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**2024 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA
LOONGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2024
IN THE IATTC CONVENTION AREA
CHINA

Prepared by

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2024, China conducted twenty-three longline observer trips in the IATTC convention area (east of 150°W). A total of 2562 fishing days were observed during the twenty-three trips (**Table 1**). Some of the Chinese observer trips for the EPO area were shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel carried out the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

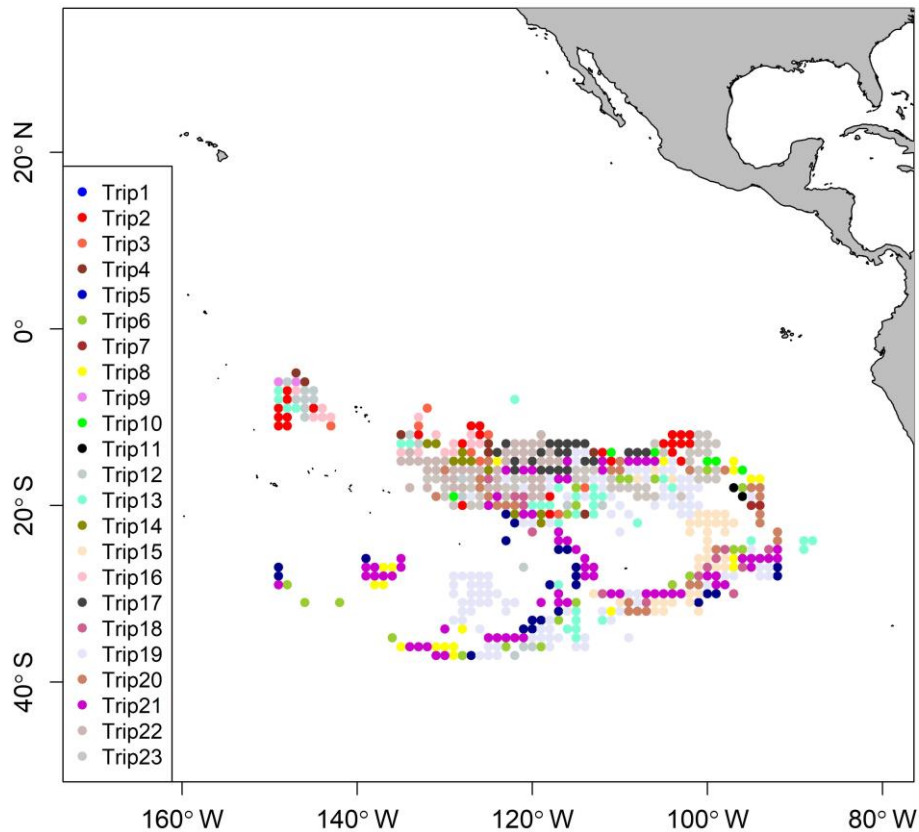
Table 1 Information of twenty-three Chinese LL observer trips in the IATTC area in 2024

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	7	22700	Feb 1, 2024-Feb 7, 2024	18°~19°S, 105°~108°W
Trip 2	66	199997	Feb 1, 2024-Jul 31, 2024	6°~22°S, 113°~146°W
Trip 3	62	212598	Feb 1, 2024-Jul 30, 2024	5°~21°S, 113°~149°W
Trip 4	129	418872	Jun 15, 2024-Nov 29, 2024	21°~27°S, 92°~149°W
Trip 5	180	585264	May 27, 2024-Dec 31, 2024	15°~37°S, 92°~149°W
Trip 6	44	150375	Sep 20, 2024-Dec 28, 2024	15°~21°S, 94°~135°W
Trip 7	167	574098	Jun 2, 2024-Dec 30, 2024	15°~37°S, 92°~149°W
Trip 8	15	43286	Mar 19, 2024-Apr 4, 2024	6°~8°S, 146°~149°W
Trip 9	103	348117	Aug 14, 2024-Dec 31, 2024	15°~32°S, 92°~131°W
Trip 10	73	250380	Sep 23, 2024-Dec 31, 2024	14°~19°S, 96°~130°W
Trip 11	115	381342	Aug 14, 2024-Dec 31, 2024	17°~31°S, 93°~129°W
Trip 12	26	82865	Sep 15, 2024-Dec 31, 2024	16°~26°S, 95°~131°W
Trip 13	128	401975	Feb 10, 2024-Aug 11, 2024	6°~37°S, 109°~148°W
Trip 14	173	538100	Jun 4, 2024-Dec 31, 2024	14°~37°S, 92°~149°W
Trip 15	215	724022	Aug 2, 2023-Aug 15, 2024	7°~35°S, 88°~149°W

Trip 16	92	342981	Dec 4, 2023-Mar 20, 2024	13°~22°S, 118°~132°W
Trip 17	90	266923	Jul 18, 2024-Dec 13, 2024	14°~32°S, 97°~134°W
Trip 18	263	848594	Dec 30, 2023-Dec 31, 2024	14°~37°S, 93°~132°W
Trip 19	116	365430	Dec 30, 2023-Dec 31, 2024	14°~37°S, 93°~132°W
Trip 20	58	189410	Feb 20, 2024-Jun 25, 2024	7°~18°S, 125°~147°W
Trip 21	88	250354	Jun 29, 2024-Oct 9, 2024	13°~16°S, 105°~124°W
Trip 22	187	581746	Jun 29, 2024-Oct 9, 2024	13°~16°S, 102°~149°W
Trip23	158	512125	Jun 15, 2024-Dec 31, 2024	12°~19°S, 117°~135°W

The observed set stations for the twenty-three trips are shown in **Figure 1**. These trips targeted albacore tuna, mainly using circle hooks.

Fig. 1 Set stations of Chinese longline observer trips in 2024



2. Observer coverage

Based on current observer data, China's observer coverage in EPO for 2024 was 10.78%. We suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Tables 2-24**.

One Leatherback turtle and three Olive Ridley turtles were captured in the observation period, and safely released. Two False killer whales were captured in Trip 15 and Trip 21, and safely released. Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks, Shortfin makos and Silky sharks, which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	9	1.37%
<i>Alepisaurus ferox</i>	Longnose lancetfish	45	6.87%
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.15%
<i>Dasyatis violacea</i>	Pelagic stingray	27	4.12%
<i>Gempylus serpens</i>	Snake mackerel	1	0.15%
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.15%
<i>Katsuwonus pelamis</i>	Skipjack tuna	27	4.12%
<i>Lampris guttatus</i>	Opah	5	0.76%
<i>Lepidocybium flavobrunneum</i>	Escolar	6	0.92%
<i>Makaira nigricans</i>	Blue marlin	1	0.15%
<i>Prionace glauca</i>	Blue shark	7	1.07%
<i>Taractes rubescens</i>	Dagger pomfret	1	0.15%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	13	1.98%
<i>Tetrapturus audax</i>	Striped Marlin	4	0.61%
<i>Thunnus alalunga</i>	Albacore tuna*	471	71.91%
<i>Thunnus albacares</i>	Yellowfin tuna	2	0.31%
<i>Thunnus obesus</i>	Bigeye tuna	18	2.75%
<i>Xiphias gladius</i>	Swordfish	2	0.31%
-	Unidentified sharks	14	2.14%
Total		655	100%

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	160	2.92%
<i>Alepisaurus ferox</i>	Longnose lancetfish	281	5.12%
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.04%
<i>Dasyatis violacea</i>	Pelagic stingray	338	6.16%
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.02%
<i>Eumegistus illustris</i>	Brilliant pomfret	5	0.09%
<i>Gempylus serpens</i>	Snake mackerel	19	0.35%
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.02%
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.07%
<i>Katsuwonus pelamis</i>	Skipjack tuna	396	7.22%
<i>Lampris guttatus</i>	Opah	15	0.27%

<i>Lepidocybium flavobrunneum</i>	Escolar	105	1.91%
<i>Makaira indica</i>	Black marlin	12	0.22%
<i>Mantabirostris</i>	Giant manta	2	0.04%
<i>Masturus lanceolatus</i>	Sharptail mola	2	0.04%
<i>Prionace glauca</i>	Blue shark	7	0.13%
<i>Promethichthys prometheus</i>	Roundi escolar	2	0.04%
<i>Ranzania laevis</i>	Slender sunfish	5	0.09%
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.02%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	59	1.08%
<i>Tetrapturus audax</i>	Striped Marlin	5	0.09%
<i>Thunnus alalunga</i>	Albacore tuna*	3331	60.72%
<i>Thunnus albacares</i>	Yellowfin tuna	339	6.18%
<i>Thunnus obesus</i>	Bigeye tuna	368	6.71%
<i>Xiphias gladius</i>	Swordfish	6	0.11%
-	Unidentified sharks	17	0.31%
-	Squids	3	0.05%
Total		5486	100%

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	32	1.50%
<i>Alepisaurus ferox</i>	Longnose lancetfish	12	0.56%
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.09%
<i>Assurger anzac</i>	Razorback scabbardfish	3	0.14%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.09%
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.05%
<i>Cubiceps gracilis</i>	Driftfish	1	0.05%
<i>Dasyatis violacea</i>	Pelagic stingray	26	1.22%
<i>Gasterochisma melampus</i>	Butterfly kingfish	1	0.05%
<i>Gempylus serpens</i>	Snake mackerel	1	0.05%
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.19%
<i>Isurus paucus</i>	Longfin mako	2	0.09%
<i>Katsuwonus pelamis</i>	Skipjack tuna	253	11.83%
<i>Lampris guttatus</i>	Opah	4	0.19%

<i>Lepidocybium flavobrunneum</i>	Escolar	26	1.22%
<i>Lophotus capellei</i>	Unicornfish	2	0.09%
<i>Makaira nigricans</i>	Blue marlin	9	0.42%
<i>Prionace glauca</i>	Blue shark	56	2.62%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	2	0.09%
<i>Ranzania laevis</i>	Slender sunfish	3	0.14%
<i>Scymnodon squamulosus</i>	Velvet dogfish	2	0.09%
<i>Carcharhinus falciformis</i>	Silky shark	1	0.05%
<i>Sphyrna zygaena</i>	Smooth hammerhead	1	0.05%
<i>Taractes rubescens</i>	Dagger pomfret	1	0.05%
<i>Taractichthys steindachneri</i>	Sickle pomfret	4	0.19%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	22	1.03%
<i>Tetrapturus audax</i>	Striped marlin	6	0.28%
<i>Thunnus alalunga</i>	Albacore tuna*	1309	61.20%
<i>Thunnus albacares</i>	Yellowfin tuna	199	9.30%
<i>Thunnus obesus</i>	Bigeye tuna	147	6.87%
<i>Xiphias gladius</i>	Swordfish	5	0.23%
Total		2139	100.00%

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	59	0.49%
<i>Alepisaurus brevirostris</i>	Short snouted lancetfish	1	0.01%
<i>Alepisaurus ferox</i>	Longnose lancetfish	25	0.21%
<i>Allothunnus fallai</i>	Slender tuna	7	0.06%
<i>Assurger anzac</i>	Razorback scabbardfish	2	0.02%
<i>Brama brama</i>	Atlantic pomfret	13	0.11%
<i>Coryphaena hippurus</i>	Dolphinfish	41	0.34%
<i>Dasyatis violacea</i>	Pelagic stingray	6	0.05%
<i>Gasterochisma melampus</i>	Butterfly kingfish	73	0.61%
<i>Gempylus serpens</i>	Snake mackerel	2	0.02%
<i>Isistius brasiliensis</i>	Cookie cutter shark	1	0.01%
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.01%

<i>Katsuwonus pelamis</i>	Skipjack tuna	177	1.47%
<i>Lampris guttatus</i>	Opah	268	2.23%
<i>Lepidocybium flavobrunneum</i>	Escolar	188	1.56%
<i>Lophotus capellei</i>	Unicornfish	1	0.01%
<i>Makaira indica</i>	Black marlin	9	0.07%
<i>Mola mola</i>	Ocean sunfish	2	0.02%
<i>Pteraclis aesticola</i>	Pacific fanfish	1	0.01%
<i>Ruvettus pretiosus</i>	Oilfish	1	0.01%
<i>Seriola lalandi</i>	Yellowtail amberjack	6	0.05%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	65	0.54%
<i>Tetrapturus audax</i>	Striped marlin	71	0.59%
<i>Thunnus alalunga</i>	Albacore tuna*	10804	89.84%
<i>Thunnus albacares</i>	Yellowfin tuna	125	1.04%
<i>Thunnus obesus</i>	Bigeye tuna	31	0.26%
<i>Xiphias gladius</i>	Swordfish	7	0.06%
-	Unidentified sharks	39	0.32%
Total		12026	100.00%

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	257	1.16%
<i>Alepisaurus ferox</i>	Longnose lancetfish	1060	4.77%
<i>Allothunnus fallai</i>	Slender tuna	35	0.16%
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.01%
<i>Assurger anzac</i>	Razorback scabbardfish	3	0.01%
<i>Brama brama</i>	Atlantic pomfret	5	0.02%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	5	0.02%
<i>Common remora</i>	Common remora	14	0.06%
<i>Coryphaena hippurus</i>	Dolphinfish	37	0.17%
<i>Cubiceps gracilis</i>	Driftfish	2	0.01%
<i>Dasyatis violacea</i>	Pelagic stingray	401	1.81%
<i>Decapterus lajang</i>	Slender mackerel scad	3	0.01%
<i>Gasterochisma melampus</i>	Butterfly kingfish	110	0.50%
<i>Gempylus serpens</i>	Snake mackerel	30	0.14%
<i>Isurus oxyrinchus</i>	Shortfin mako	31	0.14%

<i>Isurus paucus</i>	Longfin mako	2	0.01%
<i>Katsuwonus pelamis</i>	Skipjack tuna	734	3.31%
<i>Lampris guttatus</i>	Opah	301	1.36%
<i>Lepidocybium flavobrunneum</i>	Escolar	262	1.18%
<i>Lophotus capellei</i>	Unicornfish	4	0.02%
<i>Makaira indica</i>	Black marlin	2	0.01%
<i>Makaira nigricans</i>	Blue marlin	13	0.06%
<i>Masturus lanceolatus</i>	Sharptail mola	3	0.01%
<i>Mola mola</i>	Ocean sunfish	5	0.02%
<i>Prionace glauca</i>	Blue shark	84	0.38%
<i>Promethichthys prometheus</i>	Roudi escolar	1	0.00%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	14	0.06%
<i>Ranzania laevis</i>	Slender sunfish	1	0.00%
<i>Remora osteochir</i>	Marlin sucker	39	0.18%
<i>Ruvettus pretiosus</i>	Oilfish	8	0.04%
<i>Scombrolabrax heterolepis</i>	Longfin escolar	11	0.05%
<i>Scymnodon squamulosus</i>	Velvet dogfish	2	0.01%
<i>Seriola lalandi</i>	Yellowtail amberjack	1	0.00%
<i>Sphyrna zygaena</i>	Smooth hammerhead	1	0.00%
<i>Taractes rubescens</i>	Dagger pomfret	1	0.00%
<i>Taractichthys steindachneri</i>	Sickle pomfret	9	0.04%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	196	0.88%
<i>Tetrapturus audax</i>	Striped marlin	135	0.61%
<i>Thunnus alalunga</i>	Albacore tuna*	17412	78.43%
<i>Thunnus albacares</i>	Yellowfin tuna	386	1.74%
<i>Thunnus obesus</i>	Bigeye tuna	287	1.29%
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	1	0.00%
<i>Xiphias gladius</i>	Swordfish	32	0.14%
-	Unidentified sharks	256	1.15%
-	Squids	2	0.01%
Total		22200	100.00%

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in	Percentage
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		number	
<i>Acanthocybium solandri</i>	Wahoo	119	2.33%
<i>Coryphaena hippurus</i>	Dolphinfish	7	0.14%
<i>Dasyatis violacea</i>	Pelagic stingray	110	2.15%
<i>Katsuwonus pelamis</i>	Skipjack tuna	156	3.05%
<i>Lampris guttatus</i>	Opah	131	2.56%
<i>Lepidocybium flavobrunneum</i>	Escolar	155	3.03%
<i>Makaira nigricans</i>	Blue marlin	21	0.41%
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.04%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	32	0.63%
<i>Tetrapturus audax</i>	Striped marlin	78	1.52%
<i>Thunnus alalunga</i>	Albacore tuna*	3890	76.02%
<i>Thunnus albacares</i>	Yellowfin tuna	108	2.11%
<i>Thunnus obesus</i>	Bigeye tuna	115	2.25%
<i>Xiphias gladius</i>	Swordfish	17	0.33%
-	Unidentified sharks	176	3.44%
Total		5117	100.00%

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	309	1.52%
<i>Alepisaurus ferox</i>	Longnose lancetfish	35	0.17%
<i>Alopias superciliosus</i>	Bigeye thresher	7	0.03%
<i>Carcharhinus falciformis</i>	Silky shark	5	0.02%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.01%
<i>Coryphaena hippurus</i>	Dolphinfish	24	0.12%
<i>Dasyatis violacea</i>	Pelagic stingray	31	0.15%
<i>Gasterochisma melampus</i>	Butterfly kingfish	119	0.59%
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	16	0.08%
<i>Katsuwonus pelamis</i>	Skipjack	815	4.02%
<i>Lampris guttatus</i>	Opah	428	2.11%
<i>Lepidocybium flavobrunneum</i>	Escolar	260	1.28%
<i>Makaira indica</i>	Black marlin	4	0.02%
<i>Makaira nigricans</i>	Blue marlin	14	0.07%
<i>Prionace glauca</i>	Blue shark	368	1.82%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	17	0.08%
<i>Ruvettus pretiosus</i>	Oilfish	5	0.02%

<i>Scymnodon squamulosus</i>	Velvet dogfish	10	0.05%
<i>Taractes rubescens</i>	Dagger pomfret	17	0.08%
<i>Taractichthys steindachneri</i>	Sickle pomfret	8	0.04%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	224	1.11%
<i>Tetrapturus audax</i>	Striped marlin	157	0.77%
<i>Thunnus alalunga</i>	Albacore tuna*	16735	82.56%
<i>Thunnus albacares</i>	Yellowfin tuna	205	1.01%
<i>Thunnus obesus</i>	Bigeye tuna	261	1.29%
<i>Xiphias gladius</i>	Swordfish	26	0.13%
-	Unidentified sharks	168	0.83%
Total		20270	100.00%

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	12	1.60%
<i>Alepisaurus ferox</i>	Longnose lancetfish	29	3.88%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.13%
<i>Gempylus serpens</i>	Snake mackerel	8	1.07%
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.13%
<i>Katsuwonus pelamis</i>	Skipjack tuna	80	10.70%
<i>Lepidocybium flavobrunneum</i>	Escolar	19	2.54%
<i>Makaira nigricans</i>	Blue marlin	10	1.34%
<i>Prionace glauca</i>	Blue shark	27	3.61%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	4	0.53%
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	37	4.95%
<i>Ruvettus pretiosus</i>	Oilfish	1	0.13%
<i>Thunnus alalunga</i>	Albacore tuna*	235	31.42%
<i>Thunnus albacares</i>	Yellowfin tuna	181	24.20%
<i>Thunnus obesus</i>	Bigeye tuna	99	13.24%
<i>Xiphias gladius</i>	Swordfish	4	0.53%
Total		748	100.00%

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	175	1.80%
<i>Alepisaurus ferox</i>	Longnose lancetfish	129	1.33%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.02%
<i>Coryphaena hippurus</i>	Dolphinfish	8	0.08%
<i>Dasyatis violacea</i>	Pelagic stingray	4	0.04%
<i>Gempylus serpens</i>	Snake mackerel	1	0.01%
<i>Katsuwonus pelamis</i>	Skipjack tuna	270	2.78%
<i>Lampris guttatus</i>	Opah	27	0.28%
<i>Lepidocybium flavobrunneum</i>	Escolar	116	1.19%
<i>Lophotus capellei</i>	Unicornfish	2	0.02%
<i>Makaira nigricans</i>	Blue marlin	16	0.16%
<i>Prionace glauca</i>	Blue shark	89	0.92%
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.02%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	61	0.63%
<i>Tetrapturus audax</i>	Striped marlin	33	0.34%
<i>Thunnus alalunga</i>	Albacore tuna*	8549	88.04%
<i>Thunnus albacares</i>	Yellowfin tuna	69	0.71%
<i>Thunnus obesus</i>	Bigeye tuna	139	1.43%
<i>Xiphias gladius</i>	Swordfish	18	0.19%
Total		9710	100.00%

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	128	1.99%
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.02%
<i>Katsuwonus pelamis</i>	Skipjack tuna	271	4.21%
<i>Lampris guttatus</i>	Opah	40	0.62%
<i>Lepidocybium flavobrunneum</i>	Escolar	52	0.81%
<i>Prionace glauca</i>	Blue shark	18	0.28%
<i>Makaira nigricans</i>	Blue marlin	58	0.90%
<i>Thunnus alalunga</i>	Albacore tuna*	5593	86.79%
<i>Thunnus albacares</i>	Yellowfin tuna	78	1.21%

<i>Thunnus obesus</i>	Bigeye tuna	107	1.66%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	48	0.74%
<i>Xiphias gladius</i>	Swordfish	15	0.23%
-	Unidentified sharks	35	0.54%
Total		6444	100.00%

