



**SCIENTIFIC COMMITTEE  
NINTH REGULAR SESSION**

6-14 August 2013  
Pohnpei, Federated States of Micronesia

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**Matrix of Recommendations from the WCPFC Performance Review – Science Section  
(Including Circular 2013/17, 14 March 2013)**

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**WCPFC-SC9-2013/ GN-WP-06**

**Secretariat**



**TO ALL COMMISSION MEMBERS, COOPERATING NON-MEMBERS AND  
PARTICIPATING TERRITORIES**

**Circular No.: 2013/17  
Date: 14 March 2013  
No. pages: 69**

**WCPFC Performance Review**

Dear All,

Please find attached the updated Performance review as requested by the WCPFC9. The issues have been sorted and coded by Committee and the additional column on progress added.

Many thanks,

Professor Glenn Hurry  
Executive Director



**Circular to all members**

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**MATRIX OF RECOMMENDATIONS FROM THE WCPFC PERFORMANCE REVIEW SPLIT  
INTO WORKING GROUP RESPONSIBILITIES**

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**Paper prepared by the Secretariat**

**Background**

At WCPFC9 the Commission agreed that *“the Secretariat will sort and split the WCPFC Independent Performance Review recommendations matrix by Committee, add a column to track progress and forward each portion to the relevant committee for action”*.

The Secretariat has now sorted and color coded the matrix to make it easy to follow and we have added the additional column as requested and updated the status of any recommendation where progress has occurred.

The matrix is sent for you information and consideration for action at the committee meetings this year. It will also be forwarded to the Chairs of the Committees and added to the agenda for these meetings. If you have any corrections I am happy to take them on board as I have just added my understanding of status of the recommendations in the extra column to help progress issues.

Prof Glenn Hurry  
Executive Director  
WCPFC

TOSHIBA

# Recommendations from the Review of the WCPFC

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Secretariat

SC

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Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
3.2.8. 2003 FAO Technical Guidelines on the Ecosystem Approach to Fisheries (EAF)	<ul style="list-style-type: none"> <li>• <b>The Convention gives ample scope for development and implementation of the EAF. However, the institutional mechanism established to facilitate implementation should be reviewed. Relevant recommendations relating to the need for review of the terms of reference and functions of the EB-SWG are made in Section 3.2.9, also taking into account the issues relating to bycatch and discards.</b></li> <li>• <b>A technical evaluation of the implementation of the EAF is provided in Section 5.4.2 of this document. Implementation of the EAF for Pacific Island developing States, which are also members of WCPFC, is supported by FFA. The FFA has completed Ecosystem Approach to Fisheries Management (EAFM) reports for Cook Islands, Federated States of Micronesia, Palau, Tonga and Vanuatu.</b></li> </ul>	Active	Policy	SC/WCPFC	<ul style="list-style-type: none"> <li>• Medium</li> </ul>	<ul style="list-style-type: none"> <li>• SC Discussion</li> </ul>
3.2.9. 2010 FAO International Guidelines on Bycatch	<ul style="list-style-type: none"> <li>• <b>It is recommended that the terms of reference and functions of the Ecosystem and Bycatch Specialist Working Group should be evaluated with a view to the implementation of the 2003 FAO Technical Guidelines on the Ecosystem</b></li> </ul>	Active	Policy	SC/WCPFC	<ul style="list-style-type: none"> <li>• High</li> </ul>	<ul style="list-style-type: none"> <li>• SC discussion</li> </ul>

