



**DEVELOPMENT OF A NEW WCPFC TROPICAL TUNA MEASURE WORKSHOP 3  
(TTMW3)**

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**Catch and Effort Data Summaries to Support Discussions on the TROPICAL TUNA CMMS**  
**WCPFC-TTMW3-2023-IP03**

Paper prepared by  
the Secretariat and SPC-OFP<sup>1</sup>

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<sup>1</sup> The Oceanic Fisheries Programme, Pacific Community

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# 1. Purse seine fishery information

**Table 1. Purse seine days fished in waters under national jurisdiction and in the high seas (20°N-20°S)**

Table 1. Purse seine days fished in waters under national jurisdiction and in International waters (20°N-20°S) in the WCPFC-CA

EEZ	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	/ Estimate d EEZ Limits	See NOTE (s)		
AUSTRALIA	23	14	24	9	0	2	0	1	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	#	2,9,15	
COOK ISLANDS	46	225	8	6	2	8	3	29	45	17	104	479	209	353	348	202	530	696	587	306	83	85	1,250	2,15		
FIJI	12	5	10	26	36	6	6	23	12	29	27	27	32	0	50	43	31	3	12	1	0	0	0	300	2,15	
FRENCH POLYNESIA	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2,15
INDONESIA	485	443	496	672	933	767	572	373	409	274	567	1,347	2,925	1,676	1,174	2,362	3,022	839	1,256	1,463	1,635	1,557	1,500	*	2, 4, 16,18	
JAPAN	172	223	344	146	92	133	152	791	503	866	204	302	465	198	653	641	670	349	414	607	220	229	1,500	2,9,10,13,15		
NEW ZEALAND	218	174	167	313	359	218	217	234	128	218	261	268	290	268	278	197	152	110	123	115	104	0	0	#	2, 9, 15	
NIUE	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	200	2,15	
PHILIPPINES	918	969	1,346	1,421	1,311	1,352	1,520	1,792	1,250	808	491	491	1,010	1,389	1,052	1,143	1,521	983	1,128	1,705	1,329	1,265	1,500	*	2,4,6,8,17,1	
REPUBLIC OF KOREA	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	2, 18	
SAMOA	8	12	4	2	3	2	4	7	13	7	38	32	45	15	31	85	13	5	4	15	13	10	150	2,15		
TOKELAU	100	374	25	67	126	30	47	132	210	190	875	721	380	623	1,322	189	741	910	215	432	173	101	1,000	2,13,15		
TONGA	2	0	0	1	1	0	0	0	0	0	0	0	2	0	2	18	11	0	0	0	0	0	0	250	2,15	
CHINESE TAIPEI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	2, 18	
USA	339	484	228	295	147	198	100	63	124	36	49	209	189	261	90	111	138	105	81	144	133	183	558	2, 15		
VANUATU	2	2	0	19	1	0	0	14	1	0	5	5	1	0	4	0	1	0	0	7	0	0	200	2,15		
WALLIS AND FUTUNA	5	9	6	1	4	2	0	7	8	2	3	2	0	1	0	0	0	0	0	0	0	0	0	*	2, 18	
PNA EEZs (excl AWs)	24,974	27,038	29,264	30,329	32,443	32,220	31,732	34,772	33,110	44,267	47,382	41,883	44,331	42,575	30,996	35,667	37,002	34,812	32,962	33,301	34,092	34,154	44,033	5, 12,15,20		
PNA AWs only	2,426	2,215	3,554	3,093	4,654	3,917	5,710	6,320	7,289	6,255	8,663	8,826	7,996	6,711	3,812	3,806	5,384	3,937	2,823	5,369	4,031	4,754		5		
PNA EEZs + AWs =																										
TOTAL PNA	27,400	29,253	32,818	33,422	37,097	36,137	37,442	41,092	40,399	50,522	56,045	50,709	52,327	49,286	34,808	39,473	42,386	38,749	35,785	38,670	38,123	38,908		5		
TOTAL EEZs - excl.																										
PNA AWs	27,276	29,951	31,893	33,297	35,454	34,934	34,353	38,230	35,805	46,712	50,004	45,764	49,879	47,358	36,000	40,659	43,832	38,812	36,782	38,096	37,782	37,585				
TOTAL EEZs - excl.																										
PNA AWs and ID/PH	25,873	28,539	30,051	31,204	33,210	32,815	32,261	36,065	34,146	45,630	48,946	43,926	45,944	44,293	33,774	37,154	39,289	36,990	34,398	34,928	34,818	34,763				
TOTAL EEZs + PNA AWs	29,730	32,189	35,477	36,400	40,112	38,855	40,063	44,558	43,103	52,969	58,670	54,592	57,875	54,070	39,812	44,465	49,216	42,749	39,605	43,465	41,813	42,339	47,747			
TOTAL INT. WATERS (20°N-20°S)	7,365	8,113	8,489	10,381	8,922	6,886	8,185	8,617	10,100	1,495	1,528	2,451	6,131	5,693	8,285	6,935	6,618	7,379	8,501	7,816	6,644	5,432		6,8,11		
TOTAL (EEZs + IW + PNA AWs)	37,095	40,302	43,966	46,781	49,034	45,741	48,248	53,175	53,203	54,464	60,198	57,043	64,006	59,763	48,097	51,400	55,834	50,128	48,106	51,281	48,457	47,771	53,179			
TOTAL minus ID/PH	35,192	38,390	41,624	44,188	46,290	43,122	45,656	50,510	51,044	53,382	59,140	55,205	60,071	56,698	45,871	47,895	51,291	48,306	45,722	48,113	45,493	44,949	50,357			
VIETNAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	14		

## NOTES

1. Source: Raised logsheet data.
2. CMM 2014-01, CMM 2015-01, CMM 2016-01 -- Para. 23. for years 2015-2017; CMM 2017-01, CMM 2018-01, CMM 2020-01 for years 2018 – 2021, CMM 2021-01 for year 2022.
3. Catches and effort of vessels operating under charters and similar arrangements have been attributed to host island states or territories in accordance with paragraph 2 of CMM 2008-01 (paragraph 5 of CMM 2012-01, paragraph 5 of CMM 2013-01 or its replacement CMM) using the best information available to SPC-OPF. However, in some cases, catches have not yet been attributed to the CCM responsible for the "charter or similar arrangements" since the flag state CCM has yet to advise that it has excluded these catches from their data (and thereby avoid double-counting).
4. Purse-seine days for Indonesia and the Philippines in domestic waters have been estimated according to Appendix A in the SC4 Statistics SWG Working paper WP-4 (Data relating to purse-seine effort on the high seas and in the zones of non-PNA member CCMs). The estimates exclude archipelagic waters (AW) effort.
5. The definition of days effort in this table may differ from the definition of days used in the PNA Vessel Day Scheme (VDS)
6. The Total International waters effort prior to 2013 does not include estimates of effort for the Philippines domestic fleet at this stage.
7. Since 2011, some components of the tropical purse seine fleet have changed criteria for reporting days with searching (included as a fishing day) and transiting (not included as a fishing day) and this is reflected in the decline in fishing days since 2011.
8. Philippines effort in the high seas pocket 1 during 2013 was 1,352 sets with an estimated 1 set per three days to produce an estimate of 4,056 days effort.
9. Coastal States within the Convention Area either north of 20°N or south of 20°S. CMM 2014-01/CMM 2015-01 references: Para. 22 and footnote 6 on Page 7 -- relevant for 2014 onwards.
10. Operational data for Japan EEZ are not available. Japan effort in their EEZ for years 2001-2007 was determined as the best estimate from their aggregate data. Japan effort for since 2008 in their EEZ has been provided by Japan in their submission of Annual effort by EEZ/high seas areas.
11. International waters covers high seas in the WCPFC Conventional Area covering the area 20°N-20°S (valid for CMM 2014-01, CMM 2015-01, CMM 2017-01, CMM 2018-01, CMM 2020-01 and CMM 2021-01).
12. CMM 2014-01 or its replacement CMM -- Para. 20. for 2014 -2018 "Coastal States within the Convention Area that are Parties to the Nauru Agreement (PNA) shall restrict the level of purse seine effort in their EEZs to 2010 levels through the PNA Vessel Days Scheme".
13. CMM 2018-01, CMM 2020-01 and CMM 2021-01 Attachment 1 includes a comment that PNA + Tokelau effort limits are to be managed cooperatively through the PNA Vessel Day Scheme.
14. The Vietnam purse seine fleet are understood to fish outside the WCPFC Convention Area (South China Sea).
15. CMM 2018-01, CMM 2020-01 and CMM 2021-01 Table 1 provide the EEZ purse seine effort limits (CMM 2018-01 *or its replacement measure* paragraph 25)
16. ESTIMATED EEZ LIMIT --2015: Scientific estimates of catches and effort in Indonesia EEZ were recently revised to reflect distribution of catches between AW vs EEZ. Indonesia is yet to nominate a limit for purse seine effort in their EEZ in accordance with para 23 of CMM 2015-01. SPC advice as at 20 July 2014 (Table 1) – average of estimated EEZ fishing days effort in 2001-2004 is 507 days. CMM 2018-01, CMM 2020-01 and CMM 2021-01 Table 1 says Indonesia's limit is yet to be notified to the Commission.
17. ESTIMATED EEZ LIMIT --2015: Scientific estimates of catches and effort in Philippines EEZ were recently revised to reflect distribution of catches between AW vs EEZ. SPC advice as at 20 July 2014 (Table 1) – average of estimated EEZ fishing days effort in 2001-2004 is 925 days. CMM 2018-01, CMM 2020-01 and CMM 2021-01 Table 1 says Philippines's limit is yet to be notified to the Commission. In December 2019, the Philippines advised its EEZ limit was set at 42,000 fishing vessel days in lieu of the original submission, based on the current capacities and conditions of the small purse seine fishing vessels operating in the Philippines Pacific seaboard EEZ. These include wooden hulled ring net/purse seine fishing vessels (WCPFC16-2019-DP25).
18. CMM 2018-01, CMM 2020-01 and CMM 2021-01 Table 1 indicates that the limit is yet to be notified to the Commission (Republic of Korea, Chinese Taipei, Indonesia, Philippines, Wallis and Futuna).

**Table 2. Purse seine days fished in the high seas in the WCPFC-CA between 20°N and 20°S, by flag.**

Table 2. Purse seine days fished in international waters in the WCPFC-CA between 20°N and 20°S, by flag, based on available operational data.

PURSE SEINE DAYS FISHED INTERNATIONAL WATERS 20°N-20°S																											
Flag	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	CMM limits for 2020	CMM limits for 2021	Max. Annual days for 2010-	See Notes	
CHINA	89	123	152	424	501	229	332	251	871	14	7	26	14	8	22	23	12	26	22	16	37	30	26	26	26	11	
COOK ISLANDS	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	72	29	185	308				
ECUADOR	0	0	0	0	0	0	26	10	14	2	0	13	1	1	0	0	0	0	0	0	0	0	1	**	**	13	7, 9
EL SALVADOR	3	28	0	0	0	0	205	205	80	46	33	32	24	50	54	25	12	28	10	30	27	27	**	**	46	7, 9	
EUROPEAN UNION	0	11	14	51	29	81	240	281	254	326	314	429	371	377	248	87	174	158	146	194	226	217	403	403	429	7	
FSM	241	242	174	384	212	83	162	128	331	7	3	11	6	10	469	379	600	619	1,053	694	942	404					
INDONESIA	500	500	500	500	500	500	500	500	500	0	0	0	0	0	0	0	0	0	0	0	0	0	(0)	(0)			
JAPAN	1,350	1,260	1,752	1,854	1,757	1,473	1,334	1,067	1,592	6	3	1	14	8	102	22	0	6	29	21	76	53	121	121	6		
KIRIBATI	42	56	41	39	51	52	23	41	172	97	243	183	186	858	645	927	687	795	950	654	565	283				11	
MARSHALL ISLANDS	168	208	441	397	402	155	170	283	169	68	30	1	5	6	845	393	626	302	955	698	394	177					
NAURU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	106	182	397	115	125					
NEW ZEALAND	23	222	334	145	97	288	187	193	194	55	29	89	10	44	158	155	123	120	136	63	0	0	160	160		10	
PAPUA NEW GUINEA	397	604	660	1,218	1,313	458	862	710	824	79	22	40	16	36	1,090	98	20	11	0	4	2	2					
PHILIPPINES	30	79	482	473	350	166	33	98	20	2	0	209	4,096	2,665	2,437	2,642	2,696	2,749	2,654	2,635	2,539	2,562	4,659	4,659		4, 5	
REPUBLIC OF KOREA	1,267	1,278	1,144	1,222	1,048	708	1,352	1,474	1,677	205	49	19	23	192	169	197	184	198	182	172	102	50	207	207	205		
SOLOMON ISLANDS	32	37	0	0	17	15	5	0	0	0	0	1	0	0	0	25	73	102	91	19	1	0					
TUVALU	0	0	0	0	0	0	0	0	38	4	4	1	0	1	85	147	103	57	71	127	209	61					
CHINESE TAIPEI	1,961	1,849	1,466	1,846	1,226	1,477	1,325	1,421	76	83	20	75	44	93	95	108	62	84	62	57	59		95	95	83	7, 12	
USA	984	1,315	887	1,007	765	531	793	1,534	1,734	397	569	1,237	1,016	1,152	1,665	917	831	1,551	1,485	1,658	721	700	1,270	1,270	1,237	7, 13	
VANUATU	66	165	186	571	374	398	381	223	103	37	31	6	7	2	0	163	190	107	145	132	133	121					
TOTAL	7,153	7,977	8,233	10,131	8,642	6,362	8,082	8,323	9,994	1,421	1,420	2,318	5,864	5,454	8,082	6,295	6,439	6,997	8,267	7,605	6,331	5,180					

PURSE SEINE DAYS FISHED in WCPFC-IATTC OVERLAP AREA																										
Flag	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2020	2020				See Notes
ECUADOR	0	0	0	0	0	0	43	176	77	52	40	86	106	72	101	5	109	254	124	142	141	153				7
EL SALVADOR	22	35	3	0	0	0	27	130	25	19	22	4	127	155	44	72	37	26	24	21	29	16				7
EUROPEAN UNION	126	75	91	52	43	116	34	30	13	16	18	11	36	18	71	39	13	41	15	28	47	61				7
USA	1	0	0	0	2	0	0	0	3	0	2	4	0	1	0	528	11	36	58	20	74	17				7
TOTAL	149	110	94	52	45	116	104	336	118	87	82	105	269	246	216	644	170	357	221	211	291	247				

**Notes:**

1. Source: Raised logsheet data.
2. Catches and effort of vessels operating under charters and similar arrangements have been attributed to host island states or territories in accordance with paragraph 2 of CMM 2008-01 (paragraph 5 of CMM 2012-01, paragraph 5 of CMM 2013-01 or its replacement CMM) using the best information available to SPC-OPF. However, in several cases, catches have not yet been attributed to the CCM responsible for the "charter or similar arrangements" since the flag state CCM has yet to advise that it has excluded these catches from their data (and thereby avoid double-counting). Under CMM 2017-01 paragraph 8 Charter provisions are not applicable to high seas purse seine effort attribution.
3. Purse-seine days for Indonesia have been arbitrarily assigned 500 days for high seas according to Appendix A in the SC4 Statistics SWG Working paper WP-4 (Data relating to purse-seine effort on the high seas and in the zones of non-PNA member CCMs)
4. The measures that the Philippines will take are in Attachment C of CMM 2014-01 (or its replacement CMM) for years from 2014 onwards. Attachment C para 10 describes two limits: 1) total number of catcher vessels fishing in HSP-SMA is limited to 36, and 2) an effort limit in vessel days of 4,659 days (ref Table 2(b) WCPFC9-2012-IP09\_rev3)
5. The Total International waters effort prior to 2012 does not include estimates of effort for the Philippines domestic fleet at this stage. Philippines effort in the high seas pocket 1 (HSP#1) during 2012 was 209 days for the period Oct-Dec based on observer data. Philippines effort in the high seas pocket 1 (HSP#1) during 2013 was 1,352 sets with an estimated 1 set per three days to produce an estimate of 4,056 days effort. Philippines effort in the high seas pocket 1 during 2014 was listed as 2,667 days according to the Philippines Annual Report Part 1 produced for SC11. Estimates for HSP#1 since 2015 have been based on observer data with 100% coverage. Estimates include the Philippines ringnet fleet.
6. Since 2011, some components of the tropical purse seine fleet have changed criteria for reporting days with searching (included as a fishing day) and transiting (not included as a fishing day) and this is reflected in the decline in fishing days since 2011.
7. The days presented in Table 2 exclude effort in the overlap area because it takes into account the WCPFC9 decision on the application of measures in the part of the WCPF Convention Area that overlaps with the IATTC Convention Area (WCPFC9 Summary Report paragraph 80). European Union is a WCPFC member who is also an IATTC member, notified WCPFC in April 2013, of their choice of IATTC measures in the overlap area. Given that Ecuador and El Salvador are members of IATTC, the rules of the RFMO of which it is a member apply in the overlap area between WCPFC and IATTC, even if the CCM is a cooperating non-member of the other RFMO. The USA notified WCPFC in November 2021 of their choice of IATTC measures in the overlap area. Total days in Table 2 do not therefore reconcile with total high seas days in Table 1.
8. "CMM limits" are taken from CMM 2014-01 (or its replacement CMM) - Attachments D and apply from 2015 -2017. "CMM limits in 2018" are taken from Attachment 1 Table 2 of CMM 2017-01
9. Subject to CNM on participatory rights, in accordance with paragraph 6 of CMM 2014-01 (or its replacement CMM) for years from 2015 onwards
10. The basis of the CMM 2014-01 (or its replacement CMM) high seas days limit for New Zealand was the average of 2006-2008 effort with an agreed reduction in line with CMM 2013-01 and its predecessor CMMs.
11. For China and Kiribati, the 2015–2016 effort estimates reflect their WCPFC charter notifications for these years. For WCPFC charter notifications, the 2017–2022 high seas effort estimates have been attributed to the flag state for these years, based on the best information available.
12. CMM 2017-01 Att 1 Table 2 specifies a limit of 95 days for Chinese Taipei. However Chinese Taipei has advised they will apply a limit of 80 days in 2018, to take into account the amount the limit was exceeded in 2017. CMM 2018-01 Att 1 Table 2 specifies a limit of 95 days for Chinese Taipei for 2019.
13. A high seas purse seine effort limit may be adjusted in accordance with para 30 of CMM 2017-01, CMM 2018-01, CMM 2020-01 and CMM 2021-01.

