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## PROGRESS MADE ON THE RECOMMENDATIONS OF WPB09

PREPARED BY: IOTC SECRETARIAT, 27 AUGUST 2012

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### PURPOSE

To provide an update on the progress made in implementing the recommendations from the previous Working Party on Billfish (WPB) which were endorsed by the Scientific Committee (SC), and to provide alternative recommendations for the consideration and potential endorsement by participants as appropriate given any progress.

### BACKGROUND

At the Ninth Session of the WPB, participants agreed on a series of actions to be taken by participants, CPCs, and the Secretariat on a range of issues. The subsequent table developed and agreed to by the WPB was provided to the SC for its endorsement.

### DISCUSSION

The Rules of Procedure of the SC 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 WPB, and the fact that the SC, Commission and CPCs in general have struggled to implement previous recommendations from the WPB, the Chair and Secretariat undertook a review and subsequent revision of recommendations from the WPB09 meeting, endorsed by the SC, in an attempt to provide clearer direction and delegation of responsibility for each recommendation as appropriate.

The revised recommendations are contained in Appendix A for the consideration and potential endorsement by the WPB.

### RECOMMENDATION

That the WPB **NOTE** the progress made in implementing the recommendations of the WPB09, and consider the proposed draft revisions to those recommendations yet to be completed.

That the WPB **AGREE** to the revised recommendations, and for these to be combined with any new recommendations arising from the WPB10, noting that these will be provided to the SC for their endorsement.

### APPENDICES

**Appendix A:** Progress made on the recommendations of WPB09 and SC14.



**APPENDIX A**

#	Recommendation from WPB09	Adopted by SC14	Revise at WPB10	Proposed revision for consideration at WPB10	Responsibility	Due date
1	<p><b>Outcomes of the Fifteenth session of the Commission</b></p> <p>WPB09.01 (para. 10): The WPB <b>NOTED</b> that the increased attendance by scientists from developing CPCs was partly due to the IOTC Meeting Participation Fund, adopted by the Commission in 2010 (Resolution 10/05 <i>on the establishment of a Meeting Participation Fund for developing IOTC Members and non-Contracting Cooperating Parties</i>), and <b>RECOMMENDED</b> that this fund be maintained.</p> <p><i>Progress: The Commission allocated USD\$200,000 to the MPF for 2012.</i></p>	Yes	No	–	–	Meeting specific
2	<p>WPB09.02 (para. 13): The WPB <b>RECOMMENDED</b> that the Scientific Committee consider the advice of the WPB on the southwest swordfish resource and to respond to the Commission's request during its 2011 meeting, noting that the Working Party on Methods will be progressing Management Strategy Evaluation over the coming year that will aid in addressing this request, which was considered by participants as the appropriate mechanism for this work.</p> <p><i>Progress: The SC considered and adopted the advice for the SWIO.</i></p>	Yes	No	–	–	Annually
3	<p><b>Data inconsistencies for the Japanese and Taiwan,China swordfish catches</b></p> <p>WPB09.03 (para. 43): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat finalize the study aimed at assessing the consistency of average weights derived from the available catch and effort data, as derived from logbooks, and size data provided by Japan, Taiwan,China, Seychelles and EU,Spain and to report final results at the next WPB meeting.</p> <p><i>Progress: The IOTC Secretariat is working with Japan and Taiwan,China scientists to assess the inconsistencies in the size frequency data reported by both parties, as identified at the previous WPB Meeting. In this regard, Taiwan,China sent a revision of its 2003–10 catch-and-effort statistics, including changes to the number of hooks and numbers of fish recorded over those years. Review of the historical data series of both parties is ongoing</i></p>	Yes	Yes	Noting the progress made to date, the WPB <b>RECOMMENDED</b> that the IOTC Secretariat finalize the study aimed at assessing the consistency of average weights derived from the available catch and effort data, as derived from logbooks, and size data provided by Japan, Taiwan,China, Seychelles and EU,Spain and to report final results at the next WPB meeting.	IOTC Secretariat	2013