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Management and Reduction of Discards	<p><b>Approach to Fisheries and the 2010 FAO International Guidelines on Bycatch Management and Reduction of Discards and that priorities be agreed for the SWG as appropriate. In addition, it is recommended that CMMs should reflect the implementation of these instruments, including provisions on management and reporting.</b></p>					
<b>5. Conservation and Management</b>						
Southern Albacore	<ul style="list-style-type: none"> <li>• <b>Other explanations are possible for observed southern albacore biomass trends and further analyses appear justifiable;</b></li> <li>• <b>Despite the apparent appropriateness of the 2011 southern albacore assessment, the resultant conclusions are somewhat more pessimistic than previous assessments (i.e. <math>B/B_{MSY}</math> closer to 1). Uncertainty still surrounds the current levels of fishing mortality and there appears to be justification for further research to improve the assessment model, as well as a need for an updated assessment in 2012;</b></li> <li>• <b>The South Pacific albacore stock is neither currently overfished, nor is overfishing occurring. Current biomass levels appear sufficient to support contemporary catch levels. However, any catch or effort increases are</b></li> </ul>	<b>Active</b>	<b>Science/ Management</b>	<b>SC/TCC/WC PFC</b>	<ul style="list-style-type: none"> <li>• <b>High</b></li> <li><b>Its an important issues for the southern states and the effort ahs increased</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Work underway for more discussion in SC and TCC in 2013</b></li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<p>likely to result in declining catch rates, especially for longline catches of adult albacore. This will not only affect vessel profitability, but will also mandate management of vessels in strict conformity with CMM 2010-05; and</p> <ul style="list-style-type: none"> <li>• There is probably a need to focus more on albacore longline fisheries north of 25°S, where considerable biomass depletion appears to be occurring with obvious implications for management.</li> </ul>					
Bigeye	<ul style="list-style-type: none"> <li>• The WCPFC is to be commended for the several improvements forthcoming from the 2011 bigeye assessments compared to previous years;</li> <li>• Such improvements would benefit further through the tabulation of annual bigeye Purse Seine catch estimates, along with the estimation methods used;</li> <li>• Continued research on tuna, particularly bigeye, life history characteristics should be encouraged. The importance of including scientists from the WCPFC region is recognised and should also be encouraged;</li> <li>• The Commission should encourage the SC to continue its research-focused work on bigeye</li> </ul>	Active	Science/ Management	SC/WCPFC	<ul style="list-style-type: none"> <li>• High</li> <li>• To be addressed initially by SC and SPC in the assessments</li> </ul>	<ul style="list-style-type: none"> <li>• 2013/01 and SC for 2013</li> </ul>

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	<p>as outlined in paragraph 133 of the <i>Summary Report for the Seventh Regular Session of the Scientific Committee</i>;</p> <ul style="list-style-type: none"> <li>• The SC and Commission should be encouraged to actively address concerns attached to the possibility that the Bigeye is approaching, or is already in, an overfished state;</li> <li>• Bigeye MSY levels could rise if the fishing mortality of small fish is reduced. An added concern in this regard is that the harvesting of juvenile fish has led to a greater than 50% reduction in MSY from pre-1970 levels. While a reduction in the catch of small bigeye will allow more sustainable overall yields, recent overfishing will lead to further potential yield losses in the future. The priority attention of both the SC and Commission should be focused on this situation;</li> <li>• There is some indication that 100% observer coverage of the bigeye Purse Seine fleet will allow for fishery discards to be better assessed in the future. The SC and Commission are encouraged to give this notion serious operational consideration;</li> </ul>					

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	<ul style="list-style-type: none"> <li>• <b>Recently-developed, operational Longline indices for bigeye have provided more optimistic perceptions of stock status than using aggregated Longline data. A formal analysis of this observation should be encouraged to ensure that it is in fact appropriate and that it does not further stress a bigeye stock close to being overfished;</b></li> <li>• <b>Indonesia and the Philippines are encouraged to submit complete 2010 data for their bigeye surface fisheries. These should include Purse-Seine effort data;</b></li> <li>• <b>The Commission is encouraged to consider using a spatial management approach for measures aimed at ensuring sustainable bigeye fishing mortality levels, exploitation rates and depletion from various regions within the WCPFC Regulatory Area;</b></li> <li>• <b>The Commission should consider adopting additional measures above those expected from the current CMM so as to secure further reductions in bigeye fishing mortality, to ensure the return of the mortality rate to <math>F_{MSY}</math>.</b></li> <li>• <b>All Members, Cooperating Non-Members and Participating Territories (CCMs) are</b></li> </ul>					

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	encouraged to provide data in strict accordance with the WCPFC data rules for scientific data.					
Skipjack	<ul style="list-style-type: none"> <li>• The WCPFC is to be commended for the several improvements forthcoming from the 2011 skipjack assessments compared to previous years;</li> <li>• The Commission is encouraged to again address concerns raised by the 2010 and 2011 SC statements<sup>3</sup> on reduction of skipjack availability at high latitudes as a result of high catches in the equatorial region;</li> <li>• The Panel notes the relatively healthy nature of the skipjack stock;</li> <li>• The SC's ongoing efforts to improve the skipjack assessment model, aimed at enhancing understanding of stock status changes, are much appreciated;</li> <li>• The Commission is encouraged to closely monitor future increases of WCPO fishing effort on skipjack to mitigate catch rate declines associated with further biomass</li> </ul>	Active	Science/ Management	SC/WCPFC	<ul style="list-style-type: none"> <li>• High</li> <li>Initially an issues for SC and SPC in the assessments</li> </ul>	<ul style="list-style-type: none"> <li>• SC 2013 dsicussion</li> </ul>