**Table 3. Estimated FAD sets undertaken in the tropical purse seine fishery, by flag, 2001-2022.**

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	CCM	
15	139	159	511	861	923	826	1,218	1,603	688	2,013	1,127	1,415	1,428	754	63	502	230	16	0	0	258	CHINA	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	14	63	70	COOK ISLANDS	
0	0	0	0	0	0	74	365	163	221	439	443	284	342	140	50	235	411	327	258	270	321	ECUADOR	
9	29	1	0	0	0	54	152	161	136	185	212	296	304	176	96	73	82	49	58	93	76	EL SALVADOR	
71	34	59	81	46	126	242	412	328	363	488	460	515	430	327	94	151	190	160	211	290	293	EUROPEAN UNION	
324	386	489	790	497	282	338	484	732	417	788	820	537	605	633	1,088	1,364	1,348	1,292	2,139	1,797	2,061	FSM	
?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	INDONESIA
2,320	2,021	2,266	3,162	2,379	2,617	2,437	2,607	2,403	833	1,320	1,619	1,038	1,027	663	887	635	560	297	623	907	809	JAPAN	
71	61	62	96	103	66	61	99	288	243	552	488	667	822	1,075	1,819	2,551	2,998	3,019	2,784	3,189	3,336	KIRIBATI	
392	578	876	1,064	934	741	854	469	596	630	1,544	1,386	1,165	1,212	1,048	670	1,317	1,226	1,108	1,051	1,557	1,640	MARSHALL ISLANDS	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	256	1,075	1,599	1,758	NAURU	
124	274	429	411	195	491	384	441	373	192	203	161	134	165	49	21	75	41	36	2	0	0	NEW ZEALAND	
738	1,246	1,086	2,705	2,078	2,079	1,643	1,377	1,682	973	1,284	1,761	1,349	1,680	1,224	1,942	1,721	1,720	1,063	295	394	225	PAPUA NEW GUINEA	
998	1,073	1,064	918	1,002	779	239	510	557	380	404	595	521	384	350	261	23	55	2	12	0	0	PHILIPPINES (distant-water)	
?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	PHILIPPINES (domestic)
551	1,220	708	2,519	891	2,297	1,868	1,959	2,133	1,097	2,116	1,421	1,167	1,091	1,529	1,582	1,878	2,390	1,801	1,498	1,697	1,557	REPUBLIC OF KOREA	
150	118	100	88	109	252	130	86	173	80	146	191	134	99	107	234	352	440	329	119	100	324	SOLOMON ISLANDS	
1,616	2,621	1,839	3,215	2,737	3,050	2,813	2,285	2,723	1,703	2,941	2,925	2,628	2,639	1,780	1,499	1,895	2,277	2,024	1,867	2,177	2,471	CHINESE TAIPEI	
0	0	0	0	0	0	0	0	20	40	58	92	78	49	36	59	59	107	83	119	325	476	TUVALU	
2,021	1,772	1,557	2,067	1,315	1,543	1,393	2,756	3,800	2,384	3,388	3,432	3,132	3,696	2,026	2,125	2,437	2,910	1,890	1,725	1,220	1,032	USA	
36	143	182	655	528	467	632	230	388	169	391	261	260	229	123	37	123	95	136	331	449	501	VANUATU	
9,436	11,715	10,877	18,282	13,675	15,713	13,988	15,450	18,123	10,549	18,260	17,394	15,320	16,202	12,040	12,527	15,391	17,170	13,931	14,181	16,127	17,208		

## Notes

1. Source: Raised logsheet data.
2. Covers Drifting FAD, Log and Anchored FAD sets in the tropical purse seine fishery of the WCPFC Convention Area (20°N-20°S), by flag
3. Excludes archipelagic waters. Fleets from Indonesia, Kiribati, Papua New Guinea, Philippines (DW), Philippines (domestic) and Solomon Islands in this list are normally the only fleets active in archipelagic waters.
4. Includes high seas
5. Excludes Vietnam domestic fleet
6. Complete information from Indonesia and Philippines domestic fisheries are not available.
7. CMM 2015-01– Paras. 14 and 17, and ATTACHMENT A, provides information on the 2016 FAD set limits that applies to FSM, Japan, Kiribati, Korea and United States of America.
8. CMM 2016-01 – Paras. 14 and 17, and ATTACHMENT A, provides information on the 2017 FAD set limits that applies to Japan, Korea and United States of America.
9. CMM 2014-01 – Paras. 14 and 17, and ATTACHMENT A, provides information on the 2015 FAD set limits that applies to FSM, Japan, Kiribati and Korea.
10. CMM 2013-01, Para 16 (ii) annual limit of FAD sets for 2015 (as set out in Column 'A' of Attachment A of CMM 2014-01) applies to FSM, Japan, Kiribati and Korea
11. Annual FAD sets consider CMM 2014-01 (or its replacement CMM) footnote 3 notifications (vessels that are managed outside of FAD set limit). This exemption applied to certain Kiribati vessels for 2016-2017.
12. In 2016, FSM applied CMM 2014-01 footnote 3 notifications, but formally chose the 4<sup>th</sup> month FAD closure for 2017.
13. The estimates of FAD sets for Kiribati and China reflect their respective WCPFC charter notifications since 2016.
14. This table does not include FAD sets for the exemptions under CMM 2014-01 (see Notes 11, 12 and 13)
15. "CMM 2016-01 – Adjusted Baseline", applies to Kiribati in 2017. The adjusted baseline includes average annual FAD sets for Kiribati vessels that were previously exempt prior to 2017 (due to being newly-introduced since 2012) that had operated for three years prior to 2017.
16. Annual FAD sets count does include CMM 2017-01 (footnote 2) and CMM 2018-01, CMM 2020-01 AND CMM 2021-01 (footnote 1) FAD Sets of domestic purse seine vessels of PNA countries which are notified as being managed under the PNA 3IA while operating in that PNA CCMs national waters during the 3-month FAD closure period of July – September of a particular notified year.
17. Figure 11 includes the respective exemptions described in Note 14 and 16.











Table 4. (continued)

FLEET	YEAR	VESSELS		DAYS	UNASSOCIATED SCHOOLS										ASSOCIATED SCHOOLS										TOTAL				
		YB	LOG		SKIPJACK			YELLOWFIN			BIGEYE			TOTAL	SKIPJACK			YELLOWFIN			BIGEYE			TOTAL	SETS	SKJ	YFT	BET	TOTAL
					SETS	MT	%	MT	%	MT	%	MT	%	MT	SETS	MT	%	MT	%	MT	%	MT	%	MT	SETS	MT	MT	MT	MT
SV	2010	2	2	210	3	28	100%	0	0%	0	0%	0	0%	28	136	4,758	65%	1,557	21%	1,028	14%	7,344	139	4,786	1,558	1,028	7,372		
SV	2011	2	2	268	3	15	18%	69	81%	0	0%	85	185	8,393	69%	1,624	13%	2,125	18%	12,141	188	8,409	1,693	2,125	12,226				
SV	2012	2	2	300	4	15	100%	0	0%	0	0%	15	213	8,531	63%	2,783	20%	2,318	17%	13,632	217	8,546	2,783	2,318	13,647				
SV	2013	4	4	398	13	270	66%	141	34%	1	0%	412	296	11,842	71%	2,748	16%	2,215	13%	16,805	309	12,112	2,889	2,216	17,217				
SV	2014	4	4	485	92	2,007	100%	11	1%	0	0%	2,018	303	10,278	67%	2,960	19%	2,222	14%	15,461	394	12,285	2,971	2,222	17,479				
SV	2015	2	2	185	7	0	0%	0	0%	0	0%	0	177	11,929	78%	1,980	13%	1,392	9%	15,301	184	11,929	1,980	1,392	15,301				
SV	2016	3	2	112	6	668	99%	9	1%	0	0%	677	95	4,957	75%	741	11%	929	14%	6,626	101	5,624	750	929	7,303				
SV	2017	1	2	76	2	0	0%	31	100%	0	0%	31	73	2,996	70%	560	13%	731	17%	4,287	75	2,996	591	731	4,318				
SV	2018	1	1	82	6	275	100%	0	0%	0	0%	275	82	3,336	76%	432	10%	647	15%	4,415	88	3,611	432	647	4,690				
SV	2019	2	2	42	2	0	0%	0	0%	0	0%	0	50	2,220	76%	338	12%	381	13%	2,939	52	2,220	338	381	2,939				
SV	2020	2	2	62	5	246	91%	24	9%	0	0%	270	58	2,688	65%	595	14%	837	20%	4,120	63	2,934	618	838	4,390				
SV	2021	2	2	94	0	0	0%	0	0%	0	0%	0	93	3,720	64%	1,133	19%	1,005	17%	5,858	93	3,720	1,133	1,005	5,858				
SV	2022	2	2	70	0	0	0%	0	0%	0	0%	0	76	2,592	59%	938	21%	850	19%	4,380	76	2,592	938	850	4,380				
TV	2010	1	1	271	319	6,736	75%	2,225	25%	35	0%	8,997	40	1,025	66%	335	22%	197	13%	1,557	359	7,762	2,560	232	10,554				
TV	2011	1	1	311	283	3,827	72%	1,509	28%	13	0%	5,350	58	1,657	80%	293	14%	116	6%	2,066	341	5,484	1,802	130	7,416				
TV	2012	1	1	271	301	3,135	57%	2,332	42%	32	1%	5,500	92	4,475	81%	815	15%	264	5%	5,554	393	7,610	3,148	296	11,054				
TV	2013	1	1	273	353	7,195	93%	438	6%	88	1%	7,721	79	2,949	80%	626	17%	121	3%	3,695	432	10,144	1,063	209	11,416				
TV	2014	1	1	159	146	3,391	92%	251	7%	33	1%	3,675	49	1,951	86%	255	11%	61	3%	2,268	195	5,342	506	94	5,943				
TV	2015	1	1	186	174	3,565	97%	124	3%	1	0%	3,690	36	1,658	93%	102	6%	20	1%	1,780	210	5,223	227	21	5,470				
TV	2016	1	1	234	93	2,445	97%	74	3%	1	0%	2,520	59	2,689	75%	649	18%	252	7%	3,590	152	5,134	723	252	6,110				
TV	2017	2	2	161	84	1,819	60%	1,177	39%	60	2%	3,056	59	1,761	68%	695	27%	129	5%	2,585	143	3,580	1,872	188	5,641				
TV	2018	1	1	208	160	3,193	74%	1,068	25%	44	1%	4,305	108	5,548	81%	494	7%	790	12%	6,831	268	8,741	1,561	834	11,136				
TV	2019	1	1	212	106	2,705	87%	411	13%	11	0%	3,127	83	3,385	93%	171	5%	92	3%	3,648	189	6,090	582	103	6,775				
TV	2020	3	3	308	96	2,200	89%	256	10%	4	0%	2,460	119	6,361	85%	563	8%	550	7%	7,475	215	8,561	819	554	9,935				
TV	2021	6	6	985	653	13,558	80%	3,290	19%	69	0%	16,917	325	10,339	81%	1,641	13%	740	6%	12,720	978	23,897	4,931	809	29,637				
TV	2022	6	6	1,247	954	16,053	81%	3,601	18%	111	1%	19,765	478	17,745	82%	2,920	14%	991	5%	21,656	1,432	33,798	6,521	1,102	41,421				
TW	2010	34	30	7,865	6,413	99,099	81%	22,792	19%	718	1%	122,609	1,709	55,000	72%	15,370	20%	5,871	8%	76,241	8,122	154,098	38,163	6,588	198,850				
TW	2011	34	31	8,801	4,763	56,191	81%	12,276	18%	571	1%	69,037	2,955	78,921	74%	19,508	18%	8,468	8%	106,897	7,718	135,112	31,784	9,039	175,935				
TW	2012	34	33	7,146	4,660	61,048	71%	24,130	28%	895	1%	86,073	2,940	89,478	78%	17,216	15%	7,885	7%	114,578	7,600	150,526	41,345	8,779	200,651				
TW	2013	34	34	7,706	6,171	83,516	83%	16,012	16%	1,033	1%	100,562	2,638	81,200	73%	21,530	19%	9,190	8%	111,919	8,809	164,716	37,542	10,223	212,481				
TW	2014	34	36	6,845	5,749	104,008	88%	12,903	11%	1,294	1%	118,205	2,654	90,655	76%	20,248	17%	8,049	7%	118,952	8,404	194,663	33,151	9,342	237,157				
TW	2015	34	34	5,141	4,639	79,535	76%	23,865	23%	1,351	1%	104,751	1,785	71,689	80%	12,249	14%	5,560	6%	89,498	6,424	151,224	36,113	6,911	194,249				
TW	2016	34	31	5,273	4,785	80,905	71%	32,128	28%	1,312	1%	114,345	1,511	54,977	74%	12,904	17%	6,161	8%	74,043	6,298	135,883	45,032	7,473	188,388				
TW	2017	31	30	5,461	5,167	64,057	67%	30,911	32%	982	1%	95,949	1,904	56,140	77%	12,716	17%	4,113	6%	72,968	7,072	120,233	43,629	5,096	168,958				
TW	2018	27	29	5,185	4,634	82,338	85%	13,974	14%	654	1%	96,966	2,292	78,475	79%	15,754	16%	5,242	5%	99,470	6,927	160,812	29,728	5,896	196,436				
TW	2019	30	30	5,231	5,659	119,796	83%	24,427	17%	955	1%	145,178	2,042	76,958	81%	14,155	15%	4,294	5%	95,408	7,708	196,821	38,590	5,254	240,665				
TW	2020	29	28	4,501	4,100	76,032	84%	14,381	16%	522	1%	90,935	1,878	59,051	69%	18,905	22%	7,628	9%	85,583	5,978	135,083	33,286	8,150	176,519				
TW	2021	29	29	5,078	4,479	80,549	74%	27,747	25%	763	1%	109,059	2,187	80,242	75%	19,163	18%	7,216	7%	106,620	6,666	160,791	46,910	7,979	215,680				
TW	2022	29	26	4,657	4,135	74,453	83%	14,416	16%	576	1%	89,445	2,477	92,636	76%	21,285	18%	7,840	6%	121,760	6,612	167,088	35,701	8,416	211,205				

Table 4. (continued)

