



**SCIENTIFIC COMMITTEE
FIFTH REGULAR SESSION**

10-21 August 2009
Port Vila, Vanuatu

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

WCPFC-SC5-AR/CCM-17

PALAU

SUMMARY

The longline fishery in Palau EEZ continues to be the most important contemporary fishery. The longline fishery has been dominated by domestically foreign and offshore based fleets of Japan and Chinese Taipei since the 50's. Japanese longline effort declined in 1980s but increasing, while the Chinese Taipei and Chinese fleet has been dominant since 1990. Up to 300 vessels have operated within the EEZ in any one year, with the number of vessels fluctuating between 85 and 164 vessels since 2000.

In 2006 total catches was at its highest peak, close to 5,000mt. Bigeye tuna has been the dominant species since the late 1980. Catches of bigeye continues to increase over the previous years and in year 2008 was 25% less than 2006 which was the highest. Recent yellowfin tuna catch indicates much lesser catch than previous years. Besides these two species of tuna, there are much smaller catches of other species dominated by blue marlin and swordfish; however, catches of these two species have been less than 100mt tons each in recent years.

The central-eastern area of Palau's EEZ is where most longline effort and catch are focused. 2008 effort is showing a decline over 2007. The Chinese Taipei Fleets continue to fish in the central eastern area year-round as opposed to the recent operation of the Japanese fleet. The Japanese longline effort was more pronounced in the southern part of Palau EEZ but recently showing more concentration on the northern part.

The general CPUE for all fleet operating Palau waters over the last four years is gradually increasing for the bigeye except 2007, as for yellowfin CPUE it has been decreasing.

1. Brief Introduction

The longline fishery in Palau EEZ continues to be the most important contemporary fishery. The longline fishery has been dominated by domestically foreign and offshore based fleets of Japan, Chinese Taipei and China since the 50's. Japanese longline effort declined in 1980s but increasing, while the Chinese Taipei and Chinese fleet has been dominant since 1990. Up to 300 vessels have operated within the EEZ in any one year, with the number of vessels fluctuating between 85 and 164 vessels since 2000 (Figure1).

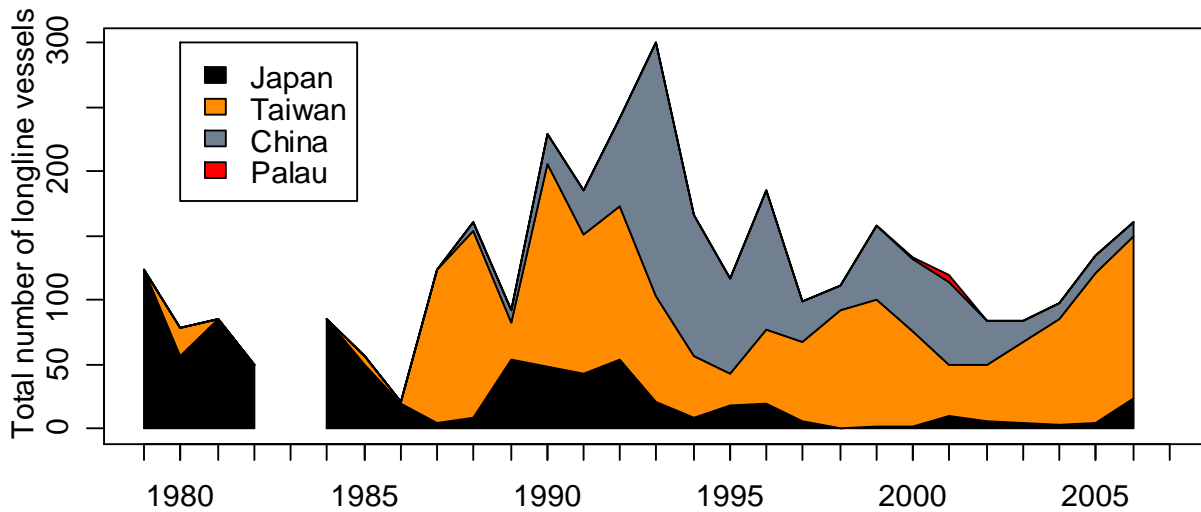


Figure1. Number of longline vessels by fleet operating in the Palau EEZ, 1979-2006.

