



**SCIENTIFIC COMMITTEE  
TWELFTH REGULAR SESSION**  
Bali, Republic of Indonesia  
3-11 August 2016

**ISSUES ARISING FROM THE COMMISSION  
(SC11 and WCPFC12)**

**WCPFC-SC12-2016/GN-WP-03**

**Secretariat**

<b>ISSUES ARISING FROM SC11</b> (Report paragraphs indicated below)		
<b>Issues</b>	<b>References</b>	<b>Outputs/Comments</b>
Review of fisheries	44. SC11 recommends that the WCPFC Scientific Services Provider investigate the possibility of presenting trends in purse seine fishery capacity using additional metrics (e.g. Gross Tonnage, carrying capacity) that are used in other t-RFMOs.	SC12-GN-WP-01 (appendix).
Data gaps	107. SC11 recommends that: <ul style="list-style-type: none"> <li>a. The WCPFC science/data service provider produce an update to Table 1 in ST-WP-02 annually (until an agreement on methodology can be reached) as it provides a very useful summary of the purse-seine catch estimates derived using the four different methods to ascertain catch composition.</li> <li>b. In regards to the implementation of observer spill sampling in the tropical purse seine fishery, <ul style="list-style-type: none"> <li>i. The WCPFC Secretariat and the WCPFC scientific services provider investigate operational aspects including alternatives for spill sampling on purse seine vessels where the current spill sampling protocol is difficult to implement and report back to SC12.</li> <li>ii. The WCPFC scientific services provider will undertake additional data collection and analyses to evaluate the benefits of spill sampling compared to corrected grab-sampling.</li> </ul> </li> </ul>	SC12-ST-WP-02 SC12-ST-IP-03
	139. SC11 recommends that: <ul style="list-style-type: none"> <li>b. The WCPFC Scientific services provider include an additional table in future versions of their paper on ROP Data Management (starting with SC12) which compares the coverage of longline observer trips, as provided by CCMs (Table 4 in SC11-ST-IP-02) with the coverage of data submitted for longline observer trips (Table 5 in SC11-ST-IP-02).</li> </ul>	SC12-ST-IP-02

Bigeye tuna	172. SC11 recommends that funding be continued to maintain the Project 35: Bigeye Biology and WCPFC Tuna Tissue Bank, with particular emphasis on WCPO bigeye, yellowfin, and skipjack tunas. SC11 also recommends that the Commission adopt the “WCPFC Tissue Bank Access Protocols” at SC11 (Attachment D).	WCPFC12 adopted
	173. SC11 recommends that funding be provided for the analysis of Project 35 Tissue Bank samples, with a short-term focus on characterizing spatial and temporal variation in the growth of bigeye tuna.	Noted
	184. SC11 requests scientific services provider to evaluate the accuracy of short-term projections for the provision of stock status advice in the years for which there is no assessment via a retrospective analysis.	SC12-SA-WP-02
	227. SC11 recommends that collaborative research on the use of multi-fleet operational-level data for CPUE standardization be continued if the data are available, with particular emphasis on application to WCPO bigeye tuna.	Noted
Skipjack tuna	282. SC11 reviewed information related to identifying changes in the spatial distribution of skipjack (including range contraction) in response to increase in fishing pressure. Project 67 on the impacts of recent catches of skipjack tuna on fisheries on the margins of the WCPFC Convention Area demonstrated no statistical evidence for skipjack range contraction (SA-WP-05). SC11 recommends that WCPFC12 take note of the analyses completed to date and that further work on this issue be undertaken, including: <ul style="list-style-type: none"> <li>• more extensive skipjack tagging activities, including in sub-tropical and temperate regions to provide better information on stock connectivity and movement; and</li> <li>• analysis of operational longline data including skipjack catch to improve the estimation of relative abundance trends by latitude.</li> </ul>	Project 67: to be implemented  SC12 Agenda 4.1.3.1b.
South Pacific albacore	312. SC11 recommends that the following be undertaken prior to MOW4 and WCPFC-12 to support the Commission consideration of south Pacific albacore: <ol style="list-style-type: none"> <li>i. Update the bio-economic model described in (MI-WP-04); and</li> <li>ii. Conduct medium-term projections (2014-2034) under current fishing conditions to determine the predicted impact of these levels on the abundance of albacore vulnerable to the longline fishery.</li> </ol>	HSW-WP-05 WCPFC12-2015-14 SC12-SA-WP-06
North Pacific striped marlin	374. SC11 recommends that the Commission develop a rebuilding plan for North Pacific striped marlin with subsequent revision of CMM 2010-01 in order to improve stock status.	Noted
Independent review of stock assessments	386. SC11 recommends that the Secretariat develops a proposal to establish a formal process and its cost implication to independently review stock assessments. This proposal will be presented to SC12.	SC12-GN-WP-05
levels of acceptable risk	390. Noting that SC10 had considered levels of risk associated with breaching the LRP within the range 5-20%, that the identification of acceptable risk is a management issue, SC11 reaffirmed the recommendation made by SC10 that WCPFC12 identify the level of	Noted  WCPFC12 Summary Report -