	<i>and the results of this work will be reviewed at a meeting to be held in January 2013 in Taiwan, China, with results reported to the next WPB.</i>					
4	<p><b>Data collection and reporting systems</b></p> <p>WPB09.04 (para. 44): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat travel to India and Pakistan in order to assess the status of data collection and reporting systems in those countries, and to report back to the WPB at its 2012 session.</p> <p><i>Progress: In 2011 and subsequently in 2012, the IOTC Secretariat hired the services of a consultant to assess the status of data collection and management in several coastal countries of the IOTC Region. The results of this work were presented to the IOTC Scientific Committee in 2011. The consultant identified the statistical system of India to be deficient in some areas and recommended that additional resources be devoted to data collection and management activities. Unfortunately, the consultant was not able to travel to Pakistan due to the situation in this country. The IOTC Secretariat is in contact with WWF in Pakistan and it is likely that some information on the fisheries in this country be made available in the future, as WWF initiated Projects to collect data from marine fisheries in the country in 2012. The consultant is currently reviewing the available catch series for India. New estimates of catches for the country will be made available at the end of 2012, where required.</i></p>	Yes	No	–	–	–
5	<p>WPB09.05 (para. 45): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat further assist India and Pakistan in the strengthening of data collection and reporting systems, where required, so as to facilitate reporting of statistics for billfish species as per IOTC standards.</p> <p><i>Progress: The IOTC Secretariat was unable to identify the funds that would be required to strengthen the statistical system of India, due to the high costs that would be involved. The work of WWF in Pakistan, as indicated above, may contribute to improvements in the statistical systems of Pakistan.</i></p>	Yes	No	–	–	–
6	<p>WPB09.06 (para. 46): The WPB <b>RECOMMENDED</b> that as a matter of priority, India, Iran and Pakistan provide catch-and-effort data and size data for billfish, in particular gillnet fisheries, as soon as possible, noting that this is already a mandatory reporting requirement.</p> <p><i>Progress: Nil</i></p>	Yes	Yes	The WPB reiterated its <b>RECOMMENDATION</b> from 2011 that as a matter of priority, India, Iran and Pakistan provide catch-and-effort data and size data for billfish, in particular gillnet fisheries, as soon as possible, noting that this is already a mandatory reporting requirement.	India, Iran, Pakistan	2013



7	<p><b>Billfish species identification</b></p> <p>WPB09.07 (para. 47): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat, in collaboration with relevant experts, develop species identification cards for marlins and sailfish by the next meeting of the WPB.</p> <p><i>Progress: see working paper IOTC-2012-WPB10-08</i></p>	Yes	No	-	-	-
8	<p>WPB09.08 (para. 48): The WPB <b>RECOMMENDED</b> that marlin and sailfish identification material, currently being used by the La Réunion fleets, be provided to the IOTC Secretariat in the coming months to aid in the development of the identification cards.</p> <p><i>Progress: Completed and incorporated into the billfish ID guides.</i></p>	Yes	No	-	-	-
9	<p><b>Length-age keys and other information</b></p> <p>WPB09.09 (para. 49): The WPB <b>RECOMMENDED</b> that as a matter of priority, the IOTC Secretariat formally request, and provide assistance where necessary, CPCs that have important fisheries for billfish (EU, Taiwan, China, Japan, Indonesia and Sri Lanka) to collect and provide the basic data that would be used to establish length-age keys and non-standard measurements to standard measurements keys for billfish species, and sex ratio data, by sex and area.</p> <p><i>Progress: To date, the IOTC Secretariat has not received new biological information on marlins from the Indian Ocean. In 2012 the IOTC-OFCF Project organized a Catch Estimation Workshop in Indonesia and the Report will be available soon. The Workshop identified several problem areas regarding the statistical system of Indonesia and produced a roadmap for the implementation of activities in the future, in order to address those issues. Also in 2012 the IOTC-OFCF Project provided assistance for the development of a Centralized database System in Sri Lanka, which will include all data collected from the fisheries operated in this country. In addition, the IOTC-OFCF Project is considering support to data collection in Sri Lanka, following a recent request received from the Ministry of Fisheries and Aquatic Resources of Sri Lanka.</i></p>	Yes	No	-	-	-
10	<p>WPB09.10 (para. 50): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat develop a priority list of measurements to be collected for the purposes of developing length-age keys and other measurement keys, and to communicate this to CPCs before the end of the year.</p>	Yes	Yes	To be developed at the WPB10		



