

## SCIENTIFIC COMMITTEE EIGHTEEN REGULAR SESSION

Koror, Palau 16-24 August 2023

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

WCPFC-SC19-AR/CCM-06 (Rev.01)

FEDERATED STATES OF MICRONESIA

# SCIENTIFIC COMMITTEE NINETEEN REGULAR SESSION

August 2023

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

### FEDERATED STATES OF MICRONESIA



## <sup>1</sup>National Oceanic Resource Management Authority Pohnpei, FSM

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	[TES]		
April 2023			
If no, please indicate the reason(s) and intended actions:			

#### I. SUMMARY

FSM Fisheries are targeting the skipjack tuna (*Katsuwonus pelamis*), yellowfin (*Thunnus albacares*), bigeye tuna (*T. obesus*) and albacore tuna (*T. alalunga*).

In 2022, the total provisional annual catch estimates by FSM National Fleets in the Western and Central Pacific Commission Conventional Area (WCPFC-CA) is 167,147 metric tons (mt) of tuna target tuna. The total provisional catch report for targeted tuna has increased from 155,585 mt in 2021 to 167,147 mt in 2022.

FSM purse seiners has increased its catch in the WCPFC-CA from 150,446 mt in 2021 to 162,057 mt in 2021 (Table 1). The FSM longliners has its catch in the WCPFC-CA continued to be decreased from 11,656 mt in 2019, 5,149 mt in 2020, 5,139 mt in 2021 to 5,090 mt in in 2022 (Table 2).

Based on provisional data from logsheets, the total 2022 provisional annual catch estimates in the FSM Economic Exclusive Zone (EEZ), both foreign and domestic fleet and by gears, accumulated to a total of 217,599 mt of target tuna. The 2022 catch in FSM EEZ has higher catch recorded in comparison the 4-year trend series, 2019-2021. The catch record in the FSM EEZ by purse seine, longline, and pole-and-line in 2022 were 211,561 mt, 2,425 mt and 3,514 mt, respectively.

#### II. BACKGROUND

The FSM EEZ is situated between 135° and 165° east longtitude and 10°N and 5°S latitude. Covering an area over one million square miles of the Western and Central Pacific Ocean (WCPO). FSM is the third largest EEZ among the Pacific Island members of the Forum Fisheries Agency (FFA).

FSM NORMA's mandate is to be an effective guardian and manager of the living and non-living resources in the FSM EEZ for people living today and for the generations to come.

In late 2022, the redeployment of observers has commenced and FSM slowly redeploying its Observers on purse seine fishing vessels. The initial stage of the redeployment continuous to be a challenging noting with the significant drop of active observers with employment opportunityes. Nonetheless, FSM continues to provide all observer refresher training to its Observers while at the same time develop its initial plan for its observer recruitment in 2023.

#### III. FLAG STATE REPORTING

The number of FSM fishing vessels by gear in 2022 comprised of 28 purse seiners and 51 longline vessels as indicated in Table 3 and Table 4. These vessels fished actively throughout the WCPO. However, a few of the FSM longline fish for fresh yellowfin and bigeye tuna while some frozen longline vessels seasonally fish for albacore tuna in the waters of Cook Islands (Figure 4).

In 2022, the catch of FSM purse seine in the WCPFC-CA is accounted for (162,055 mt - 98%) of the total catch followed by (3,013 mt - 2%) of the longline.

Skipjack (138,965 mt) is accounted for 84% of the total catch followed by yellowfin (21,135 mt -13%), then bigeye (3,629 mt - 2%) and albacore (1,339 mt - 1%). In addition to the total provisional 2022 WCPO catch, black marlin, striped marlin, silky shark were other species that were retained and discarded.

The 2022 total provisional catches reported from logsheets retained and discarded totaled 153,578 mt and 2,008 mt, respectively.

For the National purse seine, the total provisional 2022 WCPO-CA catch retained and discarded totaled 162,057 mt and 672 mt, respectively.

As for the National longlines, the total retained and discarded from the provisional 2021 WCPO-CA catch are 5,090 mt and 3,427 mt, respectively.

Table 1. Annual catch (mt) in the WCPF Convention Area by species for the FSM Purse Seine fleet, 2018-2022.

