



COMMISSION
FOURTEENTH REGULAR SESSION
Manila, Philippines
3 – 7 December 2017

Development of a Comprehensive Shark CMM for the WCPFC

WCPFC14-2017-17
3 November 2017

A paper prepared by the Secretariat

1 Purpose

The Western and Central Pacific Fisheries Commission (WCPFC) agreed in December 2016 to work towards the development of a comprehensive shark and ray conservation and management measure (CMM) with a view to adoption at the Commission's annual meeting in 2018. The purpose of this paper is to provide an update to WCPFC14 on discussions held by SC13 and TCC13 in response to the Commission's tasking at WCPFC13. This paper also responds to TCC13's request to the Secretariat to prepare a draft terms of reference, potentially for an intersessional drafting group, for consideration by the Commission at WCPFC14.

2 Background

The WCPFC adopted its first shark-specific conservation and management measure (CMM) in 2006 and it became binding in 2008. The focus of the measure was to prohibit the practice of shark finning, i.e. removing and retaining the fins of a shark, whether alive or dead, and discarding the remainder of its carcass at sea. In addition to amending this measure several times to its current form (CMMs 2008-06, 2009-04 and now 2010-07), the WCPFC has adopted three other species-specific shark CMMs prohibiting the retention of oceanic whitetip shark (CMM 2011-04), whale shark (CMM 2012-04), and silky shark (CMM 2013-08). The most recent WCPFC shark CMM requires the banning of wire leaders or shark lines, and the submission of shark management plans for fisheries that target sharks (CMM 2014-05).

In addition to these five shark-specific CMMs, the WCPFC has several other guidelines, processes and binding decisions that are pertinent to sharks. These include, *inter alia*, requirements for reporting shark catch data, standards for observer data collection on sharks, whale shark safe release guidelines and a process for designating key shark species. The Commission supports an ongoing programme of shark research and assessment which since 2014 has been supplemented with funding from the Common Oceans (ABNJ) Tuna Project. An inventory of science, compliance, management and data activities related to sharks can be accessed through the WCPFC's Shark Portal at <https://www.wcpfc.int/sharks>.

3 Current Issue

With this diversification of tools and resources over the past decade, a desire to rationalize the WCPFC's approach to shark management and conservation has been expressed. Some CCMs may view such rationalization primarily as an opportunity to consolidate previous decisions, whereas others may seek to revisit or move beyond the existing arrangements. After much discussion in recent years, particularly with regard to operationalizing the requirements of CMMs 2010-07 and 2014-05, the Commission made the following decision in December 2016 (WCPFC13 Summary Report, para. 507):

WCPFC13 requested that SC13 and TCC13, with support from the Secretariat, work towards the development of a comprehensive approach to shark and ray conservation and management with a view to adopting a new CMM at the Commission's annual meeting in 2018. The new CMM should seek to i) unify the WCPFC's existing shark CMMs; ii) take account of relevant national and international policies and measures; and iii) provide a framework for adopting new components as needs and datasets evolve. Elements that could be considered for the new CMM include:

- *policies on full utilization/prohibition on finning;*
- *no retention policies;*
- *safe release and handling practices;*
- *gear mitigation, size limits or closures;*
- *management plans/catch limits;*
- *key species and their assessment schedules;*
- *species-specific limit reference points; and*
- *any data reporting requirements beyond those contained in “Scientific Data to be Provided to the Commission.”*

4 Progress by the Scientific Committee in 2017

At SC13 in August 2017, the Secretariat tabled a paper comprising a catalogue of WCPFC work relating to the issues listed above, as well as a new unifying concept for a comprehensive shark management framework based on the Paris Agreement’s model of nationally determined contributions (WCPFC-SC13-2017/EB-WP-06). That paper summarized a number of proposals for the content of the new measure, and called for definition of a process to advance the work.

SC13 delegates agreed that only the Commission can decide on the extent to which a new shark CMM would modify existing requirements or add new elements. Nevertheless, in case the Commission does decide to pursue a more comprehensive approach, SC13 discussions highlighted some specific, science-related key issues that should be considered (SC13 Summary Report Attachment G; incorporated here as Annex A).

