

Pacific Marine Specimen Bank

WCPFC-21 Steering Committee 2025

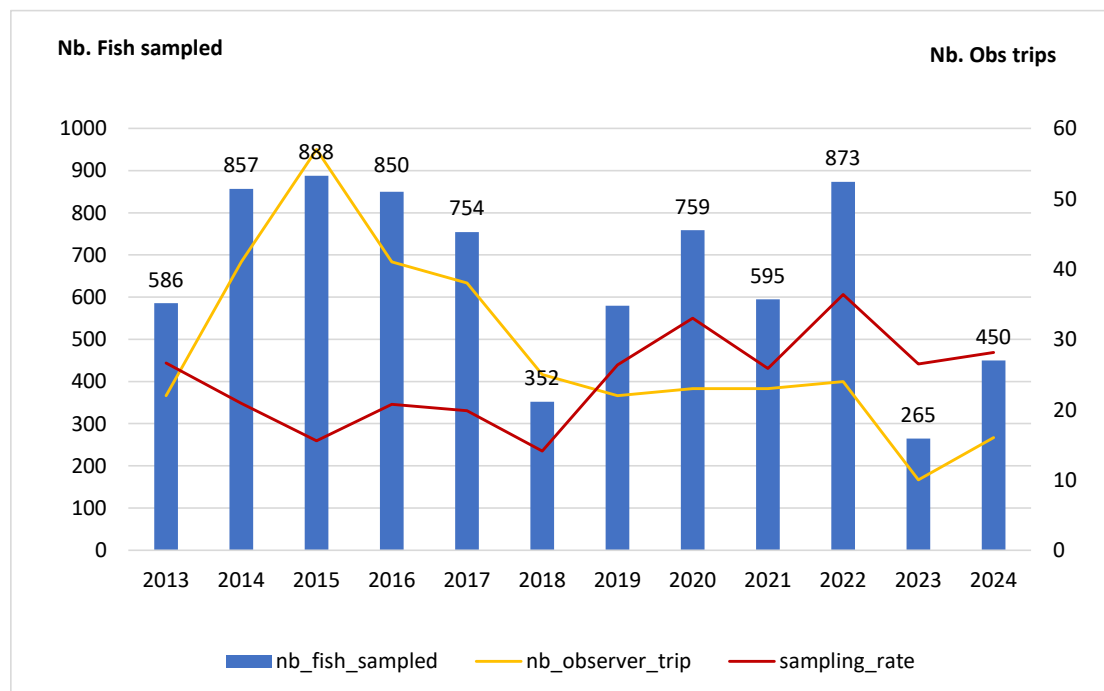
*Fisheries and Ecosystem Monitoring and Analysis
SPC*



PMSB activities (2024)

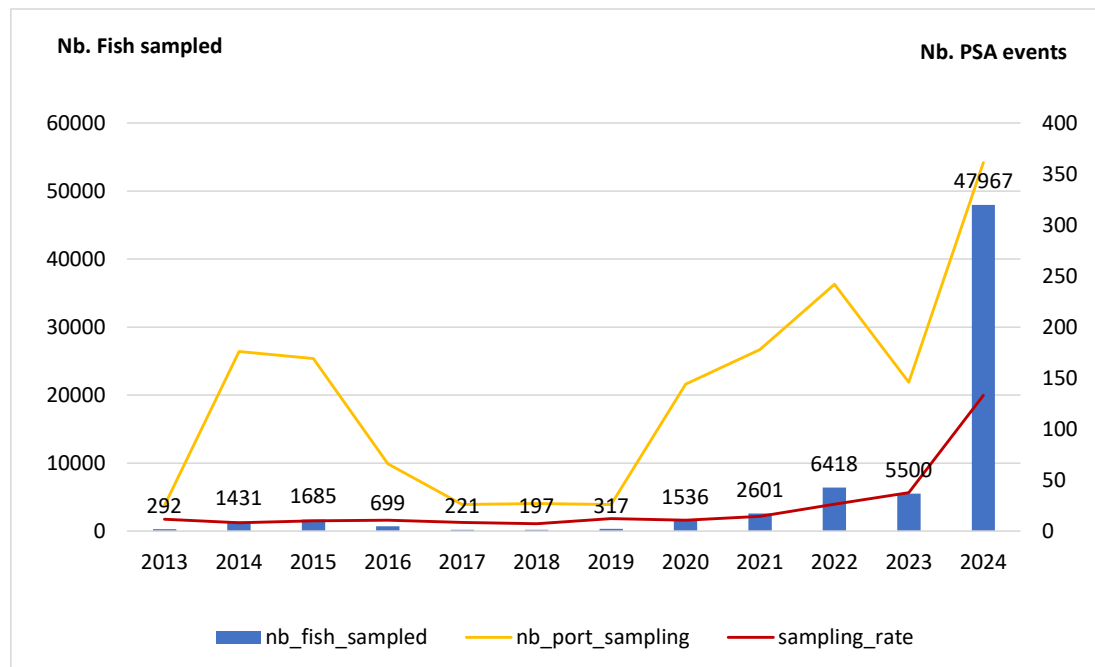
- ❖ 112,535 biological samples collected from 49,128 fish in 2024 (200% increase compared to 2023).
- ❖ 353,220 biological samples (in total) in the repository, taken from 163,977 individual animal specimens.

