#### SCIENTIFIC COMMITTEE FIFTEENTH REGULAR SESSION

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

WCPFC-SC15-AR/CCM-26 (Rev.02)<sup>1</sup>

TUVALU

<sup>&</sup>lt;sup>1</sup> This revision includes some amendments on the reporting requirement against CMM 2009-06, Para 11.



FISHERIES DEPARTMENT

**MINISTRY OF NATURAL RESOURCES** 





# ANNUAL REPORT TO THE WESTERN CENTRAL PACIFIC FISHERIES COMMMISION

# PART 1: INFORMATION ON FISHERIES, RESEARCH AND STATISTICS

Scientific data was provided to the	
Commission in accordance with the decision	YES
relating to the provision of scientific data to	115
the commission by the 30 <sup>th</sup> April 2019.	

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# **1.0 ABSTRACT**

Tuvalu's Fishery comprised three active vessels which fished in the WCPO Convention Area in 2018. These were one purse seine vessel and two longliners. The fishing effort and catch distribution for the purse seine vessel was mainly in the south of the Kiribati EEZ. Some other catches and effort occurred in other the PNA waters such as Phoenix & Line group, Tokelau, Nauru, FSM & PNG. The two longliners mainly fished in the Tuvalu EEZ.

Tuvalu's purse seine vessel's total catch was 10,950mt in the Convention Area. The highest catch was skipjack tuna of 9,028mt (82%) in total, with 1,643mt (15%) of yellowfin tuna and 279mt (3%) for bigeye tuna species. The total catch of all species for Tuvalu flagged longline vessels in 2018 was 317mt. Albacore made up 118mt (37%), yellowfin tuna - 103mt (32%), bigeye tuna - 65mt (21%). Other species caught were billfish including blue marlin, black marlin, striped marlin and swordfish of 17mt (5%) and a small catch of 14mt (4%) of skipjack tuna species.

For coastal state reporting there were 309 fishing vessels licensed in the Tuvalu EEZ in 2018. These vessels were comprised of purse seiners (PS), longliners (LL) and fish carrier (FC). There were no pole and line (PL) or bunker vessels (B) applying for licences in Tuvalu's EEZ for the past two years. In 2018 there were 78 longline vessels licensed in Tuvalu's EEZ, of which 65 longline vessels applied for six months and 13 longline vessels for 12 months licence period. There were 189 purse seiners and 45 fish carrier. The number of licensed vessels has decreased from 357 to 309 (2017 to 2018). The numbers of both longline and purse seine vessels licensed were lower than in 2017.

The total catches of tuna from foreign fishing vessels in Tuvalu EEZ for 2018 were 92,730mt. The highest total catches by flag in 2018 were taken by Korean flagged vessels of 36,266mt (39%), followed by Kiribati of 12,878mt (14%), and Federated States of Micronesia of 9264mt (10%). The lowest catches by flag were by vessels of Cook Islands of 4mt (0.004%), China of 361mt (0.389%) and Fiji of 267mt (0.288%).

Tuvalu's National Observer Program had a total number of Tuvaluan observers of 79 (78male & 1 female) in 2018. Included in this total are 29 certified as debriefers who can now assist in the debriefing process, 4 debriefer assessors and 67 MSC (chain of custody) observers. There are 2 observers eligible for cross-endorsed trips into the IATTC area.

## 2.0 BACKGROUND

Tuvalu Fishery comprised three active vessels that fished in the WCPO Convention Area in 2018. These were one purse seiner vessel and two longliners. Most fishing activity in the Tuvalu EEZ is by foreign vessels operating under access agreements., with licensing managed by the Tuvalu Fisheries Department.

The Tuvalu flagged purse seine vessel mainly fished in the south of the Kiribati EEZ. The two longliners mostly fished in the Tuvalu EEZ, with some catches in the adjacent high seas. The Longliners catches are offloaded in Suva port, while the Purse seiner transshipped catches in Funafuti, Christmas Is and Majuro ports.