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	164	3.05%
<i>Alepisaurus ferox</i>	Longnose lancetfish	171	3.18%
<i>Brama brama</i>	Atlantic pomfret	3	0.06%
<i>Pteraclis aesticola</i>	Pacific fanfish	1	0.02%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.02%
<i>Coryphaena hippurus</i>	Dolphinfish	64	1.19%
<i>Dasyatis violacea</i>	Pelagic stingray	27	0.50%
<i>Gempylus serpens</i>	Snake mackerel	9	0.17%
<i>Katsuwonus pelamis</i>	Skipjack tuna	550	10.22%
<i>Lampris guttatus</i>	Opah	195	3.63%
<i>Lepidocybium flavobrunneum</i>	Escolar	195	3.63%
<i>Lophotus capellei</i>	Unicornfish	3	0.06%
<i>Makaira nigricans</i>	Blue marlin	19	0.35%
<i>Prionace glauca</i>	Blue shark	183	3.40%
<i>Ruvettus pretiosus</i>	Oilfish	2	0.04%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	148	2.75%
<i>Tetrapturus audax</i>	Striped marlin	146	2.71%
<i>Thunnus alalunga</i>	Albacore tuna*	2997	55.72%
<i>Thunnus albacares</i>	Yellowfin tuna	341	6.34%
<i>Thunnus obesus</i>	Bigeye tuna	143	2.66%
<i>Xiphias gladius</i>	Swordfish	17	0.32%
Total		5379	100.00%

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in	Percentage
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		number	
<i>Acanthocybium solandri</i>	Wahoo	39	1.76%
<i>Alepisaurus ferox</i>	Longnose lancetfish	50	2.25%
<i>Carcharhinus falciformis</i>	Silky shark	3	0.14%
<i>Coryphaena hippurus</i>	Dolphinfish	3	0.14%
<i>Dasyatis violacea</i>	Pelagic stingray	22	0.99%
<i>Gempylus serpens</i>	Snake mackerel	1	0.05%
<i>Katsuwonus pelamis</i>	Skipjack	87	3.92%
<i>Lampris guttatus</i>	Opah	52	2.34%
<i>Lepidocybium flavobrunneum</i>	Escolar	20	0.90%
<i>Makaira nigricans</i>	Blue marlin	22	0.99%
<i>Prionace glauca</i>	Blue shark	36	1.62%
<i>Taractichthys steindachneri</i>	Sickle pomfret	6	0.27%
<i>Thunnus alalunga</i>	Albacore tuna*	12	0.54%
<i>Thunnus albacares</i>	Yellowfin tuna	1797	81.02%
<i>Thunnus obesus</i>	Bigeye tuna	23	1.04%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	41	1.85%
<i>Xiphias gladius</i>	Swordfish	4	0.18%
Total		2218	100%

Table 14 Observed catch and composition during observer trip 13

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	164	1.15%
<i>Alepisaurus ferox</i>	Longnose lancetfish	247	1.73%
<i>Allothunnus fallai</i> Serventy	Slender tuna	67	0.47%
<i>Alopias superciliosus</i>	Bigeye thresher	3	0.02%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.01%
<i>Coryphaena hippurus</i>	Dolphinfish	2	0.01%
<i>Dasyatis violacea</i>	Pelagic stingray	293	2.05%
<i>Desmodema polystictum</i>	Polka-dot ribbonfish	1	0.01%
<i>Gasterochisma melampus</i>	Butterfly kingfish	142	0.99%
<i>Gempylus serpens</i>	Snake mackerel	12	0.08%
<i>Isurus oxyrinchus</i>	Shortfin mako	2	0.01%
<i>Isurus paucus</i>	Longfin mako	1	0.01%
<i>Katsuwonus pelamis</i>	Skipjack tuna	1612	11.29%
<i>Lampris guttatus</i>	Opah	15	0.11%
<i>Lepidocybium flavobrunneum</i>	Escolar	206	1.44%

<i>Makaira indica</i>	Black marlin	1	0.01%
<i>Makaira nigricans</i>	Blue marlin	87	0.61%
<i>Mobula japonica</i>	Spinetail mobula	1	0.01%
<i>Prionace glauca</i>	Blue shark	41	0.29%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	3	0.02%
<i>Ranzania laevis</i>	Slender sunfish	3	0.02%
<i>Ruvettus pretiosus</i>	Oilfish	5	0.04%
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.01%
<i>Taractes rubescens</i>	Dagger pomfret	21	0.15%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	83	0.58%
<i>Tetrapturus audax</i>	Striped Marlin	13	0.09%
<i>Thunnus alalunga</i>	Albacore tuna*	8610	60.28%
<i>Thunnus albacares</i>	Yellowfin tuna	1697	11.88%
<i>Thunnus obesus</i>	Bigeye tuna	792	5.55%
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	2	0.01%
<i>Xiphias gladius</i>	Swordfish	18	0.13%
-	Unidentified sharks	136	0.95%
Total		14283	100.00%

Table 15 Observed catch and composition during observer trip 14

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	138	0.59%
<i>Alepisaurus ferox</i>	Longnose lancetfish	243	1.04%
<i>Allothunnus fallai</i>	Slender tuna	2	0.01%
<i>Coryphaena hippurus</i>	Dolphinfish	25	0.11%
<i>Dasyatis violacea</i>	Pelagic stingray	68	0.29%
<i>Eumegistus illustris</i>	Brilliant pomfret	3	0.01%
<i>Gempylus serpens</i>	Snake mackerel	1	0.00%
<i>Katsuwonus pelamis</i>	Skipjack tuna	606	2.60%
<i>Lampris guttatus</i>	Opah	267	1.14%
<i>Lepidocybium flavobrunneum</i>	Escolar	197	0.84%
<i>Makaira nigricans</i>	Blue marlin	6	0.03%
<i>Prionace glauca</i>	Blue shark	301	1.29%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	112	0.48%
<i>Tetrapturus audax</i>	Striped marlin	111	0.48%
<i>Thunnus alalunga</i>	Albacore tuna*	20795	89.15%
<i>Thunnus albacares</i>	Yellowfin tuna	207	0.89%

<i>Thunnus obesus</i>	Bigeye tuna	227	0.97%
<i>Xiphias gladius</i>	Swordfish	17	0.07%
Total		23326	100.00%

Table 16 Observed catch and composition during observer trip 15

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	324	1.26%
<i>Alepisaurus ferox</i>	Longnose lancetfish	1405	5.46%
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.01%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	29	0.11%
<i>Coryphaena hippurus</i>	Dolphinfish	11	0.04%
<i>Dasyatis violacea</i>	Pelagic stingray	809	3.14%
<i>Gasterochismamamelampus</i>	Butterfly Kingfish	80	0.31%
<i>Gempylus serpens</i>	Snake mackerel	3	0.01%
<i>Kajikia audax</i>	Striped Marlin	60	0.23%
<i>Katsuwonus pelamis</i>	Skipjack tuna	1337	5.19%
<i>Lampris guttatus</i>	Opah	107	0.42%
<i>Lepidochelys olivacea</i>	Olive Ridley turtle	1	0.00%
<i>Lepidocybium flavobrunneum</i>	Escolar	321	1.25%
<i>Makaira mazara</i>	Blue marlin	60	0.23%
<i>Prionace glauca</i>	Blue shark	449	1.74%
<i>Pseudorca crassidens</i>	False Killer Whale	1	0.00%
<i>Ruvettus pretiosus</i>	Oilfish	2	0.01%
<i>Sphyrna barracuda</i>	Great barracuda	1	0.00%
<i>Taractes rubescens</i>	Dagger pomfret	3	0.01%
<i>Taractichthys steindachneri</i>	Sickle pomfret	3	0.01%
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	286	1.11%
<i>Thunnus alalunga</i>	Albacore tuna*	18597	72.26%
<i>Thunnus albacares</i>	Yellowfin tuna	761	2.96%
<i>Thunnus obesus</i>	Bigeye tuna	1030	4.00%
<i>Xiphias gladius</i>	Swordfish	55	0.21%
-	Unidentified fishes	1	0.00%
Total		25738	100.00%

Table 17 Observed catch and composition during observer trip 16

Scientific name	English name	Observed	Percentage
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		catch in number	
<i>Acanthocybium solandri</i>	Wahoo	204	2.30%
<i>Alepisaurus ferox</i>	Longnose lancetfish	802	9.05%
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.02%
<i>Assurger anzac</i>	Razorback scabbardfish	1	0.01%
<i>Carcharhinus albimarginatus</i>	Silvertip shark	5	0.06%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.01%
<i>Carcharodon carcharias</i>	Great white shark	3	0.03%
<i>Coryphaena hippurus</i>	Dolphinfish	2	0.02%
<i>Dasyatis violacea</i>	Pelagic stingray	154	1.74%
<i>Gempylus serpens</i>	Snake mackerel	1	0.01%
<i>Isurus oxyrinchus</i>	Shortfin mako	3	0.03%
<i>Katsuwonus pelamis</i>	Skipjack tuna	774	8.71%
<i>Lampris guttatus</i>	Opah	17	0.02%
<i>Lepidocybium flavobrunneum</i>	Escolar	95	0.19%
<i>Makaira indica</i>	Black marlin	1	1.07%
<i>Makaira nigricans</i>	Blue marlin	91	0.01%
<i>Prionace glauca</i>	Blue shark	129	1.03%
<i>Taractichthys steindachneri</i>	Sickle pomfret	4	1.46%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	136	0.05%
<i>Tetrapturus audax</i>	Striped marlin	11	1.53%
<i>Thunnus alalunga</i>	Albacore tuna*	6012	0.12%
<i>Thunnus albacares</i>	Yellowfin tuna	188	67.85%
<i>Thunnus obesus</i>	Bigeye tuna	192	2.12%
<i>Xiphias gladius</i>	Swordfish	19	2.17%
-	Unidentified sharks	14	0.16%
Total		8861	100.00%

Table 18 Observed catch and composition during observer trip 17

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	103	1.09%
<i>Alepisaurus ferox</i>	Longnose lancetfish	698	7.42%
<i>Allothunnus fallai</i>	Slender tuna	16	0.17%
<i>Carcharhinus albimarginatus</i>	Silvertip shark	7	0.07%

<i>Coryphaena hippurus</i>	Dolphinfish	31	0.33%
<i>Dasyatis violacea</i>	Pelagic stingray	116	1.23%
<i>Katsuwonus pelamis</i>	Skipjack tuna	223	2.37%
<i>Lampris guttatus</i>	Opah	332	3.53%
<i>Lepidocybium flavobrunneum</i>	Escolar	140	1.49%
<i>Makaira nigricans</i>	Blue marlin	21	0.22%
<i>Mola mola</i>	Sunfish	2	0.02%
<i>Prionace glauca</i>	Blue shark	125	1.33%
<i>Sphyrna barracuda</i>	Great barracuda	1	0.01%
<i>Taractichthys steindachneri</i>	Sickle pomfret	6	0.06%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	103	1.09%
<i>Tetrapturus audax</i>	Striped marlin	120	1.28%
<i>Thunnus alalunga</i>	Albacore tuna*	7029	74.69%
<i>Thunnus albacares</i>	Yellowfin tuna	133	1.41%
<i>Thunnus obesus</i>	Bigeye tuna	192	2.04%
<i>Xiphias gladius</i>	Swordfish	13	0.14%
Total		9411	100.00%

Table 19 Observed catch and composition during observer trip 18

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	247	1.27%
<i>Alepisaurus ferox</i>	Longnose lancetfish	194	1.00%
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.01%
<i>Brama brama</i>	Atlantic pomfret	1	0.01%
<i>Coryphaena hippurus</i>	Dolphinfish	2	0.01%
<i>Cubiceps gracilis</i>	Driftfish	1	0.01%
<i>Dasyatis violacea</i>	Pelagic stingray	338	1.73%
<i>Desmodema polystictum</i>	Polka-dot ribbonfish	2	0.01%
<i>Gasterochisma melampus</i>	Butterfly kingfish	64	0.33%
<i>Gempylus serpens</i>	Snake mackerel	7	0.04%
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.01%
<i>Katsuwonus pelamis</i>	Skipjack tuna	631	3.24%
<i>Lampris guttatus</i>	Opah	325	1.67%
<i>Lepidochelys olivacea</i>	Olive Ridley turtle	1	0.01%
<i>Lepidocybium</i>	Escolar	355	1.82%

<i>flavobrunneum</i>			
<i>Lophotus capellei</i>	Unicornfish	1	0.01%
<i>Makaira nigricans</i>	Blue marlin	16	0.08%
<i>Mola mola</i>	Ocean sunfish	1	0.01%
<i>Prionace glauca</i>	Blue shark	602	3.09%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	6	0.03%
<i>Taractes rubescens</i>	Dagger pomfret	5	0.03%
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.01%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	278	1.43%
<i>Tetrapturus audax</i>	Striped marlin	34	0.17%
<i>Thunnus alalunga</i>	Albacore tuna*	16067	82.42%
<i>Thunnus albacares</i>	Yellowfin tuna	50	0.26%
<i>Thunnus obesus</i>	Bigeye tuna	215	1.10%
<i>Xiphias gladius</i>	Swordfish	37	0.19%
<i>Scymnodon squamulosus</i>	Velvet dogfish	4	0.02%
-	Unidentified sharks	6	0.03%
Total		19494	100.00%

Table 20 Observed catch and composition during observer trip 19

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	223	2.15%
<i>Alepisaurus ferox</i>	Longnose lancetfish	291	2.80%
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.01%
<i>Assurger anzac</i>	Razorback scabbardfish	1	0.01%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	5	0.05%
<i>Coryphaena hippurus</i>	Dolphinfish	19	0.18%
<i>Cubiceps gracilis</i>	Driftfish	1	0.01%
<i>Dasyatis violacea</i>	Pelagic stingray	180	1.73%
<i>Gempylus serpens</i>	Snake mackerel	8	0.08%
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.01%
<i>Isurus paucus</i>	Longfin mako	4	0.04%
<i>Katsuwonus pelamis</i>	Skipjack tuna	606	5.84%
<i>Lampris guttatus</i>	Opah Moonfish	393	3.78%
<i>Lepidocybium</i>	Escolar	573	5.52%

<i>flavobrunneum</i>			
<i>Lophotus capellei</i>	Unicornfish	1	0.01%
<i>Makaira nigricans</i>	Blue marlin	21	0.20%
<i>Prionace glauca</i>	Blue shark	19	0.18%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	33	0.32%
<i>Ranzania laevis</i>	Slender sunfish	7	0.07%
<i>Ruvettus pretiosus</i>	Oilfish	8	0.08%
<i>Scymnodon squamulosus</i>	Velvet dogfish	1	0.01%
<i>Taractes rubescens</i>	Dagger pomfret	25	0.24%
<i>Taractichthys steindachneri</i>	sickle pomfret	10	0.10%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	163	1.57%
<i>Tetrapturus audax</i>	Striped marlin	98	0.94%
<i>Thunnus alalunga</i>	Albacore tuna*	7039	67.79%
<i>Thunnus albacares</i>	Yellowfin tuna	280	2.70%
<i>Thunnus obesus</i>	Bigeye tuna	331	3.19%
<i>Xiphias gladius</i>	Swordfish	42	0.40%
Total		10384	100.00%

Table 21 Observed catch and composition during observer trip 20

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	104	3.06%
<i>Alepisaurus ferox</i>	Longnose lancetfish	33	0.97%
<i>Brama brama</i>	Atlantic pomfret	1	0.03%
<i>Coryphaena hippurus</i>	Dolphinfish	2	0.06%
<i>Dasyatis violacea</i>	Pelagic stingray	42	1.24%
<i>Gempylus serpens</i>	Snake mackerel	3	0.09%
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.03%
<i>Isurus paucus</i>	Longfin mako	1	0.03%
<i>Katsuwonus pelamis</i>	Skipjack tuna	492	14.47%
<i>Lampris guttatus</i>	Opah	2	0.06%
<i>Lepidocybium flavobrunneum</i>	Escolar	62	1.82%
<i>Lophotus capellei</i>	Unicornfish	1	0.03%
<i>Makaira nigricans</i>	Blue marlin	29	0.85%

<i>Prionace glauca</i>	Blue shark	32	0.94%
<i>Ranzania laevis</i>	Slender sunfish	2	0.06%
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.03%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	33	0.97%
<i>Tetrapturus audax</i>	Striped marlin	5	0.15%
<i>Thunnus alalunga</i>	Albacore tuna*	2036	59.88%
<i>Thunnus albacares</i>	Yellowfin tuna	334	9.82%
<i>Thunnus obesus</i>	Bigeye tuna	180	5.29%
<i>Voilier de l'IndoPacifique</i>	Indo-Pacific sailfish	3	0.09%
<i>Xiphias gladius</i>	Swordfish	1	0.03%
Total		3400	100.00%

Table 22 Observed catch and composition during observer trip 21

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	210	3.47%
<i>Alepisaurus ferox</i>	Longnose lancetfish	50	0.83%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.02%
<i>Coryphaena hippurus</i>	Dolphinfish	5	0.08%
<i>Dasyatis violacea</i>	Pelagic stingray	62	1.02%
<i>Katsuwonus pelamis</i>	Skipjack tuna	432	7.13%
<i>Lampris guttatus</i>	Opah	42	0.69%
<i>Lepidocybium flavobrunneum</i>	Escolar	61	1.01%
<i>Makaira nigricans</i>	Blue marlin	10	0.17%
<i>Prionace glauca</i>	Blue shark	71	1.17%
<i>Pseudorca crassidens</i>	False killer whale	1	0.02%
<i>Taractichthys steindachneri</i>	Sickle pomfret	18	0.30%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	129	2.13%
<i>Tetrapturus audax</i>	Striped marlin	12	0.20%
<i>Thunnus alalunga</i>	Albacore tuna*	4023	66.40%
<i>Thunnus albacares</i>	Yellowfin tuna	406	6.70%
<i>Thunnus obesus</i>	Bigeye tuna	520	8.58%
<i>Xiphias gladius</i>	Swordfish	6	0.10%
Total		6059	100.00%

Table 23 Observed catch and composition during observer trip 22

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	468	3.06%
<i>Alepisaurus ferox</i>	Longnose lancetfish	597	3.90%
<i>Alopias superciliosus</i>	Bigeye thresher	10	0.07%
<i>Carcharhinus falciformis</i>	Silky shark	12	0.08%
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	18	0.12%
<i>Coryphaena hippurus</i>	Dolphinfish	30	0.20%
<i>Cubiceps gracilis</i>	Driftfish	1	0.01%
<i>Dasyatis violacea</i>	Pelagic stingray	636	4.16%
<i>Eumegistus illustris</i>	Brilliant pomfret	3	0.02%
<i>Gempylus serpens</i>	Snake mackerel	42	0.27%
<i>Isistius brasiliensis</i>	Cookie cutter shark	1	0.01%
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	5	0.03%
<i>Isurus oxyrinchus</i>	Shortfin mako	5	0.03%
<i>Katsuwonus pelamis</i>	Skipjack tuna	1632	10.67%
<i>Lagocephalus lagocephalus</i>	Rabbit puffer	2	0.01%
<i>Lampris guttatus</i>	Opah	411	2.69%
<i>Lepidochelys olivacea</i>	Olive Ridley turtle	1	0.01%
<i>Lepidocybium flavobrunneum</i>	Escolar	393	2.57%
<i>Lophotus capellei</i>	Unicornfish	5	0.03%
<i>Makaira indica</i>	Black marlin	1	0.01%
<i>Makaira mazara</i>	Blue marlin	54	0.35%
<i>Mobula japonica</i>	Spinetail mobula	5	0.03%
<i>Mola mola</i>	Ocean sunfish	1	0.01%
<i>Omosudis lowei</i>	Omosudid	1	0.01%
<i>Prionace glauca</i>	Blue shark	240	1.57%
<i>Promethichthys prometheus</i>	Roundi escolar	4	0.03%
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	28	0.18%
<i>Ranzania laevis</i>	Slender sunfish	3	0.02%
<i>Ruvettus pretiosus</i>	Oilfish	3	0.02%
<i>Scymnodon squamulosus</i>	Velvet dogfish	3	0.02%
<i>Sphyrna barracuda</i>	Great barracuda	7	0.05%
<i>Taractes rubescens</i>	Dagger pomfret	10	0.07%
<i>Taractichthys</i>	Sickle pomfret	26	0.17%

<i>steindachneri</i>			
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	462	3.02%
<i>Tetrapturus audax</i>	Striped marlin	80	0.52%
<i>Thunnus alalunga</i>	Albacore tuna*	7746	50.63%
<i>Thunnus albacares</i>	Yellowfin tuna	1155	7.55%
<i>Thunnus obesus</i>	Bigeye tuna	1163	7.60%
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	3	0.02%
<i>Xiphias gladius</i>	Swordfish	32	0.21%
Total		15299	100.00%

Table 24 Observed catch and composition during observer trip 23

Scientific name	English name	Observed catch in number	Percentage
<i>Acanthocybium solandri</i>	Wahoo	414	2.89%
<i>Katsuwonus pelamis</i>	Skipjack tuna	2472	17.29%
<i>Lepidocybium flavobrunneum</i>	Escolar	209	1.46%
<i>Makaira nigricans</i>	Blue marlin	89	0.62%
<i>Prionace glauca</i>	Blue shark	56	0.39%
<i>Mola mola</i>	Ocean sunfish	17	0.12%
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	266	1.86%
<i>Thunnus alalunga</i>	Albacore tuna*	9352	65.39%
<i>Thunnus albacares</i>	Yellowfin tuna	850	5.94%
<i>Thunnus obesus</i>	Bigeye tuna	451	3.15%
<i>Xiphias gladius</i>	Swordfish	53	0.37%
-	Unidentified sharks	72	0.50%
Total		14301	100.00%

Note: * indicate target species

FLEET INFORMATION (vessels >20m LOA)																				
		Both set types combined						Shallow sets (<15 HPB/HBF ¹ or <100m max hook depth)						Deep sets (≥15 HPB/HBF or ≥100m max hook depth)						
Period covered		From			To			From			To			From			To			
		Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year	
	Date range								Select	Select	Select	Select	Select	Select	2	AUG	2023	31	DEC	2024
Area fished	Longitude	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	
				W			W			W			W	88	0	W	149	0	W	
	Latitude	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	
			S			S			Select			Select	5	0	S	37	0	S		
		Total Fleet		Observed		% observed		Total Fleet		Observed		% observed		Total Fleet		Observed		% observed		
No. of vessels that fished														128		23		18		
No. of trips																				
No. of effective days fishing														20244		2562		13		
No. of sets																				
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)														76922		8292		11		
Predominant ² hook type/size (IATTC (IATTC code))														Circle hook		Circle hook				
Predominant bait type ³								Select		Select				F		F				

¹ Hooks per basket / Hooks between floats

² "Predominant" means most common, i.e., >50%. [Click here for IATTC hook codes.](#)

³ Bait code: SQ – squid; F – fishes (e.g. Scomber spp.); A – artificial lure (e.g. plastic jig)

Add additional comments below
No shallow set operation.

