



**SCIENTIFIC COMMITTEE
THIRTEENTH REGULAR SESSION**
Rarotonga, Cook Islands
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INTERSESSIONAL ACTIVITIES OF THE SCIENTIFIC COMMITTEE

WCPFC-SC13-2017/GN-WP-04 (Rev.01)

Secretariat

Introduction

This purpose of this paper is to inform the Scientific Committee (SC) of the relevant activities to the work of the SC that were pursued and undertaken since SC12.

I. Summary Report of the Twelfth Regular Session of the Scientific Committee

1. The Secretariat posted on the SC12 website an adopted version of the Summary Report and Executive Summary of the Twelfth Regular Session of the Scientific Committee on 31 October 2016.

II. Science Services from the SPC-OFP

2. In 2006, the Commission signed the first memorandum of understanding (MOU) with the Commission's scientific services provider (SPC-OFP) to provide science and data management services, and has been updating Annex I (*Agreement for the Provision of Scientific Services to the Commission and Assistance to Members by the Pacific Community*) of the MOU each year to accommodate the specific services and terms of reference for the provision of scientific services as requested by the Commission for each calendar year. In 2009, the Commission and the SPC agreed to revise the MOU to provide for a three-year arrangement as directed by the Commission. A revised three-year MOU was signed in March 2013 and 2016, which included implementation of the Shark Research Plan and development of management strategy evaluation to support the implementation of the harvest strategy framework. The general components for scientific services in Annex I include:

Core SPC services

- 1) Data management, statistical analyses and related services
 - Data management
 - Compilation of catch and effort estimates
 - Data dissemination
 - Technical / policy advice
 - Support of other data-related projects of the Commission
- 2) Stock assessment and related analytical services
 - Target species stock assessments and auxiliary analyses

- Implementation of the Shark Research Plan 2016-2000
 - Model development and refinement
- 3) Management analyses and CMM performance monitoring
- Conservation and management measure performance monitoring
 - Development of harvest strategy framework
 - Analyses to support development of conservation and management measures

Other advisory and technical services

3. The SPC-OFP produced 46 papers and reports, covering all four theme issues, and provided *ad hoc* advice and support throughout the year. In addition, SPC-OFP assisted the following activities:

- Participated in TCC12 and WCPFC13, producing several key papers and presentations for each meeting;
- Assisted tuna data review and annual tuna catch estimates workshops of the WPEA Project participating countries (Indonesia, Philippines and Vietnam) and ongoing database system and data management support;
- Conducted the Pacific Tuna Tagging Program (PTTP) and coordinated the PTTP Steering Committee Meeting;
- Conducted the Biological Sampling Programme and hosted the WCPFC Tuna Tissue bank;
- Hosted the Tuna Data Workshop to assist compilation of CCM's tuna fishery data;
- Hosted a preparatory workshop for 2017 stock assessments and a workshop on analysis of CPUE for stock assessments, plus a follow up electronic meeting on bigeye stock assessment outputs;
- Provided technical support for the 2nd Meeting of the EM&ER-IWG and the 2nd meeting of the FADMgmtOptions-IWG; and
- Supported WCPFC presentation at the Joint Meeting of t-RFMOs on the Implementation of the EAFM