# **3.0 FLAG STATE REPORTING**

#### **3.1 DOMESTIC FLEET**

On the WCPFC RFV Tuvalu has three flagged vessels authorized to fish in the Convention area in 2018. These were one purse seiner and two longliners. Table 1a and 1b below shows the number of Tuvalu flagged purse seine and longline vessels according to size category over recent years.

Year	00-500 GRT	501-1000 GRT	1001-1500 GRT	1500+ GRT	<b>Total Vessels</b>
2014	0	0	0	1	1
2015	0	0	0	1	1
2016	0	0	0	1	1
2017	0	0	0	2	2
2018	0	0	0	1	1

Table 1a. Number of Tuvalu purse seine flagged vessels and size category, active in the WCPFCConvention Area for 2014 -2018. Source: TUFMAN 2

Table 1b. Number of Tuvalu longline flagged vessels and size category, active in the WCPFCConvention Area for 2014 -2018. Source. TUFMAN 2

00-50 GRT	51-200 GRT	201-500 GRT	500+ GRT	<b>Total Vessels</b>
0	0	0	2	2
2	0	0	0	2
2	0	0	0	2
0	2	0	0	2
0	2	0	0	2
	00-50 GRT 0 2 2 0 0	0 0 2 0	0         0         0           2         0         0	0         0         0         2           2         0         0         0

#### **3.2 CATCH DATA**

#### 3.2.1 Purse seine

Tuvalu's purse seine vessel had a total catch of 10,950mt (Table 2 & Figure 1) in 2018, as estimated from logsheets.

The highest catch was skipjack tuna of 9,028mt (82%) in total, 1,643mt (15%) of yellowfin tuna and 279mt (3%) for bigeye tuna.

Table 2: Annual raised catch estimate (mt) for Tuvalu Purse seine fleet, in the WCPFC Convention Area over the five past years (2014-2018). Source: TUFMAN 2.

YEAR	BET	SKJ	YFT	TOTAL (mt)
2014	11	5593	216	5820
2015	0	5362	108	5470
2016	0	5970	140	6110
2017	8	4551	1082	5641
2018	279	9028	1643	10950



Figure 1: Chart of annual catches target species for Tuvalu Purse Seiner for the WCPFC Convention area over the past five years (2014-2018).

#### 3.2.2 Longline

The total catch of all species for Tuvalu flagged longline vessels in 2018, estimated from logsheets, was 317mt (Table 3 & Figure 2). Albacore accounted for 118mt (37%), yellowfin tuna for 103mt (32%), bigeye tuna for 65mt (21%), billfish (including blue marlin, black marlin, striped marlin and swordfish) for 17mt (5%) and 14mt (4%) skipjack tuna was also reported caught.

YEAR	ALB	BET	SKJ	YFT	OTH	TOTAL (mt)		
2014	85	219	5	216	32	557		
2015	98	205	7	175	23	508		
2016	52	104	3	125	15	299		
2017	173	108	4	163	26	474		
2018	118	65	14	103	17	317		

Table 3: Annual raised catch estimates (mt) for the Tuvalu Longline fleet, in the WCPFC Convention Area over the past five years. Source: TUFMAN 2



Figure 2: Chart of annual catches of target species for Tuvalu Purse seiner(s) for the WCPFC Convention area over the past five years (2014-2018). Source: TUFMAN 2

### **3.3 FISHING PATTERN AND DISTRIBUTION**

#### 3.3.1 Catch and Effort distribution for Purse seiners

The fishing catch and effort for Purse seine in 2018 were mostly concentrated on the south of the Kiribati EEZ. Some other fishing catches and effort were distributed around the other PNA waters such as Phoenix & Line group, Tokelau, Nauru, FSM & PNG. The highest catches for purse seiners are skipjack (Figure 3).





### 3.3.2 Catch and Effort distribution for Longliners

The fishing catch and effort distribution for longline vessels in 2018 shows fishing mainly within the Tuvalu EEZ, and adjacent high seas areas (Figure 4).



