



**SCIENTIFIC COMMITTEE
TENTH REGULAR SESSION**

Majuro, Republic of the Marshall Islands
6-14 August 2014

**ANNUAL REPORT TO THE COMMISSION
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS**

WCPFC-SC10-AR/CCM-18

PALAU

Annual Report to the Western and Central Fisheries Commission

PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS 2013, PALAU

Bureau of Oceanic Fishery Management
Ministry of Natural Resources, Environment and Tourism

August 2014

Scientific Data was provided to the commission in accordance with the decision relating to the provision of scientific data to the Commission by 30 April 2014	YES
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Abstract

Title 27 of the Palau National Code is the primary fisheries legislation regulating harvest of tuna stocks and fishing vessels to fish in the fisheries in the waters of the Republic of Palau. Bureau of Oceanic Fishery Management is also responsible for research, fisheries statistics, and development of its own domestic tuna fishery. Palau is a shark sanctuary. Subsection 181 of RPPL 6-36 prohibit act to the use of any licensed foreign fishing vessel to fish, as that term is defined in 27PNC Chapter 12, for any shark, or any part of any such, or to remove the fins of or otherwise intentionally mutilate or injure any such shark. Tuna fishing in the Palau Exclusive Economic Zone is dominated by the locally based foreign longline fleet of Chinese Taipei and the offshore based longline and purse seine fleet of Japan.

Total provisional longline catch in 2013 in Palau waters was 1329mt. A total of ninety (90) vessels were active in the waters of Palau in 2013. Eighty-five (85) longline vessels and five (5) were purse seiners.

At the moment, Palau is implementing all latest versions of SPC's regional data forms. SPC TUFMAN Database System is fully utilized to streamline and collate all data. At the same time, ongoing work continues in linking TUFMAN (Tuna Fisheries Database Management System) with the PNA VDS which would allow accurate timely correlation of fishing effort in Palau EEZs. Further enhancement in this work is by the FFA VMS that provides an MCS component to fisheries management process.

Palau observers have been deployed on the locally based foreign fleet since the 1980's to conduct general observer duties, such as the collection of data on fishing gear and the size and species composition of catches. Because of a relatively small observer program in Palau, personnel training through regional programs are ongoing. At the moment Palau has one (1) permanent observer and three (3) seasonal observers. Dedicated fisheries port samplers are present at all times during offloading of longline vessels at respected port to collect data and information.

In addition to Fisheries Bilateral Agreement between Palau and the Japan Fishing Association, Locally Based Foreign Fleet of Chinese Taipei, US Multilateral Fisheries Treaty, and FSM Arrangement, Palau has agreement with Palau wholly owned fishing entity though at the moment does not have active fishing vessel.

In 2012 Palau passed into law an Open Ship Registry. This Open Ship Registry enable Palau to develop its' own domestic tuna fishery.

Revenues derived from off-shore fishing, still is the second highest income generating mechanism for Palau besides tourism.

1. Introductions

Title 27 of the Palau National Code is the primary fisheries legislation regulating harvest of highly migratory fish stocks, such as the valuable tuna stocks, and fishing vessels to fish in the waters of the Republic of Palau. Sub-sections 123 mandates the Bureau of Oceanic Fishery Management to adopt fisheries regulations for the management, exploitation and conservation of all living resources in the extended and exclusive fishery zone of the Republic, negotiate and conclude foreign fishing agreements, issue foreign fishing permits, and perform such other duties and functions as may be necessary to carry out the purposes of 27PNC. Republic of Palau Public Law No.6-36 amended Chapter 1 of Title 27 to prohibit foreign fishing vessels from fishing within a 50 nautical mile radius to the east of the reef entrance to Malakal Harbour. Subsection 181 of RPPL 6-36 prohibit act to the use of any licensed foreign fishing vessel to fish, as that term is defined in 27PNC Chapter 12, for any shark, or any part of any such, or to remove the fins of or otherwise intentionally mutilate or injure any such shark. This law is a basis for Palau's declaration of a Shark Sanctuary.

Bureau of Oceanic Fishery Management is also responsible for research, fisheries statistics, and development of its own domestic tuna fishery.

