

OUTCOMES OF THE 16th SESSION OF THE SCIENTIFIC COMMITTEE

PREPARED BY: IOTC SECRETARIAT, 13 JULY 2014

PURPOSE

To inform participants at the 5th Working Party on Temperate Tunas (WPTmT05) of the recommendations arising from the 16th Session of the IOTC Scientific Committee (SC) held from 2–6 December 2013, specifically relating to the work of the WPTmT.

BACKGROUND

At the 16th Session of the SC, the SC noted and considered the recommendations made by the WPTmT in 2012 (no WPTmT meeting in 2013) that included requests to address the deficiencies in data collection, monitoring and reporting by CPCs, as well as to carry out targeted research on understanding stock structure of the albacore in the Indian Ocean and possible connectivity with the southern Atlantic Ocean albacore population.

The recommendations on the deficiencies in data collection, monitoring and reporting by CPCs in relation to temperate tunas will be discussed under agenda item 6 and in paper IOTC–2014–WPTmT05–07 and are therefore not presented in this paper.

Based on the recommendations arising from the WPTmT04, the SC16 adopted a set of recommendations, provide at [Appendix A](#) of this paper.

The recommendations contained in [Appendix A](#) were provided to the Commission for consideration at its 18th Session held in May 2014. A separate paper, IOTC–2014–WPTmT05–04 addresses the responses and actions of the Commission.

In addition, the SC16 reviewed and endorsed a work plan for the WPTmT (*Research recommendation and priorities for IOTC Working Parties*), including a revised assessment schedule, as detailed in [Appendix B](#) and [Appendix C](#). A separate paper (IOTC–2014–WPTmT05–08) will outline the review and development process for a *Program of Work* for the WPTmT for the next five years.

DISCUSSION

In addition to the recommendations outlined in [Appendix A](#), [Appendix B](#) and [Appendix C](#), and noting that the last WPTmT meeting report was considered in detail by the SC in 2012, the following extracts from the SC15 Report (2012) are provided here for the consideration and action of the WPTmT05:

Data available at the Secretariat for temperate tuna species

The SC **EXPRESSED** concern on the lack of information regarding the landing ports of the Indonesian longline fleet operating in the high seas and **REQUESTED** Indonesia to provide detailed information, with cooperation from the port countries, to the WPTmT at its next session. (para. 43 of the SC15 Report)

Indonesian longline fishery for albacore

NOTING the ongoing review of Indonesian catches of albacore being carried out by the IOTC Secretariat in consultation with the Directorate General of Capture Fisheries (DGCF) of Indonesia, and that current catch estimates for Indonesia are derived from reports of albacore imports into canning factories cooperating with the ISSF, the SC **REQUESTED** that the IOTC Secretariat and Indonesia continue cooperation to finalise the review and report final estimates of catches of albacore to the next meeting of the WPTmT. (para. 45 of the SC15 Report)

Chinese longline fishery for albacore

The SC **NOTED** that in recent years, the reported catches of albacore from longliners flagged to China fishing in the Indian Ocean have increased markedly and although this may originate from a change in targeting by some vessels, it may also be the consequence of some fishing companies over-reporting catches of albacore in the logbooks during those years. In this regard, the SC **REQUESTED** that China assess the reliability of statistics of albacore available since 2010 for its fleet and report findings to the next meeting of the WPTmT, including new estimates, where

required, in particular in the south-west Indian Ocean where the specific composition of the catch appears unrealistic. (para. 46 of the SC15 Report)

Sampling coverage

The SC **REQUESTED** that as a matter of priority, India, Indonesia and Japan increase sampling coverage to attain at least the coverage levels recommended by the Commission, including:

- catches sampled or observed for at least 5% of the vessel activities, including collection of catch, effort and size data for IOTC species and main bycatch species;
- implementation of logbook systems for offshore fisheries.

The information collected through the above activities should allow India, Indonesia and Japan to estimate catches by gear and species. (para. 47 of the SC15 Report)

Stock structure of albacore

The SC **NOTED** paper IOTC–2012–SC15–INF02 which provided an outline of a project aimed at examining the genetic structure and life history of albacore, in particular spatial and temporal diversity, abundance and migratory range, including possible exchanges with the southern Atlantic Ocean. (para. 53 of the SC15 Report)

NOTING that the results of the Project may be of great assistance to the work of the WPTmT, the SC **REQUESTED** that all applicable CPCs cooperate with the research scientists undertaking the study. It was also considered important to carry out tagging studies on albacore as a complement to any genetic study. (para. 54 of the SC15 Report)

The SC **REQUESTED** that the WPTmT assess the feasibility of implementing a tagging Project in the future and present results to the next meeting of the SC, **NOTING** that such a project would require the support of ICCAT as the southern stocks of albacore could be shared across the boundaries of the IOTC and ICCAT. (para. 55 of the SC15 Report)