[illegible]

[illegible]

Billfishes										
BLM	Black marlin (<i>Istiompax indica</i>)							1		1
BUM	Blue marlin (<i>Makaira nigricans</i>)									7
SFA	Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)									2
SSP	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)								10	27
MLS	Striped marlin (<i>Kajikia audax</i>)							3	2	13

Add additional comments below										

INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

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DOCUMENT SAC-15 INF-A(a)

**2023 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA
LONGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2023
IN THE IATTC CONVENTION AREA
CHINA

Prepared by
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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2023, China conducted twelve longline observer trips in the IATTC convention area (east of 150°W). A total of 1235 fishing days were observed during the twelve trips (**Table 1**). Some of the Chinese observer trips for the EPO area were shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel carried out the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

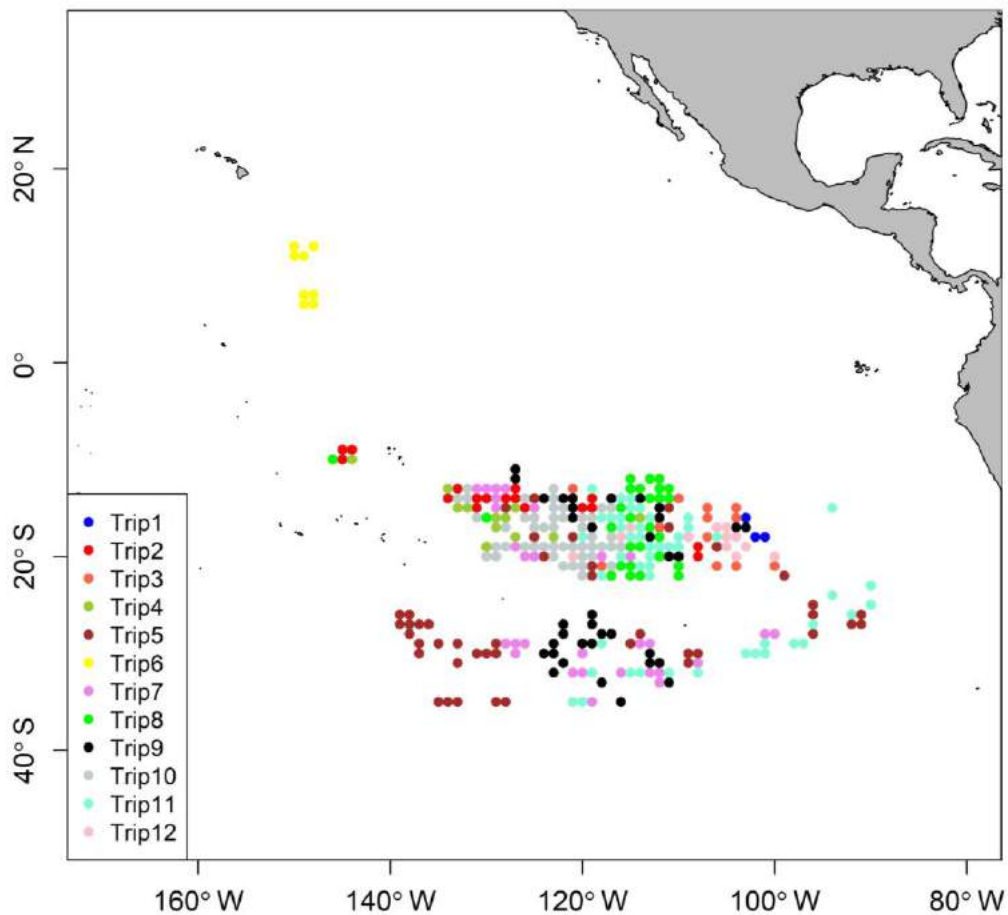
**Table 1 Information of Twelve Chinese longline observer trips
in the IATTC area in 2023**

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	9	28755	Feb 1, 2023-Feb 9 2023	16°~19°S, 101°~106°W
Trip 2	135	439154	Feb 1, 2023-Jul 31, 2023	9°~20°S, 103°~145°W
Trip 3	122	406026	Aug 12, 2023-Jan 31, 2024	17°~21°S, 100°~125°W
Trip 4	61	107696	Sep 3, 2023-Nov 27, 2023	10°~20°S, 114°~144°W
Trip 5	188	682760	Feb 1, 2023-Oct 8, 2023	14°~35°S, 91°~139°W
Trip 6	20	52104	Jan 6, 2023-Jul 6, 2023	6°~12°N, 148°~150°W
Trip 7	142	516880	Feb 1, 2023-Aug 31, 2023	13°~35°S, 100°~131°W
Trip 8	155	463310	Jul 31, 2023-Jan 31, 2024	10°~22°S, 100°~146°W
Trip 9	95	275945	Feb 1, 2023-Jun 27, 2023	11°~35°S, 103°~127°W

Trip 10	105	320850	Oct 20, 2022-Mar 31, 2023	13°~22°S, 116°~133°W
Trip 11	161	576995	Jun 29, 2023-Jan 30, 2024	13°~35°S, 90°~121°W
Trip 12	42	134550	Dec 9, 2023-Jan 31, 2024	17°~20°S, 100°~121°W

The observed set stations for the twelve trips are shown in **Figure 1**. These trips targeted Albacore or Bigeye tuna, mainly using circle hooks.

Fig. 1 Set stations of Chinese longline observer trips in 2023



2. Observer coverage

Based on current observer data, China's observer coverage in EPO for 2023 was **13.07%**. We suggest that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species,

and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Tables 2-13**.

There were five albatrosses incidentally captured in trip 11. One sea turtle (Leatherback turtle) and one marine mammal (Rough-toothed dolphin) were captured in trip 8 and trip 2 respectively, and safely released. Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks, Shortfin makos and Silky sharks, which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	314	70.40
<i>Thunnus albacares</i>	Yellowfin tuna	1	0.22
<i>Katsuwonus pelamis</i>	Skipjack tuna	7	1.57
<i>Acanthocybium solandri</i>	Wahoo	6	1.35
<i>Lepidocybium flavobrunneum</i>	Escolar	30	6.73
<i>Thunnus obesus</i>	Bigeye tuna	2	0.45
<i>Lampris guttatus</i>	Opah	18	4.04
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	24	5.38
<i>Xiphias gladius</i>	Swordfish	5	1.12
<i>Gempylus serpens</i>	Snake mackerel	21	4.71
<i>Prionace glauca</i>	Blue shark	17	3.81
<i>Tetrapturus audax</i>	Striped marlin	1	0.22
Total	-	446	100

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna	576	4.67
<i>Xiphias gladius</i>	Swordfish	70	0.57
<i>Prionace glauca</i>	Blue shark	148	1.20
<i>Dasyatis violacea</i>	Pelagic stingray	1018	8.26
<i>Thunnus albacares</i>	Yellowfin tuna	571	4.63
<i>Brama brama</i>	Atlantic pomfret	3	0.02
<i>Thunnus alalunga</i>	Albacore tuna*	6750	54.77
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.01
<i>Lagocephalus lagocephalus</i>	Rabbit puffer	1	0.01
<i>Acanthocybium solandri</i>	Wahoo	230	1.87
<i>Katsuwonus pelamis</i>	Skipjack tuna	401	3.25
<i>Makaira indica</i>	Black marlin	2	0.02
<i>Makaira nigricans</i>	Blue marlin	20	0.16
<i>Lampris guttatus</i>	Opah	32	0.26
<i>Alepisaurus brevirostris</i>	Shortnose lancetfish	1	0.01
<i>Alepisaurus ferox</i>	Longnose lancetfish	1609	13.06
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	181	1.47
<i>Tetrapturus audax</i>	Striped marlin	33	0.27
<i>Nesiarchus nasutus</i>	Black gemfish	6	0.05

<i>Eumegistus illustris</i>	Brilliant pomfret	2	0.02
<i>Coryphaena hippurus</i>	Dolphinfish	11	0.09
<i>Remora remora</i>	Common remora	15	0.12
<i>Lophotus lacepede</i>	Crested oarfish,	1	0.01
<i>Ranzania laevis</i>	Slender sunfish	2	0.02
<i>Cubiceps gracilis</i>	Driftfish	4	0.03
<i>Lepidocybium flavobrunneum</i>	Escolar	401	3.25
<i>Isurus paucus</i>	Longfin mako	5	0.04
<i>Scombr labrax heterolepis</i>	Longfin escolar	3	0.02
<i>Isurus oxyrinchus</i>	Shortfin mako	7	0.06
<i>Remora osteochir</i>	Marlin sucker	12	0.10
<i>Taractes rubescens</i>	Dagger pomfret	7	0.06
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	9	0.07
<i>Steno bredanensis</i>	Rough-toothed dolphin	1	0.01
<i>Ruvettus pretiosus</i>	Oilfish	2	0.02
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	4	0.03
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.01
<i>Gempylus serpens</i>	Snake mackerel	98	0.80
<i>Promethichthys prometheus</i>	Roundi escolar	7	0.06
<i>Taractichthys steindachneri</i>	Sickle pomfret	27	0.22
<i>Lophotus capellei</i>	Unicornfish	6	0.05
-	Unidentified sharks	37	0.30
<i>Ommastrephidae sp.</i>	Squids	8	0.06
Total	-	12324	100

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	3486	79.79
<i>Thunnus obesus</i>	Bigeye tuna	166	3.80
<i>Makaira nigricans</i>	Blue marlin	7	0.16
<i>Prionace glauca</i>	Blue shark	19	0.43
<i>Coryphaena hippurus</i>	Dolphinfish	7	0.16
<i>Lepidocybium flavobrunneum</i>	Escolar	47	1.08
<i>Alepisaurus ferox</i>	Longnose lancetfish	64	1.46
<i>Lampris guttatus</i>	Opah	29	0.66
<i>Dasyatis violacea</i>	Pelagic stingray	87	1.99
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	143	3.27
<i>Katsuwonus pelamis</i>	Skipjack tuna	161	3.69
<i>Tetrapturus audax</i>	Striped marlin	29	0.66

<i>Xiphias gladius</i>	Swordfish	38	0.87
<i>Acanthocybium solandri</i>	Wahoo	55	1.26
<i>Thunnus albacares</i>	Yellowfin tuna	31	0.71
Total	-	4369	100

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna	2978	62.92
<i>Alopias Pelagicus</i>	Pelagic thresher	1	0.02
<i>Thunnus obesus</i>	Bigeye tuna	466	9.85
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	14	0.30
<i>Coryphaena hippurus</i>	Dolphinfish	21	0.44
<i>Lepidocybium flavobrunneum</i>	Escolar	87	1.84
<i>Alepisaurus ferox</i>	Longnose lancetfish	94	1.99
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	4	0.08
<i>Lampris guttatus</i>	Opah	9	0.19
<i>Dasyatis violacea</i>	Pelagic stingray	187	3.95
<i>Alepisaurus brevirostris</i>	Short snouted lancetfish	4	0.08
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	113	2.39
<i>Isurus oxyrinchus</i>	Shortfin mako	30	0.63
<i>Taractichthys steindachneri</i>	sickle pomfret	12	0.25
<i>Carcharhinus falciformis</i>	Silky shark	3	0.06
<i>Katsuwonus pelamis</i>	Skipjack tuna	175	3.70
<i>Gempylus serpens</i>	Snake mackerel	17	0.36
<i>Tetrapturus audax</i>	Striped marlin	31	0.65
<i>Xiphias gladius</i>	Swordfish	24	0.51
<i>Lophotus capellei</i>	Unicornfish	1	0.02
<i>Acanthocybium solandri</i>	Wahoo	173	3.66
<i>Thunnus albacares</i>	Yellowfin tuna*	221	4.67
<i>Seriola lalandi</i>	Yellowtail amberjack	1	0.02
-	Unidentified sharks	67	1.42
Total	-	4733	100

Note: * indicate target species

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
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<i>Thunnus alalunga</i>	Albacore tuna*	16365	95.24
<i>Thunnus obesus</i>	Bigeye tuna	238	1.39
<i>Makaira nigricans</i>	Blue marlin	76	0.44
<i>Lepidocybium flavobrunneum</i>	Escolar	78	0.45
<i>Lampris guttatus</i>	Opah	58	0.34
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	96	0.56
<i>Katsuwonus pelamis</i>	Skipjack tuna	106	0.62
<i>Xiphias gladius</i>	Swordfish	21	0.12
<i>Acanthocybium solandri</i>	Wahoo	82	0.48
<i>Thunnus albacares</i>	Yellowfin tuna	63	0.37
Total	-	17183	100

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna	259	18.20
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.07
<i>Thunnus obesus</i>	Bigeye tuna	50	3.51
<i>Makaira nigricans</i>	Blue marlin	8	0.56
<i>Prionace glauca</i>	Blue shark	19	1.34
<i>Remora remora</i>	Common remora	2	0.14
<i>Lepidocybium flavobrunneum</i>	Escolar	9	0.63
<i>Sphyrna barracuda</i>	Great barracuda	24	1.69
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	17	1.19
<i>Alepisaurus ferox</i>	Longnose lancetfish	18	1.26
<i>Lampris guttatus</i>	Opah	4	0.28
<i>Dasyatis violacea</i>	Pelagic stingray	17	1.19
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.07
<i>Carcharhinus falciformis</i>	Silky shark	1	0.07
<i>Katsuwonus pelamis</i>	Skipjack tuna	24	1.69
<i>Sphyrna lewini</i>	Scalloped hammerhead	1	0.07
<i>Acanthocybium solandri</i>	Wahoo	28	1.97
<i>Thunnus albacares</i>	Yellowfin tuna*	924	64.93
-	Unidentified sharks	16	1.12
Total	-	1423	100

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	9993	84.64
<i>Thunnus obesus</i>	Bigeye tuna	168	1.42
<i>Makaira nigricans</i>	Blue marlin	21	0.18
<i>Prionace glauca</i>	Blue shark	460	3.90
<i>Taractes rubescens</i>	Dagger pomfret	11	0.09
<i>Coryphaena hippurus</i>	Dolphinfish	2	0.02
<i>Alepisaurus ferox</i>	Longnose lancetfish	336	2.85
<i>Ruvettus pretiosus</i>	Oilfish	155	1.31
<i>Lampris guttatus</i>	Opah	133	1.13
<i>Dasyatis violacea</i>	Pelagic stingray	167	1.41
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	54	0.46
<i>Katsuwonus pelamis</i>	Skipjack tuna	128	1.08
<i>Tetrapturus audax</i>	Striped marlin	27	0.23
<i>Xiphias gladius</i>	Swordfish	35	0.30
<i>Acanthocybium solandri</i>	Wahoo	58	0.49
<i>Thunnus albacares</i>	Yellowfin tuna	59	0.50
Total	-	11807	100

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	8271	73.41
<i>Alopias superciliosus</i>	Bigeye thresher	8	0.07
<i>Brama brama</i>	Atlantic pomfret	7	0.06
<i>Odontaspis noronhai</i>	Bigeye sand tiger	1	0.01
<i>Thunnus obesus</i>	Bigeye tuna	545	4.84
<i>Makaira indica</i>	Black marlin	21	0.19
<i>Prionace glauca</i>	Blue shark	44	0.39
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	2	0.02
<i>Taractes rubescens</i>	Dagger pomfret	5	0.04
<i>Coryphaena hippurus</i>	Dolphinfish	49	0.43
<i>Lepidocybium flavobrunneum</i>	Escolar	154	1.37
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.01
<i>Alepisaurus ferox</i>	Longnose lancetfish	509	4.52
<i>Isurus paucus</i>	Longfin mako	1	0.01

<i>Lampris guttatus</i>	Opah	64	0.57
<i>Dasyatis violacea</i>	Pelagic stingray	393	3.49
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.01
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	320	2.84
<i>Isurus oxyrinchus</i>	Shortfin mako	7	0.06
<i>Taractichthys steindachneri</i>	Sickle pomfret	5	0.04
<i>Katsuwonus pelamis</i>	Skipjack tuna	387	3.43
<i>Sphyrna zygaena</i>	Smooth hammerhead	2	0.02
<i>Gempylus serpens</i>	Snake mackerel	45	0.40
<i>Tetrapturus audax</i>	Striped marlin	42	0.37
<i>Xiphias gladius</i>	Swordfish	33	0.29
<i>Lophotus capellei</i>	Unicornfish	3	0.03
<i>Acanthocybium solandri</i>	Wahoo	170	1.51
<i>Thunnus albacares</i>	Yellowfin tuna	80	0.71
-	Unidentified sharks	97	0.86
Total	-	11267	100

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	2442	63.79
<i>Thunnus obesus</i>	Bigeye tuna	186	4.86
<i>Makaira nigricans</i>	Blue marlin	9	0.24
<i>Prionace glauca</i>	Blue shark	223	5.83
<i>Gasterochisma melampus</i>	Butterfly kingfish	2	0.05
<i>Taractes rubescens</i>	Dagger pomfret	2	0.05
<i>Remora remora</i>	Common remora	3	0.08
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.03
<i>Lepidocybium flavobrunneum</i>	Escolar	121	3.16
<i>Alepisaurus ferox</i>	Longnose lancetfish	306	7.99
<i>Lampris guttatus</i>	Opah	101	2.64
<i>Dasyatis violacea</i>	Pelagic stingray	124	3.24
<i>Promethichthys prometheus</i>	Roundi escolar	1	0.03
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	43	1.12
<i>Katsuwonus pelamis</i>	Skipjack tuna	60	1.57
<i>Gempylus serpens</i>	Snake mackerel	86	2.25
<i>Tetrapturus audax</i>	Striped marlin	22	0.57
<i>Xiphias gladius</i>	Swordfish	20	0.52
<i>Acanthocybium solandri</i>	Wahoo	39	1.02
<i>Thunnus albacares</i>	Yellowfin tuna	37	0.97

Total	-	3828	100
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Note: * indicate target species

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna	4064	66.43
<i>Odontaspis noronhai</i>	Bigeye sand tiger	4	0.07
<i>Nesiarchus nasutus</i>	Black gemfish	25	0.41
<i>Thunnus obesus</i>	Bigeye tuna*	118	1.93
<i>Makaira nigricans</i>	Blue marlin	51	0.83
<i>Prionace glauca</i>	Blue shark	22	0.36
<i>Carcharhinus limbatus</i>	Blacktip shark	2	0.03
<i>Eumegistus illustris</i>	Brilliant pomfret	2	0.03
<i>Lepidocybium flavobrunneum</i>	Escolar	73	1.19
<i>Carcharhinus galapagensis</i>	Galapagos shark	1	0.02
<i>Alepisaurus ferox</i>	Longnose lancetfish	134	2.19
<i>Isurus paucus</i>	Longfin mako	10	0.16
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	10	0.16
<i>Lampris guttatus</i>	Opah	9	0.15
<i>Dasyatis violacea</i>	Pelagic stingray	423	6.91
<i>Promethichthys prometheus</i>	Roundi escolar	4	0.07
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	216	3.53
<i>Isurus oxyrinchus</i>	Shortfin mako	10	0.16
<i>Taractichthys steindachneri</i>	Sickle pomfret	4	0.07
<i>Carcharhinus falciformis</i>	Silky shark	6	0.10
<i>Katsuwonus pelamis</i>	Skipjack tuna	526	8.60
<i>Gempylus serpens</i>	Snake mackerel	192	3.14
<i>Tetrapturus audax</i>	Striped marlin	8	0.13
<i>Xiphias gladius</i>	Swordfish	36	0.59
<i>Acanthocybium solandri</i>	Wahoo	113	1.85
<i>Thunnus albacares</i>	Yellowfin tuna*	38	0.62
-	Unidentified sharks	17	0.28
Total	-	6118	100