<sup>3</sup> These statements read: "There is concern, yet to be substantiated, that high catches in the equatorial regions could result in range contraction of the stock, thus reducing skipjack availability to higher latitude (e.g. Japan, Australia and New Zealand) fisheries"

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	<p>declines;</p> <ul style="list-style-type: none"> <li>The Commission is also encouraged to manage total Purse-Seine fishing effort in the WCPO as a matter of priority to limit increased fishing mortality of bigeye and yellowfin. Improving estimates of Purse-Seine catch species composition is very much supported, as are other associated sampling and data collection efforts.</li> </ul>					
Yellowfin	<ul style="list-style-type: none"> <li>The WCPFC is to be commended for the several improvements forthcoming from the 2011 yellowfin assessments compared to previous years;</li> <li>The Commission is encouraged to give serious consideration to the WCPFC SC's advice that yellowfin fishing mortality in the western equatorial region should not increase;</li> <li>The Commission is encouraged to consider ways to reduce yellowfin juvenile fishing mortality;</li> <li>Projections for the yellowfin stock are essentially 'optimistic' and that fishing mortality should remain below <math>F_{MSY}</math> until 2021 and spawning biomass should remain above <math>SB_{MSY}</math>. The Commission is encouraged to give</li> </ul>	Active	Science /Management	SC/TCC/ WCPFC	<ul style="list-style-type: none"> <li>High SC and SPC to consider initially</li> </ul>	<ul style="list-style-type: none"> <li>SC 2013 discussion then 2013/01</li> </ul>

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	<p><b>this situation serious attention; and</b></p> <ul style="list-style-type: none"> <li>• <b>Noting the highly positive results of the external review of the yellowfin tuna assessment by the Center for Independent Experts, the Panel is very much in sympathy with the view that such external reviews should be undertaken subject to terms of reference agreed by the Scientific Committee. In that respect, any independent review that does not access all available and relevant information, and/or operates under its own terms of reference, could seriously undermine the WCPF SC's provenance. The Commission is therefore encouraged to reinforce the standing of the SC as the source of the Commission's scientific advice and to ensure that this advice is not challenged by inappropriate, unclear or independently-driven terms of reference that have not been agreed by the SC itself (Further Panel comments on the issue of independent assessments of the SC's work is provided in Section 5.6).</b></li> </ul>					
Bigeye and Yellowfin Fishing Effort	<ul style="list-style-type: none"> <li>• <b>The WCPFC is encouraged to urge CCMs to provide annual bigeye and yellowfin catch and effort, and size composition, data for all fleets in the format required by the rules and requirements adopted by WCPFC as “Scientific Data to be Provided to the</b></li> </ul>	Active	Science and reporting	SC/WCPFC	<ul style="list-style-type: none"> <li>• <b>Issues for SC and SPC to consider for</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>2013/01</b></li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<p><i>Commission”.</i></p> <ul style="list-style-type: none"> <li>To the extent possible, the Commission should also consider to request members to provide data by end of April after each fishing year so that the SPC can have sufficient time to redo its models if necessary.</li> </ul>				relevance	
SPO Swordfish	<ul style="list-style-type: none"> <li>The on-going shortage of data on which to base a comprehensive assessment of SPO Swordfish is a matter of concern;</li> <li>WCPFC is encouraged to urge the EU and SPC to devote all efforts to improving the WCPFC SPO swordfish data holdings;</li> <li>The SC should be encouraged to undertake analysis of SPO swordfish fishery indicators for SC8; and</li> <li>Using information forthcoming from the above, and contained in Williams et al. (2011), the SC should formally assess SPO swordfish as soon as possible, taking into account TCC data and statistical advice.</li> </ul>	Complete	Science	SC/WCPFC	<ul style="list-style-type: none"> <li>Assessment is underway</li> </ul>	<ul style="list-style-type: none"> <li>Assessment due in 2013</li> </ul>
Southwest Pacific Striped Marlin	<ul style="list-style-type: none"> <li>The only available assessment for Southwest Pacific Striped Marlin is now five years old. A new assessment, and utilization of any new information on the stock, are strongly encouraged and should be done as a matter of</li> </ul>	Complete	Science/ management	SC/WCPFC	<ul style="list-style-type: none"> <li>Assessment underway</li> </ul>	<ul style="list-style-type: none"> <li>Assessment planned 2014</li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<b>urgency.</b>					
North Pacific Striped Marlin	<ul style="list-style-type: none"> <li>• Concerns expressed over the continued lack of an assessment for the North Pacific striped marlin stock appear justified;</li> <li>• The Panel was concerned by the fact that information on the assessments undertaken by the ISC was not readily available or accessible, and, therefore, recommended that transparency in this regard be considerably improved. Most noticeably, and ideally, all assessments undertaken by the ISC should be peer reviewed and the results of these reviews made readily available for scrutiny by both the SPC and WCPFC SC;</li> <li>• The ISC, SPC and SC should be strongly encouraged to ensure that such an assessment is collectively undertaken in 2012;</li> <li>• This assessment should be undertaken in conjunction with that recommended for the Southwest Pacific striped marlin; and</li> <li>• To achieve, and expedite, the above, the Commission's attention is drawn to a need to clarify the ISC's standing in respect of North Pacific striped marlin, as well as in relation to relevant provisions of the Convention and</li> </ul>	Complete	Science/ Management	SC/WCPFC	<ul style="list-style-type: none"> <li>• SC and NC are working on this assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Assessment completed more discussion in 2013</li> </ul>

