



Pacific Tuna Tagging Project

WCPFC-SC20 Steering Committee 2024

Fisheries and Ecosystem Monitoring and Analysis

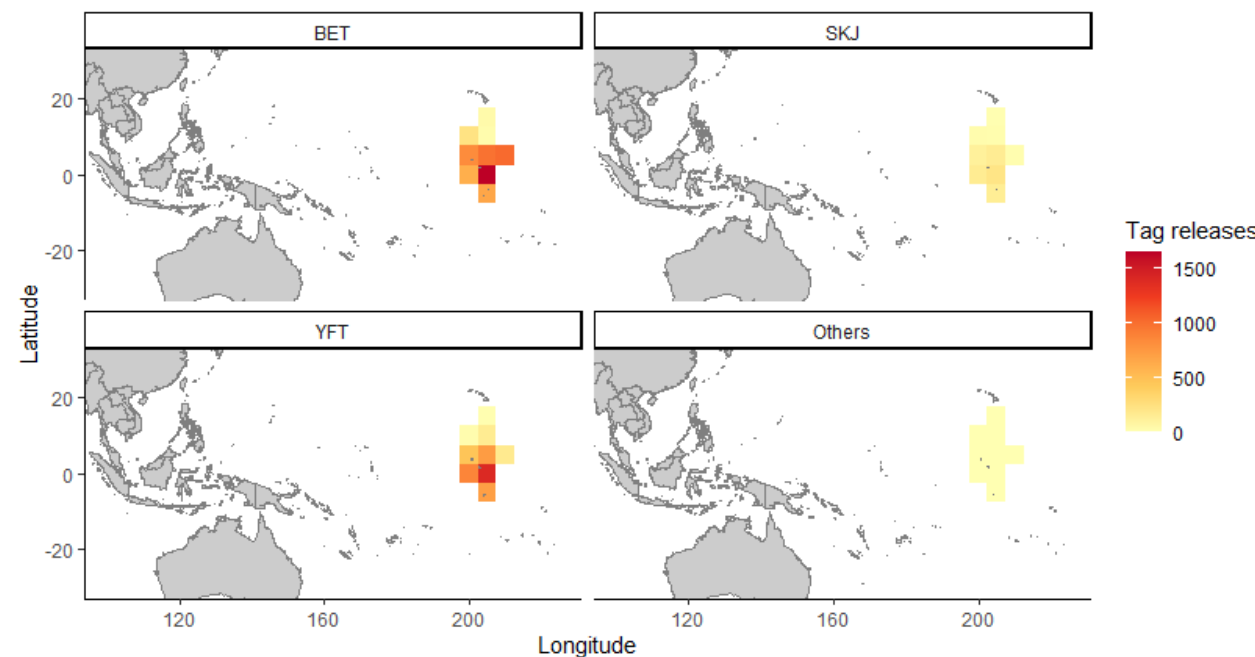
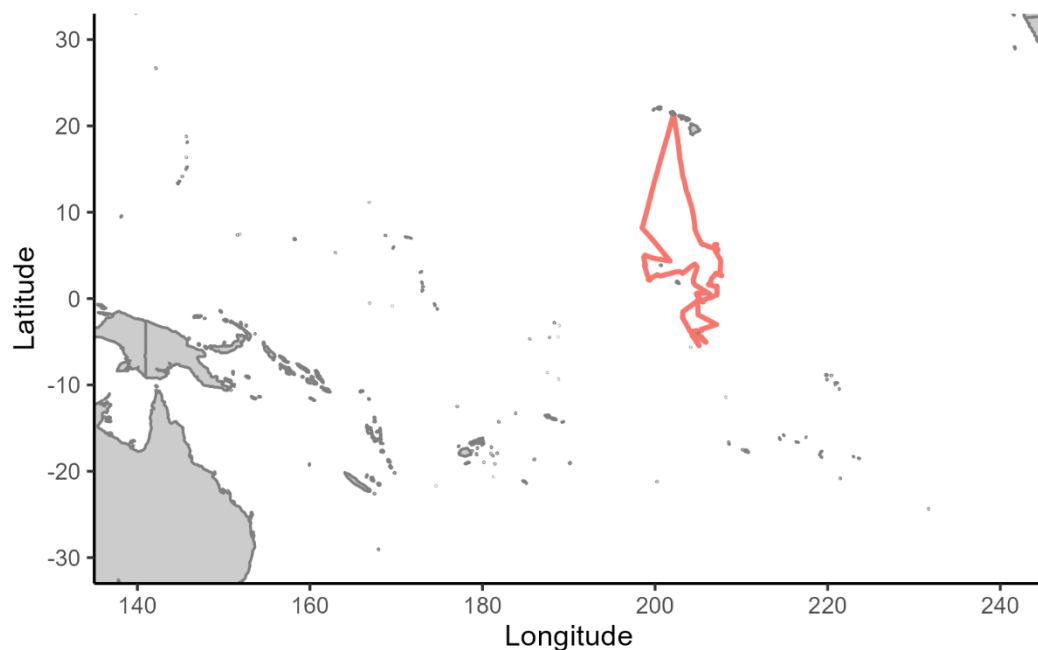
SPC-OFP

