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Rarotonga, Cook Islands 9 – 17 August 2017

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

WCPFC-SC13-AR/CCM-13 Rev 1 (20 July 2017)

REPUBLIC OF THE MARSHALL ISLANDS

Annual Report to the Western and Central Pacific Fisheries Commission Part 1: Information of fisheries, statistics and research

Republic of the Marshall Islands



Oceanic and Industrial Affairs Division Marshall Islands Marine Resources Authority

August 2017

Scientific data was provided to the Commission in	
accordance with the decision relating to the provision of	Yes
scientific data to the Commission by 30 April 2017	

SUMMARY

In 2016, there were eight Marshall Islands-flagged and two chartered purse seine vessels operating throughout the Western and Central Pacific Ocean (WCPO). The total catch estimates by the national purse seine fleet in 2016 was 60,070 metric tonnes. Additionally, retained catch estimates from twenty-four chartered longline vessels associated with the domestically-based Marshall Islands Fishing Venture (MIFV) totaled 1,412 metric tonnes.

The commercial catches within the RMI EEZ are taken predominantly by the purse seine fishery but longline and poleand-line operations also occur. In 2016, estimated total catch for all gears combined was 79,669 mt with purse seine accounting for 96% followed by longline 3.5% and pole-and-line 0.5%. Purse seine catch in the RMI EEZ increased three-fold from 26,344 in 2015 to 76,384 in 2016.

The RMI Observer Program's 63 active observers carried out 175 purse seine and 28 longline trips during 2016. Observers were also utilized to monitor transshipment activity in Majuro port since the initiative started in late 2015. Available observer data for the RMI purse seine fleet indicated 3 turtles, 37 marine mammals, and no seabird interactions recorded during the year.

FLAG STATE REPORTING

Annual catch and effort estimates for the national purse seine fleet, fishing throughout the Western and Central Pacific Fisheries Commission Convention Area (WCPFC-CA) during the last five years are presented in Table 1 and Figure 1. In 2016, total catch estimates totaled 60,979 metric tonnes for the purse seine fleet. Skipjack is the prominent species caught comprising 82% of the total followed by yellowfin, 14% and bigeye tuna, 4%.

There were 24 foreign long-liners chartered in 2016 whose catch estimates are provided in Table 2. All chartered vessel are based locally and fish almost exclusively in the RMI EEZ. Vessel numbers for both purse seine and longline vessels are presented in Table 3 below.

Figures 2 and 3 illustrate catch and effort distributions for the RMI flagged purse seine and charted longline fleets. Purse seine catch and effort is primarily concentrated in the southern part of the RMI EEZ and the adjacent EEZs and high seas areas. As previously stated, locally-based longline vessels predominately operate in the EEZ and effort is more widely distributed inzone compared to purse seine effort.

	2012	2013	2014	2015	20	16
EFFORT (DAYS)	1,989	2,039	2,481	2,180		1943
					(metric	tonnes)
SPECIES					Ret	Disc
SKIPJACK	55,393	60,645	62,182	77,021	50,052	393
YELLOWFIN	12,402	12,461	10,333	7,253	8,707	77
BIGEYE	4,162	4,528	3,381	2,595	2,214	13
BLUE SHARK	0	0	0	0	0	0
BLUE MARLIN	89	24	18	32	3	9
BLACK MARLIN	7	14	13	13	2	8
OCEANIC WHITETIP	0	0	0	0	0	1
STRIPED MARLIN	0	1	0	1	1	1
SWORDFISH	0	0	0	0	0	0
THRESHER SHARK	0	0	0	0	0	0
MAKO SHARK	0	0	0	0	0	0
SILKY SHARK	6	0	5	4	0	64
THRESHER SHARK	0	0	0	0	0	0
PORBEAGLE SHARK	0	0	0	0	0	0
HAMMERHEAD SHARK	0	0	0	0	0	0
WHALE SHARK	2	0	0	1	0	20