In 2006 total catches was at the highest peak, close to 5,000mt. Bigeye tuna has been the dominant species since the late 1980. Catches of bigeye continues to increase over the previous years and in 2008 was 25% less than 2006 which was the highest. Recent yellowfin tuna catch indicates much lesser catch than previous years. Besides these two species of tuna, there are much smaller catches of other species dominated by blue marlin and swordfish; however, catches of these two species have been less than 100mt tons each in recent years. (Table 1)

Table1: **Estimates of the catch by species for all locally based foreign longline fleet, 2004-2008 in Palau waters.** (Source: Best estimate of logsheet and unloading data; 2008 data are provisional)

Year	Catch (metric tonnes)									
	Albacore	Bigeye	Yellowfin	Black Marlin	Blue Marlin	Striped Marlin	Sword-fish	Shark	Other	TOTAL
2004	6	439	985	5	44	2	14	0	1	1,497
2005	22	1,429	1,289	5	61	3	19	3	3	2,838
2006	39	3,018	1,583	13	91	1	95	8	2	4,856
2007	25	1,636	1,658	6	60	1	100	1	7	3,499
2008	60	2,281	750	4	133	1	82	0	4	3,318

2. TUNA FISHERIES

Fleet Structure

Table 2 shows the breakdown of domestic based foreign vessels licensed to fish in Palau waters over the last five years. Still, Taiwan had been the dominant fleet.

Table2. The number of vessels to licensed to fish in Palau waters by fleet (2004-2008)

Year	LONGLINE										Purse Seine	
	BZ	SRV	CN	FM	ID	JP	KI	TO	TW	VN	TOTAL	JAPAN
2004	9	0	2	0	0	18	0	0	104	2	135	34
2005	6	2	5	2	0	14	0	0	136	2	167	28
2006	8	0	0	2	7	25	0	0	168	0	210	29
2007	0	0	0	0	0	41	0	0	143	0	184	33
2008	1	0	0	0	0	49	2	3	104	0	159	29

Longline Effort

The central-eastern area of Palau's EEZ is where most longline effort and catch are focused. 2008 effort is showing a decline over 2007. The Chinese Taipei Fleets continue to fish in the central eastern area year-round as opposed to the recent operation of the Japanese fleet (Figure 2). The Japanese longline effort was more pronounced in the southern part of Palau EEZ but recently showing more concentration on the northern part.

