

PROGRESS ON RECOMMENDATIONS OF THE 21st SESSION OF THE SCIENTIFIC COMMITTEE

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PURPOSE

To provide participants at the 22nd Scientific Committee (SC) with an update on the progress made in implementing the recommendations from the previous SC meeting, and to provide alternative recommendations for the consideration and potential endorsement by participants as appropriate given any progress.

BACKGROUND

At the 21st Session of the SC, participants agreed on a series of actions to be taken by participants, CPCs, and the IOTC Secretariat on a range of issues. The subsequent table developed and agreed to by the SC was endorsed at its December 2018 meeting.

DISCUSSION

The Rules of Procedure of the Scientific Committee include the following seven core tasks, which are to be supported by the various Working Parties.

- a) recommend policies and procedures for the collection, processing, dissemination and analysis of fishery data;
- b) facilitate the exchange and critical review among scientists of information on research and operation of fisheries of relevance to the Commission;
- c) develop and coordinate cooperative research programmes involving Members of the Commission in support of fisheries management;
- d) assess and report to the Commission on the status of stocks of relevance to the Commission and the likely effects of further fishing and of different fishing patterns and intensities;
- e) formulate and report to the sub-commission, as appropriate, on recommendations concerning conservation, fisheries management and research, including consensus, majority and minority views;
- f) consider any matter referred to by the Commission;
- g) carry out other technical activities of relevance to the Commission.

Recalling that the SC, at its 16th Session adopted a set of reporting terminology SC16.07 (para. 23), which was subsequently endorsed by the Commission at its 18th Session in 2014 (S18, para 10), to further improve the clarity of information sharing from, and among the science bodies, the following two term levels should be noted when interpreting the Reports and [Appendix I](#) to this paper:

Level 1: From a subsidiary body of the Commission to the next level in the structure of the Commission:

RECOMMENDED, RECOMMENDATION: Any conclusion or request for an action to be undertaken, from a subsidiary body of the Commission (Committee or Working Party), which is to be formally provided to the next level in the structure of the Commission for its consideration/endorsement (e.g. from a Working Party to the Scientific Committee; from a Committee to the Commission). The intention is that the higher body will consider the recommended action for endorsement under its own mandate, if the subsidiary body does not already have the required mandate. Ideally this should be task specific and contain a timeframe for completion.

Level 2: From a subsidiary body of the Commission to a CPC, the IOTC Secretariat, or other body (not the Commission) to carry out a specified task:

REQUESTED: This term should only be used by a subsidiary body of the Commission if it does not wish to have the request formally adopted/endorsed by the next level in the structure of the Commission. For example, if a Committee wishes to seek additional input from a CPC on a particular topic, but does not wish to formalise the request beyond the mandate of the Committee, it may request that a set action be undertaken. Ideally this should be task specific and contain a timeframe for the completion.

The Recommendations endorsed by the SC at its 21st Session are contained in [Appendix I](#) for the consideration, review of progress, and revision/reiteration as necessary by the SC22. The SC participants are also encouraged to review the Progress on the Recommendations of Working Parties prepared by the Secretariat and presented to each Working Party

for their consideration and revision (IOTC-2019-WPNT09-06, IOTC-2019-WPEB15-06, IOTC-2019-WPB17-06, IOTC-2019-WPM10-06, IOTC-2019-WPTT21-06, IOTC-2019-WPDCS15-06, IOTC-2019-WPTmT07(AS)-06).

RECOMMENDATION

That the SC:

- 1) **NOTE** paper IOTC–2019–SC22–11 which detailed the progress made in implementing the recommendations and the requests of the 21st Session of the Scientific Committee (SC21);
- 2) **AGREE** to consider and revise as necessary, the recommendations, and for these to be combined with any new recommendations arising from SC22.


