



**SCIENTIFIC COMMITTEE  
FIFTEENTH REGULAR SESSION**

Pohnpei, Federated States of Micronesia  
12-20 August 2019

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

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**WCPFC-SC15-AR/CCM-28**

**VANUATU**



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FOURTEENTH REGULAR SESSION**

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**ANNUAL REPORT TO THE COMMISSION  
PART 1: INFORMATION ON FISHERIES, RESEARCH, AND STATISTICS  
WCPFC-SC15-AR/CCM-28**

**THE REPUBLIC OF VANUATU  
FISHERIES DEPARTMENT**



**VANUATU**

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 2019	<b>YES</b>
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## ABSTRACT

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The major tuna species caught from the Foreign fishing vessels in the Vanuatu EEZ in 2018 was dominated by 71100% of albacore, 16% of yellowfin, 3% of bigeye and lastly 9% for others species of the total catch. In 2018 there was a reduction in catch compared to 2017 due to a reduction in fishing effort (number of vessels and trips). Fishing however from the years 2016 to 2017 had seen an increase in catch as vessels moved back into the EEZ to fish. The fluctuation in catch varies between the years depending on access to onshore facilities and good fishing patterns. In 2017 a total of 10,886Mt of fish was recorded compared to 2018 where 5,957Mt of fish was reported.

In the period 2015 – 2018 the annual catch estimates of the Vanuatu longline fleets in the WCPO showed a reduction from 15,963Mt in 2015 to 11,491Mt in 2016 and then further reduced to 10,121Mt in 2017 while in 2018 catches increased to 12,076Mt. The increase from 2017 to 2018 level was due to the increase in the fishing effort which is an increase in the number of vessels licensed to fish as well as an increase in the number of sets deployed.

This is slightly similar to the Purse seiners whose catch estimates had declined significantly from 2014 to 2017 due to vessels moving out to reflag to other countries under the US and FSM arrangement. However, from 2017 to 2018 there had been an increase in catch levels where a recorded 12,479mt of catch was recorded for 2018 compared to the 6,744Mt in 2017.

The total catch for the purse seine fleets that fished in the WCPFC-CA decreased from to 20,515Mt in 2015 to 8,343Mt in 2015 and then a further decline to 4,372Mt in 2016. In 2017 an increase in catch was experience where 6,744Mt of Catch was recorded which then further increased to 12,479Mt in 2018. This catch was dominated by skipjack making up 85% of the catch followed by Yellowfin at 13% and lastly bigeye at 1%.

Raised 2018 data shows that catches of the main tuna species for Purse seines increased from 5,445Mt of skipjack in 2017 to 10,724Mt in 2018. Longline vessels also experienced an increase in catches of Albacore from 5,154Mt in 2017 to 7,132Mt in 2018. All other Tuna catches including Yellowfin and Bigeye for both the Purse seine and Longline fishery also experienced an increase in catch levels from 2017 to 2018 levels.

Since 2014, there has not been any Locally based vessels in operation, thus port sampling and transshipment activities in port have ceased since. However, it is expected that with the commencement of the Fish processing plant in Port Vila, Chinese vessels who are licensed to fish in the VU EEZ will offload their catch in the Port Vila port and this should then see the recommencement of port activities in port.

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## ANNUAL FISHERIES INFORMATION

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### 1. Background

The main commercial tuna and billfish species caught in the Vanuatu EEZ and by the Vanuatu fleet in the WCPFC consists of albacore (*Thunnus alalunga*), bigeye (*Thunnus obesus*), skipjack (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*), black marlin (*Makaira indica*), blue marlin (*Makaira nigricans*), striped marlin (*Tetrapturus audax*) and swordfish (*Xiphias gladius*).

As part of Vanuatu's obligation to report the WCPFC CMMS's for key shark species, data has also been compiled, some of which are now covered in the longline fleet tables, these are blue shark (*Prionace glauca*), silky shark (*Carcharhinus falciformis*), oceanic whitetip shark (*Carcharhinus*

*longimanus*) and mako shark (*Isurus spp.*). The main industrial fishing methods employed in the Vanuatu EEZ has been dominated by the longline gear outside 24 miles however few Artisanal fishers fishing within the 12 miles around FAD's catch Skipjack and Yellowfin. Individual fleets presented herein cover vessels with high catch and effort data coverage and these are a few of Fiji and Taiwan vessels with the dominant flag being the Chinese flag vessels who are entirely based in Fiji and are fishing in Vanuatu under Foreign fishing licenses.

The report covers the fishing activities in the Vanuatu EEZ and operations of the Vanuatu flag vessels that were active in the WCPFC and other broad ocean area during the period 2014 to 2018. The report mainly focuses on the fleet structures, annual catch estimates and catch/effort distributions. The report also raises areas where new and further effort is required on the part of Vanuatu to enhance its role in contributing to the overall conservation and management of highly migratory stocks in the WCPFC area.

Most of the current presented data were obtained from the OFP-SPC DORADO database and which were originally collected and verified by the Vanuatu Fisheries Data Management Unit (VFDMU).

Vanuatu recognizes that there are critical data 'gaps' that need attention and focus on. Therefore, with the limitation of resources, the department has been working closely with SPC and FFA to collect as much information and data as possible to fill in these gaps. The delegation of designated ports recognized as PSMA countries for our Flagged Vessels have been established however are yet to be implemented and these will enable us to monitor landings of fish in foreign ports including those in Suva, Levuka and Pagopago which are currently the ports mainly being utilized.

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## FLAG-STATE REPORTING

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### 2. Information on Flag-state Reporting

Vanuatu is currently a member of WCPFC, IATTC, SPRFMO, CCSBT, CCAMLR and has ratified the NPFC. The membership of Vanuatu in these RFMOs has enabled Vanuatu's fishing fleet to fish these RFMO's waters for tuna and other highly migratory fish species. The Vanuatu fleet consists of 2 purse seiners that are under Bilateral Fishing Agreements and 69 long-line fishing vessels which are active in WCPFC in 2018.

The Vanuatu fleet consists of purse seine and longline vessels fishing between the Pacific and Indian Ocean. Fishing inside the Exclusive Economic Zones (EEZ) of coastal states had been possible by way of Bilateral Fishing Access (BFA) for both longliners and purse seiners. Vanuatu currently operates a vessel registry, the Vanuatu International Shipping Registry (VISR). The VISR has recorded over 100 vessel registrations since 2014, and currently there is a total of 98 vessels on the registry that are actively operating. It is a requirement by law that all Vanuatu fishing vessels acquire an International Authorization to Fish Certificate (IATF) to operate in the high seas within the Pacific ocean.

### 3. Catch and Effort Trends

The annual catch and effort estimates have been estimated for the Vanuatu fleet operating under bilateral arrangements and the large scale longline vessels (LSLV) operating in the wider WCPFC Area. The general observation since 2013 was that there has been a variation in the annual catch and effort estimates for both the purse seine and the longline fleet.

The major tuna species for the Vanuatu longline fleet catch was dominated by albacore then bigeye and lastly yellowfin. Raised estimates for the longline fleet in 2018 were 7,132Mt for albacore, 2,826Mt for bigeye and 1,116Mt for yellowfin respectively and these catch estimates were determined from logsheet data raised using information on actual vessel Activity (VMS data). During the period 2014-2018, the longline fleet recorded its highest total annual catch

estimate as 15,963 MT in 2015 (Table 1(a)). The longline fishery recorded the highest catches for albacore in 2018 being 7,132Mt and the lowest in 2017 as 5,154mt. The highest catch for bigeye was in 2015 which was 6,018mt an increase from the 3,419mt in 2014. Yellowfin catches however showed a reduction in catch from 2015 record of 2,006Mt to 1,580Mt in 2016 and further reduced to 1,098Mt in 2017 which records the lowest in the five year period. However, an increase was experienced in 2018 with 1,116mt of Yellowfin compared to 2017. Albacore continues to be the dominant species in the catch for 2018 followed by bigeye and then yellowfin. Effort for the longline fishery has experience a slight reduction from 2014 to 2015 and then a slight increase from 2015 to 2018. This increase is evident through the increase in effort which is measured by the number of days fished and sets deployed.