Adoption of Agenda

1. Preliminaries
 - 1.1 Review and Adoption of Agenda
2. PTTP Progress Report
 - 2.1 2023 CP16 Cruise
 - 2.2 Tag Seeding
 - 2.3 2023-2024 Tag Recovery and Data Analyses
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 - 5.1 Tagging Cruises
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7. Adoption of Report

2.1 2023 CP16 Cruise

- 45-day cruise onboard Gutsy Lady 4
(Almost 6000 nm between 16th August – 29th September)
- Scientist team : 2 SPC and 1 IRD
- 11,319 tuna tagged (53% BET, 40% YFT, 7% SKJ)
- 76 industry drifting FADs visited, 1 TAO buoy
- Biological samples taken from 306 individuals



2.1 2023 CP16 Cruise

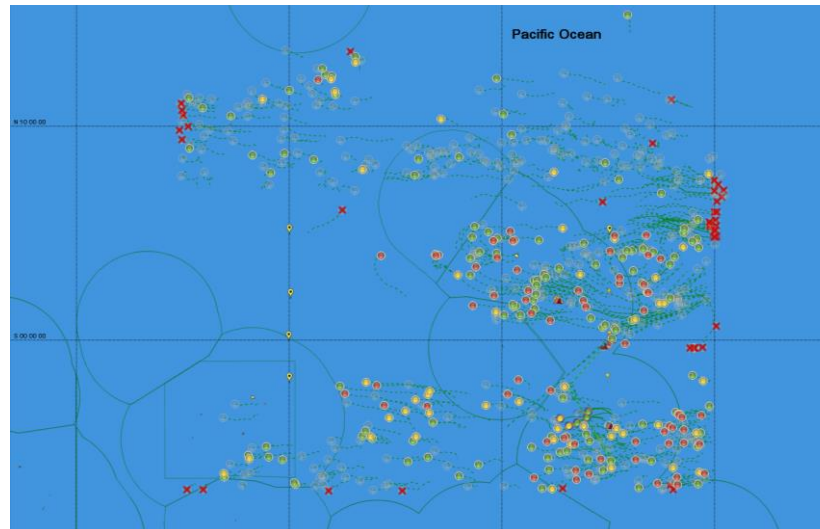
Sampling effort

Species	Muscle	Liver	Otolith	Stomach	Fin	Spine	Blood	Kidney	Brain	Fatmeter
BET	1,102	74	73	71	0	75	31	0	0	52
YFT	368	83	78	83	0	83	21	0	0	71
SKJ	72	39	29	39	0	39	1	0	0	24