APPENDICES

Appendix I: Progress made on the Recommendations of SC21

SC21 Report	SC recommendations	Update/Progress
<p>SC21.08 Para. 22</p> <p>SC21.09 Para. 23</p>	<p>National reports from CPCs</p> <p>Noting that the Commission, at its 15th Session, expressed concern regarding the limited submission of National Reports to the SC, and stressed the importance of providing the reports by all CPCs, the SC RECOMMENDED that the Commission note that in 2018, 26 reports were provided by CPCs (23 in 2017, 23 in 2016, 26 in 2015) (Table 2).</p> <p>The SC RECOMMENDED that the Compliance Committee and Commission note the lack of compliance by 7 Contracting Parties (Members) and 1 Cooperating Non-Contracting Party (CNCs) that did not submit a National Report to the Scientific Committee in 2018, noting that the Commission agreed that the submission of the annual reports to the Scientific Committee is mandatory</p>	<p>Update: Ongoing. CPCs are encouraged to provide national reports whether or not they are attending the SC meeting</p> <p>Update: Commission report Para 28. The Commission NOTED that 7 Contracting Parties and 1 Cooperating Non-Contracting Party did not submit a National Report to the Scientific Committee in 2018, and issues with lack of data and poor-quality data persist. The Commission REITERATED its concerns about the lack and poor quality of data, and again, strongly ENCOURAGED CPCs to take immediate steps to review, and where necessary, improve their performance with respect to the provision of data through improved compliance with Resolutions 15/01 On the recording of catch and effort data by fishing vessels in the IOTC area of competence, and 15/02 Mandatory statistical reporting requirements for IOTC contracting parties and cooperating non-contracting parties</p>
<p>SC21.10 Para. 39</p>	<p>Assessment and status of neritic tunas</p> <p>The SC RECOMMENDED that the Commission allocates funding for a consultancy to support the CPCs identified in Appendix VI of the report of the 8th session of the Working Party on Neritic Tunas (IOTC–2018–WPNT08–R[E]) with CPUE standardisation for the priority species identified.</p>	<p>Update: The WPNT further noted that, in response to a recommendation from the SC that that the Commission allocates funds to support CPCs to develop CPUE standardisation for priority species, a Data Support mission was conducted by the IOTC Secretariat in June 2019. The aim of this mission was to collaborate with the Iranian Fisheries Organisation (SHILAT) in order to assess the suitability of their datasets for use in developing a standardised CPUE series for gillnet fisheries. The mission was funded by the EU-DG Mare Science Grant.</p>
<p>SC21.11 Para. 42</p>	<p>Working party attendance and the MPF</p> <p>Noting the low number of participants from CPCs at the 2018 WPNT meeting (six excluding the Chair and Vice-Chair), the SC RECOMMENDED that future capacity building actions and specialised workshops are conducted back-to-back with the regular Working Party meetings so that each CPC can send their most appropriate scientists to the meetings and workshops.</p>	<p>Update: In 2019 the WPNT was held back to back with a workshop on data poor assessment methods.</p>
<p>SC21.12 Para. 44</p>	<p>Report of the 16th Session of the Working Party on Billfish (WPB16)</p> <p>The SC recalled its previous RECOMMENDATION that on the next revision of the IOTC Agreement, the shortbill spearfish (<i>Tetrapturus angustirostris</i>) be included as an IOTC species.</p>	<p>Update: No progress</p>
<p>SC21.13 Para. 66</p>	<p>Swordfish MSE</p> <p>The SC noted that one of the team members involved in the development of the swordfish OM is starting a PhD in 2019 with IO Swordfish MSE included as one objective. The SC</p>	<p>Update: The requested funding was provided to the analyst. In addition, the Commission approved funds for MSE (including Swordfish) under its regular budget for 2020.</p>