The purse seine fleet that operated under bilateral arrangements recorded a decrease in total catch from 2014 and 2015 levels which was 20,515Mt to 8,343Mt with further reduction in 2016 of 4,372Mt. However, there was a slight increase in 2016 of 6,744Mt and a further increase in 2018 to 12,479Mt (Table 1(b)). The effort in the total number of sets had also decreased from this period with a slight increase in 2018. The reduction in effort was caused by the reflagging of vessels to PNG and US to fish under the FSM arrangement. During this period, the main tuna species in the catch being Skipjack also showed a decrease with a reduction of 19,286Mt from 2014 levels to the lowest record of 4,117Mt in 2016, but then increased to 5,445Mt in 2017 and then a further increase to 10,724Mt in 2018. This is also the same for the other two species Yellowfin.

The purse seine fleets were mainly operating within the 5 degrees N and 5 degrees S and between 150 degrees E and 175 degrees W. The effort in the purse seine fishery is measured as days fishing and searching, Figures 2)b) shows the effort distributions of purse seine vessels that operated under the bilateral agreements.

The longline effort is given as 100s of hooks. The longline efforts are distributed between 40 degrees North and 40 degrees south. This implies that both the southern and northern albacore stocks were targeted. However, there was more effort experienced in the south i.e between 10 degrees S and 40 degrees S and this effort has increase since 2016 from 2017 which had recorded tremendous reduction since 2015. This can be seen Figure 2)a) where catch has increased for both the north and south pacific region targeting Albacore.

The catch and effort data coverage for the Vanuatu fleet are high, but the size data coverages are uncertain as most of these vessels are landing their catch elsewhere and this would mostly be corroborated by the observers and port samplers in whose jurisdictions catch may have been landed or transshipped. The inferences for high, medium, and low scores for the catch/effort, and size data coverage, are provided in Appendix II.

Estimated Annual total catches of non-target, associated and dependent species by the Vanuatu purse seine fleets and long-line fleets in 2014-2018 has been sought from the DORADO reporting web database as shown in Table 3 and 4 and as well as in Annex 1 where there is a summary table for all CMM's concerned.

Appendix 1 summary table also provide information on the observed species of interest collected through observer reports for the year 2018 by ROP observers on Purse seiners and by Vanuatu observers for the Vanuatu longliners. SPC has confirmed that this information have been collected by observers in other jurisdictions on vessels that were operating in their waters and has been submitted to the WCPFC, SPC or FFA.

**Table 1(a). 2018 Annual catch estimates for the Vanuatu Offshore Longline Fleet in the WCPFC Convention Area for Tuna and Billfish species.**

Year	Albacore Catch (MT)	Yellowfin Catch (MT)	Bigeye Catch (MT)	Skipjack Catch (MT)	Pacific Bluefin Catch (MT)	Black Marlin Catch (MT)	Blue Marlin Catch (MT)	Striped Marlin Catch (MT)	Swordfish Catch (MT)	Total
<b>2014</b>	6581	1695	3419	134	0	27	493	77	368	12,794
<b>2015</b>	6,400	2,006	6,018	112	0.175	35.1	758.5	78.5	555.3	15,963
<b>2016</b>	5,663	1,580	3,292	172	21.4	27.7	373	53	309	11,491
<b>2017</b>	5,154	1,098	2,811	234	2.19	3.99	275.8	67.06	475.04	10,121
<b>2018 – Retained</b>	7,132	1116	2,826	122	0.43	4.013	265.5	63.32	546.9	12,076
<b>2018 - Discarded</b>	127.6	152.7	4.75	16.51	0	0	3.8	4.5	50.2	360

**Notes:**

- Catch data for 2014-2018 have been Raised using VMS data
- 2018 logsheet coverage was raised from 87% of logsheet coverage data
- Data was derived from the Dorado web tool

**Table 1(b). 2018 Annual catch estimates for the National Purse seine Fleet in the WCPFC-CA for Tuna and Billfish species.**

Year	Skipjack Catch (MT)	Yellowfin Catch (MT)	Bigeye Catch (MT)	Total (MT)
<b>2014</b>	19,286	896	333	20,515
<b>2015</b>	7,972	371.8	0	8,343.8
<b>2016</b>	4,117	230	25	4,372
<b>2017</b>	5,445	1,084	215	6,744
<b>2018 - Retained</b>	10,724	1,634	121	12,479
<b>2018 - Discarded</b>	19.9	2.0	1.2	23.1

**Notes:**

- Catch data for 2014-2018 have been Raised using VMS data
- 2018 logsheet coverage was raised from 87% of logsheet coverage data
- Data was derived from the Dorado web tool

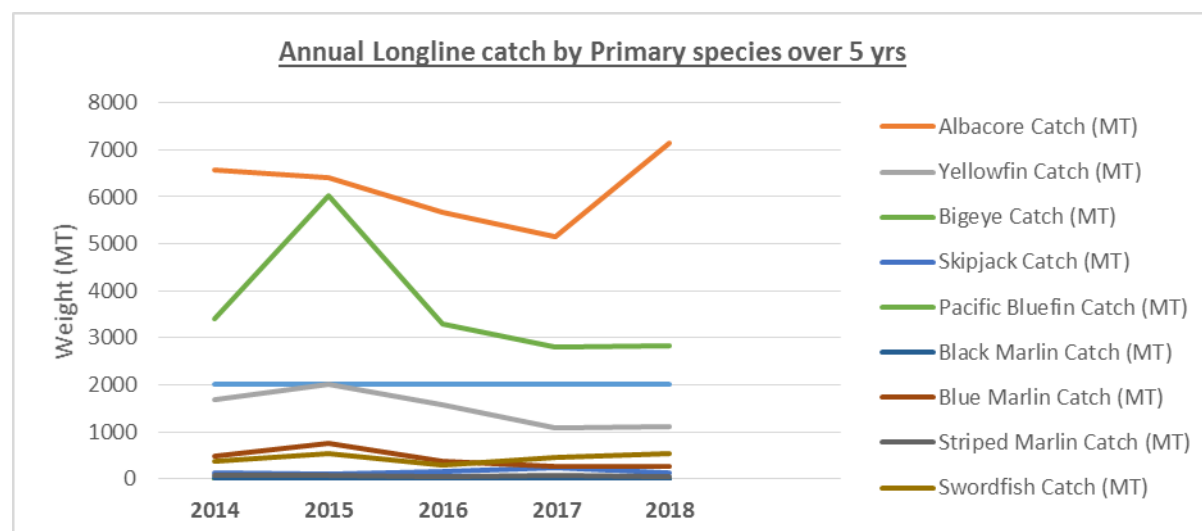
**Table 1(c). 2018 Annual catch estimates for the National (Offshore) Fleet in the WCPFC-CA for Shark species – Longline.**

Species	2018 (MT)
BLUE SHARK	1,306.35
SILKY SHARK	0.56
MAKO SHARK	151,12
OCEANIC WHTETIP SHARK	0
THRESHER SHARK	0.78
PORBEAGLE SHARK	0.012
HAMMERHEAD SHARK	0

**Note:**

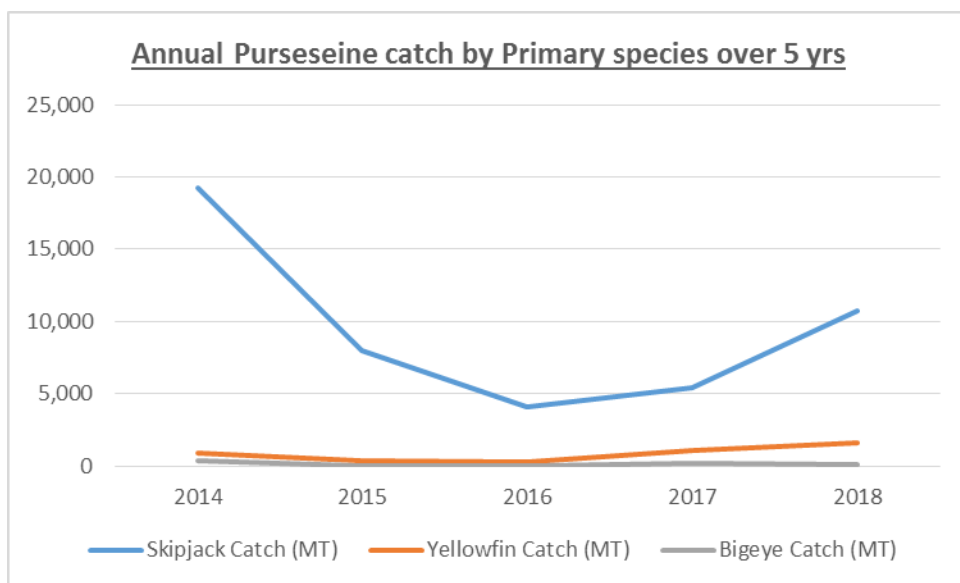
- Catch reports retained catches of the Sharks
- Catch were Raised from 87% logsheet coverage. Source of Data: Dorado