Gear			PURSE SEIN	Έ			
Fleet		FM					
Source		Annual Catch Estimates					
					20	22	
Species	2018	2019	2020	2021	Retain	Discard	
ALBACORE	1	-	-	-	-	-	
BIGEYE	3,333	5,156	7,845	7,626	2,263	81	
PACIFIC BLUEFIN	-	-	-	-	-	-	
SKIPJACK	97,477	127,864	137,960	111,591	138,965	257	
YELLOWFIN	18,227	26,249	32,100	31,102	20,827	20	
BLACK MARLIN	5	5	2	8	-	-	
BLUE MARLIN	31	33	12	32	2	7	
STRIPED MARLIN	1	5	1	2	-	1	
SWORDFISH	-	-	-	-	-	-	
BLUE SHARK	-	-	-	-	-	-	
SILKY SHARK	64	126	151	70	-	296	
HAMMERHEAD SHARK	-	-	-	-	-	-	
MAKO SHARK	-	-	-	-	-	-	
OCEANIC WHITETIP	-	1	-	-	-	10	
PORBEAGLE SHARK	-	-	-	-	-	-	
WHALE SHARK	1	-	1	15	-	-	
THRESHER SHARK	-	-	-	-	-	-	
TOTAL	119,140	159,439	178,072	150,446	162,057	672	

Table 2. Annual catch (mt) in the WCPFC Convention Area by species for the FSM Longline fleet, 2018-2022.

Gear			IO	NCI INE		
Fleet		LONGLINE				
				FM		
Source			Annual C	atch Estimates		
				-	2022	2
Species	2018	2019	2020	2021	Retain	Discard
ALBACORE	2,069	2,243	509	922	1,339	-
BIGEYE	3,107	3,559	2,158	1,606	1,366	35
PACIFIC BLUEFIN	2	-	-	-	0	-
SKIPJACK	89	309	27	60	0	2
YELLOWFIN	2,395	4,692	2,010	1,729	307	31
BLACK MARLIN	12	31	1	-	13	2,334
BLUE MARLIN	318	432	288	272	108	8
STRIPED MARLIN	-	5	1	-	0	172
SWORDFISH	79	76	48	50	1	15
BLUE SHARK	30	200	79	234	-	631
SILKY SHARK	66	38	16	171	-	-
HAMMERHEAD SHARK	-	-	1	-	-	-
MAKO SHARK	24	5	6	7	-	-
OCEANIC WHITETIP	-	63	5	86	47	-
PORBEAGLE SHARK	-	-	-	-	28	4
WHALE SHARK	-	-	-	-	-	195
THRESHER SHARK	1	3	-	2	1,881	-
TOTAL	8,192	11,656	5,149	5,139	5,090	3,427

Table 3. Number of purse seine vessels by size category, active in the WCPFC convention area, 2018-2022.

Gear		PS				
Fleet			FM			
Source		Number	of Active Vessels	(WCPFC Year	rbook)	
Year	00-500 GRT	501-1000 GRT	1001-1500 GRT	1500+ GRT	Unknown GRT	Total Vessels
2018	0	3	6	13	0	22
2019	0	4	7	12	0	23
2020	0	4	9	14	0	27
2021	0	3	9	16	0	28
2022	0	3	9	16	0	28

Table 4: Number of longline vessels by size category, active in the WCPFC convention area, 2018-2022.

Gear		LL				
Fleet			FM			
Source		Number of Active Vessels (WCPFC Yearbook)				
Year	00-50 GRT					
2018	1	30	22	0	0	53
2019	0	23	15	0	0	38
2020	1	29	12	0	0	42
2021	0	32	19	0	0	51
2022	0	32	19	0	0	51

