
PROGRESS MADE ON THE RECOMMENDATIONS OF WPDCS12

PREPARED BY: IOTC SECRETARIAT, 2ND NOVEMBER 2017

PURPOSE

To provide participants at the 13th Working Party on Data Collection and Statistics (WPDCS) with an update on the progress made in implementing the recommendations from the previous WPDCS, which were endorsed by the Scientific Committee (SC), and to provide alternative recommendations for the consideration and potential endorsement by participants.

BACKGROUND

At the 12th Session of the WPDCS, 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 WPDCS was provided to the SC for its endorsement at its December 2016 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) to carry out other technical activities of relevance to the Commission.

Noting the core tasks of the SC, and hence the WPDCS, participants are reminded that any recommendations developed during a Session, must be carefully constructed so that each contains the following elements:

- 1) a specific action to be undertaken (deliverable);
- 2) clear responsibility for the action to be undertaken (i.e. a specific CPC of the IOTC, the Secretariat, another subsidiary body of the Commission or the Commission itself);
- 3) a desired time from for delivery of the action (i.e. by the next working party meeting, or other date).

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 A](#) 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.

In addition to the Recommendations endorsed by the SC at its 18th Session, the SC also made several requests which, although are not passed to the Commission for its endorsement, are considered actions which the Scientific Committee has the mandate to issue. The revised recommendations are contained in [Appendix A](#) for the consideration and potential endorsement by the WPDCS13.

RECOMMENDATION

That the WPDCS:

- 1) **NOTE** paper IOTC–2017–WPDCS13–06 which detailed the progress made in implementing the recommendations of the WPDCS12, taking into consideration the recommendations from the SC and decisions of the Commission;
- 2) **AGREE** to consider and revise as necessary, the recommendations, and for these to be combined with any new recommendations arising from the WPDCS13, noting that these will be provided to the SC for their endorsement.

APPENDICES

[Appendix A](#): Progress made on the recommendations of WPDCS12

APPENDIX A

Progress made on the recommendations of WPDCS12

WPDCS12 Rec. No.		SC19 Rec. No.	Recommendation adopted / agreed by the SC19	Endorsed at S21	Commission response / suggestions for consideration at WPDCS13
WPDCS12.01 (para. 72)	Further analysis of length frequency data and likely impacts on the assessments The WPDCS RECOMMENDED that a collaborative work on longline size frequency data gathering scientists from Taiwan,China, Japan, Seychelles and Korea could be conducted in 2017 in conjunction with the joint CPUE workshop, to compare the different data sets available and extract information useful for the future stock assessments of yellowfin, bigeye and albacore tuna.	SC19.31 (para. 109)	The SC RECOMMENDED that a collaborative work on longline size frequency data gathering scientists from Taiwan,China, Japan, Seychelles and Rep. of Korea should be conducted in 2017 in conjunction with the joint CPUE workshop, to compare the different data sets available and extract information useful for the future stock assessments of yellowfin, bigeye and albacore tuna.	N/A	Update: A dedicated project examining potential bias in the distant water LL fleet is planned for 2018 (subject to confirmation of funding), as it was considered too large a task within the scope of the CPUE workshop (held in Busan in 2017).
WPDCS12.02 (para. 79)	Further analysis of length frequency data and likely impacts on the assessments The WPDCS NOTED paper IOTC-2016-WPDCS12-INF05 that provides updates on the relationship between fork length and total weight for yellowfin, bigeye, and skipjack caught with purse seine and NOTING that the current length-weight relationships adopted by IOTC tend to underestimate the weight at length for the two latter species RECOMMENDED that the new length – weight relationships replace the existing IOTC ones.	(Nil)	(Nil)	N/A	Update: The IOTC equations have been updated accordingly, and were incorporated into the IOTC datasets produced for WPTT in 2017.
WPDCS12.03 (para. 89)	Resolution 15/02 Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPCs) The WPDCS also NOTED the conceptual model adopted by ICCAT in its field manual to describe all quantities involved in the determination of	(Nil)	(Nil)	N/A	Update: Nil



