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Tuna Assessment Research Plan for 'key' tuna species assessments in the WCPO, 2023-2026
Summary of the Informal Small Group Report on TARP at SC19

1. The purpose of this paper is to introduce the outcomes of SC19 discussion on the proposed Tuna Assessment Research Plan (TARP) for 'key' tuna species assessments in the WCPO, 2023-2026 (SC19-SA-WP-15). SC19 agreed to establish an Informal Small Group (ISG-03) meeting to review the details of the paper in the margins of the plenary meeting and the ISG-03 introduced their outcomes to SC19 plenary in the form of the ISG-03 report (Attachment 1, SC19 Outcomes Document). The following is a summary of the ISG-03 report related to its work plan.
2. There are 54 research needs identified in the SC19-SA-WP-15. Thirty-seven research needs that have various levels of resourcing support in 2024 and perhaps longer. The ISG-03 reviewed the titles of 17 research needs that currently lack any resourcing support in 2024 or beyond (Table 1 below).
3. ISG-03 indicated five TARP-related new projects to be commenced in 2024, and their TORs were developed as in SC19-GN-WP-07 (*Terms of Reference for Proposed Projects for 2024 – 2026*):
 - 1) Develop stock status and management advice template for consistent reporting of stock assessment outcomes, uncertainties and risk (Project P113b).
 - 2) WCPFC tuna biological sampling plan (Project P19X2),
 - 3) Updated reproductive biology of tropical tunas (Project P19X5)
 - 4) Scoping study on longline effort creep in the WCPO (Project P19X7), and
 - 5) Scoping the next generation of tuna stock assessment software (Project P19X8)
4. Table 1 lists unfunded projects/activities within the proposed research plan for WCPO 'key' tuna stocks, a subset of SC19-SA-WP-15. Shaded cells in the species' section indicate the year of next scheduled assessment. Note that timescales are to be refined/prioritised by SC. 'Lead' is indicative and does not exclude the involvement of any Scientific Committee member. Specific research area paragraphs from the 2022 *Independent Review of Recent WCPO Yellowfin Tuna Assessment* are noted in parentheses, where Section E is *E. Future research areas, in priority order*. With respect to timescale, (X) indicates years in which work is desirable but cannot yet be undertaken without specific funding.

Table 1. Unfunded projects within the TARP

Stock/Focus area	Research need	Activity	Funding (incl. SC budget lines)	Timescale				Lead	
				2023	2024	2025	2026		
Common across stocks	Improved stock assessment software performance and features suited to WCPFC tuna assessments	Explore approaches to capture spatial patterns and variation in biological parameters into assessments	Not currently resourced		(X)	(X)	(X)	TBD	
		Investigation of approaches to ensure WCPO assessment software remains fit-for-purpose, including enhancing existing or developing new modelling software	Existing WCPFC SC 'additional resourcing SPC' funding line; additional resources required	X	(X)	(X)	(X)	SSP/SC	
	Improved abundance indices	Proposal for a cross-tuna-RFMO workshop on abundance indices modelling to apply best practice, and to consider approaches for standardisation of size composition data.	Not currently resourced	(X)	(X)			SC	
	Improved fishery input data	Improved data for WPEA fisheries (E1(7))	NZ-funded WPEA project, not currently resourced post March 2025	X	(X)	(X)	(X)	WCPFC Sec	
		Improved accounting for discards and longline depredation losses in stock assessments	Not currently resourced		(X)	(X)		TBD	
		Improved/enhanced collection of logbook and observer longline data, including the use of EM, to improve SC analyses (CPUE standardisation focus)	Requires WCPFC mandate	(X)	(X)	(X)		SC	
	Biological inputs	Enhanced collection of fish hard parts and measurements from across the WCPO region for all relevant stocks, with a focus on age-length data (E4(6))	SC Project 35b, additional resources required	X	(X)	(X)	(X)	SSP/SC	
		Further investigation of input size composition data, with review of all size composition data for tuna assessments (E1(1); E1(2); E1(3))	Existing SPC resourcing, additional resources required	X	(X)	(X)	(X)	SSP	
	Skipjack	Biological inputs	Update estimates of reproductive potential (E4(4))	EU and SC supporting funding being		(X)	(X)		SSP

			sought (SC19-SA-WP-17)					
		Validate growth and improve growth estimates	Other resourcing, additional resourcing may be required	X	(X)	(X)		AU/SSP
Bigeye	Biological inputs	Age validation and improved growth estimates	(SC Project 105 complete) Additional resourcing required		(X)	(X)		TBD
		Update reproductive biology estimates (E4(4))	EU and SC supporting funding being sought (SC19-SA-WP-17)		(X)	(X)		SSP
		Improved weight conversion factors (e.g. G&G to whole wt) (E4(5))	SC Project 90. Additional resourcing required	X	(X)	(X)		SSP/SC
Yellowfin	Biological inputs	Age validation and improved growth estimates	(SC Project 105 complete) Additional resourcing required		(X)	(X)		TBD
		Update reproductive biology estimates (E4(4))	EU and SC supporting funding being sought (SC19-SA-WP-17)		(X)	(X)		SSP
		Improved weight conversion factors (e.g. G&G to whole wt) (E4(5))	SC Project 90. Additional resourcing required	X	(X)	(X)		SSP/SC
South Pacific albacore	Biological inputs	Ongoing NZ troll fishery characterisation and CPUE	Additional resources may be required	(X)	(X)			NZ/TBD