2. Fisheries Characteristics

Tuna fishing in the Palau Exclusive Economic Zone is dominated by the locally based foreign longline fleet from Chinese Taipei and the offshore based longline, pole & line and purse seine fleet from Japan. Still, Chinese Taipei fleet has been and is still dominant. Table 1 shows the break-down of active vessels in Palau's EEZ by flag, by gear and by size category, 2011-2013.

Table1. Number of foreign fishing vessels, by year, by flag, by gear and size category, active in the WCPFC Convention Area, for 2011 to 2013. Gross Registered Tonnes (GRT) is the unit for vessel size.

Year	Flag	Gear	No. of Vessels	0-500	501-1000	1001-1500	1500+
2011	Japan	Longliner	24	24	0	0	0
	Japan	Purse Seiner	9	0	0	9	0
	Taiwan	Longliner	55	55	0	0	0
2012	Belize	Longliner	2	2	0	0	0
	Japan	Longliner	25	25	0	0	0
	Japan	Pole and line	1	1	0	0	0
	Japan	Purse Seiner	36	1	0	31	4
	Taiwan	Longliner	50	50	0	0	0
2013	Belize	Longliner	3	3	0	0	0
	Japan	Longliner	28	28	0	0	0
	Japan	Purse Seiner	5	5	0	0	0
	Taiwan	Longliner	54	54	0	0	0

2.1 Longline & Purse Seine Effort

Longline effort and catch are focused on the central-eastern area of Palau's EEZ. Chinese Taipei fleet seems to operate mainly in the central eastern area all year round.

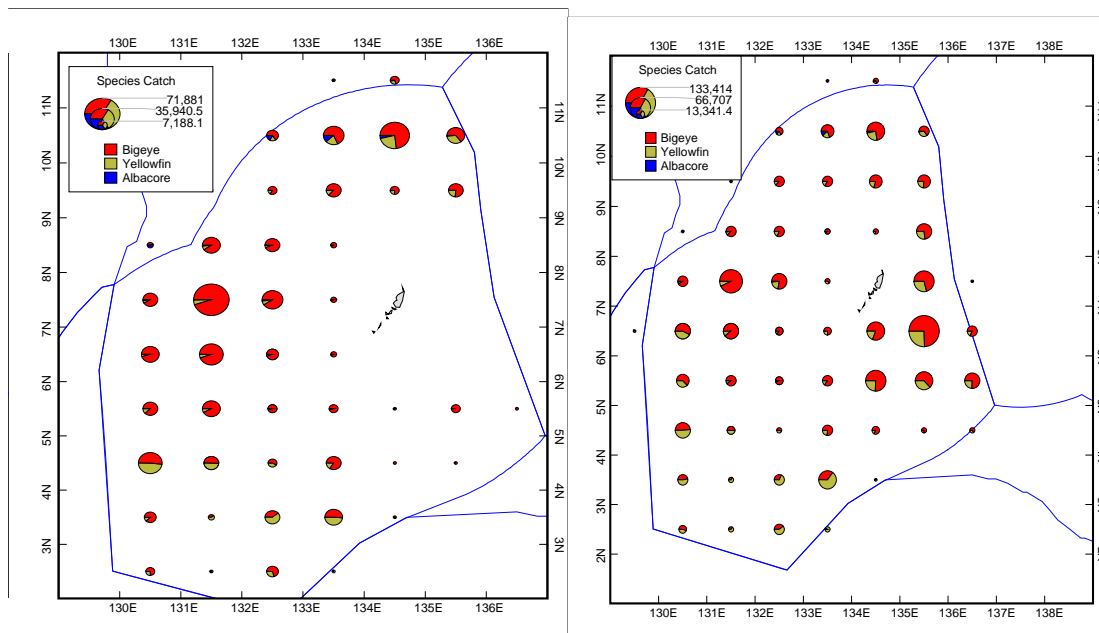


Figure1. Distribution of catch by species for Japan (left) and Chinese Taipei (right) longline fleet, 2013

Purse Seine fishing in the Palau EEZ has been and is still reported from the areas 3°N, the extreme south of the EEZ (Figure2). The area of highest purse-seine effort does not overlap the areas of highest longline effort (east of Koror, Figure1); suggesting the spatial interaction between the longline and purse-seine fleets is relatively low. Japan has been the dominant purse-seine fleet operating in the Palau EEZ, with the fleet of the United States of America and vessels operating under the FSM Arrangement.

