



**SCIENTIFIC COMMITTEE
TWENTY-FIRST REGULAR SESSION**

Nuku'alofa, Tonga
13 – 21 August 2025

INTERSESSIONAL ACTIVITIES OF THE SCIENTIFIC COMMITTEE

WCPFC-SC21-2025/GN-IP-02

WCPFC Secretariat and SPC-OFP

I. Introduction

1. The purpose of this paper is to inform the Scientific Committee (SC) of the relevant science-related activities undertaken since SC20.

II. Summary Report of the 20th Regular Session of the Scientific Committee

2. The 20th Regular Session of the Scientific Committee was convened from 14 to 21 August 2024 in the Philippines. The Secretariat posted the Outcomes Document on the SC20 website on August 30, 2024, and intersessionally adopted the Summary Report, including the Executive Summary, on November 16, 2024.

III. Scientific Services from the SPC-OFP

3. In 2006, the Commission signed the first Memorandum of Understanding (MOU) with the Commission's Scientific Services Provider (SPC-OFP) to provide scientific and data management services. In December 2009, the Commission and the SPC agreed to revise the MOU to provide for a three-year arrangement as directed by the Commission. In 2019, the MOU was changed to the MOA (Memorandum of Agreement). The MOA is composed of two sections: 1) general scientific, financial, and administrative agreement, which will be updated every three years, and 2) Annex I of the MOA (*Agreement for the Annual Provision of Scientific Services to the Commission and Assistance to Members by the Pacific Community*) which will be updated each year to accommodate scientific services as requested by the Commission for each calendar year. The SPC and the WCPFC co-signed the 2025 scientific services in Annex 1 on 18 January 2025 (**Attachment A**).

4. The SPC-OFP produced or was involved in producing over 50 papers and reports for SC21, covering all four theme issues of the SC plenary agenda, steering committee meetings, online discussion forum topics, and provided *ad hoc* advice and support throughout the year. In addition, the SPC-OFP led or assisted with the following activities:

- Participated in TCC20 (24 September – 1 October 2024) and WCPFC21 (28 November – 3 December 2024), producing several additional key scientific papers and presentations for each meeting;

- Participated in SMD02 (10-12 September 2024), producing several additional key scientific papers and presentations for each meeting;
- Attended the 5th SP Albacore Roadmap IWG Virtual Meeting (11 October 2024);
- Facilitated the 2nd R-Assistance (RAW2025) and 19th Tuna Data Workshop in Nadi, Fiji (24 March - 4 April 2025) to assist in the compilation of CCM's tuna fishery data;
- Hosted the Pre-assessment Workshop in Noumea, New Caledonia (7 – 11 April 2025). The meeting focused on the 2025 stock assessments for the skipjack, Southwest Pacific striped marlin, Southwest Pacific swordfish, and WCPO oceanic whitetip shark (phase 2). It also covered technical developments in Management Strategy Evaluation (MSE), specifically addressing challenges in MSE development for mixed fishery and management procedures for South Pacific albacore. Other key topics included updates to the MULTIFAN-CL modeling framework, as well as scoping studies for WCPFC Projects 123 (stock assessment software) and 122 (longline effort creep).
- Assisted the WPEA Tuna Data Review and Annual Tuna Catch Estimates Workshops hosted by the Project participating countries (Indonesia, Philippines, and Vietnam);
- Updated regularly the tables on Annual Catch and Effort estimates (the “ACE tables” <https://www.wcpfc.int/ace-by-fleet>) to provide additional estimates to the Commission meetings;
- Coordinated the PTPP Cruise Planning Advisory Committee meeting (19 March 2025) and the 19th PTPP Steering Committee meeting (29 July 2025) electronically and is conducting the Pacific Tuna Tagging Project (PTTP) 17th Central Pacific cruise;
- Continued the Biological Sampling Programme and hosted the 7th WCPFC Pacific Marine Specimen Bank Steering Committee meeting electronically on 29 July 2025; and
- Progressed the relevant SC projects agreed over the 2024/2025 period (see Section 4).