5 Progress by the Technical and Compliance Committee in 2017

At TCC13 in September 2017, the Secretariat tabled another paper focused on summarizing findings relevant to sharks from TCC reports since 2008 and public and non-public Compliance Monitoring Scheme documents. A small working group met several times to discuss this topic and identified a number of technical or compliance issues that would benefit from further elaboration by the Commission. The discussions resulted in agreed language framing a number of points which could be used as terms of reference for intersessional work ahead of the Commission’s 2018 meeting (TCC13 Summary Report para. 316; incorporated here as Annex B). In addition, the Secretariat was tasked with preparing such a draft terms of reference for further consideration by WCPFC14.

6 Further Development of a Comprehensive Shark and Ray CMM in 2018

The Secretariat provides below a variety of suggestions with regard to the further development of a comprehensive shark and ray CMM for the consideration of WCPFC14. The following sections present an outline for the general process of development and for the terms of reference in particular.

6.1 Process for Development of a Comprehensive Shark and Ray CMM

The process of combining existing shark and ray decisions in a single measure, while at the same time considering modifications and/or enhancements suggested by various members, will not be a

simple task. It is likely to require a focused and sustained effort throughout the year beyond the time available in the margins of subsidiary body meetings. For this reason it is suggested that the Commission progress this work through the establishment of an intersessional working group or some other appropriate model (e.g. ad hoc task group or drafting group). All CCMs and stakeholders would have the opportunity to participate in intersessional work and unless the need for a physical meeting is identified and funding can be allocated, the group would be expected to meet electronically starting in early 2018.

The Commission will need to identify a Chair or Co-Chairs to lead the intersessional work and progress a draft CMM for the consideration of WCPFC15. The Secretariat and the Scientific Services Provider can provide technical and logistical assistance for the intersessional work but a successful outcome will hinge upon the willingness of stakeholders with differing points of view to engage in the debate and work toward consensus.

Intersessional work should develop a draft measure to table at SC14 for scientific advice, revise the draft and present it again for technical and compliance advice at TCC14, and then prepare a final draft for consideration and potential adoption at WCPFC15.

A draft terms of reference for intersessional work is proposed below.

6.2 Terms of Reference for Intersessional Work to Progress the Development of a Comprehensive Shark and Ray CMM

The following terms of reference have been prepared without prejudice to the question of whether the resulting CMM will be merely a compilation of existing requirements or will modify the existing measures and potentially expand their scope.

The following terms of reference are proposed as a starting point:

1. Participation in the intersessional work will be open to all CCMs as well as to representatives of WCPFC-accredited observer organizations.
2. In line with previous WCPFC guidance, the term 'shark' here and below refers to all shark and ray taxa.
3. The goal of intersessional work is to develop a draft comprehensive shark CMM, taking into account comments from the Scientific Committee and the Technical and Compliance Committee, for discussion and potential adoption at WCPFC15.
4. The new CMM should seek to i) unify the WCPFC's existing shark CMMs; ii) take account of relevant national and international policies and measures; and iii) provide a framework for adopting new components as needs and datasets evolve.
5. Elements that could be considered for the new CMM include:
 - a. Policies on full utilization/prohibition on finning;
 - b. No retention policies;
 - c. Safe release and handling practices;
 - d. Gear mitigation, size limits or closures;
 - e. Management plans/catch limits;
 - f. Key species and their assessment schedules;