#### 3.3.3 Artisanal Fisheries

The small scale artisanal tuna data collection program has continued collecting information on target species such as bigeye, yellowfin and skipjack tuna all of which were caught by handline troll fishing. This information was collected by the data collectors from outer islands of Tuvalu and Funafuti, and manage by the Coastal Fisheries. There is no change of 64% on the highest catches of skipjack tuna. Then follow by yellowfin tuna of 30% and 4% for bigeye tuna (Table 4). Catches seem to have been falling in recent years, this is due mainly to the shift in focus with the program concentrating mostly on coastal fisheries. In 2018 data is not available from the Coastal Fisheries Section due to IT problems with the Creel survey database. Further analysis of artisanal tuna catches will be carried out in 2019.

Table 4: Annual catches (kgs) landed by artisanal fishermen-unraised data. Source (TUFMAN 2).\*Using 2017 data since the artisanal data was not up to dated.

SPECIES	2014	2015	2016	2017*	2018	TOTAL
SKJ	162,591.5	54,048.9	38,434.8	7199.74	N/A	262,274.94
YFT	55,414	36,198.8	24,863.3	7277.37	N/A	123,753.47
BET	8910.1	972	4650	3041	N/A	17,573.10
TOTAL	226,915.6	91,219.7	67,948.1	17,518.77		

### **3.4 SPECIES OF SPECIAL INTEREST**

Some of the observer data is not yet available and shark interactions are derived from logsheet data.

### **3.5 NON-TARGET ASSOCIATED OR DIFFERENT SPECIES**

The annual catch estimates for non-target species caught by Tuvalu flagged vessels is shown in Table 5. There were 21.35mt of non-target species for purse seine in 2018 while longline vessels caught a total of 17.35mt. These changes might be due to changes in fishing operations, or better reporting.

Table 5: Annual raised catch estimates (mt) of non-target, associated or dependent species forTuvalu flagged vessels in the WCPFC Convention Area. Source: TUFMAN 2

Year	BLM	BUM	MLS	SWO	BSH	FAL	HAM	МАК	TOTAL
Purse	seine								
2014	5.6	5.4	0.3	0	0	0	0	0	11.3

2015	0	14.2	4.4	0	0	0	0	0	18.6
2016	0	1.3	0.5	0.1	0	0	0	0	1.90
2017	0	0	0	0	0	0	0	0	0
2018	0.79	14.19	0.00	2.18	3.313	0.79	0.043	0.043	21.35
Longlin	ne								
2014	8.36	13.72	0.26	9.56	0	0	0	0	31.9
2015	2.54	13.68	0	6.73	0	0	0	0	22.95
2016	0	11	0	3.61	0	0	0	0	14.61
2017	0.17	20.30	0.02	6.00	0	0	0	0	26.49
2018	0.79	14.19	0	2.37	0	0	0	0	17.35

## **4.0 COASTAL STATE REPORTING**

### **4.1 FISHING LICENSES**

Tuvalu continues issuing fishing licenses to its bilateral partners such as Korea, Taiwan, China, Fiji, Kiribati and also vessels operating under Sub Regional Pooling. Vessels are also authorised under multilateral arrangements: the US Treaty, FSM Arrangement. In order to access tuna resources in the Tuvalu EEZ, domestic vessels are also authorized by fishing licenses issued by the Government of Tuvalu. For artisanal fishing, operators are subject to the local business regulation through the Kaupule (Island Council) but these small 5-7 meter vessels do not require commercial fishing licenses.

Prior to issuing bilateral fishing licenses to vessels, the Director of Fisheries signs an access agreement on behalf of the Tuvalu Government with fishing company or association. This is a legal requirement under Marine Resources Act.

There were 309 fishing vessels licensed in Tuvalu EEZ in 2018 (Table 6). These vessels comprised purse seiners (PS), longliners (LL) and fish carriers (FC). No pole and line (PL) or bunker vessels (B) have applied to operate in the Tuvalu EEZ for the past two years.

There were 78 longline vessels were license in Tuvalu EEZ, of which 65 longline vessels applied for six months and 13 longline vessels for 12 months period. There were 189 Purse seiners and 45 fish carriers. There was a decrease in the number of licenses for LL and PS in 2018 compared to 2017. This was mainly due to decrease in number of longline licenses, while for purse seiners, there were no license applied for in 2018 for Japanese vessels.