	<i>Progress: The IOTC Secretariat will present this list to the WPB.</i>					
11	<p><b>Sampling coverage</b> WPB09.11 (para. 51): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat assess levels of reporting for Japan upon receiving size data for 2010 and report back to the next meeting of the WPB.</p> <p><i>Progress: Levels of reporting for Japan remain low and will be presented at the meeting of the WPB.</i></p>	Yes	Yes	To be developed at the WPB10		
12	<p>WPB09.12 (para. 52): The WPB <b>RECOMMENDED</b> that Japan increase sampling coverage to attain the minimum recommended by the Commission (1 fish by metric ton of catch by type of gear and species).</p> <p><i>Progress: Sampling coverage remains very low, under the recommended value.</i></p>	Yes	Yes	The WPB reiterated its <b>RECOMMENDATION</b> from 2011 that Japan increase sampling coverage to attain the minimum recommended by the Commission (1 fish by metric ton of catch by type of gear and species).	Japan	2013
13	<p>WPB09.13 (para. 53): The WPB <b>RECOMMENDED</b> that the WPDCS urges Members with observer programmes to analyse the data collected to estimate discards of billfish species and the precision of these estimates.</p> <p><i>Progress: The WPDCS recommended this work. Discards of billfish have only been estimated for EU purse seiners and a limited number of longline fleets. Total discards of billfish cannot be estimated using this information due to the low coverage.</i></p>	Yes	No	–	–	–
14	<p><b>Logbook coverage</b> WPB09.14 (para. 54): The WPB <b>RECOMMENDED</b> that the WPDCS monitor that Members are ensuring that logbook coverage is appropriate to produce acceptable levels of precision (Coefficient of Variation to be initially set at less than 20%) in their catch and effort statistics for billfish species.</p> <p><i>Progress: Passed to the WPDCS.</i></p>	Yes	No	–	–	–
15	<p>WPB09.15 (para. 55): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat request countries include levels of precision in their reports of catch-and-effort for billfish species.</p> <p><i>Progress: The IOTC Secretariat requests this information routinely. To date, the IOTC Secretariat has not received catch reports that include precision of the estimates from any country.</i></p>	Yes	No	–	–	–
16	<b>Size data</b>	Yes	Yes	<b>NOTING</b> that the EU,Portugal has reported size data	EU,Portugal	2013



	WPB09.16 (para. 57): <b>NOTING</b> that the EU,Portugal had recently reported size data for swordfish from its longline fleets; The WPB <b>RECOMMENDED</b> that the EU,Portugal report size data for marlin and sailfish species for its longline fleets, noting that this is already a mandatory reporting requirement.  <i>Progress: In 2012 Portugal reported size data for 2011 which included data for species other than swordfish. However, those did not include lengths frequency samples for marlins or Indo-Pacific sailfish.</i>			for swordfish from its longline fleets, the WPB reiterated is <b>RECOMMENDATION</b> from 2011 that the EU,Portugal report size data for marlin and sailfish species for its longline fleets, noting that this is already a mandatory reporting requirement.		
17	WPB09.17 (para. 58): <b>NOTING</b> that eleven longliners from the EU,United Kingdom, Kenya, Guinea, and Tanzania have operated in the Indian Ocean in recent years; The WPB <b>RECOMMENDED</b> that the EU,United Kingdom, Kenya, Guinea, and Tanzania make every possible effort to collect and report size data for billfish species for their longline fleets, noting that this is already a mandatory reporting requirement.  <i>Progress: Nil.</i>	No	No	–	–	–
18	WPB09.18 (para. 59): The WPB <b>RECOMMENDED</b> that Japan and Taiwan,China analyse the size samples collected from their longline fisheries for swordfish and marlins in order to verify if the length frequencies derived from such samples are representative of their fisheries. In particular Japan to compare length frequency distributions derived from samples collected: <ul style="list-style-type: none"> <li>• by fishermen on commercial vessels</li> <li>• by observers on commercial vessels</li> <li>• by scientists on research and training vessels.</li> </ul> <i>Progress: Refer to 3 above.</i>	Yes	No	–	–	–
19	WPB09.19 (para. 60): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat follow-up on the results of the study with Japan and Taiwan,China and to report to the next WPB meeting.  <i>Progress: Refer to 3 above.</i>	Yes	No	–	–	–
20	WPB09.20 (para. 61): The WPB <b>RECOMMENDED</b> that Taiwan,China collect and provide the IOTC Secretariat with size data for billfish caught by its fresh tuna longliners, noting that this is already a mandatory requirement.  <i>Progress: In 2012 Taiwan,China provided size data for its fresh-tuna longine fleet for 2010 and 2011 which included billfish species; however, coverage is</i>	Yes	No	–	–	–



