine turtles** –IOASEA MoU - Mr. Douglas Hyke and his team, from IFREMER La Réunion – Mr. Jérôme Bourjea, and from KELONIA – Mr. Stephane Ciccione.
- d) **Billfish** – IFREMER – Mr. Hughes Evano, ARDA – Dr. Evgeny Romanov
- e) **Tunas** – The Commission approved the development of ID cards for tunas and mackerels under the IOTC mandate. A consultant was hired and the cards have an expected delivery date of 30 November 2013. Once they are finalised, printing is expected before the end of 2013.

41. The identifications cards for sharks and marine turtles are joint publications of the IOTC and the SPC, as these cards were based on the designs developed by SPC a few years ago and adapted to the context of the Indian Ocean.

42. The identification cards are intended to be used primarily by scientific observers under the framework of the IOTC Regional Observer Scheme (Resolution 11/04 on a Regional Observer Scheme), however they could also be distributed and used by fishers in order to record and report interactions with sharks, marine turtles and seabirds. The identification cards have been produced in both English and French, and if funds can be identified, translated into other languages in 2014.

#### **RECOMMENDATION**

That the Scientific Committee **NOTE** the report of the IOTC Secretariat for 2013.

#### **APPENDICES**

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

**Appendix II:** [Paper from the IOTC Secretariat \(or co-authorship\) submitted to the IOTC Working Parties or Scientific Committee in 2013](#)

## 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. Tsutomu Nishida	Japan	17–Dec–11	End of SC in 2013	1 <sup>st</sup> term
	Vice-Chair	Mr. Jan Robinson	Seychelles	17–Dec–11	End of SC in 2013	1 <sup>st</sup> term
WPB	Chair	Mr. Jerome Bourjea	EU,France	08–Jul–11	End of WPB in 2015	2 <sup>nd</sup> term
	Vice-Chair	Mr. Miguel Santos	EU,Portugal	08–Jul–11	End of WPB in 2015	2 <sup>nd</sup> term
WPTmT	Chair	Dr. Zang Geun Kim	Korea, Rep. of	22–Sep–11	End of WPTmT in 2013	1 <sup>st</sup> term
	Vice-Chair	Mr. Takayuki Matsumoto	Japan	06–Sep–12	End of WPTmT in 2014	1 <sup>st</sup> term
WPTT	Chair	Dr. Hilario Murua	EU,Spain	25–Oct–10	End of WPTT in 2014	2 <sup>nd</sup> term
	Vice-Chair	Dr. Shiham Adam	Maldives, Rep. of	23–Oct–11	End of WPTT in 2015	2 <sup>nd</sup> term
WPEB	Chair	Mr Rui Coelho	EU,Portugal	16–Sept–13	End of WPEB in 2015	1 <sup>st</sup> term
	Vice-Chair	Dr. Evgeny Romanov	EU,France	27–Oct–11	End of WPEB in 2015	2 <sup>nd</sup> term
WPNT	Chair	Dr. Prathibha Rohit	India	27–Nov–11	End of WPNT in 2015	2 <sup>nd</sup> term
	Vice-Chair	Mr. Farhad Kaymaram	I.R. Iran	27–Nov–11	End of WPNT in 2015	2 <sup>nd</sup> term
WPDCS	Chair	Mr. Miguel Herrera	Secretariat	04–Dec–10	End of WPDCS in 2013	2 <sup>nd</sup> term
	Vice-Chair	Dr. Pierre Chavance	EU,France	10–Dec–11	End of WPDCS in 2013	1 <sup>st</sup> term
WPM	Chair	Dr. Iago Mosqueira	EU,Spain	18–Dec–11	End of WPM in 2013	1 <sup>st</sup> term
	Vice-Chair	Dr. Toshihide Kitakado	Japan	18–Dec–11	End of WPM in 2013	1 <sup>st</sup> term
WPFC	Chair	Not active	Not active	Not active	Not active	Not active
	Vice-Chair	Not active	Not active	Not active	Not active	Not active