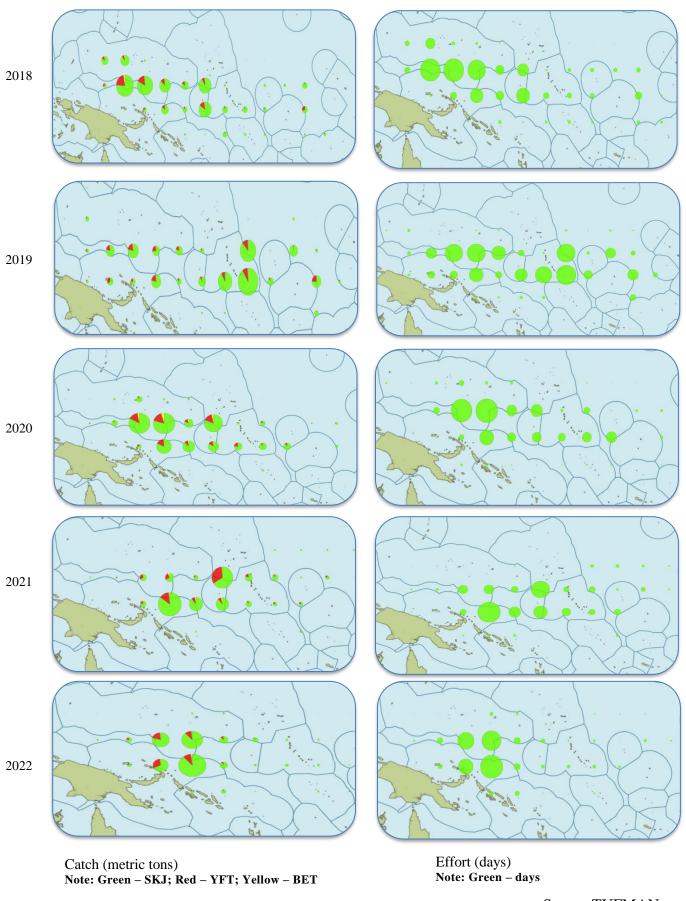


Figure 1: Annual distribution of FSM purse seiners in the WCPFC-CA, 2018-2022

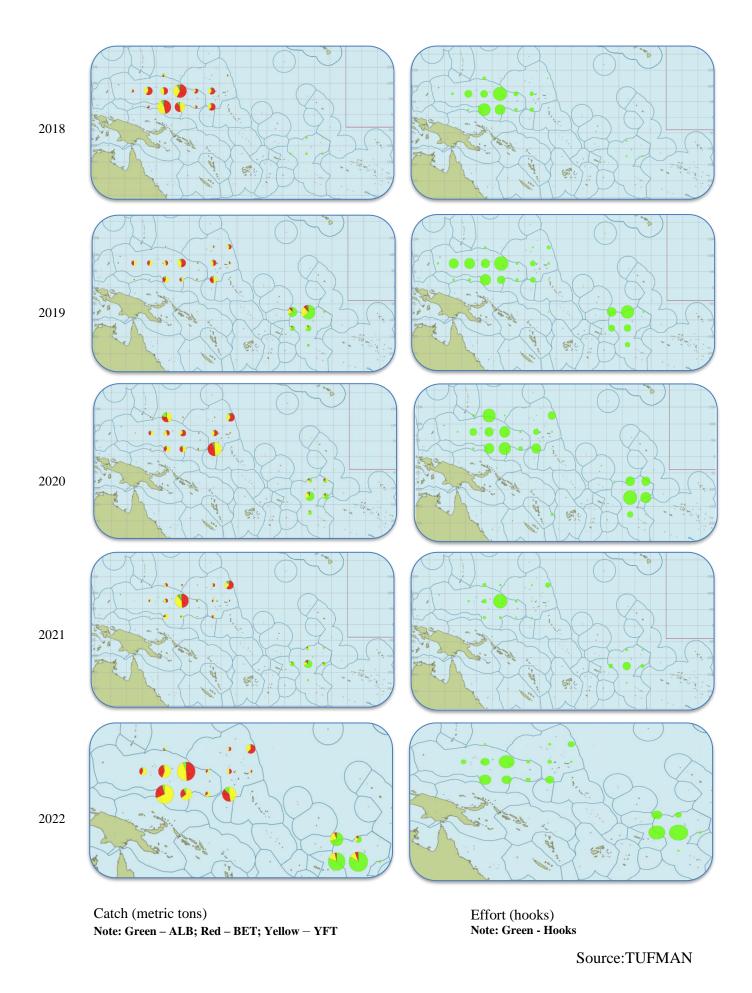


Figure 2: Annual distribution of FSM longliners in the WCPFC-CA, 2018-2022.

#### IV. COASTAL STATE REPORTING

A total of 142 foreign vessels were licensed to fish in FSM EEZ in 2022. By gear, 25 longliners, 22 pole-and-lines, and 95 purse seiners.

The total provisional 2022 purse seine catch in FSM EEZ for skipjack, yellowfin, bigeye and albacore are estimated at 181,113 mt, 28,076 mt, 2,372 mt, and 0, respectively. The skipjack, yellowfin, bigeye and albacore are accounted for total catch at 86%, 13%, 2% and 0%, respectively (Table 6 and Table 7).

In Table 8 and Table 9, there are no catch recorded for skipjack for longlines. However, the total provisional 2022 longline catch for yellowfin (930 mt - 38%) followed by bigeye (1,353 mt - 56 %) then albacore (142 mt - 6%).