Table 1.Annual catch and effort estimates for the Marshall Islands purse seine vessels, by species and
year, in the WCPFC Convention Area (Source: Raised logsheet data collected by MIMRA)

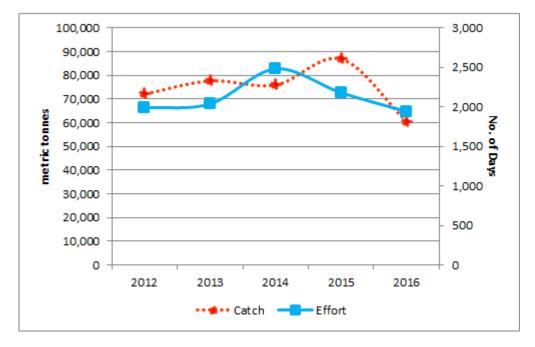


Figure 1. Annual catch and effort for the Marshall Islands purse seine vessels for the WCPFC Convention Area

	2012	2013	2014	2015	2016		
EFFORT (HOOKS)					61,120		
					Retain	Disc	card
Species					}	(mt)	(no)
YELLOWFIN	113	47	0	0	555	23	0
BIGEYE	335	80	0	0	692	8	0
BLUE MARLIN	25	9	0	0	127	0	0
BLACK MARLIN	10	0	0	0	0	0	0
SKIPJACK	0	0	0	0	0	3	0
ALBACORE	17	7	0	0	25	0	0
PACIFIC BLUEFIN	0	0	0	0	0	0	0
STRIPED MARLIN	0	0	0	0	0	0	0
SWORDFISH	3	1	0	0	13	0	4
BLUE SHARK	32	9	0	0	0	0	744
OCEANIC WHITETIP	9	2	0	0	0	0	27
THRESHER SHARK	0	0	0	0	0	0	3
MAKO SHARK	3	1	0	0	0	0	3
HAMMERHEAD SHARK	1	0	0	0	0	0	1
SILKY SHARK	0	5	0	0	0	0	220

Table 2.Annual catch and effort estimates for the Marshall Islands-chartered longline vessels, by species
and year, for the WCPFC Convention Area (Source: Raised logsheet data collected by MIMRA)

Table 3.Number of Marshall Islands vessels (flagged and chartered), by size category, active in the
WCPFC Convention Area, 2012-2016

	Ι	Longline		Purse	Seine			
GRT Year	0-10	10-50	50-200	200-500	0-500	500-1000	1000-1500	1500+
2012	0	0	4	0	0	0	7	3
2013	0	0	4	0	0	0	7	5
2014	0	0	3	0	0	0	7	5
2015	0	0	0	0	0	0	7	5
2016	0	0	24	0	0	0	7	3

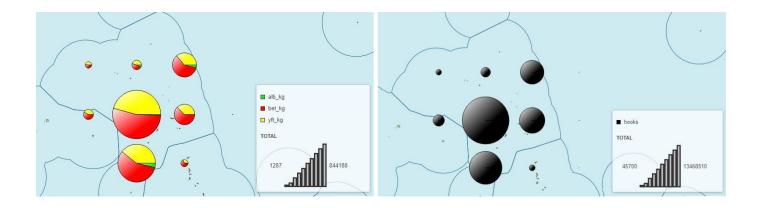
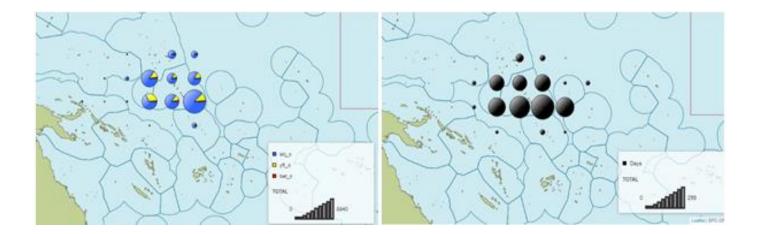
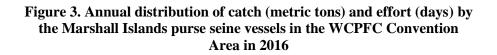


Figure 2. Annual distribution of catch (metric tons) and effort (hooks) by the Marshall Islands-chartered long-line vessels in the WCPFC Convention Area in 2016





Preliminary data for observed interactions with species of special interest by the RMI purse seine fleet are shown in Table 4. During 2016, there were 3 sea turtle interactions reported and all were released alive. From reported incidents of marine mammal interactions, there were a total of 37 individuals unintentionally caught and all were released dead. No seabird interactions were observed during the period. There were 4 interactions with whale sharks and all were released alive.

