



TECHNICAL AND COMPLIANCE COMMITTEE
Sixteenth Regular Session
Electronic Meeting
23 – 29 September 2020

CATCH AND EFFORT TABLES ON TROPICAL TUNA CMMS

WCPFC-TCC16-2020-IP05_rev1¹
26 September 2020

Paper prepared by the Secretariat
and
Oceanic Fisheries Programme (OFP)
Pacific Community (SPC)

¹ This version is an update of the original version that was posted on 31 August 2020 (which was an update of SC16-MI-19 on 22 July 2020)

Contents

No.	Table Caption	Notes on major revisions between SC16 and TCC16	Notes on major revisions between TCC16 and WCPFC17
ALL TABLES			
Table 1	PURSE SEINE days fished in waters under national jurisdiction and in International waters in the WCPFC-CA.	– Table updated using latest estimates	–
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.	– Table updated using latest estimates	– Revised table to have attribution of effort on high seas to flag state and not the charter nation for years 2017-2019, noting that under CMM 2017-01 paragraph 8 Charter provisions are not applicable to high seas purse seine effort attribution.
Table 3	Estimated PURSE SEINE FAD sets undertaken in the tropical fishery of the WCPFC Convention Area (20°N-20°S), by flag, 2001-2016	–	
Table 4	Reported LONGLINE catches (metric tonnes) of bigeye tuna in the WCPFC-CA, by flag.	– Table updated using latest estimates	
Table 5	Reported LONGLINE catches (metric tonnes) of yellowfin tuna in the WCPFC-CA, by flag.	– Table updated using latest estimates	
Table 6a	Total tropical tuna catch estimates for OTHER COMMERCIAL FISHERIES (excl. Purse seine and Longline) in the WCPFC Statistical Area, relevant to CMM 2018-01.	–	–
Table 6b	Table 6b. 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.	– Table updated using latest estimates	–
Table 7	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.	–	
Table 8	Longline effort (100s of hooks) in the tropical WCPFC LONGLINE fishery.	–	

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	Notified / Estimated EEZ Limits for 2019	See NOTE(s)	
AUSTRALIA	23	14	24	9	0	2	0	1	1	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	505	649	580	1,250	2,15	
FIJI	12	5	10	26	36	6	6	23	12	29	27	27	32	0	50	43	31	3	12	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	2,15
INDONESIA	383	355	395	527	749	597	450	287	324	224	498	1,124	2,490	1,373	985	1,820	2,358	631	994	*	2, 4, 16,18	
JAPAN	1,820	2,624	1,738	1,824	1,567	1,386	1,639	706	394	378	186	290	453	185	562	560	501	308	297	1,500	2,9,10,13,15	
NEW ZEALAND	234	255	172	446	369	218	245	234	133	218	290	268	310	279	280	197	152	111	139	#	2, 9, 15	
NIUE	0	0	1	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	200	2,15	
PHILIPPINES	726	776	1,072	1,116	1,052	1,052	1,194	1,382	988	661	431	357	860	1,138	882	881	1,127	738	883	*	2,4,6,8,17,11	
REPUBLIC OF KOREA	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	150	2,15	
TOKELAU	100	383	25	67	126	30	47	132	211	188	863	712	388	647	1,321	189	727	885	207	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	250	2,15	
CHINESE TAIPEI	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	*	2, 18	
USA	339	482	223	294	136	186	100	63	122	35	49	209	189	261	90	111	134	104	82	558	2, 15	
VANUATU	2	2	0	19	1	0	0	14	1	0	5	1	0	0	4	0	1	0	0	200	2,15	
WALLIS AND FUTUNA	5	9	6	1	4	2	0	7	8	2	3	2	0	3	2	2	0	0	1	*	2, 18	
PNA EEZs (excl AWs)	24,994	27,293	29,277	30,548	32,422	32,160	31,775	34,780	33,158	44,150	47,359	41,848	44,342	42,560	31,004	35,854	37,172	35,147	37,660	44,033	5, 12,15,20	
PNA AWs only	2,426	2,215	3,553	3,093	4,656	3,918	5,710	6,320	7,289	6,254	8,655	8,820	8,448	6,913	3,835	3,977	5,905	4,075	2,935		5	
PNA EEZs + AWs = TOTAL PNA	27,420	29,508	32,830	33,641	37,078	36,078	37,485	41,100	40,447	50,404	56,014	50,668	52,790	49,473	34,839	39,831	43,077	39,222	40,595		5	
TOTAL EEZs - excl. PNA AWs	28,666	32,414	32,925	34,876	36,464	35,645	35,463	37,657	35,401	45,907	49,851	45,351	49,321	46,811	35,559	39,961	42,732	38,581	40,858			
TOTAL EEZs - excl. PNA AWs and ID/PH	27,557	31,283	31,458	33,233	34,663	33,996	33,819	35,988	34,089	45,022	48,922	43,870	45,971	44,300	33,692	37,260	39,247	37,212	38,981			
TOTAL EEZs + PNA AWs	31,120	34,652	36,508	37,979	41,124	39,567	41,173	43,985	42,699	52,163	58,509	54,173	57,769	53,727	39,396	43,940	48,637	42,656	43,794	49,202		
TOTAL INT. WATERS (20°N-20°S)	7,305	8,188	8,334	10,237	8,723	6,544	8,170	8,577	10,049	1,477	1,501	2,217	6,134	5,696	8,242	6,862	6,612	7,357	8,540		6,8,11	
TOTAL (EEZs + IW + PNA AWs)	38,425	42,840	44,842	48,216	49,847	46,111	49,343	52,562	52,748	53,640	60,010	56,390	63,903	59,423	47,638	50,802	55,249	50,013	52,334	57,742		
TOTAL minus ID/PH	36,816	41,209	42,875	46,073	47,546	43,962	47,199	50,393	50,936	52,755	59,081	54,909	60,553	56,912	45,771	48,101	51,764	48,644	50,457	55,865		
VIETNAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	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 for years 2018 onwards
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-OFP. 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 2008-2017 in their EEZ was 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 and CMM 2018-01).
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 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 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 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 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 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 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	CMM limits for 2018	CMM limits for 2019	Max. Annual days for 2010-2012	See Notes
CHINA	88	123	152	424	501	229	332	251	871	14	7	26	14	8	22	23	12	26	17	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			
ECUADOR	0	0	0	0	0	0	26	10	14	2	0	13	1	1	0	0	0	0	0	**	**	13	7, 9,
EL SALVADOR	3	28	0	0	0	0	205	205	80	46	33	32	24	50	53	25	12	28	9	**	**	46	7, 9
EUROPEAN UNION	0	11	14	51	29	81	240	281	254	326	314	429	371	377	248	87	198	158	141	403	403	429	7
FSM	241	242	174	384	212	83	162	128	331	7	3	11	6	10	469	379	600	619	1,208				
INDONESIA	500	500	500	500	500	500	500	500	500	0	0	0	0	0	0	0	0	0	0	(0)	(0)		
JAPAN	1,350	1,260	1,752	1,854	1,792	1,539	1,330	1,057	1,562	6	3	1	13	8	102	25	0	5	22	121	121	6	
KIRIBATI	42	56	41	39	51	52	23	41	172	97	243	183	186	858	645	927	687	795	917				11
MARSHALL ISLANDS	168	208	441	397	402	155	170	283	169	68	30	1	5	6	845	393	626	302	954				
NAURU	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	130	188				
NEW ZEALAND	25	323	341	202	98	286	204	193	201	66	30	93	14	43	117	80	79	57	22	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				
PHILIPPINES	30	79	482	473	350	166	33	98	20	2	0	0	4,096	2,665	2,437	2,642	2,696	2,749	2,654	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	223	207	207	205	
SOLOMON ISLANDS	32	37	0	0	17	15	5	0	0	0	1	0	0	0	0	25	73	102	103				
TUVALU	0	0	0	0	0	0	0	0	38	4	4	1	0	1	85	147	103	57	52				
CHINESE TAIPEI	1,961	1,849	1,466	1,846	1,226	1,225	1,477	1,325	1,421	76	83	20	75	44	93	95	108	62	84	80	95	83	12
USA	985	1,315	883	1,003	767	531	793	1,534	1,737	397	571	1,241	1,015	1,153	1,664	1,442	829	1,584	1,526	1,370	1,270	1,241	13
VANUATU	66	166	190	572	376	401	381	223	103	37	31	6	7	2	0	163	203	123	159				
TOTAL	7,155	8,079	8,240	10,185	8,682	6,429	8,095	8,313	9,974	1,432	1,423	2,117	5,866	5,454	8,039	6,748	6,430	7,006	8,351				