FLEET	YEAR	VESSELS		DAYS	UNASSOCIATED SCHOOLS								ASSOCIATED SCHOOLS								TOTAL				
		YB	LOG		SKIPJACK			YELLOWFIN		BIGEYE		TOTAL	SKIPJACK			YELLOWFIN		BIGEYE		TOTAL	SETS	MT	YFT	BET	TOTAL
					SETS	MT	%	MT	%	MT	%	MT	SETS	MT	%	MT	%	MT	%	MT	SETS	MT	MT	MT	MT
US	2010	37	37	8,220	6,331	109,954	83%	21,843	16%	1,011	1%	132,808	2,397	90,944	81%	15,059	13%	6,333	6%	112,336	8,738	201,150	37,002	7,372	245,524
US	2011	37	36	8,048	3,008	48,985	82%	10,837	18%	122	0%	59,943	3,401	112,189	78%	19,841	14%	11,267	8%	143,297	6,409	161,173	30,678	11,389	203,240
US	2012	39	40	8,789	5,622	98,546	80%	24,048	19%	1,195	1%	123,790	3,464	109,484	81%	17,955	13%	8,472	6%	135,911	9,088	208,076	42,012	9,671	259,759
US	2013	40	42	8,380	5,028	97,078	92%	8,210	8%	796	1%	106,085	3,152	113,599	77%	23,223	16%	11,249	8%	148,072	8,183	210,774	31,439	12,057	254,270
US	2014	40	40	9,069	6,268	117,317	84%	22,155	16%	424	0%	139,896	3,717	147,230	85%	17,209	10%	8,670	5%	173,109	9,987	264,547	39,364	9,094	313,005
US	2015	39	39	6,988	5,904	112,034	89%	13,201	11%	617	1%	125,853	2,052	96,111	86%	10,976	10%	5,139	5%	112,226	7,956	208,146	24,177	5,756	238,079
US	2016	37	34	5,571	3,333	75,685	88%	10,432	12%	399	1%	86,515	2,177	88,673	77%	17,215	15%	8,733	8%	114,621	5,511	164,368	27,650	9,134	201,152
US	2017	34	34	5,623	2,652	43,827	74%	15,205	26%	296	1%	59,328	2,442	84,031	78%	15,896	15%	7,194	7%	107,121	5,095	127,858	31,101	7,489	166,449
US	2018	34	35	5,758	2,828	54,078	78%	15,037	22%	211	0%	69,326	2,910	101,686	79%	16,155	13%	10,285	8%	128,125	5,738	155,764	31,192	10,495	197,451
US	2019	31	30	4,323	3,119	69,221	85%	12,309	15%	297	0%	81,827	1,894	69,377	82%	10,364	12%	4,954	6%	84,696	5,015	138,635	22,684	5,261	166,580
US	2020	23	23	3,699	1,578	38,159	95%	1,828	5%	205	1%	40,192	1,727	73,680	76%	13,074	14%	10,259	11%	97,014	3,305	111,839	14,902	10,464	137,205
US	2021	21	17	1,431	81	1,832	94%	120	6%	4	0%	1,957	1,220	35,898	74%	7,316	15%	5,301	11%	48,515	1,301	37,730	7,436	5,305	50,471
US	2022	14	12	1,324	198	4,914	81%	1,170	19%	20	0%	6,103	1,033	35,467	72%	7,774	16%	6,355	13%	49,596	1,231	40,381	8,944	6,375	55,699
VU	2010	5	5	872	469	10,444	79%	2,747	21%	85	1%	13,276	198	8,455	81%	1,408	14%	577	6%	10,440	668	18,900	4,157	663	23,719
VU	2011	6	4	1,142	287	5,795	87%	879	13%	21	0%	6,695	391	13,927	84%	2,351	14%	409	3%	16,688	678	19,722	3,230	430	23,382
VU	2012	6	3	775	472	8,827	60%	5,876	40%	124	1%	14,827	268	9,876	81%	1,569	13%	730	6%	12,175	740	18,702	7,445	854	27,002
VU	2013	6	4	974	607	11,459	85%	1,989	15%	42	0%	13,490	263	10,251	81%	1,791	14%	669	5%	12,712	870	21,710	3,780	711	26,202
VU	2014	3	3	685	362	8,536	86%	1,331	13%	39	0%	9,906	230	9,036	83%	1,189	11%	630	6%	10,855	592	17,572	2,521	669	20,761
VU	2015	3	3	286	105	1,644	96%	77	5%	1	0%	1,722	125	5,922	89%	555	8%	146	2%	6,623	230	7,566	632	147	8,345
VU	2016	3	3	165	40	1,250	90%	122	9%	11	1%	1,382	37	2,586	86%	69	2%	357	12%	3,012	78	3,836	191	367	4,394
VU	2017	3	3	249	119	1,449	65%	786	35%	7	0%	2,242	122	2,997	65%	649	14%	958	21%	4,603	241	4,446	1,435	964	6,845
VU	2018	2	2	313	337	6,394	81%	1,465	19%	53	1%	7,912	96	3,932	85%	412	9%	269	6%	4,613	433	10,326	1,877	322	12,525
VU	2019	5	6	573	739	22,953	89%	2,567	10%	320	1%	25,840	138	7,223	84%	629	7%	706	8%	8,558	878	30,176	3,196	1,027	34,398
VU	2020	6	6	915	965	23,086	81%	5,168	18%	230	1%	28,485	334	13,618	74%	2,721	15%	2,060	11%	18,400	1,299	36,705	7,890	2,291	46,885
VU	2021	7	7	1,027	947	20,545	77%	5,997	23%	135	1%	26,676	449	16,628	77%	3,550	16%	1,435	7%	21,613	1,396	37,173	9,546	1,570	48,289
VU	2022	7	8	1,317	1,514	33,914	79%	8,630	20%	249	1%	42,794	506	19,591	76%	4,675	18%	1,436	6%	25,702	2,021	53,505	13,305	1,686	68,496

Table 4. (continued)

YEAR	VESSELS		DAYS	UNASSOCIATED SCHOOLS									ASSOCIATED SCHOOLS									TOTAL				
	YB	LOG		SKIPJACK			YELLOWFIN		BIGEYE		TOTAL	SKIPJACK			YELLOWFIN		BIGEYE		TOTAL	SETS	SKJ	YFT	BET	TOTAL		
				SETS	MT	%	MT	%	MT	%	MT	SETS	MT	%	MT	%	MT	%	MT							
2010	276	262	52,843	38,227	688,315	76%	211,052	23%	8,632	1%	907,999	13,416	428,089	73%	114,475	19%	45,460	8%	588,022	51,922	1,120,589	327,814	54,444	1,502,847		
2011	278	267	58,730	30,085	425,329	76%	133,629	24%	3,741	1%	562,696	21,874	615,892	73%	153,574	18%	72,504	9%	841,970	52,111	1,042,905	287,835	76,359	1,407,098		
2012	287	286	54,470	36,210	613,723	73%	216,502	26%	8,764	1%	838,990	20,328	601,040	76%	134,408	17%	56,577	7%	792,025	56,676	1,216,388	351,504	65,459	1,633,351		
2013	297	293	55,420	38,537	649,312	79%	160,874	20%	9,758	1%	819,944	18,058	560,728	72%	155,146	20%	62,079	8%	777,953	56,701	1,211,828	316,968	71,990	1,600,785		
2014	309	306	53,404	38,425	733,539	77%	203,801	22%	10,299	1%	947,637	18,084	639,445	78%	125,128	15%	56,294	7%	820,868	56,593	1,374,794	329,651	66,748	1,771,193		
2015	307	303	43,319	34,266	695,851	78%	181,832	20%	11,160	1%	888,842	13,835	555,395	80%	103,702	15%	39,191	6%	698,288	48,253	1,255,019	287,347	50,966	1,593,332		
2016	293	278	44,218	32,461	647,618	74%	221,283	25%	10,724	1%	879,625	13,938	532,129	77%	109,465	16%	49,927	7%	691,523	46,569	1,183,636	332,794	61,054	1,577,484		
2017	282	279	47,810	33,337	509,737	65%	259,204	33%	9,469	1%	778,410	16,806	530,177	77%	114,868	17%	46,189	7%	691,228	50,416	1,045,142	377,014	56,117	1,478,274		
2018	274	269	44,985	32,875	624,432	75%	192,594	23%	11,233	1%	828,261	18,195	668,358	80%	115,252	14%	51,896	6%	835,505	51,265	1,296,942	309,809	63,863	1,670,613		
2019	281	265	42,539	37,152	858,569	81%	193,192	18%	8,922	1%	1,060,684	14,934	601,920	82%	97,755	13%	33,365	5%	733,043	52,385	1,466,850	293,857	42,826	1,803,533		
2020	268	253	44,756	32,600	634,393	75%	203,729	24%	6,092	1%	844,218	15,250	574,355	75%	131,684	17%	57,399	8%	763,442	48,028	1,211,539	338,115	63,879	1,613,533		
2021	261	256	42,621	26,873	510,217	73%	184,384	26%	5,512	1%	700,115	17,229	581,094	75%	134,770	18%	53,853	7%	769,713	45,326	1,113,004	328,564	59,898	1,501,466		
2022	252	244	42,271	29,547	548,718	77%	160,674	22%	4,821	1%	714,213	18,280	645,445	77%	139,397	17%	54,995	7%	839,835	49,218	1,216,683	309,003	60,394	1,586,080		

**Notes:**

1. Estimates are based on aggregate data and raised logsheet data with species composition adjusted using observer sampling with grab sample bias correction. Note that these estimates may differ from the annual catch estimates provided by CCMs.

2. Tropical WCPFC Area (20°N–20°S). Estimates exclude domestic purse seine catch/effort in Philippines, Indonesia and Vietnam. [we hope to include estimates of domestic-based Philippines catch/effort in their home EEZ and HSP #1 in future versions of this table].

3. Two sources of estimates of vessel numbers are provided (i) those provided by CCMs with their annual catch estimates (and therefore appear in the WCPFC Yearbook) and (ii) estimates of vessel numbers from unraised operational data available to SPC.

4. The estimate of Japanese purse seine vessels fishing in the tropical fishery (20°N-20°S) has been determined by only considering vessel numbers in the categories >200 GRT.

5. There are several instances where vessel numbers from unraised logbook data are higher than the vessel numbers provided by the CCM. The reasons for these occurrences include: (i) situations where one vessel became inactive during the calendar year and was replaced by a new vessel – the vessel number from the operational data is based on a count of the total distinct vessels fishing throughout the year; (ii) instances where there are inconsistencies in the charter/flag assignment between the vessel numbers provided by CCMs and the operational logsheet data (e.g. Philippine-flagged vessels chartered to PNG – this will require follow-up and clarification with relevant CCMs).

6. ASSOCIATED covers sets on Drifting FAD, Log and Anchored FAD. Catch/effort for sets on ANIMALS is not shown separately but are included in the TOTAL.

7. Includes Catch and Effort in Archipelagic Waters.

8. Total Associated sets may differ from values provided in Table 3. The reasons for the differences include, (i) sets in archipelagic waters are included in this table but not in Table 3, (ii) the raising process in Table 3 is undertaken at the EEZ/AW level while the raising in this Table is undertaken at the WCPFC Area level; this will be an issue in cases where logbook coverage is not 100%. Future versions of Tables 3 and 7 will be reconciled.

**Fleet Codes**

CK	- Cook Islands	CN	- China	ES	- EU-Spain	FM	- FSM
JP	- Japan	KI	- Kiribati	KR	- Republic of Korea		
MH	- Marshall Islands	NZ	- New Zealand	PG	- PNG		
PH	- Philippines (DW)	SB	- Solomon Is.	SV	- El Salvador	NR	- Nauru
TV	- Tuvalu	TW	- Chinese Taipei	US	- USA	VU	- Vanuatu

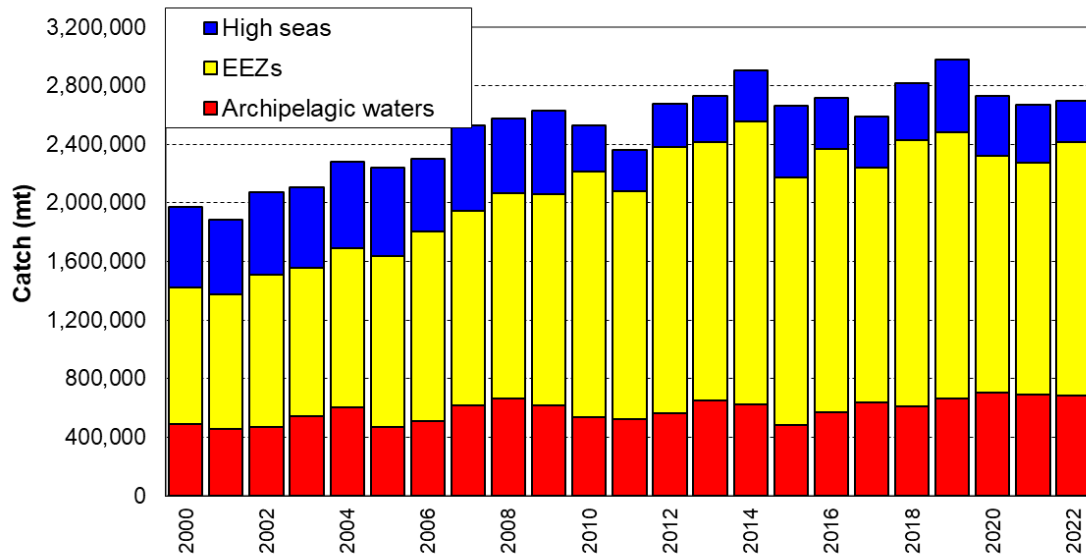


**Table 5. Annual high seas FAD sets, by fleet, 2015–2022.**

CCM	2015	2016	2017	2018	2019	2020	2021	2022	Notes
CHINA	0	3	1	2	0	0	0	16	
COOK ISLANDS	0	0	0	0	42	14	63	27	4, 5
ECUADOR	0	0	0	0	0	0	0	0	4, 5
EL SALVADOR	50	22	10	29	8	30	28	30	4
EU-SPAIN	149	64	128	110	101	151	238	219	4
FSM	59	164	48	135	196	182	230	84	
JAPAN	1	3	0	0	1	11	2	0	
KIRIBATI	209	374	417	471	463	334	317	170	7
MARSHALL ISLANDS	168	65	423	143	265	277	281	141	4
NAURU	0	0	0	51	55	211	55	54	4
NEW ZEALAND	31	5	75	40	36	2	0	0	4
PAPUA NEW GUINEA	139	14	0	0	0	0	0	0	
PHILIPPINES	1	0	0	3	29	0	0	0	6
REPUBLIC OF KOREA	51	103	3	114	87	74	76	17	
SOLOMON ISLANDS	0	0	22	16	15	2	0	0	4
CHINESE TAIPEI	23	55	0	6	23	17	26	35	
TUVALU	4	34	41	27	19	77	113	31	4
USA	526	296	0	480	425	710	579	393	
VANUATU	0	37	100	24	17	90	101	44	3

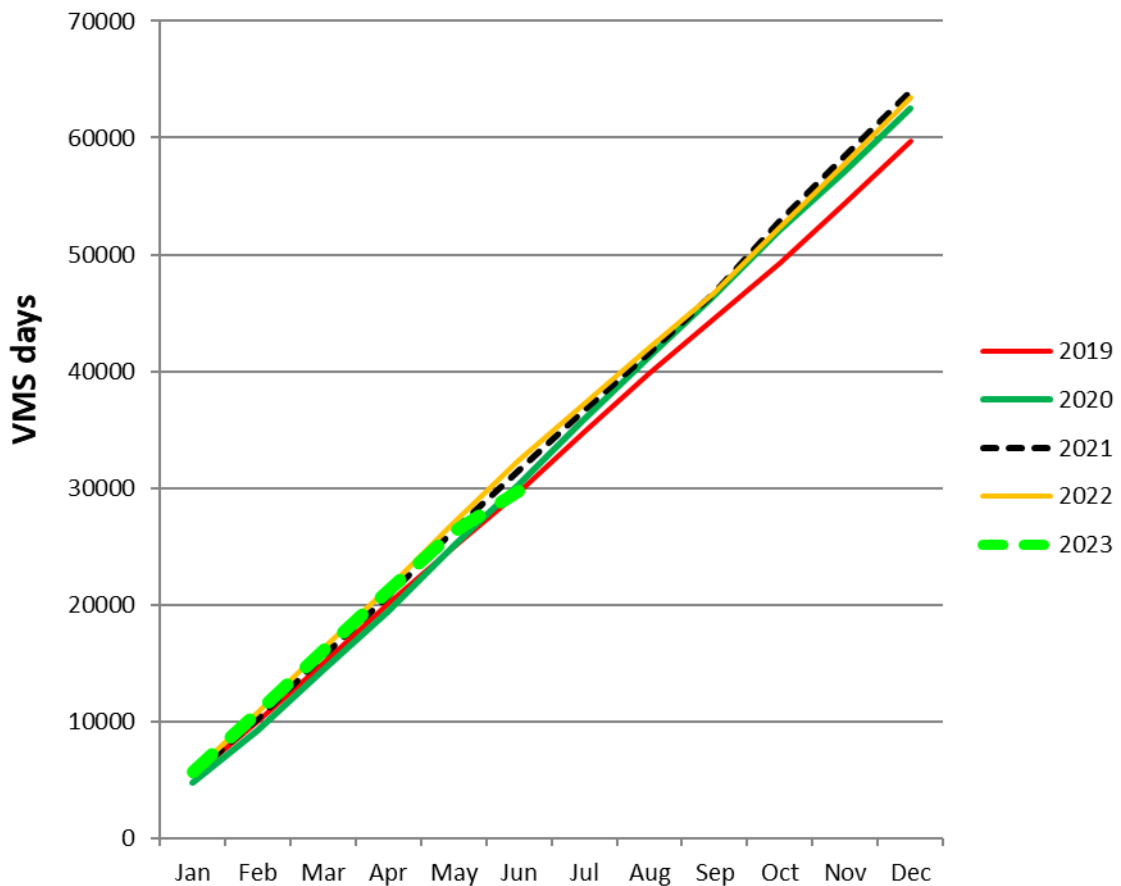
**Notes**

1. This table has been prepared considering the language of CMM 2016-01 paragraph 18 footnote 5 that states “The high seas FAD closure in paragraph 18 does not apply in 2017 to a CCM that has achieved a verifiable reduction in bigeye catches by its purse seine vessels to 55% from current levels (2010-2012), to be reviewed on the basis of the advice of the Scientific Committee. A CCM that has qualified for the above mentioned exemption shall maintain a verifiable reduction in bigeye catches by its purse seine vessels to 55% from the reference levels (2010-2012) also in the course of 2017.”
2. High seas FAD sets are sourced from operational logbook data noting that some data are provisional at this stage.
3. The sets presented in this Table exclude effort in the overlap area because it takes into account the WCPFC9 decision on the application of measures in the part of the WCPF Convention Area that overlaps with the IATTC Convention Area (WCPFC9 Summary Report paragraph 80). European Union is a WCPFC member who is also an IATTC member, notified WCPFC in April 2013, of their choice of IATTC measures in the overlap area. Given that Ecuador and El Salvador are members of IATTC, the rules of the RFMO of which it is a member apply in the overlap area between WCPFC and IATTC, even if the CCM is a cooperating non-member of the other RFMO.
4. At WCPFC13, the discussions confirmed that paragraph 18 measures would be implemented in 2017 and that the following fleets would have qualified for and would apply footnote 5 of CMM 2016-01: El Salvador, Ecuador, European Union, Republic of Marshall Islands, New Zealand, Solomon Islands, Tuvalu and Vanuatu.
5. Despite Note 4, WCPFC13 determined Ecuador’s participatory rights were zero days in the high seas of the Convention Area in 2017.
6. The measures that the Philippines will take are in Attachment C of CMM 2016-01. In 2017, the Philippines expended 2,696 days in the HSP1 during 2017 and no reported purse seine effort in any other high seas areas. These values do not include fishing in the HSP #1.
7. In addition to the FAD measures 2015 and 2016, except for those Kiribati flagged vessels fishing in the adjacent high seas, it shall be prohibited to set on FADs in the high seas, unless the Commission decides on other alternative measures at its 2014 or 2015 or 2016 annual meeting.