		Number	Dead
MARINE MAMMALS			
	ROUGH-TOOTHED DOLPHIN	34	34
	FALSE KILLER WHALE	3	3
MARINE REPTILES			
	GREEN TURTLE	2	0
	MARINE TURTLE (UNIDENTIFIED)	1	0
WHALE SHARK			
	WHALE SHARK	4	0
		44	37

Table 4.Observed interactions with species of special interest (seabird, turtle and marine mammals) on
Marshall Islands purse seine vessels, in 2016.

COASTAL STATE REPORTING

Table 5 provides a description of foreign-flagged vessels licensed to fish in the Marshall Islands waters over the past five years. A total of 242 foreign vessels were licensed however, not all were active during the period. Domestically-based foreign longline vessels operating under the Marshall Islands Fishing Venture (MIFV) entered into charter with the RMI in late 2016 hence the inclusion of the charter component of the catches in the flag state reporting above.

FLAG	GEAR	2012	2013	2014	2015	2016
CHINA	LL	21	23	26	26	27
	PS	2	2	6	7	C
FSM	LL	15	11	14	14	12
FSMA (excl. MH)	PS	29	38	57	54	76
JAPAN	LL	5	1	8	8	2
	PL	21	15	20	13	11
	PS	29	24	28	29	30
KOREA	PS	26	27	26	5	25
NZ	PS	0	0	0	2	(
CH-TAIPEI	LL	2	2	2	2	(
	PS	9	6	25	25	20
TUVALU	PS	1	1	1	1	(
USA	PS	39	39	39	39	33
VANUATU	PS	3	3	3	0	(
TOTAL	LL	43	37	50	50	4
	PL	21	15	20	13	11
	PS	138	140	185	162	190

Table 5.Number of foreign longline, pole-and-line and purse seine vessels licensed to fish in the RMI
EEZ, by year and flag.

Available logsheet data indicate that total catch by purse seine fleets operating in the RMI EEZ increased from 26,344 mt in 2015 to 76,384 mt in 2016 with 26% taken by the Korean fleet followed by the US fleet (Table 6). Skipjack tuna continues to be the dominant catch, accounting for 92% of the total catch in 2016.

The domestically-based foreign longline fleet comprises of vessels from China, FSM and previously Chinese Taipei are managed and operated under Marshall Islands Fishing Venture, Ltd., which is a subsidiary of Luen Thai. Japanese longline vessels offload their catch in ports in Japan. In-zone longline catch estimates are provided in Table 7. Bigeye and yellowfin catches continue to account for the major part of the target catch composition. As with the purse seine fishery, most of the longline fishing effort occurs in the southern areas of the RMI EEZ however in the longline fishery, effort is more widely distributed throughout the zone.

In 2016, catches from the pole-and-line fleet decreased by 30% compared to the previous year (Table 8). The short-term trend continues to show some variability between years. Skipjack is the main species making up the catch composition for this fleet and accounts for almost 100% of the total. The RMI has yet to place observers on board these vessels and as a result observer coverage for validation purposes has not been achieved.