	<p>noted that salaries are already covered for next years for that team member, but further funding is required to support the travelling and time for two short-term visits to the JRC, as well as to attend IO MSE-technical workshops and WPM meeting in 2019. The SC therefore RECOMMENDED to fund this work during 2019 in order to progress the work on the IOTC MSE for SWO, with a total of 10.000€ requested for 2019, further noting that part of the funds (around 3.000€) should be available earlier in the year to start the work no later than March 2019.</p>	
<p>SC21.14 Para. 69</p>	<p>Revision of catch levels of Marlins under Resolution 18/05</p> <p>The SC noted that catches in recent years for Black Marlin, Blue Marlin, Striped Marlin and Indo-Pacific Sailfish have all exceeded the catch limits set by Resolution 18/05, and that current catch trends for all four species show no signs of decline in line with meeting the catch limits by 2020. As such, the SC urgently RECOMMENDED that measures are agreed to reduce current catches to the limits set for all four species covered by Resolution 18/05 as per the management advice given in the Executive Summaries.</p>	<p>Update: Ongoing</p> <p>Commission report Para 46. The Commission EXPRESSED concern that catches for all billfish species (except striped marlin in 2017) in both 2016 and 2017 were higher than the limits outlined in Resolution 18/05.</p>
<p>SC21.15 Para. 71</p> <p>SC21.16 Para. 72</p>	<p>Report of the 14th session of the working party on ecosystems and bycatch (WPEB14)</p> <p>The SC RECOMMENDED that data collection for mobulid rays (if possible to species level) should be improved, that by-catch mitigation methods should be investigated and that safe release techniques and best practices should be implemented.</p> <p>The SC noted the status and declines of <i>Mobula</i> spp. in the Indian Ocean (which under current taxonomic revisions include the manta rays as well). Given the significant declines of these species across their range in the Indian Ocean along with evidence of these species' interaction with pelagic fisheries, in particular tuna gillnet, purse seine, and occasionally longline fisheries, the SC RECOMMENDED that management actions, such as non-retention measures in the IOTC Area of Competence (as a first step considering the Precautionary Approach) among others, are required to enable these species to recover and must immediately be adopted instead of waiting until 2020</p>	<p>Update: In 2019 the Commission adopted Resolution 19/03 <i>On the conservation of mobulid species caught in association with fisheries in the IOTC Area of Competence</i>. this Resolution aims to mitigate the interactions between mobulid rays and all fishing vessels flying the flag of a Contracting Party or Cooperating Non-Contracting Party. The Resolution prohibits the targeting of these rays and prohibits all vessels retaining onboard, transshipping, landing, storing, any part or whole carcass of mobulid rays caught in the IOTC Area of Competence apart from subsistence vessels. CPCs shall report the information and data collected on interactions (i.e. number of discards and releases) with mobulid rays by vessels through logbooks and/or through observer programs.</p>
<p>SC21.17 Para. 76</p>	<p>Bycatch species identification and data issues</p> <p>Despite identification cards being available, the SC noted ongoing issues around species identification data for sea turtles, sharks, cetaceans and other bycatch species and AGREED that improvements to the collection of data for all bycatch species is required. The Secretariat noted that these data are currently collected through national reports and observer data submissions, but were often limited. Consequently, the SC RECOMMENDED to the Commission that the species reporting of turtles (as a first step) is improved through an amendment to Annexes II and III in Resolution 15/01.</p>	<p>Update: No progress. The WPEB noted that this issue was not addressed by the Commission in 2019 and could be reiterated to the SC</p>