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				See Notes
ECUADOR	0	0	0	0	0	0	43	176	77	52	40	86	106	72	101	5	109	254	154				7
EL SALVADOR	22	35	3	0	0	0	27	130	25	19	22	4	127	155	43	72	37	26	24				7
EUROPEAN UNION	126	75	91	52	43	116	34	30	13	16	18	11	36	18	71	39	15	41	15				7
TOTAL	148	110	94	52	43	116	104	336	115	87	80	101	269	245	215	116	161	321	193				

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-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). Under CMM 2017-01 and CMM 2018-01 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 2013 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 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. 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 2017–2019 high seas effort estimates have been attributed to the flag state for these years.**
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 and CMM 2018-01.

Table 3. Estimated FAD sets undertaken in the tropical purse seine fishery of the WCPFC Convention Area (20°N-20°S), by flag, 2001-2019.

2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	CCM
15	139	160	512	861	923	826	1,199	1,672	688	2,013	1,127	1,418	1,495	756	63	502	230	532	CHINA
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	43	COOK ISLANDS
0	0	0	0	0	0	74	367	138	220	440	442	275	342	143	50	235	411	327	ECUADOR
10	27	1	0	0	0	54	155	162	135	185	212	302	306	176	94	73	82	49	EL SALVADOR
77	33	59	81	46	125	242	412	328	363	488	460	515	431	331	93	151	190	167	EUROPEAN UNION
324	386	489	790	497	282	338	479	737	417	788	820	537	605	620	521	1,124	1,348	1,331	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	559	300	JAPAN
72	62	63	97	104	66	61	78	267	243	552	486	667	823	1,096	470	2,551	2,998	2,585	KIRIBATI
392	578	876	1,064	934	741	891	464	617	630	1,544	1,386	1,165	1,212	1,040	672	1,317	1,226	1,108	MARSHALL ISLANDS
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	90	256	NAURU
136	399	439	574	196	488	418	439	387	189	189	159	104	117	46	30	75	41	3	NEW ZEALAND
800	1,299	1,081	2,710	2,067	2,080	1,645	1,378	1,666	983	1,286	1,820	1,271	1,727	1,230	1,841	1,721	1,720	1,075	PAPUA NEW GUINEA
901	1,034	1,240	1,197	1,131	848	246	536	552	375	401	623	511	415	366	307	36	128	494	PHILIPPINES (distant-water)
?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	PHILIPPINES (domestic)
551	1,220	711	2,518	889	2,300	1,867	1,958	2,126	1,097	2,116	1,421	1,167	1,091	1,561	1,565	1,878	2,390	1,841	REPUBLIC OF KOREA
150	118	100	88	109	252	130	86	173	80	147	191	134	99	107	228	352	440	376	SOLOMON ISLANDS
1,617	2,621	1,853	3,221	2,738	3,051	2,814	2,284	2,689	1,704	2,942	2,886	2,568	2,609	1,758	1,495	1,895	2,277	2,040	CHINESE TAIPEI
0	0	0	0	0	0	0	0	22	40	58	92	78	49	36	59	59	107	60	TUVALU
2,022	1,772	1,561	2,068	1,315	1,543	1,393	2,757	3,777	2,384	3,388	3,430	3,136	3,696	2,025	2,129	2,437	2,910	1,887	USA
36	143	182	655	528	467	626	172	242	169	391	261	260	229	126	37	123	95	106	VANUATU
9,423	11,852	11,081	18,737	13,794	15,783	14,062	15,371	17,958	10,550	18,248	17,435	15,146	16,273	12,080	10,541	15,164	17,242	14,580	

Notes

1. Source: Raised logsheet data.
2. Covers Drifting FAD, Log and Anchored FAD sets
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 takes into account 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 4th month FAD closure for 2017.
13. The 2016 and 2017 estimates of FAD sets for Kiribati and China reflect their respective WCPFC charter notifications.
14. “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.

Table 4. 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	CMM limits for 2018	CMM limits for 2019	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	1,535			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			7
BELIZE	1,322	812	782	297	425	254	158	89	43	89	102	132	217	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	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	143			4
EU-PORTUGAL	0	0	0	0	0	0	0	0	0	0	3	17	106	71	17	10	0	0	0			
EU-SPAIN	0	0	0	42	17	62	62	77	46	15	10	23	23	65	53	53	21	39	30			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	4,548			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			4
FRENCH POLYNESIA	745	649	439	502	606	498	478	490	587	436	607	654	787	741	813	563	896	1,063	960			4
GUAM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	831	932	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	1,183	71	2,168	2,372	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	12,297	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			4
MARSHALL ISLANDS	0	0	0	1	0	0	3	375	381	257	259	335	80	0	0	700	1,229	1,146	1,431			4
NAURU	6	3	10	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			4
NEW ZEALAND	481	201	204	177	175	177	213	133	253	132	174	154	109	122	122	177	97	135	50			7
NIUE	0	0	0	0	10	22	35	51	10	4	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	1,000			4
PALAU	21	1	1	7	0	0	0	0	0	0	0	0	0	0	0	0	1,106	1,011	1,162			4
PAPUA NEW GUINEA	240	318	390	399	237	216	111	201	128	39	59	119	32	52	15	86	47	87	243			4
PHILIPPINES	59	59	59	59	59	59	59	59	59	59	777	248	167	63	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	13,942	13,942	11
SAMOA	185	137	110	104	64	128	101	106	117	108	71	54	36	48	48	62	150	62	65			4
SENEGAL	0	0	0	0	0	3	2	0	0	0	0	0	0	0	0	0	0	0	0			
SOLOMON ISLANDS	187	401	385	294	3	0	0	0	0	806	213	0	0	3,054	4,390	384	0	1,235	2,838			4,11
TONGA	191	215	94	40	125	117	129	81	38	24	18	10	7	22	25	27	24	34	16			4
TUVALU	0	0	0	0	0	0	0	0	0	0	105	1,408	120	76	187	103	111	64	36			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	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	3,531	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	3,200			4
WALLIS AND FUTUNA	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0			4
Total	73,958	89,177	78,914	93,668	74,298	78,153	75,665	78,018	75,766	68,837	71,754	78,238	60,982	69,270	70,141	58,191	55,747	63,999	69,460	60,355	60,355	
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			9

Notes:

1. Source: WCPFC Annual catch estimates as at 2nd July 2020.
2. Catch estimates in **red** have been carried over from previous years.
3. Indonesia and Philippines have recently revised their estimates in recent 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 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 5. 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	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	382	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	3,097	
BELIZE	957	720	943	208	298	106	273	129	121	28	13	30	21	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	2,792	(9), (10)
COOK ISLANDS	1	42	178	506	413	262	290	247	197	192	394	693	346	504	339	315	610	532	462	182	(4)
EU-PORTUGAL	0	0	0	0	0	0	0	0	0	0	0	0	2	22	4	6	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	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	4,979	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	3,922	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	1,365	790	(4)
GUAM	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	3,502	105	5,991	4,744	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	12,958	16,480	
KIRIBATI	2	0	2	0	0	0	0	7	0	4	140	300	175	108	405	610	359	220	862	1	(4)
MARSHALL ISLANDS	0	0	0	3	0	0	2	91	120	117	99	113	47	0	0	578	948	707	1,166	1	(4)
NAURU	5	2	6	1	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	632	(4)
NEW ZEALAND	131	27	39	36	36	3	25	11	3	6	3	1	1	2	2	55	10	20	5	58	
NIUE	0	0	0	0	34	42	43	40	20	8	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	(4)
PALAU	41	3	19	28	0	0	0	0	0	0	0	0	0	0	0	0	1,352	1,887	2,296	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	947	1,904	(4)
PHILIPPINES	484	484	484	484	484	484	484	484	484	484	146	61	27	153	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	12,864	(10)
SAMOA	470	369	293	444	199	264	305	317	412	386	395	234	330	231	252	244	644	401	264	394	(4)
SENEGAL	0	0	0	0	6	3	4	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	10,666	315	(4), (10)
TONGA	259	263	263	163	219	227	341	291	109	47	171	140	126	195	297	325	373	201	187	237	(4)
TUVALU	0	0	0	0	0	0	0	0	0	0	286	453	114	41	166	124	164	106	73	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	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	1,574	773	
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	1,550	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	(4)
Total	72,489	74,072	78,320	78,003	71,536	67,353	62,721	66,047	82,320	79,090	73,720	68,285	53,234	73,702	88,473	64,290	68,529	70,141	92,632	75,721	
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		(8)

Notes:

1. Source: WCFPC Annual catch estimates as at 2nd July 2020.
2. Catch estimates in **red** have been carried over from previous years.
3. Indonesia and Philippines have recently revised their estimates (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 - WCFPC5 Report (Para. 44). Senegal is not presently a CNM.
8. The Vietnam longline fleet are understood to fish outside the WCFPC 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 WCFPC 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 6a. 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 2018-01 limit	2019	Evaluation			
HANDLINE	INDONESIA	<i>Within EEZ only, excluding AWs</i>	NO	5
HANDLINE (LARGE-FISH)	PHILIPPINES	13,343	6,830	Within Limit	<i>Within EEZ only, excluding AWs</i>	NO	6
POLE-AND-LINE	INDONESIA	41,025	1,685	Within Limit	<i>Within EEZ only, excluding AWs</i>	NO	
POLE-AND-LINE	JAPAN	114,573	75,528	Within Limit		YES	2, 4

Notes:

1. Source: Annual catch estimates; Philippines National Stock Assessment Project (NSAP data); Aggregate logsheet data. 2019 data are provisional.
2. The column labeled "CMM 2018-01" is the maximum value of either (i) the average total skipjack, yellowfin and bigeye tuna catch for 2001-2004, or (ii) 2004.
3. 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.).
4. 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)"
5. 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).
6. 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 : 1997-2019), 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.

Table 6b. 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.

GEAR	FLAG	Tuna catch (MT)		Reason for exemption
		2019	Average 2015-2019	
GILLNET	JAPAN	98	107	Less than 2,000 t.
GILLNET	VIETNAM	32,804	37,697	Outside of the WCPFC Convention Area
HANDLINE (LARGE-FISH)	USA	476	504	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	208	290	Less than 2,000 t.
POLE-AND-LINE	KIRIBATI	0	48	Less than 2,000 t.
POLE-AND-LINE	NEW ZEALAND	0	0	Less than 2,000 t.
POLE-AND-LINE	SOLOMON ISLANDS	14	31	Less than 2,000 t.
POLE-AND-LINE	UNITED STATES OF AMERICA	0	0	Less than 2,000 t.
Small scale/Artisanal/Recreational	AUSTRALIA	22	22	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	FRENCH POLYNESIA	1,054	1,191	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	INDONESIA	11,429	41,396	Within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	JAPAN	1,396	1,226	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	KIRIBATI	4,359	4,359	Within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	NEW ZEALAND	0	0	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	NIUE	0	0	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
Small scale/Artisanal/Recreational	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	212	80	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	2,972	3,268	Within territorial seas and/or archipelagic waters only
TROLL	NAURU	7	16	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	NEW ZEALAND	8	8	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	TOKELAU	67	109	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	TUVALU	348	296	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	UNITED STATES OF AMERICA	980	1,007	Less than 2,000 t. and within territorial seas and/or archipelagic waters only
TROLL	WALLIS AND FUTUNA	17	8	Less than 2,000 t. and within territorial seas and/or archipelagic waters only

Notes:

1. Source: Annual Catch estimates. 2019 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 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).

Table 7. 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 catch/effort in Philippines, Indonesia and Vietnam.