			Catch	ı (meti	ic tonne	es)				Catch	n (metri	c tonnes)
Flag	Year	BET	SKJ	YFT	OTH	Total	Flag	Year	BET	SKJ	YFT	OTH	Total
China	2012	0	0	0	0	0	RMI	2012	219	14,037	310	14	14,580
	2013	0	1,797	35	0	1,832		2013	388	12,372	654	4	13,418
	2014	20	2,019	229	0	2,268		2014	401	16,268	1,043	18	17,730
	2015	0	80	5	0	85		2015	11	3,074	536	0	3,621
	2016	0	145	25	0	170		2016	86	8,645	144	0	8,875
FSM	2012	57	1,061	204	0	1,322	Solomon Is	2012	0	0	0	0	0
	2013	14	316	28	0	358		2013	0	0	0	0	0
	2014	47	2,536	247	0	2,830		2014	0	0	0	0	0
	2015	26	812	275	0	1,113		2015	0	0	0	0	0
	2016	7	278	21	0	306		2016	10	1,040	120	0	1,170
Japan	2012	18	576	42	0	636	Tuvalu	2012	0	0	0	0	0
	2013	0	80	5	0	85		2013	3	1,779	98	2	1,882
	2014	0	0	0	0	0		2014	0	213	2	0	215
	2015	5	86	6	0	97		2015	0	0	0	0	0
	2016	0	0	0	0	0		2016	0	0	0	0	0
Kiribati	2012	0	155	30	0	185	Chinese Taipei	2012	5	892	8	0	905
	2013	0	60	0	0	60		2013	3	1,779	98	0	1,880
	2014	6	243	126	0	375		2014	38	11,406	522	0	11,966
	2015	0	435	80	0	515		2015	14	3,363	1,033	0	4,410
	2016	31	3,953	607	0	4,591		2016	163	11,725	1,200	0	13,088
Korea	2012	0	0	0	0	0	USA	2012	110	4,555	166	0	4,831
	2013	5	5,761	80	0	5,846		2013	60	6,538	213	0	6,811
	2014	25	5,312	378	0	5,715		2014	87	15,697	378	0	16,162
	2015	0	0	0	0	0		2015	40	11,135	1,823	0	12,998
	2016	101	18,427	1,296	0	19,824		2016	119	12,877	823	0	13,819
Papua New Guinea	2012	6	341	52	0	399	Vanuatu	2012	1	1,360	23	0	1,384
	2013	5	3,093	90	0	3,188		2013	60	6,538	213	0	6,811
	2014	44	10,997	528	0	11,569		2014	0	735	10	0	745
	2015	30	2,845	537	0	3,412		2015	0	0	0	0	0
	2016	42	11,232	1,159	0	12,433		2016	0	0	0	0	0
Philippines	2012	0	0	0	0	0	TOTAL EEZ	2012	416	22,977	835	14	24,242
	2013	0	0	0	0	0		2013	538	40,113	1,514	6	42,171
	2014	0	770	14	0	784		2014	668	66,196	3,477	18	70,359
	2015	0	93	0	0	93		2015	126	21,923	4,295	0	26,344
	2016	10	1,850	248	0	2,108		2016	569	70,172	5,643	0	76,384

Table 6.Annual catches of purse seine fleets operating in the RMI EEZ, by flag and species, 2012-2016
(Source: Unraised logsheet data collected by MIMRA)

Table 7.	Annual catches of longline fleets operating in the RMI EEZ, by flag and species, 2012-2016
	(Source: Unraised logsheet data collected by MIMRA)

			Catch	n (metric ton	nes)	
Flag	Year	ALB	BET	YFT	OTH	Total
China	2012	128	2,336	777	396	3,637
	2013	125	1,763	1,235	470	3,593
	2014	84	2,817	1,419	360	4,680
	2015	63	1,200	740	152	2,155
	2016	17	353	216		586
FSM	2012	50	1,016	398	217	1,681
	2013	84	1,001	665	258	2,008
	2014	49	1,445	738	178	2,410
	2015	56	953	529	128	1,666
	2016	29	557	384		970
Japan	2012	1	32	10	8	51
	2013	1	11	3	1	16
	2014	17	278	112	44	451
	2015	2	122	81	25	230
	2016	2	28	24		54
RMI	2012	17	335	113	58	523
	2013	7	80	47	10	144
	2014	0	0	0	0	0
	2015	0	0	0	0	0
	2016	23	678	544		1,245
Ch-Taipei	2012	58	308	74	58	498
	2013	20	117	64	40	241
	2014	22	140	77	18	257
	2015	1	11	30	4	46
	2016	0	0	0	0	0
TOTAL EEZ	2012	254	4,027	1,372	737	6,390
	2013	237	2,972	2,014	779	6,002
	2014	172	4,680	2,346	600	7,798
	2015	122	2,286	1,380	309	4,097
	2016	71	1,616	1,168	0	2,855

