

## DRAFT: REPORT OF THE SECRETARIAT – ACTIVITIES IN SUPPORT OF THE IOTC SCIENCE PROCESS IN 2014

PREPARED BY: IOTC SECRETARIAT, 23 & 28 NOVEMBER 2014

### PURPOSE

1. To inform the Scientific Committee (SC) of work undertaken by the IOTC Secretariat in 2014 in support of the IOTC Science process, endorsed by the Commission.

### DISCUSSION

#### *Staffing*

2. Fishery Officer (Science): Dr Sarah Martin joined the IOTC Secretariat in early 2014.

#### *IOTC meetings – Working parties*

3. In 2014, 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](#).
4. [Appendix II](#) lists the documents produced by the IOTC Secretariat in support of Working Party meetings held in 2014. 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, totalling 25 Executive Summaries.
5. The IOTC Secretariat facilitated the participation of invited experts that were selected to attend each of the Working Party meetings in 2014. The names and affiliations of each of the Invited Experts for 2014 are provided in [Table 2](#).

**Table 2.** Invited Experts for Working Party meetings in 2014.

Working Party	Date and place	Name	Affiliation
Neritic Tunas	29 June–2 July 2014 Phuket, Thailand	Dr. Shiji Zhou	CSIRO, <b>Australia</b>
Temperate Tunas	28–31 July 2014 Busan, Rep. of Korea	Dr Simon Hoyle	Independent consultant, <b>New Zealand</b>
Billfish	18–22 September, La Réunion, France	Dr. Humber Andrade	Universidade Federal Rural de Pernambuco, <b>Brazil</b>
Ecosystems and Bycatch	12–16 September, La Réunion, France	Dr. Joel Rice	Secretariat of the Pacific Community (SPC)
Tropical Tunas	24–29 October, San Sebastian, Spain	Dr. Simon Hoyle	Independent consultant, <b>New Zealand</b>
Data Collection and Statistics	2–4 December Seychelles	Nil	Nil
Methods	5–6 December Seychelles	Nil	Nil

6. The IOTC Secretariat assisted in the coordination of Working Party activities for the IOTC species, contributing a number of supporting analyses and stock assessments as lead or co-author for seven IOTC species (kawakawa, longtail tuna, narrow-barred Spanish mackerel, albacore, swordfish, black marlin and skipjack tuna) (see list of documents in [Appendix II](#)).

**Table 1.** Scientific Meetings held in 2014, prior to the 17<sup>th</sup> Session of the IOTC Scientific Committee meeting. 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 (and for the previous meeting)
		2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	
Neritic Tunas	29 June–2 July 2014 Phuket, Thailand	–	28	35	42	37	–	9 <sup>1</sup>	10	11	13	Total: 36 (40) Working papers: 34 (34) Information papers: 2 (6)
Temperate Tunas	28–31 July 2014 Busan, Rep. of Korea	15*	16	26	–	27	–	2	3	–	3	Total : 30 (28) Working paper : 26 (19) Information papers : 4 (9)
Billfish	21–25 October 2014 Yokohama, Japan	12	27	23	24	21	0	5	5	10	4	Total: 29 (35) Working papers: 27 (32) Information papers: 2 (3)
Ecosystems and Bycatch	27–31 October 2014 Yokohama, Japan	37	49	48	32	37	9 <sup>2</sup>	7 <sup>3</sup>	7	11	5	Total: 61 (64) Working papers: 34 (47) Information papers: 27 (17)
Tropical Tunas	15–19 November 2014 Bali, Indonesia	39	49	47	46	53	11	13	8	10	6	Total: 57 (51) Working papers: 42 (40) Information papers: 15 (11)
Data Collection and Statistics	2–4 December Seychelles	28	21	–	23	TBA	–	2	–	5	1	Total: TBA (18) Working papers: TBA (17) Information papers: TBA (1)
Methods	5–6 December Seychelles	18*	–	22	–	TBA	–	–	1	–	3 <sup>4</sup>	Total: TBA (15) Working papers: TBA (4) Information papers: TBA (11)
Scientific Committee	8–12 December Seychelles	41	50	54	75	TBA	7	10	12	11	15	Working papers: TBA (17) Executive Summaries: 25 Information papers: TBA (15)

\*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

<sup>4</sup> 3 scientists attended both the WPM and SC

### *IOTC meetings – Meeting Participation Fund*

7. The IOTC Meeting Participation Fund (MPF) was utilised for the indicated scientific meetings and/or Working Parties indicated in [Table 1](#). The associated expenditures and detailed description of benefiting developing CPCs in 2014 is provided within [Appendix III](#). The 2014 meetings of CoC11, SCAF11 and S18 in Colombo, Sri Lanka have also accounted for significant expenditure against the MPF budget (USD \$48,301). The total allocation for MPF in 2014 was USD 127,000 (USD 60,000 from IOTC regular budget allocation and 67,000 from the savings under the ICRU budgeting). MPF expenditure in 2014 has reached USD 157,294, which is USD 30,294 over budget.
8. 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 2014, the Secretariat facilitated the participation of 33 individuals from developing CPCs of IOTC to the seven working Party meetings held in 2014 as detailed in [Table 1](#). The total level of participation (including the Scientific Committee) by MPF recipients has decreased in 2014 (49), down from 58 in 2013, 46 in 2012, 33 in 2011 and 19 in 2010.
9. MPF recipients presented 33 working documents in 2014 (47 in 2013, 36 in 2012) to the various Working Party meetings, and 15 National Reports (11 in 2013, 12 in 2012) to the Scientific Committee, as detailed in [Table 1](#).

### *Science to management workshops*

10. The IOTC organised two workshops on connecting the IOTC Science and Management processes in 2014:
  - 1) Phuket, Thailand from the 25–27 June, 2014. Financed by BOBLME and IOTC.
  - 2) Cape Town, South Africa from the 20–22 September 2014. Financed by the Australian Government and IOTC.
11. The aims of the workshops were to:
  - improve the level of comprehension among IOTC Members on how the scientific process informs the management of IOTC species and ecosystems
  - increase the awareness of IOTC Members to their obligations, as stipulated in the Commissions' Conservation and Management Measures which are based on rigorous scientific advice
  - Improve the decision making process within the IOTC.
  - The workshop covered the following core topics:
    - Structure and functioning of the IOTC
    - Current status of IOTC stocks
    - Communicating IOTC science to managers
    - Lessons to be learnt from other fisheries management structures
    - How to interpret science advice as a manager
    - Country level implications arising from stock assessment results and management options analyses
    - How use the IOTC scientific advice and draft possible conservation and Management measures
    - Implications of current Conservation and Management Measures for CPCs
    - Negotiations within the Commission
    - Effects of poor compliance with IOTC requirements on the provision of scientific advice and management.
12. The 1<sup>st</sup> Workshop was delivered by Dr. David Wilson (Deputy Secretary/Science Manager, IOTC) Dr. Rishi Sharma (Fishery Officer – Stock Assessment, IOTC), Dr. Shijie Zhou (Invited Expert, CSIRO) and Dr. Chris O'Brien (Regional Coordinator, BOBLME). A total of 30 participants attended the workshop.
13. The 2<sup>nd</sup> Workshop was delivered by staff of the IOTC Secretariat, namely Rondolph Payet (Executive Secretary), Dr. David Wilson (Deputy Secretary/Science Manager), Dr. Rishi Sharma (Fishery Officer – Stock Assessment,). A total of 15 participants attended the workshop.