	acceptable risk which should be applied to breaching a LRP for the key target species, noting that the UN Fish Stocks Agreement states that the risk of exceeding LRPs should be very low.	Attachment Y (HS work plan)
LRPs for elasmobranchs	394. SC11 noted the work undertaken in support of identifying appropriate LRPs for elasmobranchs within the WCPFC, in particular the report of the Pacific shark life history Expert Panel Workshop (WCPFC-SC11-2015/EB-IP-13) and that other work necessary to identify and support the development of LRPs for sharks has been included in the updated shark research plan. SC11 recommends that the WCPFC12 continues to support this work.	Agenda 5.1.1 – SC12 develop TOR
Development of WCPFC harvest strategies	414. SC11 considered the draft work-plan (WCPFC-SC11-2015/MI-WP-01) provided by Australia to progress the harvest strategy approach, which is required under CMM 2014-06. SC11 strongly supported the initiative by Australia to develop this plan. SC11 recommends that Australia continue to develop this work-plan, noting the comments provided by SC11, and in consultation with other CCMs intersessionally, and that the updated plan be presented to TCC11 and WCPFC12, including an estimation of budget and resources required.	Attachment Y, WCPFC12 Summary Report: <i>Agreed work plan for the adoption of harvest strategies under CMM 2014-06</i>
Skipjack tuna target reference point	424. SC11 considered the scientific aspects of the draft CMM on a target reference point for WCPO skipjack tuna (WCPFC-SC11-2015/MI-WP-02) provided by PNA. SC11 recommends that PNA take into consideration comments provided by SC11 in further developing this draft CMM.	Skipjack TRP of 50% adopted CMM 2015-06
TRPs for South Pacific albacore	439. SC11 reviewed information related to the identification of an appropriate TRP for south Pacific albacore tuna, noting in particular a decline in the economic performance of this fishery (WCPFC-SC11-2015/MI-WP-03) and the consequences for the stock and the fishery of a range of candidate target reference points (WCPFC-SC11-2015/MI-WP-04). SC11 noted these analyses and recommended that the latter be updated based on the 2015 stock assessment of south Pacific albacore tuna and presented to both MOW4 and WCPFC12 for consideration of TRPs.	HSW-WP-05 WCPFC12-2015-14
Implementation of CMM 2014-01	448. SC11 also reviewed evaluation of CMM-2013-01 (WCPFC–SC11-WCPFC11-03). Noting revised tropical tuna measure adopted at WCPFC 11 (CMM-2014-01) is slightly different from the assumption used in the analysis, SC11 requests the Science Service Provider consider the implementation of updated projections, including evaluation of the potential impact of CMM 2014-01, for the consideration of tropical tuna measures at WCPFC12.	WCPFC12-2015-12_rev1 SC12-MI-IP-05 SC12-MI-IP-06
Purse-seine catches of bigeye tuna	474. SC11 reviewed information related to understanding bigeye tuna interactions in the purse seine fishery through characterisation of catches in space and between sets with the aim of identifying management options that reduce impacts on bigeye with minimal losses to the purse seine fishery (WCPFC-SC11-2015/MI-WP-07). SC11 noted that while bigeye tuna catches are common in both the central and western Pacific, around one-third of the purse-seine catch of bigeye is taken by a small component (~10%) of the fleet. SC11 recommends that further research on the various issues identified by the paper be undertaken, for example time of the purse seine sets	Noted SC12-MI-IP-07