III. Progress of SC Work Programme Activities

4. SC work programmes conducted in 2016-2017 include:

- (Project 15) West Pacific East Asia Project
The GEF-funded UNDP's WPEA-SM project continued in 2016 and 2017. Because of delayed commencement of the project in Indonesia and Vietnam, the Project Board agreed to extend this project to January 2019, as recommended by the Mid-term evaluation, which was conducted in March 2017.
- (Project 35) Sampling in support of an age, growth and maturity study of bigeye tuna
A comprehensive review and study of bigeye tuna reproductive biology was proposed in 2008 (SC4) and SPC has been conducting this research since 2009. Over eight years of sampling and subsequent analyses have been completed, where SPC sub-contracted CSIRO for a large portion of the recent work, and the outputs were submitted to SC13. Although no funding support is available in 2017, age and growth of bigeye tuna and other species are likely to be an important activity moving forward.
- (Project 35b) Maintenance and enhancement of WCPFC Tissue Bank
The WCPFC Tissue Bank has been operationalized; three requests were met in 2016, and a proposal to access the tissue bank has been accepted for 2017. A set of successful sample quality assurance tests were completed in 2016-17. SC12 recognizing the importance of having a curated second storage site as part of the tissue bank network recommended a modest increase in budget from USD 80,000 to USD 95,000 for additional curation and

storage work to be conducted in 2017. This recommendation was approved and reflected in the decisions of WCPFC13.

- (Project 42) Pacific-wide tagging project
SC12 recognising the importance of this work extended the scope and recommended a significant increase in budget from USD 10,000 to USD 250,000 for tagging work to be conducted in 2017. This recommendation was approved and reflected in the decisions of WCPFC13. In addition, the Government of the Republic of Korea provided funding support to the PTPP of USD173,590 in 2017, making a total sum of USD 423,500 available to support tuna tagging in 2017.
- (Project 57) Limit reference points - Develop proposed limit reference points for elasmobranchs
SC12 produced a scope and associated budget to contract this project, however the tender was not taken up. This is thought to be due the onerousness of the scope in combination with a relatively low budget. The scope and budget will be revisited during SC13.
- (Project 60) Further paired sampling and unloading data comparisons
Budget would cover at-sea data collection (2nd observer), associated travel, and some analytical support. A budget of \$50,000 allocated in each of 2016 and 2017 and a multi-year contract was signed. Future work beyond December 2017 is not currently funded, but should be assessed based on reporting to SC13.
- (Project 67) Review of impacts of recent high catches of skipjack on fisheries on the margins of the WCPFC Convention Area
Project 67 aims to identify the relationship between high catches in the equatorial region and the availability, or trends in abundance, of skipjack tuna to high latitude fisheries. The outcome of this project will be presented at SC13.
- (Project 68) Estimation of seabird mortality across the WCPO Convention Area
The allocation for “Estimation of Seabird Mortality” was reduced from \$72,500 to \$20,000 at WCPFC13 on the basis that the FAO ABNJ Tuna Project would finance the remainder through co-funding. Contract negotiations with the FAO are still taking place to fund this project. It will be important to keep the allocation made in the 2017, 2018 and 2019 budgets to ensure its completion.
- (Project 77) Development of potential measures to reduce interactions with bigeye tuna in the purse seine fishery in the Western and Central Pacific Ocean
The draft final report from Project 77 will be presented to SC13, and any minor changes may be feasible before delivery of the final report in October 2017.
- (Project 78) Review of shark data and modeling framework to support stock assessments
This project was subcontracted by SPC to Joel Rice Consulting, who will present the findings to SC13.
- (Project 79) Spatial longline analyses in support of bigeye tuna management in the WCPFC
Document describing the analysis and results were provided to the WCPFC Secretariat by the 31st October 2016 deadline, and submitted to WCPFC13 as WCPFC13-2016-IP03.

IV. Cooperation with other organizations

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

- Joint Meeting of t-RFMOs on the Implementation of the EAFM, 12-14 December 2016, Rome, Italy
- SPC Pre-Assessment Workshop, 20-27 April 2017, Noumea, New Caledonia;
- The 17th ISC and its Working Group meetings, 7-17 July 2017, Vancouver, Canada; and
- WPEA Project related workshops and meetings in Indonesia, Philippines and Vietnam, including tuna data review and annual catch estimates workshops.