**Figure 1(a) Historical Annual Catch and Effort estimates for the National Longline Fleet within the WCPFC-CA**



**Figure 1(b) Historical Annual Catch and Effort estimates for the National Purse seine Fleet within the WCPFC-CA**





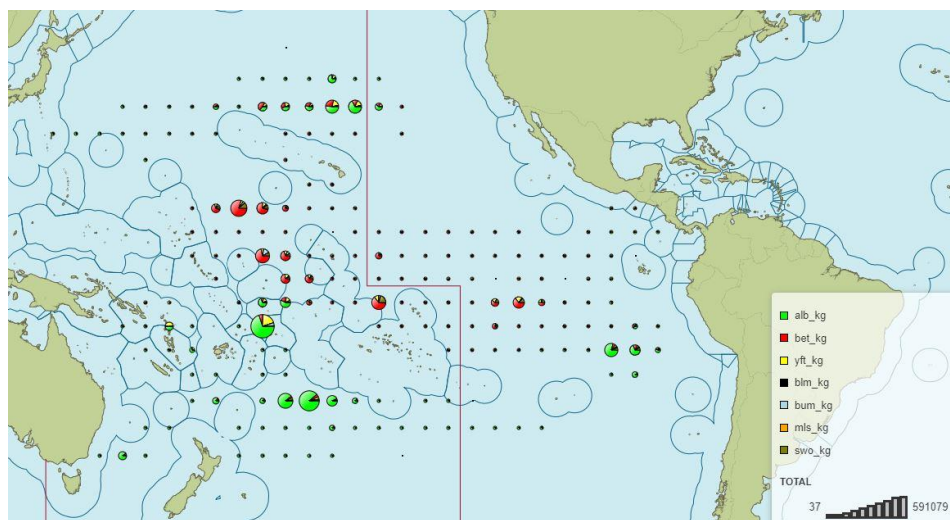
**Table 2) Annual raised catch estimates for the Vanuatu longline vessels, for tuna and billfish by Broad Ocean areas**

Area	Year	ALB	BET	YFT	SKJ	PBF	BUM	BLM	MLS	SWO
WCPFC	2018	7132.46	2826.13	1116.20	122.60	0.43	265.53	4.013	63.32	546.91
	2017	5154.07	2811.13	1098.62	234.96	2.19	275.81	3.99	67.07	475.04
WCPFC Convention Area (N of Equator)	2018	1028.52	N/A	N/A	N/A	0	N/A	N/A	23.73	136.34
	2017	1062.428	NA	N/A	N/A	0.805	N/A	N/A	30.59	187.29
WCPFC Convention Area (S of Equator)	2018	4071.74	N/A	N/A	N/A	0	N/A	N/A	17.69	244.79
	2017	3019.577	N/A	N/A	N/A	1.324	N/A	N/A	23.733	227.431
WCPO	2018	4743.21	1789.32	733.10	N/A	N/A	N/A	N/A	33.69	263.87
	2017	3898.964	2210.755	912.484	N/A	N/A	N/A	NA	50.308	33.69
EPO	2018	671.48	1598.56	400.64	2.87	0	98.74	6.04	66.43	548.39
North Pacific Ocean	2018	1067.04	N/A	N/A	N/A	0	N/A	N/A	50.13	199.10
	2017	1162.509	N/A	N/A	N/A	0.805	N/A	N/A	73.528	262.905
South Pacific Ocean	2018	4330.19	N/A	N/A	N/A	0.36	N/A	N/A	45.48	59.87
	2017	3737.478	N/A	N/A	N/A	1.324	N/A	N/A	68.5	521.76

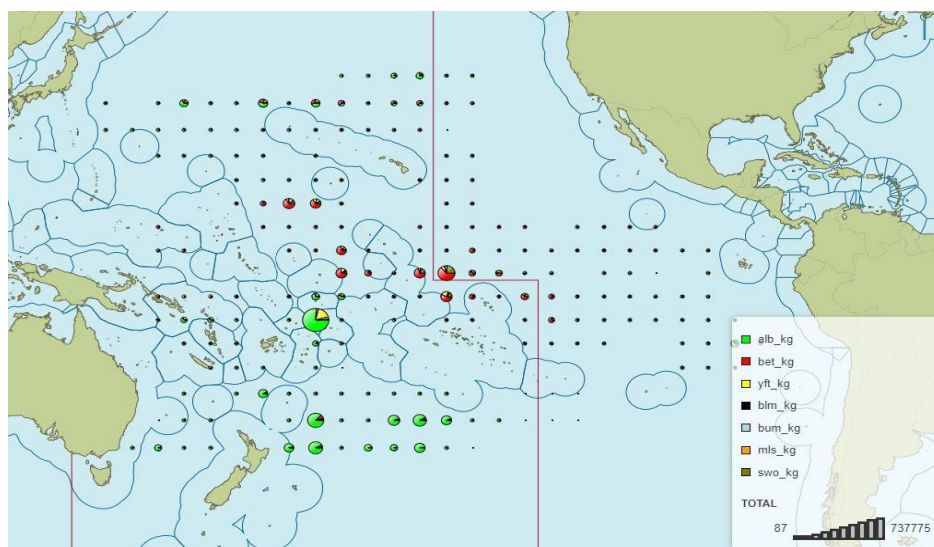
**Note:** N/A in the table refers to data that is not a WCPFC requirement to record. Only the species in the areas reflected in the accepted stock boundaries stated are reported for each broad ocean area.