WPDCS12 Rec. No.		SC19 Rec. No.	Recommendation adopted / agreed by the SC19	Endorsed at S21	Commission response / suggestions for consideration at WPDCS13
	retained / total catch and RECOMMENDED that a similar approach is adopted and used to provide clearer, more formal definitions of the depicted relevant concepts.				
WPDCS12.04 (para. 95)	Resolution 16/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock The WPDCS RECOMMENDED that a project be included in the WPDCS program of work to support CPCs in the improvement of their national data collection systems to support the implementation of Resolution 16/01 <i>On an interim plan for rebuilding the Indian Ocean Yellowfin tuna stock</i> ; specifically estimates of fleet composition, time-area catches (and associated catches on the high seas for vessels under 24 metres), and efficiencies in the time required to assess the status of Yellowfin tuna catches.	Para. 112	The SC AGREED that a project be included in the WPDCS program of work to support CPCs in the improvement of their national data collection systems to support the implementation of Resolution 16/01 <i>On an interim plan for rebuilding the Indian Ocean Yellowfin tuna stock</i> ; specifically estimates of fleet composition, time-area catches (and associated catches on the high seas for vessels under 24 metres), and efficiencies in the time required to assess the status of yellowfin tuna catches.	N/A	Update: Nil
WPDCS12.05 (para. 102)	Resolution 16/04 On the implementation of a pilot project in view of promoting the regional observer scheme of IOTC Resolution 11/04 <i>On a Regional Observer Scheme</i> requests the submission of a report after each trip but the WPDCS RECOMMENDED that on the next revision of the Resolution, this should be amended to request the submission of data (instead of the observer trip report) with a given deadline so that information from multiple trips can be provided. The WPDCS also NOTED that once the electronic reporting system is developed and established observer information could be submitted by a certain deadline as it is done with Nominal Catch and	Para. 113	Resolution 11/04 <i>On a Regional Observer Scheme</i> requests the submission of a report after each trip but the SC AGREED that on the next revision of the Resolution, this should be amended to request the submission of electronic data (instead of the observer trip reports) with a fixed deadline so that information from multiple trips can be provided.	N/A	Update: Nil



WPDCS12 Rec. No.		SC19 Rec. No.	Recommendation adopted / agreed by the SC19	Endorsed at S21	Commission response / suggestions for consideration at WPDCS13
	Catch and Effort data.				
WPDCS12.06 (para. 109)	<p>Update on the implementation of the IOTC interim ROS templates</p> <p>Due to the difficulties in collecting detailed data on tori line specifications, the WPDCS RECOMMENDED that the trip level data reporting requirements be amended to permit the reporting of this information as optional rather than mandatory, as detailed in paper IOTC-2016-WPDCS12-21_Rev_1, in the Observer Template (Form Trip-LL).</p>	Para. 114	Due to the difficulties in collecting detailed data on tori line specifications, the SC AGREED that the trip level data reporting requirements be amended to permit the reporting of this information as optional rather than mandatory, as detailed in paper IOTC-2016-WPDCS12-21_Rev_1, in the IOTC Interim observer template (Form Trip-LL).	N/A	Update: Nil
WPDCS12.07 (para. 115)	<p>ROS E-reporting and E-monitoring projects</p> <p>Thus, the WPDCS NOTED that the guidelines described in document IOTC-2016-WPDCS12-23 provide a useful starting point and RECOMMENDED these guidelines be adopted as a basis for defining minimum standards for tropical tuna purse seine fleets.</p>	Para. 115	The SC NOTED that the guidelines described in document IOTC-2016-WPDCS12-23 provide a useful starting point and AGREED these guidelines be adopted as a basis for defining minimum standards for tropical tuna purse seine fleets.	N/A	Update: Nil
WPDCS12.08 (para. 127)	<p>Capacity Building Activities: Data Collection and Processing in Coastal Countries, and Compliance with Minimum Requirements</p> <p>The WPDCS RECOMMENDED that a capacity building workshop on R data extraction, manipulation and visualisation takes place in 2017, NOTING that IRD could have some funding for this work and that Sri Lanka has expressed strong interest in this type of activities.</p>	SC19.32 (para. 116)	The SC RECOMMENDED that a capacity building workshop on R data extraction, manipulation and data visualisation takes place in 2017, NOTING that funding sources have to be sought and that Sri Lanka has expressed strong interest in this type of activity.	N/A	Update: Nil
WPDCS12.09 (para. 150)	<p>BDEP Database initiative: bycatch data collection and reporting between tuna RFMOs</p> <p>The WPDCS RECOMMENDED that the SC request that the BDEP trial should continue in</p>	SC19.19 (para. 58)	The SC RECOMMENDED that, on completion of the development of the ROS database and the input of all of the historical data, the IOTC Secretariat continue to populate the BDEP template, adapting it where necessary, and present	N/A	Update: Nil