**Data-related activities – General**

14. 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. Due to many other commitments, the IOTC Secretariat was unable to finalize work on the migration of data from the previous to the new IOTC database, as initially planned. In 2014 the IOTC Secretariat considered alternative options, including hiring of an IT Consultant to assist the IOTC Secretariat with this work. Although the IOTC has allocated funds from its regular budget to start this activity it is likely that more resources will be required in the future. Database IT work will start in 2015. The IOTC Secretariat will report progress concerning this activity to future meetings of the Scientific Committee.
15. 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 updated the tagging datasets to incorporate new information.

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

16. The IOTC Secretariat continues facilitating support to developing coastal states using funds from the IOTC or other collaborating agencies. In particular, the OFCF 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 ABNJ Project, the ISSF, and other initiatives in the coordination and execution of capacity building activities in developing coastal states of the Indian Ocean.
17. Following is a summary of the capacity building activities undertaken since the end of SC15<sup>5</sup>:
- a) Support to data collection and management activities in Comoros
  - b) Support to the implementation of pilot sampling in Madagascar
  - c) Review of Data Collection and Processing Systems for the Longline Fisheries of Indonesia
  - d) Support to Data Collection and Management activities in Sri Lanka
  - e) Data Mining Neritic Tuna in Malaysia
  - f) Review of data collection and management systems artisanal fisheries of West Sumatra, Indonesia
  - g) Data Collection Workshop West Sumatra
  - h) Workshop on Compliance with IOTC Data Requirements
  - i) Review of data collection and management systems artisanal fisheries of Bali and East Java, Indonesia
  - j) Pilot sampling activities North and West Sumatra (Indonesia)
  - k) Data Mining Neritic Tuna in Thailand
  - l) Data Collection Workshop Bali and East Java
18. Below is a non-exhaustive list of the capacity building activities planned for 2015<sup>6</sup>:
- a) IOTC Data Support Missions
  - b) Support to albacore size frequency sampling in Mauritius
  - c) Data Collection Workshop DKI Java and West Java
  - d) Support to Pilot Sampling Activities in West and North Sumatra
  - e) Support to data management Indonesia
  - f) Support to data management Sri Lanka
  - g) Support to the implementation of the IOTC Regional Observer Scheme in Sri Lanka
  - h) Support to the implementation of the IOTC Regional Observer Scheme in Iran and Pakistan

**Table 3. Missions of staff from the IOTC Secretariat during 2014 in relation with capacity building activities in the Indian Ocean.**

Country	Date	Staff	Description
Sri Lanka	Jan 2014	IOTC Data Coordinator BOBLME IT Manager	Support to data collection and data management activities in Sri Lanka
Malaysia	Jan 2014	IOTC Fisheries Statistician	Data mining neritic tuna in Malaysia

<sup>5</sup> For more information on these activities refer to: IOTC capacity building activities in support of developing coastal IOTC CPCs: 2014 activities. IOTC–2014–WPDCS10–08, or email: [secretariat@iotc.org](mailto:secretariat@iotc.org).

<sup>6</sup> Ditto 5

		OFCF Project Manager	
Indonesia	Feb 2014	IOTC Consultant OFCF Project Manager	Review of data collection and management systems artisanal fisheries of West Sumatra, Indonesia
Indonesia	Feb 2014	IOTC Data Coordinator IOTC Consultant OFCF Project Manager	Data collection Workshop West Sumatra Indonesia
Rome	Mar 2014	IOTC Data Coordinator	ABNJ Inception Workshop
Mauritius	Mar 2014	IOTC Data Coordinator IOTC Fisheries Statistician IOTC Data Assistant	Workshop on Compliance with IOTC Data Requirements, Mauritius
Indonesia	May 2014	IOTC Consultant	Review of data collection and management systems artisanal fisheries of Bali and East Java, Indonesia
Indonesia	Jul 2014	IOTC Data Coordinator IOTC Consultant OFCF Project Manager	Pilot sampling activities North and West Sumatra, Indonesia
Thailand	Jul 2014	IOTC Fisheries Statistician OFCF Project Manager	Data Mining neritic tuna in Thailand
Belgium	Sep 2014	IOTC Data Coordinator	FAO iMarine Project & Meetings at EU DG Mare
Indonesia	Oct 2014	IOTC Data Coordinator OFCF Project Manager	Data collection Workshop Bali & East Java, Indonesia

#### ***Other data activities (2014)***

19. The IOTC Secretariat is 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. Collaboration between the IOTC Secretariat and FAO-FIDI continued in 2014. In 2014, the CLAV has been 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.
20. In March 2014, the ABNJ invited the IOTC Secretariat to attend its inception workshop and present a plan of action for the CLAV. The Workshop endorsed the plan presented by the IOTC Secretariat and agreed that the IOTC Secretariat should coordinate this activity. The Executive Secretaries of all tuna-RFMO Secretariats agreed to cooperate with the activities proposed. Work on the CLAV is being carried out by two experts, a CLAV IT Expert and a CLAV Specialist, which were hired to set up near real time procedures for the CLAV and maintenance of the system for a period of six months. CLAV activities are ongoing and will extend until July 2015. Arrangements for maintenance of the CLAV following the end of ABNJ support will be discussed at the next meeting of ABNJ's steering committee.

#### ***Stock assessment: Training***

21. A four day workshop was held in Cape Town, South Africa covering numerous topics on stock assessment. The course was delivered by Dr. Rishi Sharma (IOTC Secretariat), Dr. Kolody (CSIRO) and Dr. Aaron Berger (NOAA, USA) on stock assessment methodology and what kind of data should be collected and for what purposes. The overall objective of the 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.
22. Material presented in the workshop can be accessed at the following website link: (<http://iotc.org/meetings/2nd-sciencestock-assessment-workshop>). Workshop effectiveness was evaluated with a feedback survey and there was a clear demand for more such trainings in the region.

#### ***Stock assessment: Analysis***

23. Following the recommendation of the Working Party on Tropical Tunas in 2013, which was endorsed by the Scientific Committee at its 15<sup>th</sup> Session, a Stock Assessment consultant (Dr. Simon Hoyle) was hired again to conduct stock assessment analyses on albacore tuna, rather than tropical tuna in 2013.