**Figure 1. Tuna catch estimates (mt) in the WCP-CA, by broad area, all gear types.**

Tuna species are (albacore, bigeye, skipjack and yellowfin. Areas are: Archipelagic waters (AWs), national waters (EEZs, excluded AWs) and the high seas for all gear types combined.



**Figure 2. Cumulative tropical purse seine days at sea by month, 2009-2023, as measured by VMS**  
(excludes days in port)

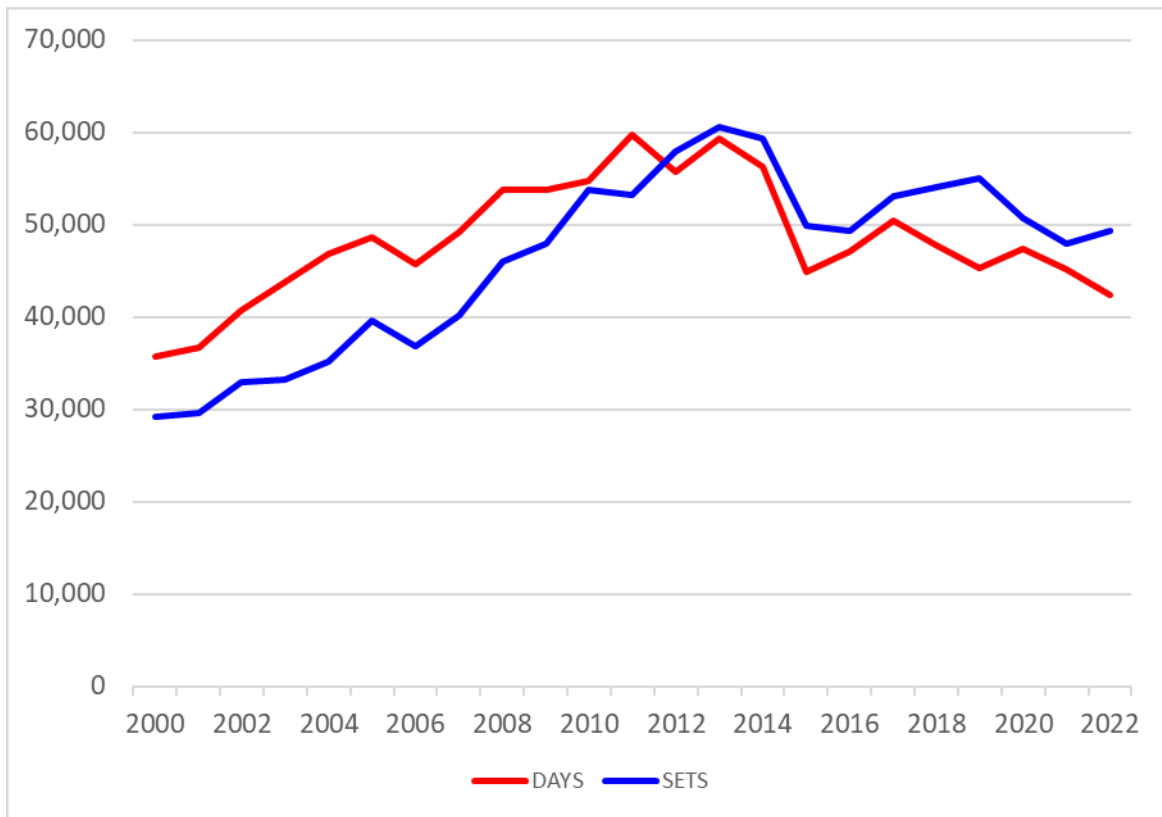


Figure 3. Annual trends in purse seine effort in the WCPFC Convention Area between 20°N and 20°S. “DAYS” – days fishing and searching. Excludes domestic purse seine effort in Philippines and Indonesia, but includes Philippine domestic-based effort in HSP#1. Estimates are based on raised logsheet data.

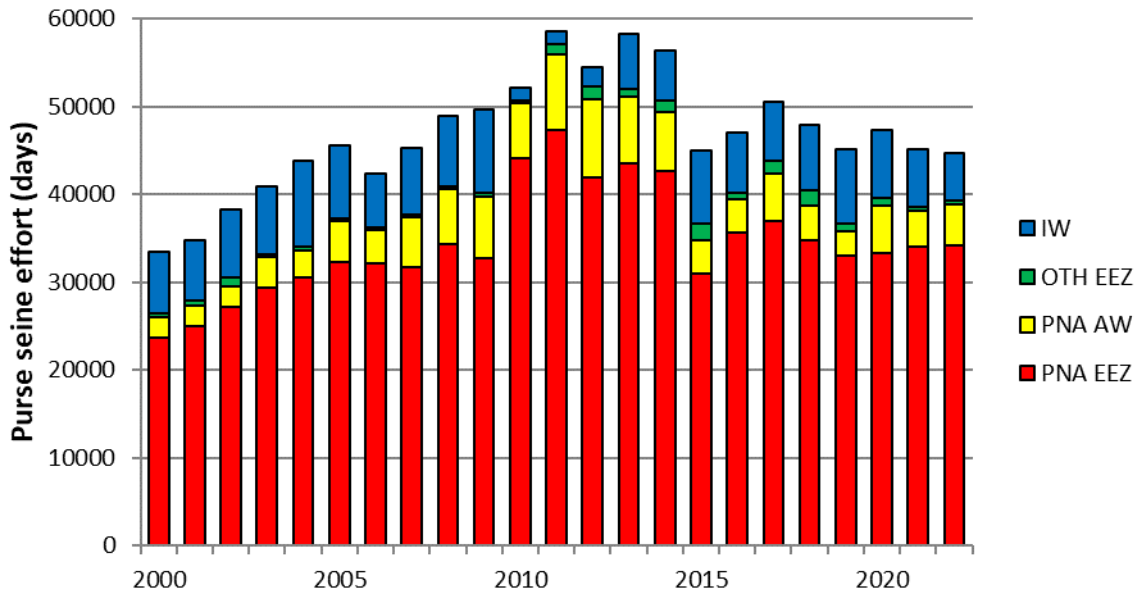


Figure 4. Purse seine effort (days fishing and searching) in the WCPFC Convention Area between 20°N and 20°S. Excludes domestic purse seine effort in Philippines and Indonesia. Estimates are based on raised logsheet data.

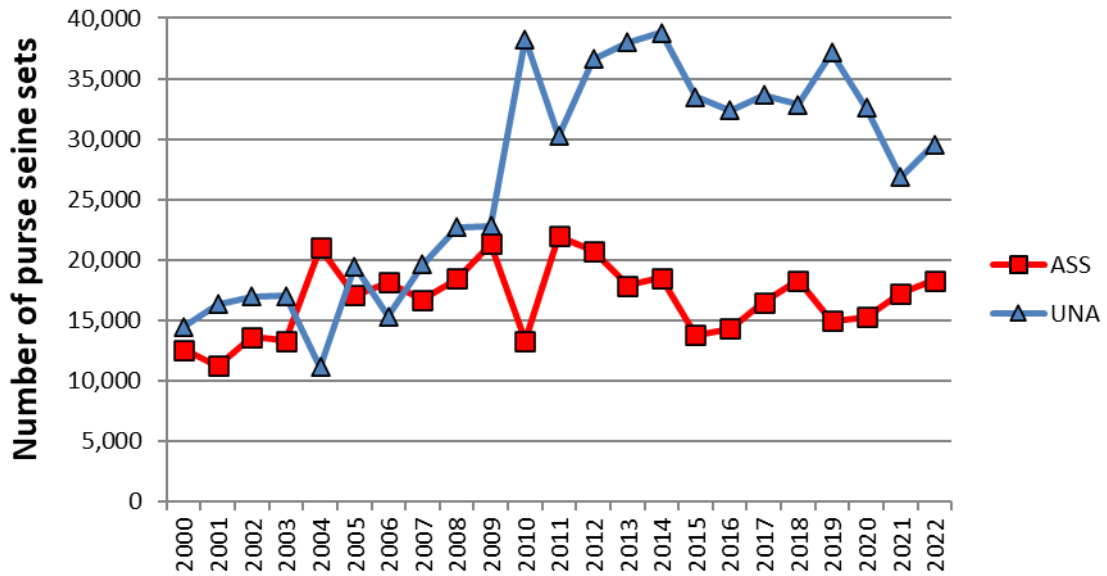


Figure 5. Sets by set type made in the WCPO tropical purse seine fishery, 2000 – 2022. Associated (ASS) and Unassociated (UNA) sets. Activities in the domestic purse seine fisheries of Indonesia and Philippines are excluded. Associated sets include animal-associated sets.

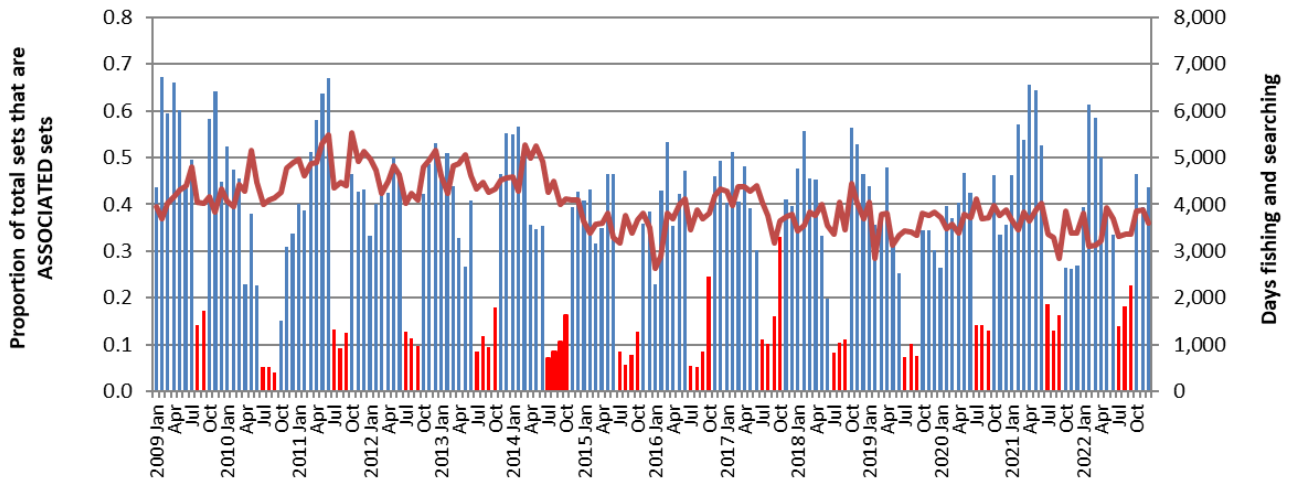


Figure 6. Proportion of the total purse seine fishing activity comprising associated sets.

As indicated by logsheet data.

Red bars indicate the FAD closure months. Total effort in days is shown by the plotted line. Activities in the domestic purse seine fisheries of Indonesia and Philippines are excluded.

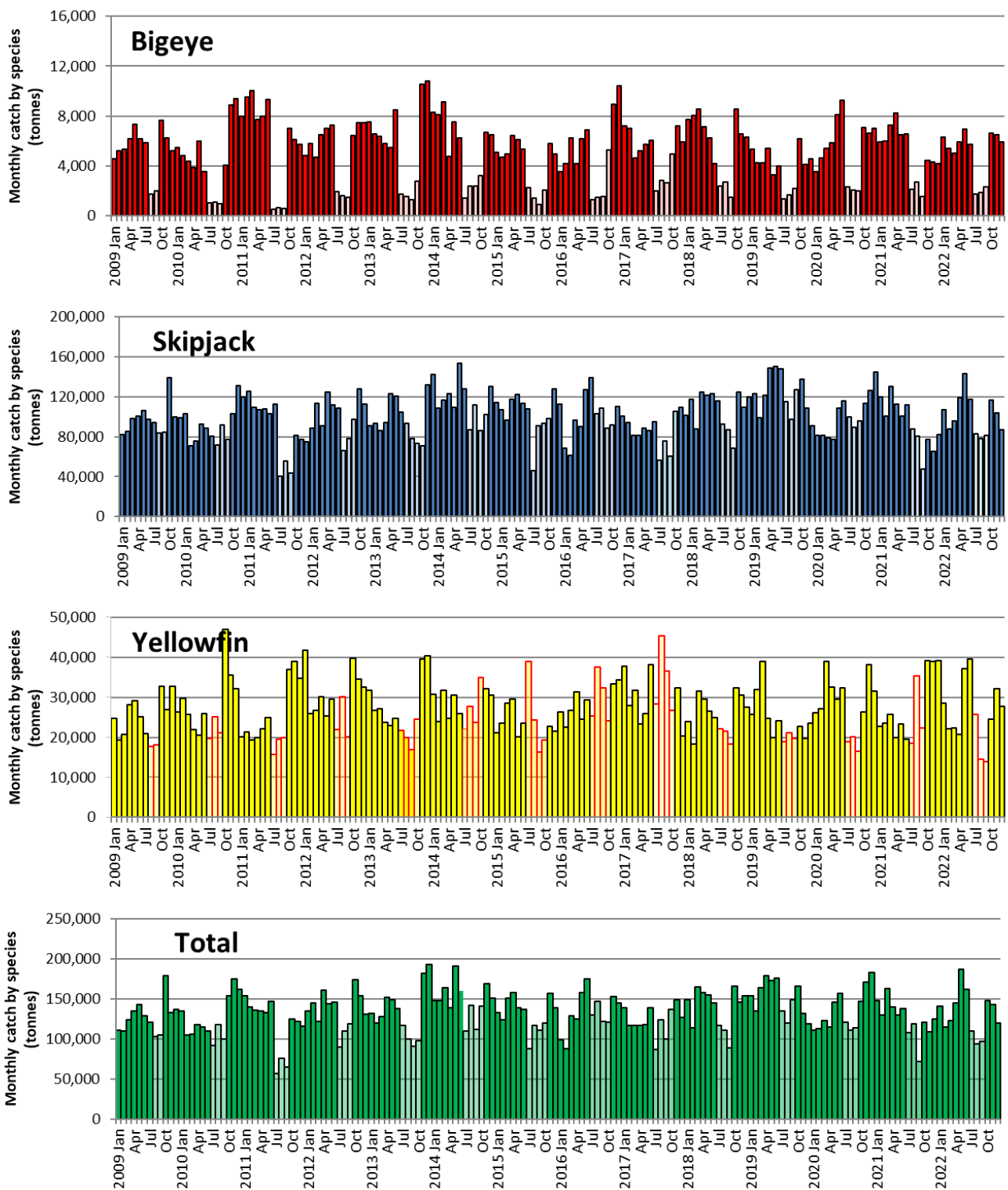
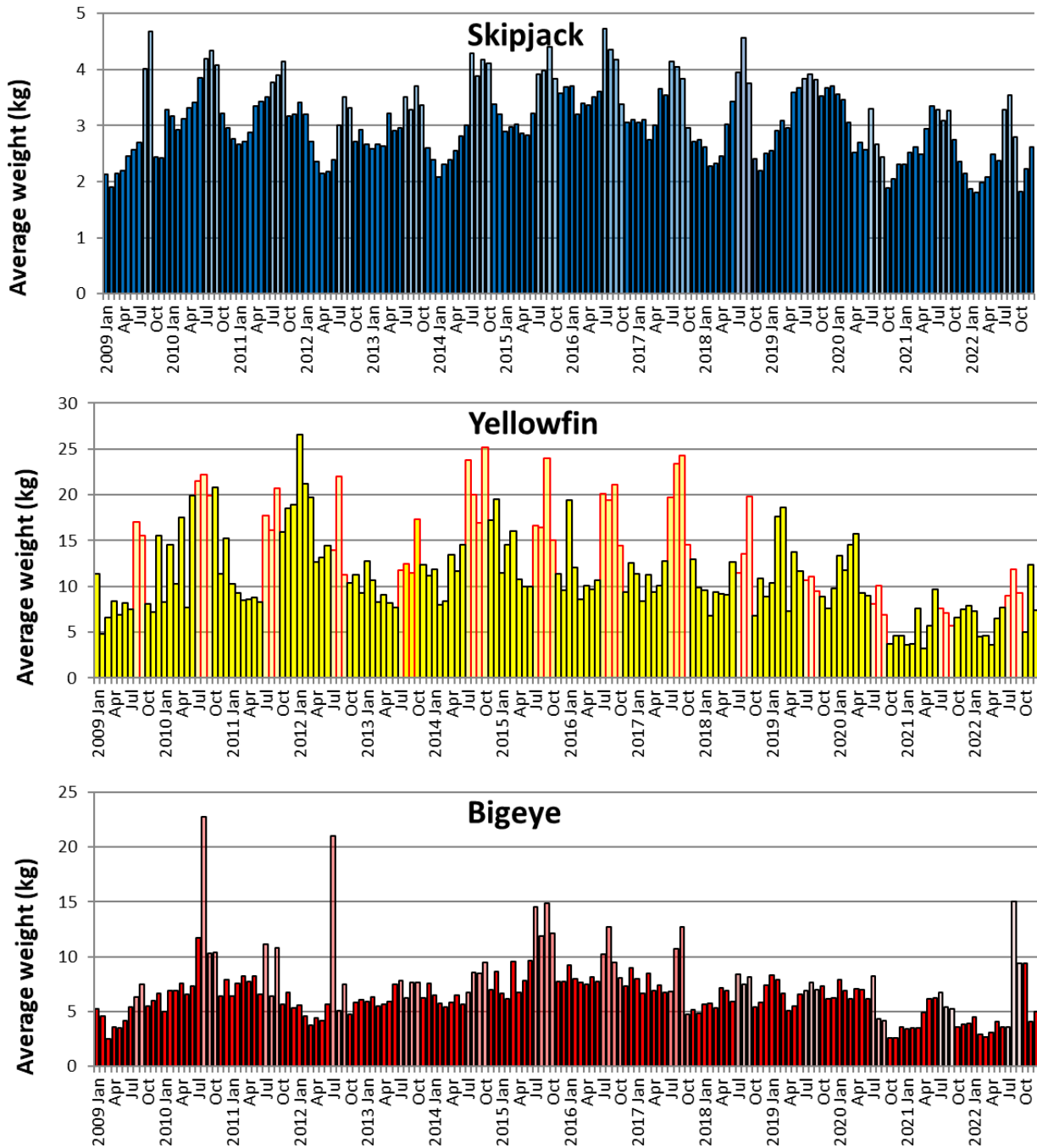