IV. Progress of the SC Work Programme Activities

5. The WCPFC21 approved the 2025 SC budget in **Attachment B**. SC work programmes conducted in 2024-2025 include, with Commission budgets in parentheses:

a) Project 35b: WCPFC Pacific Marine Specimen Bank (\$ 109,520)

The progress report for Project 35b is now available on the SC21 website ([SC21-RP-P35b-01](#)). The WCPFC Pacific Marine Specimen Bank project has been continuing since 2016, and the 7th Steering Committee meeting was held electronically on 29 July 2025. CCMs are invited to visit the PMSB website: <https://www.spc.int/ofp/PacificSpecimenBank>.

b) Project 42: Pacific-wide tagging project (\$875,000)

WCPFC21 endorsed the 2025-2027 PTPP Work Plan and allocated \$875,000 for 2025. The PTPP report ([SC21-RP-PTTP-01](#)) details activities from 2024-2025, including research voyages, tag recoveries, and seeding activities, while highlighting 2025 issues for the PTPP Steering Committee and outlining plans for 2025-2028. Funded since 2006 by various international entities, the PTPP focuses on collecting data on exploitation rates, movement, habitat utilization, and the impact of FADs on tuna behaviors. Due to the lack of a suitable tagging platform in 2024, the decision was made to focus on expanding tag seeding ([SC20-RP-PTTP-02](#)). In 2025, the Central Pacific tagging cruise (CP-17) is ongoing, starting from June 25 to August 9, 2025, on the F/V Gutsy Lady 4, originating in Honolulu, Hawaii. Future plans include refurbishing key research vessels and increasing tag seeding efforts to improve reporting rates. The PTPP also emphasizes the importance of the Tag Recovery Network, aiming to enhance tag recovery processes and engagement with the fishing industry. The 19th Steering Committee meeting was held

electronically on 29 July 2025, and its report is in [SC21-RP-PTTP-02](#).

c) *Project 90: Fish weights/lengths for scientific analysis (\$20,000)*

Project 90 was originally a 3-year project (2019–2021), but WCPFC17 endorsed an extension to 57 months, from January 2019 through September 2023, with an additional \$75,000 allocated for 2022. WCPFC20 further endorsed extending this project for another 2 years (2024 – 2025, with an annual budget of \$20,000). The outputs from the 2023-2025 work are in [SC21-ST-IP-03](#).

d) *Project 110 and 110a: Non-entangling and biodegradable FAD trials in the WCPO (Project 110: EU € 420,000, USA \$ 85,000, and ISSF \$ 20,000; Project 110a: EU: \$242,000, USA: \$29,000, ISSF: \$20,000)*

These projects will conduct trials of non-entangling and biodegradable drifting FADs in the WCPO. Project 110 is a 30-month project that began in 2021 and was initially expected to be completed in 2023, but its completion date was extended to 2024 due to the COVID-19 pandemic. Additional funding to enhance WCPFC project 110 was primarily provided by the EU, with support from the USA and the ISSF. Project 110a is to enhance Project 110 by deploying additional non-entangling and biodegradable FADs to increase the robustness of the results and related management and industry advice, extending to the end of 2025. The progress of this project is detailed in [SC21-EB-WP-03](#).

e) *Project 121: Ecosystem and Climate Indicators (USD 20,000)*

The project aims to create candidate ecosystem and climate indicators, provide technical advice on their evaluation, and develop communication tools for WCPFC stakeholders. The project includes technical analyses, workshops with members and experts, Scientific Committee reporting, routine indicator preparation, and the development of communication tools, such as report cards. The project is planned over five years, with no cost in 2023. Funding of US\$20,000 for 2025 was intended for expert participation, and US\$15,000 annually for 2026-2027 for indicator validation and communication support. The progress report of this project is on [SC21-EB-IP-01](#).

f) *Project 122 and 122a: Scoping Study on Longline Effort Creep in the WCPO (USD 30,000)*

This project would undertake a comprehensive survey of scientific literature (including the grey literature) to see how existing understanding of effort creep in fisheries could inform the analysis and development of scenarios of longline effort creep in the WCPO and whether approaches used elsewhere could be applied in the WCPO to improve local understanding of effort creep. SC20 recommended a no-cost extension of Project 122, which supports collaboration with other tuna RFMOs, distant-water fishing nations, and industry to discuss effort creep, technology trends, and CPUE index development. It also explores funding and plans for joint CPUE analysis across trFMOs. The report of this project is in [SC21-SA-IP-16](#).

g) *Project 123: Scoping the Next Generation of Tuna Stock Assessment Software (USD 50,000)*

This is a 3-year project (2024-2026). The overriding goal is to ensure that WCPFC tuna stock assessments remain robust and provide the best available scientific information through the development of a state-of-the-art successor to the MULTIFAN-CL assessment software. The progress report of this project is in [SC21-SA-WP-01](#).

h) *Project 124: Oceanic Whitetip Shark Stock Assessment in WCPO Phase 2 (USD 80,000)*

This is the 2nd year of a 2-year project to undertake a stock assessment and risk analysis of oceanic whitetip shark in the western and central Pacific Ocean. The final report of this project is in [SC20-](#)

i) ***Project 125 (P20X04): Biology of South Pacific striped marlin, blue marlin, black marlin, shortbill spearfish, and sailfish in the WCPO from longline fisheries (USD 40,000)***