From the SC16 Report:

Environmental conditions/functioning

NOTING the importance of the environmental conditions and their inter-annual variability on CPUE indices of IOTC species, and more generally, on recruitment and biomass, the SC **REQUESTED** that the working parties take into account more environment and ecosystem-related issues when undertaking stock assessment analyses. This could be achieved by encouraging a greater participation of oceanographers and ecosystem modellers in the work of the working parties. Additional funds may be needed to attract modellers to IOTC working parties. (para. 140 of the SC16 Report)

Executive summaries for albacore

The SC also adopted a revised Executive Summary for albacore that can be found as appendices to the SC16 report, and which can be downloaded from the IOTC website in English and French:

English: <http://iotc.org/science/scientific-committee>

French: <http://iotc.org/fr/science/comit%C3%A9-scientifique>

RECOMMENDATION

That the WPTmT:

- 1) **NOTE** paper IOTC–2014–WPTmT05–03 which outlined the main outcomes of the 15th and 16th Sessions of the Scientific Committee, specifically related to the work of the WPTmT.
- 2) **CONSIDER** how best to progress these issues at the present meeting.

APPENDICES

Appendix A: Consolidated set of recommendations of the 16th Session of the Scientific Committee (2–6 December 2013) to the Commission, relevant to the Working Party on Temperate Tunas.

Appendix B: Research recommendations and priorities for the IOTC Working Party on Temperate Tunas (WPTmT).

Appendix C: Assessment schedule for the WPTmT 2014–2018.

APPENDIX A

CONSOLIDATED SET OF RECOMMENDATIONS OF THE 16th SESSION OF THE SCIENTIFIC COMMITTEE (2-6 DECEMBER 2013) TO THE COMMISSION RELEVANT TO THE WORKING PARTY ON TEMPERATE TUNAS

Extract of the Report of the 16th Session of the Scientific Committee

(IOTC-2013-SC16-R; Appendix XXXVIII, PAGES 301-312)

STATUS OF TUNA AND TUNA-LIKE RESOURCES IN THE INDIAN OCEAN

Tuna – Highly migratory species

- SC16.01 (para. 161) The SC **RECOMMENDED** that the Commission note the management advice developed for each tropical and temperate tuna species as provided in the Executive Summary for each species.
- Albacore (*Thunnus alalunga*) – Appendix VIII

GENERAL RECOMMENDATIONS TO THE COMMISSION, TO SPECIFIC CPCs AND/OR OTHER BODIES

Standardisation of IOTC Working Party and Scientific Committee report terminology

- SC16.07 ([para. 23](#)) The SC **ADOPTED** the reporting terminology contained in [Appendix IV](#) and **RECOMMENDED** that the Commission considers adopting the standardised IOTC Report terminology, to further improve the clarity of information sharing from, and among its subsidiary bodies.

Report of the Working Party on Temperate Tunas (WPTmT)

No WPTmT meeting was held in 2013.

Update on the inter-sessional work of the WPM small working group on Management Strategy Evaluation

- SC16.49 ([para. 115](#)) The SC **NOTED** 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 **RECOMMENDED** a process of familiarisation and capacity building at multiples levels as follows:

- 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 **REQUESTED** that the IOTC Secretariat seek funding for, and coordinate a 'side event' on the topic associated with the 2014 Commission meeting. In addition, to prepare a workplan for the MSE dialogue in consultation with the WPM.
- 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 *on the implementation of the precautionary approach* and IOTC Resolution 13/10 *on interim target and limit reference points and a decision framework* should be incorporated into the workshops. The SC **REQUESTED** that the Commission's budget incorporate appropriate funds for this purpose, as detailed in [Table 12](#).

- SC16.50 ([para. 116](#)) The SC **RECOMMENDED** that the Commission allocate funds in the 2014 and 2015 IOTC budgets, for an external expert on MSE to be hired for 30 days per year, to supplement the skill set available within IOTC CPCs, and for the establishment of a participation fund to cover the planned WPM workshops, as detailed in [Table 12](#).

Outcomes of the informal workshop on CPUE standardisation

- SC16.51 ([para. 127](#)) The SC **ENDORSED** all of the recommendations from the workshop, contained in

paper IOTC–2013–SC16–12. In particular, the SC **RECOMMENDED** that in areas where CPUE’s diverged the CPC’s were encouraged to meet inter-sessionally to resolve the differences. In addition, the major CPC’s were encouraged to develop a combined CPUE from multiple fleets so it may capture the true abundance better. Approaches to possibly pursue are the following: i) Assess filtering approaches on data and whether they have an effect, ii) examine spatial resolution on fleets operating and whether this is the primary reason for differences, and iii) examine fleet efficiencies by area, iv) use operational data for the standardization, and v) have a meeting amongst all operational level data across all fleets to assess an approach where we may look at catch rates across the broad areas.