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	<b>WCPFC Rules of Procedure.</b>					
North Pacific Albacore	<ul style="list-style-type: none"> <li>Note should be taken of the current situation regarding assessment of North Pacific albacore, particularly the independent review of the current North Pacific albacore measure by the ISC; and</li> <li>It may be worth considering that current North Pacific albacore measure be reviewed to ensure that it is able to actually restrain fishing mortality, particularly in light of past data shortcomings.</li> </ul>	Active	Science/ Management	SC/WCPFC	<ul style="list-style-type: none"> <li>High SC to consider</li> </ul>	<ul style="list-style-type: none"> <li>SC discussion</li> </ul>
Pacific Bluefin Tuna	<ul style="list-style-type: none"> <li>Note should be taken of the current situation regarding assessment of Pacific bluefin tuna; and</li> <li>The WCPFC is encouraged to update its Pacific bluefin assessments, reduce Pacific bluefin fishing mortality to 2002/2004 levels and provide for monitoring of fishing mortality for age 0 to 3 fish.</li> </ul>	Active	Science/ management	SC/ WCPFC (NC)	<ul style="list-style-type: none"> <li>High Concerns have been expressed about this stock</li> </ul>	<ul style="list-style-type: none"> <li>Assessment updated will need more discussion in 2013 and beyond</li> </ul>
North Pacific Swordfish	<ul style="list-style-type: none"> <li>Note should be taken of the current situation regarding assessment of North Pacific swordfish; and</li> <li>The WCPFC is encouraged to update its North Pacific swordfish assessments in 2013 at the latest.</li> </ul>	Active	Science/ Management	SC/WCPFC	<ul style="list-style-type: none"> <li>Medium</li> <li>for SC to consider</li> </ul>	<ul style="list-style-type: none"> <li>SC discussion</li> </ul>

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<b>5.4. The Ecosystem Approach</b>						
5.4.2. Key Developments	<ul style="list-style-type: none"> <li>• <b>WCPFC is to be commended for pursuing a pragmatically-focused ecosystem approach built on the ERA of direct linkages between fishing and the WCPO ecosystem(s);</b></li> <li>• <b>The Commission and SC are also to be commended for developing various mitigating measures to address fishery-species interactions for seabird, turtles and sharks in particular;</b></li> <li>• <b>WCPFC is encouraged to expand data collection for potential fisheries and ecosystem interactions to provide priority information on such interactions to monitor interaction extent, mitigation effects and interaction effects;</b></li> <li>• <b>WCPFC is encouraged to further consider other effects likely to arise from fishing operations on the WCPO ecosystem. Such effects include lost, or abandoned, fishing gear and potential marine ecosystems<sup>4</sup> risks. At-sea</b></li> </ul>	Active and ongoing	Management	SC/TCC/WCPFC	<ul style="list-style-type: none"> <li>• <b>Medium</b></li> </ul> <p>The WCPFC has done a lot of work in this area and we have the bycatch data base at SPC. Issues for initial consideration by SC</p>	<ul style="list-style-type: none"> <li>• <b>Ongoing SC and TCC</b></li> </ul>

<sup>4</sup> For example, such risks include transference of alien and potential damaging species in bilge water. They also include considerations such as light pollution, net entanglements, etc.