The project focuses on collecting and analyzing biological samples from five billfish species in the Western and Central Pacific Ocean to estimate growth, maturity, and reproductive parameters, improve conversion factor data, and inform productivity rates. The project, prioritized within the Billfish Research Plan, will involve training observers for data collection, stratified sampling across sex and size classes, and annual updates from 2025 to 2027, culminating in a final report in 2028, with a budget of USD 40,000. The progress report of this project is in [SC21-SA-WP-11](#).

j) ***Project 126 (P20X05): Developing a statistically robust and spatial/temporal optimized sampling strategy for biological data collection – consider ISC’s approach (USD 40,000)***

The project aims to identify sampling gaps in biological data held in the SPC Tissue Bank and develop a sampling plan to collect biological information for key WCPFC shark species that addresses these gaps. The project involves leveraging existing efforts in the WCPFC region to develop a statistically structured sampling strategy that covers length composition, age, growth, maturity, and genetics. It also entails evaluating existing samples, conducting a gap analysis, and simulating the plan's robustness against logistical challenges, with a subsequent phase for implementation. The report of this project is detailed in [SC21-SA-WP-12](#).

k) ***Project 127 (P20X07): Review and reconciliation of size data collected in the WCPFC-CA for stock assessment purposes (USD50,000)***

The project aims to review and improve the collection and use of size composition data for tuna stock assessments within the framework of the WCPFC. The project focuses on addressing inconsistencies, sampling issues, and data processing challenges to support more effective stock assessments. Key activities include reviewing historical and current data collection methods, identifying sampling inadequacies, addressing data inconsistencies, and collaborating with relevant CCMs to develop solutions. The project is expected to take one year, with initial reporting to SC21 and final reporting to SC22, and has an approved budget of \$50,000. The report of this project is detailed in [SC21-ST-WP-02](#).

l) ***Project 128 (P20X08): Understanding connectivity of the yellowfin and skipjack stocks in the Western Pacific and East Asia region with the WCPFC Convention Area (USD60,000)***

This project aimed at understanding the connectivity of yellowfin and skipjack tuna stocks in the Western Pacific and East Asia regions within the WCPFC Convention Area. The project focuses on conducting a feasibility study to enhance stock assessments and management measures through the application of advanced sampling and genetic techniques. It aims to study the connectivity of these stocks to reduce uncertainties in stock assessments and support better conservation measures. The project proposes expanding existing sampling frameworks for age and reproductive biology to include tissue sampling for genetic analysis, leveraging regional networks of biologists and laboratories to optimize costs and effectiveness. The study will identify appropriate techniques and sample requirements, assess regional capacity for sampling, and develop terms of reference and budget for a complete project proposal to be considered by SC21. The report of this project is detailed in [SC21-SA-WP-13](#).

V. **Cooperation with other organizations**

6. The Secretariat was represented at the following science-related meetings during the last 12 months:

- Common Oceans Tuna Project Workshop on Bycatch, 27- 29 January 2025, Rome, Italy
- 3rd Joint Meeting of tuna RFMOs on the implementation of the Ecosystem Approach to Fisheries Management (EAFM), 21-23 January 2025, FAO HQ, Rome, Italy
- First Joint IATTC-NC Intersessional Working Group Meeting on PBF Management, 5 – 7 February 2025, Monterey, California, USA
- Coordination call between IATTC and WCPFC Secretariats, 3 April 2025, Online;
- SPC Pre-Assessment Workshop, 7 – 11 April 2025, Noumea, New Caledonia;
- 5th WCPFC Regional Observer Programme Intersessional Working Group, 11 April 2025, Online;
- 1st Preparatory Commission for the Entry into Force of the Agreement under the United Nations Convention on the Law of the Sea on the Conservation and Sustainable Use of Marine Biological Diversity of Areas Beyond National Jurisdiction (BBNJ Agreement), 14 - 25 April 2025, New York;
- 3rd United Nations Ocean Conference, 9 – 13 June, Nice, France
- FAO FIRMS 9th Technical Working Group, 10-12 December 2024, Rome, Italy (online participation);
- FAO 28th Session of the Coordinated Working Parties, 2-4 July 2025, Copenhagen, Denmark (online participation);
- 25th ISC Plenary Meeting, 16 - 20 June 2024, Busan, Korea; and
- WPEA Project-related workshops and meetings for data review, annual catch estimates, and other related meetings were conducted online and/or in person.

VI. Research Projects

Japanese Trust Fund Project

7. In 2025, the Japanese Government, through the Japan Trust Fund (JTF), gave a total budget of \$156,566, including WCPFC's 7.5% administration fee. Four project proposals were approved for 2025 from the following CCMS: Fiji (1), Philippines (1), and Tonga (2). The Steering Committee will review the progress of each project at the margins of SC21. The JTF Status Report ([SC21-RP-JTF-01](#)) provides a detailed description of progress.