Note: * indicate target species

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
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<i>Thunnus alalunga</i>	Albacore tuna*	14941	78.60
<i>Diomedeidae</i> sp.	Albatross	5	0.03
<i>Brama brama</i>	Atlantic pomfret	20	0.11
<i>Gasterochisma melampus</i>	Butterfly kingfish	4	0.02
<i>Thunnus obesus</i>	Bigeye tuna	512	2.69
<i>Nesiarchus nasutus</i>	Black gemfish	984	5.18
<i>Makaira indica</i>	Black marlin	17	0.09
<i>Prionace glauca</i>	Blue shark	375	1.97
<i>Coryphaena hippurus</i>	Dolphinfish	256	1.35
<i>Lepidocybium flavobrunneum</i>	Escolar	150	0.79
<i>Mola mola</i>	Ocean sunfish	2	0.01
<i>Ruvettus pretiosus</i>	Oilfish	3	0.02
<i>Dasyatis violacea</i>	Pelagic stingray	512	2.69
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	205	1.08
<i>Katsuwonus pelamis</i>	Skipjack tuna	348	1.83
<i>Gempylus serpens</i>	Snake mackerel	15	0.08
<i>Tetrapturus audax</i>	Striped marlin	69	0.36
<i>Xiphias gladius</i>	Swordfish	33	0.17
<i>Acanthocybium solandri</i>	Wahoo	504	2.65
<i>Thunnus albacares</i>	Yellowfin tuna	31	0.16
-	Unidentified sharks	22	0.12
-	Unidentified tuna	1	0.01
Total	-	19009	100

Note: * indicate target species

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	3844	74.31
<i>Alopias superciliosus</i>	Bigeye thresher	4	0.08
<i>Thunnus obesus</i>	Bigeye tuna	160	3.09
<i>Makaira nigricans</i>	Blue marlin	2	0.04
<i>Prionace glauca</i>	Blue shark	29	0.56
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	1	0.02
<i>Taractes rubescens</i>	Dagger pomfret	3	0.06
<i>Lepidocybium flavobrunneum</i>	Escolar	58	1.12
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	2	0.04
<i>Alepisaurus ferox</i>	Longnose lancetfish	260	5.03
<i>Mola mola</i>	Ocean sunfish	1	0.02
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.02
<i>Lampris guttatus</i>	Opah	49	0.95

<i>Dasyatis violacea</i>	Pelagic stingray	171	3.31
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	155	3.00
<i>Isurus oxyrinchus</i>	Shortfin mako	3	0.06
<i>Carcharhinus falciformis</i>	Silky shark	2	0.04
<i>Katsuwonus pelamis</i>	Skipjack tuna	253	4.89
<i>Gempylus serpens</i>	Snake mackerel	4	0.08
<i>Tetrapturus audax</i>	Striped marlin	19	0.37
<i>Xiphias gladius</i>	Swordfish	37	0.72
<i>Acanthocybium solandri</i>	Wahoo	46	0.89
<i>Thunnus albacares</i>	Yellowfin tuna	17	0.33
-	Unidentified sharks	52	1.01
Total	-	5173	100

Note: * indicate target species

FLEET INFORMATION (vessels >20m LOA)																			
		Both set types combined						Shallow sets (<15 HPB/HBF ¹ or <100m max hook depth)						Deep sets (≥15 HPB/HBF or ≥100m max hook depth)					
Period covered		From			To			From			To			From			To		
		Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year	Day	Month	Year
	Date range	1	JAN	2023	31	JAN	2024	Select	Select	Select	Select	Select	Select	1	JAN	2023	31	JAN	2024
Area fished	Longitude	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.
		90	0	W	150	0	W			W			W	90	0	W	150	0	W
	Latitude	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.	Deg.	Min.	Hem.
		12	0	N	35	0	S			Select			Select	12	0	N	35	0	S
		Total Fleet		Observed		% observed		Total Fleet		Observed		% observed		Total Fleet		Observed		% observed	
No. of vessels that fished		109		12		11								109		12		11	
No. of trips																			
No. of effective days fishing		8836		1235		14								8836		1235		14	
No. of sets																			
No. of hooks (in thousands) <i>(If unknown, approx. no. of hooks/set, using a *)</i>		31152		4072		13								31152		4072		13	
Predominant ² hook type/size (IATTC (IATTC code))		Circle hook		Circle hook										Circle hook		Circle hook			
Predominant bait type ³		F		F				Select		Select				F		F			

¹ Hooks per basket / Hooks between floats

² "Predominant" means most common, i.e., >50%. [Click here for IATTC hook codes.](#)

³ Bait code: SQ – squid; F – fishes (e.g. Scomber spp.); A – artificial lure (e.g. plastic jig)

Add additional comments below

[illegible]

[illegible]

	Click to add a seabird species									
For additional species caught, enter species code and species in rows below										
Billfishes										
BLM	Black marlin (<i>Istiompax indica</i>)	31	9					31	9	
BUM	Blue marlin (<i>Makaira nigricans</i>)	121	73					121	73	
SFA	Indo-Pacific sailfish (<i>Istiophorus platypterus</i>)	4	14					4	14	
SSP	Shortbill spearfish (<i>Tetrapturus angustirostris</i>)	624	735	1				624	735	1
MLS	Striped marlin (<i>Kajikia audax</i>)	174	58					174	58	

Add additional comments below

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SCIENTIFIC ADVISORY COMMITTEE

14TH MEETING

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15-19 May 2023

DOCUMENT SAC-14 INF-A(k)

**2022 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA TUNA
LONGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2022
IN THE IATTC CONVENTION AREA
CHINA

Prepared by
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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2022, China conducted fifteen longline observer trips in the IATTC convention area (east of 150°W). A total of 1700 fishing days were observed during the fifteen trips (**Table 1**). Some of the Chinese observer trips for the EPO area were shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel carried out the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

Table 1 Information of Fifteen Chinese LL observer trips in the IATTC area in 2022

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	78	244392	Oct 06, 2022-Jan 05, 2023	13°~20°S, 99°~129°W
Trip 2	76	282152	Oct 06, 2022-Jan 04, 2023	14°~22°S, 99°~100°W
Trip 3	234	663520	Jan 03, 2022-Nov 08, 2022	12°~37°S, 98°~133°W
Trip 4	190	602290	Jan 30, 2022-Oct 12, 2022	15°~37°S, 95°~121°W
Trip 5	240	745888	Oct 07, 2021-Aug 31, 2022	13°~35°S, 100°~129°W
Trip 6	43	150410	Dec 13, 2022-Jan 31, 2023	16°~25°S, 109°~120°W
Trip 7	39	83376	Dec 20, 2022-Jan 31, 2023	16°~21°S, 102°~110°W
Trip 8	74	267651	Nov 06, 2021-Jan 31, 2023	13°~20°S, 101°~122°W
Trip 9	80	291200	Nov 01, 2022-Jan 30, 2023	13°~23°S, 105°~119°W

Trip 10	31	93377	Dec 27, 2022-Jan 31, 2023	17°~22°S, 103°~116°W
Trip 11	52	168122	Oct 26, 2022-Dec 26, 2022	12°~22°S, 116°~125°W
Trip 12	224	727054	Apr 01, 2022-Jan 16, 2022	15°~36°S, 95°~128°W
Trip 13	101	330368	Nov 12, 2021-Mar 11, 2022	16°~20°S, 101°~123°W
Trip 14	161	349888	Feb 06, 2022-Aug 20, 2022	06°~11°N, 113°~126°W
Trip 15	77	257062	Nov 06, 2022-Jan 31, 2023	13°~22°N, 107°~119°W

The observed set stations for the fifteen trips are shown in **Figure 1**. These trips targeted Albacore and other tunas, mainly using circle hooks.

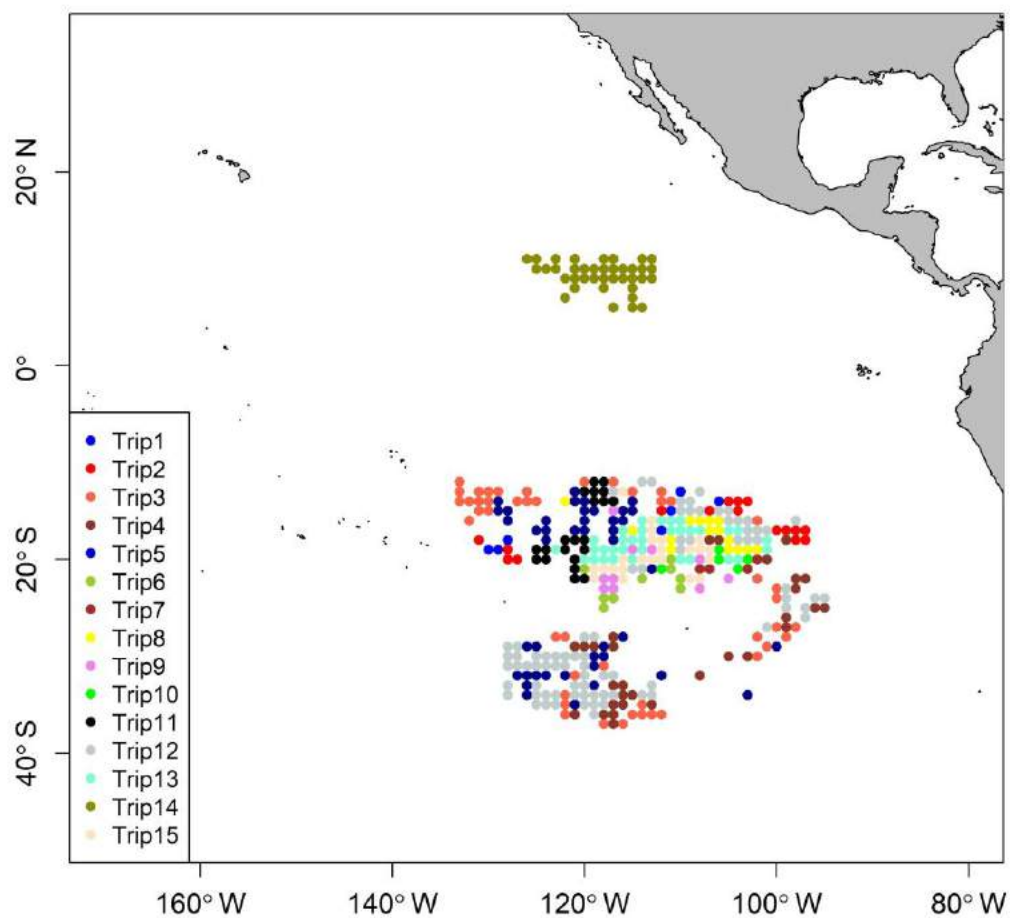


Fig. 1 Set stations of Chinese longline observer trips in 2022

2. Observer coverage

Based on current observer data, China's observer coverage in EPO for 2022 was 7%. We suggested that the observer annual report be submitted by the same deadline

with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and seabirds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Tables 2-16**.

There was one seabird (Light-mantled sooty albatross) incidentally captured in trip 11. Two marine mammals (one Pacific white-sided dolphin and one Pantropical spotted dolphin) were captured in trip 9 and trip 14. Twenty-five turtles were captured in trip 14, including twenty Olive ridley turtles, four Green turtles and one Leatherback turtle. Another two turtles (one Leatherback turtle and one Olive ridley turtle) were captured in trip 2 and trip 9. All the sea turtles are retrieved on board with proper treatment and are safely released alive (with dehooker equipment based on Sea Turtle Handle Guideline). Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks and Silky sharks, which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	5174	0.7686
<i>Taractichthys steindachneri</i>	Sickle pomfret	3	0.0004
<i>Lampris guttatus</i>	Opah	407	0.0605
<i>Prionace glauca</i>	Blue shark	6	0.0009
<i>Thunnus obesus</i>	Bigeye tuna	75	0.0111
<i>Alepisaurus ferox</i>	Longnose lancetfish	24	0.0036
<i>Taractes rubescens</i>	Dagger pomfret	3	0.0004
<i>Thunnus albacares</i>	Yellowfin tuna	35	0.0052
<i>Ruvettus pretiosus</i>	Oilfish	25	0.0037
<i>Katsuwonus pelamis</i>	Skipjack	284	0.0422
<i>Xiphias gladius</i>	Swordfish	39	0.0058
<i>Makaira nigricans</i>	Blue marlin	3	0.0004
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	145	0.0215
<i>Coryphaena hippurus</i>	Dolphinfish	58	0.0086
<i>Acanthocybium solandri</i>	Wahoo	127	0.0189
<i>Tetrapturus audax</i>	Striped marlin	50	0.0074
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	110	0.0163
<i>Lepidocybium flavobrunneum</i>	Escolar	156	0.0232
<i>Makaira indica</i>	Black marlin	1	0.0001
<i>Dasyatis violacea</i>	Pelagic stingray	7	0.0010
Total	-	6732	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	6664	0.6785
<i>Taractichthys steindachneri</i>	Sickle pomfret	13	0.0013
<i>Thyrsitops lepidopoides</i>	White snake mackerel	11	0.0011
<i>Lampris guttatus</i>	Opah	438	0.0446
<i>Trachipteridae</i>	Ribbonfish	1	0.0001
<i>Remora osteochir</i>	Marlin sucker	26	0.0026
<i>Prionace glauca</i>	Blue shark	101	0.0103
<i>Thunnus obesus</i>	Bigeye tuna	107	0.0109
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.0002
<i>Remora remora</i>	Shark sucker	3	0.0003
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	195	0.0199

<i>Alepisaurus ferox</i>	Longnose lancetfish	980	0.0998
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	3	0.0003
<i>Taractes rubescens</i>	Dagger pomfret	17	0.0017
<i>Thunnus albacares</i>	Yellowfin tuna	29	0.0030
<i>Ruvettuspretiosus</i>	Oilfish	6	0.0006
<i>Isurus oxyrinchus</i>	Shortfin mako	3	0.0003
<i>Katsuwonus pelamis</i>	Skipjack	210	0.0214
<i>Xiphias gladius</i>	Swordfish	43	0.0044
<i>Makaira nigricans</i>	Blue marlin	23	0.0023
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.0001
<i>Coryphaena hippurus</i>	Dolphinfish	57	0.0058
<i>Scombrobrax heterolepis</i>	Longfin escolar	7	0.0007
<i>Acanthocybium solandri</i>	Wahoo	87	0.0089
<i>Gempylus serpens</i>	Snake mackerel	52	0.0053
<i>Manta birostris</i>	Giant manta	2	0.0002
<i>Tetrapturus audax</i>	Striped marlin	53	0.0054
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	309	0.0315
<i>Scymnodon squamulosus</i>	Velvet dogfish	17	0.0017
<i>Lepidocybium flavobrunneum</i>	Escolar	221	0.0225
<i>Makaira indica</i>	Black marlin	1	0.0001
<i>Isurus paucus</i>	Longfin mako	4	0.0004
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.0002
<i>Assurger anzac</i>	Razorback scabbardfish	4	0.0004
<i>Dasyatis violacea</i>	Pelagic stingray	129	0.0131
-	Unidentified fish	1	0.0001
Total	-	9822	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	14854	0.8310
<i>Lampris guttatus</i>	Opah	533	0.0298
<i>Tetrapturus angustirostris</i>	Bigeye tuna	384	0.0215
<i>Prionace glauca</i>	Blue shark	185	0.0104
<i>Alopias superciliosus</i>	Bigeye thresher	7	0.0004
<i>Alepisaurus ferox</i>	Longnose lancetfish	478	0.0267
<i>Thunnus albacares</i>	Yellowfin tuna	224	0.0125
<i>Ruvettus pretiosus</i>	Oilfish	2	0.0001
<i>Katsuwonus pelamis</i>	Skipjack	292	0.0163
<i>Xiphias gladius</i>	Swordfish	47	0.0026

<i>Makaira mazara</i>	Blue marlin	3	0.0002
<i>Coryphaena hippurus</i>	Dolphinfish	11	0.0006
<i>Acanthocybium solandri</i>	Wahoo	75	0.0042
<i>Tetrapturus audax</i>	Striped marlin	36	0.0020
<i>Brama brama</i>	Atlantic pomfret	5	0.0003
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	194	0.0109
<i>Lepidocybium flavobrunneum</i>	Escolar	433	0.0242
<i>Isuruspaucus</i>	Longfin mako	5	0.0003
<i>Dasyatis violacea</i>	Pelagic stingray	106	0.0059
Total	-	17874	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	11717	0.8807
<i>Lampris guttatus</i>	Opah	346	0.0260
<i>Prionace glauca</i>	Blue shark	524	0.0394
<i>Thunnus obesus</i>	Bigeye tuna	97	0.0073
<i>Thunnus albacares</i>	Yellowfin tuna	7	0.0005
<i>Katsuwonus pelamis</i>	Skipjack tuna	50	0.0038
<i>Makaira nigricans</i>	Blue marlin	2	0.0002
<i>Coryphaena hippurus</i>	Dolphinfish	26	0.0020
<i>Acanthocybium solandri</i>	Wahoo	8	0.0006
<i>Tetrapturus audax</i>	Striped marlin	2	0.0002
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	24	0.0018
<i>Lepidocybium flavobrunneum</i>	Escolar	196	0.0147
<i>Dasyatis violacea</i>	Pelagic stingray	305	0.0229
Total	-	13304	1

Note: * indicate target species

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	14908	0.9514
<i>Thunnus obesus</i>	Bigeye tuna	255	0.0163
<i>Coryphaena hippurus</i>	Dolphinfish	5	0.0003
<i>Lepidocybium flavobrunneum</i>	Escolar	41	0.0026
<i>Isurus paucus</i>	Longfin mako	23	0.0015

<i>Alepisaurus ferox</i>	Longnose lancetfish	1	0.0001
<i>Lampris guttatus</i>	Opah	88	0.0056
<i>Isurus oxyrinchus</i>	Shortfin mako	2	0.0001
<i>Carcharhinus falciformis</i>	Silky shark	1	0.0001
<i>Katsuwonus pelamis</i>	Skipjack tuna	191	0.0122
<i>Tetrapturus audax</i>	Striped marlin	21	0.0013
<i>Xiphias gladius</i>	Swordfish	54	0.0034
<i>Scymnodon squamulosus</i>	Velvet dogfish	13	0.0008
<i>Acanthocybium solandri</i>	Wahoo	11	0.0007
<i>Thunnus albacares</i>	Yellowfin tuna	56	0.0036
Total	-	15670	1

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	2401	0.8690
<i>Lampris guttatus</i>	Opah	20	0.0072
<i>Thunnus obesus</i>	Bigeye tuna	23	0.0083
<i>Thunnus albacares</i>	Yellowfin tuna	3	0.0011
<i>Katsuwonus pelamis</i>	Skipjack tuna	105	0.0380
<i>Xiphias gladius</i>	Swordfish	8	0.0029
<i>Makaira nigricans</i>	Blue marlin	30	0.0109
<i>Acanthocybium solandri</i>	Wahoo	55	0.0199
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	84	0.0304
<i>Lepidocybium flavobrunneum</i>	Escolar	34	0.0123
Total	-	2763	1

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	686	0.6552
<i>Lampris guttatus</i>	Opah	10	0.0096
<i>Prionace glauca</i>	Blue shark	41	0.0392
<i>Thunnus obesus</i>	Bigeye tuna	30	0.0287
<i>Alepisaurus ferox</i>	Longnose lancetfish	40	0.0382
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	2	0.0019
<i>Taractes rubescens</i>	Dagger pomfret	2	0.0019

<i>Thunnus albacares</i>	Yellowfin tuna	10	0.0096
<i>Katsuwonus pelamis</i>	Skipjack tuna	29	0.0277
<i>Xiphias gladius</i>	Swordfish	10	0.0096
<i>Makaira nigricans</i>	Blue marlin	1	0.0010
<i>Acanthocybium solandri</i>	Wahoo	9	0.0086
<i>Gempylus serpens</i>	Snake mackerel	59	0.0564
<i>Tetrapturus audax</i>	Striped marlin	12	0.0115
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	58	0.0554
<i>Lepidocybium flavobrunneum</i>	Escolar	30	0.0287
<i>Dasyatis violacea</i>	Pelagic stingray	18	0.0172
Total	-	1047	1

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	4053	0.7665
<i>Lampris guttatus</i>	Opah	43	0.0081
<i>Ruvettus pretiosus</i>	Oilfish	2	0.0004
<i>Prionace glauca</i>	Blue shark	169	0.0320
<i>Thunnus obesus</i>	Bigeye tuna	64	0.0121
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	1	0.0002
<i>Thunnus albacares</i>	Yellowfin tuna	16	0.0030
<i>Isurus oxyrinchus Rafinesque</i>	Shortfin mako	2	0.0004
<i>Katsuwonus pelamis</i>	Skipjack tuna	115	0.0217
<i>Xiphias gladius</i>	Swordfish	37	0.0070
<i>Masturus lanceolatus</i>	Sharptail mola	1	0.0002
<i>Coryphaena hippurus</i>	Dolphinfish	18	0.0034
<i>Acanthocybium solandri</i>	Wahoo	66	0.0125
<i>Gempylus serpens</i>	Snake mackerel	237	0.0448
<i>Kajikia audax</i>	Striped marlin	22	0.0042
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	215	0.0407
<i>Lepidocybium flavobrunneum</i>	Escolar	221	0.0418
<i>Dasyatis violacea</i>	Pelagic stingray	6	0.0011
Total	-	5288	1

