



**SCIENTIFIC COMMITTEE
ELEVENTH REGULAR SESSION**

Pohnpei, Federated States of Micronesia
5-13 August 2015

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

**WCPFC-SC11-AR/CCM-06
Rev1 (27 July 2015)**

FEDERATED STATES OF MICRONESIA

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FEDERATED STATES OF MICRONESIA



**National Oceanic Resource Management Authority
Pohnpei, FSM**

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Abstract

The current estimate of the total catch by the 27 FSM-flagged purse seine and longline vessels (national fleet) within the WCPFC Convention Area for the year 2014 is 40,403mt. By species composition, skipjack accounted for 80% (32,600mt) with yellowfin at 13% (5,125) bigeye 7% (2,678mt). The total number of authorized FSM flagged vessels to fish in the WCPFC area in 2014 was 9 purse seiners and 18 longline vessels.

Data for the FSM artisanal fishery is not available as this fall within the responsibility of individual FSM states. The total FSM EEZ catch in 2014 by all gear types is 89,153mt; longline accounted for 688mt, pole and line 1,174mt and purse seine 87,921mt. Japan had the highest volume of catch by flag for purse seiners with pole and line. FSM had the highest catch for longlines.

The FSM National Fisheries Observer Program (NFOP) operates with a pool of 80 observers and achieved 469 successful placements in 2014. Longline placements accounted for 8 trips, pole and line for 6 trips and 455 trips for purse seiners. FSM did not have any basic observer training in 2014, but successfully had four debriefers certified under the Pacific Island Regional Fisheries Observer (PIRFO) certification process.

The FSM Port Sampling program is focused primarily on Pohnpei port for the past 6 years. A total of 186 purse seine and longline vessels unloaded in Pohnpei with an estimated total volume of 85,025mt. The unloading volume by the purse seine fleet accounted for 82,768mt and longline vessels at 2,257mt. There were no reported transshipment activities from the other FSM unloading ports in 2014 and unloading data¹ is still provisional.

¹ 2014 unloadings data for FSM is provisional

1 Annual Fisheries Information

1.1 Flag-State Reporting

There were 27 FSM flagged vessels authorized to fish in the Convention Area in 2014. The processed 2014 logsheet data indicated that 18 FSM flagged longline vessels and 9 purse seine vessels submitted catch data for fish caught within the Convention Area.

The total catch of the three main target species, (YFT, BET, SKJ) by FSM flagged vessels for the year 2014 within the WCPFC Convention Area is estimated to be 40,403mt. By gear type, purse seiners accounted for 94% (38,075mt) and longliners at 6% (2,328mt).

1.1.1 FSM Purse Seine Catch in the WCPFC Convention Area

In 2014, FSM purse seine vessels recorded a total catch of (38,075mt) in the Convention Area, as illustrated in Table 1. Approximately 86% (38,6075mt) of the total purse seine catch within the WCPFC Convention Area was skipjack and 11% (4.185mt) yellowfin tuna. There was an indication of bigeye tuna catch for 3% (1,290mt). The bycatch data of sharks is in Table 2 and Annex 1. For cetaceans there is no interaction base on available data.

FSM purse seiners concentrated most of their fishing effort in the lower equatorial region, mostly within the lower FSM waters in 2014 and dispersing towards the East of the FSM EEZ. This fishing pattern for 2014 appears to show FSM purse seiners concentrating mostly the South East of Nauru, Kiribati and Tuvalu (Figure 1).

Table 1. Annual catch (mt) in the WCPFC Convention Area by species for the FSM PURSE SEINE fleet, 2010-2014.

SPECIES	2010	2011	2012	2013	2014
YELLOWFIN	2,887	3,154	3,805	2,693	4,185
BIGEYE	140	245	713	696	1,290
SKIPJACK	15,337	17,024	31,715	20,793	32,600
Other					
Total					38,075

Table 2. Estimated sharks and ray species by number of pieces caught by FSM purse seine fleets in the WCPFC Convention Area, 2014.