	relative to nautical dawn and the effects on species composition, and that WCPFC12 takes note of this paper.	
Purse seine capacity	511. SC11 reviewed analyses undertaken to estimate potential tropical purse seine fleet sizes given existing effort limits and candidate target stock levels (WCPFC-SC11-2015/MI-WP-10). SC11 noted that these analyses are an important contribution to the development of a purse seine capacity management scheme for the WCPFC and supported further work to identify patterns of participation by full-time and part-time vessels within the fishery, the need to relate both participation and effort creep to vessel characteristics, and the expansion of similar analyses to the longline fleets. SC11 recommends that WCPFC12 take note of these preliminary analyses and requests the Commission identify any specific analyses which may assist the Commission's consideration of fleet capacity.	Noted. SC12-MI-WP-08 SC12-MI-IP-03
SEAPODYM	527. SC11 recommends that: <ul style="list-style-type: none"> <li>a) the Commission/WCPFC12 acknowledge the funding received from ISSF for an external review of the SEAPODYM project and further notes the outcomes from that review will assist the Commission in evaluating potential applications and future directions.</li> <li>b) the Commission/WCPFC12 provide guidance to the SC on whether they would like the SC to move forward with the further development of ecosystem indicators for possible incorporation in the MOW process, building on the work of other international fisheries bodies, e.g. ISC and ICAAT.</li> </ul>	SC12-EB-WP-01 SC12-EB-WP-02
Sharks	544. SC11 recommends that the Commission: <ul style="list-style-type: none"> <li>d) Request that the Monte Carlo simulation work be expanded to a) account for flag-state choice between prohibition of shark lines and/or of wire leader with respect to CMM 2014-05, b) additional modeling of combinations of available mitigation options, and c) inclusion of purse seine fisheries to assess the effects on fishing mortality of sharks when effort on FAD sets was re-distributed to unassociated sets.</li> </ul>	SC12-EB-WP-03 SC12-EB-WP-06
	572. SC11 recommends that WCPFC12 adopt the guidelines for safe release of encircled animals including whale sharks and recommends that TCC11 provide any additional considerations for the Commission's decision.	WCPFC12 endorsed: Attachment K, WCPC12 Summary Report
	581. After considering the shark management plans submitted by Japan and Chinese Taipei in accordance with paragraph 2 of CMM 2014-05, review by SC11 was made difficult due to the lack of guidance on what should be incorporated into the shark management plans, what is considered a target fishery, and how the review should be performed. SC11 recommends that the Commission: <ul style="list-style-type: none"> <li>a) Consider development of a list of minimum requirements that such a plan should include, guidelines to evaluate such a plan, and the definition of a target shark fishery for future review by SC, TCC and the Commission;</li> </ul>	SC12-EB-WP-05

	<p>b) Notes the need for plans to contain species specific information and a rationale for how catch, effort or capacity limits are derived, amongst other minimum requirements.</p>	
	<p>599. Recognizing that the analysis on north Pacific blue shark and north Pacific shortfin mako shark did not cover some data used in the ISC analysis on these stocks, SC11 recommends that the Commission:</p> <p>a) Notes the results of analysis described in paper EB-WP-04 are useful for prioritizing the stock assessment of the various shark stocks.</p> <p>b) Take note of the following recommendations from the SC:</p> <ul style="list-style-type: none"> <li>• Increase observer monitoring (at least to CMM requirements) in order to: <ul style="list-style-type: none"> <li>– Support to develop stock assessments</li> <li>– Monitor the impact of CMMs</li> <li>– Reconcile differences in logbook and observer reporting</li> </ul> </li> <li>• Develop a stock assessment schedule</li> <li>• Develop catch histories for unassessed stocks</li> <li>• Collect information on post release mortality rates, especially for silky, oceanic whitetip and whale sharks</li> <li>• Develop a time series of whale shark interactions and mortalities.</li> <li>• Repeat the indicator analysis in 2-3 years.</li> </ul> <p>c) Requests that SPC be tasked with reviewing available information on mobulid species (mantas and devil rays) and their interactions with fisheries managed by the WCPFC and prepare a paper for SC12 for consideration of these species for designation as WCPFC key sharks.</p> <p>d) Notes that there are limitations imposed on shark analyses due to low levels of observer coverage and lack of representativeness in the observer data.</p>	SC12-EB-WP-08
	<p>612. SC11 adopts the Shark Research Plan and Stock Assessment Schedule (Attachment H) and recommends that WCPFC12 endorses it.</p>	WCPFC12 endorsed: Attachment M, WCPFC12 Summary Report
	<p>667. SC11 requests that SPC, with help from ABNJ Tuna Project:</p> <ul style="list-style-type: none"> <li>• develop a process to populate the template; and</li> <li>• provide the first BDEP template (for 2013-2015) to SC12 for review with ROP data subject to the WCPFC data rules.</li> </ul>	SC12-EB-WP-12
<p><b>ISSUES ARISING FROM WCPFC12</b> (Report paragraphs indicated below)</p>		
<b>Issues</b>	<b>References</b>	<b>Outputs/Comments</b>
Shark management plan	<p>388. The Commission tasks the Secretariat to develop a paper that provides guidance on the development and evaluation of management plans for longline fisheries targeting sharks in association with WCPFC fisheries (CMM 2014-05) and which takes into account the elements and timeframes contained in Attachment J).</p>	SC12-EB-WP-05