	<i>still very low.</i>					
21	WPB09.21 (para. 62): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat liaise with the EU,Spain in order to assess the status of catch-and-effort data for marlins and sailfish. <i>Progress: EU,Spain did not provide this information.</i>	Yes	Yes	The WPB reiterated its <b>RECOMMENDATION</b> from 2011 that the IOTC Secretariat liaise with the EU,Spain in order to assess and improve the status of catch-and-effort data for marlins and sailfish.	IOTC Secretariat and EU,Spain	2013
22	WPB09.22 (para. 63): The WPB <b>RECOMMENDED</b> that the EU,Spain longline fleet provide the IOTC Secretariat with catch-and-effort and size data of marlins and sailfish by time and area strata, noting that this is already a mandatory reporting requirement. <i>Progress: Refer to 21 above.</i>	No	No	–	–	–
23	<b>Other data matters</b> WPB09.23 (para. 64): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat liaise with the Republic of Korea to inform them about the new nominal catches estimated for its longline fishery. <i>Progress: The IOTC Secretariat contacted the Rep. of Korea in 2011. The Rep. of Korea informed that they will be reporting revised catch-and-effort series at the end of 2012, before the next IOTC Scientific Committee meeting.</i>	Yes	No	–	–	–
24	WPB09.24 (para. 65): <b>NOTING</b> that Japanese scientists are assisting the Republic of Korea in the review of catch-and-effort data series for longline vessels under the flag of Korea; The WPB <b>RECOMMENDED</b> that the IOTC Secretariat follow-up with Japan and the Republic of Korea in order to obtain a new catch-and-effort data series from the Republic of Korea as soon as possible. <i>Progress: Refer to 23 above.</i>	Yes	No	–	–	–
25	<b>Sports fisheries</b> WPB09.25 (para. 70): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat develop a project aimed at enhancing data recovery from sports and other recreational fisheries in the region, in collaboration with Kenya and other interested parties, and to report progress at the next WPB meeting. <i>Progress: The IOTC Secretariat was unable to develop this Project due to lack of resources. If the WPB wishes to pursue this in 2012 and 2013, then it may wish to consider making a recommendation to the SC that th</i>	Yes	No	–	–	–



	<i>Commission allocate funds for a consultant to undertake the work.</i>					
26	<p>WPB09.26 (para. 72): The WPB <b>RECOMMENDED</b> that the African Billfish Foundation continue its important work, particularly in the areas of collaborative research aimed at obtaining more information on movements of billfishes, via both conventional and archival tagging programs that will allow the collection of information on both horizontal and vertical movements.</p> <p><i>Progress: The African Billfish Foundation has continued to expand its work as recommended. The ABF now has conventional tagging areas in the Middle East and Seychelles. Additionally, they will be deploying satellite tags on marlin for the period between December through to March. Details/ Results will be communicated in the next WPB.</i></p>	Yes	No	–	–	–
27	<p>WPB09.27 (para. 73): The WPB <b>RECOMMENDED</b> that as a matter of priority, the Chair of the WPB, in collaboration with the IOTC Secretariat, participating billfish foundations and other interested parties, facilitate the acquisition of catch-and-effort and size data from sport fisheries, by developing and disseminating reporting forms to Sport Fishing Centres in the region and to report back to the WPB at its meeting in 2012.</p> <p><i>Progress: Update to be provided by the Chair at the WPB10 meeting.</i></p>	Yes	Yes	The WPB <b>RECOMMENDED</b> the Chair of the WPB, in collaboration with the IOTC Secretariat, participating billfish foundations and other interested parties, facilitate the acquisition of catch-and-effort and size data from sport fisheries, by developing and disseminating reporting forms to Sport Fishing Centres in the region and to report back to the WPB at its meeting in 2013.	WPB Chair, ABF	2013
28	<p>WPB09.28 (para. 74): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat provide contact details for purse seine and longline fleets obtained during the Regional Tuna Tagging Project-Indian Ocean (RTTP-IO), to participating billfish foundations so that they may improve their own outreach and awareness campaigns.</p> <p><i>Progress: Completed.</i></p>	No	No	–	–	–
29	<p>WPB09.29 (para. 75): The WPB <b>RECOMMENDED</b> that the African Billfish Foundation (ABF) work with the IOTC Secretariat to facilitate engagement between the ABF and IOTC scientists on issues from data analysis to the collection and dissemination of biological information on billfish species.</p> <p><i>Progress: The ABF is in the process of analysing its data. Hopefully the findings or Preliminary results will be communicated to the next WPB.</i></p>	Yes	No	–	–	–
30	<p><b>Mozambique billfish landings</b></p> <p>WPB09.30 (para. 81): The WPB <b>RECOMMENDED</b> that sports fishery and</p>	Yes	No	–	–	–