Gear	Species	Release	Retain
PS	Mako Shark	1	0
PS	Manta Ray (unidentified)	3	0
PS	Oceanic White Tip	1	0
PS	Rays	1	0
PS	Silky Shark	64	0
PS	Shark (unidentified)	70	0

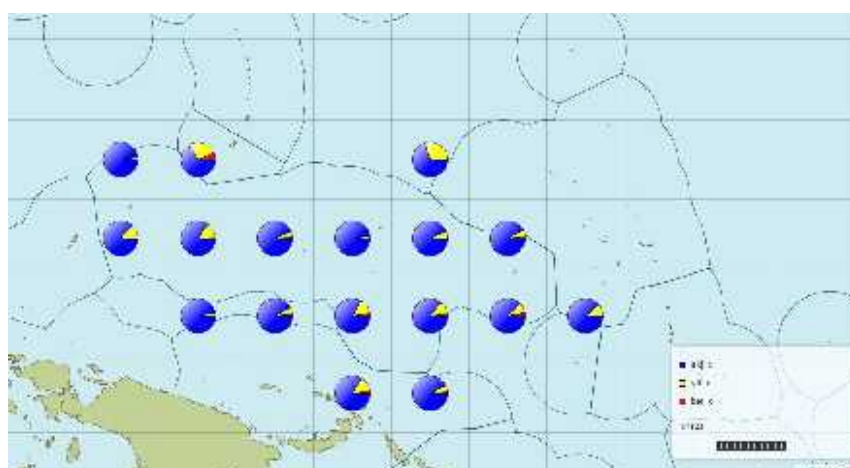


Figure 1: Annual distribution of FSM purse seine catch and effort in 2014.

1.1.2 FSM longline Catch in the WCPFC Convention Area

The total 2014 catch for all species in the WCPFC Convention Area for the FSM flagged longline vessels was reported to be 2,763mt. Effort data showed all 18 vessels fished actively. There were 18 vessels showing fishing effort within FSM (3), 1 Cook Islands (CI) while 14 vessels were mainly fishing in the Republic of the Marshall Island’s EEZ for the whole of 2014. The total catch by the 18 active vessels is comprised of 50% (1,388mt) bigeye, 34% (940mt) yellowfin, and 10% (253mt) of albacore. Other species and incidental catches is recorded as 6% (182mt) (Table 3 and 4, Annex 1). There are 15 reports of sea birds (7 Black Petrel and 8 Cape Pigeon) interactions in 2014 according to observer data processed to date which satisfy the CMM 07-04 and CMM 12-01, Annex 1.

Effort for the 18 active FSM longline vessels is more pronounced within the western and south west of the section of FSM EEZ (Figure 2). Since June 2011, FSM based longliners do frozen operations and the Cook Islands with Marshalls based longlines mostly doing fresh.

Table 3. Annual catch and effort estimates for the FSM longline fleet, by species in the WCPFC Convention Area, 2010-2014

SPECIES	2010	2011	2012	2013	2014
YELLOWFIN	454	442	382	530	940
BIGEYE	975	930	948	703	1,388
BLUE MARLIN	176	77	111	147	166
BLACK MARLIN	46	97	21	12	2
SKIPJACK	1	0	0	1	1
ALBACORE	54	17	44	530	253
PACIFIC BLUEFIN TUNA	0	0	0	0	0
STRIPED MARLIN	0	1	0	0	0
SWORDFISH	16	13	12	13	13
Total	2,716	1,722	1,577	1,936	2,763

Table 4. Estimated shark and ray species by number of pieces caught by FSM longline fleets in the WCPFC Convention Area, 2014.

Gear	Species	Discard	Retain
LL	Blue Shark	259	5
LL	Mako Shark	14	1
LL	Oceanic White Tip	38	1
LL	Porbeagle Shark	48	1
LL	Shark (unidentified)	73	2
LL	Silky Shark	184	2
LL	Thresher Shark	3	0