From 2018-2020, Japan was the only country that have its pole-and-line fleet operated in the FSM EEZ. However, Solomon Island has now joined Japan for the only pole-and-line fleet that fished in FSM EEZ in 2021 (Table 10). Japan pole-and-lines continued to have fishing efforts in the mid of the FSM EEZ, however have a not much catch and effort in previous (see figure 5). In 2022, the catch of pole-and-line in the FSM EEZ has increased from 19 mt in 2020 and 1,610 mt in 2021 to 3,514 mt in 2022.

Table 5. Annual number of flag vessels and gear type licensed to fish in the FSM EEZ, 2018-2022.

No	Flag	Gears	2018	2019	2020	2021	2022
1	China	Purse Seine	12	9	8	10	9
1	Cillia	Longline	57	70	58	37	22
		Purse Seine	27	28	29	29	29
2	Japan	Longline	23	21	29	19	3
		Pole-and-line	15	24	21	21	22
3	South Korea	Purse Seine	27	31	26	22	21
4	Chinese	Purse Seine	27	32	29	30	27
4	4 Taipei	Longline	6	6	20	-	-
5	Philippine	Purse Seine	23	27	23	22	9

Source: NORMA

Table 6: Annual catch records for purse seiners within FSM EEZ, by distant flags and tuna species 2018-2022.

		Catch in Metric Tones			
FLAG	YEAR	SKJ	YFT	BET	
China	2018	863	465	23	
	2019	-	-	-	
	2020	-	-	-	
	2021	-	-	-	
	2022	715	80	15	
Chinese Taipei	YEAR	SKJ	YFT	ВЕТ	
	2018	28,838	3,185	252	
	2019	23,043	6,933	194	
	2020	26,009	5,411	878	
	2021	14,512	4,851	692	
<b>Y</b>	2022 VEAD	33,961	4,648	770	
Japan	YEAR	SKJ	YFT	BET	
	2018	72,042	13,815	1,907	
	2019	38,259	14,062	690	
	2020	32,882	11,493	1,028	
	2021	5,700	3,202	64	
	2022	25,812	3,529	65	
Korea	YEAR	SKJ	YFT	BET	
	2018	26,243	2,994	463	
	2019	6,472	2,313	31	
	2020	23,001	5,574	427	
	2021	9,028	1,681	219	
	2022	37,203	6,682	334	
USA	YEAR	SKJ	YFT	BET	
	2018	23,653	1,551	102	
	2019	8,391	543	22	
	2020 2021	1,850	532	54	
	2021	-	-	-	
Philippines	YEAR	SKJ	YFT	BET	
				DEI	
	2018	420	180	-	
	2019 2020	-	5	-	
	2020	-	-		
	2022	-	<u>-</u>	-	
	2022				

Table 7: Annual catch records for purse seiners within FSM EEZ by the FFA flag and tuna species 2018-2022.

		Catch	in Metric To	nes
FLAG	YEAR	SKJ	YFT	BET
FSM	2018	40,517	6,063	1,109
	2019	19,239	4,923	565
	2020	50,965	7,831	1,986
	2021	18,788	5,962	1,102
	2022	48,762	7,945	890
Kiribati	YEAR	SKJ	YFT	BET
	2018	2,890	263	57
	2019	332	68	55
	2020	983	226	47
	2021	700	475	65
	2022	3,276	385	22
Marshall	YEAR	SKJ	YFT	BET
	2018	1,519	190	35
	2019	25	5	-
	2020	1,930	393	51
	2021	2,574	457	118
	2022	6,552	545	63
Nauru	YEAR	SKJ	YFT	BET
	2018	-	-	-
	2019	295	145	-
	2020	2,784	351	87
	2021	7,277	3,201	364
	2022	12,928	1,788	159
PNG	YEAR	SKJ	YFT	BET
	2018	28,680	5,927	303
	2019	9,941	3,053	72
	2020	3,077	724	1
	2021	3,430	413	68
	2022	2,221	763	18
Solomon Is	YEAR	SKJ	YFT	BET
	2018	1,629	266	5
	2019	1,668	340	2
	2020	1,414	447	55 11
	2021 2022	2,749 1,017	285 379	11 13
Tuvalu	YEAR	SKJ	YFT	BET
I uvalu	2018	SKJ	111	DEI
		-	-	-
	2019 2020	-	-	-
	2020	-	-	-
		4262	-	-
V	2022 VEAD	4,362	695 VET	0 DET
Vanuatu	YEAR	SKJ	YFT	BET
	2018	-	-	-
	2019	805	503	23
	2020	2,904	430	16
	2021	1,264	191	8
	2022	4,304	637	23