West Pacific East Asia Project

8. The current WPEA-ITM Project, funded by the New Zealand government, continued to conduct key data collection activities in Indonesia, Philippines, and Vietnam. Details are described in the WPEA-ITM Project Update ([SC21-RP-WPEA-01](#)).

VII. Voluntary Contributions from Members and Observers

9. Members and observers of the Commission have voluntarily contributed financial support toward the scientific work of the Commission. In December 2024, the European Union provided approximately EUR 218,000 to fund Project 110a: *Additional Work on Trialling and Supporting the Development of Non-entangling and Biodegradable FADs in the WCPO*, and EUR 200,000 for Project 120: *Updated Reproductive Biology of Tropical Tunas*. The third five-year funding programme from the Korean government to support SPC's Pacific Tuna Tagging Project concluded in 2024, having contributed approximately USD 170,000 annually. Korea further noted that its 2025 national budget, approved in December 2024, includes a continued contribution to the PTTP, with future commitments to be made on an annual basis. Additional funding support for the Commission's harvest strategy work, Project 110, and other science projects was also provided by members and observers, including New Zealand, the United States, IATTC, CSIRO, and ISSF.

ANNEX 1

**Agreement for the Annual Provision of Scientific Services to the
Commission and Assistance to Members by the Pacific Community**

(Pursuant to Article 2 of MOA)

I. Period covered by this Agreement

This Agreement is for the period from 1 January to 31 December 2025 and will be reviewed annually and be extended by one calendar year.

II. Specific Services and Terms of Reference for the Provision of Scientific Services for 2025

The scientific services to be provided to the Commission by SPC's OFP during the period of this Agreement are as follows:

Activity	Description of Service	Specific Outputs	Timing	Performance ¹
<i>Core SPC services</i>				
1. Data management, statistical analyses, and related services				
i.	Data Management			
	1) Incorporate data provided by Members, Cooperating Non-Members, and Participating Territories (CCMs) under the Commission's data provision policy into existing databases and facilitate access of Commission Secretariat staff to those data as appropriate.	<ul style="list-style-type: none"> Databases updated and installed at WCPFC headquarters Updated database query tools for regional databases available at WCPFC headquarters WCPFC staff training as required 	January-December	
	2) Produce a summary of the status of the provision of scientific data to the Commission.	<ul style="list-style-type: none"> SC / TCC / WCPFC papers as required 	Mid-July, mid-September	

¹ To be completed by SPC and WCPFC in November each year and provided as a paper to the Regular Session of the WCPF Commission and its appropriate subsidiary bodies (e.g., FAC)

		• Continued update of the WCPFC Scientific Data Catalogue	and mid-November	
ii.	Compilation of catch and effort estimates			
	1) Compile estimates of annual catches by species, gear type, and flag, as specified in the procedures for <i>Scientific Data to be Provided to the Commission</i> AND in support of the functions of the Commission and its subsidiary bodies.	SC papers	Mid-July	
	2) Estimates of annual catches by vessel flag, EEZ, archipelagic waters, and IATTC/WCPFC overlap area for use in determining the catch component of the Commission's assessed contributions	Catch table provided to the Commission Secretariat	Late-Sept	
	3) For catches for which estimates are not otherwise available, conduct statistical analyses to estimate catches, particularly regarding: a) purse-seine catches of bigeye, skipjack, and yellowfin tuna, b) discards of target tuna species, and	SC papers	Mid-July	
	4) Provide updates of catch estimates of non-target species, including estimate uncertainties (e.g., CVs) of bycatch for the purse seine fishery, noting the challenges of reduced observer coverage through the Covid period: a) SC14 recommended that the Scientific Services Provider continue the work on purse seine and longline bycatch estimates and provide updates every 2-3 years (Paragraph 83, SC14 summary report). The latest papers provided include: <ul style="list-style-type: none"> • <i>S bycatch estimates: SC14-ST-IP-04, SC17-ST-IP-06 and SC20-ST-WP-07</i> • <i>LL bycatch estimates: SC14-ST-WP-03, SC16-ST-IP-11, and SC19-ST-WP-02</i> The next LL bycatch estimate update is due for SC22 in 2026 and the purse seine bycatch update is due for SC23 in 2027, both under a 3-year cycle. b) Future papers consider the following SC17 recommendation (Para 58, SC17 Summary Report):	NA in 2025		