WPDCS12 Rec. No.		SC19 Rec. No.	Recommendation adopted / agreed by the SC19	Endorsed at S21	Commission response / suggestions for consideration at WPDCS13
	<p>2017 for the Indian Ocean and be resourced as needed, as a positive step towards improving the quality of and access to bycatch data within and across tRFMOs. The WPDCS also NOTED the need to be careful that data reported in the BDEP template are not extrapolated by multiplying reported bycatch numbers in the template by total effort which may result in inflated estimates of bycatch.</p>	(para. 117)	<p>this to the WPDCS and SC for further review.</p> <p>The SC AGREED that the BDEP trial should continue in 2017 for the Indian Ocean and be resourced as needed, as a positive step towards improving the quality of and access to bycatch data within and across tRFMOs. The SC also NOTED the need to be careful that data reported in the BDEP template are not extrapolated by multiplying reported bycatch numbers in the template by total effort which may result in inflated estimates of bycatch.</p>		
<p>WPDCS12.10 (para. 153)</p>	<p>Revision of the WPDCS Program of work (2017–2021)</p> <p>The WPDCS RECOMMENDED that the Scientific Committee consider and endorse the WPDCS Program of Work (2017–2021), as provided at Appendix V.</p>	(Nil)	Endorsed.	N/A	Update: Nil
<p>WPDCS12.11 (para. 155)</p>	<p>Revision of the WPDCS Program of work (2017–2021)</p> <p>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 WPDCS reiterated its previous RECOMMENDATION that the 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, to commence work by 1 January 2018 or earlier.</p>	SC19.37 (Para. 126)	<p>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, to commence work by 1 January 2018 or earlier, and that 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.</p>	N/A	Update: The P4 position has been approved for 2018 while the opening of the P3 position is still being evaluated.



WPDCS12 Rec. No.		SC19 Rec. No.	Recommendation adopted / agreed by the SC19	Endorsed at S21	Commission response / suggestions for consideration at WPDCS13
WPDCS12.12 (para. 158)	<i>Review of the draft, and adoption of the report of the 12th Session of the WPDCS</i> The WPDCS RECOMMENDED that the Scientific Committee consider the consolidated set of recommendations arising from WPDCS12, provided at Appendix VII.	(Nil)	(Nil)	Yes	<i>Update: Nil</i>