- g. Species-specific limit reference points; and
 - h. Any data reporting requirements beyond those contained in “Scientific Data to be Provided to the Commission.”
6. Scientific issues to be considered may include¹:
- a. Ensuring there is a mechanism to generate the data necessary for scientific review of a fin to carcass ratio, if such a ratio is to be used as a tool for promoting full utilization;
 - b. Articulating policy goals or targets for shark mitigation to enable a scientific evaluation to determine whether adopted measures are sufficiently effective;
 - c. Providing guidance on the required content of shark management plans and evaluative criteria for their scientific review;
 - d. Supporting the development of shark management tools such as limit reference points and/or ecosystem-based fisheries management principles;
 - e. Remedying data gaps limiting shark assessment by strengthening logbook reporting and observer coverage requirements, and supporting the development new analytical solutions.
7. Technical and compliance issues to be considered may include²:
- a. Explicit and easily understood standards for implementing full utilization, either in the form of prescribing certain handling practices, or requiring additional specific and potentially higher standards of inspection readiness and compliance reporting for those CCMs whose handling practices are more difficult to verify.
 - b. Mechanisms that would improve the coverage and availability of data and data fields that support analysis of effectiveness and verification of shark no-retention policies (e.g. improvements in monitoring programmes, such as data fields, electronic systems and coverage rates, as well as species identification tools and training for both observers and industry).
 - c. A requirement to adopt guidelines for safe release for all types of protected and/or unwanted sharks within an appropriate timeframe, based on the best available science and safe release experience of CCMs’ national programmes, as well as crew safety concerns, noting that the guidelines will necessarily evolve over time.
 - d. Specification of whether the choice to ban either wire leaders or shark lines (under CMM 2014-05) should be at the vessel or fleet level, and the mechanism for communicating that choice to the Commission, to allow for accurate analysis of mitigation effectiveness.
 - e. Consideration of whether additional gear or operational mitigation measures should be required or encouraged to reduce catch rates for protected or unwanted sharks taking into account operational concerns and impacts on other taxa.
 - f. Clarification of which fisheries need to submit shark management plans, a list of the required contents, the required frequency of update, and a set of criteria to be used in evaluating the plans.
 - g. Consolidate reporting requirements of the current shark CMMs, if possible, by for example removing references to reporting in Annual Report Parts 1 and 2 and aligning shark data reporting with other existing data reporting requirements without reducing information content.

¹ Compiled from the SC13 Summary Report, Attachment G (see Annex A) and previous discussions of shark-related issues by the WCPFC Scientific Committee.

² Taken from the TCC13 recommendations contained at TCC13 Summary Report para. 316 (see Annex B).

- h. Take into account shark conservation and management schemes already implemented by CCMs for fisheries under their national jurisdiction.
- 8. Beyond these specific scientific and technical issues, the text of a comprehensive shark and ray CMM should also aim to be easy to interpret and straightforward to implement in order to encourage and facilitate compliance.
- 9. Intersessional work should result in the development of a draft measure for consideration at SC14, followed by TCC14 consideration, with finalization of the draft for consideration and potential adoption at WCPFC15.

7 Recommendation

WCPFC14 is invited to:

- i. Consider the establishment of a process to progress intersessional work toward the development of a comprehensive shark and ray CMM, and if so:
 - a. decide on what type of group should be formed and what model it should follow;
 - b. appoint a Chair(s) to lead the group; and
 - c. formulate the terms of reference for intersessional work and determine a process by which its products are brought forward for consideration by WCPFC15.

Annex A. SC13 advice to the Commission for use in developing a comprehensive shark and ray conservation management (SC13 Summary Report, Attachment G).

Attachment G

**The Commission for the Conservation and Management of
Highly Migratory Fish Stocks in the Western and Central Pacific Ocean
Scientific Committee
Thirteenth Regular Session
Rarotonga, Cook Islands
9 - 17 August 2017**

**Report of the ISG-06
Options for the development of a comprehensive approach to
shark and ray conservation and management**

WCPFC13 requested that SC13 and TCC13, with support from the Secretariat, work towards the development of a comprehensive approach to shark and ray conservation and management with a view to adopting a new CMM at the Commission's annual meeting in 2018.

The new CMM should seek to:

- i) unify the WCPFC's existing shark CMMs;
- ii) take account of relevant national and international policies and measures; and
- iii) provide a framework for adopting new components as needs and datasets evolve. Elements that could be considered for the new CMM include:
 - policies on full utilization/prohibition on finning;
 - no retention policies;
 - safe release and handling practices;
 - gear mitigation, size limits or closures;
 - management plans/catch limits;
 - key species and their assessment schedules;
 - species-specific limit reference points; and
 - any data reporting requirements beyond those contained in "Scientific Data to be Provided to the Commission."

ISG discussions and outcomes:

SC13 has considered two possible options in view of responding to WCPFC13 request:

- a) The first option would be to simply collate the existing CMMs. It would involve a limited role for the SC.
- b) The second would consist in developing a framework for a comprehensive approach to shark conservation and management along the general lines presented in the preliminary template displayed in Annex XX. The content of the table is indicative; it was discussed at SC13 but not necessarily agreed. SC would have a significant role under this option.

SC13 recommends that TCC13 and WCPFC14 note the two options considered by the SC for the development of a comprehensive approach and/or CMM for the conservation and management of sharks in the WCPFC and that WCPFC14 provides advice to SC14 and TCC14 on the way forward.