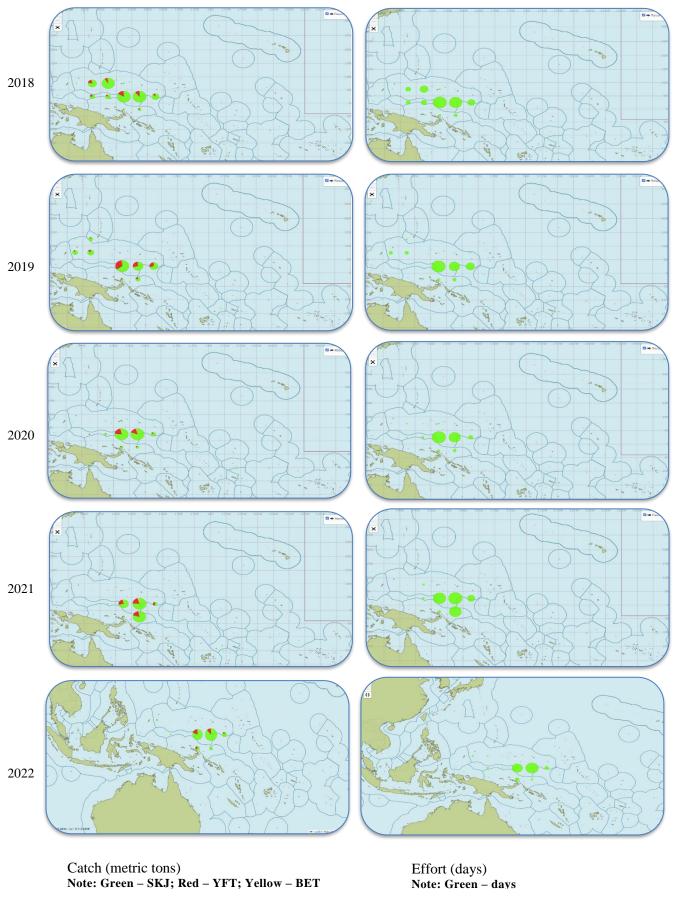


Figure 3: Annual distribution of purse seines catch and effort in the FSM EEZ, 2018-2022.

Table 8. Annual catch records for longlines within FSM EEZ, by distant flags and tuna species 2018-2022.

		Catch in Metric Tones		
FLAG	YEAR	ALB	BET	YFT
Australia	2018	-	-	-
	2019	-	-	-
	2020	-	92	8
	2021	-	-	-
	2022	-	-	-
FLAG	YEAR	ALB	BET	YFT
China	2018	27	658	416
	2019	16	229	298
	2020	1	11	6
	2021	2	25	23
	2022	9	49	90
Chinese Taipei	YEAR	ALB	BET	YFT
	2018	-	55	37
	2019	-	-	-
	2020	-	3	3
	2021	-	-	-
	2022	-	-	-
Japan	YEAR	ALB	BET	YFT
	2018	15	1,178	361
	2019	8	832	490
	2020	19	643	381
	2021	43	453	395
	2022	15	156	94

Table 9. Annual catch records for longlines within FSM EEZ, by FFA flags and tuna species 2018-2022.

		Catcl	n in Metric T	ones
FLAG	YEAR	ALB	BET	YFT
FSM	2018	121	2,116	1,564
	2019	81	1,070	1,240
	2020	102	908	928
	2021	144	877	1,082
	2022	118	725	1,169
Cook Is	YEAR	ALB	BET	YFT
	2018	11	102	85
	2019	-	-	-
	2020	-	-	-
	2021	-	-	-
	2022	-	-	-
Marshall	YEAR	ALB	BET	YFT
	2018	-	-	-
	2019	-	49	14
	2020	1	39	37
	2021	-	4	2
	2022	-	-	-
Palau	YEAR	ALB	BET	YFT
	2018	-	1	1
	2019	-	-	-
	2020	-	-	-
	2021	-	-	-
	2022	-	-	-
Solomon	YEAR	ALB	BET	YFT
	2018	2	33	20
	2019	4	64	99
	2020	-	-	-
	2021	-	-	-
	2022	-	-	-
Vanuatu	YEAR	ALB	BET	YFT
	2018	0	5	2
	2019	1	30	26
	2020	-	21	15
	2021	-	-	-
	2022	-	-	-