Likewise, the total number of vessels authorized under multi-lateral licensed arrangements decreased in 2018 (Table 7). However, in the purse seine category multi-lateral vessels (FSM Arrangement and US Treaty) still make up a large number of the total (Figure 5).

Table 6: Number of licenses issued for fishing in Tuvalu's EEZ, by flag and gear type	
from 2014-2018. (Source: TUFMAN 1).	

Years	Longline	Purse seine	Pole & line	Fish Carrier	Bunker	TOTAL
2014	43	146	12	15	3	219
2015	22	188	1	34	7	256
2016	66	165	3	41	1	276
2017	115	202	0	40	0	357
2018	78	186	0	45	0	309

Table 7: Numbers of PS bilateral & multilateral licensed vessels authorised to fish in Tuvalu EEZ from 2014-2018.

Years	<b>Bilateral PS</b>	FSMA	UST	TOTAL
2014	71	70	31	172
2015	71	79	31	181
2016	88	88	31	167
2017	73	86	31	190
2018	98	57	31	186



Figure 5: Annual number of fishing vessel licenses by flag and gear type in 2018

### 4.2 CATCHES IN TUVALU EEZ

Most catches were made by vessels operating under bilateral arrangement with Kiribati, Taiwan, Korea and multi-lateral arrangements - the US Treaty and FSM Arrangement. These were the main fishing vessels which fished in Tuvalu's EEZ in 2018 (Figure 6).

The total catches of tuna in Tuvalu EEZ from foreign fishing vessels for 2018 were 92,730mt. In Figure 6 the highest total catches by flag in 2018 were by Korean vessels of 36,266mt (39%), followed by Kiribati of 12,878mt (14%), Federated State of Micronesia of 9,264mt (10%). The lowest catches were reported by vessels of Cook Islands of 4mt (0.004%), China of 361mt (0.389%) and Fiji of 267mt (0.288%).



Figure 6: Total raised catch estimates (mt) in Tuvalu EEZ by flag 2018. Source: TUFMAN 2

In terms of composition, for purse seiners that fished in Tuvalu's EEZ in 2017 and 2018, skipjack tuna dominates with more than 90% of total catches, followed by the yellowfin; while bigeye tuna has the lowest catch (Figure 6 & 7).

In 2018 skipjack tuna catches were 84,304mt (94%), 4,211 (5%) of yellowfin tuna and bigeye tuna of 1,136mt (1%). The comparison with 2017, by species and fleet, is shown in Figure 7.



Figure 7: Comparison of purse seine total tuna catches within Tuvalu EEZ by flag and gears in 2017 & 2018. Source: TUFMAN 2

For longline vessels that fished in Tuvalu's EEZ, by species composition, bigeye tuna were the highest catches in 2018 and yellowfin tuna in 2017.

In 2018 bigeye tuna catches made up 1,156mt (38%) of the total, followed by 1,033mt (34%) of yellowfin and albacore catches of 892mt (29%). In comparison, in 2017, yellowfin tuna was the highest catch of 1,908mt (50%), albacore tuna of 1,403mt (37%) and 477mt (13%) of bigeye tuna (Figure 7).

The SPC tuna tagging programme chartered a US flag vessel to fish in Tuvalu waters in 2018. This vessel made a total catch of 9mt (0.30%).



Figure 8: Comparison of longline total tuna catches within Tuvalu EEZ by flag and gears in 2017 & 2018. Source: TUFMAN 2

# **5.0 SOCIO ECONOMIC FACTORS**

Fisheries licensing revenue makes up more than half of all revenue collected by the Government of Tuvalu, and is important in supporting government services, particularly in health and education. Joint venture fishing operations also contribute to tax revenue, and the government is considering possible future arrangements. The growth of transshipment activities in Funafuti lagoon in recent years has created some new economic and employment opportunities. However, there is concern locally over environmental impacts and the owners of two vessels paid administrative penalties after being detected dumping fish and other waste in the lagoon.

## 6.0 DISPOSAL OF CATCH

The Tuvalu purse seine vessel undertook transshipment in Funafuti port, as well as other ports outside Tuvalu such as Christmas Island and Majuro. Tuvalu longline vessels are offloaded in Suva port, Fiji.