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	SETS	MT	%	MT	%	MT	%	MT	SETS	MT	MT	MT	MT
CK	2019	1	1	73	18	453	100%	0	0%	0	0%	453	43	1,290	75%	126	7%	299	17%	1,716	61	1,743	126	299	2,169
CN	2010	12	10	2,784	2,095	21,013	72%	7,857	27%	161	1%	29,031	692	17,072	70%	5,997	24%	1,461	6%	24,529	2,788	38,152	13,936	1,628	53,715
CN	2011	12	10	4,019	1,396	11,304	74%	3,835	25%	178	1%	15,318	2,023	47,213	76%	11,331	18%	3,679	6%	62,223	3,419	58,517	15,166	3,857	77,541
CN	2012	13	12	2,205	706	10,675	77%	3,175	23%	53	0%	13,902	1,143	27,357	78%	6,343	18%	1,545	4%	35,246	1,849	38,032	9,518	1,598	49,148
CN	2013	14	13	3,617	2,329	28,176	92%	2,344	8%	219	1%	30,740	1,419	36,046	71%	11,694	23%	3,025	6%	50,765	3,750	64,427	14,134	3,267	81,828
CN	2014	19	18	3,012	1,351	16,637	87%	2,267	12%	162	1%	19,065	1,430	42,500	75%	10,892	19%	3,266	6%	56,659	2,781	59,137	13,159	3,428	75,724
CN	2015	20	16	2,007	897	11,197	71%	4,488	28%	207	1%	15,892	756	19,933	73%	5,262	19%	2,150	8%	27,344	1,653	31,129	9,750	2,357	43,236
CN	2016	2	6	504	401	6,282	76%	1,985	24%	14	0%	8,281	140	2,682	68%	1,066	27%	184	5%	3,932	544	9,027	3,085	200	12,311
CN	2017	3	2	761	84	452	85%	53	10%	24	5%	529	502	10,531	71%	3,435	23%	979	7%	14,945	586	10,983	3,488	1,004	15,474
CN	2018	3	2	608	336	4,786	86%	782	14%	32	1%	5,600	231	7,343	80%	1,361	15%	521	6%	9,225	567	12,129	2,143	553	14,825
CN	2019	3	3	747	245	5,096	97%	177	3%	9	0%	5,283	536	20,834	81%	3,877	15%	1,048	4%	25,759	781	25,930	4,054	1,057	31,042
EC	2010	14	6	319	21	55	31%	100	57%	20	11%	175	233	5,989	54%	2,891	26%	2,265	20%	11,145	254	6,043	2,991	2,285	11,320
EC	2011	8	7	556	41	281	33%	452	53%	118	14%	851	447	16,810	59%	5,190	18%	6,332	22%	28,332	488	17,090	5,642	6,450	29,183
EC	2012	8	7	605	17	491	85%	50	9%	34	6%	575	444	14,278	63%	3,354	15%	4,938	22%	22,570	461	14,769	3,404	4,972	23,145
EC	2013	7	7	480	70	1,867	84%	250	11%	119	5%	2,236	292	13,589	71%	2,219	12%	3,398	18%	19,206	362	15,456	2,470	3,517	21,442
EC	2014	7	7	477	57	1,191	92%	57	4%	49	4%	1,297	359	14,042	69%	3,054	15%	3,376	17%	20,472	416	15,232	3,111	3,426	21,769
EC	2015	7	4	162	1	0		0		0		0	150	8,304	71%	1,694	14%	1,761	15%	11,759	151	8,304	1,694	1,761	11,759
EC	2016	2	3	42	0	0		0		0		0	50	2,665	68%	661	17%	599	15%	3,925	50	2,665	661	599	3,925
EC	2017	4	4	237	2	67	66%	18	18%	17	17%	102	235	8,752	65%	1,621	12%	3,096	23%	13,469	237	8,819	1,639	3,113	13,571
EC	2018	4	4	441	12	106	82%	0	0%	23	18%	130	412	16,484	74%	2,111	10%	3,721	17%	22,316	424	16,590	2,111	3,745	22,446
EC	2019	8	5	374	9	133	23%	404	70%	40	7%	578	327	17,477	71%	3,545	14%	3,536	14%	24,558	336	17,611	3,949	3,576	25,136
ES	2010	4	4	720	26	625	76%	195	24%	0	0%	820	364	18,572	65%	5,575	20%	4,501	16%	28,648	390	19,197	5,770	4,501	29,468
ES	2011	4	4	753	30	716	54%	599	45%	18	1%	1,334	488	24,052	63%	7,270	19%	6,796	18%	38,117	518	24,768	7,869	6,814	39,451
ES	2012	4	4	787	57	2,391	86%	367	13%	8	0%	2,767	461	18,500	63%	4,976	17%	5,928	20%	29,404	517	20,892	5,343	5,936	32,171
ES	2013	4	4	837	56	1,990	66%	1,026	34%	9	0%	3,026	515	27,979	65%	7,775	18%	7,387	17%	43,141	571	29,969	8,801	7,397	46,167
ES	2014	4	4	753	89	3,369	80%	842	20%	1	0%	4,213	431	25,459	70%	4,411	12%	6,377	18%	36,247	520	28,828	5,253	6,379	40,460
ES	2015	4	4	529	28	1,332	97%	35	3%	1	0%	1,368	326	23,945	75%	4,741	15%	3,155	10%	31,840	355	25,276	4,775	3,156	33,208
ES	2016	2	2	130	1	0		0		0		0	94	6,328	73%	579	7%	1,792	21%	8,699	95	6,328	579	1,792	8,699
ES	2017	2	2	210	0	0		0		0		0	151	7,834	67%	735	6%	3,154	27%	11,723	151	7,834	735	3,154	11,723
ES	2018	2	2	266	4	96	100%	0	0%	0	0%	96	190	7,777	75%	994	10%	1,560	15%	10,331	194	7,873	994	1,560	10,427
ES	2019	2	2	230	0	0		0		0		0	167	8,137	80%	1,309	13%	795	8%	10,241	167	8,137	1,309	795	10,241

Table 7. (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	SETS	MT	%	MT	%	MT	%	MT					
FM	2010	7	8	1,305	612	8,384	79%	2,198	21%	62	1%	10,645	419	10,664	76%	2,382	17%	1,032	7%	14,078	1,031	19,049	4,580	1,094	24,723
FM	2011	7	7	1,641	483	5,959	78%	1,684	22%	18	0%	7,661	790	13,426	71%	4,330	23%	1,077	6%	18,832	1,276	19,392	6,017	1,096	26,505
FM	2012	9	9	1,573	464	6,542	78%	1,784	21%	107	1%	8,432	826	21,430	78%	4,452	16%	1,653	6%	27,535	1,301	28,180	6,280	1,773	36,233
FM	2013	10	10	1,384	450	9,008	86%	1,306	13%	106	1%	10,420	539	12,412	71%	3,698	21%	1,353	8%	17,464	989	21,420	5,004	1,460	27,884
FM	2014	10	10	1,414	611	12,956	84%	2,198	14%	275	2%	15,429	614	16,374	72%	4,478	20%	1,794	8%	22,646	1,225	29,330	6,676	2,069	38,075
FM	2015	12	13	1,924	1,212	26,463	84%	4,653	15%	357	1%	31,473	641	18,795	77%	3,865	16%	1,610	7%	24,270	1,852	45,259	8,517	1,967	55,743
FM	2016	16	18	2,726	1,059	21,939	81%	4,693	17%	351	1%	26,983	1,142	34,851	78%	6,534	15%	3,343	8%	44,728	2,201	56,790	11,227	3,694	71,711
FM	2017	19	20	3,527	1,919	34,835	80%	8,548	20%	391	1%	43,774	1,374	32,322	77%	6,836	16%	2,676	6%	41,833	3,300	67,264	15,415	3,085	85,765
FM	2018	22	22	3,730	2,412	47,303	81%	10,554	18%	665	1%	58,521	1,432	50,066	83%	8,041	13%	2,373	4%	60,481	3,846	97,394	18,606	3,038	119,038
FM	2019	23	24	4,391	3,677	82,969	83%	15,775	16%	1,185	1%	99,929	1,368	47,274	80%	9,175	16%	2,684	5%	59,134	5,053	130,416	24,979	3,874	159,269
JP	2010	37	37	5,695	5,633	134,825	80%	31,526	19%	1,495	1%	167,845	833	25,328	70%	8,611	24%	2,394	7%	36,333	6,566	162,045	41,258	4,064	207,366
JP	2011	40	38	6,524	5,956	92,329	78%	26,152	22%	576	1%	119,057	1,320	39,352	77%	7,880	15%	4,015	8%	51,247	7,306	132,201	34,114	4,620	170,935
JP	2012	41	37	5,448	4,867	103,226	84%	18,291	15%	1,463	1%	122,980	1,619	58,758	80%	10,352	14%	4,313	6%	73,423	6,514	162,261	28,706	5,794	196,761
JP	2013	41	34	5,501	4,759	104,079	87%	14,651	12%	1,499	1%	120,228	1,038	42,146	79%	7,769	15%	3,498	7%	53,413	5,834	146,917	22,634	5,043	174,595
JP	2014	40	33	4,898	4,275	88,928	76%	26,010	22%	2,037	2%	116,975	1,027	38,050	79%	6,692	14%	3,246	7%	47,989	5,342	128,382	33,006	5,364	166,752
JP	2015	40	32	4,195	3,380	86,519	74%	27,405	23%	3,103	3%	117,028	663	19,427	68%	6,341	22%	2,837	10%	28,606	4,169	109,117	35,109	6,524	150,750
JP	2016	37	30	5,002	4,170	82,306	75%	25,332	23%	1,946	2%	109,584	887	24,368	69%	7,964	22%	3,216	9%	35,548	5,136	108,430	34,204	5,363	147,997
JP	2017	38	30	4,693	3,892	79,123	72%	28,573	26%	2,078	2%	109,774	635	20,199	76%	4,877	18%	1,412	5%	26,488	4,650	102,158	34,683	3,669	140,510
JP	2018	34	27	4,068	3,706	96,845	76%	27,033	21%	3,242	3%	127,120	559	21,066	74%	5,726	20%	1,753	6%	28,545	4,420	121,321	34,495	5,676	161,492
JP	2019	36	31	4,193	4,437	98,750	73%	35,318	26%	1,525	1%	135,593	300	9,485	70%	3,031	23%	951	7%	13,467	4,927	112,491	40,544	2,897	155,932
KI	2010	5	4	693	465	6,975	74%	2,360	25%	61	1%	9,396	245	10,843	69%	2,849	18%	1,999	13%	15,691	741	18,334	5,332	2,080	25,746
KI	2011	7	7	1,429	785	9,671	73%	3,533	27%	28	0%	13,232	554	24,398	74%	4,452	13%	4,341	13%	33,190	1,347	34,117	8,014	4,382	46,514
KI	2012	9	9	1,851	1,593	30,516	80%	7,486	20%	163	0%	38,164	492	19,513	81%	3,112	13%	1,416	6%	24,041	2,093	50,198	10,652	1,583	62,432
KI	2013	12	12	2,007	1,443	27,806	84%	5,245	16%	207	1%	33,259	669	30,321	78%	5,901	15%	2,760	7%	38,982	2,113	58,127	11,147	2,968	72,241
KI	2014	14	15	2,818	2,188	42,134	72%	16,451	28%	327	1%	58,912	830	40,648	81%	5,351	11%	4,263	9%	50,263	3,018	82,782	21,803	4,590	109,174
KI	2015	21	20	2,884	2,482	61,173	86%	9,589	13%	542	1%	71,304	1,082	56,709	87%	6,374	10%	2,310	4%	65,393	3,564	117,883	15,963	2,852	136,698
KI	2016	27	23	4,513	2,428	51,279	81%	11,596	18%	615	1%	63,490	1,871	82,015	81%	11,690	12%	7,784	8%	101,490	4,299	133,297	23,289	8,400	164,985
KI	2017	19	21	4,653	1,815	30,059	74%	10,382	26%	339	1%	40,780	2,554	92,460	82%	14,440	13%	5,924	5%	112,824	4,369	122,548	24,823	6,263	153,634
KI	2018	21	21	4,451	1,548	34,836	82%	7,364	17%	244	1%	42,444	3,004	121,200	83%	16,074	11%	9,561	7%	146,835	4,554	156,185	23,441	9,806	189,431
KI	2019	22	22	4,560	2,448	58,095	90%	6,395	10%	271	0%	64,760	2,599	117,327	84%	16,160	12%	5,732	4%	139,218	5,055	175,578	22,582	6,006	204,166