**Figure 2(a). Annual Catch distribution (1°x1°) of tuna species for National Longline Fleet within the WCPFC-CA**

**2017**

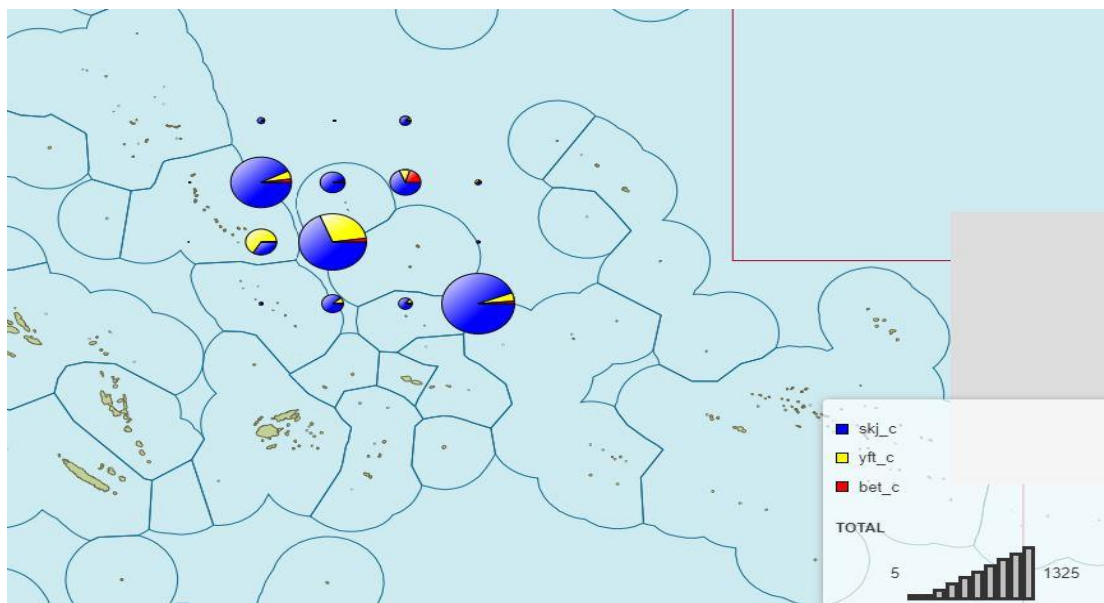


**2018**

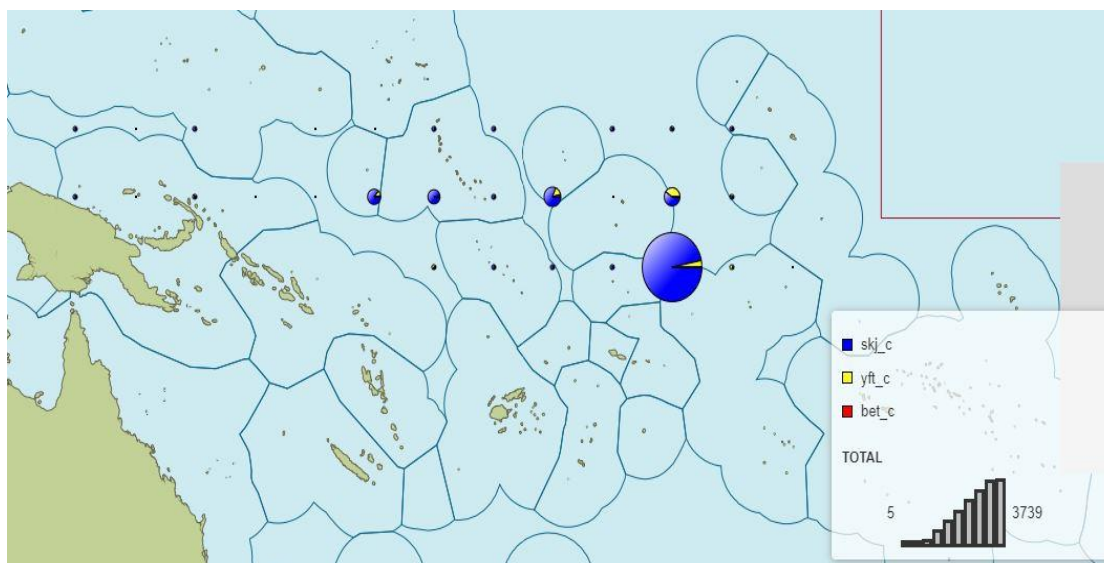


**Figure 2(b). Annual Catch distribution (1°x1°) of tuna species for Purse Seine Fleet within the WCPFC-CA**

**2017**



**2018**



**Table 3. Observed annual estimated catches of Species of Special interest (seabird, turtle and marine mammals) by gear for the National fleet in the WCPFC area.**

Year	Gear	Category	Species	Number	No. Alive	No. Dead
2018	PS	MARINE MAMMALS	TOOTHED WHALES NEI	3	2	1
	L	BIRDS	BIRD (UNIDENTIFIED)	1	0	1

	L	MARINE REPTILES	FLATBACK TURTLE	1	1	0
	L	MARINE REPTILES	GREEN TURTLE	1	0	1
	L	BIRDS	LAYSAN ALBATROSS	2	0	2
	L	MARINE REPTILES	LOGGERHEAD TURTLE	1	0	1
	L	MARINE REPTILES	OLIVE RIDLEY TURTLE	2	1	1
	L	MARINE MAMMALS	PANTROPICAL SPOTTED DOLPHIN	1	1	0
	L	MARINE MAMMALS	ROUGH-TOOTHED DOLPHIN	1	0	1

**NOTES:**

- Observer coverage for LL is ~2% and PS at ~88%%
- As an interim measure, species composition data obtained from observers for this fleet in adjacent years have therefore been used to produce estimates of these species of special interests.

**Table 4. Annual Estimated catches of Non-target, Associated and Dependent species including Sharks caught by Vanuatu Longline Vessels**

Species	2014	2015	2016	2017	2018
BLUE MARLIN	493	758.5	361.4	275.81	265.53
BLACK MARLIN	27	35.1	28.1	3.99	4.013
PACIFIC BLUEFIN	0	0.175	0.109	2.19	0.43
STRIPED MARLIN	77	78.5	40.1	67.07	63.32
SWORDFISH	368	555.3	252	475.04	546.91
BLUE SHARK	659.3	776.654	326.6	955.38	1,306
SILKY SHARK	49.03	23.178	4.13	0.07	0.56
OCEANIC WHITETIP SHARK	0.06	0	0	0.36	0
MAKO SHARK	121.9	102.49	50.3	117.47	151.12

**NOTES:**

- Estimates are raised based on 87% logsheet coverage

#### 4. Licensing and Fleet Structure

**Table 5. Annual Vessel Numbers for the National Fleet active in the WCPFC Convention Area by Gear and Size Category**

**(a) Longline Distant Water and Offshore**

Year	00-50 GRT	51-200 GRT	201-500 GRT	500+ GRT	Unknown GRT	Total Vessels
2014	0	55	15	12	0	82
2015	0	32	18	23	0	73
2016	2	31	3	13	0	49
2017	2	31	3	13	0	49
2018	0	28	16	25	0	69

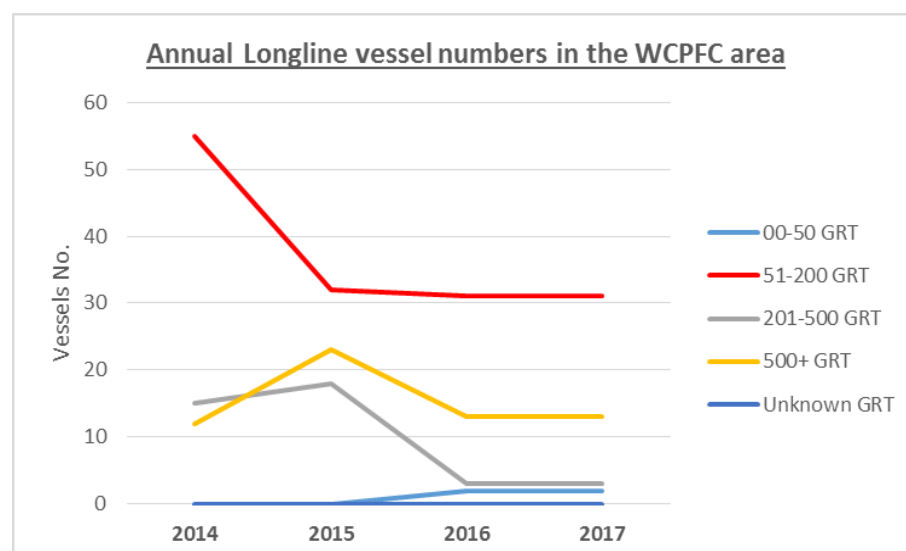
**Note:** Fleet cover is based on DORADO reporting of vessels who are active (ie, submitted logsheets and have VMS data in Dorado for reconciliation)

### (b) Purse Seine -Bilateral Access

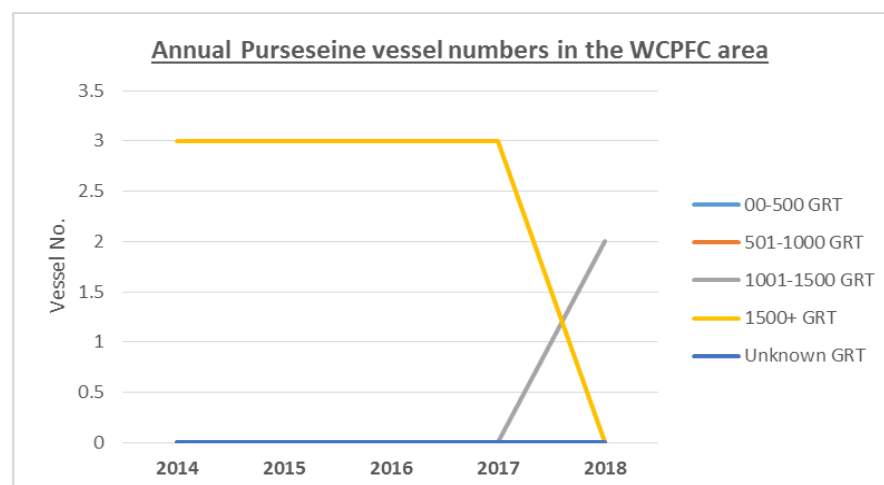
Year	00-500 GRT	501-1000 GRT	1001-1500 GRT	1500+ GRT	Unknown GRT	Total Vessels
2014	0	0	0	3	0	3
2015	0	0	0	3	0	3
2016	0	0	0	3	0	3
2017	0	0	0	3	0	3
2018	0	0	2	0	0	2

**Note:** Vessel number is sought from the Vanuatu License listing for 2018

**Figure 3) a) Annual vessel numbers for the National Longline fleet in the WCPFC-CA**



**Figure 3) b) Annual vessel numbers for the National Purse seine fleet in the WCPFC-CA**



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## COASTAL STATE REPORTING

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### 5. Information on Coastal State Reporting

The Vanuatu Exclusive Economic Zone (EEZ) is approximately 690,000 square kilometers and includes over 80 islands and an area of archipelagic waters. Commercial tuna fishing commenced in Vanuatu in 1957 with the establishment of the Japanese South Pacific Fishing Company Limited (SPFC) longline transshipment base at Palekula, Espiritu Santo Island. The base, consisting of a wharf and cold storage facilities, was substantially upgraded in 1974. After handling annual landings of between 4-15,000 tonnes since 1969, SPFC closed its operations in the late 1980s and the facility was turned over to the Government of the Republic of Vanuatu. US purse-seiners, licensed under the US Treaty fished on four occasions in Vanuatu waters in 1999 with very small catches.