## APPENDIX II

Paper from the IOTC Secretariat (or co-authorship) submitted to the IOTC Working Parties or Scientific Committee in 2013

Document number	Title
<i>Third Session of the IOTC Working Party on Neritic Tunas</i>	
IOTC–2013–WPNT03–03	Outcomes of the Fifteenth Session of the Scientific Committee (Secretariat)
IOTC–2013–WPNT03–04	Outcomes of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–WPNT03–05	Review of current Conservation and Management Measures relating to neritic tuna species (Secretariat)
IOTC–2013–WPNT03–06	Progress made on the recommendations of WPNT02 (Secretariat and Chair)
IOTC–2013–WPNT03–07 Rev_1	Review of the statistical data available for the neritic tuna species (Secretariat)
IOTC–2013–WPNT03–23	Maldives kawakawa pole and line fishery catch rate standardization: 2004–2011 (R. Sharma, J. Geehan, M.S. Adam & R. Jauhary)
IOTC–2013–WPNT03–24	Indian Ocean kawakawa assessment based on the Maldives pole and line CPUE index (R. Sharma & S. Zhou)
IOTC–2013–WPNT03–25	Stock assessment of two neritic tuna species in Indian Ocean, kawakawa and longtail tuna using catch-based stock reduction methods (S. Zhou & R. Sharma)
<i>Ninth Session of the IOTC Working Party on Billfish</i>	
IOTC–2013–WPB11–03	Outcomes of the Fifteenth Session of the Scientific Committee (Secretariat)
IOTC–2013–WPB11–04	Outcomes of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–WPB11–05	Review of Conservation and Management Measures relevant to billfish (Secretariat)
IOTC–2013–WPB11–06	Progress made on the recommendations of WPB10 (Secretariat)
IOTC–2013–WPB11–07 Rev_2	Review of the statistical data and fishery trends for billfish (Secretariat)
IOTC–2013–WPB11–08	Billfish identification cards (Secretariat)
IOTC–2013–WPB11–09	Revision of the WPB work plan (Chair & Secretariat)
IOTC–2013–WPB11–28 Rev_1	Stock assessment of three billfish species in Indian Ocean, blue, black and striped marlin using stock reduction methods (Secretariat)
<i>Ninth Session of the Working Party on Ecosystems and Bycatch</i>	
IOTC–2013–WPEB09–03	Outcomes of the Fifteenth Session of the Scientific Committee (Secretariat)
IOTC–2013–WPEB09–04	Outcomes of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–WPEB09–05	Review of current Conservation and Management Measures relevant to ecosystems and bycatch (Secretariat)
IOTC–2013–WPEB09–06	Progress made on the recommendations of WPEB08 (Secretariat)
IOTC–2013–WPEB09–07	Status of development and implementation of National Plans for Action for Seabirds and Sharks (Secretariat)
IOTC–2013–WPEB09–08	Review of the statistical data available for bycatch species (Secretariat)
IOTC–2013–WPEB09–09	Progress on reporting and outcomes from Compliance Committee (Secretariat)
IOTC–2013–WPEB09–10	Update on the implementation of the IOTC Regional Observer Scheme (Secretariat)
IOTC–2013–WPEB09–11	Revision of the WPEB work plan (Secretariat & Chair)
<i>Fifteenth Session of the Working Party on Tropical Tunas</i>	
IOTC–2013–WPTT15–03	Outcomes of the Fifteenth Session of the Scientific Committee (Secretariat)
IOTC–2013–WPTT15–04	Outcomes of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–WPTT15–05	Review of Conservation and Management Measures relevant to tropical tunas (Secretariat)
IOTC–2013–WPTT15–06	Progress made on the recommendations of WPTT14 (Secretariat)
IOTC–2013–WPTT15–07 Rev_1	Review of the statistical data and fishery trends for tropical tunas (Secretariat)
IOTC–2013–WPTT15–08	Revision of the WPTT work plan (Secretariat)
IOTC–2013–WPTT15–30	Stock assessment of bigeye tuna in the Indian Ocean for 2012 (A. Langley, M. Herrera & R. Sharma)