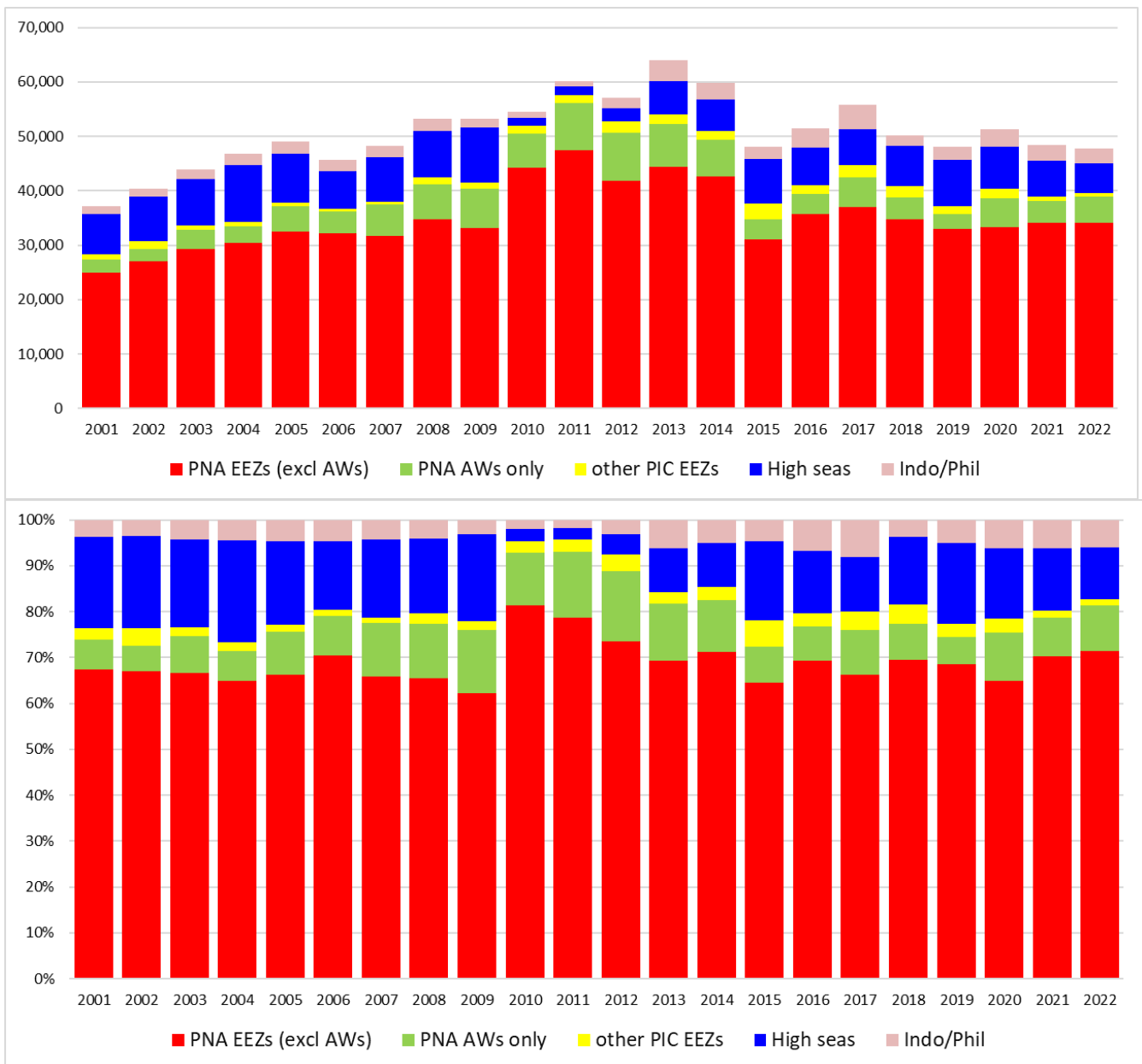
Figure 7. Monthly purse seine catch by species

(raised logsheet data with species composition adjusted using observer sampling with grab sample bias correction). FAD closure months are shaded in lighter colour. Data excludes the domestic fisheries of Indonesia and Philippines.



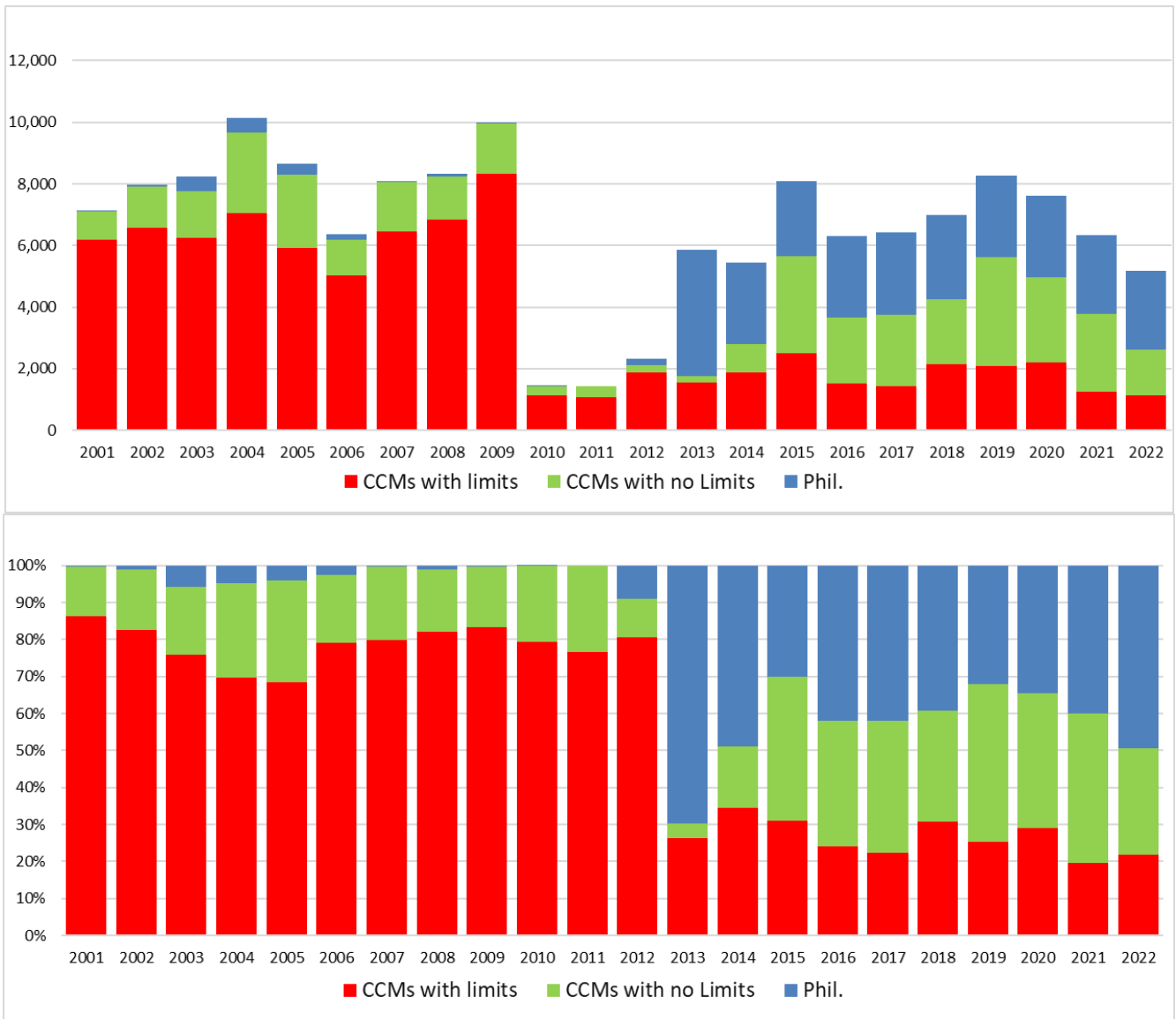
**Figure 8. Monthly average weight of bigeye, skipjack and yellowfin tuna.**

Estimated from observer sampling data, 2009-2022. FAD closure months are shaded in lighter colour. Data excludes the domestic fisheries of Indonesia and Philippines. Coverage of observer data in years 2020-2022 was approximately 50%, 20% and 15% respectively, due to the impacts of COVID-19 and biased to certain fleets only.



**Figure 9. Purse seine effort in waters under national jurisdiction (EEZs and AWs) and in high seas (20°N-20°S)**  
(days fished—top and percentage days fished—bottom)  
*(Refer to NOTES under TABLE 1 above)*

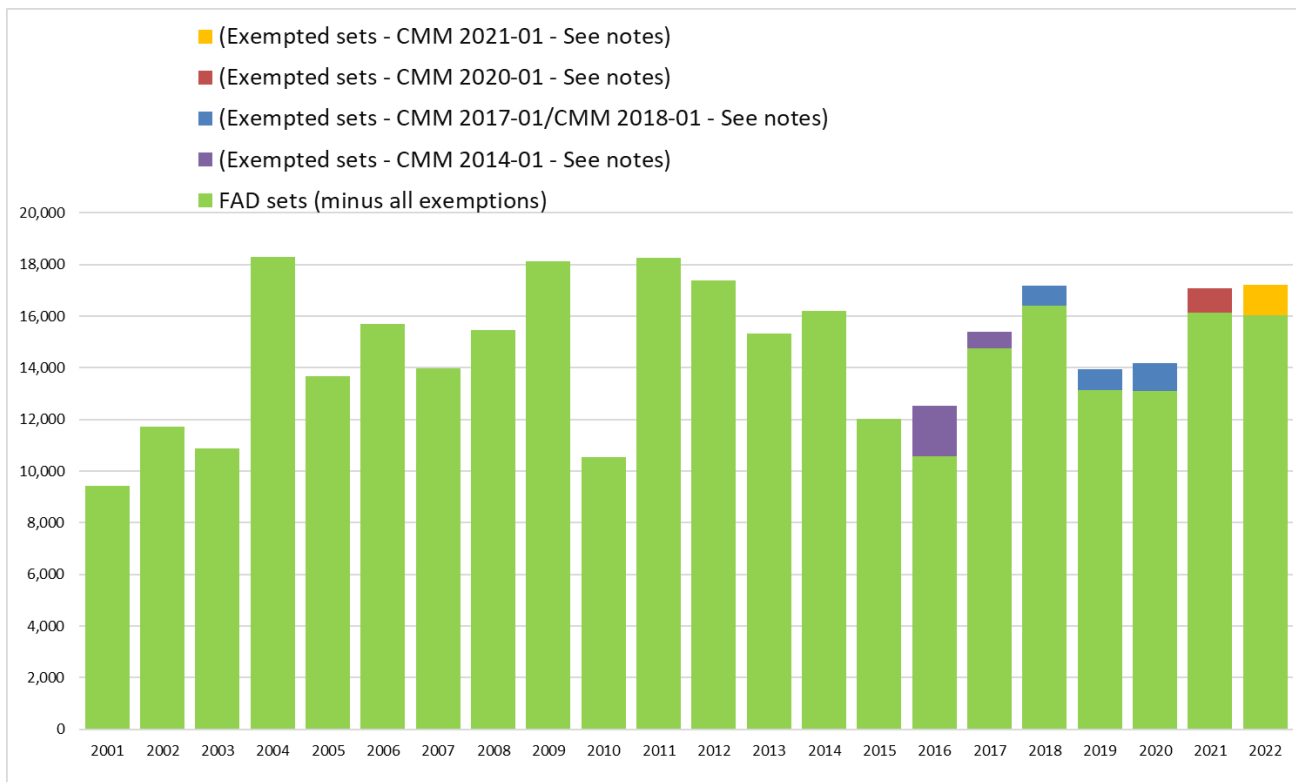




**Figure 10. Purse seine effort in high seas (20°N–20°S), by fleet category.**  
(days fished–top and percentage days fished–bottom)

*(Refer to NOTES under TABLE 2 above*

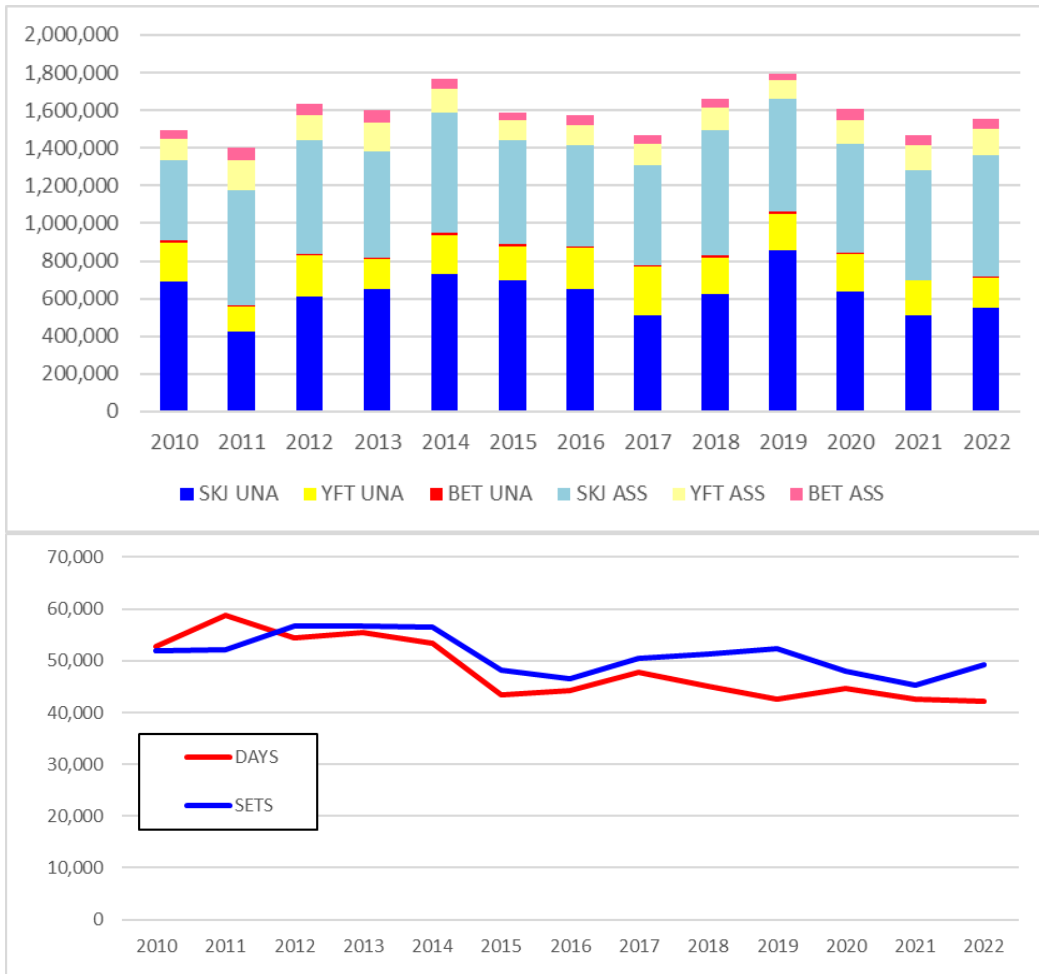
*“CCMs with no limits” are Pacific Island fleets fishing in high seas adjacent to their home waters;  
Philippines effort data prior to 2013 are not available or underreported)*



**Figure 11. Estimated FAD sets undertaken in the tropical purse seine fishery (20°N-20°S), by fleet category.**

*(Refer to NOTES under TABLE 3 above*

*“Exempted Sets” refers to the footnote 3 exemption of CMM 2014-01; refer to Notes 11, 12, 13 and 14, and CMM 2017-01 (footnote 2) and CMM 2018-01, CMM 2020-01 CMM 2021-01 (footnote 1) refer to Notes 15 of Table 3)*



**Figure 12. Purse seine tuna catch (top) and effort (bottom) by set type and species**  
 WCPFC Convention Area between 20°N and 20°S, 2010–2022, excluding domestic purse seine catch/effort in Philippines, Indonesia and Vietnam. Includes domestic-based Philippines catch/effort in the HSP#1.  
*(Refer to NOTES under TABLE 4 above)*

## 2. Longline fishery information

**Table 6. Reported longline catches metric tonnes of bigeye tuna in the WCPFC-CA, by flag.**

Table 6. Reported longline catches metric tonnes of bigeye tuna in the WCPFC-CA, by flag.

