



**SCIENTIFIC COMMITTEE  
SEVENTEENTH REGULAR SESSION**

Online meeting  
11-19 August 2021

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**TRAINING OBSERVERS FOR ELASMOBRANCH BIOLOGICAL SAMPLING  
(PROJECT 109)**

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**WCPFC-SC17-2021/ST-IP-07  
24 July 2021**

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## 1. INTRODUCTION

The WCPFC currently recognises 14 key shark species and six mobulid species as key shark species (Clarke *et al* 2017; Park, 2019). The designation of Key specifies these species in terms of the need for stock assessment and hence supportive data collection (Clarke *et al*, 2017).

The Final Report of the WCPFC Project 97 '2021-2025 Shark Research Plan' (Brouwer & Hamer, 2020) highlighted gaps in data that are needed for elasmobranch stock assessment. They emphasised that observers collect biological material from dead Key Sharks species. Data collected should include standardised length, weight (when possible), ageing material (vertebrate samples), clasper length, uterine condition, number of embryos and embryo lengths. These data are critical for assessing growth rates, maturity, fecundity and pupping areas. The efficacy of collecting caudal vertebrae for shark ageing has been demonstrated by Joong *et al* (2018).

When 2021-2025 Shark Research Plan' was presented at SC16, recommendations included that:

*The SC develop an "agreed suite" of biological parameters (or upper and lower bounds) and units of measurement (e.g. total length) for use in WCPFC assessments and update the information sheets accordingly.*

Furthermore, the SC16 Summary Report (Anon., 2020) included among new projects:

*Project X8: Training observers for elasmobranch biological sampling. The shark research plan highlighted the large gaps in biological knowledge for many species. The project would develop training material and train observers through workshops.*

The 17th Commission Annual meeting (Anon., 2021) endorsed the 2021-2025 Shark Research Plan and its recommendations, including Project X8 above, as now Project 109.

The scope of Project 109 includes:

- i) the development of material for methods for collection, recording, storing and measuring of samples; and
- ii) workshops in selected locations to demonstrate the techniques for the observers, and then provide practical training on the collection of these samples

## PROJECT 109 WORK TO DATE

SPC were contracted to conduct the work of Project 109. This was signed on February 1, 2021, US \$20,000 has been received to conduct the work, but at this time there has been no expenditure in this project given the challenges of the COVID-19 pandemic.

There have been very few observer placements made since the moratorium on observer coverage in April 2020. However, PICTs observer programmes agreed on July 16 to schedule of *Agreed Minimum Requirements for Safe Observer Redeployment*. The schedule of redeployment will initially be on domestic fleets and then foreign vessels that will operate exclusively from PICT ports to collect and return the observer from his home port. This resumption of observer deployment is a prerequisite to Project 109 implementation. **We therefore request that a no-cost extension to the project period be considered to reflect the challenges in undertaking project activities within the current global health crisis.**

Shark Identification focussing on the Key Shark Species has been adopted into PIRFO Observer training for all PICTs observer programmes. In separately funded activities that supports Project 109, in late

2020 the French version of SPC's Shark and Ray identification Manual has been released and dispersed to French Polynesia and New Caledonia.

The biological sampling of elasmobranchs ties in with Project 90 collecting morphometric data of many species including Key Shark species (Macdonald et al, 2021).

Broad scale refresher training of observers is planned under the schedule of *Agreed Minimum Requirements for Safe Observer Redeployment*. Refresher training of observers is required as most programmes stopped deployments in April 2020. This training will include shark identification training as many of the certified 800+ PIRFO observers were trained prior to the release of the new shark guides.

While SPC has conducted some observer training in the region in the past year, it has been conducted remotely via Zoom. Thus, training has been focussed on practical aspects of the data forms and background theory. Biological sampling training has not been conducted owing to its practical nature and the need for face-to-face training and assessment. Travel restrictions through out the region are preventing this happening, though the resumption of biological training will resume when travel is possible.

Online Observer training material is currently being developed and Shark Identification material is planned by SPC.

## **PLANNED SCHEDULE**

1. Include shark species identification training in the planned 2021 observer refresher training.
2. Develop standardised protocols for collection of morphometric and biological (age, reproductive) samples
3. Trial utility of protocols
4. Implement elasmobranch biological sampling training

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