Table 8.Annual catches of pole-and-line fleet operating in the RMI EEZ, by flag and species, 2012-2016
(Source: Unraised logsheet data collected by MIMRA)

		Catch (metric tonnes)							
Flag	Year	BET	SKJ	YFT	TOTAL				
Japan	2012	3	3,578	15	3,596				
	2013	3	1,719	4	1,726				
	2014	3	3,317	21	3,341				
	2015	0	615	2	618				
	2016	0	429	1	430				

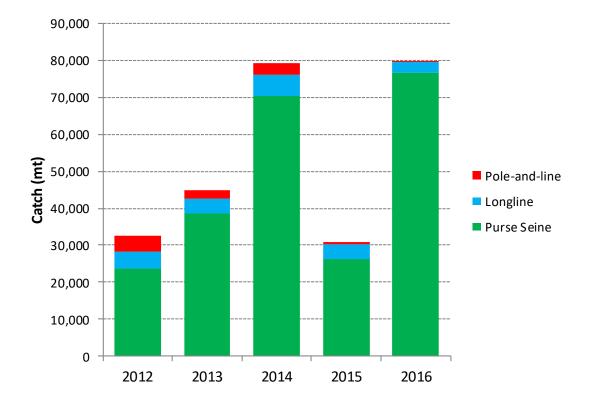


Figure 4. Total catch by the different gears operating in the RMI EEZ

DISPOSAL OF CATCH

As mentioned earlier, the Marshall Islands Fishing Venture, Ltd. (MIFV) operates the Longline Fishbase with domestically-based foreign longline vessels. In 2016, there was a provisional total of 3,862 mt of fish unloaded by the longline fleet and most it were bound for export markets (Table 9). Ongoing work on improving direct importation of unloadings data into the TUFMAN II database continues to progess with assistance from SPC. The MIFV exports mainly fresh chilled tuna species to markets in the US, China and Canada. Frozen fish (rejects and bycatch), designated as Local, are shipped to China and Philippines via transport containers and/or sold locally.

Majuro port is the only designated port for transshipment in the RMI and continued to be a favorable port for transshipment in 2016. There was an estimated 573 purse seine transshipments undertaken in Majuro in 2016 with a provisional total of 410,948 mt transshipped (Table 10). Additionally, most transshipments by the national purse seine fleet are usually carried out in Majuro, however, foreign ports in the region are occasionally utilized (Table 11).

Species	Export	Local	TOTAL
Albacore	0	78	78
Bigeye	1,958	21	1,979
Blue Marlin	34	308	342
Opah	2.73	0.05	2.78
Mahi Mahi	3.11	31	34.48
Sailfish	0	12	12
Swordfish	4	32	36
Wahoo	4	55	59
Yellowfin	1,240	79	1,319
TOTAL	3,246	616	3,862

Table 9. Total unloaded catch (mt) for domestically-based longline vessels in 2016

Flag	Number of PS Transhipment	SKJ	YFT	BET	TOTAL
China	73	44,980	6,002	474	51,529
Spain	1	936	70	378	1,385
FSM	22	12,423	1,266	387	14,098
Kiribati	17	11,123	1,746	222	13,108
Korea	27	24,829	2,502	248	27,606
RMI	77	50,105	6,415	650	57,247
NZ	1	899	23	23	946
PNG	77	40,142	8,488	643	49,350
Philippines	20	8,998	2,425	112	11,555
Solomon Is.	11	6,813	1,753	34	8,611
Tuvalu	6	5,945	110	0	6,061
CH-Taipei	161	92,060	19,720	1,940	113,882
USA	74	41,462	7,298	1,128	49,962
Vanuatu	6	5,382	220	0	5,608
TOTAL	573	346,097	58,038	6,239	410,948