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	<p><b>monitoring may be necessary before such risks are identified;</b></p> <ul style="list-style-type: none"> <li>• <b>The question of general biodiversity protection does not appear to have been addressed as yet and the WCPF is encouraged to consider ways (e.g. using spatial protection) how this might be achieved;</b></li> <li>• <b>A number of RFMOs have instituted Scientific Observer Programs to monitor, and gather information on, fisheries-ecosystem interactions/effects. Within the bounds of what may be practicable, the WCPFC is encouraged to consider how such programs<sup>5</sup> may assist its ecosystem work in terms of promoting an EAFM, and the ERA, approach regionally;</b></li> <li>• <b>Some other RFMOs (e.g. the North Atlantic Fisheries Organization- NAFO) put policy guidelines in place for their EAFM approaches. These are sufficiently flexible to include recent 'best practice' developments such as those initiated under UNGA</b></li> </ul>					

<sup>5</sup> For example, a concern has been raised that the recent observer coverage of 3.6% in Australia's Eastern Tuna and Billfish Fishery (ETBF) makes estimation of Turtle-Fisheries interactions highly uncertain. The deployment of onboard mounted cameras as a means to collect much of the same data currently collected by observers has been identified as a potential solution

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	<p><b>Resolution 61/105. The Commission is encouraged to give the development of such tools serious consideration in the interests of strategically 'mapping out' where it is going with its ERA activities. In these terms a designated area of the WCPFC Website for consolidating discussion on ecosystem issues might also be worth considering; and</b></p> <ul style="list-style-type: none"> <li>• <b>Following the previous comment, the SC is encouraged to develop 'plausible models' of WCPFC ecosystem to guide strategic development of its EAFM and to focus on key ecosystem components, including by means of a more structured regional plan of action on sharks and seabirds.</b></li> </ul>					
<b>5.5. Data collection and sharing</b>						
5.5.2. Data submission requirements	<ul style="list-style-type: none"> <li>• <b>To a large measure, information on data submission requirements appear adequate;</b></li> <li>• <b>However, some Longline catch data are only provided after a lag of several months<sup>6</sup>, some CMMs lack the necessary infrastructure to ensure accurate/timely data submissions and data are sparse for species other than billfish or</b></li> </ul>	Active	Science/Data	SC/WCPFC	<ul style="list-style-type: none"> <li>• <b>High SC to consider and advise</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>IMS work underway to improve data entry</b></li> </ul>

<sup>6</sup> In some cases in excess of 18 months after fishing has occurred

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	<p>tuna;</p> <ul style="list-style-type: none"> <li>• The Commission is urged to encourage the Secretariat to make such information easily accessible, particularly with respect to ensuring that data deadlines are met, and especially for fisheries subject to CMMs in force, and/or requiring assessment;</li> <li>• Serious consideration should be given to providing an enduring, and detailed 'Data Submission' item on the WCPFC Website as a 'one-stop shop' for all data submission information; and</li> <li>• To improve transparency attached to the timely submission of data, submission dates should be monitored by the Secretariat with the attached information being made available on the password protected portion of the WCPFC Website</li> </ul>					
5.5.3. Data holdings	<ul style="list-style-type: none"> <li>• The WCPFC, SPC-OFP and CCMs are to be congratulated on the comprehensive data holdings now available for WCPFC stocks;</li> <li>• Consideration should however be given to ensure that the provenance of the WCPFC data holdings and the data held by the OFP are complementary and compatible; and</li> <li>• On-going and timely publication of the</li> </ul>	Active	Science	SC/SPC-OFP/WCPFC	<ul style="list-style-type: none"> <li>• High SC to consider and advise</li> </ul>	<ul style="list-style-type: none"> <li>• SC discussion</li> </ul>