24. The Fisheries Officer (Stock Assessment) assisted in the coordination of Working Party activities for the main IOTC species (WPNT, WPTmT, WPEB, WPB, WPTT), contributing a number of supporting analyses.
25. A total of seven papers were presented by the IOTC Secretariat as primary authors (see Appendix II). An analysis of the recent history of the assessments considered at the Working Parties in the past five years, reveals the value of a mixed approach in which contributions from scientists from CPCs (19) are supplemented by contributions from the IOTC Secretariat (13 and collaboration in another 9), consultants (five) or external invited experts (12 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.
26. In addition, follow-up to the first CPUE workshop was facilitated by the IOTC Secretariat in dealing with contrary signals of abundance for major tropical species between Taiwan, China and Japan. Stock assessment consultant Dr. Simon Hoyle (with funding provided by ISSF) worked with the two countries to resolve these issues and two papers were presented on this topic at WPTT.

#### ***Contacts with other organizations***

27. The IOTC 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 recent years have not participated in the meetings of the other tuna RFMOs due to budgetary constraints.

#### ***IOTC publications and information products***

##### **Documents**

28. In 2014, the Secretariat produced 61 (+ WPM papers TBA) (51 in 2013, 49 in 2012) papers/reports ([Appendix II](#)) in support of the IOTC Science process, not including the reports of the various working parties (7) or the Executive Summaries (25).

##### **IOTC Website**

29. 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. New additions to the website in 2014 include:
- **Stock status dashboard:** <http://iotc.org/science/status-summary-species-tuna-and-tuna-species-under-iotc-mandate-well-other-species-impacted-iotc>
  - **NPOA webpages:** <http://iotc.org/science/status-of-national-plans-of-action-and-fao-guidelines>
  - **IOTC Data Summary:** Set up of IOTC Database online querying and reporting tools in the IOTC Web Page: Following a recommendation from the IOTC Scientific Committee to resume publication of the IOTC Data Summary in electronic format, in 2014 the IOTC Secretariat hired the services of an IT Consultant to set up online tools in the IOTC Web Page to facilitate users' querying of the IOTC database and generation of reports. This work is ongoing and consists of two phases: A first Phase to set up querying and reporting tools for nominal catch and fishing craft statistics data; and a second phase to set up querying and reporting tools for catch-and-effort data, including generation of catch, effort, and CPUE maps. The results of this activity will be presented to the next meeting of the IOTC SC.
  - There is still the need for CPCs to provide the Secretariat with their on-going activities relating to the work plan of the Commission for publication on the website.

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

30. 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** – The SPC, Jipé Le-Bars. Evgeny Romanov, Charles Anderson Rui Coelho and Bernard Seret
  - b) **Seabirds** – Birdlife International and the Secretariat of ACAP
  - c) **Marine turtles** – The Secretariat of the IOSEA MoU, IFREMER and KELONIA
  - d) **Tunas** – D.Itano, C. Anderson and E. Romanov (CAPRUN-ARDA)
  - e) **Billfish** – Hugues Evano (IFREMER) and Evgeny Romanov (CAP RUN/ARDA)

31. 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.
32. The identification cards have been produced in both English and French, and if funds can be identified, translated into other languages in 2015. A total of 1000 shark and 1000 turtle ID cards have already been distributed and further copies are currently being printed to meet demand. A recent survey suggested that the majority of ID cards are being used by fishers to complete logbook entries, port samplers, scientists/managers and onboard observers. With the progress in establishing observer schemes, further requests for ID cards for observers are expected to continue.
33. A poll sent to the IOTC science and NGO mailing lists suggested that the development of an electronic version of the ID cards (e-book format) could be a useful additional resource to be phased in alongside the hard copies of the cards. This would be an expanded version of the current guides containing more explanation and detail, including identification guides for dead and processed specimens, as well as diagrams and identification keys pointing out identification features.

### *Summary*

34. A summary of the Recommendations and Requests directed to the IOTC Secretariat, for implementation in 2014 are provide at [Appendix IV](#).

### **RECOMMENDATION**

That the Scientific Committee **NOTE** paper IOTC–2014–SC17–05 which provides the report of the IOTC Secretariat for 2014, including the updates provided on the Recommendations and Requests directed to the IOTC Secretariat for implementation in 2014.

### **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 III:** [Meeting Participation Fund \(MPF\) usage in 2014](#)
- Appendix IV:** [Progress on the Recommendations and Requests to the IOTC Secretariat by the Scientific Committee, for implementation in 2014](#)

## 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 2015	2 <sup>nd</sup> term
	Vice-Chair	Mr Jan Robinson	Seychelles	17-Dec-11	End of SC in 2015	2 <sup>nd</sup> term
WPB	Chair	Dr Jerome Bourjea	EU,France	08-Jul-11	End of WPB in 2015	2 <sup>nd</sup> term
	Vice-Chair	Dr 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 2016	2 <sup>nd</sup> term
	Vice-Chair	Dr Takayuki Matsumoto	Japan	06-Sep-12	End of WPTmT in 2016	2 <sup>nd</sup> term
WPTT	Chair	Dr Shiham Adam	Maldives, Rep. of	19-Nov-14	End of WPTT in 2016	1 <sup>st</sup> term
	Vice-Chair	Dr Gorka Merino	EU,Spain	19-Nov-14	End of WPTT in 2016	1 <sup>st</sup> term
WPEB	Chair	Dr 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	Dr Farhad Kaymaram	I.R. Iran	27-Nov-11	End of WPNT in 2015	2 <sup>nd</sup> term
WPDCS	Chair	Dr Emmanuel Chassot	EU,France	30-Nov-13	End of WPDCS in 2015	1st term
	Vice-Chair	Dr Pierre Chavance	EU,France	10-Dec-11	End of WPDCS in 2015	2 <sup>nd</sup> term
WPM	Chair	Dr Iago Mosqueira	EU,Spain	18-Dec-11	End of WPM in 2015	2 <sup>nd</sup> term
	Vice-Chair	Dr Toshihide Kitakado	Japan	18-Dec-11	End of WPM in 2015	2 <sup>nd</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 2014