	<p>other recreational fishery catches taken from Mozambique waters should be reported to the WPB in 2012.</p> <p><i>Progress: Mozambique reported statistics to the IOTC in 2012.</i></p>					
31	<p><b>India longline fishery: Indo-Pacific sailfish</b></p> <p>WPB09.31 (para. 84): The WPB <b>RECOMMENDED</b> that Indian scientists continue to carry out new and innovative research on billfish species, and to report findings to each WPB meeting.</p> <p><i>Progress: To be reported to the meeting, where applicable.</i></p>	Yes	No	–	–	–
32	<p>WPB09.32 (para. 85): The WPB <b>RECOMMENDED</b> that as a matter of priority, the IOTC Secretariat liaise with India, Oman, Indonesia, Philippines and Malaysia in order to improve the quality of the data reported from their longline fleets, by species, and to report back to the WPB at its next meeting.</p> <p><i>Progress: The statistics reported by these countries remain insufficient, not by the IOTC standards.</i></p>	Yes	No	–	–	–
33	<p><b>Indonesian longline fishery</b></p> <p>WPB09.33 (para. 89): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat send a mission to Indonesia to assist in the reporting of catch-and-effort data and to report progress to the WPB at its next meeting.</p> <p><i>Progress: Refer to 9 above. The IOTC Secretariat is planning a visit Indonesia at the end of 2012 where this and other issues will be addressed.</i></p>	Yes	No	–	–	–
34	<p><b>Sri Lankan billfish fisheries</b></p> <p>WPB09.34 (para. 92): The WPB <b>RECOMMENDED</b> that as a matter of priority, Sri Lanka increase sampling coverage to attain at least the coverage levels recommended by the Commission, including:</p> <ul style="list-style-type: none"> <li>• catches sampled for at least 5% of the vessel activities for coastal fisheries, including collection of catch, effort and size data for IOTC species and main bycatch species;</li> <li>• implementation of logbook systems for offshore fisheries.</li> </ul> <p>The information collected through the above activities should allow Sri Lanka to estimate catches by gear and species for billfish and other important IOTC or bycatch species.</p> <p><i>Progress: Sri Lanka has requested assistance from the IOTC Secretariat to</i></p>	Yes	No	–	–	–



	<i>strengthen its data collection system. The IOTC-OFCF Fisheries Expert will visit Sri Lanka during the next month to assess the type of assistance to be provided.</i>					
35	WPB09.35 (para. 93): The WPB <b>RECOMMENDED</b> that the IOTC-OFCF Project assist Sri Lanka to strengthen sampling efforts on its coastal and off-shore fisheries in late 2011, where required. <i>Progress: Refer to 34 above.</i>	Yes	No	–	–	–
36	WPB09.36 (para. 94): The WPB <b>RECOMMENDED</b> that billfish catches by Sri Lankan vessels, by gear and location, as per IOTC requirements, be presented at the next WPB meeting. <i>Progress: To be presented at the meeting, where available.</i>	Yes	No	–	–	–
37	<b>Portuguese longline fishery</b> WPB09.37 (para. 102): The WPB <b>RECOMMENDED</b> that EU,Portuguese scientists undertake a CPUE analysis for the EU,Portuguese longline fleet, and to consider combining the analysis with catch-and-effort data from the EU,Spanish longline fleet for the next WPB meeting. <i>Progress: EU,Portugal will present a CPUE standisation paper at the WPB10 meeting. Unfortunately, limited collaboration has occurred with EU,Spain to date.</i>	Yes	No	–	–	–
38	<b>Stock status indicators for marlins and sailfish – Istiophorids:</b> WPB09.38 (para. 108): The WPB <b>RECOMMENDED</b> that marlins and sailfish undergo CPUE analysis in 2012, with striped marlin taking priority over other species. <i>Progress: Scientists from Japan and Taiwan,China are working on the standardization of CPUE for striped marlin and blue marlin, respectively, with results to be reported to the meeting.</i>	Yes	No	–	–	–
39	WPB09.39 (para. 109): The WPB <b>RECOMMENDED</b> that as a matter of priority, striped marlin be the subject of CPUE analysis in 2011, and that CPUE series be compared among fleets where possible. <i>Progress: Refer to 38 above.</i>	Yes	No	–	–	–
40	<b>Stock status indicators and stock assessments for swordfish – Xiphias gladius:</b>	Yes, but for 2013	No	–	–	–



