



**SCIENTIFIC COMMITTEE
NINTH REGULAR SESSION**

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

WCPFC-SC9-AR/CCM-17

PALAU

Annual Report to the Western and Central Fisheries Commission

PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS 2012, PALAU

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

August 2013

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 2013	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 the offshore based longline and purse seine fleet of Japan and the locally based foreign longline fleet of Chinese Taipei.

Total provisional longline catch in 2012 in Palau waters was 792mt. A total of 114 vessels were active in the waters of Palau in 2012. Seventy-eighty (78) were longline vessels and thirty-six (36) 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 Database with the PNA VDS which would allow accurate timely correlation of fishing effort tin 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 the relatively small observer program in Palau, personnel training through regional programs are ongoing. At the moment Palau has one (1) permanent observer, three (3) seasonal observer, and two (2) are going on training and this is run under the Pacific Island Regional Fisheries Observers (PIRFO). Dedicated fisheries port samplers are present at all times during offloading of longline vessels as 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.

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 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 tuna stocks and fishing vessels to fish in the fisheries 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. 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. Palau is 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 offshore based longline and purse seine fleet of Japan and the locally based foreign longline fleet of Chinese Taipei. Still, Chinese Taipei fleet has been dominant. Table 1 shows the break-down of active vessels in Palau's EEZ by flag, by gear and size category, 2010-2012.

Table 1. Number of foreign fishing vessels, by year, by flag, by gear and size category, active in the WCPFC Convention Area, for 2010 to 2012. Gross Registered Tonnes (GRT) is the unit for vessel size.

Year	Flag	Gear	No. of Vessels	0-500	501-1000	1001-1500	1500+
2010	Japan	Longliner	37	37	0	0	0
	Japan	Purse seiner	18	0	0	18	0
	Taiwan	Longliner	59	59	0	0	0
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 liner	1	1	0	0	0
	Japan	Purse seiner	36	1	0	31	4
	Taiwan	Longliner	50	50	0	0	0

2.1 Longline 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.

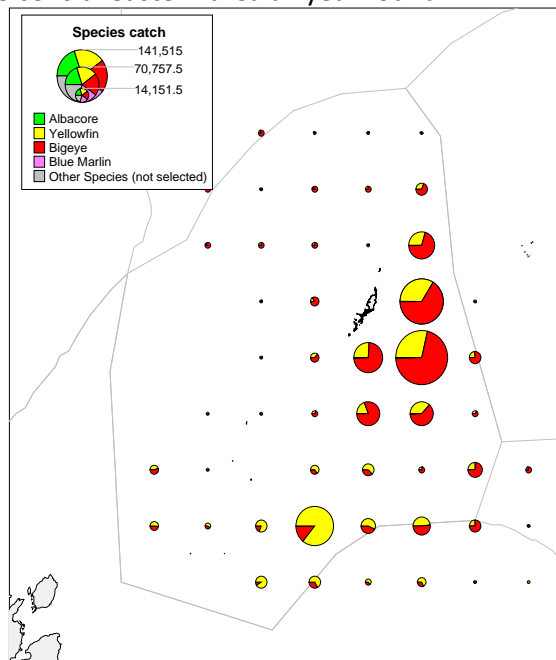


Figure2. Distribution of Chinese Taipei longline catch by species for 2012

2.2 Longline Catch

The provision of logsheets are requirement for all foreign fishing vessels licensed to fish in Palau EEZ. Logsheets are provided by fishing industries on a monthly basis. The catch for the last five years has been stable ever since its peak record of 5,000metric tonnes in 2006. Table 2 shows the annual catch estimates, 2008-2012 (2012 data are provisional).

Table2. Estimates of the catch by species for locally based foreign longline fleet in Palau waters, 2008-2012. (2012 data are provisional)

Flag	Year	Catch (metric tonnes)			
		Alb	Bet	YFT	Total
Chinese Taipei	2008	58	1290	593	1941
	2009	4	367	240	611
	2010	2	400	1214	1616
	2011	5	765	724	1494
	2012	0	470	322	792
Japan	2008	48	1406	268	1722
	2009	5	497	117	619
	2010	4	445	244	693
	2011	4	693	242	939
	2012	0	0	0	0
TOTAL	2008	106	2696	861	3663
	2009	9	864	357	1230
	2010	6	845	1458	2309
	2011	9	1458	966	2433
	2012	0	470	322	792

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.