## 7.0 ONSHORE DEVELOPMENTS

The National Fisheries Corporation of Tuvalu (NAFICOT) has been reformed to comply with the provisions of the Public Enterprises (Performance and Accountability) Act 2009 and acts as a vehicle for the GOT's commercial fishery interests. The recruitment process for NAFICOT staff was commenced in 2018. The main purpose of NAFICOT is that all Joint ventures with the Government of Tuvalu should be under the authority of this corporation.

# **8.0 FUTURE PROSPECTS OF THE FISHERY**

Tuvalu still continues to promote domestication of its tuna fishery, although the challenges are great. Opportunities for employment of seafarers would be particularly valuable.

## 9.0 STATUS OF TUNA FISHERY DATA COLLECTION SYSTEMS

Note that all catch and effort estimates in this report are provisional only. Additional data processing is required to further refine these estimates.

### 9.1 LOGSHEET DATA COLLECTION AND VERIFICATION

Tuvalu Fisheries Department continued to receive catch logsheets from foreign and domestic flagged vessels at the end of each trip. There is a lot of improvement on the logsheet coverage from all gears in Tuvalu EEZ, mainly due upon the recruitment of a new data entry officer. However, the Fisheries Department still faces issues with foreign fishing companies in late submission of longline logsheets. Enforcement needs to be strengthened, and misreporting on logsheets is suspected in some cases. Penalties for late submission and misreporting need to apply in order to avoid delays in data collection and verification process. The extent of annual coverage of operational catch/effort; port sampling and observer data for the Tuvalu national fishing fleet is shown below (Table 8). The coverage of port sampling still needs to be confirmed, but is believed to be comprehensive.

Table 8: Estimated annual coverage of operational catch/effort, port sampling and observer data(sea days) from Tuvalu National fleet in 2018. \*\*Provisional estimates.

Data Type	Purse seine coverage	Longline coverage
	rate (%)	rate (%)
Logsheet	100%	100%
Observer	100%	11%
Port Sampling	N/A	N/A

### 9.2 OBSERVER PROGRAMME

In 2018 there was only one new observer recruited and trained on sub a regional training course in Santo, Vanuatu. The total number of Tuvalu active observers was 79 (78male & 1 female). Included these observers are 29 Certified as Debriefers who can now assist in the debriefing process, 4 are debriefer assessors and 67 are Marine Stewardship Council (MSC) chain of custody observers. There were 2 observers are eligible for Cross Endorsed trips into the IATTC area.

Table (below) shows that in 2018 the Tuvalu national observer program saw a small decrease in both the number of trips and seadays. However, for deployments organized by PNA, the number of trips and sea days increased. Placements under the US Treaty remained at a low level. Overall the number of trips and seadays for Tuvaluan observers increased slightly in 2018 compared to 2017.

ARRANGEMENT	2	017	2018		
	TRIPS	SEA DAYS	TRIPS	SEADAYS	
TV OBSERVER PROGRAMME	184	5429	187	5330	
PNA	97	2841	114	3211	
FFA	10	300	8	313	
TOTAL	291	8570	309	8854	

## Table 9: Observer trips and sea days 2017-2018 by Regional arrangement

# 10.0 CMM REPORTING

<b>CMM REFERENCE</b>	RESPONSE						
CMM 2005-03 [North Pacific Albacore], Para 4	There was no c	atch of NPA by	the Tuvalu flag	ged LL vessels	s north of the equ	ator.	
CMM 2006-04 [South West Stripped Marlin], Para 4					ees south and no	striped marlin	catches
CMM 2009-03 [Swordfish], Para 8		There is no SWO that were caught in the Convention Area south of 20°S					
CMM 2009-06 [ <b>Transshipment], Para 11</b> ( <b>ANNEX II</b> )	Total transship	b) transhipped in port, transhipped at sea in areas of national jurisdiction, and transhipped beyond areas of national jurisdiction	260mt and 16 n c) transhipped inside the Convention Area and transshipped outside the Convention Area;	umber of trans d) caught inside the Convention Area and caught outside the Convention Area;	shipments in 201	8 for Tuvalu f f) Product Form	lagged vessel. g) Fishing gear
	Offload 11,260mt	In Funafuti, Christmas Island & Majuro Port In Funafuti, Christmas	Inside the CA Inside the CA	Inside the CA Inside the CA	SKJ (9,543mt) YFT (1,377mt)	FROZEN	PS PS