Observer-based sampling



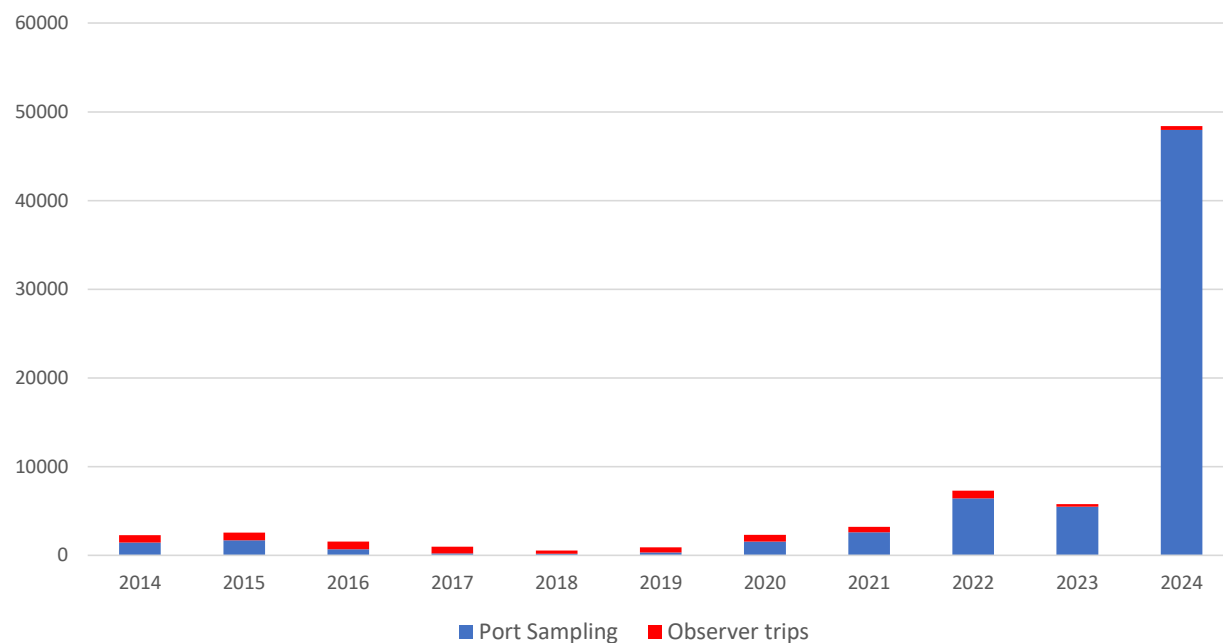
- ❖ Number of trips higher than 2023.
- ❖ Development of new LOAs

Port sampling



- ❖ Massive increase of fish sampled.
- ❖ Sampling rate doubled
- ❖ Impact of CKMR project

All combined



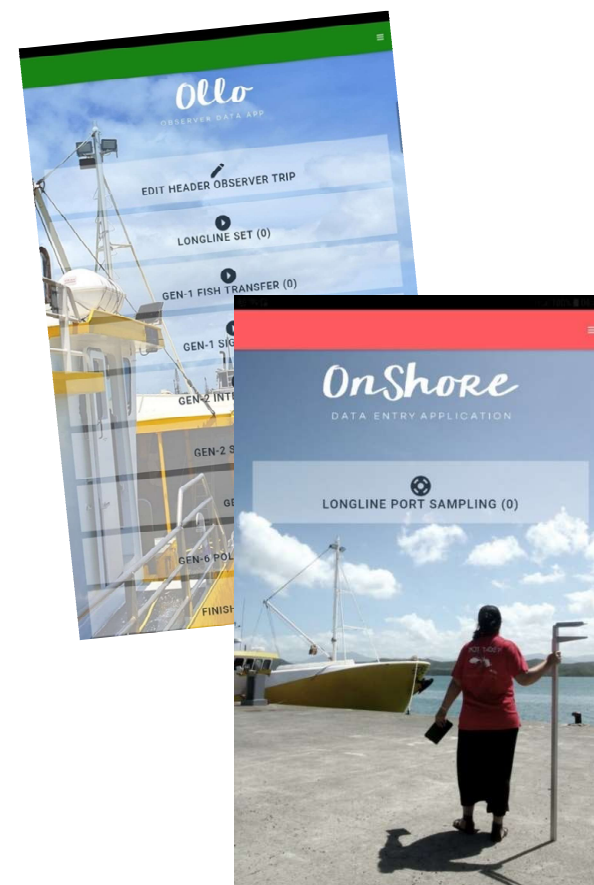
- ❖ 2024: best year in terms of fish sampled
- ❖ 2025: expected increase