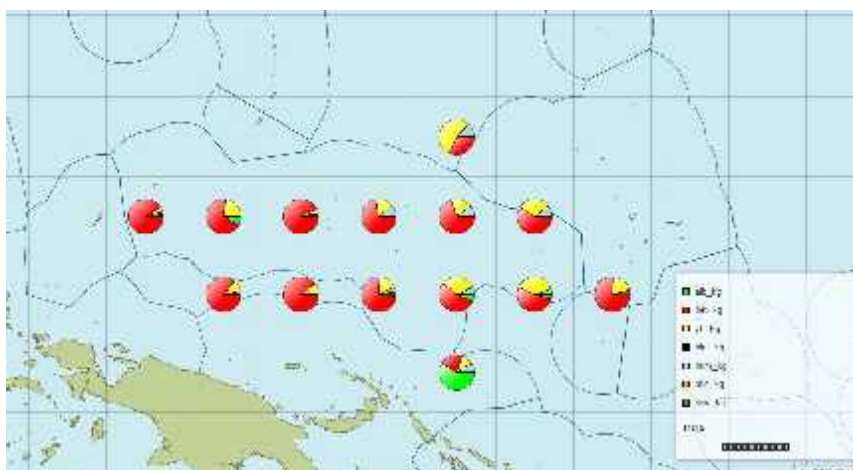


Figure 2. Annual distribution of FSM national longline fleet by target species catch and effort, 2014.

1.2 Coastal State Reporting

1.2.1 Fleet Structure

In 2014, a total of 277 longline, pole and line and purse seine fishing vessels were licensed to fish in the FSM EEZ predominantly foreign fishing vessels (Table 5). By gear type, longliners accounted for 105, pole and line 20, and purse seiners 152. Of the 105 longliners, Japan accounted for 55 followed by the Republic of China with 22 and FSM with 18 vessels. For purse seiners, United States accounted for 37 vessels, Japan with 31, Chinese Taipei with 31, South Korea with 29 and Republic of China with 14 vessels. Japan was the only country employing the pole and line gear with 20 licensed vessels in 2014.

Table 5. Annual number of flag vessels and gear type licensed to fish in the FSM EEZ, 2010-2014.

Country	Long Line					Pole and Line					Purse Seine				
	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014	2010	2011	2012	2013	2014
Chinese Taipei	32	13	22	23	10						30	30	28	35	31
South Korea											1		31	28	29
United States											37	36	39	40	37
Japan	43	43	46	51	55	27	27	24	22	20	37	32	36	33	31
People's Republic of China	8	8	23		22						10	9	13	12	14
Vanuatu											3		13		
Papua New Guinea											21		10	35	
Tuvalu											1				
Kiribati													8	8	
Federated States of Micronesia	21	21	22	3	18						7		7	10	9
Republic of Marshall Islands											4		10	10	
Philippines											2	1	5		
New Zealand															1
Total		85	113	77	105		27	24	22	20	153	108	200	211	152

1.2.2 Catch in FSM EEZ

The 2014 catch by the tuna fishery in the FSM EEZ by logsheets is estimated to be 89,153mt. All three great types had low catch levels in 2014; longline 688mt, pole and line 1,174mt and purse seine 89,153mt (Table 6). The total EEZ catch for 2014 is based on provisional data.