V. Research Projects

ABNJ (Common Oceans) Tuna Project-Shark and Bycatch Components

6. The ABNJ (Common Oceans) Tuna Project has provided funding for a variety of activities being led by the WCPFC Secretariat and SPC over the period October 2014-January 2019. These activities are comprised of shark data improvement and harmonization, shark stock status assessment, and bycatch management and information. Over the past year, with funding from the ABNJ Tuna Project and the European Union, the project has initiated one of the Pacific's largest shark post-release mortality tagging programmes based on an expert panel-designed survey design. Two of four Pacific-wide shark stock status assessments are complete and will be presented to SC13 (porbeagle and bigeye thresher), with a third underway (silky shark) in collaboration with IATTC. The fourth and final assessment is expected to be identified and initiated later in 2017. The Bycatch Management Information System (BMIS) was launched in May 2017 with a revamped user interface and expanded and updated content. A joint analysis of sea turtle mitigation effectiveness was completed with the participation of representatives from 21 countries and organizations; results will be presented to SC13. The ABNJ Tuna Project-Shark and Bycatch components report to the SC (see paper WCPFC-SC12-2016/RP-ABNJ-01) and to a Sharks and Bycatch Consultative Committee meeting held in the margins of the WCPFC's Annual Commission meeting each year.

Japanese Trust Fund Project

7. The Japanese Government supported an extension of one year for the Japan Trust Fund into 2017, with JTF support amounting to USD \$128,843.25 in 2016. Four projects were supported for Cook Islands, Kiribati and two projects in Tonga. Project extensions were granted for Nauru, Niue, Fiji and FSM.

WCPFC Tissue Bank

8. Three projects were supported in 2016, and interim reports have been received by the Secretariat for each project:

- Mr Samuel Williams (University of Queensland): Genetic Population Structure of the Black Marlin (*Makaira indica*)
- Lydie Couturier (UBO/IRD/CNRS/Ifremer): Global scale analysis of tropical food web dynamics to understand climate impact on top predators, and
- Ciro Rico (MSP, USP): Meta-population dynamics, population genomics and determination of management units of albacore, big eye, skipjack and yellowfin tunas in the Western and Central Pacific Ocean (WCPO).

9. One application has been approved for 2017:

- Karen Evans (SCIRO): Determination of the spatial dynamics and movement rates of the principal target species within the Eastern Tuna and Billfish Fishery and connectivity with the broader western and central Pacific Ocean - beyond tagging.

West Pacific East Asia Project

10. The GEF-funded Sustainable Management of Highly Migratory Fish Stocks in the West Pacific and East Asian Seas Project (WPEA-SM) continued its activities in 2016 – 2017 in Indonesia, Philippines and Viet Nam. Key activities include tuna catch data collection and estimation of annual total catch by species and gear; development of guidelines to adaptively manage highly migratory stocks against the impacts of climate change; establishing market-based sustainable fisheries, including tuna supply chain analysis and certification scheme, establishing reference points and harvest control rules; applying ecosystem approach to fisheries management to selected tuna fisheries, etc. Most activities have been implemented through consultancies and workshops to review the consultancy reports. Early 2017, the UNDP hired an independent reviewer and conducted a mid-term review of the Project, and the report is posted on SC13 website as RP-WPEA-02. The 4th Project Board meeting was held in May 2017, where the Board agreed to a no-cost extension of the project for 15 months (by the end of January 2019).

VI. Voluntary Contributions from Members and Observers

11. Members and Observers of the Commission have voluntarily provided funding supports for the scientific work of the Commission. The European Union has made available to WCPFC in 2016 , approx. USD 1 million for various research projects such as, simulation testing of reference points, estimation of post-release sharks and rays survival on longline and purse seine fisheries and BET/YFT juvenile by-catch mitigation. The second 5-year programme of the Korean government to support the SPC's Pacific Tuna Tagging Project started in 2014, providing about USD 170,000 per year. Over the last one year, the International Seafood Sustainability Foundation and the Western Pacific Regional Fishery Management Council has supported the Expert Consultation Workshop on Management Strategy Evaluation and the spatial longline analyses.