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	3505	0.7894
<i>Lophotus capellei</i>	Unicornfish	1	0.0002
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0002
<i>Lampris guttatus</i>	Opah	33	0.0074
<i>Ruvettus pretiosus</i>	Oilfish	83	0.0187
<i>Prionace glanca</i>	Blue shark	69	0.0155
<i>Lagenorhynchus obliquidens</i>	Pacific white-sided dolphin	1	0.0002
<i>Thunnus obesus</i>	Bigeye tuna	99	0.0223
<i>Alepisaurus brevirostris</i>	Short snouted lancetfish	3	0.0007
<i>Remora remora</i>	Shark sucker	10	0.0023
<i>Alepisaurus ferox</i>	Longnose lancetfish	66	0.0149
<i>Mola mola</i>	Ocean sunfish	1	0.0002
<i>Exocoetidae</i>	Flyingfishes nei	1	0.0002
<i>Thunnus albacares</i>	Yellowfin tuna	14	0.0032
<i>Katsuwonus pelamis</i>	Skipjack	189	0.0426
<i>Xiphias gladius</i>	Swordfish	14	0.0032
<i>Makaira nigricans</i>	Blue marlin	17	0.0038
<i>Lepidochelys olivacea</i>	Olive ridley turtle	1	0.0002
<i>Lstiophorus platypterus</i>	Indo-pacific sailfish	52	0.0117
<i>Coryphaena hippurus</i>	Dolphinfish	3	0.0007
<i>Acanthocybium solandri</i>	Wahoo	110	0.0248
<i>Tetrapturus audax</i>	Striped marlin	19	0.0043
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	122	0.0275
<i>Lepidocybium flavobrunneum</i>	Escolar	5	0.0011
<i>Dasyatis violacea</i>	Pelagic stingray	21	0.0047
Total	-	4440	1

Note: * indicate target species

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	1540	0.5914
<i>Lampris guttatus</i>	Opah	24	0.0092
<i>Remora osteochir</i>	Marlin sucker	8	0.0031
<i>Prionace glauca</i>	Blue shark	38	0.0146
<i>Thunnus obesus</i>	Bigeye tuna	33	0.0127
<i>Remora remora</i>	Shark sucker	9	0.0035
<i>Alepisaurus ferox</i>	Longnose lancetfish	601	0.2308
<i>Taractes rubescens</i>	Dagger pomfret	5	0.0019

<i>Thunnus albacares</i>	Yellowfin tuna	10	0.0038
<i>Isurus oxyrinchus</i>	Shortfin mako	3	0.0012
<i>Katsuwonus pelamis</i>	Skipjack tuna	37	0.0142
<i>Xiphias gladius</i>	Swordfish	14	0.0054
<i>Makaira nigricans</i>	Blue marlin	2	0.0008
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	2	0.0008
<i>Scombrabolax heterolepis</i>	Longfin escolar	2	0.0008
<i>Acanthocybium solandri</i>	Wahoo	28	0.0108
<i>Gempylus serpens</i>	Snake mackerel	12	0.0046
<i>Tetrapturus audax</i>	Striped marlin	5	0.0019
<i>Brama brama</i>	Atlantic pomfret	1	0.0004
<i>Nesiarchus nasutus</i>	Black gemfish	1	0.0004
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	104	0.0399
<i>Lepidocybium flavobrunneum</i>	Escolar	54	0.0207
<i>Makaira indica</i>	Black marlin	1	0.0004
<i>Ommastrephidae</i>	Squids nei	3	0.0012
<i>Isurus paucus</i>	Longfin mako	3	0.0012
<i>Dasyatis violacea</i>	Pelagic stingray	64	0.0246
Total	-	2604	1

Note: * indicate target species

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	1950	0.6871
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.0007
<i>Lampris guttatus</i>	Opah	14	0.0049
<i>Remora osteochir</i>	Marlin sucker	30	0.0106
<i>Prionace glauca</i>	Blue shark	44	0.0155
<i>Thunnus obesus</i>	Bigeye tuna	91	0.0321
<i>Alopias superciliosus</i>	Bigeye thresher	3	0.0011
<i>Remora remora</i>	Shark sucker	5	0.0018
<i>Alepisaurus ferox</i>	Longnose lancetfish	211	0.0743
<i>Exocoetidae</i>	Flyingfishes nei	2	0.0007
<i>Taractes rubescens</i>	Dagger pomfret	6	0.0021
<i>Thunnus albacares</i>	Yellowfin tuna	13	0.0046
<i>Phoebastria palpebrata</i>	Light-mantled sooty albatross	1	0.0004
<i>Isurus oxyrinchus</i>	Shortfin mako	6	0.0021
<i>Katsuwonus pelamis</i>	Skipjack tuna	115	0.0405
<i>Xiphias gladius</i>	Swordfish	11	0.0039
<i>Makaira nigricans</i>	Blue marlin	19	0.0067

<i>Pseudocarcharias kamoharai</i>	Crocodile shark	12	0.0042
<i>Lstiophorus platypterus</i>	Indo-pacific sailfish	1	0.0004
<i>Coryphaena hippurus</i>	Dolphinfish	11	0.0039
<i>Scombrobrax heterolepis</i>	Escolar	2	0.0007
<i>Acanthocybium solandri</i>	Wahoo	51	0.0180
<i>Gempylus serpens</i>	Snake mackerel	9	0.0032
<i>Tetrapturus audax</i>	Striped marlin	9	0.0032
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	130	0.0458
<i>Lepidocybium flavobrunneum</i>	Longfin escolar	64	0.0226
<i>Makaira indica</i>	Black marlin	1	0.0004
<i>Cubiceps gracilis</i>	Driftfish	1	0.0004
<i>Dasyatis violacea</i>	Pelagic stingray	24	0.0085
Total	-	2838	1

Note: * indicate target species

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	17595	0.8550
<i>Taractichthys steindachneri</i>	Sickle pomfret	11	0.0005
<i>Thyrstites atun</i>	Snoek	2	0.0001
<i>Lampris guttatus</i>	Opah	543	0.0264
<i>Prionace glauca</i>	Blue shark	337	0.0164
<i>Thunnus obesus</i>	Bigeye tuna	139	0.0068
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0000
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	5	0.0002
<i>Alepisaurus ferox</i>	Longnose lancetfish	938	0.0456
<i>Elagatis bipinnulata</i>	Rainbow runner	3	0.0001
<i>Gasterochisma melampus</i>	Butterfly kingfish	23	0.0011
<i>Thunnus albacares</i>	Yellowfin tuna	14	0.0007
<i>Ruvettus pretiosus</i>	Oilfish	10	0.0005
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.0002
<i>Katsuwonus pelamis</i>	Skipjack tuna	154	0.0075
<i>Xiphias gladius</i>	Swordfish	25	0.0012
<i>Makaira nigricans</i>	Blue marlin	7	0.0003
<i>Thunnus maccoyii</i>	Southern bluefin tuna	1	0.0000
<i>Coryphaena hippurus</i>	Dolphinfish	22	0.0011
<i>Acanthocybium solandri</i>	Wahoo	83	0.0040
<i>Gempylus serpens</i>	Snake mackerel	34	0.0017
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	180	0.0087
<i>Tetrapturus audax</i>	Striped marlin	39	0.0019

<i>Allothunnus fallai</i>	Slender tuna	27	0.0013
<i>Thunnus alalunga</i>	Escolar	271	0.0132
<i>Ommastrephidae</i>	Squids nei	2	0.0001
<i>Isurus paucus</i>	Longfin mako	24	0.0012
<i>Assurger anzac</i>	Razorback scabbardfish	1	0.0000
<i>Dasyatis violacea</i>	Sting ray	83	0.0040
Total	-	20578	1

Note: * indicate target species

Table 14 Observed catch and composition during observer trip 13

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	4263	0.6650
<i>Alepisaurus ferox</i>	Longnose lancetfish	794	0.1238
<i>Lophotus capellei</i>	Unicornfish	3	0.0005
<i>Taractichthys steindachneri</i>	Sickle pomfret	7	0.0011
<i>Thyrstites atun</i>	Snoek	11	0.0017
<i>Lampris guttatus</i>	Opah	95	0.0148
<i>Prionace glauca</i>	Blue shark	198	0.0309
<i>Thunnus obesus</i>	Bigeye tuna	159	0.0248
<i>Alopias superciliosus</i>	Bigeye thresher	5	0.0008
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	11	0.0017
<i>Taractes rubescens</i>	Dagger pomfret	8	0.0012
<i>Thunnus albacares</i>	Yellowfin tuna	14	0.0022
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0002
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.0006
<i>Katsuwonus pelamis</i>	Skipjack tuna	214	0.0334
<i>Xiphias gladius</i>	Swordfish	47	0.0073
<i>Makaira nigricans</i>	Blue marlin	5	0.0008
<i>Carcharhinus falciformis</i>	Silky shark	1	0.0002
<i>Coryphaena hippurus</i>	Dolphinfish	5	0.0008
<i>Acanthocybium solandri</i>	Wahoo	68	0.0106
<i>Gempylus serpens</i>	Snake mackerel	48	0.0075
<i>Tetrapturus audax</i>	Striped marlin	17	0.0027
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	94	0.0147
<i>Scymnodon squamulosus</i>	Velvet dogfish	2	0.0003
<i>Thunnus alalunga</i>	Escolar	132	0.0206
<i>Makaira indica</i>	Black marlin	1	0.0002
<i>Cubiceps gracilis</i>	Driftfish	2	0.0003
<i>Eumegistus illustris</i>	Brilliant pomfret	2	0.0003
<i>Dasyatis violacea</i>	Sting ray	200	0.0312

Total	-	6411	1
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Note: * indicate target species

Table 15 Observed catch and composition during observer trip 14

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	1853	0.1797
<i>Thunnus obesus</i>	Bigeye tuna	3	0.0003
<i>Thunnus albacares</i>	Yellowfin tuna	1666	0.1616
<i>Katsuwonus pelamis</i>	Skipjack tuna	67	0.0065
<i>Makaira nigricans</i>	Blue marlin	108	0.0105
<i>Tetrapturus audax</i>	Striped marlin	757	0.0734
<i>Xiphias gladius</i>	Swordfish	321	0.0311
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	2	0.0002
<i>Lstiophorus platypterus</i>	Indo-pacific sailfish	46	0.0045
<i>Acanthocybium solandri</i>	Wahoo	44	0.0043
<i>Carcharhinus falciformis</i>	Silky shark	1944	0.1886
<i>Prionace glauca</i>	Blue shark	2708	0.2627
<i>Isurus oxyrinchus</i>	Shortfin mako	9	0.0009
<i>Alopias superciliosus</i>	Bigeye thresher	128	0.0124
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	19	0.0018
<i>Sphyrna zygaena</i>	Smooth hammerhead	41	0.0040
<i>Sphyrna lewini</i>	Scalloped Hammerhead	50	0.0048
<i>Manta biriostris</i>	Giant manta	22	0.0021
<i>Mobula spp</i>	Devil rays	53	0.0051
<i>Dasyatis violacea</i>	Sting ray	194	0.0188
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0001
<i>Mola mola</i>	Ocean sunfish	1	0.0001
<i>Alepisaurus ferox</i>	Longnose lancetfish	110	0.0107
<i>Sphyrna qenie</i>	Blackfin barracuda	1	0.0001
<i>Coryphaena hippurus</i>	Dolphinfish	106	0.0103
<i>Lepidocybium flavobrunneum</i>	Escolar	4	0.0004
<i>Gempylus serpens</i>	Snake mackerel	23	0.0022
<i>Elagatis bipinnulata</i>	Rainbow runner	3	0.0003
<i>Stenella attenuata</i>	Pantropical spotted dolphin	1	0.0001
<i>Lepidochelys olivacea</i>	Olive ridley turtle	20	0.0019
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.0001
<i>Chelonia mydas</i>	Green turtle	4	0.0004
Total		10310	1

Note: * indicate target species

Table 16 Observed catch and composition during observer trip 15

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	1777	0.9279373
<i>Thunnus obesus</i>	Bigeye tuna	10	0.0052219
<i>Lepidocybium flavobrunneum</i>	Escolar	28	0.0146214
<i>Lampris guttatus</i>	Opah	10	0.0052219
<i>Istiophorus platypterus</i>	Indo-pacific sailfish	33	0.0172324
-	Unidentified sharks	3	0.0015666
<i>Katsuwonus pelamis</i>	Skipjack tuna	23	0.0120104
<i>Tetrapturus audax</i>	Striped marlin	6	0.0031332
<i>Xiphias gladius</i>	Swordfish	2	0.0010444
<i>Acanthocybium solandri</i>	Wahoo	20	0.0104439
<i>Thunnus albacares</i>	Yellowfin tuna	1	0.0005222
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.0005222
<i>Brama brama</i>	Atlantic pomfret	1	0.0005222
Total	-	1915	1

Note: * indicate target species

Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA
operating in the EPO

(adopted by the 10th Meeting of the IATTC Scientific Advisory Committee, May 2019)

CPC [China](#)

FLEET INFORMATION (vessels > 20 m LOA)									
	Both set types combined			Shallow sets (< 15 HPB/HBF ¹ or < 100 m max hook depth)			Deep sets (≥ 15 HPB/HBF or ≥ 100 m max hook depth)		
Period covered	Date range 01-01-2022-01-31-2023			Date range DD-MMM-YY-DD-MMM-YY			Date range 01-01-2022-01-31-2023		
Area fished	from 95° W to 133° W and from 6 ° N to 37° S			from (XXX)° W to (XXX)° W and from (XX)° S/N to (XX)° S/N			from 95° W to 133° W and from 6 ° N to 37° S		
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed
No. of vessels that fished	165	15	0.091	0	0	0	165	15	0.091
No. of trips				0	0	0			
No. of effective days fishing	25057	1700	0.068	0	0	0	25057	1700	0.068
No. of sets	25057	1700	0.068	0	0	0	25057	1700	0.068
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)	75171	5257	0.070	0	0	0	75171	5257	0.070
Predominant ² hook type/size (IATTC code)		C-28						C-28	
Predominant bait type ³		F						F	

¹ Hooks per basket/ Hooks between floats

² Predominant' means most common, i.e. >50%

³ Bait codes: SQ-squid; F-fishes (e.g. Scomber spp.); A-artificial lure (e.g. plastic jig)

[illegible]

INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

13TH MEETING

(by videoconference)

16-20 May 2022

DOCUMENT SAC-13 INF-A(b)

**2021 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA TUNA
LONGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2021
IN THE IATTC CONVENTION AREA
CHINA

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2021, China conducted sixteen longline observer trips in the IATTC convention area (east of 150°W). A total of 2512 fishing days were observed during the sixteen trips (**Table 1**). Some of the Chinese observer trips for the EPO area were shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel carried out the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

Table 1 Information of Sixteen Chinese LL observer trips in the IATTC area in 2021

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	224	595,065	Jul 28, 2020-May 16, 2021	10°~32°S, 93°~144°W
Trip 2	217	647,590	Jun 22, 2020-May 13, 2021	10°~32°S, 97°~133°W
Trip 3	512	259,338	Apr 18, 2020-Dec 14, 2021	5°N~14°S, 124°~150°W
Trip 4	22	27,600	Aug 20, 2021-Sep 15, 2021	24°~27°S, 94°~97°W
Trip 5	144	461,376	Jun 22, 2020-Feb 21, 2021	15°~21°S, 114°~131°W
Trip 6	130	410,900	Aug 17, 2021-Jan 17, 2022	14°~27°S, 91°~123°W
Trip 7	418	1,263,324	Aug 16, 2020-Jan 5, 2022	2°~34°S, 91°~147°W
Trip 8	165	558,171	May 24, 2021-Dec 23, 2021	10°~34°S, 93°~144°W
Trip 9	102	325,416	Sep 01, 2020-Jan 12, 2021	16°~32°S, 94°~118°W

Trip 10	11	36,288	Jun 12,2020-Jul 24,2020	8°~11°S, 145°~150°W
Trip 11	137	415,126	Jul 15,2021-Jan 5,2022	1°~32°S, 106°~150°W
Trip 12	78	182,520	Nov 25,2020-Mar 8,2021	13°~21°S, 117°~133°W
Trip 13	119	350,352	Oct 20,2020-Mar 9,2021	13°~32°S, 118°~132°W
Trip 14	88	201,480	Nov 19,2020-Mar 8,2021	13°~20°S, 116°~137°W
Trip 15	10	35,100	Feb 6, 2021-Feb 23, 2021	8°~13°S, 129°~148°W
Trip 16	138	480,541	May 25, 2020-Feb 2, 2021	8°~20°S, 95°~150°W

The observed set stations for the sixteen trips are shown in **Figure 1**. These trips targeted Albacore or Bigeye tuna, mainly using circle hooks.

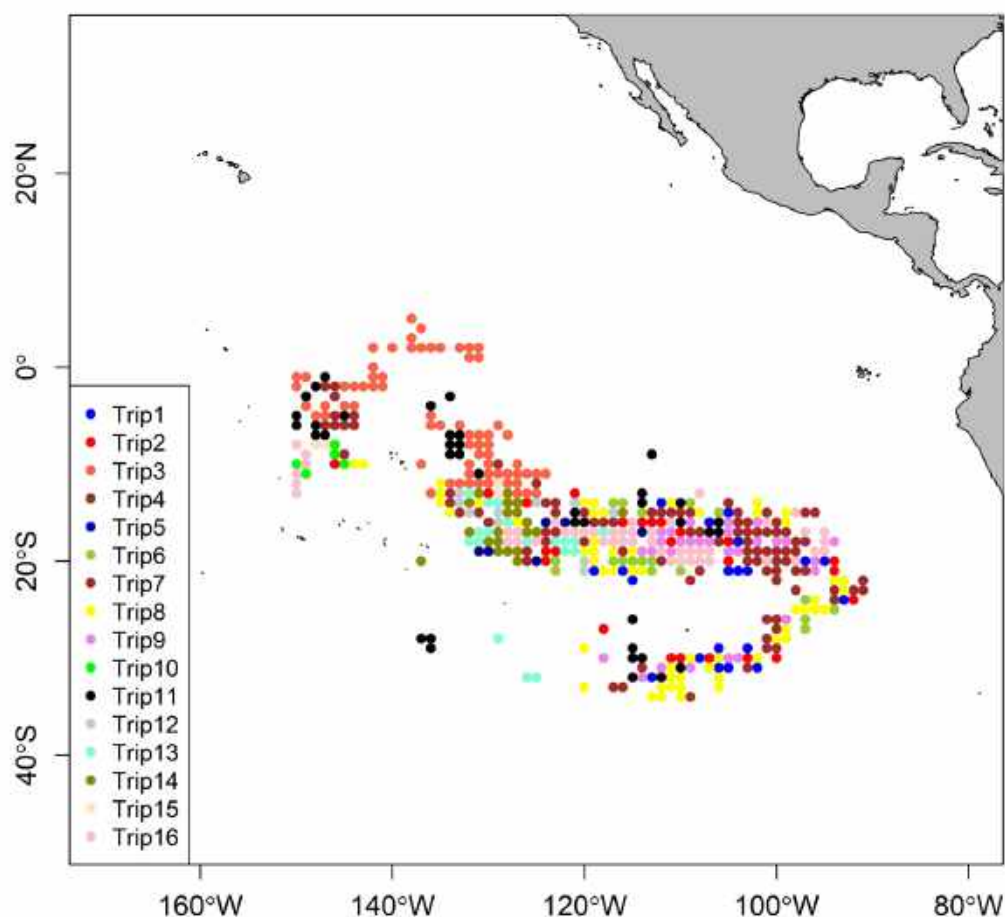


Fig. 1 Set stations of Chinese longline observer trips in 2021

2. Observer coverage

Based on current observer data, China's observer coverage in EPO for 2021 was **8.9%**. We suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Tables 2-17**.