CCM	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	CMM limits for 2020	CMM limits for 2021	See Notes
AMERICAN SAMOA	75	196	242	227	134	181	218	132	249	487	1,263	1,502	389	318	557	658	1,409	851	1,545	1,586	428	1,565			4
AUSTRALIA	1,307	1,002	1,024	892	791	499	1,008	1,027	726	458	379	553	489	490	785	825	418	325	258	290	361	342			7
BELIZE	1,322	812	782	297	425	254	158	89	43	89	102	132	217	0	0	0	0	0	0	0	0	0			8
CHINA	2,227	2,312	8,965	11,748	7,520	13,378	10,535	10,798	15,289	13,924	11,139	11,324	10,671	9,370	8,210	8,195	7,023	8,695	8,644	7,403	5,493	5,667	8,724	8,724	10,11,16
COOK ISLANDS	1	56	204	394	220	166	238	292	217	319	925	1,624	208	184	151	183	298	197	124	97	83	75			4
EU-PORTUGAL	0	0	0	0	0	0	0	0	0	0	3	17	106	71	17	10	0	0	0	0	0	0			
EU-SPAIN	0	0	0	42	17	62	62	77	46	15	10	23	23	65	53	53	21	39	30	40	105	112			7
FSM	651	759	656	542	182	172	1,395	970	1,395	1,113	1,500	1,700	1,270	2,488	2,296	1,869	2,134	3,107	3,559	2,158	1,606	1,375			4
FIJI	662	853	889	1,254	721	771	556	671	768	539	1,718	1,588	1,018	1,698	1,184	1,396	1,108	891	1,182	736	482	426			4
FRENCH POLYNESIA	745	649	439	502	606	498	478	490	587	436	607	654	787	741	813	563	896	1,063	954	874	1,045	1,388			4
GUAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	831	932	0	0	0	0	0	0			
INDONESIA	942	1,470	2,168	2,192	2,285	2,750	2,155	3,395	4,067	1,937	2,325	3,399	2,118	3,380	3,606	8	0	1,255	2,190	1,129	1,243	1,243	5,889	5,889	12
JAPAN	27,466	29,574	26,110	29,248	23,021	25,685	26,076	20,942	17,653	16,619	17,722	16,917	12,991	15,564	14,316	11,467	11,471	12,005	10,639	8,862	8,415	6,068	17,765	17,765	16
KIRIBATI	0	0	1	0	0	0	0	44	0	3	155	800	582	268	556	603	287	423	1,292	1,570	625	2,707			4
MARSHALL ISLANDS	0	0	0	1	0	0	3	375	381	257	259	335	80	0	0	700	1,229	1,146	1,458	764	928	1,173			4
NAURU	6	3	10	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			4
NEW CALEDONIA	128	189	142	90	76	35	53	63	51	44	41	49	51	58	63	74	48	46	40	51	59	67			4
NEW ZEALAND	481	201	204	177	175	177	213	133	253	132	174	154	109	122	122	177	97	135	50	67	85	50			7
NIUE	0	0	0	0	10	22	35	51	10	4	0	0	0	0	0	0	0	0	0	0	0	0			4
NORTHERN MARIANAS	0	0	0	0	0	0	0	0	0	0	0	0	492	1,000	1,000	879	999	993	999	926	1,500	544			4
PALAU	21	1	1	7	0	0	0	0	0	0	0	0	0	0	0	0	1,106	1,011	855	1	0	1			4
PAPUA NEW GUINEA	240	318	390	399	237	216	111	201	128	39	59	119	32	52	15	86	47	87	162	17	0	179			4
PHILIPPINES	59	59	59	59	59	59	59	59	59	59	777	248	167	63	0	0	0	0	0	0	0	0			6,7
REPUBLIC OF KOREA	22,172	28,533	17,151	17,941	15,622	12,489	10,054	17,001	15,231	13,914	15,282	18,823	12,818	12,779	10,689	11,018	10,220	13,828	13,711	13,011	13,685	12,986	13,942	13,942	4
SAMOA	185	137	110	104	64	128	101	106	117	108	71	54	36	48	48	62	150	62	161	156	108	127			4
SENEGAL	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			4
SOLOMON ISLANDS	187	401	385	294	3	0	0	0	0	806	213	0	0	3,054	4,390	384	0	1,235	1,398	623	635	874			4,11
TONGA	191	215	94	40	125	117	129	81	38	24	18	10	7	22	25	27	24	34	16	10	15	24			4
TUVALU	0	0	0	0	0	0	0	0	0	0	105	1,408	120	76	187	103	111	64	53	9	23	3			4
CHINESE TAIPEI	12,435	16,645	14,429	20,992	15,498	14,295	14,760	15,229	13,319	11,874	11,275	10,994	10,600	10,018	9,434	9,488	9,672	9,069	8,876	7,152	7,330	9,560	10,481	10,481	11
USA	2,418	4,396	3,618	4,181	4,462	4,381	5,381	4,649	3,741	3,577	3,565	3,660	3,612	3,823	3,427	3,747	2,968	3,393	3,460	3,550	3,750	3,238	3,554	3,554	13, 15
VANUATU	37	396	841	2,045	2,045	1,815	1,885	1,143	1,398	2,060	2,061	2,151	1,989	3,518	7,366	3,509	3,940	3,132	2,241	2,216	3,039	2,068			4
WALLIS AND FUTUNA	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	0	0	0			4
<b>Total</b>	<b>73,958</b>	<b>89,177</b>	<b>78,914</b>	<b>93,668</b>	<b>74,298</b>	<b>78,153</b>	<b>75,665</b>	<b>78,018</b>	<b>75,766</b>	<b>68,837</b>	<b>71,754</b>	<b>78,238</b>	<b>60,982</b>	<b>69,270</b>	<b>70,141</b>	<b>57,016</b>	<b>55,676</b>	<b>63,086</b>	<b>63,897</b>	<b>53,298</b>	<b>51,043</b>	<b>51,862</b>	<b>60,355</b>	<b>60,355</b>	
VIETNAM	1,450	614	2,129	2,781	3,527	3,538	3,648	3,358	2,992	2,441	3,424	3,761	2,260	2,350	3,100	1,115	1,004	902	1,554	2,678	2,275	1526			9

**Notes:**

1. Source: WCPFC Annual catch estimates as at 2<sup>nd</sup> July 2023.
2. Catch estimates in **red** have been carried over from previous years.
3. Indonesia and Philippines may revise estimates for previous years. (see the respective Annual Catch Estimate Workshop reports at (<http://www.wcpfc.int/west-pacific-east-asia-oceanic-fisheries-management-project>))
4. The limits in the columns labelled "CMM limits for 2017" and "CMM limits for 2018" do not apply to small island developing State members and participating Territories according to paragraph 7 of CMM 2014-01 and CMM 2015-01 (or its replacement CMM).
5. Catches and effort of vessels operating under charters and similar arrangements have been attributed to host island states or territories in accordance with paragraph 5 of CMM 2012-01 and paragraph 5 CMM 2013-01 using the best information available to SPC-OFP. However, in several cases, catches have not yet been attributed to the CCM responsible for the "charter or similar arrangements" since the flag state CCM has yet to advise that it has excluded these catches from their data (and thereby avoid double-counting).
6. Estimates include archipelagic water catches which for some countries cannot be separated at this stage.
7. The catch limits established at 2,000t prior to 2010, remain at the level of 2,000t for relevant WCPFC members. (according to CMM 2008-01 Para. 32, CMM 2012-01 para 26 and CMM 2013-01 para 41 and its replacement CMM, including CMM 2017-01). Note although EU fleets are reported here separately by flag, it is understood that as per the relevant CMM the 2000 Mt limit applies to the combined EU-longline fleet.
8. Subject to CNM on participatory rights, in accordance with paragraph 6 of CMM 2014-01 and CMM 2015-01 (or its replacement CMM) for years from 2015 onwards.
9. The Vietnam longline fleet are understood to fish outside the WCPFC Convention Area (South China Sea).
10. Catches by the Chinese longline fleet in the Kiribati EEZ are included in the estimates.
11. Catches by chartered Chinese, Fijian and Chinese-Taipei flagged longline vessels licensed to fish in Solomon Islands waters have been attributed to the Solomon Islands according to the respective WCPFC Charter notifications.
12. Indonesia bigeye tuna catch excludes catches in Archipelagic waters.
13. USA revised limit for 2015 was 3504 t., to take into account the overage in bigeye catch from 2014
14. "CMM limits for 2017" is according to ATTACHMENT F in CMM 2016-01, and refer to catch limits for 2017 only, and "CMM limits for 2018" is according to Table 3 in CMM 2017-01 or its replacement measure.
15. USA advised by letter to the WCPFC Secretariat that they reduced their 2017 bigeye catch limit (of 3,345 Mt in Att F of CMM 2016-01) to 3,138Mt to offset the overage in 2016.
16. CMM 2017-01 Table 3 and CMM 2018-01, includes this note: Japan will make an annual one-off transfer of 500 metric tonnes of its bigeye tuna catch limit to China.

**Table 7. Reported longline catches (metric tonnes) of yellowfin tuna in the WCPFC-CA, by flag.**

Table 7. Reported longline catches (metric tonnes) of yellowfin tuna in the WCPFC-CA, by flag.

CCM	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	Av. 2001- 2004	See Notes	
AMERICAN SAMOA	188	485	497	888	526	513	640	333	398	473	699	620	422	454	360	561	871	470	409	383	521	332	515	(4)	
AUSTRALIA	2,819	3,531	3,681	2,356	1,499	1,830	1,390	1,650	1,387	1,359	1,858	1,259	1,341	1,685	2,177	1,734	1,666	1,312	1,951	1,749	1,449	1,454	3,097	(4)	
BELIZE	957	720	943	208	298	106	273	129	121	28	13	30	21	0	0	0	0	0	0	0	0	0	707	(6)	
CHINA	1,919	1,844	3,358	4,048	2,446	4,055	2,768	5,007	7,958	2,576	4,598	6,004	4,638	5,949	6,226	6,559	8,526	9,031	10,010	10,115	9,530	9,560	2,792	(9), (10)	
COOK ISLANDS	1	42	178	506	413	262	290	247	197	192	394	693	346	504	339	315	610	532	403	362	309	209	182	(4)	
EU-PORTUGAL	0	0	0	0	0	0	0	0	0	0	0	2	22	4	6	0	0	0	0	0	0	0	0	0	(13)
EU-SPAIN	0	0	0	23	1	127	127	10	7	3	0	2	2	11	10	28	7	13	20	33	40	42	6	(13)	
FSM	338	164	276	185	99	270	548	328	583	515	750	750	850	1,639	1,691	1,771	1,416	2,395	4,692	2,010	1,729	1,915	241	(4)	
FIJI	2,082	2,027	2,482	4,164	2,591	2,231	1,721	2,763	3,440	2,602	4,051	3,188	2,203	4,343	3,647	4,701	4,986	2,738	3,833	4,564	2,662	2,127	2,689	(4)	
FRENCH POLYNESIA	967	507	621	1,066	793	690	527	447	716	418	491	758	615	783	1,093	968	1,434	1,314	1,364	1,135	2,350	1,373	790	(4)	
GUAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(4)	
INDONESIA	4,001	6,243	9,209	9,313	10,679	9,743	10,209	12,873	18,154	13,325	13,124	11,938	9,012	13,353	18,604	5,632	120	7,707	4,382	427	682	682	7,192	(12)	
JAPAN	18,096	15,810	16,803	15,209	14,792	13,462	13,725	12,365	14,039	17,466	11,427	10,621	8,268	6,494	8,683	10,166	10,099	10,109	10,940	6,070	7,907	7,060	16,480	(4)	
KIRIBATI	2	0	2	0	0	0	0	7	0	4	140	300	175	108	405	610	359	220	862	1,279	904	2,535	1	(4)	
MARSHALL ISLANDS	0	0	0	3	0	0	2	91	120	117	99	113	47	0	0	578	948	707	1,175	743	634	964	1	(4)	
NAURU	5	2	6	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	(4)	
NEW CALEDONIA	570	572	754	631	448	414	393	424	487	505	585	573	531	741	852	482	559	467	678	512	624	588	632	(4)	
NEW ZEALAND	131	27	39	36	36	3	25	11	3	6	3	1	1	2	2	55	10	20	5	10	22	7	58	(4)	
NIUE	0	0	0	0	34	42	43	40	20	8	0	0	0	0	0	0	0	0	0	0	0	0	0	(4)	
NORTHERN MARIANAS	0	0	0	0	0	0	0	0	0	0	0	0	93	0	0	0	0	0	0	0	0	0	0	(4)	
PALAU	41	3	19	28	0	0	0	0	0	0	0	0	0	0	0	0	1,352	1,887	1,644	0	0	5	23	(4)	
PAPUA NEW GUINEA	1,812	1,738	1,747	2,318	1,222	2,139	1,539	2,259	2,714	2,147	2,303	2,961	1,041	1,568	891	728	1,249	2,070	1,479	116	0	1,779	1,904	(4)	
PHILIPPINES	484	484	484	484	484	484	484	484	484	484	146	61	27	153	0	0	0	0	0	0	0	0	0	484	(5)
REPUBLIC OF KOREA	13,768	15,497	12,134	10,058	13,329	9,529	8,817	7,846	10,032	7,644	7,881	7,832	5,716	8,371	9,352	8,054	7,008	6,519	13,847	10,948	10,340	11,516	12,864	(4)	
SAMOA	470	369	293	444	199	264	305	317	412	386	395	234	330	231	252	244	644	401	547	642	384	370	394	(4)	
SENEGAL	0	0	0	0	6	3	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	(7)	
SOLOMON ISLANDS	159	401	258	440	6	0	0	0	0	5,159	643	0	0	12,536	15,923	2,130	0	4,451	5,094	2,732	3,288	5,470	315	(4), (10)	
TONGA	259	263	263	163	219	227	341	291	109	47	171	140	126	195	297	325	373	201	186	156	208	215	237	(4)	
TUVALU	0	0	0	0	0	0	0	0	0	0	286	453	114	41	166	124	164	106	76	16	9	0	0	(4)	
CHINESE TAIPEI	22,326	21,993	22,149	22,975	19,571	18,654	16,668	16,411	19,693	22,225	21,320	16,948	14,999	12,257	14,118	17,816	22,956	16,050	17,724	10,212	11,306	15,469	22,361	(10)	
USA	1,016	572	809	694	698	937	833	836	429	462	738	576	546	567	681	1,093	1,750	1,868	1,556	1,197	2,029	1,969	773	(4)	
VANUATU	78	778	1,315	1,762	1,147	1,368	1,049	878	817	939	1,601	2,230	1,768	1,695	2,700	1,740	1,437	1,269	1,325	849	901	570	983	(4)	
WALLIS AND FUTUNA	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	0	0	(4)	
<b>Total</b>	<b>72,489</b>	<b>74,072</b>	<b>78,320</b>	<b>78,003</b>	<b>71,536</b>	<b>67,353</b>	<b>62,721</b>	<b>66,047</b>	<b>82,320</b>	<b>79,090</b>	<b>73,720</b>	<b>68,285</b>	<b>53,234</b>	<b>73,702</b>	<b>88,473</b>	<b>66,420</b>	<b>68,544</b>	<b>71,857</b>	<b>84,202</b>	<b>56,260</b>	<b>57,828</b>	<b>66,211</b>	<b>75,721</b>		
VIETNAM	8,292	9,756	8,179	11,122	10,895	10,930	11,270	10,375	9,244	9,513	10,576	12,456	13,917	11,603	15,097	16,423	15,677	16,500	14,653	14,118	13,822	14,102		(8)	

**Notes:**

1. Source: WCPFC Annual catch estimates as at 2<sup>nd</sup> July 2023.
2. Catch estimates in **red** have been carried over from previous years.
3. Indonesia and Philippines may revise their estimates for recent years through their annual catch estimates review processes. (see the respective Annual Catch Estimate Workshop reports at <http://www.wcpfc.int/west-pacific-east-asia-oceanic-fisheries-management-project>)
4. Catches and effort of vessels operating under charters and similar arrangements have been attributed to host island states or territories in accordance with paragraph 2 of CMM 2008-01 (paragraph 5 of CMM 2012-01, paragraph 5 of CMM 2013-01 or its replacement CMM) using the best information available to SPC-OFP. However, in several cases, catches have not yet been attributed to the CCM responsible for the "charter or similar arrangements" since the flag state CCM has yet to advise that it has excluded these catches from their data (and thereby avoid double-counting).
5. Estimates include archipelagic water catches which for some countries cannot be separated at this stage.
6. Subject to CNM on participatory rights, in accordance with paragraph 6 of CMM 2014-01 (or its replacement CMM) for years from 2015 onwards. Belize is not presently a CNM.
7. Senegal committed to limiting its fishing activities in the WCPF Convention Area to one longline vessel - WCPFC5 Report (Para. 44). Senegal is not presently a CNM.
8. The Vietnam longline fleet are understood to fish outside the WCPFC Convention Area (South China Sea).
9. Catches by the Chinese longline fleet in the Kiribati EEZ are included in the estimates.
10. Catches by chartered Chinese and Chinese-Taipei flagged longline vessels licensed to fish in Solomon Islands waters have been attributed to the Solomon Islands according to the respective WCPFC Charter notifications.
11. Does not yet cover development of new fisheries in the waters of small-island developing states (e.g. Tokelau)
12. Indonesia yellowfin tuna catch excludes catches in Archipelagic waters.
13. Note although EU fleets are reported here separately by flag, it is understood that as per the relevant CMM the 2000 Mt limit applies to the combined EU-longline fleet.