	<p><b>Catch-per-unit-effort</b></p> <p>WPB09.40 (para. 118): The WPB <b>RECOMMENDED</b> that a dedicated workshop on CPUE standardization, including issues of interest for other IOTC species should be carried out before the next round of stock assessments in 2012, and that where possible it should include a range of invited experts (as agreed in para. 112).</p> <p><i>Progress: The SC agreed that such a meeting should be deferred until 2013.</i></p>					
41	<p><b>Swordfish – Indian Ocean Stock</b></p> <p>WPB09.41 (para. 136): The WPB <b>RECOMMENDED</b> that the Scientific Committee consider the following:</p> <ul style="list-style-type: none"> <li>the Maximum Sustainable Yield estimate for the whole Indian Ocean is 29,900–34,200 t (range of best point estimates from Table 14) and annual catches of swordfish should not exceed this estimate.</li> <li>if the recent declines in effort continue, and catch remains substantially below the estimated MSY of 30,000–34 000 t, then management measures are not required which would pre-empt current resolutions and planned management strategy evaluation. However, continued monitoring and improvement in data collection, reporting and analysis is required to reduce the uncertainty in assessments.</li> <li>The Kobe strategy matrix illustrates the levels of risk associated with varying catch levels over time and could be used to inform management actions.</li> <li>Advice specific to the southwest region is provided below, as requested by the Commission.</li> </ul> <p><i>Progress: Adopted by the SC</i></p>	Yes	Yes	Develop at WPB10	–	–
42	<p><b>Swordfish – Southwest Indian Ocean resource</b></p> <p>WPB09.42 (para. 138): The WPB <b>RECOMMENDED</b> that the Scientific Committee consider the following:</p> <ul style="list-style-type: none"> <li>the Maximum Sustainable Yield estimate for the southwest Indian Ocean is 7,100–9,400 t (range of best point estimates from Table16).</li> </ul>	Yes	Yes	Develop at WPB10	–	



	<ul style="list-style-type: none"> <li>catches in the southwest Indian Ocean should be maintained at levels at or below those observed in 2009 (6,600 t), until there is clear evidence of recovery and biomass exceeds <math>B_{MSY}</math>.</li> <li>The Kobe strategy matrix illustrates the levels of risk associated with varying catch levels over time and could be used to inform management actions.</li> </ul> <p><i>Progress: Adopted by the SC</i></p>					
43	<p><b>Blue marlin</b></p> <p>WPB09.43 (para. 140): The WPB <b>RECOMMENDED</b> that the Scientific Committee consider the following:</p> <ul style="list-style-type: none"> <li>the Maximum Sustainable Yield estimate for the whole Indian Ocean is unknown.</li> <li>annual catches of blue marlin urgently need to be reviewed.</li> <li>improvement in data collection and reporting is required to assess the stock.</li> </ul> <p><i>Progress: Adopted by the SC</i></p>	Yes	Yes	Develop at WPB10	–	
44	<p><b>Update of species Executive Summaries</b></p> <p>WPB09.44 (para. 147): The WPB <b>RECOMMENDED</b> that the Scientific Committee:</p> <ul style="list-style-type: none"> <li><b>NOTE</b> the current definition of overfishing used by the IOTC, where fishing mortality is in excess of <math>F_{MSY}</math> (<math>F_{curr}/F_{MSY} &gt; 1</math>) is considered overfishing;</li> <li><b>NOTE</b> that fishing mortality in excess of <math>F_{MSY}</math> is not always defined as overfishing (within tRFMOs) if the stock is well above the <math>B_{MSY}</math> level, although no specific threshold has been defined;</li> <li><b>CONSIDER</b> the current definition of overfishing (<math>F_{curr}/F_{MSY} &gt; 1</math>), and determine that if in situations where the biomass of a given stock is well above <math>B_{MSY}</math>, but <math>F_{curr}/F_{MSY} &gt; 1</math>, under what circumstances should a stock be classified as subject to overfishing.</li> </ul>	No	No	–	–	
		Yes	Yes	Develop at WPB10		



