



**SCIENTIFIC COMMITTEE
SEVENTEENTH REGULAR SESSION**

ELECTRONIC MEETING

11 – 19 August 2021

PROGRESS AGAINST THE 2021-2025 SHARK RESEARCH PLAN

WCPFC-SC17-2021/EB-IP-02

Secretariat and SPC-OFP¹

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INTRODUCTION

The report of Project 97 (Shark Research Plan 2021-2025) was adopted by SC16 and endorsed by WCPFC17 in December 2020. The final report (SC16-EB-IP-01rev1) is posted on SC16 website.

The 2021-2025 Shark Research Plan (SRP) is the 3rd phase of the WCPFC's SRP that builds on the previous two plans. The 2021 – 2025 SRP is a living document that can evolve based on the information needs and priorities of the WCPFC. The purpose of this document is to review progress against the SRP tasks to facilitate future planning of WCPFC shark research. The updates on the 2021 - 2025 SRP are included in the tables below.

There are no projects scheduled for 2021 that are not being reported on at SC17. In addition, SC17-EB-IP-13 and SC17-EB-IP-14 are being tabled as additional work to the SRP contributed by a CCM that investigate handling practices and post-release survival that contributes to our understanding of the management of sharks in purse seine fisheries.

Table 1. SRP 2021 – 2025 Project List. SA = stock assessment.

Title	Priority	Start Year	End Year	Progress
1. Stock Assessment and Management				
1) Determine the stock status for WCPFC Key Sharks				
a) SW Pacific blue shark assessment	High	2020	2021	SPC. Scheduled to present at SC17 (P107) SC17-SA-WP-03 SC17-SA-IP-06 SC17-SA-IP-18
b) NW Pacific blue shark assessment	High	2021	2022	ISC. SA scheduled in 2022 (tbc)
c) NW Pacific shortfin mako shark assessment	High	2023	2024	ISC. Indicator analysis in 2021; SA scheduled in 2024
d) WCPO silky shark assessment	High	2022	2023	Last SA in 2018; SA scheduled in 2023
e) Pacific silky shark assessment	Medium	2022	2023	Last SA in 2018; SA scheduled in 2023
f) Pacific bigeye thresher shark assessment	Medium	2021	2022	Last SA in 2017; SC17 may consider SA in 2022
g) Pacific whale shark assessment	Medium	2022	2023	Last SA in 2018
h) SW Pacific mako shark assessment	High	2021	2022	SA scheduled for 2022
2) Develop reliable catch histories for WCPFC Key Sharks as far back in time as feasible				

a) Redefining the fleets currently assumed in the BSH stock assessment	Medium	2021	2022	SC17-SA-IP-18 (covers the SP only)SC17 (Project 107)
b) The development of alternative approaches to catch reconstructions based on estimates of the global fin trade	Medium	2024	2025	N/A
3) Test and improve Medium and Data Poor assessment methods to inform management decisions				
a) Test and improve data poor assessment methods	Medium	2024	2025	N/A
b) Include data poor assessment metrics as standard out-puts for data rich assessments	High	Ongoing	Ongoing	Included in SC17-SA-WP-03
4) Stock management				
a) P102 – Population projections for oceanic whitetip shark	High 1	2019	2021	USA. Scheduled to present at SC17 SC17-SA-IP-21
2. Mitigation				
1) Provide advice on mitigation Sharks with non-retention policies and unwanted elasmobranchs				
a) Investigate effective mitigation for WCPFC Key Sharks	Medium	2023	2025	SC17-EB-WP-01 (Project 101)
b) Investigate mitigation method trade-offs between mitigation methods for sharks, seabirds and sea turtles	Medium	2023	2025	N/A
2) Provide advice on safe release methods and assess release survival of WCPFC Key Sharks				
a) Estimate silky and oceanic whitetip shark post release survival from WCPO longline fisheries*	High	2021	2023	Shark post-release mortality: SC15-EB-WP-01; SC15-EB-WP-04; Project 101 to be presented at SC17
b) Estimate whale shark post release survival from WCPO purse seine fisheries*	High	2021	2023	Proposed at SC16 – not approved
3. Biological data improvements				
1) Increase the understanding of important biological parameters of WCPFC Key Sharks				
a) Silky shark and oceanic whitetip shark reproductive biology and longevity*	High	2023	2025	N/A
b) Biology and life history of hammerhead sharks*	High	2023	2025	N/A
c) Resolving blue shark reproductive biology and reproductive schedule*	Medium	2023	2025	N/A
d) Biology of the longfin mako shark*	Medium	2023	2025	N/A
e) Life history of thresher sharks*	Medium	2023	2025	N/A
f) Validated life history, biology and stock structure of the shortfin mako in the south Pacific*	Medium	2023	2025	N/A
g) Age validation and stock structure of the silky shark and oceanic whitetip shark*	Low	2023	2025	N/A

h) Stock structure and life history of southern hemisphere porbeagle shark*	Low	2023	2025	N/A
4. Observer data collection				
1) Improve spatio-temporal observer data for informing scientific needs				
a) Training observers in the WCPO to be proficient in species identification	High	Ongoing	Ongoing	SPC. SC17-ST-IP-07 (Project 109)
b) Training observers for extraction and storage of vertebrae and shark reproductive material	High	2021	Ongoing	SPC. SC17-ST-IP-07 (Project 109)
c) Training observers for on-deck reproductive staging of elasmobranchs	High	2021	Ongoing	SPC. SC17-ST-IP-07 (Project 109)
d) Measuring elasmobranchs on purse seine and longline vessels for length-length and length-weight conversion factor development	High	Ongoing	Ongoing	SPC. SC17-ST-IP-07 (Project 109)

* Projects on the "long list" from Chin and Simpfendorfer (2019).

Table 2. WCPFC's stock assessment schedule² for 2021-2025 (Update)

Species	Stock	Last assessment	2021	2022	2023	2024	2025
Bigeye tuna	WCPO	2020			X		
	Pacific	2015		X?			
Skipjack tuna	WCPO	2019		X			X
Yellowfin tuna	WCPO	2020			X		
Albacore	S Pacific	2018	X			X	
	N Pacific	2020			X		
Pacific bluefin	N Pacific	2020		X		X	
Striped marlin	SW Pacific	2019				X	
	N Pacific	2019		X			
Swordfish	SW Pacific	2017	X				
	N Pacific	2018			X		
Pacific blue marlin	Pacific		X				
Silky Shark	WCPO	2018			X		
	Pacific	2018			X		
Oceanic whitetip shark	WCPO	2019				X	
Blue shark	SW Pacific	2016	X				
	N Pacific	2017		X			
Mako	SW Pacific			X			
	N Pacific	2018	Indicator analysis			X	
Bigeye thresher	Pacific	2017		X			
Porbeagle	S Pacific	2017					
Whale Shark	Pacific	2018			X		

² Tuna scheduled for assessment every 3 years, billfish, every 4 years and sharks every 5 years.