WPDCS12 Report	WPDCS12 REQUESTS	Update/Progress
<p>Para. 19</p>	<p><i>IOTC Secretariat Report</i></p> <p>NOTING that the fisheries detailed in paragraph 16 account for a substantial quantity of catches of IOTC species, the WPDCS REQUESTED that all of the CPCs listed address the issues identified, and report progress made at the next WPDCS.</p> <p><i>Total catches (including retained catches, discards):</i></p> <ul style="list-style-type: none"> On-going uncertainty in the total catches, species and gear composition reported for the coastal fisheries of Indonesia in recent years – particularly catches of small tunas around anchored FADs (Rumpons) and possible misidentification of juvenile yellowfin and bigeye tunas as neritic tuna species. Uncertain estimates of total catch for the commercial longline fishery of India; driftnet fishery of Pakistan; handline and driftnet fisheries of Yemen; and coastal fisheries of Madagascar. Catches not reported by species: requirement to estimate the catches of bigeye tuna on the majority of coastal fisheries, such as the pole-and-line fishery in the Maldives. Very poor reporting of data on the level of discards of tuna and tuna-like species, and incidentally caught species, across the majority of fisheries and time periods. <p><i>Catch-and-effort:</i></p> <ul style="list-style-type: none"> Insufficient implementation of minimum requirements for operational catch-and-effort data, which compromise reporting of catch-and-effort statistics to the IOTC – including the longline fisheries of Indonesia and India; driftnet fisheries of I.R. Iran and Pakistan; gillnet and longline fishery of Sri Lanka. Lack of catch-and-effort and indices of abundance for coastal fisheries 	<p>Update:</p> <p>India: [Pending]</p> <p>Indonesia: [Pending]</p> <p>I.R. Iran: [Ongoing] A data compliance and support mission to I.R. Iran is planned for Q4 2017;</p> <p>Pakistan: [Ongoing] Outcomes from a WWF project (observers) have provided revised catch data and species compositions that markedly contrast with official figures. Pakistan government has revised its official estimates and provided an update that is in contrast, for some species, with historical time series. A data compliance and support mission to Pakistan is planned for Q1 2018;</p> <p>Japan: [Pending]</p> <p>Madagascar: [Pending]</p> <p>Maldives: [Pending]</p> <p>Sri Lanka: [Pending]</p> <p>Taiwan,China: [Pending]</p> <p>Yemen: [Pending]</p>

	<p>for the major tuna species and particularly neritic tuna species targeted by artisanal fisheries operating in India and Indonesia.</p> <p><i>Size data:</i></p> <ul style="list-style-type: none"> • Lack of size frequency data for most major coastal fisheries, including the coastal longline fishery of India, the driftnet fishery of Pakistan, and coastal fisheries of Indonesia, India and Yemen, while other fisheries such as I.R. Iran only partially report size data according to the IOTC standards (e.g., no information on grid area). • Levels of coverage of size data for Japan and reliability of length frequencies available for longliners flagged in Taiwan,China in recent years (see section 5.2). <p><i>Regional observer data:</i></p> <ul style="list-style-type: none"> • Most levels of reporting of (industrial fisheries) observer coverage are below those recommended by the Commission (i.e., a minimum of 5% of the total number of fishing operations shall be covered by scientific observers). • Little or no observer data collection by CPCs for artisanal fisheries. WWF has funded crew-based observer data collection for Pakistan gillnet in recent years, although no data has been submitted to the IOTC Secretariat, or for any other gillnet fisheries. • Levels of reporting of observer trip reports below those recommended by the Commission (a minimum of 5% of the total number of fishing operations shall be covered by scientific observers). 	
<p>Para. 25-26</p>	<p>Tagging database: update</p> <p>The WPDCS CONSIDERED the future of the tagging database in terms of data archival, consolidation of the tagging database within the new integrated IOTC database, and improvements to the dissemination to ensure the data is utilized as fully as possible, and REQUESTED the IOTC Secretariat to liaise with other organizations to explore options for improving the accessibility of the data, including the description of the database with standard metadata and data formats (e.g. FAO Geonetwork catalogue and</p>	<p>Update: [Ongoing] The IOTC Secretariat is considering the possibility to integrate tagging data within the new IOTC statistical database, in order to increase the level of accessibility to the information while keeping detailed track of its usage. Also, a scientist from SLU-Aqua (Swedish University of Agricultural Sciences) is expected to visit the IOTC Secretariat in Q3 2018 to explore alternative usage of tagging data for Stock Assessment purposes and provide feedback and comment on the current state-of-the-art and review, standardize, and improve the processing of tagging data for its use in the stock assessment models. Further work related to the definition of proper descriptive metadata for simplified access to the available information is currently undergoing with support and collaboration from IRD and IOC.</p>