	<p><i>58. SC17 recommended that future analyses providing estimates of purse seine bycatch include estimates of marine mammal bycatch to the species level, where possible, to allow for additional monitoring of bycatch and bycatch rates of marine mammal species.</i></p> <p>c) Estimates of marine mammal/cetacean interactions can be produced if requested (ref: SC17-ST-IP-10, SC19-EB-WP-10).</p>			
	5) Provide materials to support SC advice to the Commission on the review CMM 2018-03 (seabirds) on mitigating the impacts of fishing for highly migratory fish stocks on seabirds (paragraph 64, WCPFC21 Outcomes Document).			
	6) Prepare a paper for SC21 on possible sea turtle data reporting requirements for vessels to record during fishing operations, for longline and purse seine vessels, to be incorporated in the annual reporting of Scientific Data to be provided to the Commission (SciData). (<i>Paragraph 76, SC20 Summary Report</i>)	SC paper	Mid-July	
	7) Provide information to SC21 to support the development of advice to the Commission at WCPFC22 on appropriate requirements for effective reporting on cetacean interactions with tuna and associated species fisheries in the Convention area (<i>para. 79, WCPFC21 Outcomes Document</i>).	SC paper	Mid-July	
	8) Develop a subset of the key species, expected to be encountered by each gear type, to improve the evaluation of operational data reporting of key species, as reported in SC20-ST-IP-02 (e.g., Table 14). Currently, the coverage estimation assumes all key species in the “Scientific Data to be Provided by the Commission (SciData)” are encountered by all gear types and evaluates reporting coverage based on that assumption (<i>para. 37, SC20 Summary Report</i>).	SC papers	Mid-July	
	9) Develop a proposal to improve data submission workflows through the development of data submission standards and templates for consideration by SC21 (<i>para. 38, SC20 Summary Report</i>).	SC papers	Mid-July	
iii.	Data dissemination			

	1) Produce and publish the Tuna Fishery Yearbook on the Commission's website, which contains annual catch estimates by gear type, flag, and species.	A yearbook published on WCPFC website	Dec	
	2) Disseminate public domain catch, effort, and size data on the Commission's website at an agreed-upon level of resolution, enhancing where possible, while ensuring that the WCPFC rules for public domain data are applied.	Update WCPFC public domain webpage	Jan-Dec	
	3) Continue to produce the <i>Overview of Tuna Fisheries in the WCPO, including Economic Conditions</i> paper and summaries of northern stocks in the WCPFC Convention Area; and more information on the "other" fisheries (Para 38, SC15 Summary Report).	SC paper	Mid-July	
	4) Generate the Annual Catch and Effort (ACE) tables based on the latest data, publish the ACE Tables on the relevant WCPFC webpages according to the agreed schedule.	Update WCPFC ACE Tables webpage	Mid-July, mid-September and November	
	5) Generate and disseminate the latest WCPFC public domain bycatch data, including data defined in the <i>Bycatch Data Exchange Protocol</i> (BDEP) on the WCPFC public domain webpage.	Update WCPFC BDEP and public domain bycatch webpages	November	
	6) Update and disseminate the WCPFC Data Catalogue via the WCPFC Data Catalogue webpage.	Update WCPFC Data Catalogue webpage	November	
iv.	<i>Technical / policy advice</i>			
	1) Provide <i>ad-hoc</i> advice on science and data-related implications of relevant MCS activities, including, but not limited to: transshipment, the regional observer programme, port sampling, VMS, port state measures, catch documentation schemes, the implementation of e-reporting and e-monitoring (ER and EM), etc.	Advice provided on request	Jan - Dec	
	2) Provide advice and tasks on data-related procedures of the Commission, e.g., <i>Rules and Procedures for the Protection, Access to and Dissemination of Non-Public Domain Data and Information Compiled by the Commission</i> , and <i>Scientific Data to be Provided to the Commission</i> ".	Advice provided on request	Jan - Dec	
	3) Provide support for coordination and collaboration on data-related matters between the ISC and WCPFC, including specific tables	Advice provided on request	Jan-Dec	