Document number	Title
<i>4<sup>th</sup> Session of the IOTC Working Party on Neritic Tunas</i>	
IOTC–2014–WPNT04–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPNT04–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPNT04–05	Review of current Conservation and Management Measures relating to neritic tuna species (IOTC Secretariat)
IOTC–2014–WPNT04–06	Progress made on the recommendations of WPNT03 (IOTC Secretariat)
IOTC–2014–WPNT04–07 Rev_1	Review of the statistical data available for the neritic tuna species (IOTC Secretariat)
IOTC–2014–WPNT04–08	Revision of the WPNT Program of Work (2014–2018) (IOTC Secretariat)
IOTC–2014–WPNT04–24	Maldives kawakawa pole and line fishery catch rate standardization: 2004–2012 (R. Sharma, J. Geehan, M.S. Adam & R. Jauhary)
IOTC–2014–WPNT04–25 Rev_1	Stock assessment of neritic tuna species in Indian Ocean: kawakawa longtail, and narrow-barred Spanish Mackerel tuna using catch-based stock reduction methods (S. Zhou & R. Sharma)
IOTC–2014–WPNT04–26	Indian Ocean Kawakawa Assessment: Examining alternative data poor approaches (R. Sharma & S. Zhou)
<i>5<sup>th</sup> Session of the IOTC Working Party on Temperate Tunas</i>	
IOTC–2014–WPTmT05–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPTmT05–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPTmT05–05	Review of Conservation and Management Measures relating to temperate tuna (IOTC Secretariat)
IOTC–2014–WPTmT05–06	Progress made on the recommendations of WPTmT04 (IOTC Secretariat)
IOTC–2014–WPTmT05–07	Review of the statistical data and fishery trends for albacore (IOTC Secretariat)
IOTC–2014–WPTmT05–08	Revision of the WPTmT Program of Work (2014–2018) (IOTC Secretariat)
IOTC–2014–WPTmT05–24 Rev_2	Stock assessment of albacore tuna in the Indian Ocean for 2014 using Stock Synthesis (S.D. Hoyle, R. Sharma & M. Herrera)
<i>12<sup>th</sup> Session of the IOTC Working Party on Billfish</i>	
IOTC–2014–WPB12–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPB12–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPB12–05	Review of Conservation and Management Measures relevant to billfish (IOTC Secretariat)
IOTC–2014–WPB12–06	Progress made on the recommendations of WPB11 (IOTC Secretariat)
IOTC–2014–WPB12–07 Rev_2	Review of the statistical data and fishery trends for billfish (IOTC Secretariat)
IOTC–2014–WPB12–08 Rev_1	Revision of the WPB Program of Work (2015–2019) (Chair & IOTC Secretariat)
IOTC–2014–WPB12–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPB12–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPB12–26 Rev_3	An Age-, Sex- and Spatially-Structured Stock Assessment of the Indian Ocean Swordfish Fishery 1950–2012, using Stock Synthesis (Sharma R & Herrera M)
IOTC–2014–WPB12–27	Stock assessment billfish species in the Indian Ocean: Black Marlin and Sailfish (Sharma R)

**10<sup>th</sup> Session of the Working Party on Ecosystems and Bycatch**

IOTC–2014–WPEB10–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPEB10–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPEB10–05	Review of Conservation and Management Measures relevant to ecosystems and bycatch (IOTC Secretariat)
IOTC–2014–WPEB10–06	Progress made on the recommendations of WPEB09 (IOTC Secretariat)
IOTC–2014–WPEB10–07 Rev_1	Review of the statistical data and fishery trends for bycatch species (IOTC Secretariat)
IOTC–2014–WPEB10–08 Rev_1	Update on the implementation of the IOTC Regional Observer Scheme (IOTC Secretariat)
IOTC–2014–WPEB10–09	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–2014–WPEB10–10	Revision of the WPEB Program of Work (2015–2019) (IOTC Secretariat)
IOTC–2014–WPEB10–11	DRAFT: Indian Ocean shark multi-year research program (IO-ShYP) (IO-SHYP Small Working Group)
IOTC–2014–WPEB10–12	Issues for t-RFMOs in relation to the listing of shark and ray species by the CITES with particular reference to the Indian Ocean Tuna Commission (Clarke S & IOTC Secretariat)

**16<sup>th</sup> Session of the Working Party on Tropical Tunas**

IOTC–2014–WPTT16–03	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee (IOTC Secretariat)
IOTC–2014–WPTT16–04	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPTT16–05	Review of Conservation and Management Measures relevant to tropical tunas (IOTC Secretariat)
IOTC–2014–WPTT16–06	Progress made on the recommendations of WPTT15 (IOTC Secretariat)
IOTC–2014–WPTT16–07	Review of the statistical data and fishery trends for tropical tunas (IOTC Secretariat)
IOTC–2014–WPTT16–08	Revision of the WPTT Program of Work (2015–2019) (IOTC Secretariat)
IOTC–2014–WPTT16–42	Maldives skipjack pole and line fishery catch rate standardization 2004–2012: Reconstructing historic CPUE until 1985 (Sharma R, Geehan J & Adam MS)
IOTC–2014–WPTT16–43 Rev_1	Indian Ocean Skipjack Tuna Stock Assessment 1950–2013 (Stock Synthesis) (Sharma R & Herrera M)

**10<sup>th</sup> Working Party on Data Collection and Statistics**

IOTC–2014–WPDCS10–03 Rev1	Outcomes of the 16 <sup>th</sup> Session of the Scientific Committee and of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–WPDCS10–04	<b>Progress made on the recommendations of WPDCS09 (IOTC Secretariat)</b>
IOTC–2014–WPDCS10–05 Rev1	Review of current Conservation and Management Measures relating to the WPDCS (IOTC Secretariat)
IOTC–2014–WPDCS10–06 Rev1	Report on IOTC Data Collection and Statistics (IOTC Secretariat)
IOTC–2014–WPDCS10–07	Report of the Regional Workshop to Support Compliance with IOTC Requirements for the Collection and Reporting of Fisheries Data to the IOTC (IOTC Secretariat)
IOTC–2014–WPDCS10–08	IOTC Capacity Building Activities in Support of developing coastal IOTC CPCs (IOTC Secretariat)
IOTC–2014–WPDCS10–09 Rev1	WPDCS Draft Priorities WPDCS (IOTC Secretariat)
IOTC–2014–WPDCS10–10	Update on the implementation of the IOTC Regional Observer Scheme (IOTC Secretariat)

**5<sup>th</sup> Working Party on Methods**

IOTC–2014–WPM05–04	<b>TBA</b>
IOTC–2014–WPM05–05	<b>TBA</b>
IOTC–2014–WPM05–06	<b>TBA</b>
IOTC–2014–WPM05–07	<b>TBA</b>

*17<sup>th</sup> Session of the Scientific Committee*

IOTC–2014–SC17–03	Outcomes of the 18 <sup>th</sup> Session of the Commission (IOTC Secretariat)
IOTC–2014–SC17–04	Previous decisions of the Commission (IOTC Secretariat)
IOTC–2014–SC17–05	Report of the Secretariat – Activities in support of the IOTC science process in 2014 (IOTC Secretariat)
IOTC–2014–SC17–06	Revised: Guidelines for the presentation of CPUE standardisations and stock assessment models (IOTC Secretariat)
IOTC–2014–SC17–07	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 (IOTC Secretariat)
IOTC–2014–SC17–08	Update on the implementation of the regional observer scheme (IOTC Secretariat)
IOTC–2014–SC17–09	2014: Update on progress regarding Resolution 09/01 – on the performance review follow-up (IOTC Secretariat)
IOTC–2014–SC17–10	Revision of the program of work (2015–19) for the IOTC science process (IOTC Secretariat)
IOTC–2014–SC17–11	Proposed schedule of Working Party and Scientific Committee meetings for 2015 and 2016 (IOTC Secretariat)