Training

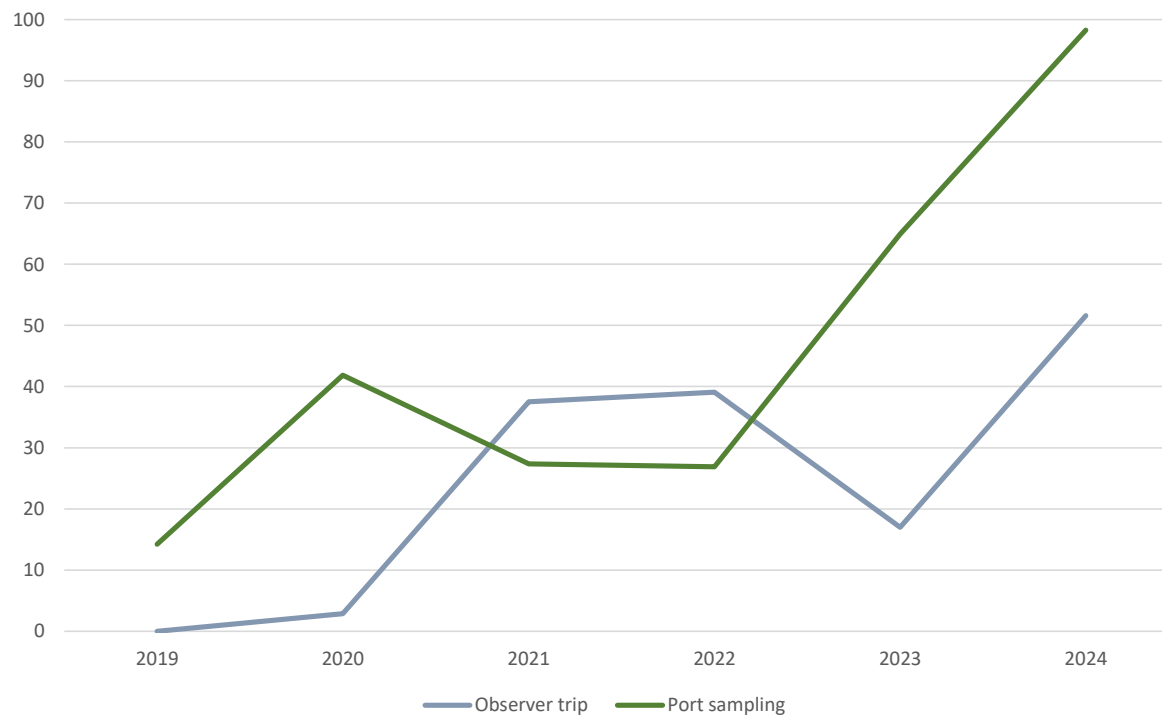
- ❖ Training in biological sampling continues... In summary:
 - Training courses conducted in four countries.
 - 43 people were trained in routine biological sampling.
 - *OnShore* and *OLLO* trainings.

Electronic Reporting (ER)

- ❖ SPC has been encouraging the collection of biological sampling data through ER since 2019-20.
- ❖ *OnShore* and *OLLO* are currently in use in 13 and 8 PICTs respectively.
- ❖ Development of a new app to allow data collection by observer on PS and during research voyages.



Electronic Reporting (ER)



- ❖ Use of ER is increasing.
- ❖ Objective is having all data entered through ER in the next few years.

PMSB access and outputs

- ❖ Fourteen PMSB-related projects are ‘ongoing’, sixty-three are ‘completed’.
- ❖ Seven SC papers linked to the PMSB were submitted in 2024
- ❖ Twelve PMSB-related articles were published in 2024.