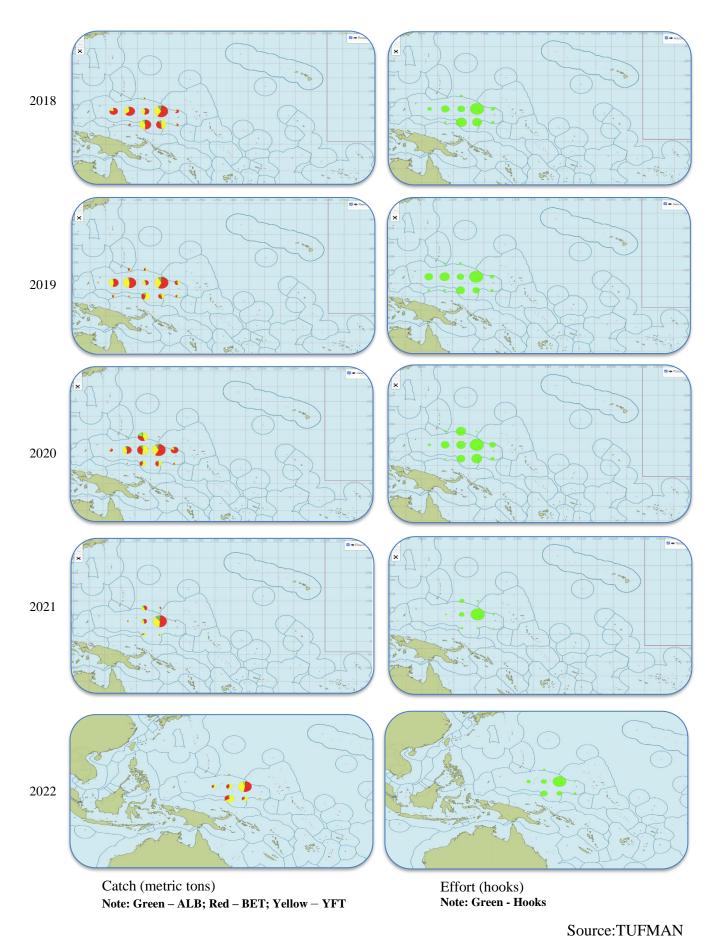


Figure 4: Annual distribution of longlines catch and effort in the FSM EEZ, 2018-2022.

Table~10.~Annual~catch~records~by~Japan~pole-and-line~within~FSM~EEZ,~2018-2022.

		Catch (	(Metric tonnes)	
		SKJ	BET	YFT
Japan	2018	570	-	2
	2019	963	26	10
	2020	19	-	-
	2021	1,490	6	73
	2022	3,491	1	22
Solomon Is	2018	-	-	-
	2019	-	-	-
	2020	-	-	-
	2021	41	-	-
	2022	-	-	-

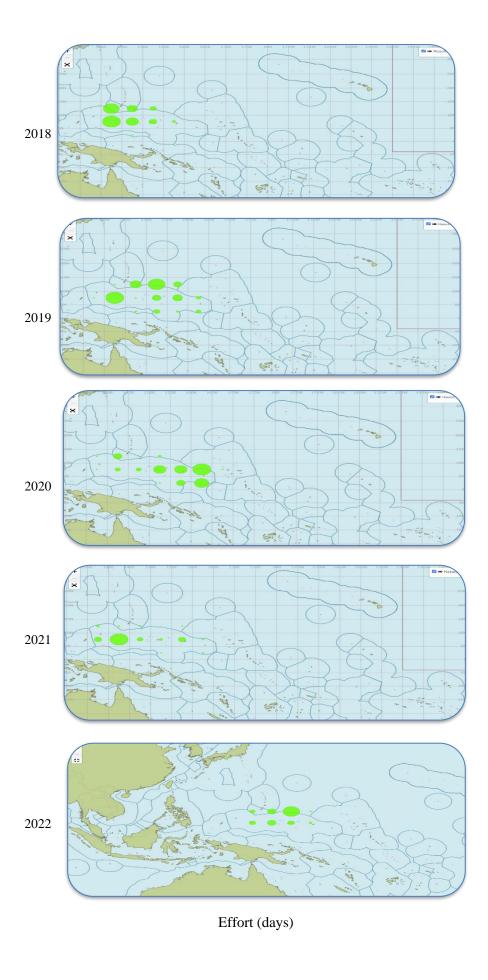
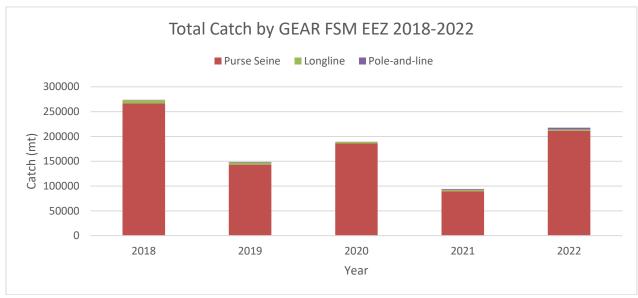
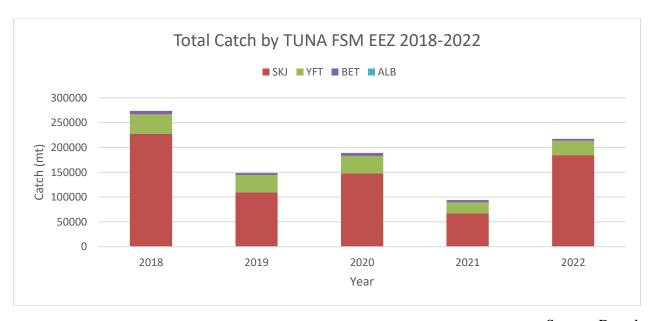