## APPENDIX III

## Meeting Participation Fund (MPF) usage in 2014

Meeting	Location	MPF Country	USD Amount
CoC11, SCAF11, S18	Colombo, Sri Lanka	Indonesia	3,281
CoC11, SCAF11, S18		Iran	3,191
CoC11, SCAF11, S18		Thailand	2,550
CoC11, SCAF11, S18		Maldives	2,475
CoC11, SCAF11, S18		Kenya	3,087
CoC11, SCAF11, S18		Belize	5,198
CoC11, SCAF11, S19		Comoros	4,014
CoC11, SCAF11, S20		Malaysia	2,741
CoC11, SCAF11, S21		Mozambique	3,312
CoC11, SCAF11, S22		Tanzania	3,550
CoC11, SCAF11, S23		Mauritius	3,789
SCAF11, S18		Mauritius	2,824
CoC11, SCAF11, S24		Vanuatu	1,120
SCAF11, S18		India	1,944
CoC11		India	1,647
S18		Madagascar	3,578
<b>TOTAL CoC11, SCAF11, S18</b>			<b>48,301</b>

Meeting	Location	MPF Country	USD Amount
WPNT4, Sci/Mgmt1	Phuket, Thailand	Indonesia	2,468
WPNT4, Sci/Mgmt1		Iran	2,101
WPNT4, Sci/Mgmt1		Thailand	1,692
WPNT4, Sci/Mgmt1		Maldives	1,828
WPNT4, Sci/Mgmt1		Kenya	2,960
WPNT4, Sci/Mgmt1		Sri Lanka	2,438
WPNT4, Sci/Mgmt1		Malaysia	1,639
WPNT4, Sci/Mgmt1		Mozambique	3,349
WPNT4, Sci/Mgmt1		Tanzania	2,621
WPNT4, Sci/Mgmt1		India	2,127
WPNT4, Sci/Mgmt1		Madagascar	3,275
<b>TOTAL WPNT4</b>			<b>26,498</b>

Meeting	Location	MPF Country	USD Amount
WPTmT5	Busan, Rep. of Korea	Thailand	2,987
WPTmT5		Indonesia	4,247
WPTmT5		Malaysia	3,784
<b>TOTAL WPTmT5</b>			<b>11,018</b>

Meeting	Location	MPF Country	USD Amount
WPB12	Yokohama, Japan	Indonesia	3,081
WPEB10		Indonesia	2,993
WPB12		Iran	3,195
WPEB10		Iran	3,310
WPEB10		Maldives	4,531
WPB12, WPEB10		Sri Lanka	4,754
WPB12, WPEB10		India	4,702

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**TOTAL WPB12, WPEB10            26,566**

<b>Meeting</b>	<b>Location</b>	<b>MPF Country</b>	<b>USD Amount</b>
WPTT16	Bali, Indonesia	Kenya	4,201
WPTT16		China	3,104
WPTT16		Iran	3,038
WPTT16		Thailand	2,334
WPTT16		Maldives	2,447
WPTT16		Sri Lanka	2,489
		<b>TOTAL WPTT16</b>	<b>17,613</b>

<b>Meeting</b>	<b>Location</b>	<b>MPF Country</b>	<b>USD Amount</b>
WPDCS10	Victoria, Seychelles	Iran	2,376
WPDCS10		Sri Lanka	2,034
WPM5, SC17		Madagascar	946
WPM5, SC17		Maldives	2,844
WPM5, SC17		Comoros	946
WPM5, SC17		Sri Lanka	2,000
SC17		Thailand	2,247
SC17		Tanzania	1,383
SC17		Mozambique	3,209
SC17		Somalia	2,190
SC17		Mauritius	1,538
SC17		Malaysia	2,061
SC17		Iran	1,873
SC17		India	1,652
SC17		China	2,371
SC17		Kenya	1,532
		<b>TOTAL WPDCS10, WPM5, SC17</b>	<b>27,297</b>

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**MPF GRAND TOTAL 2014            157,294**

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## APPENDIX IV

## Progress on the Recommendations and Requests to the IOTC Secretariat by the Scientific Committee, for implementation in 2014

SC16 RECOMMENDATIONS	IOTC Secretariat update
<p><b>Stock structure research</b></p> <p>SC16.13 (<a href="#">para. 36</a>) The SC <b>RECOMMENDED</b> that the IOTC Secretariat act in a project coordination role, as well as to seek funding for stock structure projects in the Indian Ocean. Initially, this would require the establishment of an intersessional discussion group with participants from the WPNT, and experts in the field of stock structure differentiation. CPCs with current or planned stock structure studies are encouraged to circulate project proposals to the wider group for comment that may be considered for submitting to prospective funding partners with support from the IOTC Secretariat.</p>	<p>In 2013, the SC made an additional recommendation on stock structure research, targeted primarily at neritic tunas under the IOTC mandate. Subsequently, at the request of the EU, a concept note was developed to examine if there is population structure of neritic tunas throughout the Indian Ocean. The IOTC Secretariat proposed that the list of species be expanded from only neritic tunas, to other IOTC species, including billfish, tropical and temperate tunas. The concept note has since been approved by the EU who will contribute €1.3 million and require an additional 20% co-contribution (€260,000) from either the IOTC regular budget or in combination with collaborating Institutions. The project will encourage a collaborative approach to the extent feasible to meet the needs of the Commission. The need to work collaboratively with scientists in other oceans to assess stock structure as well as with scientists within the Indian Ocean region was highlighted.</p>
<p><b>Training for CPCs having gillnet fleets on species identification, bycatch mitigation and data collection methods and also to identify other potential sources of assistance – Development of plans of action</b></p> <p>SC16.15(<a href="#">para. 39</a>) The SC <b>RECOMMENDED</b> that the Commission allocate funds in its 2014 and 2015 budgets for the IOTC Secretariat to facilitate training for CPCs having gillnet fleets on bycatch mitigation methods, species identification, and data collection methods (budget estimate: <a href="#">Table 4</a>).</p>	<p>The Commission approved US\$19,000 for this project in 2014 under the IOTC budget. Due to limited contributions received from Members in 2014, this project has been deferred until 2015.</p> <p>The idea is to phase this activity in line with the ABNJ (WWF Component) project so that we maximise the Commission’s resources.</p>
<p>SC16.18 (<a href="#">para. 42</a>) The SC <b>RECOMMENDED</b> that the IOTC Secretariat facilitate a process to develop standardised sampling protocols for bycatch species which are thought to be heavily impacted by IOTC fisheries. The protocols established by the WCPFC may be a useful starting point. Given the lack of staffing resources at the Secretariat to undertake the work directly, the Commission may wish to allocate sufficient funds in its 2014 budget to hire a consultant to undertake this work, under the guidance of the Secretariat. The primary aim would be to assist CPCs to gather information in a consistent way that would lead to improved assessments of fisheries impacts on species, species groups and ecosystems. An approximate budget is provided in <a href="#">Table 6</a>.</p>	<p>The Commission has allocated US\$25,000 for this activity in its 2015 budget. The SC may wish to further discuss and refine this project.</p>