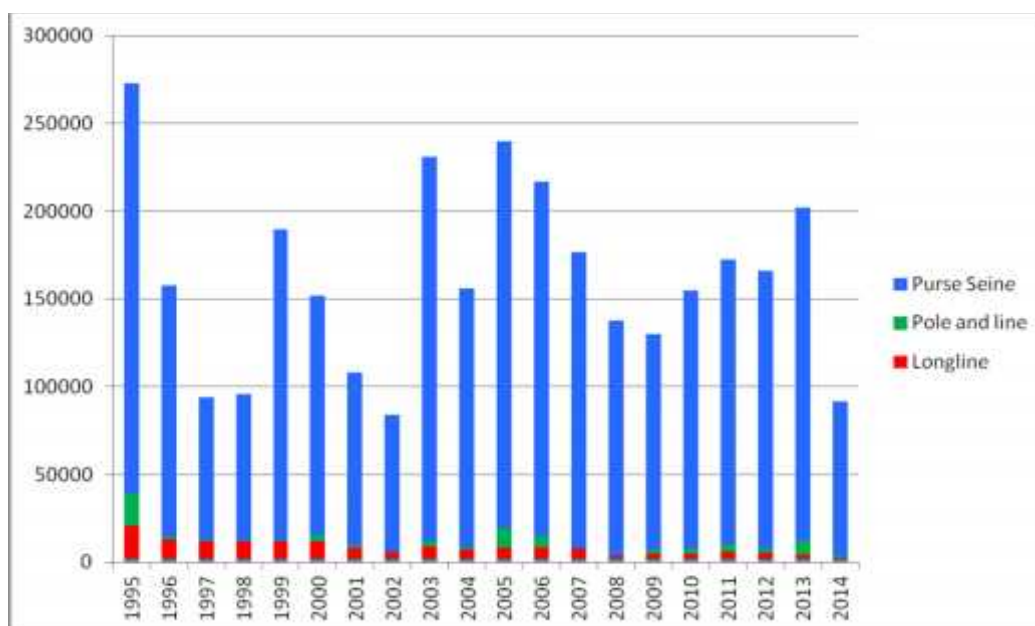


Figure 3. Trend of Catch by all gear-types in FSM Waters, 1995-2014.

Table 6. Annual Catch Records for all Gear-types within FSM EEZ, 1995-2014.

Year	Catch (Metric tonnes)			Total
	Longline	Pole and line	Purse Seine	
1995	18,698	18,147	233,838	270,683
1996	11,144	1,054	143,691	155,889
1997	9,742	1,003	80,998	91,743
1998	9,622	1,026	82,939	93,587
1999	10,118	555	176,758	187,431
2000	9,745	3,845	136,499	150,089
2001	6,574	689	99,140	106,403
2002	3,487	0	78,653	82,140
2003	7,057	2,577	219,249	228,883
2004	5,084	1,405	147,383	153,872
2005	6,340	11,086	220,203	237,629
2006	6,539	6,023	202,242	214,804
2007	5,447	572	168,384	174,404
2008	1,799	5	133,882	135,686
2009	2,790	2,138	123,135	128,063
2010	2,875	2,824	146,866	152,564
2011	3,735	4,284	162,382	170,400
2012	3,354	2,570	158,269	162,253
2013	2,182	8,105	189,711	199,998
2014	688	1,174	87,921	89,153

1.2.3 Purse Seine Catch in FSM Waters

The 2014 total catch by purse seine gear type within the FSM EEZ is recorded as 87,291mt (Table 7). Over the last decade, the purse seine total catch within the EEZ has fluctuated between 50,000 to 200,000mt over the past 15 years (Figure 3). All purse seine fleet vessels concentrated their fishing efforts mostly at the west and south western part of the FSM EEZ in 2013 (Figure 4).

Table 7. Historical Annual catches by major purse seine fleets in the FSM EEZ, by flag and species, 2010-2014.

FLAG	Year	Catch (Metric tonnes)			TOTAL
		SKJ	YFT	BET	
CHINA	2010	4,337	890	160	5,387
	2011	7,259	1,650	375	9,284
	2012	6,677	542	171	7,390
	2013	9,156	1,253	76	10,485
	2014	3,481	394	34	3,909
	Year	SKJ	YFT	BET	TOTAL
CHINESE TAIPEI	2010	19,258	3,622	1,254	24,133
	2011	37,310	10,809	2,125	50,244
	2012	26,837	1,687	92	28,617
	2013	35,047	3,054	1,868	39,969
	2014	2,973	214	17	3,204
	Year	SKJ	YFT	BET	TOTAL
JAPAN	2010	45,469	3,524	233	49,226
	2011	37,447	7,604	711	45,763
	2012	55,845	4,818	836	61,499
	2013	44,947	2,247	451	47,645
	2014	20,511	263	301	23,444
	Year	SKJ	YFT	BET	TOTAL
KOREA	2010	9,359	1,637	360	11,356
	2011	8,913	3,326	171	12,410
	2012	10,214	1,870	41	12,125
	2013	17,353	1,073	77	18,503
	2014	2,492	257	50	2,799
	Year	SKJ	YFT	BET	TOTAL
USA	2010	18,695	3,311	1,195	23,201
	2011	10,638	1,830	579	13,048
	2012	6,783	612	48	7,443
	2013	25,869	1,502	286	27,657
	2014	2,626	61	14	2,701
	Year	SKJ	YFT	BET	TOTAL
FSMA	2010	25,378	5,010	1,270	31,658
	2011	22,517	5,506	1,206	29,229
	2012	28,663	5,491	1,559	35,713
	2013	38,781	4,609	2,062	45,452
	2014	13,714	1,959	485	16,158
TOTAL EEZ	2014	45,797	3,148	901	49,846