Table 7. (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	SETS	MT	%	MT	%	MT	%	MT									
KR	2010	29	28	7,178	6,308	144,301	70%	58,451	29%	2,275	1%	205,027	1,117	54,655	76%	11,568	16%	5,984	8%	72,206	7,433	199,009	70,040	8,264	277,313				
KR	2011	28	28	6,552	4,493	79,030	72%	29,564	27%	807	1%	109,401	2,128	73,968	75%	17,378	18%	6,760	7%	98,106	6,627	153,129	46,987	7,585	207,702				
KR	2012	28	28	5,836	6,099	136,979	74%	47,620	26%	1,265	1%	185,865	1,433	63,438	83%	10,338	14%	2,551	3%	76,326	7,533	200,417	57,958	3,816	262,191				
KR	2013	27	28	5,983	6,068	131,155	80%	30,018	18%	2,020	1%	163,192	1,171	47,593	76%	10,992	18%	3,854	6%	62,439	7,239	178,748	41,011	5,873	225,631				
KR	2014	28	29	5,437	5,820	156,202	78%	42,923	21%	1,097	1%	200,221	1,097	59,369	85%	7,154	10%	3,304	5%	69,827	6,917	215,571	50,077	4,401	270,048				
KR	2015	25	26	4,664	4,561	126,415	80%	29,078	19%	1,802	1%	157,294	1,534	97,964	88%	9,351	8%	3,638	3%	110,953	6,094	224,379	38,428	5,440	268,248				
KR	2016	25	25	4,755	4,260	132,142	78%	35,569	21%	1,604	1%	169,315	1,590	93,759	86%	9,991	9%	5,389	5%	109,140	5,851	225,901	45,560	6,993	278,455				
KR	2017	26	26	5,545	4,898	99,100	68%	45,134	31%	857	1%	145,091	1,881	84,920	84%	11,574	11%	5,245	5%	101,740	6,782	184,021	56,708	6,102	246,832				
KR	2018	27	25	5,645	4,383	105,780	79%	26,774	20%	1,463	1%	134,017	2,395	117,659	88%	9,736	7%	6,140	5%	133,535	6,777	223,439	36,510	7,604	267,552				
KR	2019	27	26	5,670	5,713	175,102	86%	28,152	14%	905	0%	204,160	1,850	98,011	89%	9,378	9%	3,274	3%	110,663	7,564	273,114	37,530	4,179	314,822				
MH	2010	10	10	1,670	1,228	18,187	73%	6,099	25%	617	3%	24,903	636	25,392	75%	5,203	15%	3,123	9%	33,718	1,881	43,783	11,622	3,757	59,162				
MH	2011	10	10	2,521	547	7,827	82%	1,662	17%	71	1%	9,561	1,550	59,526	74%	11,587	14%	9,509	12%	80,622	2,097	67,354	13,249	9,580	90,183				
MH	2012	10	10	1,989	748	12,096	74%	4,199	26%	80	1%	16,375	1,394	45,492	80%	7,117	12%	4,611	8%	57,220	2,142	57,588	11,316	4,691	73,595				
MH	2013	10	10	2,132	1,075	18,181	91%	1,857	9%	39	0%	20,077	1,167	43,053	75%	9,738	17%	4,703	8%	57,494	2,243	61,277	11,612	4,745	77,634				
MH	2014	12	11	2,131	1,127	18,833	87%	2,635	12%	128	1%	21,596	1,219	43,685	81%	6,998	13%	3,617	7%	54,300	2,346	62,517	9,633	3,745	75,896				
MH	2015	12	12	2,221	1,857	36,058	95%	1,877	5%	30	0%	37,965	1,061	41,737	85%	5,239	11%	1,928	4%	48,904	2,919	77,795	7,115	1,958	86,869				
MH	2016	10	10	1,970	1,305	23,215	83%	4,688	17%	125	0%	28,027	671	27,021	82%	4,105	13%	1,821	6%	32,946	1,976	50,236	8,792	1,946	60,973				
MH	2017	10	10	2,152	537	7,346	77%	2,108	22%	99	1%	9,553	1,319	41,914	76%	9,193	17%	4,124	8%	55,231	1,858	49,260	11,300	4,223	64,784				
MH	2018	13	13	1,941	787	12,249	86%	2,013	14%	16	0%	14,278	1,228	48,566	82%	7,535	13%	2,991	5%	59,092	2,016	60,837	9,558	3,011	73,406				
MH	2019	11	11	2,449	1,701	31,968	78%	9,069	22%	145	0%	41,181	1,108	45,697	84%	6,804	13%	1,883	4%	54,384	2,810	77,681	15,883	2,032	95,596				
NR	2018	2	2	166	123	1,424	46%	1,705	55%	1	0%	3,130	90	5,267	92%	360	6%	124	2%	5,752	213	6,691	2,066	126	8,882				
NR	2019	9	9	743	703	19,939	94%	1,150	5%	66	0%	21,155	258	10,260	87%	1,322	11%	253	2%	11,834	967	30,328	2,520	326	33,174				
NZ	2010	4	4	564	371	8,027	97%	213	3%	48	1%	8,287	192	7,090	74%	2,070	22%	434	5%	9,594	564	15,116	2,284	482	17,882				
NZ	2011	4	4	461	140	2,532	80%	617	19%	35	1%	3,185	193	5,536	73%	1,741	23%	280	4%	7,557	333	8,068	2,358	315	10,742				
NZ	2012	4	4	471	288	5,075	82%	1,030	17%	112	2%	6,217	162	3,572	76%	856	18%	249	5%	4,678	450	8,647	1,887	361	10,895				
NZ	2013	4	4	306	173	4,735	90%	504	10%	27	1%	5,265	120	3,751	69%	1,321	24%	381	7%	5,453	293	8,486	1,824	408	10,719				
NZ	2014	5	5	381	220	3,765	78%	929	19%	129	3%	4,823	163	4,139	73%	1,048	18%	523	9%	5,710	383	7,904	1,977	652	10,533				
NZ	2015	2	2	223	238	4,824	95%	190	4%	50	1%	5,064	42	1,769	82%	319	15%	70	3%	2,157	280	6,593	509	120	7,221				
NZ	2016	2	2	141	191	3,856	96%	132	3%	51	1%	4,039	24	1,208	76%	309	20%	64	4%	1,581	215	5,063	441	115	5,620				
NZ	2017	1	1	85	16	569	81%	135	19%	1	0%	704	75	2,796	85%	382	12%	124	4%	3,301	91	3,364	516	125	4,005				
NZ	2018	1	1	68	43	293	24%	920	76%	3	0%	1,216	42	1,543	87%	190	11%	39	2%	1,772	85	1,836	1,110	42	2,987				
NZ	2019	2	2	57	93	2,393	94%	141	6%	13	1%	2,547	4	228	76%	53	18%	21	7%	302	96	2,621	194	34	2,849				