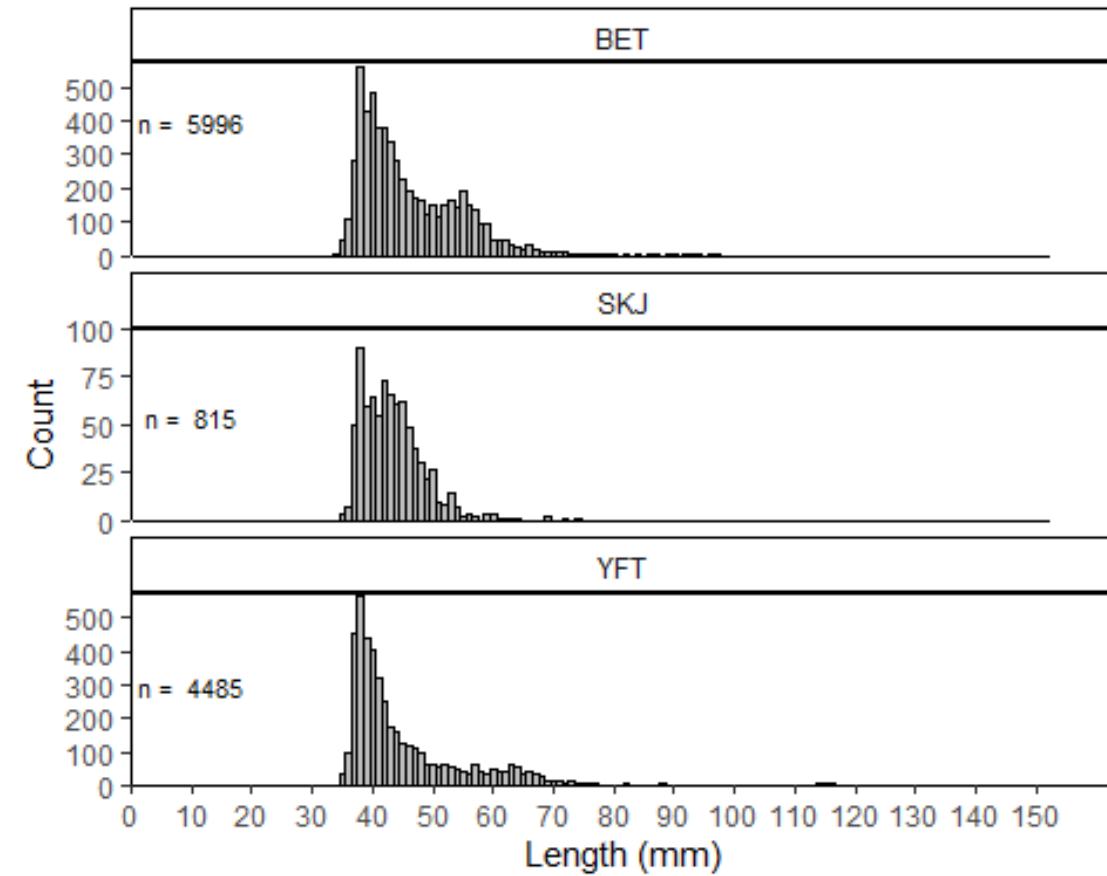
To support growth rate validation

Tag type	BET	YFT	SKJ	OCS	Total
SrCl ² Otolith Marking	1388	261	7	-	1656

Over 1400 drifting FAD buoys were shared from 4 separate purse seine fishing groups!