	showing provisions of operational-level catch and effort data for the North Pacific region from all CCMs.			
	<p>4) SC20 requested the following tasks to SSP (paragraphs 77 – 78, SC20 Summary Report):</p> <p><i>Development of a FAD Logbook</i></p> <p>77. SC20 requested that SSP identify what FAD information fields are anticipated to be used by SSP to support stock assessments and other scientific analyses. SSP indicated that the FAD data fields also relate to WCPFC work involving management and monitoring.</p> <p>78. SC20 recommended that SSP and the WCPFC Secretariat develop a paper for TCC20's and the FADMO-IWG's consideration, responding to the request to identify the needs for the FAD data fields for the work of the WCPFC (science, management and monitoring).</p>	SC paper	Mid-July	
	<p>5) Related to the evaluation of the purse seine fishing effort (SC20-ST-WP-03), conduct further work to better understand relationships between fishing behaviours and strategies, reporting requirements, and estimations of purse seine fishing effort. (Paragraph 88, SC20 Summary Report)</p>	SC paper	Mid-July	
2. Stock assessment and related analytical services				
v.	Target species stock assessments and auxiliary analyses			
	<p>1) Conduct the following specific list as the 2025 priority work for the scientific services (Sub-item 1), SSP's additional resourcing, and additional stock assessment scientist (Sub-item 2) in Table WP-01 of the SC20 Summary Report:</p> <p>a) WCPO skipjack tuna stock assessment, noting SC20 recommendations in paragraphs 203 – 206 of the SC20 Summary Report;</p> <p>b) Southwest Pacific swordfish stock assessment;</p> <p>c) Continuation of the Southwest Pacific striped marlin assessment;</p> <p>d) Ongoing work on WCPO tuna stock assessments;</p> <p>e) Development, support, and consolidation work on MULTIFAN-CL, including work addressing the Yellowfin Peer Review</p>	SC papers	Mid-July	

	<p>recommendations;</p> <p>f) Ongoing work on improving the workflow and systems for efficient repeatability of stock assessments and supporting analyses; and</p> <p>g) Ongoing work on assessment diagnostics based on SC discussions.</p>			
	2) Undertake analyses of catch and effort data, including operational-level data where possible, to construct indices of abundance for target and non-target species; and any additional research on biological parameters, to support stock assessments.	SC paper(s)	Mid-July	
	3) Make available stock assessment data, model settings and results files.	Link to input files, model settings, and output files posted on SPC-FAME website, and link on WCPFC website	Dec	
	<p>4) Present indicator papers for bigeye, yellowfin, skipjack tuna, and South Pacific albacore for those years when a stock assessment is not conducted, with explanatory details for the figures and a brief interpretation of the trends.</p> <ul style="list-style-type: none"> Rationalize the content of the indicators paper to minimize duplication with SC20-GN-WP-01, noting that short-term projections as the most useful component and non-standardized CPUE data should be retained (<i>para. 210, SC20 Summary Report and para. 17, WCPFC21 Outcomes Document</i>). 	SC paper	Mid-July	
	5) Trends paper for the South Pacific albacore longline and troll fisheries.	SC paper	Mid-July	
	<p>6) Reporting template for stock status and management advice</p> <p>a) To provide the 2025 stock assessment results, review and appropriately apply:</p> <ul style="list-style-type: none"> the SC20 recommendations on reporting guidelines for stock status and management advice (as outlined in paragraphs 350–353 of the SC20 Summary Report), and the Commission's feedback on the reporting template (as noted in paragraph 18 of the WCPFC21 Outcomes Document). 	Included in SC stock assessment papers	Mid-July	
vi.	<i>Model development and refinement</i>			

	1) Refinement or development of stock assessment models, as appropriate, and refinement of models for CPUE standardization, model ensemble approaches, and harvest strategy framework. <ul style="list-style-type: none"> For Project 123, refer to the SC20 recommendations outlined in paragraphs 137-146 and Attachment E of the SC20 Summary Report for details on the revised 2025 work plan. 2) Provide an update to SC21 on the progress in addressing issues raised by the 2019 Review of SEAPODYM (SC16-EB-IP-06) (paragraph 51, WCPFC21 Outcomes Document).	SC paper(s) as required	Mid-July	
3. Management analyses and CMM performance monitoring				
vii.	<i>Conservation and Management Measure performance monitoring</i>			
	1) According to Paragraph 52 of the Measure, review CMM 2023-01 (<i>CMM for bigeye, yellowfin and skipjack tuna in the WCPO</i>) annually and provide advice to SC21 to ensure that the various provisions have the intended effect. 2) Consider the Commission's request in paragraph 32 of the WCPFC21 Outcomes Document and advise SC21 when providing a review of the CMM 2023-01 under the Management Issues Theme session. <p><i>32. The Commission tasks the SC and TCC to consider the issues of certain CCMs without baseline catch limit under paragraph 48 of CMM 2023-01 and provide advice to the Commission.</i></p>	SC / TCC/ WCPFC papers, and tables or figures as required	Mid-July, mid-September and mid-November	
viii.	<i>Development of Harvest Strategy Framework</i>			
	1) Updated Indicative Harvest Strategy Work Plan 2) Conduct items specified in the <i>Revised HS Work Plan</i> (Attachment 16, WCPFC21 Outcomes Document). 3) Recognizing that the Government of New Zealand funds the harvest strategy work through the ' Pacific Tuna MSE ' project rather than under the WCPFC SSP contract, carry out tasks A–C outlined below and update the progress on developing the harvest strategy framework by incorporating relevant recommendations from previous Commission and subsidiary body meetings as required.	SC / TCC / WCPFC papers	Mid-July	