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	WPCFC Tuna Fishery Yearbook is to be commended.					
5.5.4. Data gaps	<ul style="list-style-type: none"> <li>• WCPFC is encouraged to give serious consideration to SC7 concerns for data identified in Section 5.5.1, as well other data interests highlighted below;</li> <li>• All CCMs are encouraged to provide data in a timely manner, and in strict accordance, with WCPFC <i>Scientific Data to be Provided to the Commission</i>;</li> <li>• Indonesia and the Philippines are encouraged to submit complete 2010 data for their bigeye surface fisheries, including Purse-Seine effort data;</li> <li>• Continuing difficulties attached to submission of ROP data should be noted, and submission of such data is to be encouraged;</li> <li>• Improving estimates of Purse-Seine catch species composition is very much supported, as are associated sampling and data collection efforts (Section 5.2);</li> <li>• WCPFC is encouraged to urge CCMs to provide annual bigeye and yellowfin catch and effort data, as well as size composition, for all fleets in the format required by WCPFC as</li> </ul>	Active and ongoing	Science/data	SC/WCPFC	<ul style="list-style-type: none"> <li>• High SC to consider and advise</li> </ul>	<ul style="list-style-type: none"> <li>• SC discussion</li> </ul>

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	<p><i>“Scientific Data to be Provided to the Commission”;</i></p> <ul style="list-style-type: none"> <li>• <b>The on-going shortage of data on which to base a comprehensive assessment of SPO swordfish is a matter of concern;</b></li> <li>• <b>WCPFC is encouraged to urge the EU and SPC to devote all efforts to improving the WCPFC SPO swordfish data holdings;</b></li> <li>• <b>WCPFC is encouraged to expand data collection for potential fisheries and ecosystem interactions to provide priority information on such interactions, to monitor its extent and effects, as well as the mitigation measures adopted and their results;</b></li> <li>• <b>Indonesian archipelagic waters catches should be included in the annual catch estimates between 2000 and 2010;</b></li> <li>• <b>Data inputs into pre-2000 Indonesian tuna fisheries annual catch estimates should be reviewed;</b></li> <li>• <b>Historical annual catch estimates using data from each of the domestic Vietnamese fisheries should be reconstructed;</b></li> <li>• <b>Logbook and port sampling data collection for</b></li> </ul>					

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	<p><b>Vietnamese Purse-Seine and Gillnet fisheries should be established;</b></p> <ul style="list-style-type: none"> <li>• <b>Vietnamese observer data should be reviewed to ensure their collection is in line with observer data collected elsewhere;</b></li> <li>• <b>Coastal States, fishing States, Chinese Taipei and Korea should be encouraged to specifically indicate whether double-counting of reported catch is occurring or not;</b></li> <li>• <b>The four CCMs concerned (Japan, Korea, China, and Chinese Taipei) should be encouraged to notify their intent to provide operational catch/effort data on longline fishing targeting bigeye and yellowfin to the WCPFC;</b></li> <li>• <b>Submission of aggregated Chinese catch and effort data in the Pacific Ocean for 2003 to 2007 should be encouraged; and</b></li> <li>• <b>Capacity building should continue in Philippines, Vietnam and Indonesia, through the WPEA program.</b></li> </ul>					
5.5.5. Data access and sharing	<ul style="list-style-type: none"> <li>• <b>The WCPFC is to be commended on the way in which it compiles and manages its data and information holdings, particularly in respect to the levels of access it provides, whilst also</b></li> </ul>	Ongoing	Science/data	SC/WCPFC	<ul style="list-style-type: none"> <li>• Low Issues for SC considerat</li> </ul>	<ul style="list-style-type: none"> <li>• SC discussion</li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<p>providing for data confidentiality when necessary; and</p> <ul style="list-style-type: none"> <li>The Commission and SC may wish to give thought to protecting the intellectual property contained in various assessment reports in the event of publication of such reports outside the organization (e.g. in scientific journals).</li> </ul>				ion and advice	
5.6. Quality and provision of scientific advice	<ul style="list-style-type: none"> <li>Due recognition should be given to the vibrancy and high quality of scientific advice being provided to WCPFC by the SC and SPC-OFP;</li> <li>The Commission is also encouraged to formally define the SC's provenance as the key supplier of scientific advice to the Commission;</li> <li>The Commission is encouraged to resolve the remaining issues still outstanding from the 2008 <i>'Independent Review of the Commission's Transitional Science Structure and Functions'</i>;</li> <li>Notable issues to be assessed include those highlighted above, namely: <ul style="list-style-type: none"> <li>The need to strengthen confidence in data custodianship service so as to improve data submission shortfalls;</li> </ul> </li> </ul>	Active	Science/Policy	SC/WCPFC	<ul style="list-style-type: none"> <li>High This appears to be an issues for WCPFC to decide not SC</li> </ul>	<ul style="list-style-type: none"> <li>SC and WCPFC discussion on roles and responsibilities</li> </ul>