There were no seabirds, turtles and marine mammals incidentally captured during the observation period of sixteen trips. Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks and Silky sharks which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	11855	0.8669
<i>Thunnus albacares</i>	Yellowfin tuna	406	0.0297
<i>Katsuwonus pelamis</i>	Skipjack tuna	360	0.0263
<i>Acanthocybium solandri</i>	Wahoo	194	0.0142
<i>Lepidocybium flavobrunneum</i>	Escolar	188	0.0137
<i>Thunnus obesus</i>	Bigeye tuna	187	0.0137
<i>Lampris guttatus</i>	Opah	182	0.0133
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	146	0.0107
<i>Xiphias gladius</i>	Swordfish	43	0.0031
<i>Coryphaenahippurus</i>	Common dolphinfish	40	0.0029
<i>Tetrapturus audax</i>	Striped marlin	32	0.0023
<i>Makaira nigricans</i>	Blue marlin	27	0.0020
<i>Gymnosarda unicolor</i>	Dogtooth tuna	6	0.0004
<i>Brama brama</i>	Atlantic pomfret	4	0.0003
<i>Alepisaurus ferox</i>	Longnose lancetfish	2	0.0001
<i>Benthodesmus spp</i>	Frostfishes	1	0.0001
<i>Sphyrna barracuda</i>	Great barracuda	1	0.0001
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0001
Total	-	13675	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	15295	0.8815
<i>Katsuwonus pelamis</i>	Skipjack tuna	367	0.0212
<i>Lampris guttatus</i>	Opah	361	0.0208
<i>Acanthocybium solandri</i>	Wahoo	242	0.0139
<i>Thunnus albacares</i>	Yellowfin tuna	208	0.0120
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	194	0.0112
<i>Thunnus obesus</i>	Bigeye tuna	142	0.0082
<i>Lepidocybium flavobrunneum</i>	Escolar	112	0.0065
<i>Alepisaurus ferox</i>	Longnose lancetfish	111	0.0064
<i>Coryphaenahippurus</i>	Common dolphinfish	105	0.0061
<i>Dasyatis violacea</i>	Pelagic stingray	70	0.0040
<i>Xiphias gladius</i>	Swordfish	41	0.0024
<i>Prionace glauca</i>	Blue shark	40	0.0023

<i>Tetrapturus audax</i>	Striped marlin	40	0.0023
<i>Makaira mazara</i>	Blue marlin	20	0.0012
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.0001
<i>Alopiassuperciliosus</i>	Bigeye thresher	1	0.0001
<i>Lophotuscapellei</i>	Unicornfish	1	0.0001
Total	-	17351	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	3842	0.2965
<i>Lepidocybium flavobrunneum</i>	Escolar	2959	0.2283
<i>Xiphias gladius</i>	Swordfish	1365	0.1053
<i>Prionace glauca</i>	Blue shark	1061	0.0819
<i>Dasyatis violacea</i>	Pelagic stingray	1047	0.0808
<i>Thunnus albacares</i>	Yellowfin tuna	772	0.0596
<i>Thunnus alalunga</i>	Albacore tuna	581	0.0448
<i>Gempylus serpens</i>	Snake mackerel	414	0.0319
<i>Taractichthys steindachneri</i>	sickle pomfret	251	0.0194
<i>Acanthocybium solandri</i>	Wahoo	212	0.0164
<i>Alopiassuperciliosus</i>	Bigeye thresher	170	0.0131
<i>Katsuwonus pelamis</i>	Skipjack tuna	97	0.0075
<i>Makaira nigricans</i>	Blue marlin	83	0.0064
<i>Lampris guttatus</i>	Opah	55	0.0042
<i>Coryphaenahippurus</i>	Dolphinfish	18	0.0014
<i>Isurus paucus</i>	Longfin mako	14	0.0011
<i>Mobula japonica</i>	Spinetail mobula	9	0.0007
<i>Alepisaurus ferrox</i>	Longnose lancetfish	6	0.0005
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.0002
<i>Isurus oxyrinchus</i>	Shortfin mako	2	0.0002
Total	-	12960	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	1428	0.9629
<i>Thunnus obesus</i>	Bigeye tuna	18	0.0121

<i>Lampris guttatus</i>	Opah	14	0.0094
<i>Thunnus albacares</i>	Yellowfin tuna	12	0.0081
<i>Coryphaenahippurus</i>	Common dolphinfish	10	0.0067
<i>Lepidocybium flavobrunneum</i>	Escolar	1	0.0007
Total	-	1483	1

Note: * indicate target species

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	4366	0.7329
<i>Katsuwonus pelamis</i>	Skipjack tuna	328	0.0551
<i>Acanthocybium solandri</i>	Wahoo	326	0.0547
<i>Thunnus obesus</i>	Bigeye tuna	307	0.0515
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	195	0.0327
<i>Lepidocybium flavobrunneum</i>	Escolar	158	0.0265
<i>Thunnus albacares</i>	Yellowfin tuna	155	0.0260
<i>Makaira nigricans</i>	Blue marlin	48	0.0081
<i>Lampris guttatus</i>	Opah	45	0.0076
<i>Xiphias gladius</i>	Swordfish	26	0.0044
<i>Coryphaenahippurus</i>	Common dolphinfish	1	0.0002
<i>Sphyrna barracuda</i>	Great barracuda	1	0.0002
<i>Tetrapturus audax</i>	Striped marlin	1	0.0002
Total	-	5957	1

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	9925	0.8708
<i>Katsuwonus pelamis</i>	Skipjack tuna	389	0.0341
<i>Lepidocybium flavobrunneum</i>	Escolar	242	0.0212
<i>Thunnus obesus</i>	Bigeye tuna	176	0.0154
<i>Lampris guttatus</i>	Opah	169	0.0148
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	143	0.0125
<i>Acanthocybium solandri</i>	Wahoo	107	0.0094
<i>Thunnus albacares</i>	Yellowfin tuna	53	0.0047
<i>Coryphaenahippurus</i>	Dommon dolphinfish	40	0.0035
<i>Xiphias gladius</i>	Swordfish	32	0.0028

<i>Dasyatisviolacea</i>	Pelagic stingray	21	0.0018
<i>Alepisaurus ferox</i>	Longnose lancetfish	20	0.0018
<i>Gempylusserpens</i>	Snake mackerel	18	0.0016
<i>Tetrapturus audax</i>	Striped Marlin	18	0.0016
<i>Taractichthyssteindachneri</i>	Sickle pomfret	17	0.0015
<i>Makaira nigricans</i>	Blue marlin	4	0.0004
<i>Prionace glauca</i>	Blue shark	4	0.0004
<i>Alopiassuperciliosus</i>	Bigeye thresher	3	0.0003
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	3	0.0003
<i>Isuruspaucus</i>	Longfin mako	3	0.0003
<i>Carcharhinus falciformis</i>	Silky shark	3	0.0003
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	2	0.0002
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.0002
<i>Remora remora</i>	Shark sucker	1	0.0001
<i>Lophotuscapellei</i>	Unicornfish	1	0.0001
<i>Mola mola</i>	Ocean sunfish	1	0.0001
Total	-	11397	1

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	17235	0.7121
<i>Alepisaurus ferox</i>	Longnose lancetfish	1677	0.0693
<i>Lepidocybium flavobrunneum</i>	Escolar	746	0.0308
<i>Lampris guttatus</i>	Opah	622	0.0257
<i>Thunnus obesus</i>	Bigeye tuna	559	0.0231
<i>Dasyatisviolacea</i>	Pelagic stingray	550	0.0227
<i>Thunnus albacares</i>	Yellowfin tuna	465	0.0192
<i>Katsuwonus pelamis</i>	Skipjack tuna	440	0.0182
<i>Acanthocybium solandri</i>	Wahoo	375	0.0155
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	364	0.0150
<i>Prionace glauca</i>	Blue shark	329	0.0136
<i>Taractes rubescens</i>	Dagger pomfret	228	0.0094
<i>Coryphaenahippurus</i>	Common dolphinfish	164	0.0068
<i>Taractichthys steindachneri</i>	Sickle pomfret	136	0.0056
<i>Xiphias gladius</i>	Swordfish	129	0.0053
<i>Tetrapturus audax</i>	Striped Marlin	93	0.0038
<i>Alopiassuperciliosus</i>	Bigeye thresher	14	0.0006
<i>Makaira nigricans</i>	Blue marlin	14	0.0006
<i>Isurus paucus</i>	Shortfin mako	12	0.0005

<i>Gempylusserpens</i>	Snake mackerel	12	0.0005
<i>Pseudocarchariaskamoharai</i>	Crocodile shark	11	0.0005
<i>Lophotuscapellei</i>	Unicornfish	5	0.0002
<i>Brama brama</i>	Atlantic pomfret	4	0.0002
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	4	0.0002
<i>Assurgeranzac</i>	Razorback scabbardfish	4	0.0002
<i>Scymnodonsquamulosus</i>	Velvet dogfish	4	0.0002
<i>Isuruspaucus</i>	Longfin mako	3	0.0001
<i>Gasterochisma melampus</i>	Butterfly kingfish	2	0.0001
<i>Ranzanialaevis</i>	Slender sunfish	2	0.0001
<i>Cubicepsgracilis</i>	Driftfish	1	0.0000
Total	-	24204	1

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	13124	0.8872
<i>Katsuwonus pelamis</i>	Skipjack tuna	291	0.0197
<i>Thunnus albacares</i>	Yellowfin tuna	264	0.0178
<i>Lampris guttatus</i>	Opah	232	0.0157
<i>Thunnus obesus</i>	Bigeye tuna	225	0.0152
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	222	0.0150
<i>Acanthocybium solandri</i>	Wahoo	109	0.0074
<i>Coryphaenahippurus</i>	Common dolphinfish	91	0.0062
<i>Lepidocybium flavobrunneum</i>	Escolar	89	0.0060
<i>Ruvettuspretiosus</i>	Oilfish	78	0.0053
<i>Tetrapturus audax</i>	Striped marlin	41	0.0028
<i>Xiphias gladius</i>	Swordfish	12	0.0008
<i>Makaira nigricans</i>	Blue marlin	6	0.0004
<i>Makaira indica</i>	Black marlin	2	0.0001
<i>Dasyatisviolacea</i>	Pelagic stingray	2	0.0001
<i>Mobula japonica</i>	Spinetailmobula	1	0.0001
<i>Alepisaurus ferox</i>	Longnose lancetfish	1	0.0001
<i>Isuruspaucus</i>	Longfinmako	1	0.0001
<i>Thunnus orientalis</i>	Pacific bluefin tuna	1	0.0001
Total	-	14792	1

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	9041	0.7294
<i>Dasyatisviolacea</i>	Pelagic stingray	1372	0.1107
<i>Gempylusserpens</i>	Snake mackerel	919	0.0741
<i>Lampris guttatus</i>	Opah	286	0.0231
<i>Alepisaurus ferox</i>	Longnose lancetfish	273	0.0220
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	133	0.0107
<i>Thunnus obesus</i>	Bigeye tuna	96	0.0077
<i>Katsuwonus pelamis</i>	Skipjack tuna	81	0.0065
<i>Lepidocybium flavobrunneum</i>	Escolar	52	0.0042
<i>Sphyrnaena barracuda</i>	Great barracuda	52	0.0042
<i>Thunnus albacares</i>	Yellowfin tuna	45	0.0036
<i>Tetrapturus audax</i>	Striped Marlin	17	0.0014
<i>Xiphias gladius</i>	Swordfish	16	0.0013
<i>Coryphaenahippurus</i>	Dolphinfish	12	0.0010
Total	-	12395	1

Note: * indicate target species

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	199	0.5349
<i>Thunnus albacares</i>	Yellowfin tuna	79	0.2124
<i>Thunnus obesus</i>	Bigeye tuna	24	0.0645
<i>Acanthocybium solandri</i>	Wahoo	15	0.0403
<i>Katsuwonus pelamis</i>	Skipjack tuna	13	0.0349
<i>Lepidocybium flavobrunneum</i>	Escolar	12	0.0323
<i>Dasyatisviolacea</i>	Pelagic stingray	10	0.0269
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	10	0.0269
<i>Alepisaurus ferox</i>	Longnose lancetfish	5	0.0134
<i>Makaira nigricans</i>	Blue marlin	2	0.0054
<i>Prionace glauca</i>	Blue shark	2	0.0054
<i>Lampris guttatus</i>	Opah	1	0.0027
Total	-	372	1

Note: * indicate target species

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	4841	0.5626
<i>Thunnus obesus</i>	Bigeye tuna	1139	0.1324
<i>Thunnus albacares</i>	Yellowfin tuna	588	0.0683
<i>Lampris guttatus</i>	Opah	524	0.0609
<i>Lepidocybium flavobrunneum</i>	Escolar	383	0.0445
<i>Katsuwonus pelamis</i>	Skipjack tuna	341	0.0396
<i>Xiphias gladius</i>	Swordfish	129	0.0150
<i>Acanthocybium solandri</i>	Wahoo	124	0.0144
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	122	0.0142
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	119	0.0138
<i>Coryphaenahippurus</i>	Common dolphinfish	118	0.0137
<i>Tetrapturus audax</i>	Striped marlin	99	0.0115
<i>Ruvettus pretiosus</i>	Oilfish	62	0.0072
<i>Makaira nigricans</i>	Blue marlin	10	0.0012
<i>Makaira indica</i>	Black marlin	5	0.0006
Total	-	8604	1

Note: * indicate target species

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	2529	0.8072
<i>Katsuwonus pelamis</i>	Skipjack tuna	187	0.0597
<i>Gempylus serpens</i>	Snake mackerel	87	0.0278
<i>Acanthocybium solandri</i>	Wahoo	72	0.0230
<i>Thunnus obesus</i>	Bigeye tuna	54	0.0172
<i>Thunnus albacares</i>	Yellowfin tuna	49	0.0156
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	43	0.0137
<i>Prionace glauca</i>	Blue shark	29	0.0093
<i>Makaira nigricans</i>	Blue marlin	26	0.0083
<i>Ruvettus pretiosus</i>	Oilfish	22	0.0070
<i>Sphyrna barracuda</i>	Great barracuda	11	0.0035
<i>Dasyatis violacea</i>	Pelagic stingray	10	0.0032
<i>Xiphias gladius</i>	Swordfish	6	0.0019
<i>Lampris guttatus</i>	Opah	4	0.0013
<i>Taractichthys steindachneri</i>	Sickle pomfret	3	0.0010

<i>Alopiassuperciliosus</i>	Bigeye thresher	1	0.0003
Total	-	3133	1

Note: * indicate target species

Table 14 Observed catch and composition during observer trip 13

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	3418	0.7211
<i>Katsuwonus pelamis</i>	Skipjack tuna	363	0.0766
<i>Dasyatisviolacea</i>	Pelagic stingray	150	0.0316
<i>Thunnus obesus</i>	Bigeye tuna	146	0.0308
<i>Acanthocybium solandri</i>	Wahoo	140	0.0295
<i>Alepisaurus ferox</i>	Longnose lancetfish	131	0.0276
<i>Lepidocybium flavobrunneum</i>	Escolar	92	0.0194
<i>Thunnus albacares</i>	Yellowfin tuna	89	0.0188
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	74	0.0156
<i>Makaira nigricans</i>	Blue marlin	54	0.0114
<i>Xiphias gladius</i>	Swordfish	30	0.0063
<i>Coryphaenahippurus</i>	Common dolphinfish	22	0.0046
<i>Lampris guttatus</i>	Opah	17	0.0036
<i>Gempylusserpens</i>	Snake mackerel	7	0.0015
<i>Taractichthys steindachneri</i>	Sickle pomfret	3	0.0006
<i>Tetrapturus audax</i>	Striped Marlin	3	0.0006
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.0002
Total	-	4740	1

Note: * indicate target species

Table 15 Observed catch and composition during observer trip 14

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	3268	0.6642
<i>Katsuwonus pelamis</i>	Skipjack tuna	358	0.0728
<i>Omosudis lowei</i>	Omosudid	320	0.0650
<i>Dasyatis violacea</i>	Pelagic stingray	176	0.0358
<i>Acanthocybium solandri</i>	Wahoo	159	0.0323
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	122	0.0248
<i>Lepidocybium flavobrunneum</i>	Escolar	112	0.0228
<i>Thunnus obesus</i>	Bigeye tuna	96	0.0195
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	92	0.0187

<i>Thunnus albacares</i>	Yellowfin tuna	66	0.0134
<i>Makaira nigricans</i>	Blue marlin	62	0.0126
<i>Xiphias gladius</i>	Swordfish	35	0.0071
<i>Lampris guttatus</i>	Opah	26	0.0053
<i>Tetrapturus audax</i>	Striped marlin	17	0.0035
<i>Taractichthys steindachneri</i>	Sickle pomfret	7	0.0014
<i>Coryphaena hippurus</i>	Common dolphinfish	4	0.0008
Total	-	4920	1

Note: * indicate target species

Table 16 Observed catch and composition during observer trip 15

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	81	0.2774
<i>Thunnus obesus</i>	Bigeye tuna	52	0.1781
<i>Thunnus albacares</i>	Yellowfin tuna	46	0.1575
<i>Katsuwonus pelamis</i>	Skipjack tuna	40	0.1370
<i>Dasyatis violacea</i>	Pelagic stingray	34	0.1164
<i>Lepidocybium flavobrunneum</i>	Escolar	16	0.0548
<i>Prionace glauca</i>	Blue shark	12	0.0411
<i>Makaira nigricans</i>	Blue marlin	6	0.0205
<i>Acanthocybium solandri</i>	Wahoo	4	0.0137
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	1	0.0034
Total	-	292	1

Note: * indicate target species

Table 17 Observed catch and composition during observer trip 16

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore tuna*	6461	0.8003
<i>Katsuwonus pelamis</i>	Skipjack tuna	539	0.0668
<i>Thunnus obesus</i>	Bigeye tuna	238	0.0295
<i>Dasyatis violacea</i>	Pelagic stingray	210	0.0260
<i>Thunnus albacares</i>	Yellowfin tuna	150	0.0186
<i>Prionace glauca</i>	Blue shark	148	0.0183
<i>Acanthocybium solandri</i>	Wahoo	116	0.0144
<i>Lepidocybium flavobrunneum</i>	Escolar	111	0.0137
<i>Lampris guttatus</i>	Opah	55	0.0068

<i>Makaira nigricans</i>	Blue marlin	27	0.0033
<i>Tetrapturus audax</i>	Striped marlin	15	0.0019
<i>Xiphias gladius</i>	Swordfish	3	0.0004
Total	-	8073	1

Note: * indicate target species

Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA
operating in the EPO

(adopted by the 10th Meeting of the IATTC Scientific Advisory Committee, May 2019)

CPC [China](#)

FLEET INFORMATION (vessels > 20 m LOA)									
	Both set types combined			Shallow sets (< 15 HPB/HBF ¹ or < 100 m max hook depth)			Deep sets (≥ 15 HPB/HBF or ≥ 100 m max hook depth)		
Period covered	Date range 01-01-2021-12-31-2021			Date range DD-MMM-YY-DD-MMM-YY			Date range 01-01-2021-12-31-2021		
Area fished	from 91° W to 150° W and from 05° N to 34° S			from (XXX)° W to (XXX)° W and from (XX)° S/N to (XX)° S/N			from 91° W to 150° W and from 05° N to 34° S		
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed
No. of vessels that fished	196	16	0.082	0	0	0	196	16	0.082
No. of trips				0	0	0			
No. of effective days fishing	27414	2515	0.092	0	0	0	27414	2515	0.092
No. of sets	27414	2527	0.092	0	0	0	27414	2527	0.092
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)	70023	6250	0.089	0	0	0	70023	6250	0.089
Predominant ² hook type/size (IATTC code)	C-16	C-16					C-16	C-16	
Predominant bait type ³	F	F					F	F	

¹ Hooks per basket/ Hooks between floats

² Predominant' means most common, i.e. >50%

³ Bait codes: SQ-squid; F-fishes (e.g. Scomber spp.); A-artificial lure (e.g. plastic jig)

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INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

12TH MEETING

(by videoconference)

10-14 May 2021

DOCUMENT SAC-12 INF-A(a)

**2020 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA TUNA
LONGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA
operating in the EPO

(adopted by the 10th Meeting of the IATTC Scientific Advisory Committee, May 2019)

CPC/China

FLEET INFORMATION (vessels > 20 m LOA)									
	Both set types combined			Shallow sets (< 15 HPB/HBF ¹ or <100 m max hook depth)			Deep sets (≥15 HPB/HBF or ≥100 m max hook depth)		
Period covered	Date range 01-01-2020-12-31-2020			Date range DD-MMM-YY-DD-MMM-YY			Date range 01-01-2020-12-31-2020		
Area fished	from 90° W to 149° W and from 06° N to 33° S			from(XXX)° W to (XXX)° W and from (XX)° S/N to (XX)° S/N			from 90° W to 149° W and from 06° N to 33° S		
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed
No. of vessels that fished	232	14	0.060	0	0	0	232	14	0.060
No. of trips				0	0	0			
No. of effective days fishing	29245	1262	0.043	0	0	0	29245	1262	0.043
No. of sets	29245	1262	0.043	0	0	0	29245	1262	0.043
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)	83023	4037	0.049	0	0	0	83023	4037	0.049
Predominant ² hook type/size (IATTC code)	C-16	C-16					C-16	C-16	
Predominant bait type ³	F	F					F	F	

¹ Hooks per basket/ Hooks between floats

² Predominant* means most common, i.e. >50%

³ Bait codes:SQ-squid;F-fishes (e.g. Scomber spp.);A-artificial lure (e.g.plastic jig)

[illegible]

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2020 IN THE
IATTC CONVENTION AREA
CHINA

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2020, China conducted eighteen longline observer trips in the IATTC convention area (east of 150°W). However, there are four observers still at sea just under the influence of the COVID-19. This report is the preliminary one for the fourteen observer trips. More than 1262 fishing days were observed during the fourteen trips (**Table 1**). Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel does the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

The observed set stations for the fourteen trips are shown in **Figure 1**. These trips targeted albacore or bigeye tuna using the circle hooks.