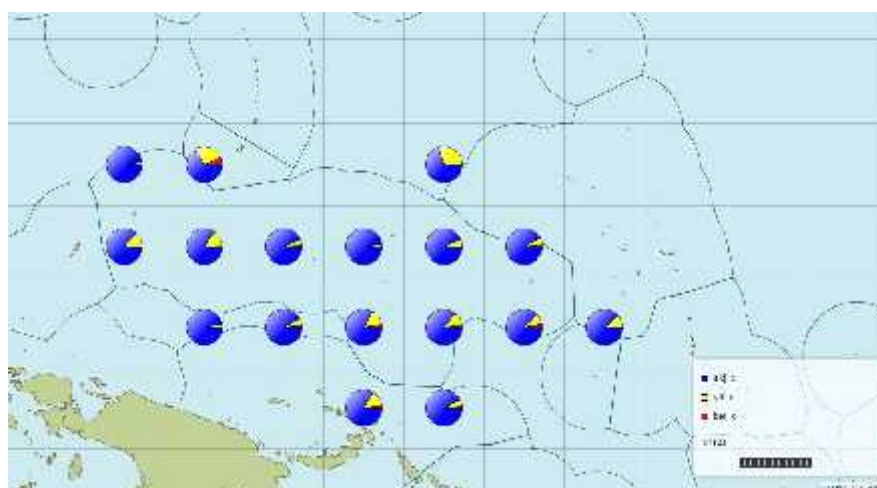


Figure 4. Annual distribution of effort by the main foreign purse seine fleets active in the FSM EEZ, 2014.

1.2.4 Longline Catch in FSM Waters

The total longline catch targeting yellowfin and bigeye tuna in the FSM EEZ in 2014 by the four fleets was 688mt. Catch by flag, Japan accounted for 6% (43mt), the domestic-based Chinese Taipei 10% (72mt), China 8% (53mt) and FSM accounted for 76% (520mt) (Table 8). Longline fleets fishing effort is spent in the west and south western part of the FSM EEZ (Figure 5).

Table 8. Estimated Annual tuna catches by longline fleets in the FSM EEZ, by flag and species, 2009-2014.

Fleet	Year	Catch (Metric tonnes)		
		YFT	BET	Total
China	2010	175	72	247
China	2011	233	51	284
China	2012	213	43	256
China	2013	0	0	0
China	2014	17	36	53
FSM	2010	435	204	640
FSM	2011	629	376	1,005
FSM	2012	194	556	750
FSM	2013	46	88	134
FSM	2014	940	1,388	520
Chinese Taipei	2010	376	320	696
Chinese Taipei	2011	173	149	322
Chinese Taipei	2012	54	84	138
Chinese Taipei	2013	224	544	768
Chinese Taipei	2014	20	52	72
Japan	2010	645	587	1,232
Japan	2011	1,311	691	2,002
Japan	2012	620	1,590	2,210
Japan	2013	506	774	1,280

Japan	2014	5	38	43
Total EEZ	2014	248	440	688

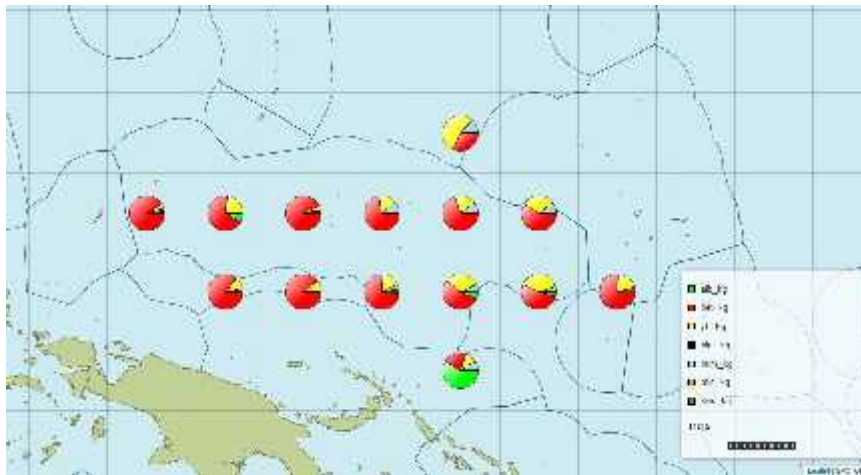


Figure 5. Annual distribution of effort by the main foreign longline fleets active in the FSM EEZ for 2014.