received sea in areas of national jurisdiction, and transhipped beyond areas of national jurisdiction Convention Area and Convention Area	sh stocks covered by this measure by          d) caught inside the       e) fishing         Convention Area and caught       e) fishing         outside the Convention Area       e) fishing         Inside CA       PS         arks, oceanic whitetip shark, porbeagle         Catch (n)         eased       3         eased       13
MM 2010-07       These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).       Inside the CA       Inside the CA       Inside the CA         MM 2010-07       These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).       Inside the CA       Inside the CA	sh stocks covered by this measure by d) caught inside the Convention Area and caught outside the Convention Area Inside CA PS arks, oceanic whitetip shark, porbeagle Catch (n) eased 3 eased 13
MM 2010-07         MM 2010-07         MA 2010-07         Marks], Para 4         MM 2010-07         Marks], Para 4	sh stocks covered by this measure by d) caught inside the Convention Area and caught outside the Convention Area Inside CA PS arks, oceanic whitetip shark, porbeagle Catch (n) eased 3 eased 13
Island & Majuro Port       Island & Majuro Port         (2) the number of transhipments involving highly migratory fish stock vessels that is responsible for reporting against, broken down by:         a) offloaded and received       b) transhipped in port, transhipped at sea in areas of national jurisdiction, and transhipped beyond areas of national jurisdiction       c) transhipped inside the Convention Area and transhipped outside the Convention Area         Offload 16       In Funafuti, Christmas Island 16       Inside CA         MM 2010-07 Charks], Para 4       These key sharks' species were recorded are blue sharks, mako sharks, or silky shark and thresher shark (Vulpinus).         Gear       Flag       Species       Fate LL         IL       TV       Blue shark       Discarded/Released	d) caught inside the Convention Area and caught outside the Convention Area       e) fishing         Inside CA       PS         arks, oceanic whitetip shark, porbeagle         Catch (n)         eased       3         eased       13
(2) the number of transhipments involving highly migratory fish stock vessels that is responsible for reporting against, broken down by:         a) offloaded and       b) transhipped in port, transhipped at sea in areas of national jurisdiction, and transhipped beyond areas of national jurisdiction       c) transhipped outside the Convention Area and transhipped outside the Convention Area         Offload       In Funafuti, Christmas Island       Inside CA         I6       & Majuro Port         MM 2010-07       These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).         Gear       Flag       Species       Fate         LL       TV       Blue shark       Discarded/Released	d) caught inside the Convention Area and caught outside the Convention Area       e) fishing         Inside CA       PS         arks, oceanic whitetip shark, porbeagle         Catch (n)         eased       3         eased       13
MM 2010-07       These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).       Inside CA         Gear       Flag       Species       Fate         LL       TV       Blue shark       Discarded/Released	d) caught inside the Convention Area and caught outside the Convention Area       e) fishing         Inside CA       PS         arks, oceanic whitetip shark, porbeagle         Catch (n)         eased       3         eased       13
16       & Majuro Port         CMM 2010-07       These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).         Gear       Flag       Species       Fate         LL       TV       Blue shark       Discarded/Released	arks, oceanic whitetip shark, porbeagle Catch (n) eased 3 eased 13
MM 2010-07These key sharks' species were recorded are blue sharks, mako sharks, oc silky shark and thresher shark (Vulpinus).GearFlagSpeciesFateLLTVBlue sharkDiscarded/Released	Catch (n) eased 3 eased 13
LL TV Blue shark Discarded/Released	eased 3 eased 13
	eased 13
LIL IV I Deenic whitetin Shark I Discarded/Released	
	eased 5
LL TV Silky shark Discarded/Released	
LL TV Shortfin Mako Discarded/Released	
PS TV Great Hammerhead Discarded/Released	
PS TV Oceanic whitetip shark Discarded/Released	eased 5
PS TV Silky shark Discarded/Released	eased 71