Draft framework for the development of a comprehensive approach and/or CMM for sharks in the WCPFC

7.1 Policies on full utilization/prohibition on finning

Issues	References/species covered already	SC role as per CMM	Status	Needs for data and/or adequate methodologies /coverage under SRP	Possible SC Recommendation	TCC role /Recommendation
<p>Ensure full utilization of retained sharks</p> <p>Ensure effective implementation of the finning ban</p> <p>Minimise discards and waste</p>	CMM 2010-07, para. 13 All species	SC is required to review the implementation and effectiveness of CMM 2010-07			To be developed for SC14	
	CMM 2010-07, para. 7 All species	<ul style="list-style-type: none"> SC shall periodically review the specification of the ratio of fin weight to shark weight and recommend any appropriate revisions to the Commission 	SC12, para. 117 “an evaluation of the 5% ratio is not currently possible due to insufficient information for all but one of the major fleets implementing these ratios”	Observer data recording condition and fate of sharks and Weight sampling of fins and carcasses at port and on vessel for CCMs implementing fin-carcass ratio	To be developed for SC14	
	National/international policies	<ul style="list-style-type: none"> 				

7.2 No retention policies and bycatch mitigation (gear adaptation/modification, spatial closures, size limits etc))

Issues	References/species covered todate	SC role as per CMM	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC role/ Recommendation
<ul style="list-style-type: none"> • • <p>Ensure protection/conservation of endangered species</p>	CMM 2013-08, para. 6 – Silky shark	The Scientific Committee shall continue to evaluate the effectiveness of bycatch mitigation measures	Progress limited due to limitation of data, funding for analysis, and confounding effects of diverse operational practices		To be developed for SC14	
<ul style="list-style-type: none"> • Defining eligible species 	CMM 2011-04 Oceanic white tip	Should be as above		As above		
<ul style="list-style-type: none"> • • Effectiveness in reducing shark mortality 	CMM 2012-04 whale shark	Should be as above		As above		
<ul style="list-style-type: none"> • • Assessing post release mortality 	National/international policies (sanctuaries etc)	Should be as above				
<p>Minimising unwanted catches</p> <ul style="list-style-type: none"> • 						

7.3 Safe release and handling practices

Issues	References/species covered to date	SC role as per CMM	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
<p>Give effect to the key objectives of the retention policies and by-catch mitigation efforts</p> <p>Define and ensure "safe release"</p> <p>Maximising post release survival</p>	CMM 2013-08, para. 6 Silky shark	The Scientific Committee shall continue work on live release guidelines	Approved guidelines hampered by lack of information and/or lack of robust scientific evidence	Observed fate and condition of sharks prior to release and deploying mortality tags on fish released using different release mechanisms	To be developed for SC14	
	CMM 2011-04 Oceanic white tip	Should be as above		As above		
	CMM 2012-04 whale shark		Guidelines adopted	As above		
	WCPFC13 decision on Mantas and Mobulas		SC13 to develop	As above		
	National/international policies					

7.4 Management plans/catch limits

Issues	References/species covered to date	SC role	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
<p>Ensuring the sustainable management of commercial shark species</p>	<p>CMM 2014-05, para. 2</p> <p>All targeted species</p>	Shark management plans [...] shall be provided to the SC for review	<p>To date two CCMs have submitted Sharks Management Plans.</p> <p>Standards for the content of shark management plans and criteria for their review have not been agreed</p>	Long-term catch and effort data (best from observed effort >10% hooks set)	<p>To be developed for SC14. Example:</p> <p>Commission should agree the definition of "fisheries that target sharks" and standards and criteria so that shark management plans can be evaluated for effectiveness</p>	
	National/international policies					

7.5 Key species and their assessment schedules

Issues	References/species covered to date	SC role	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
Defining key shark species	<p>Process for designating key shark species , p. 4</p> <p>WCPFC key sharks</p>	SC shall discuss and evaluate proposals for key shark species designations	20 species now considered “key”; assessment for some key species is challenging	Observed catch proportions of key shark species and other elasmobranches caught as by catch in WCPFC fisheries	To be developed for SC14. Example: Commission should articulate goals for assessing species as well as management goals (including a statement on ecosystem-based fisheries management) to guide the SC’s work	
Assessing the conservation status for key shark species	<p>Process for designating key shark species, p. 6</p>	The SC may wish to consider whether it should adopt procedures for periodic review of the list and for removing species if their population status or conservation priority changes	As above	As above	As above	
	<p>CMM 2010 07 p. 14</p> <p>All species</p>	In 2010, the SC, and if possible in conjunction with the Inter-American Tropical Tuna Commission, provide preliminary advice on the stock status of key shark species and propose a research plan for the assessment of the status of these stocks	As above		As above	