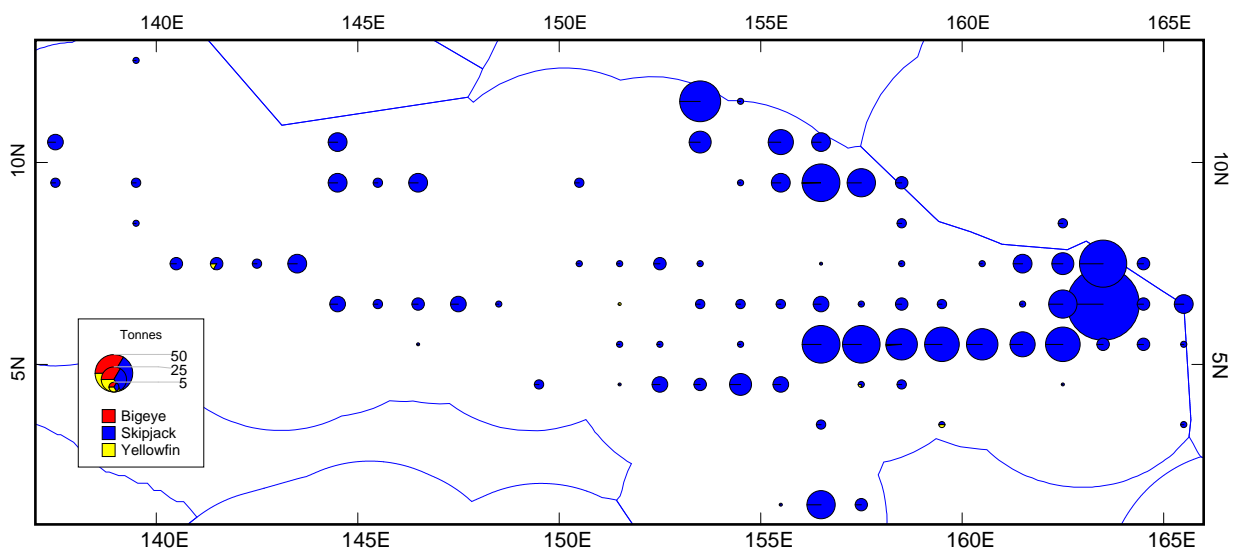
1.2.5 Pole and Line Catch in the FSM Waters

Pole and line catch within the FSM' EEZ for 2014 is indicating a total of 1,174mt of tuna species. Current catch record in Table 9 is showing the break-down of the three target species, (BET 0mt, YFT 4mt, and SKJ 1,170mt). The pole and line fishing effort is mainly focused East of the FSM' EEZ for the year, 2014 (Figure 6).

Table 9. Annual catches by foreign pole-and-line fleets in the FSM EEZ, by flag and species, 2010-2014.

Fleet	Year	Days	Vessels	BET	SKJ	YFT	OTH	TOTAL
Japan	2010	345	25	0	2,795	4	0	5
	2011	737	27	0	4,782	37	0	4,819
	2012	530	24	8	2,552	10	0	2,570
	2013	945	22	7	8,087	11	0	8,105
	2014	243	20	0	1,170	4	0	1,174

Figure 6. Japan Pole and Line Catch and Effort, 2014.



2 Research and Statistics

2.1 The FSM Fisheries Observer Program

The FSM National Fisheries Observer Program (NFOP) has been operating since 1979. With the expansion and diversification of the fleets in the FSM, NFOP was expanded to a maximum pool of 12 personnel in 1995 under contractual services. By 2012-2013, the FSM's NFOP has contracted over 90 fisheries observers. In 2014, a total number of 80 fisheries observers remained.

The NFOP achieved 469 observed trips in 2014 covering longline, pole and line, and purse seine vessels. Of the 46 observer placements, 451 trips were on purse seiners, 8 trips on longlines were achieved on the FSM flag vessels based in Marshalls and Pohnpei with overall observer coverage of 2% in 2014. Japan was the pole and line gear in 2014 with total of 6 trips (Table 10). The top three flag vessels for observer placement were with Japan at 141, Chinese Taipei 120 and FSMA at 76 placements. Majority of the FSMA vessel embarkations were mostly in the Marshall Islands.