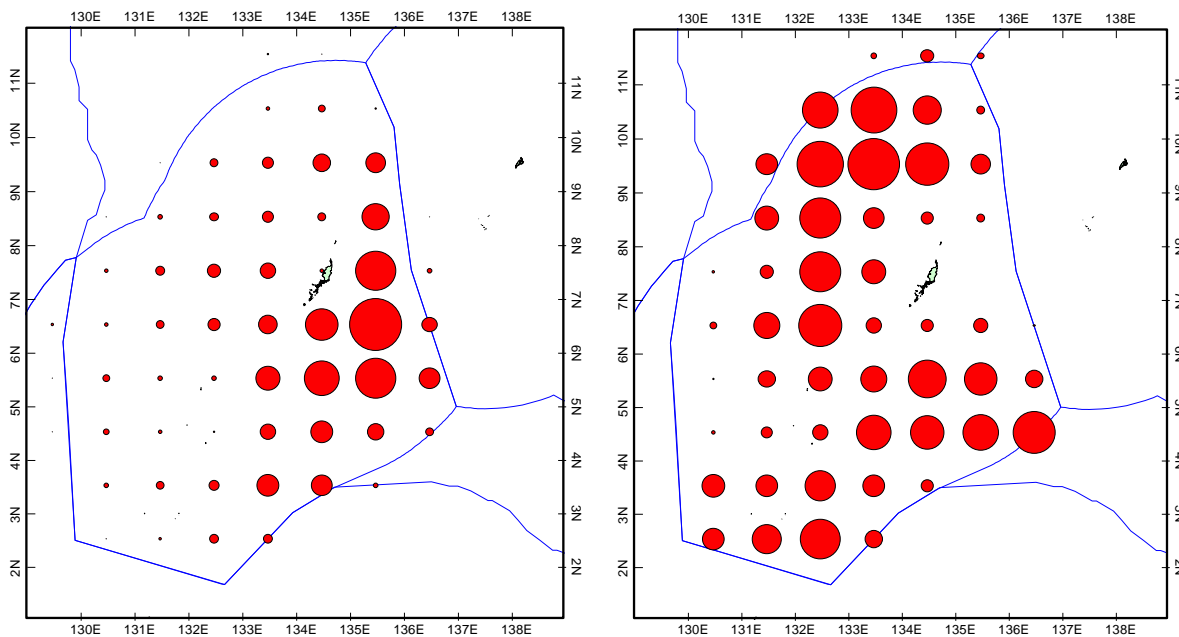


Figure2. Distribution of Chinese Taipei (left) and Japan (right)) longline effort for 2008

Table3. Estimates of the catch by species for the Chinese Taipei longline fleet, 2004-2008 in Palau waters. (Source: Best estimate of logsheet and unloading data; 2008 data are provisional)

Year	Boats	Trips	Catch (metric tonnes)							Total
			Bigeye	Yellowfin	Black Marlin	Blue Marlin	Striped Marlin	Sword-fish	Other	
2004	82	633	387	946	5	38	1	9	1	1,394
2005	117	997	1,217	1,208	2	43	0	5	1	2,502
2006	138	1,444	2,139	1,322	2	27	0	8	2	3,532
2007	127	1,291	1,100	1,202	0	7	0	9	6	2,340
2008	76	809	1,144	519	0	4	0	8	3	1,698

Table4. Estimates of the catch by species for the Chinese longline fleet, 2004-2008 in Palau waters. (Source: Best estimate of logsheet and unloading data; 2008 data are provisional)

Year	Boats	Trips	Catch (metric tonnes)							Total
			Bigeye	Yellowfin	Black Marlin	Blue Marlin	Striped Marlin	Sword-Fish	Other	
2004	6	52	14	6	0	2	0	2	0	24
2005	4	24	21	4	0	1	0	1	0	29
2006	9	79	107	20	2	11	0	6	0	146
2007	2	19	16	3	0	1	0	0	0	21
2008	0	0	0	0	0	0	0	0	0	0

Table5. Estimates of the catch by species for the Japanese Off-shore longline fleet, 2004-2008 in Palau waters. (Source: Best estimate of logsheet data; 2008 data are provisional)

Year	Boats	Trips	Catch (metric tonnes)							Total
			Bigeye	Yellowfin	Black Marlin	Blue Marlin	Striped Marlin	Sword-Fish	Other	
2004	3	14	25	21	0	2	1	3	0	52
2005	2	11	46	24	0	3	1	3	0	79
2006	26	98	626	200	2	38	0	72	0	957
2007	29	133	518	451	5	51	1	90	1	1,135
2008	27	154	1,108	226	2	128	0	73	0	1,582

Table 6. Estimates of the catch by species for the Japanese offshore purse seine fleet, 2004-2008 in Palau waters. (Source: Logsheet data; 2008 data are provisional)

Year	Boats	Trips	Catch (metric tonnes)				Total
			Skipjack	Yellowfin	Bigeeye	Other	
2004	11	17	1,652	584	38	51	2,325
2005	7	13	1,128	857	1	29	2,015
2006	6	18	2,912	1,164	0	26	4,102
2007	4	12	264	179	0	2	445
2008	7	11	2,002	746	0	7	2,755

The general CPUE for all fleet operating within Palau waters over the last four years is gradually increasing for the bigeye, except in 2007 (Figure3). As for yellowfin CPUE has been decreasing (Figure4).