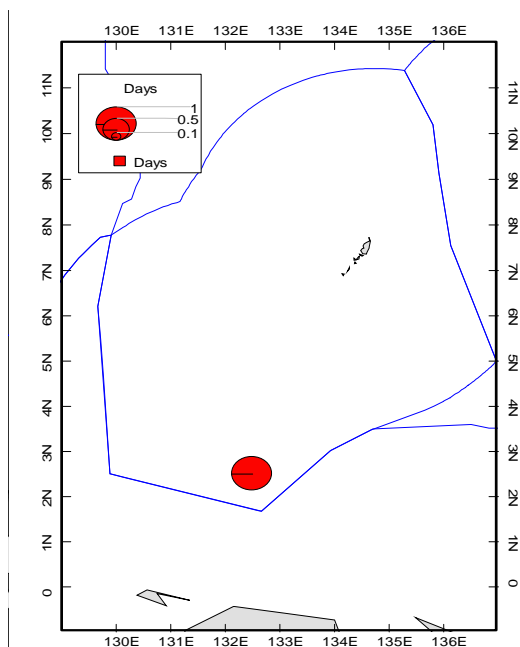


Figure2. Distribution of purse seine effort by days in the Palau EEZ, Japan_2013

2.2 Longline Catch

The provisions of logsheets are requirements for all foreign fishing vessels licensed to fish in Palau's EEZ pursuant to the Access Agreements negotiated between the Government and the Fishing Companies. Logsheets and other reporting requirements are submitted to the Bureau of Oceanic Fishery Management by the fishing companies on a monthly basis. These reports once collected are then manually entered into the Bureau's database to be analyzed.

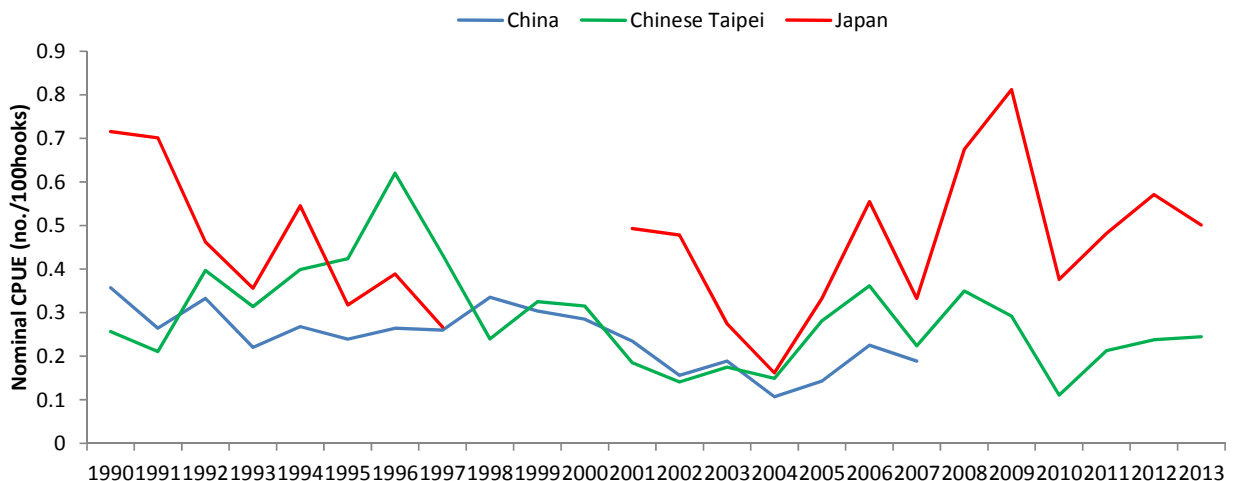
The catch for the last five years has been stable ever since its peak record of 5,000 metric tonnes in 2006. Table 2 shows the annual catch estimates, 2009-2013.