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	<ul style="list-style-type: none"> <li>• <b>Update guidelines<sup>7</sup> for processing the WCPFC SC work program;</b></li> <li>• <b>Provide a mechanism to allow the SC to request scientific information directly to the ISC;</b></li> <li>• <b>Clarify the respective roles of the WCPFC SC and ISC in providing advice to the NC and SC. As the statutory WCPFC scientific advisory body, the SC should lead endorsement of work done by the Commission's scientific advisors (see above); and</b></li> <li>• <b>Establish an <i>Ad Hoc</i> Group on Socio-Economic Issues;</b></li> <li>• <b>Subject to the above, the Commission is encouraged to clarify the role of the ISC, and its associations with the Commission and the SC, particularly in respect to direct exchanges of scientific information and advice;</b></li> <li>• <b>To encourage scientific transparency with respect to assessments being undertaken the same rigor should be applied to all the scientific advice provided to the Commission, to extent possible, in a standardized manner;</b></li> </ul>					

<sup>7</sup> Appendix M of the SC4 Report. (At: <http://www.wcpfc.int/meetings/2008/4th-regular-session-scientific-committee>)

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	<ul style="list-style-type: none"> <li>• The SC is encouraged to continue developing a WCPFC Strategic Research Plan;</li> <li>• The SC is also encouraged to develop a summary document (i.e. 'Blind Freddy's Guide') which provides information on the assessment it undertakes, as well as on the underlying science being pursued. This document should be produced in lay and easy-to-follow language aimed at enhancing understanding across all WCPFC participants (not just scientists); and</li> <li>• The question of broadening scientific capacity available within CCMs should be considered further, possibly with a view to developing a WCPFC institutional policy on the matter, which would identify ways how such capacity could be grown within the region. It is noted that a number of RFMOs (e.g. CCAMLR, ICCAT) have such policies in place to augment scientific capacity and build scientific expertise available to members from developing countries (as per the 1995 United Nations Fish Stocks Agreement<sup>8</sup> Articles 25.1(c) and 25.2).</li> </ul>					
<b>5.7. Adoption of conservation and management measures</b>						

<sup>8</sup> At: [http://www.un.org/depts/los/convention\\_agreements/convention\\_overview\\_fish\\_stocks.htm](http://www.un.org/depts/los/convention_agreements/convention_overview_fish_stocks.htm)

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Skipjack	<ul style="list-style-type: none"> <li>• The Panel notes that the skipjack stock is healthy, but that concerns have been expressed about high catches in the equatorial region, which could lead to a reduction in the availability of the species in the high latitudes.</li> <li>• It should also be noted that CMM 2008-01, although directed to bigeye tuna and yellowfin tuna, as above discussed, since it imposes limits on total purse seine fishing effort, also indirectly positively affects the skipjack stock.</li> <li>• Considering the multispecies natures of the purse seine fishery, the Panel welcomes the revision of 2008-1 currently scheduled for WCPFC 8, with the expectation that skipjack stock will be addressed by it in a more direct way.</li> </ul>	Active	Management / Science	SC/WCPFC	<ul style="list-style-type: none"> <li>• High This is a critical stock and this advice should be considered by SC</li> </ul>	<ul style="list-style-type: none"> <li>• Yes picked up in 2012/01 and will be in 2013/01</li> </ul>
Southwestern Pacific Striped Marlin	<ul style="list-style-type: none"> <li>• Considering that: a) 6 years have already passed since the first attempt to assess the condition of the Southwest Pacific striped marlin stock, b) the significant uncertainties regarding the parameters used in the model; and, even more so, c) its results, indicating that the levels of fishing mortality might be approximating or have already exceeded <math>F_{MSY}</math> and that current spawning and biomass levels were likely close or already below <math>B_{MSY}</math>, the</li> </ul>	Complete	Science Management	SC/TCC/WCPFC	<ul style="list-style-type: none"> <li>• Assessment underway</li> </ul>	<ul style="list-style-type: none"> <li>• SC Discussion</li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<p><b>Panel strongly urges that a new assessment of this stock be undertaken as a matter of priority. To this aim, any new information available should be taken into account.</b></p> <ul style="list-style-type: none"> <li>• <b>Considering the species is taken almost exclusively as a bycatch, the measure in place for this stock (2006-04), limiting the number of fishing vessels fishing for striped marlin in the Convention Area south of 15°S, is ineffective, because it does not address the actual catch taken. The Panel, therefore, urges the Commission, on the basis of the new stock assessment to be done as matter of priority, to adopt and implement clear measures to limit fishing mortality.</b></li> </ul>					
North Pacific Striped Marlin	<ul style="list-style-type: none"> <li>• <b>The Panel urges that a new assessment of the stock be done as a matter of priority;</b></li> <li>• <b>Despite the measure 2010-01 is a positive step to reduce fishing mortality for the species, the panel noted that the stipulation of a proportionate reduction in paragraphs 4 and 5 of the measure makes it difficult to figure out what is the actual catch limit for the species. This measure, including eventual catch limits, shall be revised upon the results of the new</b></li> </ul>	Complete	Science	SC/WCPFC	<ul style="list-style-type: none"> <li>• <b>Assessment completed by ISC for consideration by SC</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>SC discussion</b></li> </ul>