In the Vanuatu EEZ fishing has been through Bilateral Fishing Agreements (BFA) particularly with Fiji and Solomon Island based companies. These catch proportions were similar to the historical tuna catch compositions. The recent tuna fishery in Vanuatu has generally seen a rapid expansion of fishing effort since 2006 but slowing decreased from 2013 and then rose again from 2016 to 2017 where it then decreased in 2018. It is noted that high catches were usually obtained with high effort.

### 6. Catch and Effort Trends

During the period 2014 to 2018, the total annual catch for all the foreign fleets in Vanuatu EEZ had reduced from 2013 to 2015 but increased from 6,780.17MT in 2013 to 7,167Mt in 2016 and a further increase to 8,087Mt in 2017. The reduction in catch from 2013-2015 was a result of the effort decline that took place also for this period as the vessels shifted their operations to Solomon Islands. The catch was largely attributed to the Chinese fleet which recorded over 80% of the total catch for the 2014-2018 and which dominated the entire catch in 2018. Fishing effort continued to decrease from 2014 to 2015 from 65 vessels to 49 vessels but increase to 74 vessels in 2016 and then to 65 in 2018. The reduction in the last few years was due to the shift towards the eastern pacific where fishing was believed to be very good and after 2015 vessels started coming back to fish in the VU EEZ. Unraised and provisional estimates for this licensed fleet in 2018 were 4,232Mt, 1,003Mt and 173.79Mt for albacore, yellowfin and bigeye respectively and these catch estimates were determined from logsheet data. The annual estimated tuna catch composition by weight for 2018, was again dominated by albacore (71%), yellowfin (16%) and minor bigeye (3%).

In 2016, Catch rates however improved compared to 2015 levels due to the increase in effort which is recorded as the number of fishing vessels fishing as well as the number of hooks used. Logsheet coverage for 2017 is averaged at ~82% while 2018 logsheet coverage was 61%. Thus, catch figure is sure to increase once logsheet coverage for the vessels is improved from its current level as can be seen in Table 6.

The annual longline estimated tuna catch composition by weight for 2018, was again dominated by albacore (71%), yellowfin (16%) and minor bigeye (3%).

These catch proportions were similar to the historical tuna catch compositions.

The recent tuna fishery in Vanuatu has seen a general decline in both fishing effort and catch estimates respectively. It is estimated that the recent effort exceeded 91 thousand hooks per year based on unraised data but it is likely that the actual estimate may exceed 180 thousand hooks per year if the data were raised. It is noted that low catches were usually obtained with low effort. SPC also provided estimates based on raised logsheet data that have been submitted by Fiji and Pagopago for the Fiji based fleet.



Data regarding the fishing operations of the Vanuatu fleet have been provided by the various members in whose jurisdictions the vessels may have operated, and also by various established fishing agents in Vanuatu.

**Table 6. Annual Catch and Effort estimates for Each Foreign Fleet by Gear and Primary species in the National EEZ**

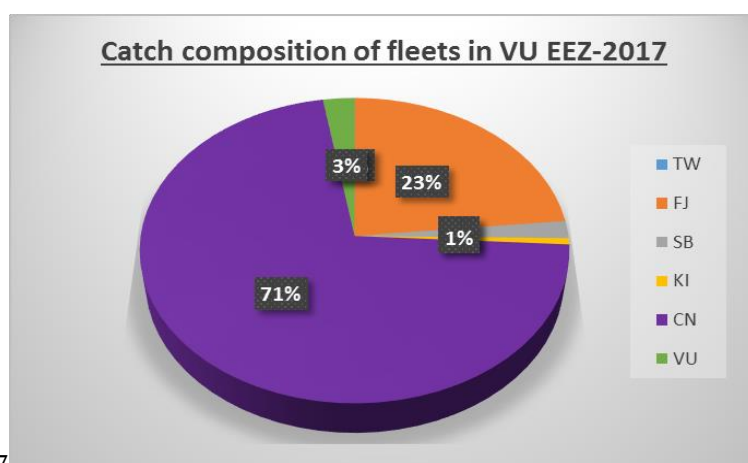
**2017**

FLAG	Vessels	Trips	ALB Catch (MT)	BET Catch (MT)	YFT Catch (MT)	OTHER Catch (MT)	TOTAL Catch (MT)
TW	1	1	1.553	0.101	0.782	0	2.436
FJ	20	69	1901.606	106.104	666.149	268.506	2,544.8
SB	4	11	168.193	5.811	50.305	15.214	199.105
KI	1	2	64.795	2.203	10.879	10.358	71.631
CN	67	335	6,027.999	256.885	2,070.481	785.167	7,785.073
VU	2	7	155.186	11.231	102.977	13.856	283.25
<b>Total</b>	95	425	8,319.332	382.335	2,901.573	1093.101	10,886.295

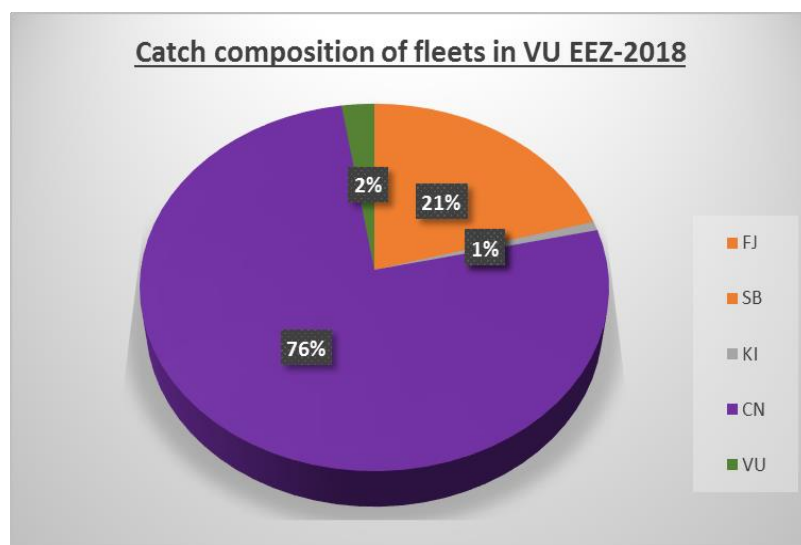
**2018**

FLAG	Vessels	Trips	ALB Catch (MT)	BET Catch (MT)	YFT Catch (MT)	OTHER Catch (MT)	TOTAL Catch (MT)
FJ	13	36	814.01	48.14	246.769	82.791	1,191.72
SB	1	1	0.27	0.032	0.049	0.01	0.361
KI	1	1	35.60	0.29	8.014	3.18	47.078
CN	48	161	3,294.78	120.08	709.452	449.25	4,573.56
VU	2	8	87.73	5.25	39.514	11.71	144.2
<b>Total</b>	65	207	4,232.384	173.79	1,003.798	546.94	5,956.91

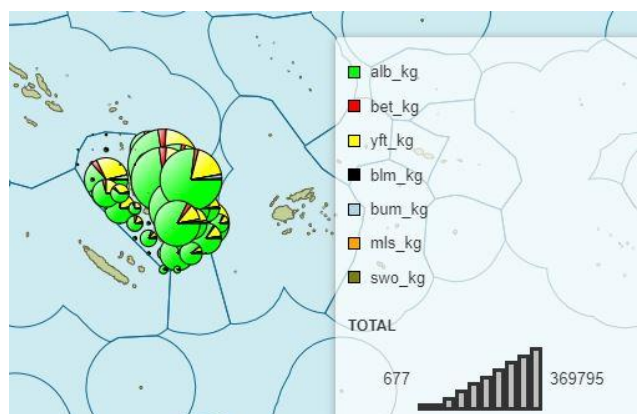
*Note: Data is sought from Dorado with 2018 logsheet coverage summary at 61%*