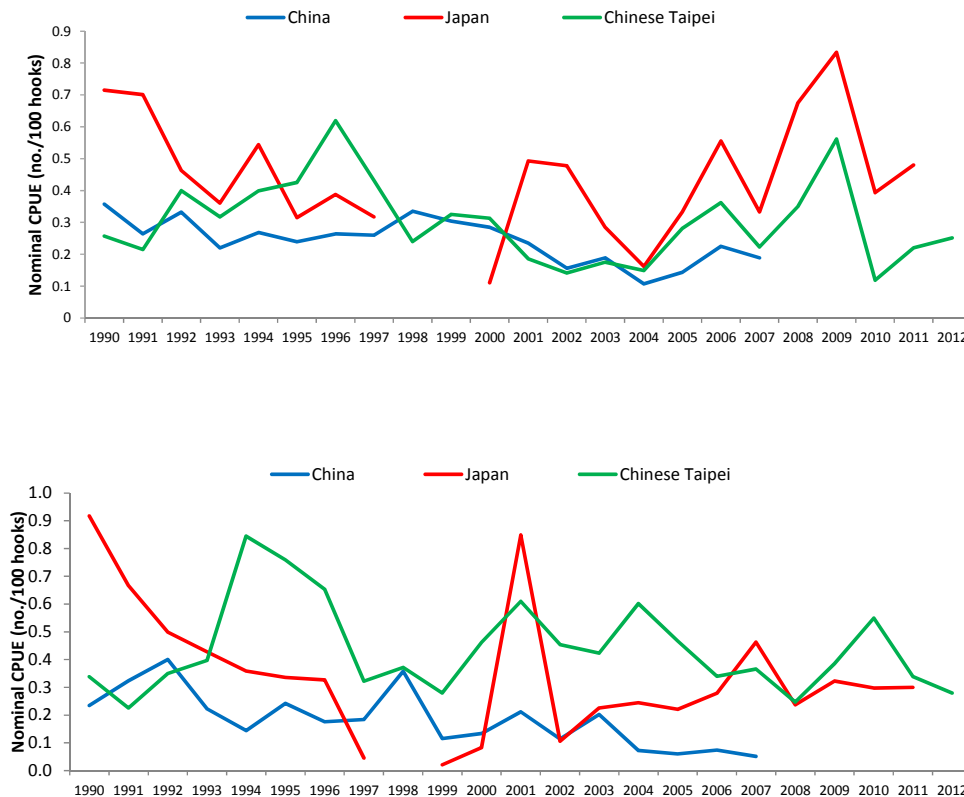


Figure2 Annual trends in nominal CPUE (number per hundred 100 hooks) for longline fleets operating in the Palau EEZ, 1990-2012 (Bigeye tuna CPUE – TOP; Yellowfin tuna CPUE – BOTTOM)

3. 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 Database 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, three (3) seasonal observer, and two (2) are going on training and this is run under the Pacific Island Regional Fisheries Observers (PIRFO).

Table 3, shows observers report on species of special interest catch composition while Table 4, shows species composition for the longline fishery in Palau.

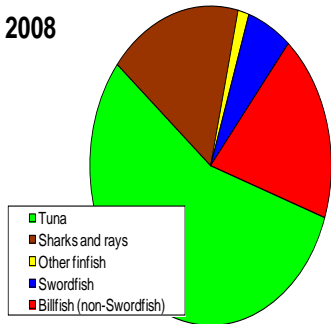
Table3. Observer-reported species of special interest catch composition for the Longline fishery in Palau