FSM NFOP was fortunate to have 4 PIRFO debriefers and 1 assessor certified in 2014. There was no basic observer training for FSM in 2014 due to limited training funds and introduction of the full cost recovery due to roll out in 2015.

Table 10. Observer Trip Coverage per Flag and Gear-type, 2014

Gear Type	Trips	Flag
Longline		
	0	China
	8	FSM
	0	Chinese Taipei
	0	Japan
Purse Seine		
	41	China
	4	FSM
	76	FSMA
	141	Japan
	23	Korea
	120	Chinese Taipei
	50	USA
Pole and Line		
	6	Japan
Pole and Line	6	
Longline	8	
Purse Seine	455	
Grand Total	469	

2.2 The FSM Port Sampling Program

The National Oceanic Resources Management Authority (NORMA) operates a port sampling program and continuously monitors unloading and transshipment activities within FSM ports. In addition, NORMA continues to use its observer program to assist in conducting port sampling activities. FSM's main port for unloading and transshipment is in Pohnpei port for the past six years. In 2014, purse seine port sampling decreased due to 100% observer coverage and more effort was concentrated on the longline frozen transshipments. NORMA's current sampling records showed 108 purse seine vessels transshipped 82,768mt and 78 longline vessels transshipped 2,257mt of tuna (Table 11 and 12) for a total of 85,025mt in 2014.

FSM has continued sampling the United States purse seine vessels that transshipped in FSM since 2010 in accordance with contractual services between FSM and the National Oceanic and Atmospheric Administration (NOAA). The contractual services include port sampling program and port sampling data collection for the UST vessels transshipping in FSM ports. A total of 5 UST vessels transshipped 4,103mt in Pohnpei port (Table 11). National purse seine fleet also carried out transshipment in foreign ports mostly in Japan, Kiribati, Solomon Islands, Marshall Islands and Papua New Guinea (Table 14, 16 and Annex 2).

Table 11. Purse Seine port sampling activities in FSM, 2014.

Port	Flag	No. of Vessels	Transshipped (mt)
Pohnpei	Japan	13	8,900
	Chinese Taipei	36	28,853
	Korea	16	12,858
	China	4	2,710
	USA	5	4,103
	FSM	19	14,033
	Vanuatu	9	7,720
	Kiribati	6	3,591
Total		108	82,768

Source: NORMA

Table 12. Longline port sampling activities in FSM, 2014.

Port	Flag	No. of Vessels	Transshipped (mt)
Pohnpei	China	17	674
	FSM	13	468
	Chinese Taipei	48	1,115
Total		78	2,257

Source: NORMA

2.2.1 Purse Seine unloading in and outside FSM

In 2014, a total of 21 purse seine vessels unloaded 18,867mt to carriers at the anchorage site in Pohnpei lagoon (Table 13). The total number of FSM purse seine unloading outside of FSM port is 14 with 22,993mt and Rabaul port received the highest unloading volume of 13,350mt (Table 14 and Annex 2).

Table 13. Purse seine unloading in FSM, 2014.

Port	Year	Flag	Species	Mt	Unloadings
Pohnpei	2014				
		CN	BET	0	2
			YFT	45	
			SKJ	1,070	
			OTH	0	
		TW	BET	0	
			YFT	555	
			SKJ	6,860	
			OTH		
		FM	BET	77	14
			YFT	1,772	
			SKJ	4,617	
			OTH	0	
		JPN	BET	12	2
			YFT	155	

			SKJ	863	
			OTH	0	
		KR	BET	12	3
			YFT	288	
			SKJ	2,361	
			OTH	0	
Total				18,687	21

Source: TUFMAN

Table 14. Purse seine unloading outside FSM, 2014.