Table 1 Information of Seventeen Chinese LL observer trips in the IATTC area in 2020

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	107	415,485	Aug26,2020- Jan 19,2021	14°~32°S,93°~123°W
Trip 2	153	393,034	Jun22,2020- Dec30,2020	12°~21°S,112°~126°W
Trip 3	25	78,651	Jan 25,2020- May 10,2020	5°~14°S,117°~119°W
Trip 4	9	27,216	Jun28,2020- Jul8,2020	2°~13°S,119°~141°W
Trip 5	129	343,955	Aug6,2020- Jan 19,2021	13°~32°S,96°~125°W

Trip 6	61	104,156	Oct3,2020- Dec15,2020	2°N~3°S,106°~117°W
Trip 7	7	17,226	Jun 28,2020–Jul 6,2020	5°~6°N,144°~149°W
Trip 8	140	594,946	Jun 9,2020- Jan 24,2021	9°~30°S, 93°~149°W
Trip 9	127	430,980	Jul 27,2020- Jan 11,2021	14°~32°S,93°~133°W
Trip 10	28	72,800	Oct31,2019-Aug 10,2020	8°~9°S, 147°~149°W
Trip 11	10	33,096	Jun4,2020-Jul 25,2020	8°~11°S, 145°~149°W
Trip 12	124	410,589	Aug11,2020-Jan 25,2021	15°~33°S, 90°~135°W
Trip 13	226	692,469	Jul 27,2019-May 11,2020	7°~20°S, 118°~149°W
Trip 14	116	423,380	Jun 13,2020- Dec 31,2020	9°~33°S, 90°~149°W

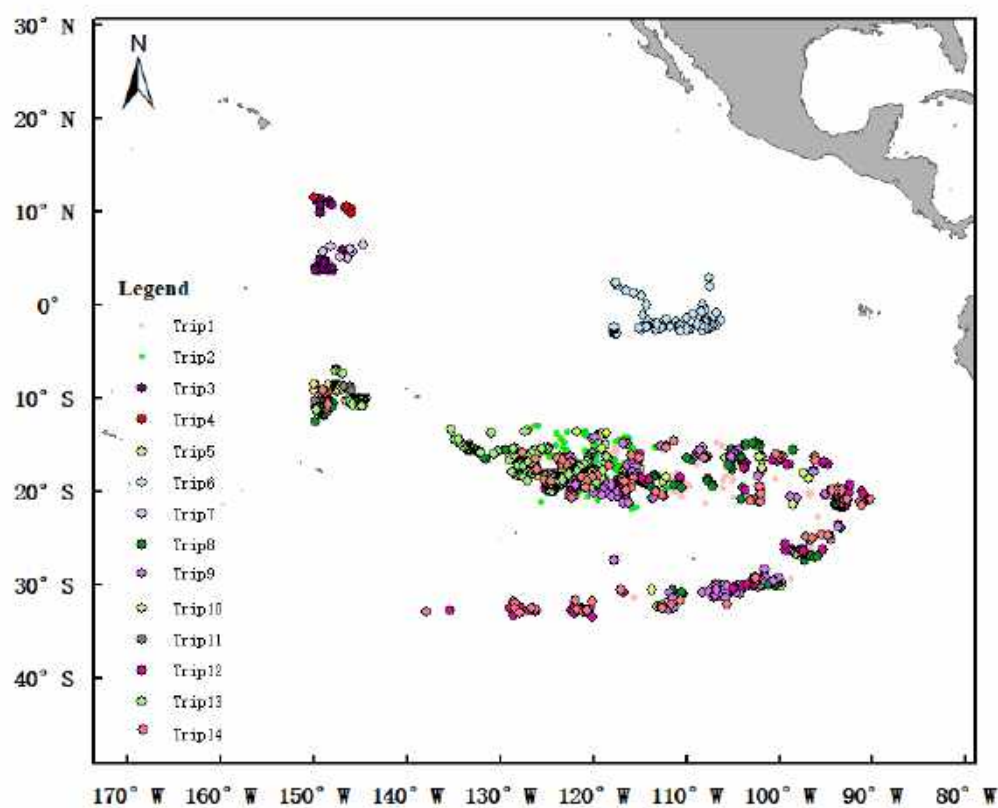


Fig. 1 Set stations of preliminary Chinese longline observer trips in 2020

2. Observer coverage

Based on the preliminary observer data, the China observer coverage in EPO is 4.86%. Meanwhile, seriously affected by the COVID-19, some observers are still at sea and these data cannot be sent to the shore. We will submit these data when the data are available. We suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species,

and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2-15**.

There were two seabirds incidentally captured in trip14. Three turtles (two green turtles and one Hawksbill turtle) were captured in trip6, trip8 and trip13. All the sea turtles are retrieved on board with proper treatment and are safely released alive (with dehooker equipment based on Sea Turtle Handle Guideline). There was no marine mammals incidentally captured. Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks and Silky sharks which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	12802	0.8484
<i>Thunnusalbacares</i>	Yellowfin tuna	78	0.0052
<i>Thunnusobesus</i>	Bigeye tuna	216	0.0143
<i>Katsuwonuspelamis</i>	Skipjack tuna	187	0.0124
<i>Xiphias gladius</i>	Swordfish	32	0.0021
<i>Kajikiaaudax</i>	Striped marlin	25	0.0017
<i>Makairamazara</i>	Indo-Pacific blue marlin	3	0.0002
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	178	0.0118
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	307	0.0203
<i>Acanthocybiumsolandri</i>	Wahoo	115	0.0076
<i>Coryphaenahippurus</i>	Dolphinfish	71	0.0047
<i>Gempylusserpens</i>	Snake mackerel	543	0.0360
<i>Promethichthysprometheus</i>	Roudi escolar	1	0.0001
<i>Lepidocybiumflavobrunneum</i>	Escolar	171	0.0113
<i>Taractichthyssteindachneri</i>	Sickle pomfret	1	0.0001
<i>Taracterubescens</i>	Dagger pomfret	3	0.0002
<i>Lamprisguttatus</i>	Opah	343	0.0227
<i>Alepisaurusferox</i>	Longnose lancetfish	13	0.0009
Total	-	15089	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	4313	0.5820
<i>Thunnusalbacares</i>	Yellowfin tuna	344	0.0464
<i>Thunnusobesus</i>	Bigeye tuna	449	0.0606
<i>Katsuwonuspelamis</i>	Skipjack tuna	282	0.0380
<i>Xiphias gladius</i>	Swordfish	15	0.0020
<i>Makairamazara</i>	Indo-Pacific blue marlin	29	0.0039
<i>Istiompaxindica</i>	Black marlin	2	0.0003
<i>Kajikiaaudax</i>	Striped marlin	19	0.0026
<i>Istiophorusplatypterus</i>	Indo-Pacific sailfish	4	0.0005
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	296	0.0399
<i>Prionaceglauca</i>	Blue shark	5	0.0007
<i>Carcharhinuslongimanus</i>	Oceanic whitetip shark	2	0.0003
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	2	0.0003
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	417	0.0563

<i>Sphyraena barracuda</i>	Great barracuda	2	0.0003
<i>Coryphaenahippurus</i>	Dolphinfish	90	0.0121
<i>Coryphaenaequiselis</i>	Pompano dolphinfish	1	0.0001
<i>Acanthocybiumsolandri</i>	Wahoo	157	0.0212
<i>Lepidocybiumflavobrunneum</i>	Escolar	145	0.0196
<i>Gempylusserpens</i>	Snake mackerel	11	0.0015
<i>Promethichthysprometheus</i>	Roudi escolar	3	0.0004
<i>Nesiarchusnasutus</i>	Black gemfish	1	0.0001
<i>Taractichthyssteindachneri</i>	Sickle pomfret	1	0.0001
<i>Taractesrubescens</i>	Dagger pomfret	3	0.0004
<i>Bramabrama</i>	Atlantic pomfret	1	0.0001
<i>Lamprisguttatus</i>	Opah	36	0.0049
<i>Lophotuscapellei</i>	Unicornfish	3	0.0004
<i>Alepisaurusferox</i>	Longnose lancetfish	771	0.1040
<i>Masturuslanceolatus</i>	Sharptailmola	2	0.0003
<i>Ranzanialaavis</i>	Slender sunfish	5	0.0007
Total	-	7412	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusobesus</i>	Bigeye tuna*	54	0.2647
<i>Thunnusalalunga</i>	Albacore	2	0.0098
<i>Thunnusalbacares</i>	Yellowfin tuna	85	0.4167
<i>Katsuwonuspelamis</i>	Skipjack tuna	7	0.0343
<i>Makairamazara</i>	Indo-Pacific blue marlin	6	0.0294
<i>Carcharhinuslongimanus</i>	Oceanic whitetip shark	1	0.0049
<i>Prionaceglauca</i>	Blue shark	3	0.0147
Shark nei.	Shark	12	0.0588
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	12	0.0588
<i>Sphyraena barracuda</i>	Great barracuda	9	0.0441
<i>Acanthocybiumsolandri</i>	Wahoo	4	0.0196
<i>Coryphaenahippurus</i>	Dolphinfish	4	0.0196
<i>Taractichthyssteindachneri</i>	Sickle pomfret	1	0.0049
<i>Lamprisguttatus</i>	Opah	2	0.0098
<i>Alepisaurusferox</i>	Longnose lancetfish	2	0.0098
Total	-	204	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusobesus</i>	Bigeye tuna*	34	0.2556
<i>Thynnusalalunga</i>	Albacore	2	0.0150
<i>Thunnusalbacares</i>	Yellowfin tuna	47	0.3534
<i>Katsuwonuspelamis</i>	Skipjack tuna	3	0.0226
<i>Makairamazara</i>	Indo-Pacific blue marlin	1	0.0075
Shark nei.	Shark	14	0.1053
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	21	0.1579
<i>Lepidocybiumflavobrunneum</i>	Escolar	1	0.0075
<i>Alepisaurusferox</i>	Longnose lancetfish	10	0.0752
Total	-	133	1

Note: * indicate target species

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thynnusalalunga</i>	Albacore*	6063	0.9150
<i>Thunnusobesus</i>	Bigeye tuna	133	0.0201
<i>Thunnusalbacares</i>	Yellowfin tuna	51	0.0077
<i>Katsuwonuspelamis</i>	Skipjack tuna	93	0.0140
<i>Xiphias gladius</i>	Swordfish	12	0.0018
<i>Makairamazara</i>	Indo-Pacific blue marlin	51	0.0088
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	21	0.0032
<i>Acanthocybiumsolandri</i>	Wahoo	81	0.0122
<i>Lepidocybiumflavobrunneum</i>	Escolar	42	0.0063
<i>Lamprisguttatus</i>	Opah	79	0.0119
Total	-	6626	1

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalbacares</i>	Yellowfin tuna*	608	0.3246
<i>Thunnusobesus</i>	Bigeye tuna*	204	0.1089
<i>Xiphias gladius</i>	Swordfish	82	0.0438
<i>Makairamazara</i>	Indo-Pacific blue marlin	7	0.0037
<i>Istiompaxindica</i>	Black marlin	2	0.0011

<i>Kajikiaa</i> audax	Striped Marlin	19	0.0101
<i>Tetrapturus</i> angustirostris	Shortbill spearfish	2	0.0011
<i>Prionace</i> glauca	Blue shark	284	0.1516
<i>Carcharhinus</i> falciformis	Silky shark	130	0.0694
<i>Carcharhinus</i> longimanus	Oceanic whitetip shark	6	0.0032
<i>Alopias</i> superciliosus	Bigeye thresher	123	0.0657
<i>Alopias</i> pelagicus	Pelagic thresher	128	0.0683
<i>Isurus</i> oxyrinchus	Shortfin mako	6	0.0032
<i>Isurus</i> paucus	Longfin mako	4	0.0021
<i>Sphyrna</i> zygaena	Smooth hammerhead	18	0.0096
<i>Pseudocarcharias</i> kamoharai	Crocodile shark	8	0.0043
<i>Mobula</i> japonica	Spinetailmobula	17	0.0091
<i>Pteroplaty</i> trygonviolacea	Pelagic stingray	60	0.0320
<i>Coryphaena</i> hippurus	Dolphinfish	64	0.0342
<i>Alepisaurus</i> ferox	Longnose lancetfish	8	0.0043
<i>Ruvettus</i> pretiosus	Oilfish	1	0.0005
<i>Lepidocybium</i> flavobrunneum	Escolar	91	0.0486
<i>Cheloniamydas</i>	Green turtle	1	0.0005
Total	-	1873	1

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus</i> obesus	Bigeye tuna*	4	0.0833
<i>Thunnus</i> alalunga	Albacore	3	0.0625
<i>Thunnus</i> albacares	Yellowfin tuna	22	0.4583
<i>Xiphias</i> gladius	Swordfish	2	0.0417
<i>Makaira</i> mazara	Indo-Pacific blue marlin	1	0.0208
<i>Pteroplaty</i> trygonviolacea	Pelagic stingray	8	0.1667
<i>Coryphaena</i> hippurus	Dolphinfish	1	0.0208
<i>Acanthocybium</i> solandri	Wahoo	1	0.0208
<i>Taractichthys</i> steindachneri	Sickle pomfret	1	0.0208
<i>Lepidocybium</i> flavobrunneum	Escolar	3	0.0625
<i>Alepisaurus</i> ferox	Longnose lancetfish	2	0.0417
Total	-	48	1

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	16956	0.9452
<i>Thunnusalbacares</i>	Yellowfin tuna	147	0.0082
<i>Thunnusobesus</i>	Bigeye tuna	222	0.0124
<i>Katsuwonuspelamis</i>	Skipjack tuna	216	0.0120
<i>Xiphias gladius</i>	Swordfish	17	0.0009
<i>Makairamazara</i>	Indo-Pacific blue marlin	32	0.0018
<i>Istiophorusplatypterus</i>	Indo-Pacific sailfish	3	0.0002
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	53	0.0030
<i>Kajikiaaudax</i>	Striped marlin	2	0.0001
<i>Prionaceglauca</i>	Blue shark	1	0.0001
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	7	0.0004
<i>Acanthocybiumsolandri</i>	Wahoo	84	0.0047
<i>Sphyrna barracuda</i>	Great barracuda	4	0.0002
<i>Coryphaenahippurus</i>	Dolphinfish	18	0.0010
<i>Gempylusserpens</i>	Snake mackerel	3	0.0002
<i>Nesiarchusnasutus</i>	Black gemfish	2	0.0001
<i>Lepidocybiumflavobrunneum</i>	Escolar	68	0.0038
<i>Taractichthyssteindachneri</i>	Sickle pomfret	1	0.0001
<i>Lamprisguttatus</i>	Opah	75	0.0042
<i>Alepisaurusferox</i>	Longnose lancetfish	28	0.0016
<i>Eretmochelysimbricata</i>	Hawksbill turtle	1	0.0001
Total	-	17940	1

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	6930	0.8274
<i>Thunnusalbacares</i>	Yellowfin tuna	51	0.0061
<i>Thunnusobesus</i>	Bigeye tuna	164	0.0196
<i>Katsuwonuspelamis</i>	Skipjack tuna	235	0.0281
<i>Xiphias gladius</i>	Swordfish	43	0.0051
<i>Istiophorusplatypterus</i>	Indo-Pacific sailfish	27	0.0032
<i>Istiompaxindica</i>	Black marlin	8	0.0010
<i>Makairamazara</i>	Indo-Pacific blue marlin	55	0.0066
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	95	0.0113
<i>Mobula japonica</i>	Spinetailmobula	1	0.0001
<i>Coryphaenahippurus</i>	Dolphinfish	46	0.0055

<i>Acanthocybiumsolandri</i>	Wahoo	131	0.0156
<i>Lepidocybiumflavobrunneum</i>	Escolar	259	0.0309
<i>Ruvettuspretiosus</i>	Oilfish	15	0.0018
<i>Lamprisguttatus</i>	Opah	316	0.0377
Total	-	8376	1

Note: * indicate target species

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusobesus</i>	Bigeye tuna*	296	0.2822
<i>Thunnusalbacares</i>	Yellowfin tuna	128	0.1220
<i>Thunnusalalunga</i>	Albacore	112	0.1068
<i>Katsuwonuspelamis</i>	Skipjack tuna	1	0.0010
<i>Xiphias gladius</i>	Swordfish	18	0.0172
<i>Makairamazara</i>	Indo-Pacific blue marlin	12	0.0114
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	1	0.0010
<i>Kajikiaaudax</i>	Striped marlin	5	0.0048
<i>Carcharhinusfalciformis</i>	Silky shark	1	0.0010
<i>Prionaceglauca</i>	Blue shark	105	0.1001
<i>Isurus oxyrinchus</i>	Shortfin mako	6	0.0057
<i>Alopiassuperciliosus</i>	Bigeye thresher	29	0.0276
<i>Isuruspaucus</i>	Longfin mako	4	0.0038
<i>Sphyrnazygaena</i>	Smooth hammerhead	1	0.0010
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	20	0.0191
<i>Acanthocybiumsolandri</i>	Wahoo	7	0.0067
<i>Lepidocybiumflavobrunneum</i>	Escolar	231	0.2202
<i>Taractesrubescens</i>	Dagger pomfret	68	0.0648
<i>Alepisaurusferox</i>	Longnose lancetfish	4	0.0038
Total	-	1049	1

Note: * indicate target species

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	185	0.5331
<i>Thunnusalbacares</i>	Yellowfin tuna	74	0.2133
<i>Thunnusobesus</i>	Bigeye tuna	24	0.0692
<i>Katsuwonuspelamis</i>	Skipjack tuna	7	0.0202
<i>Makairamazara</i>	Indo-Pacific blue marlin	2	0.0058
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	10	0.0288

<i>Prionaceglauca</i>	Blue shark	2	0.0058
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	10	0.0288
<i>Acanthocybiumsolandri</i>	Wahoo	15	0.0432
<i>Lepidocybiumflavobrunneum</i>	Escolar	12	0.0346
<i>Lamprisguttatus</i>	Opah	1	0.0029
<i>Alepisaurusferox</i>	Longnose lancetfish	5	0.0144
Total	-	347	1

Note: * indicate target species

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalahunga</i>	Albacore*	11017	0.7768
<i>Thunnusalbacares</i>	Yellowfin tuna	68	0.0048
<i>Thunnusobesus</i>	Bigeye tuna	152	0.0107
<i>Katsuwonuspelamis</i>	Skipjack tuna	243	0.0171
<i>Xiphias gladius</i>	Swordfish	48	0.0034
<i>Makairamazara</i>	Indo-Pacific blue marlin	24	0.0017
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	103	0.0073
<i>Kajikiaaudax</i>	Striped marlin	22	0.0016
<i>Prionaceglauca</i>	Blue shark	256	0.0180
<i>Carcharhinusfalciformis</i>	Silky shark	3	0.0002
<i>Isurus oxyrinchus</i>	Shortfin mako	2	0.0001
<i>Isuruspaucus</i>	Longfin mako	46	0.0032
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	23	0.0016
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	192	0.0135
<i>Gasterochismamamelampus</i>	Butterfly kingfish	6	0.0004
<i>Acanthocybiumsolandri</i>	Wahoo	163	0.0115
<i>Coryphaenahippurus</i>	Dolphinfish	54	0.0038
<i>Assurgeranzac</i>	Razorback scabbardfish	1	0.0001
<i>Lepidocybiumflavobrunneum</i>	Escolar	250	0.0176
<i>Ruvettuspretiosus</i>	Oilfish	3	0.0002
<i>Pteraclisaesticola</i>	Pacific fanfish	2	0.0001
<i>Cubicepsgracilis</i>	Driftfish	3	0.0002
<i>Lamprisguttatus</i>	Opah	334	0.0235
<i>Alepisaurusferox</i>	Longnose lancetfish	1108	0.0824
Total	-	14183	1

Note: * indicate target species

Table 14 Observed catch and composition during observer trip 13

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	5236	0.6694
<i>Thunnusalbacares</i>	Yellowfin tuna	310	0.0396
<i>Thunnusobesus</i>	Bigeye tuna	455	0.0582
<i>Katsuwonuspelamis</i>	Skipjack tuna	540	0.0690
<i>Xiphias gladius</i>	Swordfish	30	0.0038
<i>Istiompaxindica</i>	Black marlin	81	0.0104
<i>Tetrapturusangustirostris</i>	Shortbill spearfish	290	0.0371
<i>Istiophorusplatypterus</i>	Indo-Pacific sailfish	2	0.0003
<i>Kajikiaaudax</i>	Striped marlin	21	0.0027
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	8	0.0010
<i>Mobula japonica</i>	Spinetailmobula	2	0.0003
<i>Pteroplatytrygonviolacea</i>	Pelagic stingray	20	0.0026
<i>Acanthocybiumsolandri</i>	Wahoo	372	0.0476
<i>Coryphaenahippurus</i>	Dolphinfish	78	0.0100
<i>Sphyrna barracuda</i>	Great barracuda	11	0.0014
<i>Gempylusserpens</i>	Snake mackerel	11	0.0014
<i>Lepidocybiumflavobrunneum</i>	Escolar	228	0.0291
<i>Promethichthysprometheus</i>	Roudi escolar	9	0.0012
<i>Taractichthyssteindachneri</i>	Sickle pomfret	4	0.0005
<i>Taractesrubescens</i>	Dagger pomfret	5	0.0006
<i>Bramabrama</i>	Atlantic pomfret	1	0.0001
<i>Lamprisguttatus</i>	Opah	50	0.0064
<i>Lophotuscapellei</i>	Unicornfish	3	0.0004
<i>Lagocephaluslagocephalus</i>	Rabbit puffer	1	0.0001
<i>Cubicepsgracilis</i>	Driftfish	1	0.0001
<i>Alepisaurusferox</i>	Longnose lancetfish	45	0.0058
<i>Ranzanialaervis</i>	Slender sunfish	7	0.0009
<i>Cheloniamydas</i>	Green turtle	1	0.0001
Total	-	7822	1