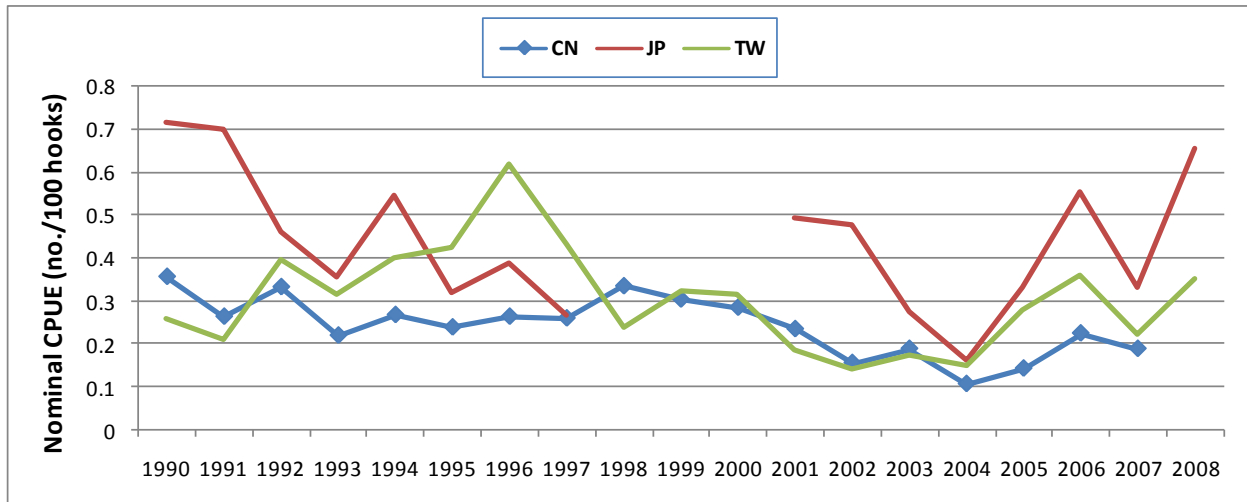


Figure3. Annual trends in bigeye nominal CPUE (number per 100 hooks) for longline fleets operating in the Palau EEZ, 1990–2008