Table 2. Estimates of the catch by species for off-shore based fleet of Japan and locally based foreign longline fleet of Chinese Taipei in Palau waters, 2009-2013.

Flag	Year	Catch (metric tonnes)			
		Alb	Bet	Yft	Total
Chinese Taipei	2009	1.645	366.445	239.937	608.027
	2010	0.44	400.027	1214.418	1614.885
	2011	0.954	776.067	726.23	1503.251
	2012	0.413	483.828	324.11	808.351
	2013	0	476.905	257.842	734.747
Japan	2009	5.313	496.857	116.661	618.831
	2010	4.117	444.8	244.522	693.439
	2011	3.91	698.185	242.749	944.844
	2012	11.149	889.436	131.949	1032.534
	2013	12.425	471.888	110.189	594.502
Total	2009	6.958	863.302	356.598	1226.858
	2010	4.557	844.827	1458.94	2308.324
	2011	4.864	1474.252	968.979	2448.095
	2012	11.562	1373.264	456.059	1840.885
	2013	12.425	948.793	368.031	1329.249

2.3 Catch Rates

The CPUE for the Japan fleet has been gradually increasing after dropping in 2004 while Chinese Taipei fleet has been stable ever since its' high in the 1990.



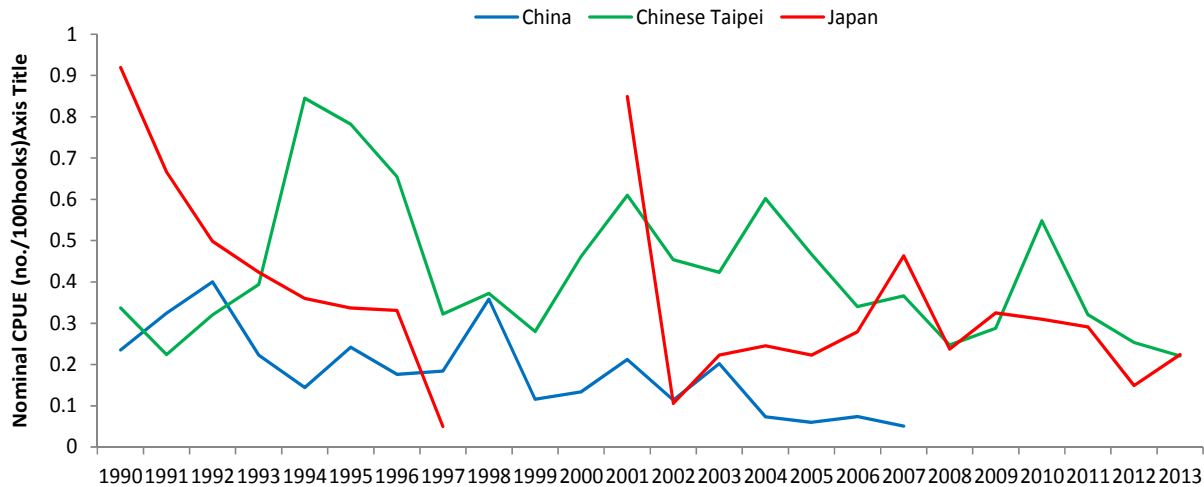


Figure3. Annual trends in nominal CPUE (number per hundred 100 hooks) for longline fleets operating in the Palau EEZ, 1990-2013 (Bigeye tuna CPUE – TOP; Yellowfin tuna CPUE – BOTTOM)