	Global Biodiversity Information Facility formats).	
Para. 27-28	<p><i>IOTC Website data pages: discussion of potential improvements</i></p> <p>NOTING the importance of transparency, full documentation and reproducibility of the stock assessment results, the WPDCS REQUESTED the IOTC Secretariat to explore ways of improving the archive and dissemination of stock assessment input, output and control files (including executable versions of the models) on the IOTC website.</p> <p>In addition, the WPDCS REQUESTED that the IOTC Secretariat explore ways in which the new integrated IOTC database can be used to improve the dissemination of IOTC datasets, through interactive maps, dynamic charts, tables and other tools to facilitate the accessibility of the data for end users, thereby reducing the burden on the IOTC Secretariat in terms of the standard range of charts and maps produced prior to each Working Party.</p>	<p>Update: [Ongoing] A detailed presentation of the features provided by the new integrated IOTC database has been provided during the WPDCS12 and WPM08 (2017). Developments are still ongoing and will be finalized by Q2 2018. For what concerns archival and dissemination of stock assessment inputs, outputs and control files, potential synergies with the stock assessment Virtual Research Environment developed as part of the BlueBridge initiative are currently being explored.</p>
Para. 35	<p><i>Update on national statistical systems, including the main challenges in collecting and reporting data to the IOTC Secretariat and proposals to improve future levels of compliance with IOTC data requirements</i></p> <p>Kenya</p> <p>The WPDCS NOTED Kenya's request for assistance in terms of the evaluation of the Catch Assessment Survey, including understanding inconsistencies with the results of the previous data collection system, and REQUESTED that the IOTC Secretariat conduct a technical assistance mission to assist with analysis of the survey results, and provide support for development of a proposal for an electronic sampling data collection system.</p>	<p>Update: The IOTC Secretariat conducted two missions to Kenya in 2017 to provide technical assistance to Kenya's Catch Assessment Survey (CAS), and appraisal of the sampling methodology. Support is on-going; Kenya will also be presenting the results of the CAS during WPDCS-13.</p>
Para. 39-40	<p><i>Update on national statistical systems, including the main challenges in collecting and reporting data to the IOTC Secretariat and proposals to improve future levels of compliance with IOTC data requirements</i></p> <p>I.R. Iran</p> <p>The WPDCS ENCOURAGED I.R. Iran to provide more information about the catches from gillnet fisheries operating near Somalia, including total catches and species composition, as currently there is a lack of data from this area.</p>	<p>Update: [Ongoing] – A data compliance mission is scheduled for Q4 2017 (just prior to the WPDCS). Further updates will be provided in due course.</p>

	<p>The WPDCS NOTED that accurate location information is potentially available within logbook forms provided to Iranian fishermen, and REQUESTED that I.R. Iran considers providing catch and effort and size data according to IOTC Resolution 15/02 standards.</p>	
Para. 62-63	<p>Further analysis of length frequency data from Longline fleets and likely impacts on the assessments</p> <p>Taiwan,China</p> <p>Furthermore the WPDCS NOTED that length collected from observers-at-sea as well as individual weights recently collected by the crews should be compared, and REQUESTED that Taiwan,China submit observer size frequency data to the IOTC Secretariat.</p> <p>The WPDCS ENCOURAGED Taiwan,China to continue to work with the IOTC Secretariat to further understand the inconsistencies between average weights derived from size frequency data and catch-and-effort data and REQUESTED Taiwan,China to report the work to the next WPTT and WPDCS.</p>	<p>Update: [Pending] This issue will be addressed as part of a dedicated project examining potential bias in the distant water LL fleet is also planned for 2018 (subject to confirmation of funding).</p>
Para. 70	<p>Further analysis of length frequency data from Longline fleets and likely impacts on the assessments</p> <p>Seychelles</p> <p>The WPDCS REQUESTED Seychelles to liaise with the Secretariat to understand the differences between size data available at SFA and at the Secretariat and NOTED that only size data considered of good quality should be provided to the Secretariat.</p>	<p>Update: [Pending] The Secretariat received, in February 2017, updates to SYC LL size-frequency data for the period 2007-2015, that have been incorporated in the IOTC databases. Still, revisions are expected for 1997-2006 and for 2016 (December 2017?).</p>
Para. 73	<p>Further analysis of length frequency data from Longline fleets and likely impacts on the assessments</p> <p>Taiwan,China – Japan – Seychelles – Republic of Korea</p> <p>The WPDCS also NOTED that the availability of operational data would be instrumental in the success of the work and REQUESTED Taiwan,China, Japan, Seychelles and Korea to share all operational data with the Secretariat under the Resolution 12/02 Data confidentiality policy and procedures in a</p>	<p>Update: [Pending] No update since WPDCS-12, however the terms of reference have been drafted for a dedicated consultancy project in 2018, examining potential bias in the distant water LL fleet (subject to confirmation of funding).</p>