<p>SC21.18 Para. 85</p>	<p><i>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</i></p> <p>The SC RECOMMENDED that the Commission note the current status of development and implementation of National Plans of Action (NPOAs) for sharks and seabirds, and the implementation of the FAO guidelines to reduce marine turtle mortality in fishing operations, by each CPC as provided in Appendix 5, recalling that the IPOA-Seabirds and IPOA-Sharks were adopted by the FAO in 1999 and 2000, respectively, and recommended the development of NPOAs</p>	<p>Update: Ongoing.</p>
<p>SC21.19 Para. 101</p>	<p><i>Progress towards Ecosystem Based Fisheries Management (EBFM) in IOTC – Preliminary Ecosystem Report Cards</i></p> <p>Acknowledging the potential benefits of a climate-ocean web portal and regular updates on these influences to the SC and WPs, the SC RECOMMENDED a scoping study into how ocean-climate information as described in the proposal could be made available through the IOTC webpage and how this information would be presented to the WPs and SC. The scoping study should also consider the currency and quality of the information sources to be used.</p>	<p>Update: Ongoing. NOTING the request from the SC that the Secretariat dedicates a section of the IOTC website to the dissemination of oceanographic data (provided by third parties) the WPEB AGREED that the exact content of the section as well as its updating and maintenance would need to be further discussed and planned.</p>
<p>SC21.20 Para. 103</p>	<p><i>Yellowfin tuna stock assessment and development of management advice</i></p> <p>The SC noted that the 2018 yellowfin tuna assessment indicates that the species is overfished and subject to overfishing and catch reductions required as part of Resolution 18/01 have not been met. The SC further noted that there remain significant uncertainties around the stock assessment inputs and assumptions, such that caveats are required in the interpretation of management advice developed for the species. Acknowledging these concerns, the SC RECOMMENDED that funding be allocated for a workplan (Appendix 38) to systematically address these issues, beginning in January 2019.</p>	<p>Update: Completed The yellowfin tuna workplan was funded by the EU and significant progress was made in 2019.</p>
<p>SC21.21 Para. 123</p>	<p><i>Future yellowfin tuna assessments: issues for consideration</i></p> <p>The SC RECOMMENDED that development of the next stock assessment of yellowfin tuna should include, or be associated with, a detailed review of the existing data sources, including:</p> <ul style="list-style-type: none"> iv. Size frequency data: Evaluation of the reliability of length composition from the longline fisheries (including recent and historical data), review of anomalies in the (EU) PS length composition data, and the need for a thorough review of the size frequency data held by IOTC, in collaboration with the fleets involved, to improve the utilization of these data in tropical tuna stock assessments. v. Tagging data: Further analysis of the tag release/recovery data set. vi. Alternative CPUE series: a review of the available data from the Indian tuna longline survey data. 	<p>Update: Ongoing The WPTT noted the substantial work conducted to address the yellowfin tuna workplan, but that there was still work to be completed. As such the WPTT requested that the authors fully document the work conducted prior to, during as well as the work still to be addressed after the meeting, in an information document to be provided to the SC in 2019. This work will be coordinated by the chair of the WPTT.</p>