Figure 5: Annual distribution of pole-and-lines efforts in the FSM EEZ, 2018-2022.



Source: Dorado

Figure 6: Total annual catch from 2018-2022 by different gear types operating in FSM EEZ.



Source: Dorado

Figure 7. Total annual catch 2018-2022 by tuna species in FM EEZ

#### V. FUTURE PROSPECT OF FISHERY

NORMA continues to develop its capacity with its a catch documentation scheme (CDS) to collaborate closely with the relevant stakeholders to complete the required inspections of 3 candidate purse seine vessels. FSM's objective is to become a competent authority, however, unexpected factors that arises from restrictions due to covid-19 pandemic includes the need of capacity building, adjustments in legal frameworks, responsibilities are increased noting that involvement of other parties. Nevertheless, all parties are putting in more efforts and collaborations continues to progress.

Electronic Monitoring (EM) continues to develop at the national level. The analysis of trip footage is still in place at the data review center and trials of new review software are being planned. Within the region, developments are underway on EM standard operations and procedures, giving finer details to equipment requirements and data sets. Along with developments, NORMA, TNC, SPC, and Satlink/ DOS are still working collaboratively to achieve a fully implemented EM program.

The FSM Observer program did not deploy any observer ER trips in 2022 as there is more capacity development needed prior to the redeployment of observers. With the continuous support from the POA MRAG, FSM anticipate to provide the training needed for Observers to carry out the ER devices and gears before end of 2023.



### ADDENDUM TO ANNUAL REPORT PART 1

23 March 2023<sup>1</sup>

## <u>SECTION A:</u> SPECIFIC INFORMATION TO BE PROVIDED IN ANNUAL REPORT PART 1 AS REQUIRED BY CMMS AND OTHER DECISIONS OF THE COMMISSION.

CMM 2009-03 [Swordfish], Para 8	<ul> <li>Swordfish is not a targeted species by FSM Flag vessels and in 2022 no South Pacific swordfish bycatch caught in the south of 20°S for FSM Flag vessels that fish in the south of 20°S</li> </ul>
Observer coverage (WCPFC 11 decision – para 484(b)	No observers on FSM LL vessels in 2022 due to COVID

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<sup>&</sup>lt;sup>1</sup> Reporting requirements requested by CMMs and decisions of the Commission, as of WCPFC19 (Dec 2022). First issued on 23 March 2023. Changes made from Addendum for 2021, include including the new CMM 2022-02 for North Pacific Swordfish and **WCPFC19 Agreed Audit Points.** 