Section	Recommendation	Action (active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/ financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	assessment to ensure that fishing mortality for the species is compatible with Convention objectives.					
North Pacific Albacore	<ul style="list-style-type: none"> <li>• Considering that the stock of the North Pacific albacore has been assessed and is presently not overfished nor suffering overfishing (see Section 5.2), the present measure (2005-03), limiting the level of fishing effort to the one in 2005, despite old, seems to be adequate and commensurate with the status of the stock.</li> <li>• The Panel welcomes the independent review of the current ISC North Pacific albacore CMM, to ensure that fishing mortality is restrained in any future formulation of the measure.</li> </ul>	Complete	Science	SC/WCPFC	<ul style="list-style-type: none"> <li>• NA</li> </ul>	<ul style="list-style-type: none"> <li>• SC Discussion</li> </ul>
Pacific Bluefin Tuna	<ul style="list-style-type: none"> <li>• The present status of the Pacific Bluefin tuna stock is not clear from available documents, particularly with respect to specific biological Reference Points, including present fishing mortality in relation to <math>F_{MSY}</math> or <math>F_{0.1}</math>, for instance. This limitation makes it very difficult for the Panel to assess the status of the stock and the adequacy of current CMM;</li> <li>• It is noted that CMM 2010-04 will be reviewed by the NC on 2012 based on new ISC stock assessment for the Pacific Bluefin tuna;</li> <li>• In respect of the above, the Panel notes that the SC has repeatedly advised a reduction of</li> </ul>	Active	Management	SC/WCPFC	<ul style="list-style-type: none"> <li>• High Refer to SC for consideration at their next meeting</li> </ul>	<ul style="list-style-type: none"> <li>• SC discussion</li> </ul>

Section	Recommendation	Action (active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/ financial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	<p><b>Pacific Bluefin Tuna fishing mortality to 2002/2004 levels or below. In particular, the reduction of juvenile (0-3 year) fishing mortality has also been advised, and the NC has been requested to monitor it;</b></p> <ul style="list-style-type: none"> <li>• <b>The Panel urges the Commission to take account of the results of the new stock assessment and to develop biological reference points and clear harvest rules for this species as a matter of priority;</b></li> </ul>					
North Pacific Swordfish	<ul style="list-style-type: none"> <li>• <b>Although the North Pacific swordfish stock was assessed not to be overfished or suffering from overfishing, in 2009, the Panel encourages the Commission to consider advice offered by SC 9 on the scheduled NC assessment of North Pacific Swordfish in 2013.</b></li> </ul>	Active	Science	SC/WCPFC	<ul style="list-style-type: none"> <li>• <b>Medium Refer to SC for advice to the WCPFC</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>Sc dsicussion</b></li> </ul>
<b>6.3. Monitoring, Control and Surveillance (MCS)</b>						
6.3.5. Other standards for verification of fisheries data	<ul style="list-style-type: none"> <li>• <b>The Panel notes, with concern, that several requirements with regard to data provision established in various CMM, including timeliness, are not being adequately observed by CCM;</b></li> <li>• <b>It is unclear to the Panel to what extent the Secretariat validates the fisheries data submitted to it and the steps adopted to rectify obviously incorrect data (e.g. fishing taking place on land, due to misreporting of</b></li> </ul>	Complete	Science/Management	SC/TCC/WCPFC	<ul style="list-style-type: none"> <li>• <b>SPC cleans data as it is processed.</b></li> </ul>	<ul style="list-style-type: none"> <li>• <b>SC disucssion</b></li> </ul>

Section	Recommendation	Action(active /completed/ ongoing)	Issue (policy/ management/ legal/ compliance/fi nancial)	Committee	Priority (high/ medium/ low/ underway)	Progress
	geographic position)					