Longline - Species of Special Interest Catch Composition Summary							
Date extracted	05.07.2012 03:33:56 PM	2009:	8 trips	2010:	17 trips	2011:	3 trips
Country	'PW'						
Flags							
Target	Tuna Target						
Year		2009					
		Individuals encountered					
		2009		2010		2011	
Category	Species	No.	Dead	No.	Dead	No.	Dead
Marine Turtles	Green Turtle	3	2	0	0	0	0
	Loggerhead Turtle	0	0	1	0	0	0
	Hawksbill turtle	0	0	3	2	0	0
	Leatherback turtle	0	0	0	0	0	0
	Olive Ridley Turtle	14	2	27	8	0	0
	Turtles (unidentified)	0	0	1	0	0	0
Marine Mammals	Dolphins and Porpoises	0	0	0	0	0	0
	Toothed Whales	1	0	0	0	0	0
	Non-toothed Whales	0	0	0	0	0	0
	Marine Mammals (unident.)	0	0	0	0	0	0
Whale Shark	Whale Shark	0	0	0	0	0	0
Birds	Birds	0	0	2	0	0	0
Total Turtles		17	4	32	10	0	0
Total Marine Mammals		1	0	0	0	0	0

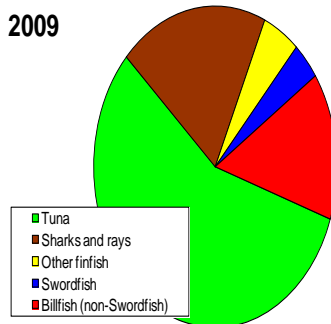
Table4. Observer-reported species composition for the Longline fishery in Palau

Longline - Species Catch Composition Summary				
Date extracted	05.07.2012 03:54:09 PM	2008: 13 trips	2009: 8 trips	2010:
Country	'PW'			
Flags	Tuna Target			
Species Composition				
		2008	2009	2010
Category	Species	%	%	%
Target Tuna	Albacore	0.0000%	0.1053%	0.0000%
	Yellowfin	20.2644%	17.2494%	39.5305%
	Bigeye	35.3942%	39.3288%	7.3628%
Billfish	Blue marlin	11.2192%	9.3583%	13.9968%
	Black marlin	3.5515%	1.2216%	0.4133%
	Striped marlin	3.0880%	3.4049%	2.7289%
	Swordfish	5.9964%	3.7911%	4.4724%
	Other Billfish	1.2861%	0.8705%	6.0301%
Sharks and Rays	Blue shark	1.7888%	4.3176%	4.1692%
	Mako sharks	1.5766%	1.2356%	1.2911%
	Oceanic whitetip shark	0.3199%	0.0000%	0.2396%
	Silky shark	7.8113%	9.6321%	10.5270%
	Other sharks and rays	6.2314%	4.5352%	4.4089%
Other finfish	Bullet/Frigate tunas	0.0000%	0.0000%	0.0000%
	Kawakawa	0.0065%	0.0000%	0.0000%
	Rainbow Runner	0.0000%	0.0000%	0.0000%
	Wahoo	0.0653%	0.4493%	0.1223%
	Common dolphinfish	0.2154%	0.9407%	0.6822%
	Triggerfish	0.0000%	0.0000%	0.0000%
	Barracudas	0.2644%	0.5336%	0.4304%
	Escolars	0.4537%	2.5133%	1.0808%
	Lanctfishes	0.0098%	0.0140%	0.0098%
	Ocean sunfish	0.0000%	0.0000%	0.0000%
	Oilfish	0.0947%	0.0491%	0.0000%
	Opah	0.0000%	0.0000%	0.3521%
	Pomfrets	0.0392%	0.0000%	0.0269%
	Small baitfish	0.0000%	0.0000%	0.0000%
	Other fish	0.3232%	0.4493%	2.1250%
	Tuna	55.6586%	56.6835%	46.8933%
	Billfish	25.1412%	18.6464%	27.6415%
	Sharks and rays	17.7281%	19.7206%	20.6358%
	Other finfish	1.4722%	4.9495%	4.8294%
	Total non-target	44.3414%	43.3165%	53.1067%
	Billfish (non-Swordfish)	19.1448%	14.8554%	23.1691%

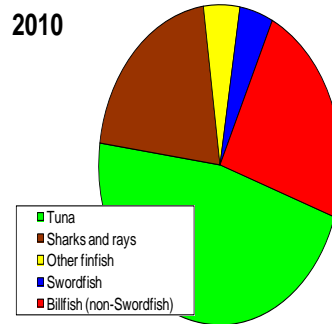
2008



2009



2010



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, 2008-2012. (2012 data provisional)

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

Year	FISH SAMPLED				
	ALB	BET	YFT	OTH	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	34,786	1,018	46,545
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

4. 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 for Palau.