(1) the **total quantities**, by weight, of highly migratory fish stocks covered by this measure that were transhipped by fishing vessels the CCM is responsible for reporting against, with those quantities broken down by: a) offloaded and b) transhipped in port, c) transhipped inside the d) caught inside the e) Species f) Product g) Fishing gear transhipped at sea in **Convention Area and Convention Area** received; Form areas of national transshipped outside the and caught outside the Convention jurisdiction, and Convention Area; transhipped beyond areas Area; of national jurisdiction 23,893 mt SKJ PS In Port Inside Inside Frozen 4,136 mt In Port Inside Inside YFT PS Frozen 407 mt In Port Inside Inside BET Frozen PS Inside SKJ LL 30 mt In Port Inside Frozen 1.091 mt Inside YFT LL In Port Inside Frozen CMM 2009-06 585 mt Inside Inside BET LL In Port Frozen [Transshipment], Para 11 230 mt In Port Inside Inside ALB Frozen LL (ANNEX II) received (2) the **number of transhipments** involving highly migratory fish stocks covered by this measure by fishing vessels that is responsible for reporting against, broken down by: a) offloaded and b) transhipped in port, transhipped at c) transhipped inside the d) caught inside the e) fishing gear received sea in areas of national jurisdiction, **Convention Area and** Convention Area and caught and transhipped beyond areas of transhipped outside the outside the Convention Area national jurisdiction **Convention Area** In Port PS Inside Inside LL 29 In Port Inside Inside received

	Flag	Date	Lat	Lon	EEZ	Species	Number	Fate
	FM	3 03 2022	0215.383S	15527.483E	PG	SPINNER DOLPHIN	5	Released
CMM 2011-03 [Impact of	FM	22 11 2022	0117.699S	15328.916E	PG	FALSE KILLER WHALE	1	Released
PS fishing on cetaceans], Para 5	FM	27 12 2022	0230.608S	15453.128E	PG	MELON-HEADED WHALE	1	Released
	FM	4 03 2022	0212.766S	15508.550E	PG	FALSE KILLER WHALE	1	Released
CMM 2018-03 [Seabirds] Para 13	• No	observers on FSN	M LL vessels in	2022 due to COV	VID so no o	bserved data is available for <b>Table</b>	e x, Table y a	and <b>Table z</b>

#### 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, summarising the most recent five years.

Table x: Effort, observed and estimated seabird captures by fishing year for [CCM] [South of  $30^{0}$ S;  $25^{0}$ S- $30^{0}$ S; North of  $23^{0}$ N; or  $23^{0}$ N –  $25^{0}$ 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		Fishing	g effort		Observed sea	bird captures
	Number of vessels	Number of hooks	Observed hooks	% hooks observed	Number	Rate <sup>2</sup>
2018	44	41,708,392	567,352	1.4%	0	0
2019	37	27,561,991	1,256,755	4.6%	0	0
2020	42	31,210,049	914,209	2.9%	0	0
2021	51	23,400,741	116,285	0.0	0	0
2022	36	16,166,390	0	0.0%	0	0

<sup>1</sup> Insert 'North of 23oN', 'South of 30oS', '25oS-30oS' or '23oN - 250oS'. For CCMs fishing in all areas, provide separate tables for each area.

Table y: Proportion of mitigation types¹ used by the fleet in 2022.

<sup>2</sup> Provide data as captures per one thousand hooks.

	G 1: .: 6	Proportion	on of observed e	ffort using mitiga	ation 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			88%			
Options required	TL + NS						
south of 25°S	TL + WB						
	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	NS	<u> </u>	-	12%			
combination of							•
mitigation		_					•
measures here							
	Totals (must equal 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 seabird captures in FSM longline fisheries, 2012, by species and area.

Species	South of 30°S	25°S-30°S	North of 23°N	23°N -25°S	Total
n/a	n/a	n/a	n/a	n/a	n/a
Total	n/a	n/a	n/a	n/a	n/a

# SECTION B: ADDITIONAL ANNUAL REPORTING REQUIREMENTS THAT COULD BE INCLUDED IN ANNUAL REPORT PART 1, IF NOT OTHERWISE REPORTED ANNUALLY TO WCPFC

striped Marlin], Para 4	<ul> <li>In 2022, 10 FM vessels reported fishing in the south of 15°S; however, there were no bycatch reported for South West marlin.</li> </ul>						
CMM 2015-02 [South Pacific Albacore] Para 4				provision of operationer our authorization.	nal catch/effort log	gsheet data to SPC, who	automatically inclu
	[-	Year	Fishery	Vessel Number	Vessel Days	Catch (Number)	Catch (MT)
		2018	Longline	57	8,422	8,526	176
		2019	Longline	61	6,244	5,544	126
CMM 2019-03		2020	Longline	64	7,785	6,866	116
[North Pacific		2021	Longline	51	5,892	9,328	182
Albacore], Para 3		2022	Longline	29	3,913	9,011	188