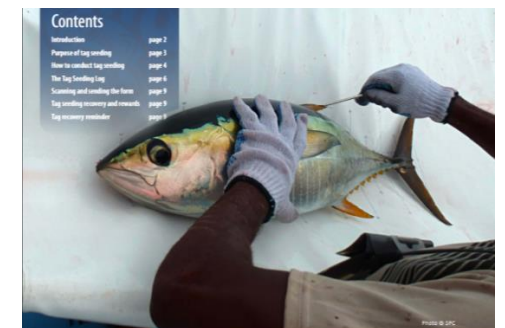
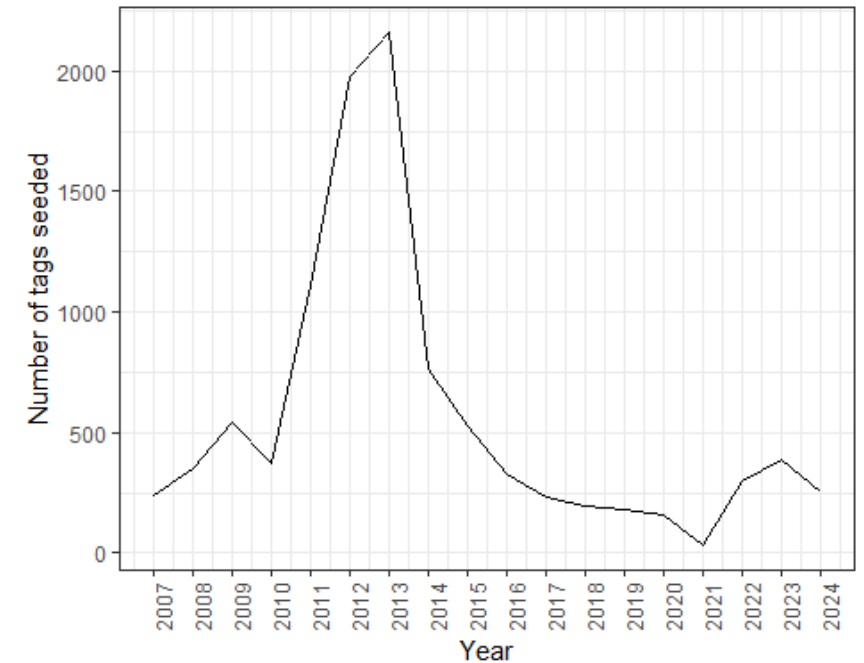


Tagged Fish Length Frequency



2.2 Tag Seeding

- Tag seeding is a critical method of informing tag reporting rates for WCPO stock assessments
- Levels of tag seeding by ROPs has declined since 2014
- Starting 2024 we are supporting a large increase in tag seeding to reduce uncertainty in the influence of tagging data in WCPO assessments
- A 10-fold increase from recent years
- Spread across fleets and regions
- Will include a new ‘plain-sight’ seeding protocol to facilitate easier implementation by observers
- A proportion of seeded kits will follow the original ‘secret’ protocol



Tag seeding onboard purse seine vessels (NON-SECRET)
A manual for observers

2.3 Tag Recovery and Data Analyses

- WP6 recapture rate remains highest on record (43.3%)
- CP15 also high recapture rate for CP cruise
- CP16 appears exhibit lower recapture rate, but very different spatial fishing effort
- Long term recaptures continue to occur, in some cases >1.5yrs at liberty, including increased numbers of SrCl² marked fish
- Archival YFT data examined for use in DEB model (SA-IP-21)



Cruises	Release numbers				Recapture numbers and rate (%)			
	SKJ	YFT	BET	Total	SKJ	YFT	BET	Total
CP15 Jul - Aug 2021	98	1,344	6,445	7,887	1 (1%)	133 (9.9%)	1579 (24.5%)	1713 (21.7%)
WP6 Sep - Oct 2022	16,649	334	2	16,987	7230 (43.4%)	130 (38.9%)	0 (0%)	7360 (43.3%)
CP16 Aug - Sep 2023	815	4,485	5,996	11,296	21 (2.6%)	250 (5.6%)	223 (3.7%)	494 (4.4%)

3.1 Tagging Platforms Update

Western Pacific Pole-and-Line Tagging Platform

- Since 2006, the PTTP has chartered NFD pole-and-line in the Solomon Islands
- The most successful has been FV Soltai 105, but it is currently unable to fish with long-range capacity
- Full refurbishment is planned for 2024, once administrative agreements are in place
- This will permit the scheduled skipjack-focused cruise to be implemented at the end of 2024-early 2025



3.1 Tagging Platforms Update

PACIFIC RESEARCH VESSEL PROJECT

- April 2023 : Naval Architect recruited to draft a vessel
Functionality Study following involved SPC Divisions and
Pacific countries requirement needs.
- Call of Interest towards shipyards: 5 pre-selected in December
- December 23: NA recruited for the whole project duration
(vessel design, shipyard selection, construction follow-up)
- 2024: recruitment process (2 phases) for the best shipyard
and the ship management company
- 2025: Selected shipyard contract signature,
start of the construction for 18 to 20 month