Table 7. (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	SETS	MT	%	MT	%	MT	%	MT					
PG	2010	45	50	8,846	5,471	90,299	73%	32,279	26%	918	1%	123,496	2,620	55,875	69%	20,985	26%	4,645	6%	81,505	8,099	146,310	53,300	5,574	205,184
PG	2011	49	52	9,270	5,018	69,729	75%	22,662	24%	664	1%	93,055	3,145	57,678	70%	21,382	26%	3,819	5%	82,879	8,176	127,663	44,144	4,512	176,319
PG	2012	51	52	9,636	6,530	96,533	68%	44,972	32%	1,404	1%	142,909	2,978	62,374	67%	24,823	27%	5,323	6%	92,520	9,559	159,399	69,992	6,772	236,163
PG	2013	51	52	9,533	6,862	97,067	68%	43,232	30%	1,734	1%	142,034	2,453	50,621	66%	22,381	29%	4,201	5%	77,202	9,371	148,381	66,173	6,002	220,555
PG	2014	55	53	9,314	6,440	104,984	73%	36,909	26%	1,875	1%	143,768	2,307	67,597	75%	17,879	20%	5,069	6%	90,545	8,773	172,850	55,053	6,976	234,879
PG	2015	53	54	6,684	5,686	102,851	71%	40,512	28%	1,642	1%	145,005	1,602	50,415	73%	14,875	21%	4,188	6%	69,478	7,292	153,284	55,396	5,832	214,512
PG	2016	67	41	9,016	7,625	124,738	63%	68,391	35%	3,808	2%	196,937	2,221	75,383	73%	21,270	21%	6,441	6%	103,093	9,883	201,169	90,283	10,345	301,797
PG	2017	67	58	10,956	10,325	126,951	56%	96,974	43%	4,341	2%	228,266	2,147	50,394	67%	20,430	27%	4,090	6%	74,914	12,578	179,130	118,851	8,524	306,505
PG	2018	56	53	9,691	10,346	152,334	65%	77,339	33%	4,196	2%	233,869	1,974	56,798	74%	17,121	22%	2,945	4%	76,863	12,349	209,644	94,699	7,174	311,517
PG	2019	51	51	6,563	7,432	139,166	69%	59,550	29%	3,508	2%	202,223	1,215	50,253	82%	9,176	15%	1,546	3%	60,975	8,717	190,741	69,554	5,094	265,389
PH	2010	25	24	4,469	2,289	25,568	54%	20,403	43%	1,184	3%	47,155	795	16,570	65%	6,116	24%	2,634	10%	25,320	3,186	43,048	27,149	3,916	74,113
PH	2011	25	23	5,302	2,720	28,377	62%	17,403	38%	170	0%	45,949	1,381	22,710	67%	10,190	30%	845	3%	33,746	4,192	51,799	27,980	1,035	80,813
PH	2012	21	28	5,575	3,552	34,661	53%	29,595	45%	1,541	2%	65,796	1,652	27,438	63%	14,128	32%	2,273	5%	43,839	5,243	62,545	43,944	3,838	110,327
PH	2013	27	27	5,096	2,667	22,280	43%	28,371	55%	1,167	2%	51,818	1,920	24,956	59%	15,162	36%	2,371	6%	42,489	4,592	47,284	43,599	3,539	94,423
PH	2014	27	29	4,698	3,161	43,230	56%	32,582	42%	2,140	3%	77,952	1,388	16,401	57%	9,837	34%	2,465	9%	28,702	4,563	59,763	42,579	4,638	106,980
PH	2015	23	23	2,876	1,928	23,724	54%	19,448	44%	941	2%	44,113	843	16,513	54%	11,424	38%	2,556	8%	30,493	2,778	40,499	31,219	3,542	75,260
PH	2016	17	15	2,337	1,541	24,305	52%	21,520	46%	770	2%	46,595	774	14,603	63%	7,450	32%	1,273	6%	23,326	2,358	39,713	29,527	2,153	71,394
PH	2017	12	8	1,959	849	8,739	43%	11,491	56%	298	2%	20,528	748	5,816	66%	2,764	31%	219	3%	8,799	1,622	14,805	14,658	548	30,011
PH	2018	12	2	755	300	4,813	64%	2,586	35%	78	1%	7,477	281	2,247	58%	1,480	38%	183	5%	3,910	581	7,063	4,067	261	11,391
PH	2019	12	4	4,691	77	940	72%	357	27%	7	1%	1,303	2,638	15,198	66%	6,646	29%	1,265	6%	23,109	2,716	16,149	7,007	1,273	24,428
SB	2010	5	5	485	95	1,890	54%	1,575	45%	15	0%	3,480	353	5,273	54%	4,101	42%	363	4%	9,737	448	7,163	5,676	378	13,217
SB	2011	5	5	1,006	120	1,694	60%	1,139	40%	4	0%	2,837	741	11,956	53%	10,178	45%	590	3%	22,724	861	13,650	11,317	594	25,561
SB	2012	5	5	1,094	98	1,118	53%	974	47%	4	0%	2,096	833	13,730	56%	10,292	42%	382	2%	24,404	931	14,849	11,265	386	26,500
SB	2013	5	5	1,093	213	1,515	34%	2,980	66%	15	0%	4,510	664	10,616	52%	9,030	45%	613	3%	20,258	876	12,131	12,010	628	24,769
SB	2014	5	5	1,212	269	2,813	36%	5,036	64%	20	0%	7,869	787	10,697	47%	11,297	50%	560	3%	22,554	1,056	13,511	16,333	580	30,425
SB	2015	8	6	1,343	389	2,933	31%	6,408	68%	42	0%	9,382	787	9,843	51%	9,280	48%	286	2%	19,410	1,176	12,776	15,689	328	28,792
SB	2016	8	8	2,217	1,047	13,977	57%	10,224	42%	300	1%	24,501	1,072	17,105	55%	13,597	44%	489	2%	31,190	2,133	31,283	23,992	792	56,067
SB	2017	10	9	2,068	1,127	12,569	60%	8,418	40%	47	0%	21,034	873	13,916	56%	10,422	42%	336	1%	24,675	2,001	26,487	18,842	383	45,713
SB	2018	10	10	2,102	808	9,816	68%	4,595	32%	14	0%	14,425	1,169	23,834	62%	13,937	36%	680	2%	38,452	1,978	33,651	18,532	695	52,877
SB	2019	11	11	2,306	977	18,630	80%	4,801	21%	16	0%	23,447	1,247	26,949	66%	13,323	33%	436	1%	40,708	2,229	45,584	18,130	452	64,167