- SC16.52 ([para. 128](#)) **NOTING** 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 **RECOMMENDED** 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.

Summary discussion of matters common to Working Parties

Tunas Stock structure research

- SC16.13 ([para. 36](#)) The SC **RECOMMENDED** 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.

and mackerels

- SC16.61 ([para. 146](#)) The SC **RECOMMENDED** 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 ([Table 15](#)). 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.

Implementation of the Regional Observer Scheme

- SC16.65 ([para. 177](#)) The SC **RECOMMENDED** 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.
- SC16.66 ([para. 178](#)) The SC **RECOMMENDED** that the Commission considers funding of future activities under the Regional Observer Scheme, by allocating specific funds to the implementation of capacity building activities in developing coastal countries of the IOTC Region, as detailed in [Table 17](#).

APPENDIX B

RESEARCH RECOMMENDATIONS AND PRIORITIES FOR IOTC WORKING PARTIES IN 2014 AND 2015

Extract of the Report of the 16th Session of the Scientific Committee

(IOTC-2013-SC16-R; Appendix XXXIV, PAGES 292-294)

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. 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. (IOTC-2013-SC16-R, Para. 193)

The SC **REQUESTED** that all Working Parties provide their work plans with items prioritised based on the requests of the Commission of the SC. (IOTC-2013-SC16-R, Para. 194)

Working Party on Temperate Tunas (WPTmT)

(Extracts from IOTC-2012-WPTmT04-R)

Revision of the WPTmT work plan

CPUE standardisation

(para. 110) The WPTmT **AGREED** that there was an urgent need to investigate the CPUE issues as outlined in [paragraph 72](#) and for this to be a high priority research activity for the albacore resource in the Indian Ocean in 2013.

(para. 111) The WPTmT also **ENCOURAGED** data to be used in stock assessments, including CPUE standardisations, be made available not less than three months before each meeting by CPCs and where possible, data summaries no later than two months prior to each meeting, from the IOTC Secretariat; and **RECOMMENDED** that data to be used in stock assessments, including CPUE standardisations be made available not less than 30 days before each meeting by CPCs.

Stock assessment

(para. 112) The WPTmT **AGREED** that there was an urgent need to carry out revised stock assessments for the albacore resource in the Indian Ocean in 2013.

(para. 113) **NOTING** that with the exception of the SS3 stock assessment paper, all others stock assessment papers for albacore were made available by the authors immediately prior to the WPTmT04 meeting, which did not allow the other participants of the meeting to adequately review the methodology, the WPTmT **REMINDED** working party participants of the 2010 Scientific Committee recommendation that stock assessment papers need to be provided to the Secretariat for posting to the IOTC website **no later than 15 days before** the commencement of the relevant meeting.

(para. 114) The WPTmT **AGREED** that future projections for stock assessments should firstly examine scenarios under constant catch projections of +/-20% and +/-40%, and then refine the catch projects to finer 1 scale levels depending on the initial outcomes, noting that the aim to develop useful projections for the development of management advice.

Stock structure

(para. 115) Noting that at present very little is known about the population structure and migratory range of albacore in the Indian Ocean, other than the possible connectivity with the southern Atlantic, the WPTmT **RECOMMENDED** that research aimed at determining albacore stock structure, migratory range and movement rates in the Indian Ocean be considered a high priority research project by the Scientific Committee in 2013.

Spawning

(para. 116) Noting that there are difficulties faced by some CPCs in collecting gonad samples from albacore, as a result of fish generally being frozen whole after being gutted, the WPTmT **RECOMMENDED** that CPCs collect gonad samples from albacore to confirm the spawning time and location of the spawning area that are presently hypothesized for albacore, over the coming year and to report findings at the next WPTmT in 2013.

Additional core topics for research

(para. 117) The WPTmT **ENCOURAGED** China and other CPCs to provide further research reports on albacore biology, including using through the use of fish otolith studies, either from data collected through observer programs or other research programs, at the next WPTmT meeting in 2013.

(para. 118) The WPTmT **RECOMMENDED** that the Scientific Committee add the following core topic areas as priorities for research over the coming year:

- Size data analyses
- Growth rates and ageing studies
- Stock status indicators – exploration of indicators from available data
- Collaborate with SPC-OFP to examine their current simulation approach to determine priority research areas.

APPENDIX C
ASSESSMENT SCHEDULE FOR IOTC WORKING PARTIES

Extract of the Report of the 16th Session of the Scientific Committee

(IOTC–2013–SC16–R; Appendix XXXV, PAGE 297)

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. (IOTC–2014–SC16–R, Para. 195)

Species	2014	2015	2016	2017	2018
<i>Working Party on Temperate Tunas</i>					
Albacore	Full assessment	-	Full assessment	-	Full assessment