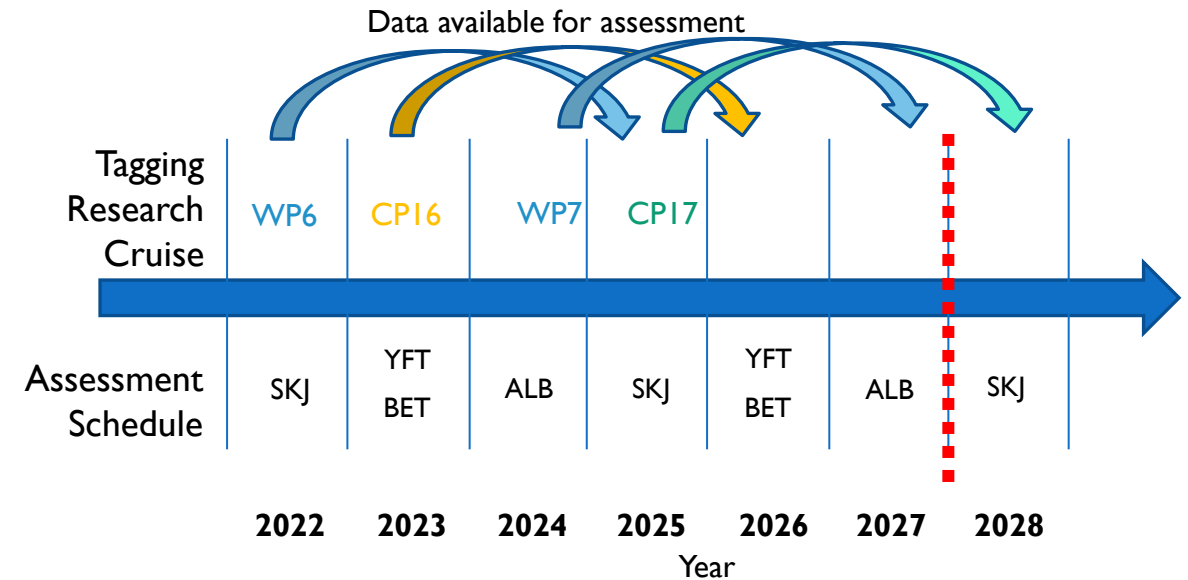
**A research vessel to support
Pacific tuna fisheries management
and ecosystem monitoring**

4.1 Other Regional Tagging

- No further updates from:
- JPTP
- EPO Tagging

5.1-2 Work-plan: Cruises & Seeding

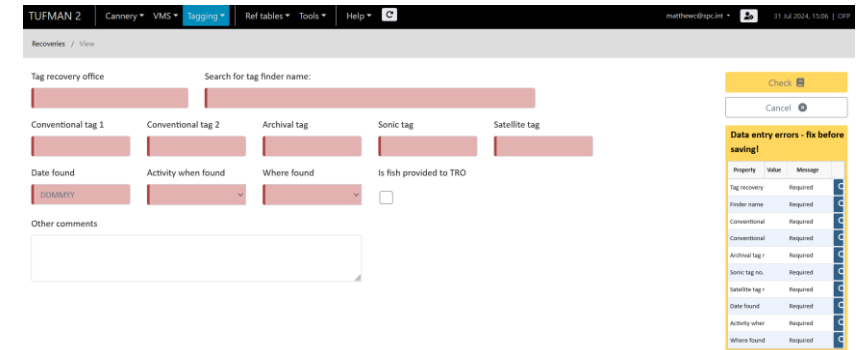
- Scheduled skipjack-focused cruise following refurbishment of Soltai 105 in late 2024/early 2025
- Scheduled bigeye-focused cruise in August 2025
- Further collaboration with industry sought to continue access to dFADs