Table 7. (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	SETS	MT	%	MT	%	MT	%	MT					
SV	2010	2	2	210	3	28	100%	0	0%	0	0%	28	136	4,523	62%	1,781	24%	1,039	14%	7,344	139	4,551	1,782	1,039	7,372
SV	2011	2	2	268	3	18	21%	67	79%	1	1%	85	185	8,123	67%	1,907	16%	2,111	17%	12,141	188	8,141	1,974	2,112	12,226
SV	2012	2	2	300	4	15	100%	0	0%	0	0%	15	213	7,534	55%	3,708	27%	2,391	18%	13,632	217	7,549	3,708	2,391	13,647
SV	2013	4	4	398	13	271	66%	139	34%	1	0%	412	296	11,326	67%	3,264	19%	2,215	13%	16,805	309	11,597	3,404	2,216	17,217
SV	2014	4	4	485	92	2,007	99%	12	1%	0	0%	2,019	303	9,970	65%	3,306	21%	2,186	14%	15,461	394	11,976	3,317	2,186	17,480
SV	2015	2	2	180	7	0		0		0		0	177	10,978	72%	2,594	17%	1,728	11%	15,300	184	10,978	2,594	1,728	15,300
SV	2016	3	2	112	6	667	99%	10	2%	0	0%	677	95	4,847	73%	890	13%	888	13%	6,626	101	5,514	900	889	7,303
SV	2017	1	2	76	2	0	0%	31	100%	0	0%	31	73	2,895	68%	654	15%	739	17%	4,288	75	2,895	685	739	4,319
SV	2018	1	1	82	6	275	100%	0	0%	0	0%	275	82	3,295	75%	494	11%	627	14%	4,415	88	3,570	494	627	4,690
SV	2019	2	2	42	2	0		0		0		0	50	1,983	68%	621	21%	335	11%	2,939	52	1,983	621	335	2,939
TV	2010	1	1	271	319	6,736	75%	2,221	25%	40	0%	8,997	40	1,021	66%	333	21%	203	13%	1,557	359	7,757	2,554	243	10,554
TV	2011	1	1	311	283	3,831	72%	1,501	28%	18	0%	5,351	58	1,630	79%	298	14%	139	7%	2,066	341	5,461	1,799	157	7,417
TV	2012	1	1	271	301	3,146	57%	2,319	42%	35	1%	5,500	92	4,460	80%	833	15%	262	5%	5,554	393	7,605	3,152	297	11,054
TV	2013	1	1	273	353	7,213	93%	417	5%	92	1%	7,721	79	2,922	79%	643	17%	130	4%	3,695	432	10,135	1,060	221	11,416
TV	2014	1	1	159	146	3,396	92%	246	7%	33	1%	3,675	49	1,948	86%	250	11%	70	3%	2,268	195	5,344	496	103	5,943
TV	2015	1	1	186	174	3,562	97%	127	3%	2	0%	3,690	36	1,656	93%	102	6%	22	1%	1,780	210	5,218	228	24	5,470
TV	2016	1	1	234	93	2,444	97%	75	3%	1	0%	2,520	59	2,689	75%	654	18%	247	7%	3,590	152	5,133	729	248	6,110
TV	2017	2	2	161	84	1,844	60%	1,170	38%	42	1%	3,056	59	1,746	68%	692	27%	147	6%	2,585	143	3,590	1,862	189	5,641
TV	2018	1	1	208	160	3,194	74%	1,067	25%	44	1%	4,305	108	5,597	82%	556	8%	679	10%	6,831	268	8,791	1,622	723	11,136
TV	2019	1	1	155	78	2,194	96%	77	3%	16	1%	2,287	60	2,471	93%	134	5%	62	2%	2,667	138	4,665	211	78	4,954
TW	2010	34	30	7,865	6,413	98,807	81%	23,084	19%	719	1%	122,609	1,709	54,519	72%	15,906	21%	5,816	8%	76,241	8,122	153,326	38,989	6,534	198,850
TW	2011	34	31	8,801	4,763	56,080	81%	12,400	18%	557	1%	69,037	2,955	78,631	74%	20,060	19%	8,206	8%	106,897	7,718	134,712	32,460	8,763	175,935
TW	2012	34	33	7,146	4,660	61,274	71%	23,964	28%	835	1%	86,073	2,940	89,196	78%	17,889	16%	7,495	7%	114,579	7,600	150,469	41,853	8,330	200,652
TW	2013	34	34	7,706	6,171	83,409	83%	16,157	16%	996	1%	100,562	2,638	80,950	72%	22,049	20%	8,920	8%	111,919	8,809	164,359	38,207	9,915	212,481
TW	2014	34	36	6,845	5,749	103,942	88%	12,997	11%	1,266	1%	118,205	2,654	90,373	76%	20,850	18%	7,728	7%	118,952	8,404	194,315	33,847	8,995	237,157
TW	2015	34	34	5,141	4,639	78,651	75%	24,717	24%	1,382	1%	104,751	1,785	71,280	80%	12,789	14%	5,429	6%	89,498	6,424	149,931	37,507	6,811	194,249
TW	2016	34	31	5,273	4,785	80,526	70%	32,485	28%	1,334	1%	114,345	1,511	54,882	74%	13,084	18%	6,076	8%	74,043	6,297	135,408	45,569	7,410	188,388
TW	2017	31	31	5,461	5,167	65,259	68%	29,740	31%	949	1%	95,948	1,904	55,089	76%	13,963	19%	3,915	5%	72,967	7,072	120,382	43,708	4,866	168,957
TW	2018	27	29	5,185	4,634	81,355	84%	14,452	15%	1,159	1%	96,966	2,292	76,334	77%	17,069	17%	6,067	6%	99,470	6,927	157,690	31,521	7,225	196,436
TW	2019	30	31	5,232	5,650	118,709	82%	25,205	17%	818	1%	144,732	2,057	76,005	79%	15,543	16%	4,307	5%	95,855	7,713	194,774	40,764	5,128	240,666