	similar way to what already done for collaborative CPUE analysis.	
Para. 78	<p>Improving the management of size-frequency data from European Union and assimilated purse seine fleets</p> <p>The WPDCS AGREED that there was no apparent issue with the catch size frequency data for the period from 1991 to 2015, and REQUESTED that the differences in size compositions derived from raw samples, raised samples and IOTC processed size data should be explored further.</p>	<p>Update: The IOTC Secretariat, in collaboration with representative scientists from the various European Union and assimilated purse-seine fleets, analyzed the differences between the (normalized) raised and raw length distributions for Skipjack tuna, as informally provided by Spain and France prior to the WPTT19, concluding that these are negligible and that therefore no likely impact is expected by using raw data in place of the raised one. A sensitivity run for the Skipjack SS3 assessment was also performed with this purpose, confirming the hypothesis. Raw size-frequency data for EU and assimilated PS fleets (all available species, by month and 1x1 grids, 1982-2016) are expected to be provided by the EU and Seychelles, soon and eventually they'll become regular part of the yearly submission of mandatory statistical data for 2017 and following years. Once available, these data will replace the current SF data for the same fleets, species and time period.</p> <p>EU: [Pending] Partial data from Spain and France were received. Awaiting for official submission (for all available species, by month and 1x1 grids, 1982-2016) from the EC officers.</p> <p>Seychelles: [Pending] As this data has been historically collected and managed by Seychelles (SFA) in collaboration with IRD Scientists, we expect similar updates to be provided soon.</p>
Para. 80	<p>The WPDCS NOTED that the change in the relationships can have repercussions on the estimates of species composition for purse seine catch and REQUESTED the European Union and other purse seine fishing CPCs to explore the consequences of such changes on the time series of catch provided to the Secretariat.</p>	<p>Update:</p> <p>EU: [Pending] Further updates are expected to be presented at the WPDCS13.</p>
Para. 81	<p>Furthermore, the WPDCS NOTED that the Secretariat can play a role in the storage and rescue of raw morphometric data when available and REQUESTED the Secretariat to manage such data within the new integrated management system.</p>	<p>Update:</p> <p>IRD: [Pending] Raw morphometric data used for the study in paper WPDCS12-INF05 have recently been provided to the Secretariat. The new IOTC integrated database is in the process of being extended to accommodate the information accordingly.</p>
Para. 85	<p>Resolution 15/02 Mandatory statistical requirements for IOTC Members and Cooperating Non-Contracting Parties (CPCs)</p> <p>In order to collect this relevant information, that might be available at least for some of the large industrial fleets, the WPDCS also REQUESTED that form 1_RC is extended with the inclusion of an optional field used to specify</p>	<p>Update: [Pending]</p> <p>The IOTC Secretariat has amended form 1_RC to also include information about the type of retained catch but this has not yet been disseminated to the public, also in light of the possible updates to data reporting formats envisaged by the e-MARIS initiative. In any case, the IOTC integrated database has been extended in order to accommodate for this new information, however it is provided.</p>

