

# Enhance the sustainability of the biggest tuna fishery



annual  
schedule  
of 2 to 3  
months



▶ **20,000**  
tuna tagged

▶ **500**  
biological samples

## Implementing annual tuna tagging and sampling research cruises

**Design features:** The research vessel design includes an efficient capability for pole-and-line (P&L) fishing methods to catch, tag and release multiple thousands of tunas per day. The bow areas replicates the Japanese P&L bow design, which has been fine-tuned over the last hundred years for operations in the Pacific Ocean. The vessel will also have the capability to catch and keep alive fish baits that are essential for P&L fishing gear. Additional fishing gears (horizontal longline, hydraulic reels, troll lines) will allow the capture and tagging of the full size range of tropical tuna species in various environments and remote areas when live fish bait is not available.



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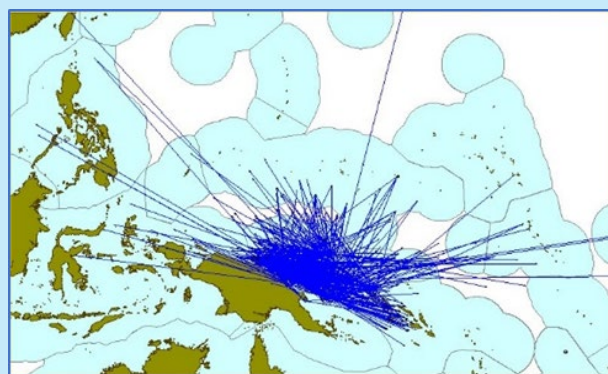
# Implementing annual tuna tagging and sampling research cruises

The western and central Pacific tuna fisheries are a natural resource of exceptional importance, representing over 50% of the global tuna catch and investments over USD10 billion, and are crucial for the economic wellbeing and food security of Pacific Island countries and territories (PICTs). For many PICTs, it is the biggest business and employer in town; the licence fees for tuna fishing in their EEZs account more than half of government income and provide over 25,000 jobs for Pacific Islanders across the region.

Tuna tagging is a regularised monitoring programme to keep regional tropical tuna stocks in a healthy and sustainable state. The information derived improves estimation of animal population size, mortality, movement (spatial stock structure) and growth. These data are a critical input to the assessments that are regularly undertaken to determine the status of Pacific stocks. Over the past 15 years the Pacific Community (SPC) has tagged close to half a million tuna across the region.

Releasing a large number of tagged tuna requires the use of a pole-and-line vessel and this is especially important for the skipjack species, which represents 70% of the tuna catch in the Western Pacific. Such suitable tagging boats are becoming increasingly scarce worldwide. In most countries, pole-and-line fleets have been replaced by purse-seine fleets that are not appropriate for tagging.

TARGETED SPECIES PRIORITY	FISHING GEAR	DATA/SAMPLES COLLECTED
Skipjack Yellowfin Bigeye	Pole and line	<ul style="list-style-type: none"> <li>• Growth</li> <li>• Reproductive status</li> <li>• Contaminants levels</li> <li>• Natural mortality</li> <li>• Fishing mortality</li> <li>• Movements</li> <li>• Behaviour</li> <li>• Fishing gear interactions</li> </ul>
Bigeye Yellowfin	Troll lines danglers, hydraulic reels, rods and reels, hand lines, horizontal longline	
Albacore tuna	Troll lines, horizontal longline	
Tuna fishery bycatch species	All fishing gears	



Displacement larger than 300 nautical miles of skipjack tunas tagged in PNG

Tagging experiments are supplying thousands of biological samples to the Pacific Marine Specimen bank. They are used to understand the tuna biology and the oceanic ecosystem functioning and its adaptation to environmental changes.