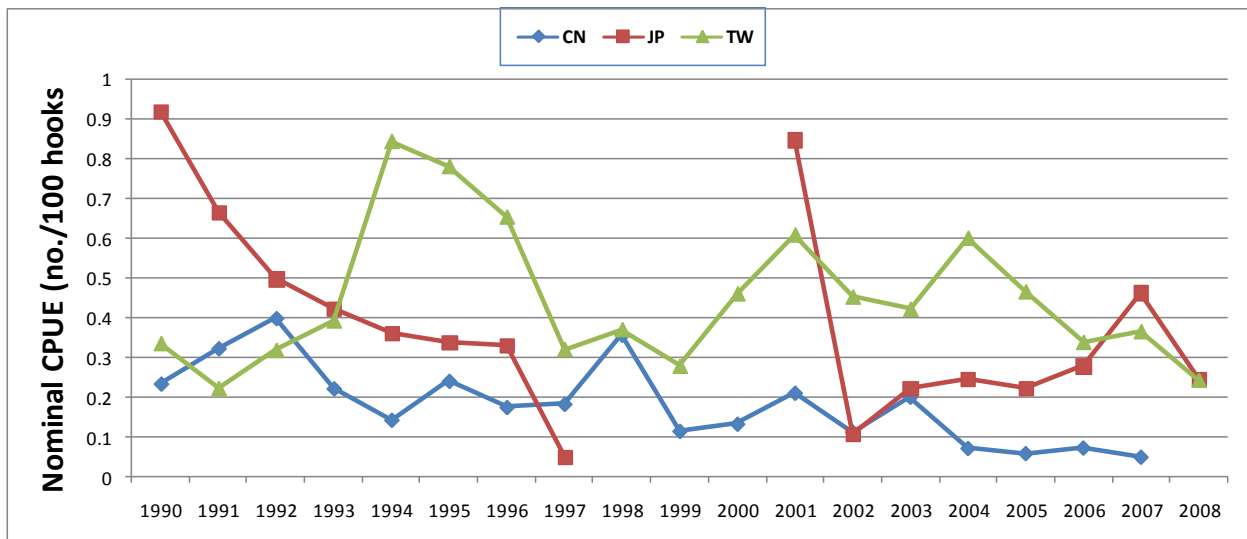


Figure4. Annual trends in yellowfin nominal CPUE (number per 100 hooks) for longline fleets operating in Palau EEZ, 1990-2008

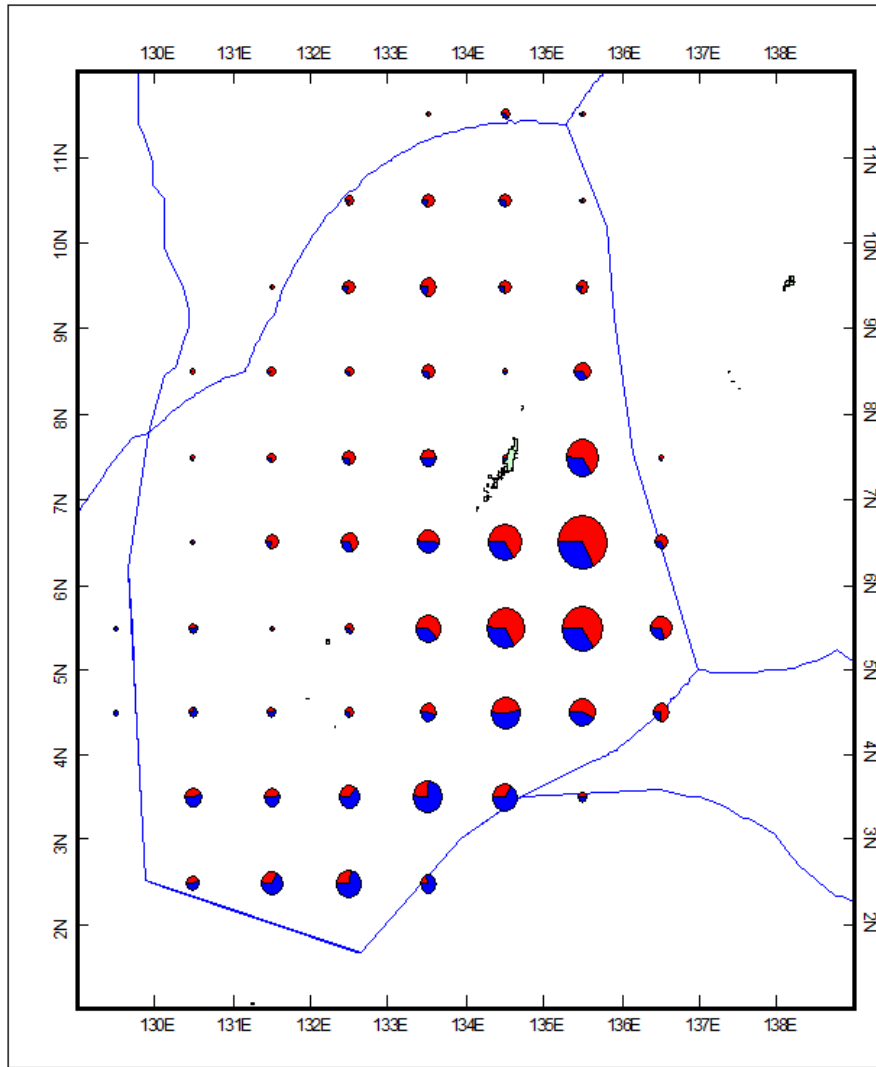


Figure5. Distribution of longline catch (metric tones) by species in the Palau EEZ (2004-2008) (Red – Bigeye; Blue – Yellowfin)