PMSB access and outputs

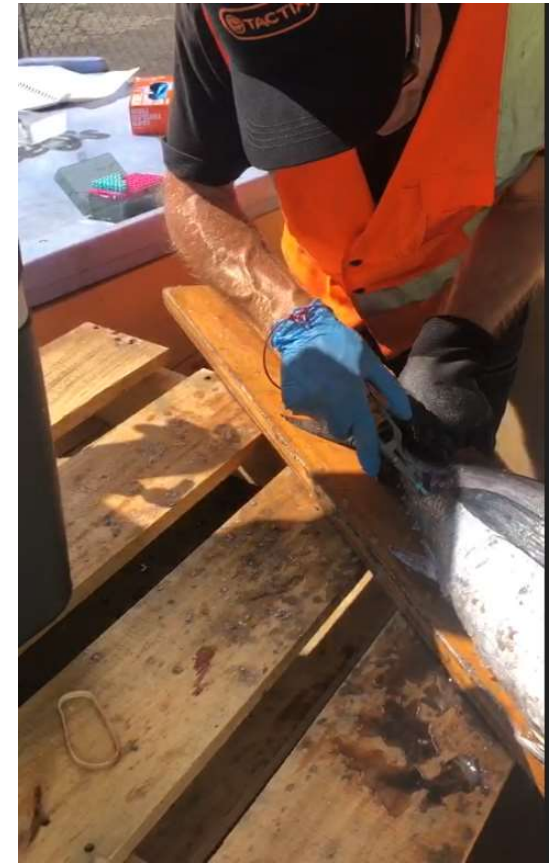
❖ Nagoya Protocol - Access and Benefits Sharing

Initial contact with the National Focal Points of Samoa, Tonga, New Zealand, Fiji, the Cook Islands, and New Caledonia.

- Introduce the CKMR project and broader PMSB activities
- Show our good-faith, guarantee that our work aligns with ABS spirit

The outreach will be extended to the remaining PICTs

Update on the ALB CKMR project



CKMR project (P100c)

- ❖ Close-Kin Mark-Recapture : genetic method to produce a fisheries-independent estimate of the absolute abundance of the adult stock.
- ❖ So far, the PMSB has collected roughly 36,000 high quality genetic samples (target of 36,000 to 84,000 samples over 3 years)
- ❖ Network designed for CKMR project (training, logistics, etc) allowed the proposition of other genetic projects (SC21-SA-WP-10)
- ❖ Expectation is to build a space for permanent storage of all raw genetic sequencing data (volume of data storage needed will eventually present a logistical and financial burden)

Update on the TIPTOP project

Project's objectives were to provide knowledge on the bioaccumulation of persistent organic pollutants (POPs) such as pesticides, and on the presence of mercury, plastics and plastic additives in tuna from the south-west Pacific.



TIPTOP project

- ❖ Tuna contamination by POPs exists but levels of contamination in tuna remain low → no health risk in relation to these substances
- ❖ Stomachs of 6 out of 20 tuna contained plastic fragments or fibres >2mm
- ❖ Two plastic additives in particular have been detected in tuna. There are no health standards for these substances
- ❖ Mercury concentrations are higher in NC than in PNG (surprisingly in NC the values are higher in SKJ than in YFT). All the values measured are below the health threshold
- ❖ Consumption of the two species of tuna provides a wide range of fatty acids, including omega-3s, which are beneficial to health.

Infrastructure

- ❖ Dry and wet labs extension in Nouméa are now operationnal
- ❖ Taxonomy lab was fully renovated
- ❖ 255m² altogether
 - Cutting-edge facility
 - Research: in-house analyses, collaborative projects, etc
 - Training: researchers, fisheries professionals, students, etc



Work plan 2025-26

Actions planned for 2025-26 include:

- Continue to update and improve training materials for biological sampling.
- Continue the development and enhancement of electronic recording ER apps and associated trainings.
- Continue the development of a WCPO-wide sampler network for the collection of tuna genetics samples.
- Continue the development of our Quality Management System to meet international standards.
- Development of the PMSB website to better highlight the use of the PMSB samples and associated outputs.
- Trial and implement a new, more systematic approach to biological sample collection.

Administrative matters

Budget

- ❖ Annual cost of supporting the PMSB is USD 97,200 baselined in 2018, with an annual inflation adjustment agreed by the Commission.
- ❖ Proposed budget for 2026: USD 109,522
- ❖ Indicative budgets for 2027 and 2028: USD 111, 712 and USD 113,947, respectively.

Administrative matters

Recommendations to SC21:

The following recommendations arise from this report on the PMSB in 2024. We invite SC21 to:

- Continue to support initiatives to increase rates of biological sampling, especially by fisheries observers at sea, noting that this contribution is essential to the ongoing success of the WCPFC's work.
- Incorporate the identified budget into the 2026 budget and the 2027-28 indicative budgets, as development of the WCPFC PMSB is intended to be ongoing and is considered essential.
- Endorse that the work plan in Section 5 of this report should be pursued by the Scientific Services Provider, in addition to standard duties associated with maintenance and operation of the WCPFC PMSB in 2025-26.
- Endorse that a Working Paper should be presented at SC22 on isotope, mercury, and other pollutant studies.