 Table10.
 Provisional purse seine transshipments in Majuro port in 2016

Table 11. Purse seine transshipments by RMI-flagged vessels in 2016

Annex II (1)						
SPECIES	QUANTITY OFFLOADED (mt)	Transhipped in Port	Transhipped in WCP-CA	Caught in WCP- CA	Product Form	Gear
YFT	6,733	Yes	Yes	Yes	Frozen Whole	Purse Seine
BET	679	Yes	Yes	Yes	Frozen Whole	Purse Seine
SKJ	52,870	Yes	Yes	Yes	Frozen Whole	Purse Seine
Annex II (2)						
Port	Number of Transhippment	Transhippment in Port	Transhippment in WCP-CA	Caught in WCP- CA	Product Form	Gear
Majuro	77	Yes	Yes	Yes	Frozen Whole	Purse Seine
Tarawa	4	Yes	Yes	Yes	Frozen Whole	Purse Seine
Pohnpei	1	Yes	Yes	Yes	Frozen Whole	Purse Seine
Zhoushan	1	Yes	Yes	Yes	Frozen Whole	Purse Seine

ONSHORE DEVELOPMENTS AND SOCIO-ECONOMIC FACTORS

MIMRA, on behalf the Government, still maintains a joint venture partnership with Koo's Fishing Company, Ltd. (KFC). This venture continues to provide additional revenue stream as well as a catalyst for further on-shore developments.

The Pan Pacific Foods (PPF) loining plant continued operations in 2016 with viable production outputs supported by ongoing hiring and recruitment of local Marshallese employees. As has been reported before, the company also operates three RMI-flagged and two chartered purse seine vessels which supply the plant with raw materials. Total exports reported by the company are provided in Table 12 below.

	Product (mt)					
Destination	Loin (SKJ)	Whole (SKJ & YFT)	Fishmeal			
China	0	49	0			
Fiji	108	0	0			
Japan	0	148	0			
Korea	0	75	0			
Northern Mariana Is.	0	0	0			
Philippines	0	137	0			
Taiwan	0	0	0			
Thailand	223	880	9			
USA	347	13	0			
Vietnam	0	1,152	0			
TOTAL	679	2,453	9			

Table 12.	Total exports (mt) for Pan Pac	ific Foods loining plant in	2016, by product and destination
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FUTURE PROSPECTS OF THE FISHERY

The RMI intends to support domestic fisheries development aspirations in the region so long as it goes hand in hand with sustainable management measures that do not put a disproportionate burden on SIDS, in accordance with Article 30 of the Convention.

Other notable future prospects for the RMI tuna fishery involve further observer and debriefer capacity development as MIMRA continues to progressively train and recruit additional fisheries observers. MIMRA plans to recruit and train additional port coordinators to monitor the increasing number of transshipments taking place in Majuro port.

Additional developments and improvements to in-house data management systems is another area of focus that the RMI intends to progress so as to streamline our overall management and monitoring efforts. In this regard, relevant details are briefly provided in the next section below.

DATA COLLECTION SYSTEM AND RESEARCH ACTIVITIES

Data management and handling capacity continues to be a vital tool for MIMRA. The SPC-OFP has been very instrumental in the RMI's data efforts. Recent joint assistance from SPC and FFA allowed for considerable improvements in data collection and management where it was envisaged that a more integrated fisheries information management system will assist in streamlining most if not all of our reporting obligations.

MIMRA continues to employ a dedicated port sampler covering almost 100% of longline unloadings at the MIFV fishbase. Collated data are entered into the TUFMAN database and are subsequently sent to SPC-OFP on a regular basis for further analysis.