**Table 8. Longline effort (100s of hooks) in the tropical WCPFC LONGLINE fishery (20°N-10°S), by fleet.**

FLEET	LONGLINE EFFORT (100s of Hooks)												
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
CK	13,422	16,809	32,818	16,880	10,880	11,761	25,750	20,672	21,581	19,474	18,852	14,270	11,726
CN	558,006	741,473	838,710	653,128	554,203	856,023	643,894	490,233	808,126	594,763	550,941	489,006	390,152
FJ	27,971	91,025	167,297	135,836	128,960	83,827	85,898	45,608	30,099	73,637	43,301	17,898	17,326
FM	84,884	94,564	110,591	85,598	123,995	149,576	165,600	167,500	361,852	327,119	247,747	179,475	129,957
JP	591,056	544,105	513,557	453,786	393,618	347,416	279,927	286,586	306,046	298,314	187,536	196,509	186,408
KI	0	19,487	50,227	27,577	23,868	38,218	55,215	45,625	40,604	73,402	110,146	69,499	195,144
KR	728,939	803,720	771,103	626,874	603,157	506,797	586,401	473,107	568,295	591,485	547,711	542,246	562,991
MH	16,828	16,763	20,679	6,286	0	585	63,220	138,797	104,151	95,894	79,962	72,424	100,071
PF	0	242	147	246	437	18	1,138	13,321	5,179	3,656	1,456	11,407	11,598
PG	24,589	51,692	40,188	14,849	19,232	7,883	4,492	2,789	35,323	30,864	2,473	0	0
PW	0	0	0	0	0	0	626	86,598	107,145	92,140	57	0	208
SB	65,235	12,757	5,497	3,942	421,448	370,855	24,030	18,036	209,644	204,151	90,786	112,387	150,250
TV	3,436	26,925	69,189	16,219	16,809	18,844	12,927	15,818	12,376	8,007	1,305	1,692	30
TW	1,116,368	1,542,611	1,710,738	1,237,662	1,031,881	1,207,708	1,291,770	1,385,543	1,054,992	1,111,503	755,975	884,948	1,095,264
US	127,121	135,232	152,740	128,813	147,964	181,519	240,469	217,903	165,374	323,727	285,557	371,621	422,322
VU	78,908	92,148	134,225	196,387	138,961	313,642	213,255	138,818	120,477	112,208	75,431	44,806	67,285
	3,436,764	4,189,554	4,617,707	3,604,082	3,615,413	4,094,672	3,694,610	3,546,955	3,951,263	3,960,342	2,999,237	3,008,190	3,340,730

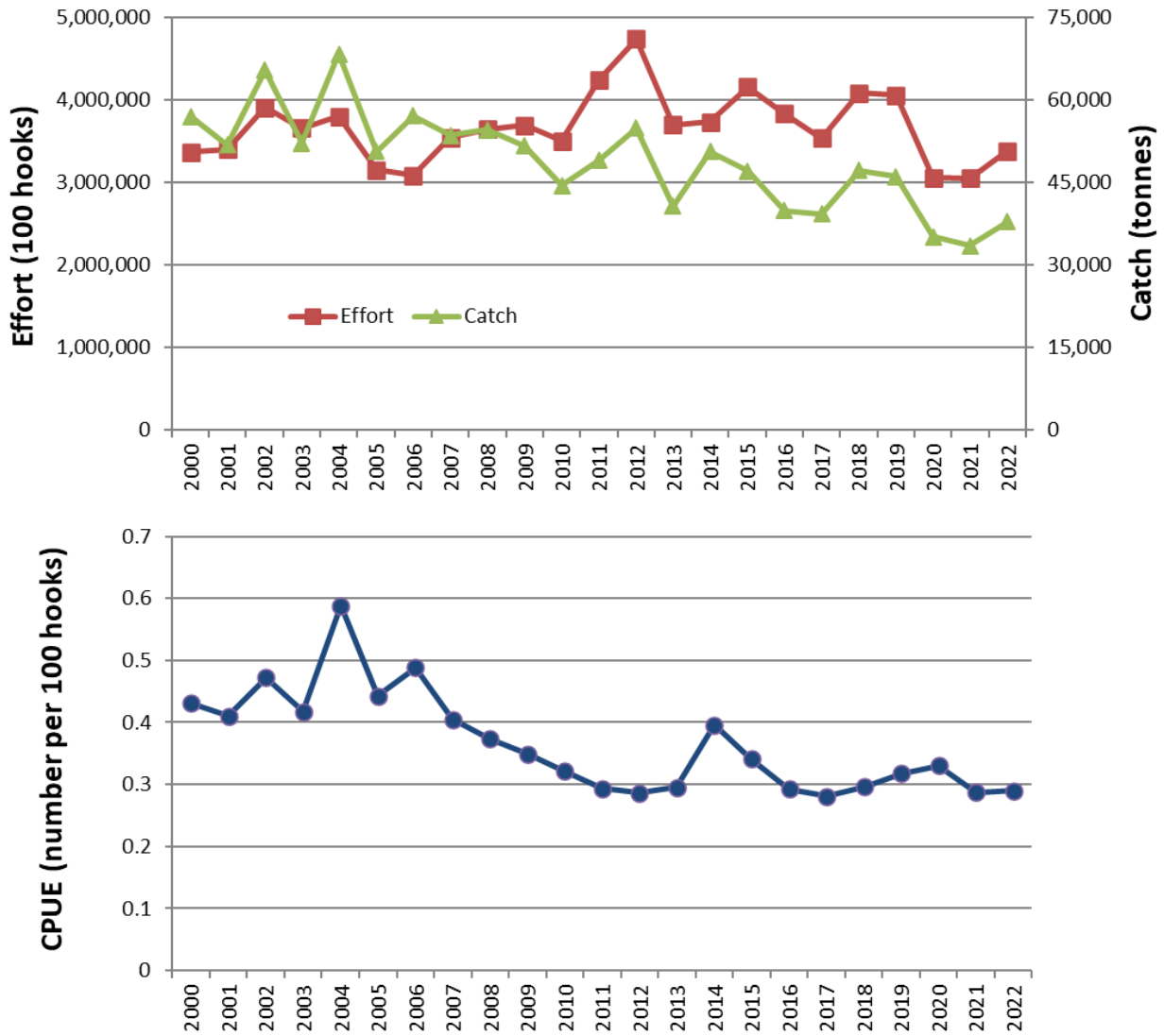
**Notes:**

1. Estimates are based on available aggregate data for the WCPFC Area, 20°N-10°S.
2. Estimates exclude domestic longline effort for Philippines, Indonesia and Vietnam fleets.
3. Excluding vessels targeting South Pacific Albacore is not possible at this stage for a number of reasons – the main reason being the lack of operational data. In the absence of complete operational data (which would include targeting information), the area 20°N-10°S has been selected as the area which best minimises both South and North Pacific albacore targeting.

**Fleet Codes**

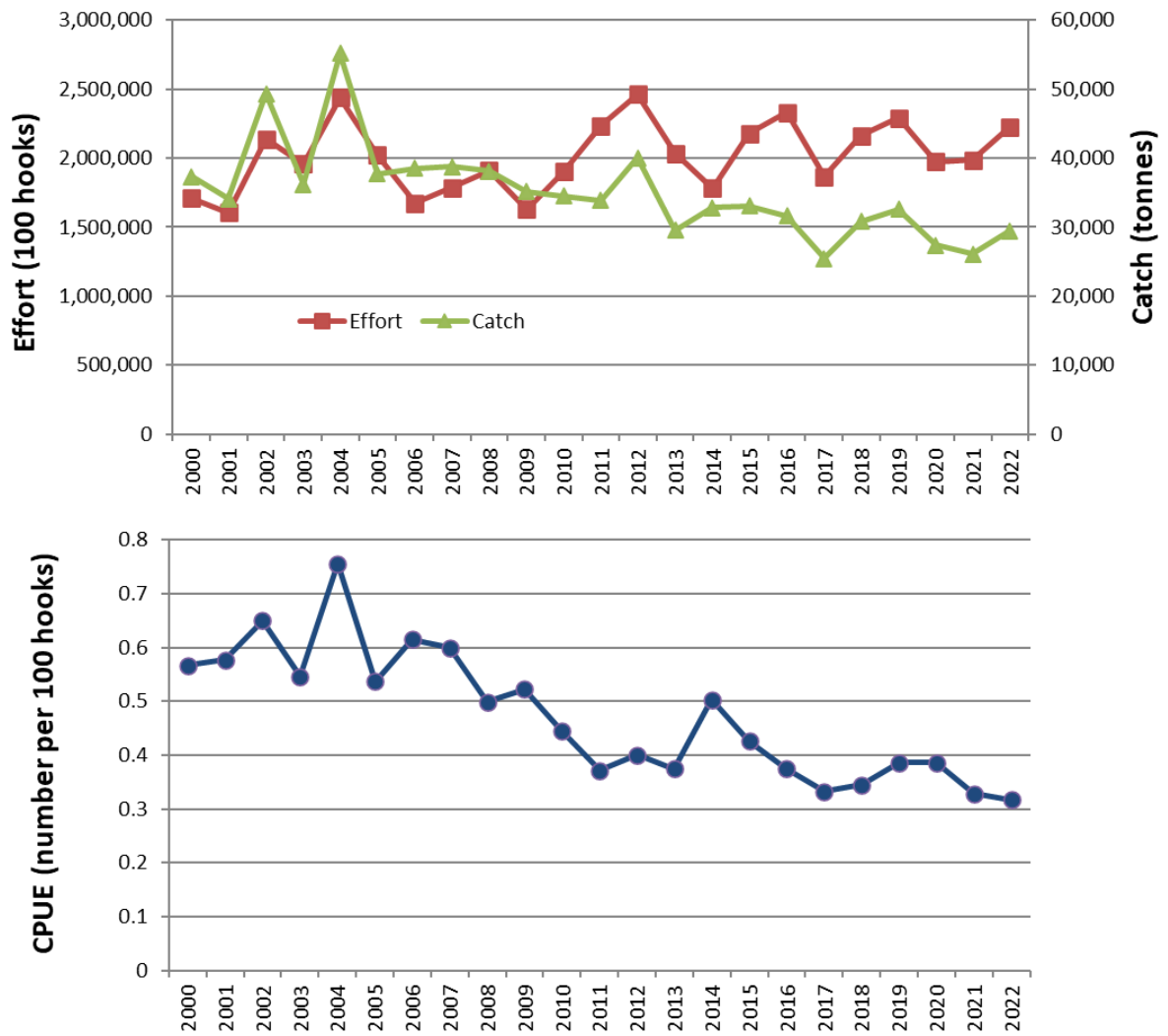
CK	- Cook Islands
CN	- China
FJ	- Fiji
FM	- FSM
JP	- Japan
KI	- Kiribati
KR	- Korea
MH	- Marshall Is.
PF	- French Polynesia
PG	- PNG
PW	- Palau
SB	- Solomon Is.
TV	- Tuvalu
TW	- Chinese Taipei
US	- USA
VU	- Vanuatu





**Figure 13. Estimates of effort, bigeye catch and nominal CPUE for the CORE tropical WCPFC longline fishery**

**CORE Area is (130°E - 150°W, 20°N - 10°S).**  
 2022 data are provisional.



**Figure 14. Estimates of effort, bigeye catch and nominal CPUE for the EASTERN tropical WCPFC longline fishery**

**Eastern Area is (170°E - 150°W, 20°N - 10°S).**  
 2022 data are provisional.

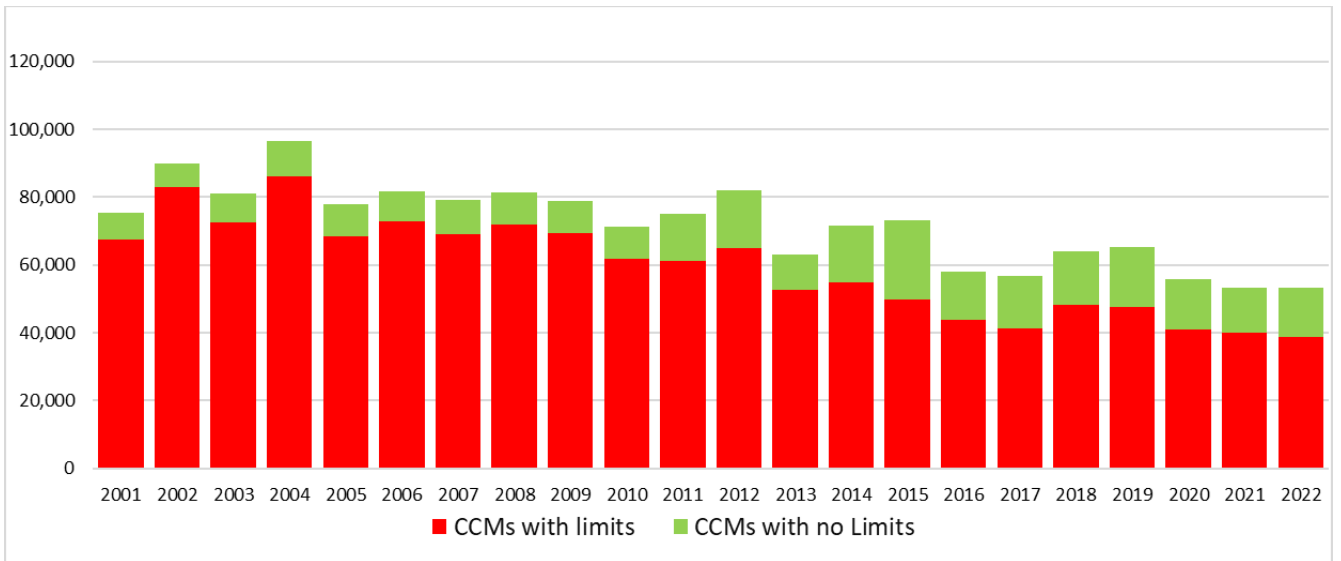


Figure 15. Reported longline catches (metric tonnes) of bigeye tuna in the WCPFC-CA, by fleet category.