<p><b>Shark Year (multi-year research) Program</b></p> <p>SC16.33 (para. 74) The SC <b>ENDORSED</b> the Indian Ocean Shark Year Program (multi-year research initiative) provided at Appendix I of paper IOTC-2013-SC16-18 and <b>RECOMMENDED</b> that a detailed multi-year shark research program be prepared (by a small group of shark experts and the IOTC Secretariat) covering the various aspects raised in paper IOTC-2013-SC16-18. The IOTC budget for 2014 should include funding support to allow the small group of shark experts and the IOTC Secretariat to attend a short ad-hoc meeting (Table 10).</p>	<p>The Commission budgeted US\$10,000 for this project in 2014. The workshop was held in May 2014 and a summary Report produced which is available on the IOTC website. IOTC-2014-IO-ShYP01-R.</p> <p>This activity was also co-financed by the WWF to the amount of US\$10,000</p> <p>The report was considered by the WPEB10 and a summary will be provided by the Chair of the WPEB at the SC17.</p>
<p><b>Data support</b></p> <p>SC16.35 (para. 79) <b>NOTING</b> that the work carried out during the meeting requires an IOTC data expert to be in attendance at each meeting to answer the many and varied questions from participants, the SC <b>RECOMMENDED</b> that the Secretariat support team attending the WPB meeting each year, also contain a staff member from the IOTC Data Section, in addition to the Science Manager and Fishery Officer (Stock Assessment), and for the attendance of the third team member to be incorporated into the IOTC budget for 2014 and for all future years.</p>	<p>The IOTC Data Coordinator attended the WPB12 in 2014.</p>
<p><b>Recreational and sports fisheries for billfish</b></p> <p>SC16.37 (para. 82) <b>NOTING</b> that in 2011, the Chair of the WPB, in collaboration with the IOTC Secretariat, participating billfish foundations and other interested parties, commenced a process to facilitate the acquisition of catch-and-effort and size data from sport fisheries, by developing and disseminating reporting forms to Sport Fishing Centres in the region, the SC <b>RECOMMENDED</b> that the Chair and Vice-Chair work in collaboration with the IOTC Secretariat and the African Billfish Foundation to find a suitable funding source and lead investigator (university or consultant) to undertake the project outlined in Appendix VI of the WPB11 report (IOTC-2013-WPB11-R). The aim of the project will be to enhance data recovery from sports and other recreational fisheries in the western Indian Ocean region. The WPB Chair should circulate the concept note to potential funding bodies on behalf of the WPB. A similar concept note could be developed for other regions in the IOTC area of competence at a later date.</p>	<p>Process commenced in 2014. The WPB12 made the following further recommendation:</p> <p>Para. 63. Of the WPB12 Report: <b>NOTING</b> that in 2011, the Chair of the WPB, in collaboration with the IOTC Secretariat, participating billfish foundations and other interested parties, commenced a process to facilitate the acquisition of catch-and-effort and size data from sport fisheries, by developing and disseminating reporting forms to Sport Fishing Centres in the region, the WPB <b>RECOMMENDED</b> that the Chair and Vice-Chair work in collaboration with the IOTC Secretariat and the African Billfish Foundation to find a suitable funding source and lead investigator to undertake the project outlined in Appendix VI. The aim of the project will be to enhance data recovery from sports and other recreational fisheries in the western Indian Ocean region. The IOTC Secretariat shall circulate the concept note to potential funding bodies on behalf of the WPB. A similar concept note could be developed for other regions in the IOTC area of competence at a later date.</p>
<p><b>Data collection and processing systems</b></p> <p>SC16.40 (para. 87) The SC <b>THANKED</b> Japan and Taiwan,China for addressing some of the concerns raised by the WPTT in 2012 about data collection and length frequency processing, and <b>RECOMMENDED</b> that both Japan and Taiwan,China, as well as the IOTC Secretariat continue joint work, in cooperation with countries having longline fisheries, to address other issues identified by the WPTT, such as conflicting trends in the longline CPUE among the</p>	<p>In 2014 the Chair of the IOTC WPDCS sent an e-mail to countries having longline fleets to encourage further presentation of results at the meeting of the WPDCS in 2014.</p> <p>Further updates can be provided at SC17.</p>

<p>main longline fleets, the lack of specimens of small size from the samples for Taiwan,China longline fleet, and discrepancies in the average weights estimated using the available catch-and-effort and length frequency data for the Japanese longline fleet.</p>	
<p><b>India fisheries</b></p> <p>SC16.42 (para. 91) <b>NOTING</b> the potential utility of the longline CPUEs derived from the research surveys conducted by the “Fishery Survey of India”, the SC <b>RECOMMENDED</b> that as a high priority, India undertake a standardisation of the CPUE series, with the support of the IOTC Secretariat, and for this to be presented at the next WPTT meeting.</p>	<p>India was contacted by the IOTC Secretariat and the Chair of the SC, however, to date, CPUE series for India’s fisheries have not been developed.</p>
<p><b><i>IOTC Data Summary</i></b></p> <p>SC16.48 (para. 110) The SC <b>NOTED</b> the plans from the IOTC Secretariat to resume publication of the IOTC Data Summary in electronic form, including work on the set-up of an online querying facility in the IOTC Web Site, which will allow site users to filter nominal catch and catch-and-effort data using a range of criteria and visualise the output in table or graphic format, including different types of charts, figures and maps. The work will facilitate the use of information in the IOTC Databases by the general public. The SC <b>RECOMMENDED</b> that the IOTC Secretariat carries out this work during 2014 and presents the new system to the next meeting of the WPDCS for suggested improvements.</p>	<p>Ongoing: progress reported above in the main report</p>
<p><b><i>Update on the inter-sessional work of the WPM small working group on Management Strategy Evaluation</i></b></p> <p>SC16.49 (para. 115) The SC <b>NOTED</b> the need for the Commission, its Committee’s and CPCs to develop a better understanding of management strategy concepts, including reference points, harvest control rules and the role of management strategy evaluation. There is also a need to explain and clarify the roles of the Commission, the SC and MSE through the process. To achieve this, the SC <b>RECOMMENDED</b> a process of familiarisation and capacity building at multiples levels as follows:</p> <ul style="list-style-type: none"> <li>• The Chair of the Commission considers including an agenda item for each Commission meeting, which would provide Commissioner’s with annual updates and explanatory material to ensure they are kept abreast of the methods and processes being undertaken as part of the broader IOTC MSE process. This should also cover a dialogue among scientists, managers and stakeholders on issues related to the specific formulation of management objectives that are required for a complete formulation and evaluation of management plans through MSE. In order to accelerate this process the SC <b>REQUESTED</b> that the IOTC Secretariat seek funding for, and coordinate a ‘side event’ on the topic associated with the 2014 Commission</li> </ul>	<p>This material will be provided and updated at the WPM05 in Seychelles. This will then be updated for SC17.</p>