3. Conservation and Management Measures Reporting

Table5. Report on conservation and management measures, 2013

CMM Reference	Description	Response
CMM 05-03	North Pacific Albacore	NOT Applicable: not a target species for Palau's longline fishery; no national fleet
CMM 06-04	SW Striped Marlin	NOT Applicable: not a target species for Palau's longline fishery; no national fleet
CMM 07-04	Seabirds interaction by National Fleet	No reporting of any interaction
CMM 09-03	SW Swordfish	NOT Applicable: not a target species for Palau's longline fishery; no national fleet
CMM 09-06	Transshipment	NOT Applicable: size of Palau Port is not able to accommodate any transshipping activity
CMM 10-05	South Pacific albacore	NOT Applicable: not a target species for Palau's longline fishery; no national fleet
CMM 10-07	Sharks	NOT Applicable: Palau is a Shark Sanctuary (Rep. of Palau Public Law 6-36)
CMM 11-03	Cetaceans	NOT Applicable: currently has a Marine Mammal Sanctuary (Rep. of Palau Public Law 6-36)
CMM 11-04	Oceanic White-Tip Shark	NOT Applicable: Palau is a Shark Sanctuary (Rep. of Palau Public Law 6-36)
CMM 12-04	Whale Sharks	NOT Applicable: Palau is a Shark Sanctuary (Rep. of Palau Public Law 6-36)
CMM 12-07	Seabirds	No reporting of any interaction
CMM 13-01	Discard Reporting by National Fleet	NOT Applicable: Palau at the moment does not have any national fleet
CMM 13-08	Silky Sharks	NOT Applicable: Palau is a Shark Sanctuary (Rep. of Palau Public Law 6-36)

4. Status of data collection systems

Palau at the moment is implementing all latest versions of SPC's regional data forms. SPC Tufman Database System is fully utilized to streamline and collate all data, while ongoing work continues in linking TUFMAN, Tuna Fisheries Database Management System, with the PNA VDS which would allow accurate timely correlation of fishing effort in Palau's EEZ. Further enhancement in this work is by the FFA VMS that provides an MCS component to fisheries management process.

Palau observer has been deployed on the locally based foreign fleet since the 80's with more general duties, such as the collection of data on fishing gear and the size and species composition of catches. Because of the small observer program in place, Palau continues to hire and train thru regional training more personnel. At the moment Palau has one (1) permanent observer and three (3) seasonal observers.

4.1 Longline observed species of special interest for the longline fishery in Palau EEZ, 2009 – 2013.

Table4. Observer-reported species of special interest catch composition for the Longline fishery in Palau

Longline - Species of Special Interest Catch Composition summary											
		2009: 8 trips		2010: 17 trips		2011: 3 trips		2012: trips		2013: 1 trip	
		Individuals encountered									
		2009		2010		2011		2012		2013	
Category	Species	No.	Dead	No.	Dead	No.	Dead	No.	Dead	No.	Dead
Marine Turtles	Green Turtle	3	2	0	0	0	0	0	0	0	0
	Loggerhead Turtle	0	0	1	0	0	0	0	0	0	0
	Hawksbill Turtle	0	0	3	2	0	0	0	0	0	0
	Leatherback Turtle	0	0	0	0	0	0	0	0	0	0
	Olive Ridley Turtle	14	2	27	8	0	0	0	0	2	1
	Turtles (unidentified)	0	0	1	0	0	0	0	0	0	0
Marine Mammals	Dolphins and Porpoises	0	0	0	0	0	0	0	0	0	0
	Toothed Whales	1	0	0	0	0	0	0	0	0	0
	Non-toothed Whales	0	0	0	0	0	0	0	0	0	0
	Marine Mammals (unident.)	0	0	0	0	0	0	0	0	0	0
Whale Shark	Whale Shark	0	0	0	0	0	0	0	0	0	0
Birds	Birds	0	0	2	0	0	0	0	0	0	0
Total Turtles		17	4	32	10	0	0	0	0	2	1
Total Marine Mammals		1	0	2	0	0	0	0	0	0	0

4.2 Longline observed catch composition by species group for the longline fishery in Palau EEZ, 2000-2013

Overall composition (in percentage of number of individuals) by species group of observed catch recorded by observers for longliners operating in Palau EEZ for the years 2000 to 2013 (lower horizontal bar) and the five dominant species in each species group as a proportion of the number of individuals (upper vertical bars). Non – dominant species are grouped in the “Other” category for each species group.