MIMRA intends to shift its focus towards the PNAO FIMS as the standard by which it will manage and handle its data complemented by existing databases such as the TUFMAN II currently in use. Current training schedule entails further development of e-Reporting and e-Monitoring initiatives. It is envisaged that these trainings will encourage observers to adapt by using new tools and technology to gather data in a more efficient and timely manner.

In 2016, there were 65 active RMI observers employed under the MIMRA Observer Program; including 9 additional observers who were certified in May and 2 more in August. A total of 175 purse seine trips and 28 longline trips were carried out in 2016 (Table 13).

		Purse Seine	Longline
Arrangement	Flag	Number	of Trips
Bilateral / MIMRA	China	0	27
	FSM	0	1
	Korea	12	0
	CH-Taipei	10	0
	Phillipines	0	0
	Tuvalu	0	0
POA / FSMA	China	3	0
	FSM	46	0
	Kiribati	22	0
	CH-Taipei	5	0
	PNG	41	0
	Phillipines	5	0
	Solomon Is.	2	0
FFA / USMLT	USA	29	0
TOTAL		175	28

Table 13.Observer trips in 2016

APPENDIX 1 – CMM REPORTING

CMM 2005-03,	North Pacific Albacore	This is not a target catch for RMI vessels however, 24mt of NP ALB					
Para 4		were caught as bycatch by the chartered longline fleet.					
CMM 2006-04,	South West striped	Not applicable. N	o RMI vessels f	ishing south	of 15°S		
Para 4	Marlin						
CMM 2009-03,	Swordfish	Not applicable. Not	o RMI vessels fi	sh south 20°	S		
Para 8							
CMM 2009-06, Para 11 (ANNEX	Transshipment	83 in-port transshi 1) = $60,282$ mt (pr		o −77 ;Tarawa	a 4; Poh	inpei	l; Zhoushan
II)		(See Table 11)					
CMNA 2010 07	Sh			1 1 1	. 1 6 . 1 .		
CMM 2010-07, Para 4	Sharks	RMI law prohibits Discards of the ke					
		totaled 39mt while					
		Specie	es	Number	Retain	ed	Discarded
		Oceanic White		16		0	16
		Pelagic Thresh		1		0	1
		Silky Sh		2770		5 2765	
		Whale Shark		4		0 4	
		TOTAL			2791 5 2786		
CMM 2011-03,	Impact of PS fishing on	Observed interaction			~~	•	
Para 4	cetaceans	vessels in 2016. Work in progress to update logsheets to include information on safe release.					
		Species	2	Number of Incidents	Aliv	ve	Dead
		False Killer	Whale		1	0	3
		Rough-toothed			1	0	34
		TOTAI	*		2	0	37
CMM 2011-04,	Oceanic whitetip	Estimated number	r of oceanic wi	hite-tin sharl	cs on R	MI_fl	agged purse
Para 3	sharks	Estimated number of oceanic white-tip sharks on RMI-flagged purs seine vessels in 2016					
		Species	Life Status	Observed Number		Estimated Number	
		Oceanic White-tip	Alive		6		6
		Shark	Dead		10		10
CMM 2012-04, Para 06	Whale sharks	Four whale shark interaction reported by RMI-flagged purse seine vessels in 2016 all released alive. Work in progress to update logsheets to include information on safe release.					
CMM 2012-07,	Seabirds	No seabird interactions reported in 2016.					

CMM 2013-08, Para 3	Silky sharks	Estimated number of silky sharks on RMI-flagged purse seine vessels in 2016					
		Species Life Status Observed Number Estimated Number					
		Cillar, Choule	Alive	202	208		
		Silky Shark	Dead	1338	2557		
WCPFC 11	Observer coverage	This does not apply to MH. Charter Notification vessels will attribute					
decision – para		catch and effort but no mention of observer coverage on longline					
484(b)		vessels.					
CMM 2015-02	South Pacific Albacore	Not applicable. No RMI vessels fish south 20°S					
Para 4							