	<p>A. South Pacific Albacore Management Workshops</p> <p>1) Provide technical documentation and analyses to support the South Pacific Albacore Management Workshops (SPAM-WS) scheduled for 2025. The workshops focus on i) South Pacific albacore management procedures, ii) management arrangements for implementing the management procedure, and iii) mixed fishery issues, including ensuring compatibility between the bigeye and South Pacific Albacore management procedures. (paragraphs 38-41, WCPFC21 Outcomes Document).</p>	SC / TCC / WCPFC papers	Mid-July	
	<p>B. Skipjack management procedure and monitoring strategy</p> <p>1) Evaluate the estimation method as requested in paragraphs 372 and 437 of the SC20 Summary Report and provide the outputs from the re-evaluation to SC21. As the skipjack monitoring strategy will be reviewed in 2025, the Commission encouraged ongoing work to consider climate change impacts within the SKJ MP operating model grid (Attachment 15, WCPFC21 Outcomes Document).</p>	SC / TCC / WCPFC papers	Mid-July	
	<p>C. Bigeye and Yellowfin Tuna Target Reference Points</p> <p>1) Conduct tasks assigned by the Commission in paragraphs 45 – 46 of the WCPFC21 Outcomes Document, noting the decisions in paragraphs 43 – 44.</p> <p>2) Continue developing the mixed fishery MSE framework to support SC advice on the performance of candidate management procedures.</p>	SC / TCC / WCPFC papers	Mid-July	
ix.	Ecosystem and Climate Indicators			
	<p>1) Update the Ecosystem and Climate Indicator Report Card and present annually to the Commission and its subsidiary bodies.</p> <p>2) Provide technical assistance as needed to the WCPFC Secretariat, the Commission, and its subsidiary bodies in implementing the <i>WCPFC Climate Change Workplan 2024 – 2027</i> (Attachment 14, WCPFC21 Outcomes Document) and the <i>CMM Climate Change Vulnerability Assessment</i> consultancy (Attachment 14, WCPFC21 Outcomes Document).</p>	SC / TCC / WCPFC papers		

x.	<i>Analyses to support development of Conservation and Management Measures</i>			
	1) Evaluate the potential impacts of existing, new or revised management measures, and the results of which may be suggested to the Commission and/or meetings of its subsidiary bodies as requested.	SC / TCC / WCPFC papers and <i>ad hoc</i> advice, as required	Jan - Dec	
	2) Provide data and advice regarding the revision of CMMs as requested.	SC / TCC / WCPFC papers as required	Jan - Dec	
	3) Following completion of the SWP striped marlin assessment, perform stock management projections, incorporating recommendations in paragraphs 248-254 of the SC20 Summary Report and paragraph 19 of the WCPFC21 Outcomes Document	SC paper	Mid-July	
4. Other advisory and technical services				
xi.	<i>Other advisory and technical services</i>			
	1) Support continuing Intersessional Working Groups for 2025, including the SP Albacore Roadmap IWG, the FAD Management Options IWG, and other FAD-related issues tasked by the Scientific Committee and the Commission.	SC paper	Mid-July	
5. Oversight of WCPFC-funded or supported projects				
xii.	1) Oversight of the Commission-supported projects (as of January 2025) and appropriate reporting, including consideration of SC recommendations related to each contract: <ul style="list-style-type: none"> • Project 35b: Maintenance of the WCPFC Pacific Marine Specimen Bank • Project 42: Implementation of the Pacific Tuna Tagging Program • Project 90: Fish weights/lengths for scientific analysis (duration 2019-2025) • Project 100c: Application of CKMR (duration 2023-2025) • Project 110a: Extension of non-entangling and biodegradable FADs (duration 2024-2027) • Project 114: Improved coverage of cannery receipt data (duration 2023-2025) 			

	<ul style="list-style-type: none"> • Project 120: Updated reproductive biology of tropical tunas (duration 2024-2026) • Project 121: Ecosystem and Climate Indicators (duration 2023-2027) • Project 122a: Scoping study on longline effort creep in the WCPO (duration 2024-2026) • Project 123: Scoping the next generation of tuna stock assessment software (duration 2024-2026) • Project 124: Oceanic whitetip shark stock assessment in WCPO (duration 2024-2025) • Project 125: Biology from billfish samples in LL fisheries (duration 2025-2028) • Project 126: Developing a sampling strategy for sharks (duration 2024) • Project 127: Reconciliation of size composition data collection (duration 2025-2026) 			
	2) Provide a “provisional” list of the SPC-OFP documents for SC21 to the WCPFC Secretariat (Science Manager) as early as possible but no later than <u>15 April 2025</u> for the finalization of the SC21 provisional agenda.	List of SPC documents for SC21	By 15 April 2025	