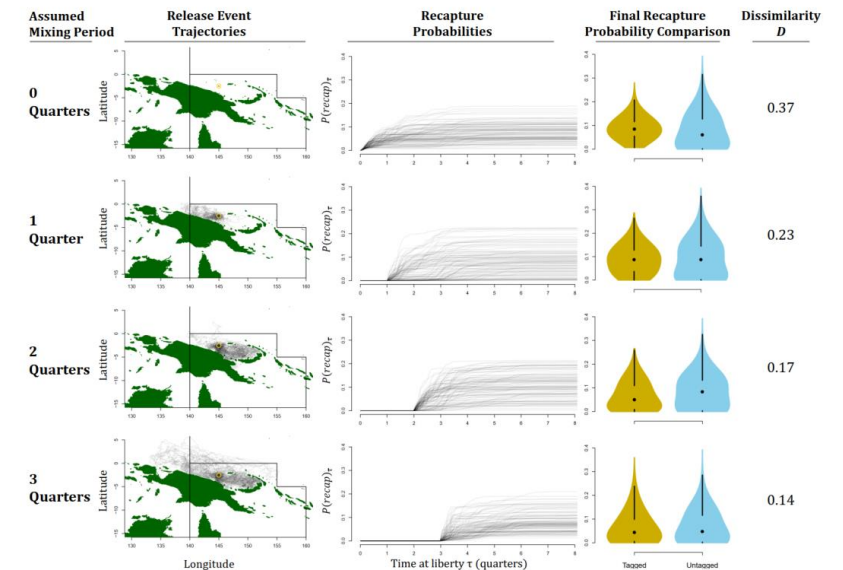
- Tag seeding scale-up will continue through 2024 and 2025
- Will include seeding Japanese tags in regions corresponding to historical JPTP in equatorial zone

5.3 Work-plan: Recovery & Analyses

- Large effort in 2024-2025 to consolidate validation of historical skipjack recoveries
- Trials for direct recovery data entry into TUFMAN2 platform
- Development of automated validation processes
- Improved tag recovery network across region in parallel to large-scale tag seeding
- Supporting analyses for 2025 WCPO skipjack stock assessment: tagging effects, reporting rates and tag mixing



Property	Value	Message
Tag recovery	Required	
Finder name	Required	
Conventional	Required	
Archival tag #	Required	
Sonic tag no.	Required	
Satellite tag #	Required	
Date found	Required	
Activity when	Required	
Where found	Required	



6.1 Administrative Matters

- SSP co-financing of the PTTP is sustainable where the contribution is <25% of the total PTTP budget
- Recent years have seen the SSP co-financing the PTTP up to 38%
- WCPFC20 approved 2024 incremental budget increase to reduce SSP co-finance proportion towards <25%
- Recommend this continues until 2026

Budget	2021	2022	2023	2024	2025	2026	2027
Total	USD 1,433,875.00	USD 1,402,880.00	USD 1,450,000.00	USD 1,450,000.00	USD 1,475,000.00	USD 1,475,000.00	USD 1,475,000.00
WCPFC	USD 730,000.00	USD 730,000.00	USD 730,000.00	USD 800,000.00	USD 875,000.00	USD 950,000.00	USD 950,000.00
Republic of Korea	USD 166,000.00	USD 166,000.00	USD 166,000.00	USD 166,000.00	USD 166,000.00	USD 166,000.00	USD 166,000.00
SSP	USD 537,875.00	USD 506,880.00	USD 554,000.00	USD 484,000.00	USD 434,000.00	USD 359,000.00	USD 359,000.00
SSP%	38%	36%	38%	33%	29%	24%	24%

6.2 Recommendations to SC19

- **Note the critical importance of effective tag seeding** for informing stock assessment and support the increased deployment and fleet coverage of tag seeding experiments through regional and national observer programmes.
- **Note the need for member participation and support in tag reporting** as both wild and seeded tags continue to be found throughout the fishery.
- **Note and support the ongoing regional fisheries research vessel project.**
- **Consider and support the PTTP work-plan** for 2024-2027, and indicative budget presented here