7.6 Shark reference points

Issues	References/species covered	SC role	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
<p>Providing management advice for key shark species</p> <p>Paving the way towards the establishment of harvest strategies for relevant shark species</p>	FAC9, FAC10	<p>Prioritize and review scientific work.</p> <p>The Commission has approved budget line items for the further development of shark limit reference points in 2015 and 2016.</p>	Studies have not yet gone ahead	Accurate catch and effort data	<p>To be developed for SC14. Example:</p> <p>The Commission should articulate management goals for sharks to guide the selection of appropriate reference points. SC can advise on technical issues once these are in place.</p>	

7.7 Data reporting requirements (beyond those contained in “Scientific Data to be Provided to the Commission”)

Issues	References/species covered	SC role	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
Ensuring the collection, availability and reliability of relevant data	Scientific Data to be reported to the Commission (2016), para. 9	The Commission, through its Scientific Committee, shall periodically review the requirements for scientific data and shall provide the Commission with revised versions of this recommendation, as appropriate.	Scientific Services Provider has highlighted continuing data gaps for sharks	Compare data reporting with the requirements of the “Scientific Data to be Provided to the Commission”	<p>To be developed for SC14. Example:</p> <p>Commission should consider if it is necessary to strengthen shark reporting requirements, observer coverage standards, task SC specifically with identifying non- and under-reporting</p>	

7.8 Market related tools for sharks conservation and management

Issues	References/species covered	SC role	Status	Data/methodology needs/coverage under SRP	Possible SC Recommendation	TCC Recommendation?
Combating IUU fishing related to sharks	CMM 2010 07 para 9 (trading fins)	Analysing economic and trade data and trends for sharks commodities	Pending due to lack of data		???	
Identification of sharks species and commodities		Providing technical advice for the development of CDS for shark species				
Development of CDS for shark species						

Annex B. TCC13 recommendations regarding development of a comprehensive shark and ray conservation and management measure (TCC13 Summary Report, para. 316).

TCC13 recommended to WCPFC14 that the following points be considered, potentially as terms of reference for an intersessional drafting group, when working toward a comprehensive shark and ray conservation and management measure for adoption at WCPFC15 (in line with previous WCPFC guidance, the term 'shark' below refers to all shark and ray taxa):

- Explicit and easily understood standards for implementing full utilization, either in the form of prescribing certain handling practices, or requiring additional specific and potentially higher standards of inspection readiness and compliance reporting for those CCMs whose handling practices are more difficult to verify.
- Mechanisms that would improve the coverage and availability of data and data fields that support analysis of effectiveness and verification of shark no-retention policies (e.g. improvements in monitoring programmes, such as data fields, electronic systems and coverage rates, as well as species identification tools and training for both observers and industry).
- A requirement to adopt guidelines for safe release for all types of protected and/or unwanted sharks within an appropriate timeframe, based on the best available science and safe release experience of CCMs' national programmes, as well as crew safety concerns, noting that the guidelines will necessarily evolve over time.
- Specification of whether the choice to ban either wire leaders or shark lines (under CMM 2014-05) should be at the vessel or fleet level, and the mechanism for communicating that choice to the Commission, to allow for accurate analysis of mitigation effectiveness.
- Consideration of whether additional gear or operational mitigation measures should be required or encouraged to reduce catch rates for protected or unwanted sharks taking into account operational concerns and impacts on other taxa.
- Clarification of which fisheries need to submit shark management plans, a list of the required contents, the required frequency of update, and a set of criteria to be used in evaluating the plans.
- Consolidate reporting requirements of the current shark CMMs, if possible, by for example removing references to reporting in Annual Report Parts 1 and 2 and aligning shark data reporting with other existing data reporting requirements without reducing information content.
- Take into account shark conservation and management schemes already implemented by CCMs for fisheries under their national jurisdiction.