	<ul style="list-style-type: none"> <li>NOTE the draft resource stock status summaries for:             <ol style="list-style-type: none"> <li>Swordfish (<i>Xiphias gladius</i>) – Appendix VI</li> <li>Blue marlin (<i>Makaira nigricans</i>) – Appendix VII</li> </ol> </li> </ul> <p><i>Progress: The SC did not agree to the first three dot points above. The SC did note the draft Executive Summaries.</i></p>					
45	<p>WPB09.45 (para. 148): The WPB <b>RECOMMENDED</b> that the IOTC Secretariat update the draft stock status summaries with 2010 catch data once obtained, and for these to be provided to the Scientific Committee as part of the Draft Executive Summaries, for its consideration.</p> <p><i>Progress: Completed</i></p>	Yes	Yes	Develop at WPB10	–	–
46	<p><b>Development a draft work plan for the WPB</b></p> <p>WPB09.46 (para. 151): The WPB <b>AGREED</b> that there was no urgent need to carry out stock assessments for the swordfish resources in the Indian Ocean in 2012, and <b>RECOMMENDED</b> that efforts over the coming year be focused on the other billfish species, in particular on striped marlin.</p> <p><i>Progress: Adopted by the SC</i></p>	Yes	Yes	Develop at WPB10	–	–
47	<p>WPB09.47 (para. 152): The WPB <b>RECOMMENDED</b> the following core areas as priorities for research over the coming year;</p> <ul style="list-style-type: none"> <li>Swordfish stock structure and migratory range – using genetics</li> <li>Swordfish stock structure and movement rates – using tagging techniques</li> <li>Billfish species growth rates</li> <li>Size data analyses</li> <li>Stock status indicators – exploration of indicators from available data</li> <li>CPUE standardization – swordfish, marlins and sailfish</li> <li>Stock assessment – Istiophorids</li> <li>Depredation – focus on the southwest</li> </ul> <p><i>Progress: Adopted by the SC</i></p>	Yes	Yes	Develop at WPB10	–	–



48	<p><b>Date and place of the Tenth Session of the Working Party on Billfish</b></p> <p>WPB09.48 (para. 155): Following a discussion on who would host the Tenth Session of the WPB, the WPB <b>RECOMMENDED</b> that the IOTC Secretariat liaise with Indonesia to determine if it would be feasible to hold the next meeting of the WPB in September or October 2012, in conjunction with another IOTC working party, in Indonesia. La Réunion was identified as an alternate meeting location. The exact dates and meeting location will be confirmed and communicated by the IOTC Secretariat to the Scientific Committee for its consideration.</p> <p><i>Progress: As both Indonesia and la Reunion were not available for the 2012 meeting, South Africa was chosen.</i></p>	Yes	Yes	Develop at WPB10	–	–
49	<p><b>Election of the Chairperson and Vice-Chairperson of the Working Party on Billfish for the Next Biennium</b></p> <p>WPB09.49 (para. 160): The WPB <b>RECOMMENDED</b> that once finalised, the IOTC Secretariat forward the names of the elected individuals for the next <i>biennium</i>, to the Scientific Committee for <b>noting</b>.</p> <p><i>Progress: N/A</i></p>	Yes	No	–	–	–
50	<p><b>Review of the draft, and adoption of the Report of the Ninth Session of the Working Party on Billfish</b></p> <p>WPB09.50 (para. 161): The WPB <b>RECOMMENDED</b> that the Scientific Committee consider the consolidated set of recommendations arising from WPB09, provided at <a href="#">Appendix IV</a>.</p> <p><i>Progress: N/A</i></p>	Yes	No	–	–	–