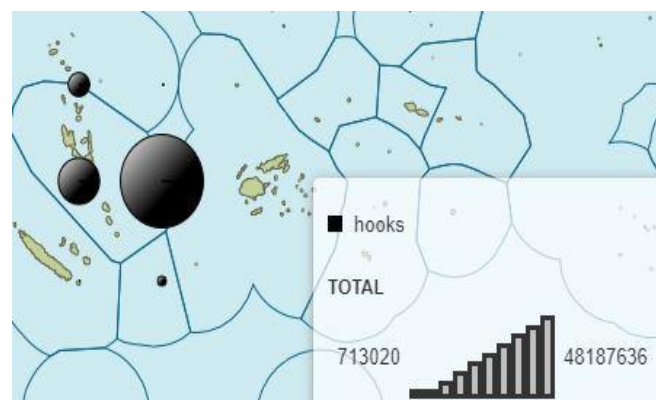
2017



**Figure 4). Annual Catch distribution of target tuna species by Major foreign Longline fleets in Vanuatu EEZ.**



2018-Catch



2018-Effort

## 7. Socio-economic Factors

Since 2013 the number of Foreign and locally based Foreign license has dropped as most vessels were moving to the Solomon Islands EEZ and towards the eastern pacific where fishing was reported to be very good. Vessels that were offloading their catch in the Vanuatu EEZ through transshipment were also reporting low catches towards the end of 2013 to early 2014 thus Transshipment in port was not as regular as before and towards the end of 2014 Transshipment in port has ceased.



For local artisanal fisherman, fishing in FADs have recently become a priority with the sudden reduction in fuel costs as more Artisanal fisherman target FAD's only to catch skipjack for Baitfish.

The TUFMAN2 database has been fully utilized since July 2016 after the shift from TUFMAN 1 which is now only used for licensing. The TAILS system has also been trailed out in Vanuatu and has been successfully set up to 19 communities who are actively sending in coastal data via Tablets into the TUFMAN2 online system. The RIMF FFA database has been utilized to cater for as the recording of Landing and Unloading data, transshipment data as well as MCS boarding and inspection information. Fishers including small skiffs and motorized canoes are being registered within the TAILS system with the objective of enhancing the capacity to collect data for coastal, deep bottom and pelagic fisheries.

## **8. Onshore Developments**

The processing plant (Tuna Fishing Vanuatu Limited) in Port Vila harbor seized operations in February 2014 due to movement of the fleet to the Solomon Islands. The Chinese fishing Base is currently under renovation and is part of the Governments 100 day plan to develop fishery operation. This will allow the licensed Chinese vessels currently fishing the VU EEZ to offload their catch in the Vila port and facilitate for the export of the catch to the Export countries including US and China. The process of development of a new wharf is also part of the plan to allow for the vessels to harbor in Port Vila to carry out their activities and this process has began as of early this year.

## **9. Future Prospects of Fishery**

Vanuatu has maintained its position to limit the number of license to 70 Foreign License and 40 Locally Based Foreign license however the license fee has been increased by 50% of the current fee.

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# **RESEARCH AND STATISTICS**

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## **10. Estimated data coverage**

Coverage of logsheets from foreign fleets fishing in the Vanuatu EEZ extends back as far as the 1970s and has been low and variable among years. The only recent high coverage catch and effort rates are those from the Vanuatu and Fiji fleet. There has also been significant missing data throughout the years thus the difficulty in estimating coverage rates for some years. Because of the uncertainty of the estimated catch, effort, and size data coverage amongst the fleets that operate in Vanuatu, the catch and effort levels for Vanuatu have been difficult to estimate. It is understood however, that most of these fleets have been unloading their catch in the ports of Pagopago in American Samoa and Levuka and Suva in Fiji.

Vanuatu is looking into strict measures in terms of estimating catch and effort data, since most of our licensed vessels are currently offloading all or part of their catches overseas, either to the factory or on the carrier vessel in port. One of the major steps for Vanuatu in 2016 was to move to the TUFMAN 2 database which allows for the sharing of logsheet data between countries to which licensed vessels operated. This sharing has allowed access to view Logsheets from vessels who are license to operate in our waters with other members sharing the same interests. And

this is currently being fulfilled in 2017 as logsheet data is being shared by countries which has significantly reduced the amount of work load on entering data and giving more time to fixing and validating the data.

Most of the current presented data were obtained from the OFP/SPC database, and were originally collected and supplied by Vanuatu and other member countries.

## **11. Status of Tuna Fisheries Data Collection Systems**

### ***(a) Logsheet Data collection and Verification***

There has been vast improvements with the collection of logsheet data since it has become one of the special licensing conditions; which has forced vessel owners to keep up with the submission of logsheet data. For the licensed vessels the logsheet coverage based on VMS Data was low for 2017 at ~45% but likely to improve before the end of the year as outstanding data is being entered. Whereas for the Vanuatu flag vessels the coverage for Longline for 2017 is ~62% which is obtained through reconciliation with VMS data sought from the Vanuatu VMS system, this is expected to rise once all missing logsheets are identified and entered. For Purse seine vessels, logsheet coverage from both 2016 and 2017 has been at 100. Vanuatu is currently rolling out E reporting on 3 of its vessels and hopes to fulfill a 100% coverage of all fleets by 2020.

Assistance from trainings held by SPC on data verification has assisted in allowing data verification to be done nationally by officers as a means of improving data quality and compliance.

### ***(b) Observer and Port Sampling Programme***

The Vanuatu Observer program established in 2008 and now has 54 regional certified PIRFO observers who observe on Purse Seiners, Long Liners and Fish Carriers that are operating in the WCPFC area.

Since its establishment in 2008, Fisheries Observers have been involved in Longliners and Purse seiner vessel operations and later covering fish carrier vessels in the effort to collect more information on carrier vessels at sea.

Sharing of observing on a vessel in another country's EEZ remain a challenge as Sharing of coverage between observers program. MOU's are needed with other national observer programs for sharing and placing observers on Flag and License vessels and which are yet to be signed. Vanuatu's observer coverage still stands as an issue in reaching the 5% coverage however, Vanuatu aims to improve the coverage and is looking at means of stricter measures to achieve this.

In 2017, Vanuatu National Observer Programme has managed to put in place its first Emergency Action Plan (EAP) and Standard operational Procedures. This is a great improvement to the programme. Further to that, observers are now also being insured during trips.

The programme has also purchased safety gears such as 2-way In Reach Communicating Device, Personal Locator Device (PLB) and Life vest and have provided these to observers to use when going on trips.

The programme looks at achieving a Cost Recovery Plan for the Observer program in 2018 and this is a priority task for the program in 2019.

### **(c) Unloading and Transshipment**

Unloading and Transshipment in Vanuatu port has been by way of locally based foreign vessels fishing in Vanuatu EEZ. Since 2009 there has been 100% port sampling for all unloading and transshipment activity in Vanuatu EEZ. Transshipment has been constantly carried out within the harbour mostly targeting albacore for canning (e.g. Fiji and Solomon) or other species such as sharks (mainly fins), Marlins, wahoo, Sword fish and other relevant by-catch including low grade yellow fin and big eye. Transshipment is 100% sampled in measurement and estimated capacity weight of each fish well; all fish for transshipment are stored frozen in blast freezers. Transshipment often occurs once a month until 2014 when there were only 4 transshipments in the Vanuatu port. As of then, transshipment activities has since ceased as vessels have moved out only until a trial unloading took place in mid 2016 and another 2 in 2017 as a way of showcasing and promoting Vanuatu's capacity of having its vessels resume unloading activities in Vanuatu.

### **(d) Disposal of Catch**

Fresh Tuna previously landed in Vanuatu by Locally Based Foreign vessels were exported by air to Japan as well as USA, Australia and New Zealand, while fresh Opah was exported to Hawaii. The frozen catch however usually transferred to fish carriers and exported to canneries in Fiji. The Foreign fleets that have been licensed to fish in Vanuatu EEZ unload 100% of their catch (both their fresh and frozen) either, in Pagopago or Fiji which are either moved to canneries or exported to Japan.

## **12. Research Activities**

There were no major research activities carried out in 2018.