	the full range of different types of retained catch.	
Para. 87	Therefore, the WPDCS REQUESTED that CPCs contribute to improvements in the collection of bycatch data by ensuring that target species information is regularly reported and by increasing the adoption of form 1_DI (or similar) to report all catches that are discarded either dead or alive.	Update: [Pending] Still very few discard data are provided to the IOTC Secretariat by CPCs as part of the regular, mandatory statistical data submissions.
Para. 88	Furthermore, the WPDCS REQUESTED that all CPCs that have historical data about species being targeted by their fisheries liaise with the Secretariat and provide anecdotal evidence of such information in order to properly complement the existing total catch time series.	Update: [Pending]
Para. 93	Resolution 16/01 On an interim plan for rebuilding the Indian Ocean yellowfin tuna stock The WPDCS REQUESTED that CPCs potentially subject to Resolution 16/01 provide the expected catch breakdown as a matter of urgency, NOTING that the Resolution will be effective starting on January 1 st 2017.	Update: [Pending] Current catch figures containing estimations made by the IOTC Secretariat in terms of the applicability of Resolution 16/01 have been circulated through IOTC Circular 2017-057 (16 th May 2017) and discussed during the Commission Meeting. The introduction of Resolution 17/01 had provided additional break-down scenarios for the targeted CPCs, that still need to be addressed.
Para. 100	Resolution 16/04 On the implementation of a pilot project in view of promoting the regional observer scheme of IOTC Thus, the WPDCS REQUESTED that self-sampling and e-monitoring systems are also piloted alongside port sampling to enable the collection of data on discards and interactions with other species which are fundamental data for the progress of WPEB.	Update: [Pending] Document IOTC-2017-S21-10 was developed by SC19 and Commissioners intersessionally and presented to the Commission at S21 where it was approved. This project contains workstreams related to e-monitoring but not self-sampling. The EMS component of the ROS Pilot Project is currently in the early stages of procurement, and will begin a trial implementation phase in 2018.
Para. 112	ROS E-reporting and E-monitoring projects The WPDCS RECALLED that IOTC Scientific Committee agreed in 2014 that standards for EMS for purse seine and other gear types should be developed. Moreover, Resolution 16/04 On the implementation of a pilot project in view of promoting the ROS of IOTC REQUESTED Scientific Committee to propose minimum standards for the implementation of Electronic observation systems and how they can be used to increase levels of observer coverage for Indian Ocean fisheries.	Update: [Ongoing] Paper IOTC-2016-SC19-15 was presented to the SC19 proposing minimum standards for electronic reporting systems. The SC NOTED that the Commission has specifically requested the development of minimum standards for EMS through Resolution 16/04 and the need for this to be part of the Pilot Project.



<p>Para. 123-124</p>	<p>Resolution 15/08 Procedures on a fish aggregating devices (FADs) management plan, including a limitation on the number of FADs, more detailed specifications of catch reporting from FAD sets, and the development of improved FAD designs to reduce the incidence of entanglement of non-target species</p> <p>The WPDCS NOTED that FAD drifts appear to be very similar to that of oceanographic drifters at large scale but that the subsurface structure of the FAD could affect the drift patterns of FADs at smaller scales and, hence, the results of the simulations.</p> <p>Thus, the WPDCS REQUESTED authors that this matter is analysed further to be presented to the next WPDCS or WPTT meeting.</p>	<p>Update: [Pending] An analysis dealing with approximately 5 million positions of FADs collected by tuna fishermen between 2008 and 2014 has been conducted to compare the velocity of the FADs with oceanographic drifters that are specifically designed to follow the surface currents. Results show that the velocity of FADs is estimated to be 2-6% lower than the drifters in the Indian Ocean. The study is currently under review in a peer-review journal and results will be made available to the IOTC WPDCS in 2018</p>
<p>Para. 139-140</p>	<p>Fisheries Information Systems, including developments in the new IOTC Database and dissemination</p> <p>At the same time, the WPDCS NOTED the emphasis in the adoption of common, text-based formats for structured data exchange (JSON, XML) which might require an initial learning curve for end users willing to exploit the functionalities of the new system.</p> <p>Therefore, in order to simplify some of the common tasks required for the successful inclusion of these remote services within user scripts, the WPDCS REQUESTED that proper funding is allocated for the development of dedicated libraries in the most common languages used for statistical analysis (R, Python, JavaScript, etc.).</p>	<p>Update: [Pending] Further demonstration of the remote data extraction and processing services has been delivered during the WPM08 (2017) that also recognized the importance of this approach, yet no explicit funding has been allocated for the task during 2017.</p>