<p>meeting. In addition, to prepare a workplan for the MSE dialogue in consultation with the WPM.</p> <ul style="list-style-type: none"> <li>The IOTC Secretariat coordinate the development and delivery of several training workshops focused on providing assistance to developing CPCs to better understand the MSE process, including how reference points and harvest control rules are likely to function in an IOTC context. The implications of IOTC Resolution 12/01 <i>on the implementation of the precautionary approach</i> and IOTC Resolution 13/10 <i>on interim target and limit reference points and a decision framework</i> should be incorporated into the workshops. The SC <b>REQUESTED</b> that the Commission's budget incorporate appropriate funds for this purpose, as detailed in <a href="#">Table 12</a>.</li> </ul>	
<p><b>Outcomes of the informal workshop on CPUE standardisation</b></p> <p>SC16.52 (<a href="#">para. 128</a>) <b>NOTING</b> the CPUE issues identified by the WPTT in 2010, 2011, 2012 and 2013 and the Scientific Committee in 2012, as well as the informal CPUE workshop in 2013, the SC <b>RECOMMENDED</b> that further inter-sessional work be carried out in conjunction with the IOTC Secretariat on the major longline CPC's in the Indian Ocean in early 2014 using operational data to address issues identified in the CPUE Workshop Report.</p>	<p>No funds were allocated to this task by the Commission in 2014. However, ISSF have funded an initial study by a consultant which will be considered at the WPTT16 and a further update will be provided by the WPTT Chair at SC17.</p>
<p><b>Meeting participation fund</b></p> <p>SC16.55 (<a href="#">para. 134</a>) <b>NOTING</b> that the Commission had directed the Secretariat (via Resolution 10/05) to ensure that the MPF be utilised, as a first priority, to support the participation of scientists from developing CPCs in scientific meetings of the IOTC, including Working Parties, rather than non-science meetings, the SC <b>RECOMMENDED</b> that the Secretariat strictly adhere to the directives of the Commission contained in Resolution 10/05, including paragraph 8 which states that '<i>The Fund will be allocated in such a way that no more than 25% of the expenditures of the Fund in one year is used to fund attendance to non-scientific meetings.</i>' Thus, 75% of the annual MPF shall be allocated to facilitating the attendance of developing CPC scientists to the Scientific Committee and its Working Parties.</p>	<p>Update provided in paper IOTC-2014-SC17-05: Report of the Secretariat – Activities in support of the IOTC science process in 2014 (IOTC Secretariat)</p>
<p><b>Billfish</b></p> <p>SC16.57 (<a href="#">para. 141</a>) The SC <b>EXPRESSED</b> its thanks to the IOTC Secretariat and other experts involved in the development of the identification cards for billfish and <b>RECOMMENDED</b> that the cards be translated into the following languages, in priority order: Farsi, Arabic, Indonesian, Swahili, Spanish, Portuguese, Thai and Sri Lankan, and that the Commission allocate funds for this purpose. The Secretariat should utilise any remaining funds in the IOTC Capacity Building budget line for 2013 to translate the cards.</p>	<p>US\$12,000 was approved by the Commission for this purpose. Due to limited contributions received from Members in 2014, this project will be considered in 2015.</p> <p>The IOTC Secretariat is also seeking additional funds from CPCs and others to translate and print the ID cards.</p>

<p><b>Seabirds, shark and marine turtles</b></p> <p>SC16.59 (<a href="#">para. 143</a>) The SC <b>EXPRESSED</b> its thanks to the IOTC Secretariat and other experts involved in the development of the identification cards for marine turtles, seabirds and sharks and <b>RECOMMENDED</b> that the cards be translated into the following languages, in priority order: Farsi, Arabic, Spanish, Portuguese and Indonesian, and that the Commission allocate funds for this purpose.</p>	<p>The SCAF and Commission endorsed the proposed budget. US\$12,000 was approved for 2014 under the IOTC budget. Due to limited contributions received from Members in 2014, this project has been deferred until next year or until external funds are identified. However, we have contacted some CPCs to help with the translation to reduce the cost.</p>
<p><b>Tunas and mackerels</b></p> <p>SC16.61 (<a href="#">para. 146</a>) The SC <b>RECOMMENDED</b> that the Commission allocate additional funds in the 2014–15 budget to translate and print sets of identification cards for the three tropical tuna, two temperate tuna, and six neritic tuna and seerfish species under the IOTC mandate, noting that the total estimated production and printing costs for 1000 sets of the identification cards is around a maximum of US\$16,200 (<a href="#">Table 15</a>). The IOTC Secretariat shall seek funds from potential donors to print additional sets of the identification cards at US\$5,500 per 1000 sets of cards.</p>	<p>The SCAF and Commission endorsed the proposed budget. US\$12,000 was approved for 2014 under the IOTC budget. Due to limited contributions received from Members in 2014, this project has been deferred until 2015 or until external funds are identified. However, we have contacted some CPCs to help with the translation to reduce the cost.</p>
<p><b>Fishing hook identification cards</b></p> <p>SC16.62 (<a href="#">para. 147</a>) <b>NOTING</b> the continued confusion in the terminology of various hook types being used in IOTC fisheries, (e.g. tuna hook vs. J-hook; definition of a circle hook), the SC <b>RECOMMENDED</b> that the Commission allocate funds in the 2014-15 IOTC Budget to develop an identification guide for fishing hooks and pelagic fishing gears used in IOTC fisheries. The total estimated production and printing costs for the first 1000 sets of the identification cards is around a maximum of US\$16,500 (<a href="#">Table 16</a>). The IOTC Secretariat shall seek funds from potential donors to print additional sets of the identification cards at US\$5,500 per 1000 sets of cards.</p>	<p>The Commission approved US\$16,500 for this task in 2014 under the IOTC budget. Due to limited contributions received from Members in 2014, this project has been deferred until 2015 or until external funds are identified.</p>
<p><b>Implementation of the Regional Observer Scheme</b></p> <p>SC16.65 (<a href="#">para. 177</a>) The SC <b>RECOMMENDED</b> that as a priority, the IOTC Secretariat should immediately commence work with CPCs that are yet to develop and implement a Regional Observer Scheme that would meet the requirements contained in Resolution 11/04, and provide an update at the next session of the WPEB.</p>	<p>The new Fishery Officer (Science) is spending approximately 50% of her time working on the ROS.</p>
<p><b>SC16 REQUESTS</b></p>	<p><b>IOTC Secretariat update</b></p>
<p>Para 28. The SC <b>REQUESTED</b> that the IOTC Secretariat facilitate the translation of all abstracts/summaries from the National Reports to the Scientific Committee, into both</p>	<p>In progress.</p>