## **APPENDIX I-CMM Report**

**Table 1 Summary Table**

CMM Referen ces	Descripti on	Response
CMM 05-03	North Pacific Albacore	This is one of the Target Species By Vanuatu Longliners where a total number of 80,071 Albacore was caught weighing 1,118 MT was reported in 2018 by 86 vessels for 3,478 fishing days.  There was No North Pacific Albacore caught by Purse seiners in this areas in 2018.
CMM 06-04	SW Striped Marlin	Striped marlin is caught as a by-catch by Vanuatu vessels. In 2018, 46 Vanuatu flag vessels caught 222 striped marlin, weighing 12.301 MT in the area South of 15 degrees South.

CMM 08-03	Marine Turtles	There were a total number of 5 Marine Turtles which was caught by Vanuatu Longliners in 2018 as reported by Observers. These include 1 Flatback Turtles, 1 Green Turtle, 1 Loggerhead Turtle and 2 Olive Ridley Turtles. 2 of the Turtles were discarded alive while three were discarded dead.	
CMM 09-03	SP Swordfish	Swordfish is caught as a bycatch. In 2018, 26 Vanuatu flag vessels caught 788 swordfish, weighing 44.905 MT in the area South of 20 South.	
CMM 09-06	Transshipments	Total Quantities, by weight, of highly migratory fish stocks that were transhipped by fishing vessels the CMM is responsible for reporting against ,with those quantities broken down as below:	
		a. Offloaded and Received	
		RFMO / Year	WCPFC / 2018
		Offloaded	7,889.2 mt
		Received	19,099.5 mt
		b. Transshipped in Port, At Sea, and ABNJ	
		RFMO / Year	WCPFC / 2018
		Port	14,374.2 mt
		Within EEZ	0.0 mt
		High Seas	12,880.4 mt
		c. Transshipped Inside and Outside CA	
		RFMO / Year	WCPFC / 2018
		Inside CA	27,254.6 mt
		Outside CA	0.0 mt
		d. Caught Inside and Outside CA	
		RFMO / Year	WCPFC / 2018
		Caught Inside CA	27,254.6 mt
		Caught Outside CA	0.0 mt
		e. Species	
RFMO / Year	WCPFC / 2018		
SKIPJACK TUNA	10,439.7 mt		
BIGEYE TUNA	5,262.6 mt		
ALBACORE TUNA	3,738.3 mt		
YELLOWFIN TUNA	3,585.8 mt		
SWORDFISH	1,723.4 mt		
SHARK	915.9 mt		

	OTHER FISH	846.5 mt
	BLUE SHARK	223.4 mt
	BLUE MARLIN	206.6 mt
	BLACK MARLIN	79.1 mt
	STRIPED MARLIN	75.2 mt
	OPAH / MOONFISH (LAG)	72.1 mt
	OILFISH	71.8 mt
	MAKO SHARK	10.6 mt
	SPANISH MACKEREL	2.3 mt
	BARRACUDA	1.3 mt
	SAIL FISH	0.0 mt
	<b>f. Product Form</b>	
	RFMO / Year	WCPFC / 2018
	Whole	17,216.5 mt
	Gilled, Gutted and Tailed	3,136.1 mt
	Gilled and Gutted	2,794.9 mt
	Gilled, Headed and Tailed	1,285.1 mt
	Other	1,209.6 mt
	Dressed	978.9 mt
	Gutted, Headed and Tailed	502.5 mt
	Head Off	48.1 mt
	Gutted and Headed	42.0 mt
	Filletted	23.2 mt
	Shark Fins	15.8 mt
	Loined Weight (LW)	2.0 mt
	<b>2. Number of transshipment by fishing vessels:</b>	
	<b>a. Number of Transshipment Offloaded and Received</b>	
	RFMO / Year	WCPFC / 2018
	Offloaded	95
	Received	93
	<b>b. Number of Transshipment in Port, At Sea, and ABNJ</b>	

CMM 10-07	Sharks	RFMO / Year		WCPFC / 2018			
		Port		34			
		Within EEZ		0			
		High Seas		157			
		c. Number of Transshipment Inside and Outside CA					
		RFMO / Year		WCPFC / 2018			
		Inside CA		191			
		Outside CA		0			
		d. Number of Transshipment Caught Inside and Outside CA					
		RFMO / Year		WCPFC / 2018			
		Caught Inside CA		182			
		Caught Outside CA		94			
		In 2018 the total Shark catch estimates caught based on Logsheet data for the Vanuatu vessels was 56,215 Sharks weighing 1,518.759Kg. From this amount, the Longline vessels reported 56,215 sharks which weighed a total of 1,512.299MT and Purse seine vessels recorded a total of 6.46MT of sharks. The species reported through logsheets for Longlines were Blue shark, Mako sharks, Porbeagle sharks, Silky sharks, Thresher sharks, Basking Sharks, Great Hammerhead, Hammerhead sharks, Mako, Oceanic whitetip, Ocellated angelsharks, Pacific Sleeper shark and Short fin Mako shark.					
		The species recorded by the Purse seines were Silky Shark and Oceanic Whitetip.					

Gear	Flag	Species	Fate	Catch (n)	Catch (mt)
PS	VU	SILKY SHARK	Discarded/Released		6.41
PS	VU	OCEANIC WHITETIP SHARK	Discarded/Released		0.05
LL	VU	BLUE SHARK	Discarded/Released	1407	8.363
LL	VU	BLUE SHARK	Retained	50707	1346.949
LL	VU	MAKO SHARKS	Discarded/Released	30	0.098
LL	VU	PORBEAGLE SHARK	Discarded/Released	313	0.005
LL	VU	SILKY SHARK	Discarded/Released	83	0.009
LL	VU	THRESHER SHARKS NEI	Retained	14	0.788
LL	VU	BASKING SHARK	Discarded/Released	5	
LL	VU	GREAT HAMMERHEAD	Discarded/Released	7	
LL	VU	HAMMERHEAD SHARKS NEI	Discarded/Released	41	0.037
LL	VU	MAKO SHARKS	Retained	3491	154.551
LL	VU	OCEANIC WHITETIP SHARK	Discarded/Released	32	0.042
LL	VU	OCELLATED ANGELSHARK	Retained	49	0.885
LL	VU	PACIFIC SLEEPER SHARK	Discarded/Released	1	
LL	VU	PORBEAGLE SHARK	Retained	2	0.012
LL	VU	SHORTFIN MAKO	Discarded/Released	5	
LL	VU	SILKY SHARK	Retained	28	0.56