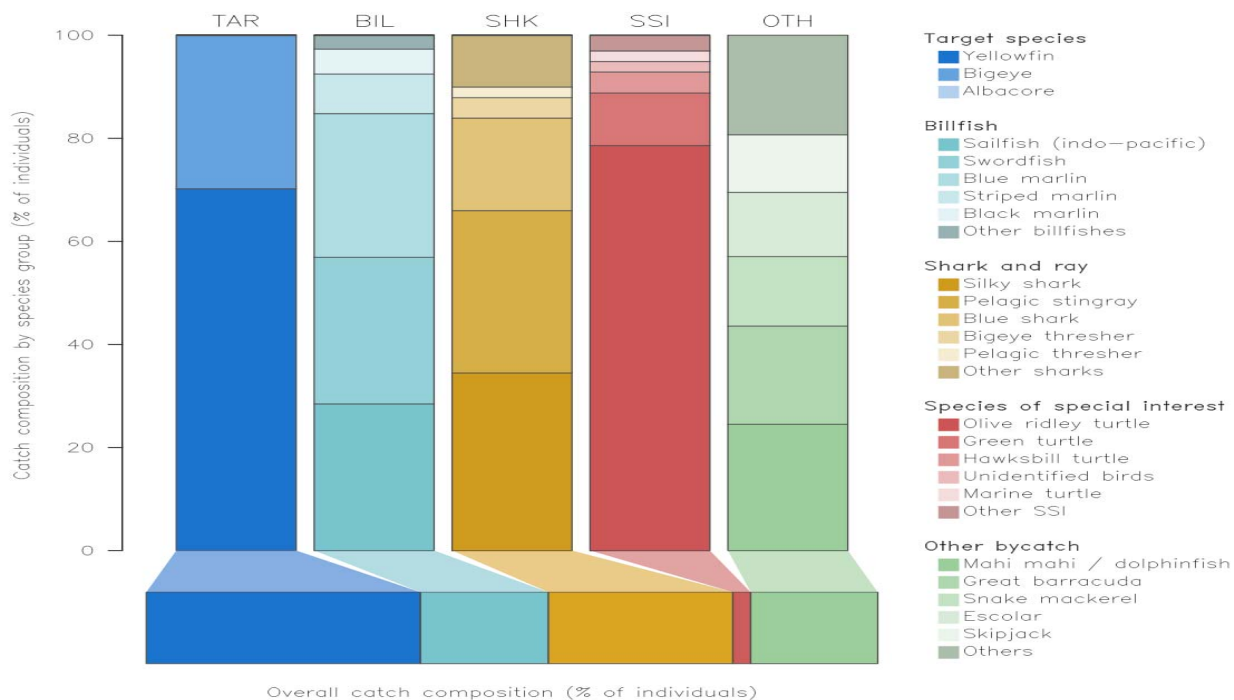


Figure5. Longline observed overall catch composition by species group, 2009-2013. Source: observer

4.3 Port Sampling Program

Dedicated personnel of fisheries port samplers are present at all times during offloading at fisheries port to collect data and information. Table 5, shows number of fish sampled, 2000-2013.

Table5. Port sampling summary – number of fish sampled by year

Year	FISH SAMPLED				
	ALB	BET	YFT	OTHER	TOTAL
2000	2	29,776	26,956	6,752	63,486
2001	17	18,525	35,104	4,307	57,953
2002	4	9,586	24,327	2,160	36,077
2003	3	10,738	34,789	1,018	46,548
2004	55	12,003	50,577	948	63,583
2005	31	24,126	44,603	1,208	69,968
2006	27	43,539	48,510	1,877	93,953
2007	9	25,839	50,845	310	77,003
2008	23	25,223	21,610	231	47,087
2009	133	6,522	8,643	463	15,761
2010	5	7,872	35,448	66	43,391
2011	1	13,929	23,590	30	37,550
2012	0	18,467	23,067	0	41,534
2013	1	23,232	19,542	381	43,156

5. Future Developments

In addition to the Fishing Agreements between Palau and the Japan Fishing Association, Locally Based Foreign Fleet of Chinese Taipei, US Multilateral Fisheries Treaties, and FSM Arrangement Palau now has an agreement with a Palau wholly owned fishing entity though at the moment does not have active fishing vessel.

Toward the end of 2012 Palau passed into law an Open Ship Registry. With these and Palau's aspiration to domesticate its own fishery, Palau is now in the process of obtaining its own purse seine vessel.

Revenues derived from off-shore fishery, is the second generating revenue for Palau.