*(Refer to NOTES under TABLE 6 above;  
Vietnam catch is included in "CCMs with no limits")*

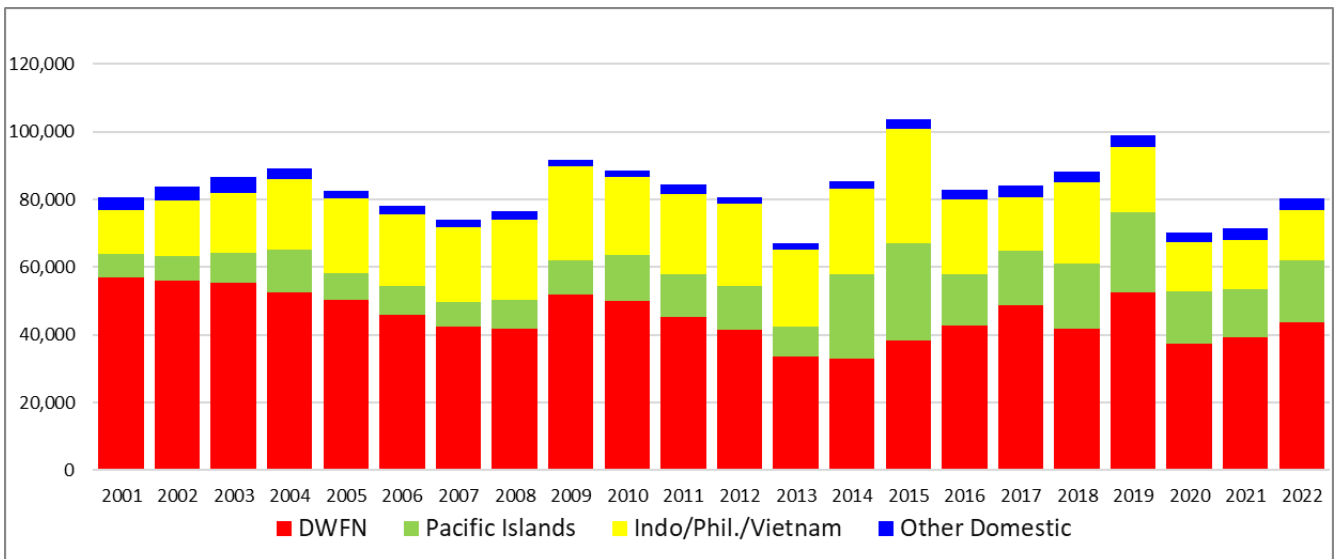
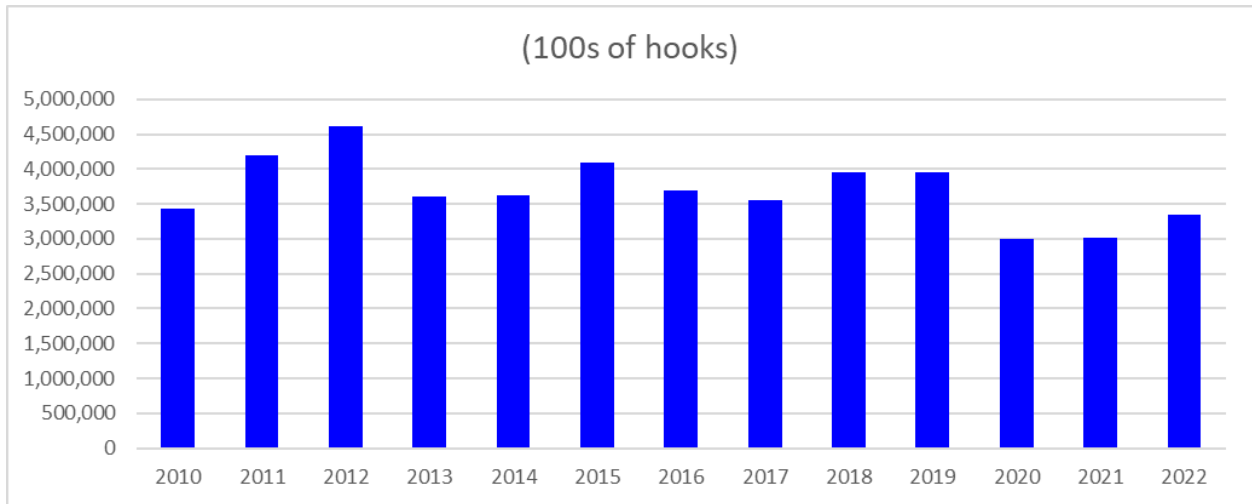


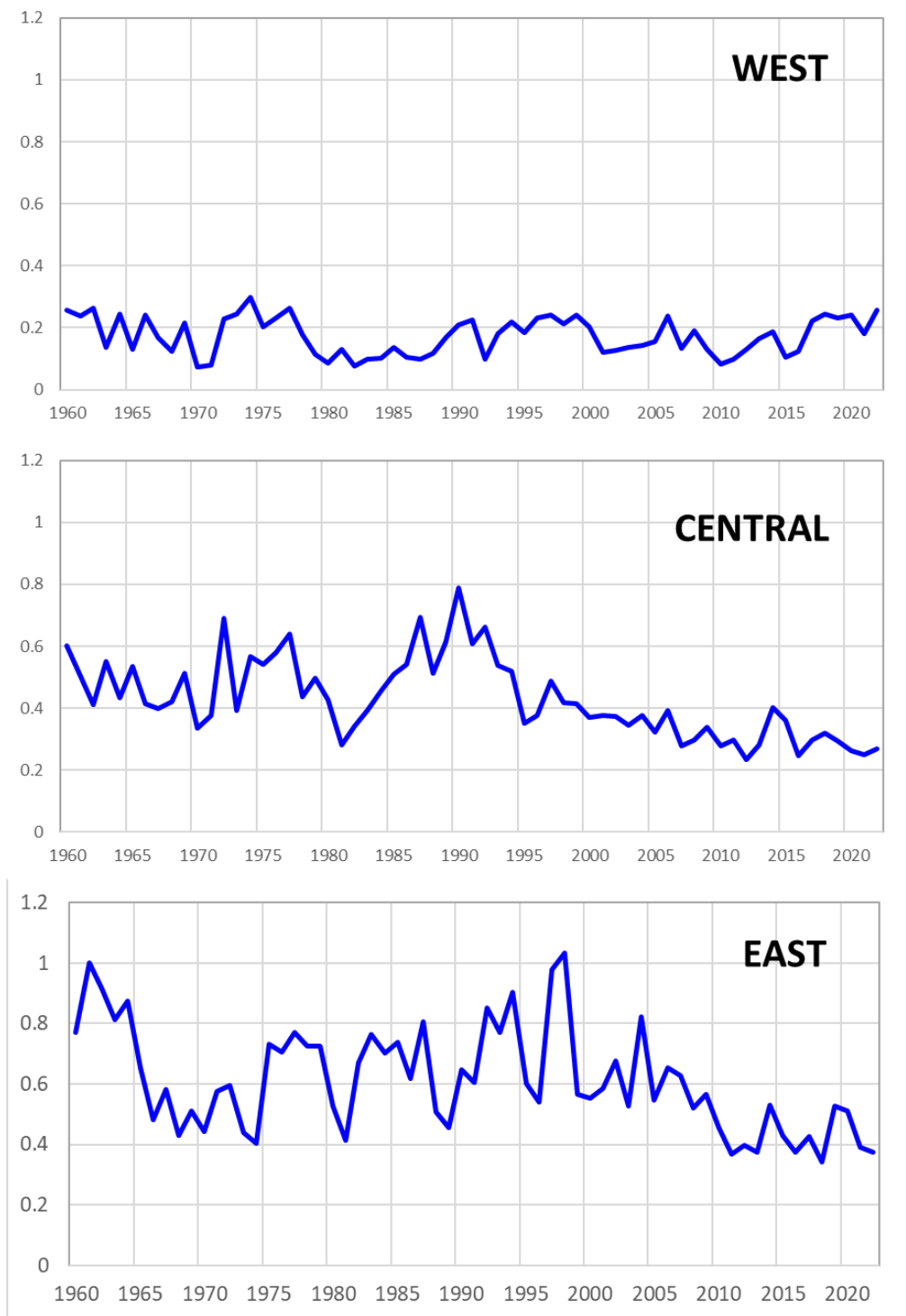
Figure 16. Reported longline catches (metric tonnes) of yellowfin tuna in the WCPFC-CA, by fleet category.

*(Refer to NOTES under TABLE 7 above;  
Vietnam catch is included)*



**Figure 17. Longline effort (100s of hooks) in the tropical WCPFC LONGLINE fishery (20°N-10°S), 2010-2022.**

*(Refer to NOTES under TABLE 8 above)*



**Figure 18. Annual trends in nominal bigeye tuna CPUE in the tropical WCPFC LONGLINE fishery (20°N-10°S)**

**CPUE in number per 100 hooks**

**By assessment region**

- “WEST” – Assessment Region 7: 10°S–20°N, 110°–140°E
- “CENTRAL” – Assessment Region 3: 10°S–10°N, 130°–170°E
- “EAST” – Assessment Region 4: 10°S–10°N, 170°E–150°W

### 3. Other Commercial fisheries information

**Table 9. Tropical tuna catch estimates for OTHER FISHERIES relevant to the tropical tuna measure**

**Table 9. Total tropical tuna catch estimates for OTHER COMMERCIAL FISHERIES (excl. Purse seine and Longline) in the WCPFC Statistical Area, relevant to CMM 2018-01.**

GEAR	FLAG	Total Catch (MT)			Area Note	Availability of EFFORT data	See NOTE
		CMM 2021-01 limit	2022	Evaluation			
HANDLINE	INDONESIA	...	...	...	<i>Within EEZ only, excluding AWs</i>	NO	5
HANDLINE (LARGE-FISH)	PHILIPPINES	13,343	856	Within Limit	<i>Within EEZ only, excluding AWs</i>	NO	6
POLE-AND-LINE	INDONESIA	41,025	8,125	Within Limit	<i>Within EEZ only, excluding AWs</i>	NO	7
POLE-AND-LINE	JAPAN	114,573	60,288	Within Limit		YES	2, 4

**Notes:**

- Source: Annual catch estimates; Philippines National Stock Assessment Project (NSAP data); Aggregate logsheet data. 2022 data are provisional.
- The column labeled "CMM 2020-01" is the maximum value of either (i) the average total skipjack, yellowfin and bigeye tuna catch for 2001-2004, or (ii) 2004.
- The definition for "Commercial" fisheries, at this stage, includes all fisheries other than purse seine and longline fisheries, until otherwise advised. (Refer to Table 6b.).
- Advice from Japan -- "Paragraph 9 of CMM 2012-01 provides that this measure applies to all areas of high seas and EEZs in the Convention Area. Therefore, this paragraph does not apply to troll fishery, which operate within territorial sea.
  - Regarding pole-and-line fishery and purse seine north of 20N fishery JFA ensure that the total effort and capacity of these tuna fisheries shall not exceed the average level for the period 2001-2004 or 2004 under its licensing system.
  - Therefore JFA consider fulfilling this requirement.
  - JFA submits following information of pole-and-line fishery and purse seine north of 20N fishery as attached. On the other hand JFA does not agree with the Secretariat view to consider non provision of these data as a potential compliance issue because it is not required under this paragraph.  
Effort data (2001-2004 average, 2004 and 2013)  
Catch data (2001-2004 average, 2004 and 2013)"
- Indonesia has advised that HANDLINE (hook-and-line) vessels that target small-fish at the surface should not be considered in the "Commercial" category since they are artisanal/subsistence fisheries. However, Indonesia can only provide a catch estimate for the combined small-fish (artisanal) and large fish handline fishery and it is not yet possible to differentiate the large-fish handline catch estimate from this combined total. Also, it is not yet possible to separate out the catches of what might be considered the 'commercial component' of the Handline fishery that are relevant to the tropical tuna measure - that is Indonesian waters outside Archipelagic waters (AWs) and Territorial Seas (TS).
- The large-fish handline catch for the Philippines outside of archipelagic waters and territorial seas has been determined from the proportion of annual tuna catch outside AWs/TS from data collected from Philippines National Stock Assessment Project (NSAP data : 1997-2022), and specifically based on landings by Philippines Fisheries Management Area (FMAs) and Fishing Ground. There is often considerable inter-annual variation in the activity of this fleet inside and outside archipelagic waters, mainly depending on weather and sea conditions.
- The 2022 catch estimate for the Indonesia pole-and-line fishery is provisional.

**Table 10. Tropical tuna catch estimates for OTHER FISHERIES deemed exempt from the tropical tuna measure**

(excl. Purse seine and Longline in the WCPFC Statistical Area)

GEAR	FLAG	Tuna catch (MT)		Reason for exemption
		2022	Average 2017-2022	
GILLNET	JAPAN	113	96	Less than 2,000 t.
GILLNET	VIETNAM	18,059	27,891	Outside of the WCPFC Convention Area
HANDLINE (LARGE-FISH)	UNITED STATES OF AMERICA	611	478	Less than 2,000 t.
HOOK-AND-LINE (SMALL-FISH)	PHILIPPINES	0	0	Within territorial seas and/or archipelagic waters only
POLE-AND-LINE	AUSTRALIA	0	0	Less than 2,000 t.
POLE-AND-LINE	FIJI	0	0	Less than 2,000 t.
POLE-AND-LINE	FRENCH POLYNESIA	199	236	Less than 2,000 t.
POLE-AND-LINE	KIRIBATI	0	0	Less than 2,000 t.
POLE-AND-LINE	NEW ZEALAND	0	0	Less than 2,000 t.
POLE-AND-LINE	SOLOMON ISLANDS	131	78	Less than 2,000 t.
POLE-AND-LINE	UNITED STATES OF AMERICA	0	0	Less than 2,000 t.
Small scale/artisanal/recreati	AUSTRALIA	0	0	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	FRENCH POLYNESIA	1,065	1,104	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	INDONESIA	37,991	34,289	Within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	JAPAN	1,455	1,432	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	KIRIBATI	4,359	4,359	Within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	NEW ZEALAND	0	0	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	NIUE	2	1	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/artisanal/recreati	PHILIPPINES	0	0	Within territorial seas and/or archipelagic waters only
TROLL	AUSTRALIA	0	0	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	CANADA	0	0	Less than 2,000 t.
TROLL	COOK ISLANDS	200	156	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	FIJI	0	0	Less than 2,000 t.
TROLL	JAPAN	4,500	3,696	Within territorial seas and/or archipelagic waters only
TROLL	NAURU	38	19	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	NEW ZEALAND	3	7	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	TOKELAU	19	52	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	TONGA	92	15	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	TUVALU	348	348	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	UNITED STATES OF AMERICA	732	896	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	VANUATU	339	119	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	WALLIS AND FUTUNA	13	12	Less than 2,000 t. and within territorial seas and/or archipelagic waters only

**Notes:**

1. Source: Annual Catch estimates. 2022 data are provisional.
2. Fisheries with average catches less than 2,000 t of bigeye, yellowfin and skipjack tuna, have been excluded as per CMM 2018-01, CMM 2020-01 and CMM 2021-01 para 51.
3. The definition for "Commercial" fisheries, at this stage, includes all fisheries other than purse seine and longline fisheries, until otherwise advised.
4. Indonesia has advised a range of their small scale/Artisanal fisheries (e.g. troll, small-fish hook-and-line, gillnet) should not be considered in the category "Commercial" Fisheries.
5. The Philippines has advised a range of their small scale/Artisanal fisheries (e.g. troll, small-fish hook-and-line, gillnet, beach seine) operate wholly in their archipelagic waters and/or territorial seas and should not be considered in the category "Commercial" Fisheries.
6. The Indonesia and Philippines catch estimates exclude catches in archipelagic waters. Catches for some other fleets listed here are acknowledged to be in their archipelagic waters and/or territorial seas and will be confirmed with respective member countries (e.g. Kiribati).

#### 4. ANNEX

**Table A1. Notes on major recent changes to tables/figures**

No.	Table Caption	Notes on major revisions between WCPFC19 and SC19	Notes on major revisions between SC19 and WCPFC20
<b>ALL TABLES</b>			
<b>Table 1</b>	PURSE SEINE days fished in waters under national jurisdiction and in International waters in the WCPFC-CA.	– Updated to include provisional 2022 data	–
<b>Table 2</b>	PURSE SEINE days fished in international waters in the WCPFC-CA between 20°N and 20°S, by flag, based on available operational data.	– Updated to include provisional 2022 data	–
<b>Table 3</b>	Estimated PURSE SEINE FAD sets undertaken in the tropical fishery of the WCPFC Convention Area (20°N-20°S), by flag, 2001-2016	– Updated to include provisional 2022 data	–
<b>Table 4</b>	Purse seine tuna catch and effort by set type and species in the WCPFC Convention Area between 20°N and 20°S, excluding domestic purse seine effort in Philippines, Indonesia and Vietnam.	– Updated to include provisional 2022 data	–
<b>Table 5</b>	Annual high seas FAD sets, by fleet, 2015–2022		–
<b>Table 6</b>	Reported LONGLINE catches (metric tonnes) of bigeye tuna in the WCPFC-CA, by flag.	– Updated to include provisional 2022 data	–
<b>Table 7</b>	Reported LONGLINE catches (metric tonnes) of yellowfin tuna in the WCPFC-CA, by flag.	– Updated to include provisional 2022 data	–
<b>Table 8</b>	Longline effort (100s of hooks) in the tropical WCPFC LONGLINE fishery.	– Updated to include provisional 2022 data	–
<b>Table 9</b>	Total tropical tuna catch estimates for OTHER COMMERCIAL FISHERIES (excl. Purse seine and Longline) in the WCPFC Statistical Area, relevant to CMM 2018-01.	– Updated to include provisional 2022 data	–
<b>Table 10</b>	Total tropical tuna catch estimates for OTHER FISHERIES (excl. Purse seine and Longline) in the WCPFC Statistical Area, which are exempt from CMM 2018-01 OTHER COMMERCIAL FISHERIES.	– Updated to include provisional 2022 data	–
<b>FIGURES</b>	[Figures corresponding to relevant tables above	– Updated to include provisional 2022 data	–