CMM 2011-03 [Impact of PS fishing on cetacean], Para 3	There is no interaction recorded by the Masters of a Tuvalu flagged vessels on cetacean encirclements
CMM 2011 – 04 [Oceanic whitetip sharks], Para 3	LL: Observed number =13, estimates of 118 OCS (Alive - 61.5%, Dead - 38.5%) PS: Observed number =5, estimates of 7 OCS (Alive - 60%, Dead - 40%)
CMM 2012-04 [Whale sharks]	There is no reported data on an event that a whale shark encircled in the purse seine net
CMM 2013-08 [Silky sharks]	LL: No of observed =5, estimates of 45 with 40% recorded dead on discarding PS: Observed number = 71, estimates of 103 with 55% recorded as dead upon discarding.
Observer coverage (WCPFC 11 decision – para 484(b)	The observer coverage of 11% on longline vessel. Tuvalu observers used sea days. Details on this is in the Part 1 report under the Status of Tuna fishery data collection systems
CMM 2015-02 [South Pacific Albacore], Para 4	Addressed through the regular provision of operational catch/effort logsheet data to SPC, who automatically include these data in the WCPFC databases, as per our authorization.
CMM 2017-06 [Seabirds]	There is no report by observers on the interaction with seabirds, see below for full tables on mitigation.

#### CMM 2018-03: [Seabirds] Annex 2. Guidelines for reporting templates for Part 1 report

The following tables should be included in the annual Part 1 country reports, summarizing the most recent five years.

Table x: Effort, observed and estimated seabird captures by fishing year for [*CCM*] [South of  $30^{\circ}$ S;  $25^{\circ}$ S- $30^{\circ}$ S; North of  $23^{\circ}$ N; or  $23^{\circ}$ N –  $25^{\circ}$ S<sup>1</sup>]. For each year, the table gives the total number of hooks; the number of observed hooks; observer coverage (the percentage of hooks that were observed); the number of observed captures (both dead and alive); and the capture rate (captures per thousand hooks).

Year		Fishin	g effort		Observed sea	bird captures	
	Number of vessels	Number of hooks	Observed hooks	% hooks observed	Number	Rate <sup>2</sup>	
2014	2	1730472	0	0	0	0	
2015	2	2084701	0	0	0	0	
2016	1	1530286	225262	15	0	0	
2017	1	1933574	121395	6	0	0	
2018	1	1322860	111430	8	0	0	

<sup>1</sup>Insert 'North of 23°N', 'South of 30°S', '25°S-30°S' or '23°N – 250°S'. For CCMs fishing in all areas, provide separate tables for each area. <sup>2</sup>Provide data as captures per one thousand hooks.

### Table y: Proportion of mitigation types<sup>1</sup> used by the fleet in past five years 2014 to 2018.

	Combination of	Proportion of	f observed ef	fort using n	nitigation	n mea	sures
	Combination of Mitigation Measures	South of 30°S	25°S- 30°S	25°S to 23°N	North of 23°N		
	No mitigation measures	-	-	100	-		
Options	TL + NS	-	-	_	-		
required south	TL + WB	-	-	-	-		
of 25°S	NS + WB	-	-	_	-		
	TL + WB + NS	-	-	-	-		
	HS	-	-	-	-		
Other options	WB	-	-	-	-		
25°S-30°S	TL						
Other options	SS/BC/WB/DSLS						
north of 23 <sup>0</sup> N	SS/BC/WB/(MOD						
	or BDB)						
Provide any							
other							
combination							
of mitigation							
measures here							

Totals (must equal		100		
100%)		100		

<sup>1</sup> TL = tori line, NS = night setting, WB = weighted branch lines, SS = side setting, BC = bird curtain, BDB = blue dyed bait, DSLS = deep setting line shooter, MOD = management of offal discharge, HS = hook-shielding device.

#### Table z: Number of observed seabirds captures in [CCM] longline fisheries, 2012, by species and area.

Species	South of 30°S	25°S-30°S	North of 23°N	23°N –25°S 25°S	Total
E.g. Antipodean albatross					
Total					