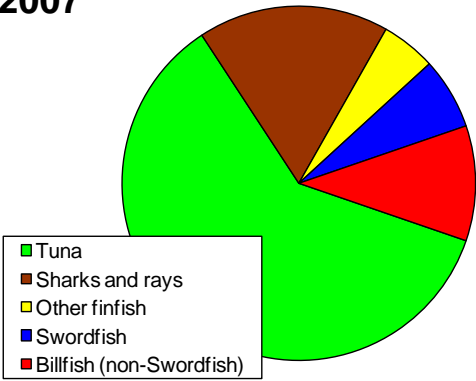
Longline - Species of Special Interest Catch Composition Summary						
2007	11 trips					
2008	01 trips					
Flags	ALL FLAGS					
Target	Tuna Target					
Year	2007					
		Individuals encountered				
		2007		2008		
Category	Species	No.	Dead	No.	Dead	
Marine Turtles	Green Turtle	2	1	0	0	
	Loggerhead Turtle	0	0	0	0	
	Hawksbill turtle	0	0	0	0	
	Leatherback turtle	9	2	0	0	
	Olive Ridley Turtle	4	2	0	0	
	Turtles (unidentified)	1	1	0	0	
Marine Mammals	Dolphins and Porpoises	0	0	0	0	
	Toothed Whales	0	0	0	0	
	Non-toothed Whales	0	0	0	0	
	Marine Mammals (unident.)	0	0	0	0	
Whale Shark	Whale Shark	0	0	0	0	
Birds	Birds	0	0	0	0	
	Total Turtles	16	6	0	0	
	Total Marine Mammals	0	0	0	0	

Longline - Species Catch Composition Summary

2007 **11 trips**
 2008 **1 trips**
 Flags **ALL FLAGS**
 Tuna Target

		Species Composition	
		2007	2008
Category	Species	%	%
Target Tuna	Albacore	0.0000%	0.0000%
	Yellowfin	39.9959%	41.3890%
	Bigeye	20.5106%	23.9413%
Billfish	Blue marlin	3.8571%	0.0000%
	Black marlin	3.4752%	24.6753%
	Striped marlin	1.0322%	0.0000%
	Swordfish	6.5375%	0.0000%
	Other Billfish	2.1849%	6.8323%
Sharks and Rays	Blue shark	4.0154%	0.0000%
	Mako sharks	1.3075%	0.0000%
	Oceanic whitetip shark	0.1720%	0.0000%
	Silky shark	6.4102%	0.0000%
	Other sharks and rays	5.4950%	0.5647%
Other finfish	Bullet/Frigate tunas	0.0000%	0.0000%
	Kawakawa	0.0000%	0.0000%
	Rainbow Runner	0.0275%	0.0000%
	Wahoo	0.0963%	0.0000%
	Common dolphinfish	0.2581%	0.0000%
	Triggerfish	0.0000%	0.0000%
	Barracudas	0.9153%	0.5647%
	Escolars	0.9118%	0.9034%
	Lanctfishes	0.0895%	0.0000%
	Ocean sunfish	1.3419%	0.0000%
	Oilfish	0.1480%	0.0000%
	Opah	0.0000%	0.0000%
	Pomfrets	0.0069%	0.0000%
	Small baitfish	0.0000%	0.0000%
	Other fish	1.2112%	1.1293%
	Tuna		60.5065%
Billfish		17.0870%	31.5076%
Sharks and rays		17.4001%	0.5647%
Other finfish		5.0064%	2.5974%
Total non-target		39.4935%	34.6697%
Billfish (non-Swordfish)		10.5495%	31.5076%

2007



2008

