
REVISION OF THE WPEB PROGRAM OF WORK (2015–2019)

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PURPOSE

To ensure that participants at the 10th Working Party on Ecosystems and Bycatch (WPEB10) revise the Program of Work for the WPEB by taking into consideration the specific requests of the Commission and Scientific Committee.

BACKGROUND

Scientific Committee

At the 16th Session of the SC:

- (Para. 192) The SC **NOTED** paper IOTC–2013–SC15–16 which outlined the proposed research priorities for each of the Working Party meetings held in 2013, with the aim of developing an IOTC Science Work Plan for 2014, and future years.
- (Para. 193) The SC **NOTED** the proposed work plans and priorities of each of the Working Parties and **AGREED** to the revised work plans as outlined in Appendix XXXIV [of the SC16 Report]. The Chairs and Vice-Chairs of each working party shall ensure that the efforts of their working party is focused on the core areas contained within the appendix, taking into account any new research priorities identified by the Commission at its next Session.
- (Para. 194) The SC **REQUESTED** that all Working Parties provide their work plans with items prioritised based on the requests of the Commission of the SC.
- (Para. 195) The SC **ADOPTED** a revised assessment schedule, ecological risk assessment and other core projects for 2014–18, for the tuna and tuna-like species under the IOTC mandate, as well as the current list of key shark species of interest, as outlined in Appendix XXXV [of the SC16 Report].
- (Para. 196) The SC **REQUESTED** 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 consideration.

Commission

At Sessions of the Commission, Conservation and Management Measures adopted contained elements which call on the Scientific Committee, via the WPEB, to undertake specific tasks. These requests will need to be incorporated into a revised Program of Work for the WPEB:

Resolution 13/04 On the conservation of cetaceans

- (para. 6) The Commission requests that the IOTC Scientific Committee develop best practice guidelines for the safe release and handling of encircled cetaceans, taking into account those developed in other Regional Fisheries Management Organisations, including the Western and Central Pacific Fisheries Commission, and that these guidelines be submitted to the 2014 Commission meeting for endorsement.

Resolution 13/05 On the conservation of whale sharks (*Rhincodon typus*)

- (para. 6) The Commission requests that the IOTC Scientific Committee develop best practice guidelines for the safe release and handling of encircled whale sharks, taking into account those developed in other regional fisheries management organisations including the Western and Central Pacific Fisheries Commission, and that these guidelines be submitted to the 2014 Commission meeting for endorsement.

Resolution 13/06 On a scientific and management framework on the Conservation of sharks species caught in association with IOTC managed fisheries

- (para. 7) Scientific observers shall be allowed to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections) from oceanic whitetip sharks taken in the IOTC area of competence that are dead at haulback, provided that the samples are a part of a research project approved by the IOTC Scientific Committee (SC)/the IOTC Working Party on Ecosystems and Bycatch (WPEB). In

order to obtain the approval, a detailed document outlining the purpose of the work, number of samples intended to be collected and the spatio-temporal distribution of the sampling effort must be included in the proposal. Annual progress of the work and a final report on completion shall be presented to the SC/WPEB.

- (para. 9) The provisional measures stipulated in this Resolution shall be evaluated in 2016 by the IOTC Scientific Committee to deliver more appropriate advice on the conservation and management of the stocks for the consideration of the Commission.

Resolution 13/08 *Procedures on a fish aggregating devices (FADs) management plan, including more detailed specification of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species*

- (para. 7) The IOTC Scientific Committee will analyse the information, when available, and provide scientific advice on additional FAD management options for consideration by the Commission in 2016, including recommendations on the use of biodegradable materials in new and improved FADs and the phasing out of FAD designs that do not prevent the entanglement of sharks, marine turtles and other species. When assessing the impact of FADs on the dynamic and distribution of targeted fish stocks and associated species and on the ecosystem, the IOTC Scientific Committee will, where relevant, use all available data on abandoned FADs (i.e. FADs without a beacon).