III. Financial Support to be provided by the Commission

The financial support to be provided by the Commission to SPC’s OFP for the services outlined above is as follows:

Item	Cost basis	USD
Data management, stock assessment, and other advisory and technical services	Costs based on SPC costs of scientific staff positions, administration costs, travel to SC, TCC and WCPFC annual sessions, and computer support.	1,020,749
Providing essential computer support and software development for stock assessment ²		183,808

² Terms of reference for this resourcing includes, but is not limited to:

- Further enhancement of MULTIFAN-CL and its use in stock assessment to implement SC recommendations
- Maintain and further develop the MULTIFAN-CL website to facilitate access to software and support

SPC's additional stock assessment scientist		168,300
Total Commission funding		1,372,857

IV. Schedule for Payments and Bank Details for Payment

The schedule of payments shall be as follows:

28 February 2025 (or before)	USD 343,215
30 April 2025 (or before)	USD 343,214
30 June 2025 (or before)	USD 343,214
30 September 2025 (or before)	USD 343,214

Name of Bank	Banque de Nouvelle-Caledonie
Address	25 av Henri Lafleur Victoire, Noumea, New Caledonia
Account name	La Communauté du Pacifique - USD
Account Number (IBAN/Swift code)	IBAN : FR76 1488 9000 8181 7160 0101 206 Swift Code: CEPANCNM

Rhea Moss-Christian
Executive Director, WCPFC

Date: _____ February 2025

Paula Vivili
Deputy Director General (Science and Capability), SPC

Date: _____ February 2025

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- Continue to implement a formal framework for management of MULTIFAN-CL code updates, testing new developments, training, and updating the users' guide

WCPFC21's Approved Budget for 2025 Scientific Committee Projects

WCPFC21's approved budget for 2025 SC Projects (Refer to Att. 26, WCPFC21 Outcomes Document)	Approved budget	Estimated expenditure	Indicative budget	Approved budget	Indicative budget	Indicative budget
ANNEX 1 (continued)	2024	2024	2025	2025	2026	2027
Part 2 - Science & Technical & Compliance Programme						
Section 2 (Item 2)						
Sub-item 2.1 Scientific Services (SPC)	1,000,734	1,000,734	1,020,749	1,020,749	1,041,164	1,061,987
Sub-item 2.2 Scientific Research						
Additional Resourcing SPC	180,204	180,204	183,808	183,808	187,484	191,234
SPC additional stock assessment scientist	165,000	165,000	168,300	168,300	171,666	175,099
P35b Pacific Marine Specimen Bank	107,373	107,373	109,520	109,520	111,711	113,945
P42 Pacific Tuna Tagging Project	800,000	800,000	875,000	875,000	950,000	950,000
P68 Estimation of Seabird Mortality	0	0	0	0	30,000	0
P90 Fish Lengths/Weights Conversion Analyses	20,000	20,000	20,000	20,000	0	0
P108 WCPO silky shark assessment	100,000	100,000	0	0	0	0
P113b Template for stock status/manag. advice	40,000	40,000	0	0	0	0
P114 Improved cannery receipt data	60,000	60,000	35,000	0	0	0
P19X5 Updated reproductive biol. of trop. tunas (Note 4)	44,000	44,000	0	0	0	0
P19X6 (P121) Ecosystem and Climate Indicators	0	0	20,000	20,000	15,000	15,000
P19X7 Scoping study on longline effort creep	30,000	30,000	0	0	0	0
P19X8 (P123) Scoping next generation of assess. software	50,000	50,000	50,000	50,000	50,000	0
P19X9 Manta/mobulid/whale shark assessment		0	56,000	0	0	0
P19X10 (P124) Oceanic whitetip assessment	60,000	60,000	60,000	80,000	0	0
P19X11 Sampling strategy for shark biological data (P126)		0	40,000	0	0	0
P20X04 (P125) Biology from billfish samples in LL fisheries		0	0	40,000	40,000	40,000
P20X05 (P126) Developing a sampling strategy for sharks		0	0	40,000		
P20X07 (P127) Reconciliating size composition data collection		0	0	50,000		
P20X08 (P128) Connectivity of YFT/SKJ in WPEA&WCPFC-CA		0	0	60,000		
Total, sub-item 2.2	1,656,577	1,656,577	1,617,628	1,696,628	1,555,861	1,485,278
Total, sub-item (2.1+2.2)	2,657,311	2,657,311	2,638,377	2,717,377	2,597,025	2,547,265