		<p>From Observer data, a total of 441 Sharks were reported of which 293 were from Longline vessels and 96 were from Purse seine vessels. From this amount Purse seines recorded a total of 148 sharks Discarded and none retained while Longline recorded a total of 96 Sharks Retained and 336 discarded.</p> <table><tr><th>gear</th><th>species</th><th>Number</th><th>Retained</th><th>Discarded</th><th>Finned and trunk Retained</th><th>Finned but Trunk Discarded</th></tr><tr><td>S</td><td>OCEANIC WHITETIP SHARK</td><td>2</td><td>0</td><td>2</td><td>0</td><td>0</td></tr><tr><td>S</td><td>SILKY SHARK</td><td>146</td><td>0</td><td>146</td><td>0</td><td>0</td></tr><tr><td>L</td><td>BIGEYE THRESHER SHARK</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>L</td><td>BLUE SHARK</td><td>121</td><td>89</td><td>28</td><td>88</td><td>0</td></tr><tr><td>L</td><td>CROCODILE SHARK</td><td>18</td><td>0</td><td>18</td><td>0</td><td>0</td></tr><tr><td>L</td><td>KITEFIN SHARK</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>L</td><td>LONGFIN MAKO</td><td>2</td><td>1</td><td>1</td><td>1</td><td>0</td></tr><tr><td>L</td><td>OCEANIC WHITETIP SHARK</td><td>7</td><td>0</td><td>7</td><td>0</td><td>0</td></tr><tr><td>L</td><td>PELAGIC THRESHER SHARK</td><td>28</td><td>0</td><td>27</td><td>0</td><td>0</td></tr><tr><td>L</td><td>SCALLOPED HAMMERHEAD</td><td>1</td><td>0</td><td>1</td><td>0</td><td>0</td></tr><tr><td>L</td><td>SHORTFIN MAKO</td><td>11</td><td>6</td><td>4</td><td>6</td><td>0</td></tr><tr><td>L</td><td>SILKY SHARK</td><td>91</td><td>0</td><td>88</td><td>0</td><td>0</td></tr><tr><td>L</td><td>THRESHER SHARK (VULPINUS)</td><td>12</td><td>0</td><td>12</td><td>0</td><td>0</td></tr></table>	gear	species	Number	Retained	Discarded	Finned and trunk Retained	Finned but Trunk Discarded	S	OCEANIC WHITETIP SHARK	2	0	2	0	0	S	SILKY SHARK	146	0	146	0	0	L	BIGEYE THRESHER SHARK	1	0	1	0	0	L	BLUE SHARK	121	89	28	88	0	L	CROCODILE SHARK	18	0	18	0	0	L	KITEFIN SHARK	1	0	1	0	0	L	LONGFIN MAKO	2	1	1	1	0	L	OCEANIC WHITETIP SHARK	7	0	7	0	0	L	PELAGIC THRESHER SHARK	28	0	27	0	0	L	SCALLOPED HAMMERHEAD	1	0	1	0	0	L	SHORTFIN MAKO	11	6	4	6	0	L	SILKY SHARK	91	0	88	0	0	L	THRESHER SHARK (VULPINUS)	12	0	12	0	0
gear	species	Number	Retained	Discarded	Finned and trunk Retained	Finned but Trunk Discarded																																																																																														
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L	KITEFIN SHARK	1	0	1	0	0																																																																																														
L	LONGFIN MAKO	2	1	1	1	0																																																																																														
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L	THRESHER SHARK (VULPINUS)	12	0	12	0	0																																																																																														
CMM 11-03	Cetaceans	<p>In 2018 according to observer data, there were interactions with Cetaceans in both the Purse seine and Longline fishery.</p> <p>There were a total of 2 interactions by the Longline vessels, one with a Pantropical Spotted Dolphin and the other with a Rough-toothed Dolphin. For Purse seiners there were 2 interactions and 1 Landing. All interactions and Landing were with the species Toothed Whales.</p>																																																																																																		
CMM 11-04	Oceanic White-Tip Shark	<p>In 2018 according to observer data, there were a total of 8 interactions with Oceanic White Tip Shark in both the Purse seine and Longline fishery. In the Longlines there were 6 Interactions reported to which all were caught Alive and discarded Alive. While in the Purse seines there were 2 interactions and both interactions were caught Alive and discarded alive.</p> <p>From logsheet data reported in 2018, there was a total of 34 Oceanic white-tip sharks caught and reported by both Longline and Purse seines. From this total Longlines reported a total of 32 OCS which were all Discarded and Purse seines recorded a total of 2 OCS which were also both Discarded.</p>																																																																																																		
CMM 12-04	Whale Sharks	<p>In 2018 according to observer data, there were no interactions with Whale Sharks in both the Purse seine fishery and long line fishery.</p> <p>Based on Logsheet data, there were records on Whale sharks reported also by logsheets.</p>																																																																																																		

<b>CMM 12-07</b>	Seabirds	See tables below the Addendum for information on Seabird CMM.
<b>CMM 13-01</b>	Discard reporting– by National Fleet	According to observer data, in 2018 there was a total of 15.975 MT of discards by the National fleet vessels all of which are Purse seine vessels. From this number 13.755 were Skipjack, 1.36Mt were Yellowfin and 0.86Mt were Big eye. From this amount 13.605MT were discards being reasons of Gear damage while 2.35MT were discards for reasons of fish being too small.
<b>CMM 13-08</b>	Silky Sharks	<p>According to Observer data, there were a total of 235 Silky sharks observed in 2018 by both the Longline and Purse seine vessels. From this amount 89 were observed on Longline vessels of which an estimate of 66 were caught Alive and 23 were caught dead. And total of 28 were Discarded Dead while 61 were Discarded Alive.</p> <p>With regards to Purse seines a total of 146 silky sharks were observed. From this total 65 were caught Dead, 78 were caught Alive and 1 was caught with unknown condition. With regards to Discards, a total of 131 were discarded Dead, 14 were Discarded Alive and 1 was Discarded with Unknown condition.</p> <p>From Logsheet data, a total of 234 Silky sharks were caught and reported. 151 Silky Sharks were reported by Pursesainers while 83 were reported by Longlines. A total of 28 Silky sharks were reported to have been retained while 234 were Discarded.</p>
<b>CMM 15-02</b>	South Pacific Albacore	Addressed through the regular provision of operational catch/effort log sheet data to SPC, who automatically include these data to the WCPFC databases, as per our authorisation.
<b>WCPFC 11 decision-para 484 (b)</b>	Observer Coverage	<p>In 2018, the Observer coverage for LL vessels was measured using the number of days fished that was observed by the Observers. There was a total of 8 observer trips in 2018 with a total observed days of 275.</p> <p>The total number of sea days for Vanuatu long line vessels is 15,419 days therefore, from this figure Vanuatu's observer coverage based on days observed on its LL vessels in 2018 was 1.8%.</p> <p>For Purse seine vessels, the Observer coverage is only 87.8% for 2018.</p>

## CMM 2018-03 Seabirds

**Table 1. Seabird Interactions**

gear	OBS PGRME	fla	vessel	species	date	time	latitud	EE	FA	# of individua	Ali ve	De ad	Unkn own	Sigh ted
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	g				e	e	Z	TE	Is				
L	VUOB	V	FORTUNA	LAYSAN ALBATROSS	27/05/2018	18	< 30S	I7	DU	1	0	1	0
		U	1			27		S					
L	VUOB	V	FORTUNA	LAYSAN ALBATROSS	3/06/2018	11	< 23N	I7	DU	1	0	1	0
		U	1			58	> 30S	S					
L	VUOB	V	FORTUNA	BIRD (UNIDENTIFIED)	6/07/2018	17	< 30S	I7	DU	1	0	1	0
		U	1			58		S					
L	VUOB	V	YUH	BLACK-FOOTED	27/12/2018	-	< 23N	W	-	7			7
		U	CHANG	ALBATROSS			> 30S	S					
		11											
L	VUOB	V	YUH	ALBATROSSES NEI	27/12/2018	-	< 23N	W	-	40			40
		U	CHANG				> 30S	S					
		11											
L	VUOB	V	CHUNG	GULLS - TERNS AND	4/06/2018	-	< 23N	I	-	25			25
		U	KUO 686	SKUAS			> 30S	W					
L	VUOB	V	CHUNG	PETRELS AND	20/06/2018	-	< 23N	I	-	32			32
		U	KUO 686	SHEARWATERS NEI			> 30S	W					
L	VUOB	V	CHUNG	GULLS - TERNS AND	20/06/2018	-	< 23N	I	-	11			11
		U	KUO 686	SKUAS			> 30S	W					

**Table 2. Proportion of Mitigation types**

Year	flee	Nbr_sets_mitigation	Total_sets_in_area	Pct	T	N	W	S	B	BD	DSL	MO	H	area
	t				L	S	B	S	C	B	S	D	S	
2018	VU	178	239	74.4	-	-	-	-	-	-	-	-	-	25°S-23°N
				8										
2018	VU	61	239	25.5	-	X	-	-	-	-	-	-	-	25°S-23°N
				2										
2018	VU	3	26	11.5	-	-	-	-	-	-	-	-	-	25°S-30°S
				4										
2018	VU	23	26	88.4	-	X	-	-	-	-	-	-	-	25°S-30°S
				6										
2018	VU	14	49	28.5	-	-	-	-	-	-	-	-	-	South of 30°S
				7										
2018	VU	35	49	71.4	-	X	-	-	-	-	-	-	-	South of 30°S
				3										

**Table 3. Number of Observed seabird captures in Vanuatu Longline fisheries, 2018, by species and area.**

Year	Species	Birds >30S	Birds > 23N	Birds Between 23N and 25S	Birds Between 25S and 30S
2018	BIRD (UNIDENTIFIED)	1	0	0	0
2018	LAYSAN ALBATROSS	1	0	0	1

## APPENDIX II

**Table showing Categories of coverage for catch, effort and size data.**

Category	Catch/Effort data Coverage	Size data coverage
HIGH	>80%	>80%
MEDIUM	50-80%	50-80%
LOW	0-50%	0-5%
-	No data	No data

**LEGEND:** *“Catch/Effort data coverage” is determined by the comparing the annual catch from operational (logsheet) data to the total annual catch, as determined by unloading or other types of data/information. “Size data coverage” is determined by comparing the number of trips covered by port sampling and observers (collecting size data) with the estimated number of actual trips undertaken by this fleet during that year.*