<p>SC21.22 Para. 127</p>	<p>Review of the statistical data available for skipjack tuna</p> <p>The SC noted that total catches in 2017 (524,282 t) were 12% higher than the catch limit generated by the Harvest Control Rule (470,029 t) which applies to the years 2018–2020, and that there has been an increasing trend in catches over the past 3 years. The SC RECOMMENDED that the Commission consider the urgent need to monitor catches of skipjack in the 2018–2020 period to ensure catches do not exceed the limit.</p>	<p>Update: Ongoing</p> <p>The Commission noted the advice from the SC regarding skipjack tuna but no actions were taken. In 2019 the WPTT noted that total catches in 2018 (607,701 t) were about 30% higher than the catch limit generated by the Harvest Control Rule2 (470,029 t, which applies to the years 2018–2020), and that there has been an increasing trend in catches over the past 4 years, including a sudden increase in catches in 2018 (compared to 2017, by over 20% or around 100,000 t).</p>
<p>SC21.23 Para. 148</p>	<p>Skipjack tuna MSE</p> <p>Noting that the skipjack tuna harvest control rule is not a fully specified management procedure, the SC RECOMMENDED that a workplan and budget should be developed to undertake review and possible revision of the skipjack tuna harvest control rule under Resolution 16/02.</p>	<p>Update: Presented to and Noted at the S23 Commission meeting. The Secretariat is in the advanced stages of contracting an expert to develop the skipjack tuna MP using funds from an EU Grant.</p>
<p>SC21.24 Para. 156</p>	<p>Stock Status Guidance</p> <p>The SC noted that IOTC provide stock status relative to target reference points or MSY-based reference points. The SC further noted that WCPFC only considers a stock “overfished” when biomass falls below limit reference points, not the target reference point. The SC RECOMMENDED to consider alternative formulations of the Kobe plot to indicate an appropriate buffer zone below BMSY to account for natural variations in biomass. A plot such as that included in figure 1 was SUGGESTED to be discussed by the Working Parties and the SC as a possibility for formulating the scientific management advice to the Commission.</p>  <p>Figure 1 Three examples of modified Kobe Plots in which there is a target biomass, Btarg, and a reference F (Fref) such as FMSY. In each plot. The red quadrant is based on biomass being below the limit (Blim) rather than below a target biomass. The plot in the middle retains the four colours, but contains red-orange and yellow-green “buffer zones” between the target and limit. In the plot on the right, the buffer zone starts somewhat below the target biomass to account for natural fluctuations of the stock around the target. Note: This figure is from the ISSF Stock Assessment Workshop report (IOTC-2018-WPM09-INF06).</p>	<p>Update: Commission report Para 66. The Commission NOTED that further work is required on understanding the determination of stock status relative to Reference Points, and endorsed the TCMP request to form an ad-hoc working group to continue to work on this matter intersessionally in preparation for the TCMP in 2020.</p>
<p>SC21.25 Para. 166</p>	<p>Report of the 14th session of the working party on data collection and statistics (WPDCS14)</p> <p>The SC noted that there has been an increase in participation and submission of documents to the WPDCS in recent years. The SC acknowledged that the current duration of the meeting (3 days) is not sufficient to facilitate the presentation and discussion of these documents. The</p>	<p>Update: Completed. The Commission approved request from the SC and in 2019, the WPDCS meeting was four days in duration.</p>

	SC therefore RECOMMENDED that future sessions of the WPDCS be extended to four days.	
SC21.26 Para. 168	Electronic monitoring systems The SC RECOMMENDED the development of minimum standards for EMS (including, for example, cameras) for IOTC. The SC noted that the WCPFC are currently drafting standards on EM and acknowledged that it would be pertinent for the IOTC to follow this process and utilise the outcomes where relevant.	Update: No Progress
SC21.27 Para. 169	Regional Observer Scheme Minimum Standard Data Fields The SC RECOMMENDED that the ROS Minimum Standard Data Fields in Appendix 6a are adopted by the Commission.	Update: Ongoing. The Commission ENDORSED the IOTC Regional Observer Scheme (ROS) standards in principle in order for the Secretariat to implement the ROS (Para 120). Minimum data collection fields were not discussed.
SC21.28 Para. 174	ROS draft programme standards Noting concerns with the overlap between scientific, compliance and legal issues in relation to the draft programme standards, the SC RECOMMENDED that the Commission form an ad hoc technical committee representing the breadth of mandates to specifically address this issue to ensure the relevant expertise is available to discuss scientific and operational aspects of the draft Programme Standards and Guidelines to be presented to the SC and Compliance Committee before it is provided to the Commission for endorsement.	Update: Commission report Paras 118 – 120. The Commission NOTED that several CPCs had provided the Secretariat with comments which were used to develop a revised document, although some CPCs expressed their concern that not all their comments had been taken into consideration. The Commission RECOGNISED the need to have standards for the IOTC observer scheme, but that the standards for similar schemes being implemented by other tuna RFMOs should also be acceptable to IOTC. The Commission AGREED that the standards required for vessels operating under the Western Central Pacific Fisheries Commission (WCPFC) Regional Observer Programme meet IOTC standards, and therefore those CPCs whose observer programs have been already accredited by WCPFC are exempted from the application of the IOTC standards. The Commission ENDORSED the IOTC Regional Observer Scheme (ROS) standards in principle in order for the Secretariat to implement the ROS, on the understanding that further comments can be made, and that the standards will be reviewed based on these comments and other feedback made during the implementation phase.
SC21.29 Para. 177	Invited Expert(s) at the WP meetings Given the importance of external peer review for working party meetings, the SC RECOMMENDED that the Commission continues to allocate sufficient budget for an invited expert to be regularly invited to all scientific WP meetings.	Update: Ongoing. The Commission has provided budget for invited experts for 2019 and 2020.
SC21.30 Para. 178	Meeting participation fund The SC reiterated its RECOMMENDATION that the IOTC Rules of Procedure (2014), for the administration of the Meeting Participation Fund be modified so that applications are due not later than 60 days, and that the full Draft paper be submitted no later than 45 days before the start of the relevant meeting. The aim is to allow the Selection Panel to review the full paper rather than just the abstract, and provide guidance on areas for improvement, as well as the suitability of the application to receive funding using the IOTC MPF. The earlier submission dates would also assist with visa application procedures for candidates.	Update: No Progress
SC21.31	IOTC species identification guides: Tuna and tuna-like species	Update: Ongoing. Budget has been made available through the IOTC main budget and an EU grant to continue the printing of ID cards,