Process for the review of stock assessments	430. The Commission tasked the Secretariat to develop a proposal, including an indicative budget, to establish a formal process to independently review stock assessments. This proposal will be presented to SC12.	SC12-GN-WP-05
Designation of NP blue shark as a northern stock	458. The Commission tasked the SC to undertake the work on determination of the designation of North Pacific blue shark as a northern stock, based on the information provided by ISC to SC11. In this regard, the Commission tasked the Scientific Services Provider with analyzing the available information and coordinating with ISC if further information is necessary.	SC12 Agenda 4.3.4.1.a SC12-SA-IP-16
FAD marking and identification of FADs	594. The Commission agreed that a consultancy should be undertaken early in 2016 to produce a report on options and considerations for Marking and Identification of FADs to be deployed, for consideration at SC12 and TCC12. The consultancy should be based on the draft prospectus (Attachment V) and among other things take into consideration electronic signature and physical marking aspects from the 2016 PNA trial tracking programme and that used in other tuna RFMOs. The consultancy should also provide advice on the feasibility of options of physical marking of the buoy, physical marking of the buoy and the FAD attachment, and electronic identification, along with the costs and benefits of each option. The consultancy should also take into account Attachment E to the report of the first meeting of the FADMgmtOptions-IWG Report (WCPFC12-2015-22_rev2).	SC12 Agenda 3.6.2
FAD research plan	595. The Commission tasked the Secretariat and Scientific Services Provider to work with the FADMgmtOptions-IWG Chair and Vice-Chair to further develop the draft outline of a research plan in 2016, based on Attachment D of the report of the first meeting of the FADMgmtOptions-IWG (WCPFC12-2015-22_rev2). The draft research plan should be for consideration and input by SC12 and TCC12 before submission to WCPFC13. The draft plan should incorporate some consideration of costs and benefits of various research and data collection activities to assist with prioritizing the work. Consideration should also be given within the plan to addressing both target and non-target species.	SC12 Agenda 3.6.1
FAD data to be provided by vessel operators	596. The Commission agreed that vessel operators should provide data on FADs covering the following two major areas: <ul style="list-style-type: none"> <li>a. FAD design and construction of FAD to be deployed or encountered (materials, electronics, size etc)</li> <li>b. FAD activity (deploying, retrieving, setting, visiting, loss etc).</li> </ul> 597. The Commission noted that the FADMgmtOptions-IWG recommendations that: <ul style="list-style-type: none"> <li>a. the FAD data fields to be reported by vessel operators should be based on the WCPFC ROP Minimum Standard Data Fields and the data fields collected by other RFMOs;</li> <li>b. data collected by observers on FADs can be used for verification of FAD activities of vessels;</li> <li>c. the FAD data should be provided to the Commission via flag State electronically using appropriate systems such as</li> </ul>	SC12 Agenda 3.6.3

	<p>FAD e-logbooks or information systems such as PNA iFIMS etc.</p> <p>598. The Commission agreed that a consultancy be undertaken in early 2016, tasked with producing proposed draft data fields to be reported by vessel operators for consideration at SC12 and TCC12.</p>	
Harvest strategy framework	<p>618. The Commission agreed that there will not be a Management Objectives Workshop/Harvest Strategy Workshop in 2016, and the harvest strategy-related issues will be included on the WCPFC13 agenda in 2016. In addition, the Commission directed SC12 to include these discussions under the Management Issues theme agenda item, so that the discussion on harvest strategies, in particular, continues.</p>	SC12 Agenda 5.1
Amendment of <i>Scientific Data to be provided to the Commission</i>	<p>723. The Commission agreed that SC12 should review the elements in Attachment bb (EU proposal on amendment of <i>Scientific Data to be provided to the Commission</i>) and provide advice and recommendations.</p>	<p>SC12 Agenda 3.5</p> <p>SC12-ST-WP-05</p>