Resolution 12/04 *On the conservation of marine turtles*

- (para. 11) The IOTC Scientific Committee shall request the IOTC Working Party on Ecosystems and Bycatch to:
- a) Develop recommendations on appropriate mitigation measures for gillnet, longline and purse seine fisheries in the IOTC area;
 - b) Develop regional standards covering data collection, data exchange and training;
 - c) Develop improved FAD designs to reduce the incidence of entanglement of marine turtles, including the use of biodegradable materials.

The recommendations of the IOTC Working Party on Ecosystems and Bycatch shall be provided to the IOTC Scientific Committee for consideration at its annual session in 2012. In developing its recommendations, the IOTC Working Party on Ecosystems and Bycatch shall examine and take into account the information provided by CPCs in accordance with paragraph 10 of this measure, other research available on the effectiveness of various mitigation methods in the IOTC area, mitigation measures and guidelines adopted by other relevant organizations and, in particular, those of the Western and Central Pacific Fisheries Commission. The IOTC Working Party on Ecosystems and Bycatch will specifically consider the effects of circle hooks on target species catch rates, marine turtle mortalities and other bycatch species.

- (para. 17) The IOTC Scientific Committee shall annually review the information reported by CPCs pursuant to this measure and, as necessary, provide recommendations to the Commission on ways to strengthen efforts to reduce marine turtle interactions with IOTC fisheries.

Resolution 12/06 *On reducing the incidental bycatch of seabirds in longline fisheries*

- (para. 8) The IOTC Scientific Committee, based notably on the work of the WPEB and information from CPCs, will analyse the impact of this Resolution on seabird bycatch no later than for the 2016 meeting of the Commission. It shall advise the Commission on any modifications that are required, based on experience to date of the operation of the Resolution and/or further international studies, research or advice on best practice on the issue, in order to make the Resolution more effective.

Resolution 12/09 *On the conservation of thresher sharks (Family Alopiidae) caught in association with fisheries in the IOTC area of competence*

- (para. 7) Scientific observers shall be allowed to collect biological samples (vertebrae, tissues, reproductive tracts, stomachs, skin samples, spiral valves, jaws, whole and skeletonised specimens for taxonomic works and museum collections) from thresher sharks that are dead at haulback, provided that the samples are part of the research project approved by the IOTC Scientific Committee (or IOTC Working Party on Ecosystems and Bycatch (WPEB)). In order to obtain the approval, a detailed document outlining the purpose of the work, number and type of samples intended to be collected and the spatio-temporal distribution of the sampling work must be included in the proposal. Annual progress of the work and a final report on completion of the project shall be presented to the IOTC WPEB and the IOTC Scientific Committee.

Resolution 11/04 *On a regional observer scheme*

(para. 15) The elements of the Observer Scheme, notably those regarding its coverage, are subject to review and revision, as appropriate, for application in 2012 and subsequent years. Basing on the experience of other Tuna RFMOs, the IOTC Scientific Committee will elaborate an observer working manual, a template to be used for reporting (including minimum data fields) and a training program.

Resolution 05/05 *Concerning the conservation of sharks caught in association with fisheries managed by IOTC*

(para. 2) In 2006 the IOTC Scientific Committee (in collaboration with the IOTC Working Party on Ecosystems and Bycatch) provide preliminary advice on the stock status of key shark species and propose a research plan and timeline for a comprehensive assessment of these stocks.

(para. 5) The ratio of fin-to-body weight of sharks described in paragraph 4 shall be reviewed by the IOTC Scientific Committee and reported back to the Commission in 2006 for revision, if necessary.

DISCUSSION

Participants at the WPEB10 are requested to consider the priorities set by the Commission and the Scientific Committee, via Conservation and Management Measures, and revise its Program of Work (previously outlined in paper IOTC–2014–WPEB10–03) to match those priorities.

RECOMMENDATION/S

That the WPEB:

- 1) **NOTE** paper IOTC–2014–WPEB10–10, which encouraged the WPEB to further develop and refine its Program of Work for 2015–2019 to align with the requests and directives from the Commission and Scientific Committee.
- 2) **RECOMMEND** a revised Program of Work for 2015–2019 to the Scientific Committee for its consideration and potential endorsement.