IOTC–2013–WPTT15–32	Maldives skipjack pole and line fishery catch rate standardization 2004–2011: reconstructing historic CPUE till 1985 (R. Sharma, J. Geehan & M.S. Adam)
IOTC–2013–WPTT15–33 Rev_1	Process and arrangement for management strategy evaluation of Indian Ocean skipjack tuna (M.S. Adam, R. Sharma & N. Bentley)
IOTC–2013–WPTT15–41 Rev_1	Review of length frequency data of the Taiwan,China distant water longline fleet (J. Geehan & S. Hoyle)

*Ninth Working Party on Data Collection and Statistics*

IOTC–2013–WPDCS09–03	Outcomes of the Fifteenth Session of the Scientific Committee and of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–WPDCS09–04	Progress made on the recommendations of WPDCS08 (Secretariat)
IOTC–2013–WPDCS09–05	Review of current Conservation and Management Measures relating to data collection and statistics (Secretariat)
IOTC–2013–WPDCS09–06	Report on IOTC Data Collection and Statistics (Secretariat)
IOTC–2013–WPDCS09–11	IOTC-OFCF Project activities in 2013: Progress Report (Secretariat)
IOTC–2013–WPDCS09–12	Review of length frequency data of the Taiwanese Distant Water Longline Fleet (Secretariat & S. Hoyle)
IOTC–2013–WPDCS09–13	Biological data on tuna and tuna-like species gathered at the IOTC Secretariat: Status Report (Secretariat)
IOTC–2013–WPDCS09–14	Revision to historical data sets held by the Secretariat (Secretariat)
IOTC–2013–WPDCS09– INF01	Report and documentation of the Indian Ocean Tuna Fisheries of Indonesia Albacore Catch Estimation Workshop (Secretariat)

*Sixteenth Session of the Scientific Committee*

IOTC–2013–SC16–03	Outcomes of the Seventeenth Session of the Commission (Secretariat)
IOTC–2013–SC16–04	Previous decisions of the Commission (Secretariat)
IOTC–2013–SC16–05	Report of the Secretariat – Activities in support of the IOTC science process in 2013 (Secretariat)
IOTC–2013–SC16–06	Standardisation of IOTC Working Party and Scientific Committee report terminology (Secretariat)
IOTC–2013–SC16–07	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 (Secretariat)
IOTC–2013–SC16–08	Best practice guidelines for the safe release and handling of encircled cetaceans (Secretariat)
IOTC–2013–SC16–09	Best practice guidelines for the safe release and handling of encircled whale sharks (Secretariat)
IOTC–2013–SC16–10	Revision to historical data sets held by the Secretariat (Secretariat)
IOTC–2013–SC16–12	Outcomes of the informal workshop on CPUE standardisation (Secretariat)
IOTC–2013–SC16–13	Examination of the effects of piracy on fleet operations and subsequent catch and effort trends (Secretariat)
IOTC–2013–SC16–14	Update on the implementation of the regional observer scheme (Secretariat)
IOTC–2013–SC16–15	Update on progress regarding Resolution 09/01 – on the performance review follow-up (Secretariat)
IOTC–2013–SC16–16	Proposed priorities for Working Party's and the Scientific Committee for 2013 and 2014 (Secretariat)
IOTC–2013–SC16–17	Proposed schedule of Working Party and Scientific Committee meetings for 2013 and 2014 (Secretariat)
IOTC–2013–SC16–18	Shark Year (multi-year research) Program (WPEB small working group of shark experts & Secretariat)
IOTC–2013–SC16–19	Summary: Estimation of fishing capacity by tuna fishing fleets in the Indian Ocean (G. Moreno & IOTC Secretariat)