Port	Flag	Year	Species	Mt	Unloadings
	FSM	2014			
Rabaul, Papua New Guinea			Mix	13,350	3
Honiara, Solomon Islands			Mix	715	2
Majuro, Marshall Islands			Mix	3,045	3
Tarawa, Kiribati			Mix	2,672	3
Japan			Mix	3,211	3
Total				22,993	14

2.2.2 Longline unloading in FSM

The 2014 longline unloading record is showing a total of 37 unloadings in Pohnpei port with a volume of 1,560mt of frozen tuna and other species by three frozen longline fleets (Table 15). Pohnpei port longline unloading data are provisional estimates and to be reconciled. There were 202 national longline fleet unloadings outside FSM port mainly in the Marshall Islands with 2,718mt of fresh tuna (Table 16 and Annex 2); Albacore (ALB), Yellowfin (YFT) and Bigeye (BET).

Table 15. Longline unloading in FSM, 2014.

Port	Year	Flag	Species	Mt	Unloadings
Pohnpei	2014				
		CN	BET	0	7
		CN	YFT	39	
		CN	OTH	281	
		TW	BET	336	18
		TW	YFT	160	
		TW	OTH	0	
		FM	BET	62	12
		FM	YFT	31	
		FM	OTH	651	
Total				1,560	37

Source: TUFMAN

Table 16. Longline unloading outside FSM, 2014.

Port	Year	Flag	Unloadings	Species	Mt	Unloadings
Majuro	2014	FM	202	ALB	38	202
				YFT	578	
				BET	2,102	
				OTH	151	
Total					2,869	

Source: NORMA

Appendix 1- CMM Reporting

Summary Table

CMM Reference	Description	Response
CMM 05-03	North Pacific Albacore	Caught as bycatch 253 mt
CMM 06-04	South West Striped Marlin	NOT APPLICABLE
CMM 07-04	Sea birds	No interactions
CMM 09-03	South West Pacific Swordfish	NOT APPLICABLE
CMM 09-06	Transshipments	<ol style="list-style-type: none"> 1. <ol style="list-style-type: none"> a) 85,024 mt b) all transshipments in port c) same as above d) caught in the convention area e) Skipjack for PS, Yellow and Bigeye LL, Skipjack and Yellowfin PL f) all frozen PS / LL and some fresh LL g. 8 PS and 18 LL 2. <ol style="list-style-type: none"> a) 186 transshipments in 2014 b) all transshipment in port c) transshipment inside the convention area d) caught inside convention area e) PS and LL (Please see Annex 2)
CMM 10-05	South Pacific Albacore	NOT APPLICABLE
CMM 10-07	Sharks	Longline 619 discarded and 12 retained. Purseine 136 discarded and 0 retained (Please see table 2 & 3)
CMM 11-03	Cetaceans	No interactions on cetaceans based on available data.
CMM 11-04	Oceanic White-Tip Shark	Longline released 38 and Purse seine discarded 1 Oceanic White-Tip (Please see table 2 & 3).
CMM 12-06	Whale Sharks	1 purse seine interaction with whale shark in Kiribati EEZ from observer reports.
CMM 12-07	Seabirds	NOT APPLICABLE

CMM 13-08	Silky Sharks	Longline released 184 and retained 2. Purse seine discarded 64 and retained 0 (Please see table 2 & 3).
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Annex 2. Transshipments by FSM flag vessels

Summary

Annex 2 (1)						
Species	Quantity offloaded (mt)	Transshipped in port	Transshipped in WCP-CA	Caught in WCP-CA	Product Form	Gear
SKJ	4,617	Yes	Yes	Yes	Frozen whole	Purse Seine
YFT	1,772	Yes	Yes	Yes	Frozen whole	Purse Seine
BET	77	Yes	Yes	Yes	Frozen whole	Purse Seine
Mixed (SKJ+YFT+BET)	22,993	Yes	Yes	Yes	Frozen whole	Purse Seine
Annex 2 (2)						
Port	Number of transshipments	Transshipped in port	Transshipped in WCP-CA	Caught in WCP-CA	Product Form	Gear
Pohnpei, FSM	14	Yes	Yes	Yes	Frozen whole	Purse Seine
Rabaul, Papua New Guinea	3	Yes	Yes	Yes	Frozen whole	Purse Seine
Honiara, Solomon Islands	2	Yes	Yes	Yes	Frozen whole	Purse Seine
Majuro, Marshall Islands	3	Yes	Yes	Yes	Frozen whole	Purse Seine
Tarawa, Kiribati	3	Yes	Yes	Yes	Frozen whole	Purse Seine
Japan	3	Yes	Yes	Yes	Frozen whole	Purse Seine