APPENDICES

[Appendix A](#): DRAFT: Working Party on Ecosystems and Bycatch Program of Work (2015–2019)

APPENDIX A

DRAFT: WORKING PARTY ON ECOSYSTEMS AND BYCATCH PROGRAM OF WORK (2015–2019)

The following is the Draft WPEB Program of Work (2015–2019) and is based on the specific requests of the Commission and Scientific Committee, and will need to be modified to incorporate topics identified during the WPEB10. The Program of Work consists of the following, noting that a timeline for implementation would be developed by the SC once it has agreed to the priority projects across all of its Working Parties:

- **Table 1:** Priority topics for obtaining the information necessary to develop stock status indicators for sharks in the Indian Ocean;
- **Table 2:** High priority topics, by project for bycatch species in the Indian Ocean; and
- **Table 3:** Stock assessment and ERA schedule.

Table 1. Priority topics for obtaining the information necessary to develop stock status indicators for bycatch in the Indian Ocean

Topic	Sub-topic	Priority
Sharks	IO-ShYP – <i>TBD and incorporated during the WPEB10</i>	
Stock structure (connectivity)	Research to describe the population structure and connectivity of key shark species within the Indian Ocean (and adjacent Pacific and Atlantic waters as appropriate) (Priority species: High = blue shark; Oceanic white-tip shark, Medium = silky shark)	High
	➤ Next Generation Sequencing (NGS)	High
	➤ Tagging studies (P-SAT)	Med
CPUE standardisation	Develop standardised CPUE series for each key shark species and fishery in the Indian Ocean (High priority fleets: TWN-CHN LL, EU-Spain LL, Japan LL; Indonesia LL)	High
Stock assessment / Stock indicators	Develop and compare multiple assessment approaches to determining stock status for key shark species	High
Marine turtles	Review of bycatch mitigation measures	High
	Revised Ecological Risk Assessment (ERA)	Med
Seabirds	Review of bycatch mitigation measures	High
Marine mammals	Longline depredation studies	Med

Table 2. High priority topics, by project for bycatch in the Indian Ocean.

Topic	Sub-topic and project	Priority
Sharks	IO-ShYP – <i>TBD and incorporated during the WPEB10</i>	
Stock structure (connectivity)	Research to describe the population structure and connectivity of key shark species within the Indian Ocean (and adjacent Pacific and Atlantic waters as appropriate) (Priority species: High = blue shark; Oceanic white-tip shark, Medium = silky shark) <ul style="list-style-type: none"> ➤ Next Generation Sequencing (NGS) to determine key shark species stock structure, and migratory range. Determine the degree of shared stocks for key shark species in the Indian Ocean with the southern Atlantic Ocean. 	High
CPUE standardisation	Develop standardised CPUE series for each key shark species and fishery in the Indian Ocean <ul style="list-style-type: none"> ➤ (High priority fleets: TWN-CHN LL, EU-Spain LL, Japan LL; Indonesia LL) 	High
Stock assessment / Stock indicators	Develop and compare multiple assessment approaches to determining stock status for key shark species	High
Marine turtles	Review of bycatch mitigation measures	High
Seabirds	Review of bycatch mitigation measures	High

Table 3. Assessment schedule for the IOTC Working Party on Ecosystems and Bycatch (WPEB)

Species/group	2015	2016	2017	2018	2019
Working Party on Ecosystems and Bycatch					
Blue shark	Full assessment		Indicators & data poor approaches		Full assessment
Oceanic whitetip shark		Full assessment			
Scalloped hammerhead shark	Indicators			Revisit ERA	Indicators
Shortfin mako shark		Indicators		Revisit ERA	
Silky shark	Indicators			Revisit ERA	Indicators
Bigeye thresher shark			Indicators	Revisit ERA	
Pelagic thresher shark		Indicators		Revisit ERA	
Marine turtles	Review of mitigation measures in 12/04		Revisit ERA		Review of mitigation measures in 12/04
Seabirds	Review of mitigation measures in 12/06		Review of mitigation measures in 12/06		Review of mitigation measures in 12/06
Marine Mammals					