<p>English and French, if the reports are received before the 15 day pre-meeting deadline. Where possible, all CPCs are encouraged to provide the National Reports with abstracts in both English and French, as well as figure and table headings.</p>	
<p><b><i>Length Frequency inter-sessional meeting guidelines</i></b></p> <p>Para. 89. The SC <b>NOTED</b> that the data collection and processing systems used for distant-water longline fisheries tend to apply to all oceans <b>AGREEING</b> that it is likely that the issues identified for the Indian Ocean also apply to other areas. In this regard, the SC <b>REQUESTED</b> that the IOTC Secretariat informs other tuna-RFMO Secretariats about the issues identified and facilitates participation of their staff to the WPDCS, where required.</p>	<p>The WPDCS will revise progress on the plan of work agreed by the IOTC Scientific Committee regarding this activity (IOTC-SC16 2013. Report of the Sixteenth Session of the IOTC Scientific Committee. Busan, Rep. of Korea, 2-6 December 2013. IOTC-2013-SC16-R[E]: 312 pp.; para. 105)</p>
<p><b><i>General discussion on data issues</i></b></p> <p>Para. 103. The SC <b>NOTED</b> the difficulties that some countries have to report data to the IOTC as per the required standards, and that this lack of reporting originates in some cases from an insufficient understanding of the IOTC Requirements. In this regard the IOTC Secretariat will receive financial support from the EU-funded IOC-SmartFish Project for the organisation of a regional workshop to understand the IOTC Data Requirements and <b>REQUESTED</b> that the IOTC Secretariat considers funding scientists and statistical officers/managers from non IOC countries to the Workshop, in particular from Iran, Indonesia and Sri Lanka.</p>	<p>The IOTC Secretariat organised a Workshop in 2014 to address this recommendation. The Regional Workshop to Support Compliance with IOTC Requirements for the Collection and Reporting of Fisheries Data to the IOTC was held in Flic en Flac, Mauritius, from 18 to 20 March 2014. The report from the workshop is available at <a href="http://www.iotc.org/meetings/regional-workshop-support-compliance-iotc-requirements-collection-and-reporting-fisheries">http://www.iotc.org/meetings/regional-workshop-support-compliance-iotc-requirements-collection-and-reporting-fisheries</a></p>
<p>Para 104. The SC <b>NOTED</b> that Indonesia has had difficulties to report information on the size data, catch and effort and observer trip report data, which have been collected for its longline fleet and <b>REQUESTED</b> that the IOTC Secretariat assist Indonesia with these tasks so as to facilitate reporting of this information in the future.</p>	<p>The IOTC-OFCF Project will fund this activity, which will be implemented in 2015.</p>
<p><b><i>Review of length frequency data from longline fleets and likely impacts on the assessments</i></b></p> <p>Para. 105. The SC <b>REQUESTED</b> that joint work on the documentation of procedures for the collection, processing and reporting of size frequency data continues, based on a template produced by the IOTC Secretariat, in particular:</p> <ul style="list-style-type: none"> <li>• Full description of the type of sampling platforms used (e.g. commercial boats, research boats, training boats, etc.), and collecting sources (e.g. fishermen, researchers, scientific observers, etc.)</li> <li>• Full description of the sampling protocols used, on each (e.g. full enumeration of every set, every other set, first 30 fish from each set sampled for size, etc.), by type</li> </ul>	<p>Refer to Length Frequency inter-sessional meeting guidelines above.</p>

<p>of sampling platform and collecting source.</p> <ul style="list-style-type: none"> <li>• Type of measurements collected (e.g. gilled-and-gutted weight, fork length, etc.) and measurement tools used (calliper, measuring board, measuring tape, scale, etc.) by type of sampling platform, collecting source, and species.</li> <li>• Type of time-area stratification used for each species (e.g. quarter and defined area) and procedures used for the estimation of sampled weights in each stratum, including all equations used for the conversion of non-standard measurements into standard measurements, by species (e.g. deterministic conversion using a single length weight equation for all areas and time periods, etc.).</li> <li>• Description of any other procedures which involve the use of length frequency data (e.g. estimation of weights from the numbers reported in logbooks and substitution scheme in the case that lengths are not available in areas where there are catches and effort recorded, etc.).</li> </ul>	
<p><b><i>Status and use of the data reported in Observer Trip Reports</i></b></p> <p>Para. 109. <b>NOTING</b> that the observer trip report is submitted in an electronic format, the SC <b>REQUESTED</b> that the IOTC Secretariat creates a template, preferably using MS Excel, to facilitate reporting of this information, and makes it available through the IOTC Web Page.</p>	<p>An observer template in electronic format was developed by the Secretariat and reviewed by fleet-specific working groups during the WPEB10. A second revision will be discussed and finalised at the upcoming WPDCS10 for approval by the SC17. Once this has been approved, the Secretariat will make this available online through the IOTC web page and also through the development of a user-friendly web application which facilitates data entry and submission. However, CPCs will still have the option to submit the data in their preferred electronic method (e.g. via an email of an excel spreadsheet).</p>
<p><b><i>Estimation of fishing capacity by tuna fishing fleet in the Indian Ocean</i></b></p> <p>Para. 131. <b>NOTING</b> that some CPCs will be providing updates on the numbers of fishing units operated under their flag, as requested in IOTC Circular 79/13, in the future, the SC <b>REQUESTED</b> the IOTC Secretariat to update the information in the IOTC databases accordingly. In particular India, France (OT) and Malaysia indicated that they will provide this information soon.</p>	<p>No updates received from India, France(OT) and Malaysia. The IOTC Secretariat updated estimates of numbers of fishing craft using information from the active vessel list, record of authorized vessels, and other sources. This information will be available soon in the IOTC Web Page (Data Summary: online querying)</p>
<p>Para. 132. <b>NOTING</b> that the report highlights a number of issues that require further consideration, the SC <b>REQUESTED</b> that the IOTC Secretariat forwarded the report to the relevant working parties for their consideration, in particular the WPDCS (and WPFC).</p>	<p>The report was revised at the 10<sup>th</sup> meeting of the WPDCS, prior to the SC meeting.</p>
<p><b><i>Research Recommendations and Priorities</i></b></p> <p>Para. 196. The SC <b>REQUESTED</b> that the IOTC Secretariat develop a template for each working party to use in developing their works plans in 2014, with the aim of standardising the way in which each working party presents a prioritised plan each year for the SC's</p>	<p>A more user friendly template has been trialled and modified at each of the WP meetings in 2014. Their reports and paper IOTC–2014–SC17–10 IOTC Science Program of Work 2015–19 (IOTC Secretariat), provide further details for discussed at SC17.</p>

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consideration.	
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