Table 7. (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	SETS	MT	%	MT	%	MT	%	MT					
US	2010	37	37	8,220	6,331	109,791	83%	22,013	17%	1,005	1%	132,809	2,397	90,676	81%	15,556	14%	6,104	5%	112,336	8,738	200,715	37,673	7,136	245,524
US	2011	37	36	8,048	3,008	48,931	82%	10,893	18%	120	0%	59,943	3,401	112,004	78%	20,448	14%	10,845	8%	143,297	6,409	160,934	31,341	10,965	203,240
US	2012	39	40	8,789	5,622	98,583	80%	24,024	19%	1,183	1%	123,790	3,464	109,242	80%	18,627	14%	8,043	6%	135,911	9,088	207,870	42,660	9,229	259,759
US	2013	40	42	8,380	5,028	97,147	92%	8,170	8%	769	1%	106,086	3,152	112,516	76%	25,108	17%	10,450	7%	148,074	8,183	209,758	33,285	11,230	254,273
US	2014	40	40	9,069	6,268	117,160	84%	22,317	16%	419	0%	139,896	3,717	146,857	85%	17,850	10%	8,402	5%	173,109	9,987	264,017	40,167	8,822	313,005
US	2015	39	39	6,988	5,904	111,940	89%	13,307	11%	606	1%	125,853	2,052	96,195	86%	11,076	10%	4,955	4%	112,226	7,956	208,136	24,383	5,560	238,079
US	2016	37	34	5,571	3,333	75,602	87%	10,518	12%	396	1%	86,515	2,177	88,209	77%	17,923	16%	8,489	7%	114,621	5,511	163,821	28,445	8,886	201,152
US	2017	34	34	5,623	2,652	43,630	74%	15,397	26%	302	1%	59,328	2,442	82,305	77%	17,639	17%	7,177	7%	107,121	5,095	125,935	33,036	7,479	166,449
US	2018	34	35	5,758	2,828	54,131	78%	15,003	22%	192	0%	69,326	2,910	101,631	79%	16,590	13%	9,905	8%	128,125	5,738	155,761	31,592	10,097	197,451
US	2019	31	30	4,311	3,114	69,218	85%	12,283	15%	276	0%	81,777	1,891	69,146	82%	10,632	13%	4,829	6%	84,607	5,007	138,401	22,926	5,114	166,441
VU	2010	5	5	872	469	10,146	76%	3,100	23%	31	0%	13,277	198	8,619	83%	1,357	13%	464	4%	10,440	668	18,766	4,458	495	23,720
VU	2011	6	4	1,142	287	5,746	86%	914	14%	34	1%	6,695	391	14,222	85%	2,136	13%	330	2%	16,688	678	19,968	3,050	364	23,382
VU	2012	6	3	775	472	9,346	63%	5,322	36%	160	1%	14,827	268	10,076	83%	1,455	12%	644	5%	12,175	740	19,422	6,777	803	27,002
VU	2013	6	4	974	607	11,471	85%	1,973	15%	46	0%	13,490	263	10,395	82%	1,780	14%	537	4%	12,712	870	21,866	3,753	584	26,202
VU	2014	3	3	685	362	8,644	87%	1,230	12%	32	0%	9,906	230	9,359	86%	1,107	10%	389	4%	10,855	592	18,003	2,337	421	20,761
VU	2015	3	3	286	105	1,641	95%	79	5%	1	0%	1,721	125	5,897	89%	576	9%	150	2%	6,623	230	7,538	655	151	8,344
VU	2016	3	3	165	40	1,249	90%	122	9%	11	1%	1,382	37	2,588	86%	74	3%	350	12%	3,012	78	3,837	196	361	4,394
VU	2017	3	3	249	119	1,450	65%	786	35%	6	0%	2,242	122	2,939	64%	759	17%	904	20%	4,603	241	4,389	1,546	911	6,845
VU	2018	2	2	313	337	6,457	82%	1,437	18%	19	0%	7,912	96	3,859	84%	618	13%	136	3%	4,613	433	10,315	2,055	155	12,525
VU	2019	6	6	578	777	24,229	90%	2,296	9%	278	1%	26,803	108	5,328	80%	574	9%	759	11%	6,662	886	29,557	2,870	1,037	33,465

Table 7. (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			
2010	276	265	52,165	38,149	685,657	76%	213,674	24%	8,651	1%	907,980	12,979	412,681	72%	113,281	20%	44,461	8%	570,422	51,407	1,102,364	329,393	53,471	1,485,229	
2011	279	269	58,605	30,073	424,055	75%	135,077	24%	3,417	1%	562,552	21,750	611,235	73%	157,758	19%	69,674	8%	838,664	51,975	1,036,966	293,480	73,202	1,403,648	
2012	285	284	54,352	36,078	612,667	73%	215,172	26%	8,447	1%	836,283	20,414	596,388	75%	142,655	18%	54,017	7%	793,057	56,631	1,210,690	358,415	62,571	1,631,676	
2013	297	291	55,698	38,337	647,370	79%	158,640	19%	9,065	1%	815,076	18,395	561,192	72%	160,524	21%	59,796	8%	781,511	56,836	1,210,337	320,126	69,012	1,599,476	
2014	308	306	53,788	38,225	730,191	77%	205,641	22%	9,990	1%	945,821	18,605	637,468	77%	132,454	16%	56,635	7%	826,559	56,913	1,369,464	338,822	66,775	1,775,061	
2015	306	301	42,493	33,488	679,283	78%	181,913	21%	10,708	1%	871,903	13,662	551,360	79%	105,902	15%	38,773	6%	696,034	47,287	1,234,095	289,532	50,111	1,573,738	
2016	293	275	44,708	32,285	644,527	73%	227,340	26%	11,326	1%	883,191	14,415	535,203	76%	117,841	17%	48,445	7%	701,490	46,879	1,183,616	347,480	60,187	1,591,283	
2017	282	281	48,416	33,488	511,993	66%	258,958	33%	9,791	1%	780,740	17,094	516,828	76%	120,416	18%	44,261	6%	681,506	50,851	1,033,864	382,496	54,377	1,470,737	
2018	272	272	45,479	32,773	616,093	75%	193,624	24%	11,391	1%	821,107	18,495	670,566	80%	119,993	14%	50,005	6%	840,563	51,458	1,290,777	315,615	62,117	1,668,509	
2019	288	274	47,364	37,151	847,984	80%	201,150	19%	9,078	1%	1,058,211	17,826	623,353	81%	111,429	14%	34,015	4%	768,798	55,276	1,477,504	315,753	43,587	1,836,845	

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. Estimates exclude domestic purse seine catch/effort in Philippines, Indonesia and Vietnam.
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 8. Longline effort (100s of hooks) in the tropical WCPFC LONGLINE fishery (20°N-10°S), by fleet, 2010-2019.

FLEET	LONGLINE EFFORT (100s of Hooks)									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
CK	13,422	16,809	32,818	16,880	10,880	11,761	25,750	20,672	21,581	22,508
CN	558,006	741,473	838,710	653,046	554,203	856,023	643,894	490,233	808,126	594,763
FJ	27,971	91,025	167,297	135,836	128,960	83,827	87,789	45,608	30,099	71,340
FM	84,884	94,564	110,591	85,598	123,995	149,576	165,600	167,500	361,852	376,551
JP	591,056	544,105	513,557	453,786	393,618	347,416	279,927	286,586	306,207	310,259
KI	0	19,487	50,227	27,577	23,868	36,636	56,821	37,121	40,604	76,615
KR	728,899	803,678	771,103	626,874	603,157	506,797	586,401	473,107	567,738	588,098
MH	16,828	16,763	20,679	6,286	0	585	63,220	138,797	104,151	84,657
PF	0	242	147	246	437	18	1,138	13,321	5,179	3,670
PG	24,589	51,692	40,188	14,849	19,232	7,883	4,492	2,789	35,323	385
PW	0	0	0	0	0	0	626	7,503	89,094	128,113
SB	66,738	12,757	5,497	3,942	421,448	560,754	16,413	9,821	193,646	435,052
TV	3,436	26,925	69,189	16,219	16,809	18,844	12,927	15,818	12,376	8,090
TW	1,248,359	1,547,615	1,710,738	1,237,662	1,031,881	1,207,708	1,291,770	1,385,543	1,054,992	1,126,200
US	127,121	135,232	152,740	128,813	147,964	181,519	240,469	217,903	165,374	324,022
VU	76,507	89,530	128,383	186,203	138,404	290,629	213,255	128,077	117,367	107,149
	3,567,816	4,191,898	4,611,865	3,593,816	3,614,857	4,259,976	3,690,490	3,440,400	3,913,708	4,257,471

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