Para. 179	The SC reiterated its RECOMMENDATION that the Commission allocates budget towards continuing the translation and printing of the IOTC species ID guides so that hard copies of the identification cards can continue to be printed as many CPCs scientific observers, both on board and port, still do not have smart phone technology/hardware access and need to have hard copies on board.	
SC21.32 Para. 180	General - IOTC Secretariat staffing Noting the very heavy workload at the IOTC Secretariat and the ever increasing demands by the Commission and the Scientific Committee, and also the capacity to respond to requests for assistance by countries, the SC RECOMMENDED that the recommendation from the Performance Review PRIOTC02.07(g) is implemented, and that permanent staff of the IOTC Data and Science Section be increased by two (2) (1 x P4 and 1 x P3 level positions), supplemented by additional short-term consultants. Funding for these new positions should come from both the IOTC regular budget and from external sources to reduce the financial burden on the IOTC membership.	Update: Ongoing. A P1 position was added to the secretariat staff in 2019, but subsequently two P3 fishery officers have left the secretariat. These positions are in the process of being recruited and this process should be completed in early 2020.
SC21.33 Para. 181	General - Chairpersons and Vice-Chairpersons of the SC and its subsidiary bodies The SC RECOMMENDED that the Commission note and endorse the Chairpersons and Vice-Chairpersons for the SC and its subsidiary bodies for the coming years, as provided in Appendix 7.	Update: Completed
SC21.34 Para. 214	General - Progress on the implementation of the recommendations of the performance review panel The SC RECOMMENDED that the Commission note the updates on progress regarding Resolution 16/03, as provided at Appendix 33.	Update: Completed.
SC21.35 Para. 234	General - Consultants Noting the highly beneficial and relevant work done by IOTC stock assessment consultants in previous years, the SC RECOMMENDED that the engagement of consultants be continued for each coming year based on the Program of Work. Consultants will be hired to supplement the skill set available within the IOTC Secretariat and CPCs.	Update: Ongoing. Several consultants were contracted in 2019.
SC21.36 Para. 247	General - IOTC scientific strategic plan The SC AGREED that the draft IOTC Strategic Science Plan 2020–2024 will be distributed to Heads of Delegation from each CPC for comment during early 2019, following which time comments will be collated and consolidated and another version sent to CPCs for final review. Pending agreement of CPCs, and noting that the IOTC Strategic Science Plan would be a dynamic document that would change over time, the SC RECOMMENDED that the revised draft of the IOTC Strategic Science Plan 2020–2024 be tabled at the Commission meeting in 2019.	Update: Commission report Paras 34 and 35. The Commission ADOPTED the IOTC Strategic Science Plan 2020-2024, but NOTED that it was extremely ambitious and that its implementation should be reviewed by the Scientific Committee in 2022 and if necessary, modified. The Commission NOTED that the adoption of the plan did not include a budget for each component of the plan. Budget allocations for the components of this plan would continue to be made on an annual basis, based on the requests and priorities identified by the Scientific Committee.