Note: * indicate target species

Table 15 Observed catch and composition during observer trip 14

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnusalalunga</i>	Albacore*	10988	0.7425
<i>Thunnusobesus</i>	Bigeye tuna	263	0.0178
<i>Thunnusalbacares</i>	Yellowfin tuna	183	0.0124
<i>Katsuwonuspelamis</i>	Skipjack tuna	209	0.0141

<i>Xiphias gladius</i>	Swordfish	46	0.0031
<i>Makairamazara</i>	Indo-Pacific blue marlin	19	0.0013
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	2	0.0001
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	76	0.0051
<i>Kajikia audax</i>	Striped marlin	29	0.0020
<i>Carcharhinus falciformis</i>	Silky shark	5	0.0003
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	3	0.0002
<i>Prionace glauca</i>	Blue shark	306	0.0207
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0001
<i>Alopias pelagicus</i>	Pelagic thresher	1	0.0001
<i>Isurus oxyrinchus</i>	Shortfin mako	46	0.0031
<i>Isurus paucus</i>	Longfin mako	1	0.0001
<i>Pseudocarcharias kamoharui</i>	Crocodile shark	43	0.0029
<i>Manta birostris</i>	Giant manta	1	0.0001
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	200	0.0135
<i>Gasterochismam lampus</i>	Butterfly kingfish	4	0.0003
<i>Allothenus fallai</i>	Slender tuna	1	0.0001
<i>Acanthocybium solandri</i>	Wahoo	186	0.0126
<i>Sphyrna barracuda</i>	Great barracuda	5	0.0003
<i>Seriolalandi</i>	Yellowtail amberjack	6	0.0004
<i>Coryphaenahippurus</i>	Dolphinfish	125	0.0084
<i>Gempylus serpens</i>	Snake mackerel	4	0.0003
<i>Nesiarchus nasutus</i>	Black gemfish	1	0.0001
<i>Lepidocybium flavobrunneum</i>	Escolar	343	0.0232
<i>Ruvettus pretiosus</i>	Oilfish	3	0.0002
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.0001
<i>Taractes rubescens</i>	Dagger pomfret	10	0.0007
<i>Bramabrama</i>	Atlantic pomfret	2	0.0001
<i>Cubiceps gracilis</i>	Driftfish	1	0.0001
<i>Lampris guttatus</i>	Opah	348	0.0235
<i>Lophotus capellei</i>	Unicornfish	2	0.0001
<i>Alepisaurus ferox</i>	Longnose lancetfish	1328	0.0897
<i>Assurgeranzac</i>	Razorback scabbardfish	3	0.0002
<i>Masturus lanceolatus</i>	Sharptail mola	1	0.0001
<i>Thalassarche bulleri</i>	Buller's albatross	1	0.0001
Diomedidae sp.	Albatross	1	0.0001
Total	-	14799	1

Note: * indicate target species

INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

ELEVENTH MEETING

**San Diego, California (USA)
2020***

DOCUMENT SAC-11 INF-A(f)

**2019 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA TUNA
LOGLINE FISHERY IN THE ANTIGUA CONVENTION AREA**

*Postponed until a later date to be determined

Template for annual summary reports on fleet information and observer data for longline vessels >20 m LOA
operating in the EPO

(adopted by the 10th Meeting of the IATTC Scientific Advisory Committee, May 2019)

CPC	China
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FLEET INFORMATION (vessels > 20 m LOA)									
	Both set types combined			Shallow sets (< 15 HPB/HBF ¹ or < 100 m max hook depth)			Deep sets (≥ 15 HPB/HBF or ≥ 100 m max hook depth)		
Period covered	Date range 01-01-2019-12-31-2019			Date range DD-MMM-YY-DD-MMM-YY			Date range 01-01-2019-12-31-2019		
Area fished	from 80°W to 150°W and from 15°N to 35°S			from (XXX)°W to (XXX)°W and from (XX)°S/N to (XX)°S/N			from 80°W to 150°W and from 15°N to 35°S		
	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed	Total Fleet	Observed	% observed
No. of vessels that fished	220	17	0.077	0	0	0	220	17	0.077
No. of trips				0	0	0			
No. of effective days fishing	24150	1874	0.078	0	0	0	24150	1874	0.078
No. of sets	24150	1874	0.078	0	0	0	24150	1874	0.078
No. of hooks (in thousands) (If unknown, approx. no. of hooks/set, using a *)	70035	5517	0.079	0	0	0	70035	5517	0.079
Predominant ² hook type/size (IATTC code)	C-16	C-16					C-16	C-16	
Predominant bait type ³	F	F					F	F	

¹ Hooks per basket/ Hooks between floats

² Predominant' means most common, i.e. >50%

³ Bait codes: SQ-squid; F-fishes (e.g. Scomber spp.); A-artificial lure (e.g. plastic jig)

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2019 IN THE
IATTC CONVENTION AREA
CHINA

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2019, China conducted **twenty-one** longline observer trips in the IATTC convention area (east of 150°W). However, there are four observers still at sea just under the influence of the COVID-19. This report is the preliminary one for the **seventeen** observer trips. More than 1800 fishing days were observed during the seventeen trips (**Table 1**). Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel does the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

The observed set stations for the completed trips are shown in **Figure 1**. These trips targeted albacore or bigeye tuna using the circle hooks.

Table 1 Information of Seventeen Chinese LL observer trips in the IATTC area in 2019

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	223	435,396	Jun 12,2018- Apr 20,2019	14 °N~5°S,96 °~148 °W
Trip 2	56	187,880	Jan 1,2019- Mar 7,2019	14 °~20 °S,111 °~130 °W
Trip 3	26	74,646	Jan 1,2019- Jan 26,2019	5 °~14 °S,117 °~119 °W
Trip 4	39	119,460	Jan 1,2019- Feb 3,2019	2 °~13 °S,119 °~141 °W
Trip 5	29	103,400	Jan 1,2019- Jan 29,2019	3 °~7 °S,119 °~123 °W
Trip 6	56	212,031	Jan 1,2019- Mar 13,2019	15 °~20 °S,101 °~132 °W
Trip 7	266	926,073	Apr 20,2019 - Mar 7,2020	3 °~13 °S,90 °~149 °W

Trip 8	98	294,000	Aug 29,2019- Dec 22,2019	10 ~20 °N,117 ~146 °W
Trip 9	97	229,000	Sep 6,2019- Jan 11,2020	8 °N~6 °S,102 ~147 °W
Trip 10	150	410,967	Jul 22,2019-Jan 23,2020	13 ~20 °S, 117 ~132 °W
Trip 11	162	442,497	Jul 22,2019-Jan 23,2020	13 ~20 °S, 117 ~131 °W
Trip 12	151	555,688	Jul 22,2019-Jan 23,2020	13 ~20 °S, 117 ~132 °W
Trip 13	99	333,101	Aug 25,2019-Jan 11,2020	14 ~23 °S, 91 ~123 °W
Trip 14	29	81,985	Dec 4,2019-Jan 11,2020	2 ~6 °N, 125 ~135 °W
Trip 15	190	365,504	Aug 14,2019-Mar 11,2020	2 ~14 °S, 116 ~135 °W
Trip 16	62	220,368	Jul 17,2019-Oct 9,2020	13 ~24 °S, 92 ~134 °W
Trip 17	141	525,474	Jan 14,2019-Jul 12,2019	10 ~29 °S, 120 ~149 °W

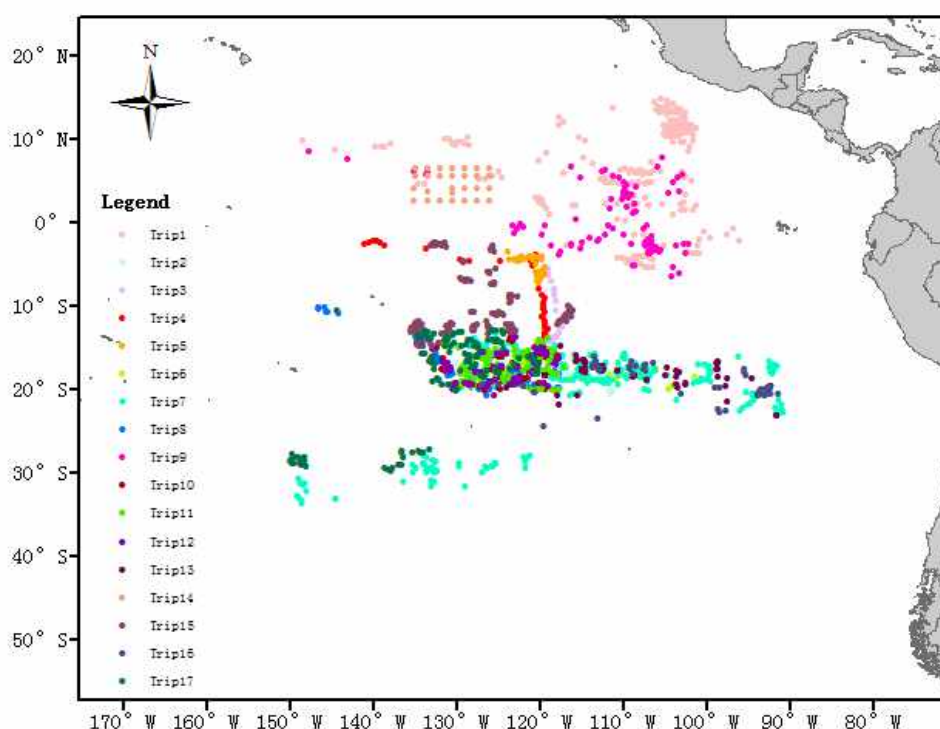


Fig. 1 Set stations of preliminary Chinese longline observer trips in 2019

2. Observer coverage

Based on the preliminary observer data, the China observer coverage in EPO is 7.8%. Meanwhile, seriously affected by the COVID-19, some observers are still at sea and these data cannot be sent. We will submit these data when the data are available. We suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2-18**.

There were six seabirds incidentally captured in trip13. Sixty-eight turtles (thirty green turtles, seven loggerhead turtle, twenty-two olive ridley turtles, eight leatherback turtles and one unidentified seaturtle species) were captured in trip1, trip4, trip5, trip9 and trip13. All the sea turtles are retrieved on board with proper treatment and are safely released alive (with dehooker equipment based on Sea Turtle Handle Guideline). There were five marine mammals incidentally captured. Most of the sharks were discarded by China longliners in the EPO, especially for the Oceanic whitetip sharks and Silky sharks which were released or discarded as soon as possible when incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus albacares</i>	Yellowfin tuna*	244	0.0436
<i>Thunnus obesus</i>	Bigeye tuna*	129	0.0122
<i>Katsuwonus pelamis</i>	Skipjack tuna	29	0.0027
<i>Xiphias gladius</i>	Swordfish	363	0.0343
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	34	0.0032
<i>Kajikia audax</i>	Striped marlin	250	0.0236
<i>Makaira mazara</i>	Indo-Pacific blue marlin	30	0.0028
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	6	0.0006
<i>Carcharhinus falciformis</i>	Silky shark	2148	0.6748
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	68	0.0064
<i>Prionace glauca</i>	Blue shark	709	0.0669
<i>Galeocerdo cuvier</i>	Tiger shark	2	0.0002
<i>Sphyrna lewini</i>	Scalloped hammerhead	64	0.0060
<i>Sphyrna zygaena</i>	Smooth hammerhead	56	0.0053
<i>Alopias pelagicus</i>	Pelagic thresher	392	0.0370
<i>Alopias superciliosus</i>	Bigeye thresher	63	0.0059
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.0004
<i>Isurus paucus</i>	Longfin mako	1	0.0001
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	49	0.0046
<i>Rhincodon typus</i>	Whale shark	1	0.0001
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	166	0.0157
<i>Mobula japonica</i>	Spinetail mobula	7	0.0007
<i>Manta biriostris</i>	Giant manta	7	0.0007
<i>Acanthocybium solandri</i>	Wahoo	38	0.0036
<i>Coryphaena hippurus</i>	Dolphinfish	523	0.0494
<i>Lobotes surinamensis</i>	Tripletail	1	0.0001
<i>Gempylus serpens</i>	Snake mackerel	32	0.0030
<i>Lepidocybium flavobrunneum</i>	Escolar	98	0.0093
<i>Ruvettus pretiosus</i>	Oilfish	2	0.0002
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.0002
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0001
<i>Alepisaurus ferox</i>	Longnose lancetfish	17	0.0016
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	1	0.0001
<i>Masturus lanceolatus</i>	Sharptail sunfish	3	0.0003
<i>Mola mola</i>	Ocean sunfish	1	0.0001
<i>Lagenorhynchus obliquidens</i>	Pacific white-sided dolphin	2	0.0002
<i>Stenella attenuata</i>	Pantropical spotted dolphin	2	0.0002

<i>Dermochelys coriacea</i>	Leatherback turtle	5	0.0005
<i>Caretta caretta</i>	Loggerhead turtle	7	0.0007
<i>Chelonia mydas</i>	Green turtle	15	0.0014
<i>Lepidochelys olivacea</i>	Olive ridley turtle	20	0.0019
Total	-	5592	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	1877	0.8302
<i>Thunnus obesus</i>	Bigeye tuna	45	0.0199
<i>Katsuwonus pelamis</i>	Skipjack tuna	57	0.0253
<i>Xiphias gladius</i>	Swordfish	13	0.0057
<i>Makaira mazara</i>	Indo-Pacific blue marlin	27	0.0120
<i>Istiompax indica</i>	Black marlin	6	0.0027
<i>Prionace glauca</i>	Blue shark	10	0.0044
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	59	0.0261
<i>Lepidocybium flavobrunneum</i>	Escolar	7	0.0031
<i>Taractes rubescens</i>	Dagger pomfret	11	0.0048
<i>Lampris guttatus</i>	Opah	8	0.0035
<i>Alepisaurus ferox</i>	Longnose lancetfish	141	0.0623
Total	-	2261	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus albacares</i>	Yellowfin tuna*	109	0.1764
<i>Thunnus obesus</i>	Bigeye tuna*	77	0.1246
<i>Thunnus alalunga</i>	Albacore	91	0.1472
<i>Katsuwonus pelamis</i>	Skipjack tuna	27	0.0437
<i>Xiphias gladius</i>	Swordfish	18	0.0291
<i>Kajikia audax</i>	Striped marlin	6	0.0097
<i>Makaira mazara</i>	Indo-Pacific blue marlin	2	0.0032
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	49	0.0793
<i>Prionace glauca</i>	Blue shark	2	0.0032
<i>Sphyrna zygaena</i>	Smooth hammerhead	3	0.0049
<i>Alopias superciliosus</i>	Bigeye thresher	37	0.0599
<i>Isurus oxyrinchus</i>	Shortfin mako	4	0.0065
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	6	0.0097
<i>Zameus squamulosus</i>	Velvet dogfish	3	0.0049
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	60	0.0971
<i>Acanthocybium solandri</i>	Wahoo	14	0.0227
<i>Gempylus serpens</i>	Snake mackerel	37	0.0599
<i>Lepidocybium flavobrunneum</i>	Escolar	8	0.0129
<i>Taractes rubescens</i>	Dagger pomfret	4	0.0065
<i>Taractichthys steindachneri</i>	Sickle pomfret	3	0.0049
<i>Lampris guttatus</i>	Opah	6	0.0097
<i>Alepisaurus ferox</i>	Longnose lancetfish	52	0.0841
Total	-	618	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	145	0.1112
<i>Thynnus alalunga</i>	Albacore	136	0.1043
<i>Thunnus albacares</i>	Yellowfin tuna	36	0.0276
<i>Katsuwonus pelamis</i>	Skipjack tuna	10	0.0077
<i>Xiphias gladius</i>	Swordfish	63	0.0483
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	6	0.0046
<i>Kajikia audax</i>	Striped marlin	10	0.0077
<i>Makaira mazara</i>	Indo-Pacific blue marlin	12	0.0092
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	10	0.0077
<i>Prionace glauca</i>	Blue shark	230	0.1764
<i>Sphyrna zygaena</i>	Smooth hammerhead	2	0.0015

<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0008
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0008
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	33	0.0253
<i>Zameus squamulosus</i>	Velvet dogfish	22	0.0169
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	204	0.1564
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.0008
<i>Acanthocybium solandri</i>	Wahoo	16	0.0123
<i>Gempylus serpens</i>	Snake mackerel	80	0.0613
<i>Lepidocybium flavobrunneum</i>	Escolar	34	0.0261
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0008
<i>Taractes rubescens</i>	Dagger pomfret	10	0.0077
<i>Alepisaurus ferox</i>	Longnose lancetfish	237	0.1817
<i>Lampris guttatus</i>	Opah	2	0.0015
<i>Mola mola</i>	Ocean sunfish	1	0.0008
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.0008
Total	-	1304	1

Note: * indicate target species

Table 6 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	86	0.0802
<i>Thunnus albacares</i>	Yellowfin tuna	50	0.0466
<i>Katsuwonus pelamis</i>	Skipjack tuna	12	0.0112
<i>Xiphias gladius</i>	Swordfish	169	0.1576
<i>Kajikia audax</i>	Striped marlin	16	0.0149
<i>Makaira mazara</i>	Indo-Pacific blue marlin	10	0.0093
<i>Carcharhinus falciformis</i>	Silky shark	23	0.0215
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	13	0.0121
<i>Prionace glauca</i>	Blue shark	178	0.1660
<i>Sphyrna zygaena</i>	Smooth hammerhead	1	0.0009
<i>Alopias superciliosus</i>	Bigeye thresher	18	0.0168
<i>Alopias vulpinus</i>	Thresher	2	0.0019
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0009
<i>Isurus paucus</i>	Longfin mako	7	0.0065
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	31	0.0289
<i>Zameus squamulosus</i>	Velvet dogfish	95	0.0886
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	104	0.0970
<i>Acanthocybium solandri</i>	Wahoo	22	0.0205
<i>Coryphaena hippurus</i>	Dolphinfish	20	0.0187
<i>Gempylus serpens</i>	Snake mackerel	68	0.0634
<i>Lepidocybium flavobrunneum</i>	Escolar	12	0.0112

<i>Lampris guttatus</i>	Opah	15	0.0140
<i>Taractichthys steindachneri</i>	Sickle pomfret	22	0.0205
<i>Taractes rubescens</i>	Dagger pomfret	19	0.0177
<i>Alepisaurus ferox</i>	Longnose lancetfish	74	0.0690
<i>Mola mola</i>	Ocean sunfish	1	0.0009
<i>Dermochelys coriacea</i>	Leatherback turtle	2	0.0019
<i>Lepidochelys olivacea</i>	Olive Ridley turtle	1	0.0009
Total	-	1072	1

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	2935	0.7947
<i>Thunnus obesus</i>	Bigeye tuna	59	0.0160
<i>Thunnus albacares</i>	Yellowfin tuna	30	0.0081
<i>Katsuwonus pelamis</i>	Skipjack tuna	167	0.0452
<i>Xiphias gladius</i>	Swordfish	137	0.0370
<i>Istiompax indica</i>	Black marlin	7	0.0019
<i>Kajikia audax</i>	Striped Marlin	7	0.0019
Shark nei.	Shark	6	0.0016
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	70	0.0190
<i>Acanthocybium solandri</i>	Wahoo	57	0.0154
<i>Coryphaena hippurus</i>	Dolphinfish	1	0.0003
<i>Lampris guttatus</i>	Opah	35	0.0095
<i>Alepisaurus ferox</i>	Longnose lancetfish	155	0.0420
<i>Lepidocybium flavobrunneum</i>	Escolar	26	0.0070
<i>Nesiarchus nasutus</i>	Black gemfish	1	0.0003
Total	-	3693	1

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	15640	0.7159
<i>Thunnus obesus</i>	Bigeye tuna	733	0.0336
<i>Thunnus albacares</i>	Yellowfin tuna	277	0.0127
<i>Katsuwonus pelamis</i>	Skipjack tuna	790	0.0362
<i>Xiphias gladius</i>	Swordfish	51	0.0023
<i>Kajikia audax</i>	Striped Marlin	104	0.0048
<i>Makaira mazara</i>	Indo-Pacific blue marlin	20	0.0009
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	633	0.0290
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.0001
<i>Prionace glauca</i>	Blue shark	142	0.0065
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.0001
<i>Isurus oxyrinchus</i>	Shortfin mako	10	0.0005
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	21	0.0010
<i>Zameus squamulosus</i>	Velvet dogfish	1	0
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	471	0.0216
<i>Coryphaena hippurus</i>	Dolphinfish	129	0.0059
<i>Acanthocybium solandri</i>	Wahoo	363	0.0166
<i>Gasterochisma melampus</i>	Butterfly kingfish	1	0
<i>Cubiceps gracilis</i>	Driftfish	3	0.0001
<i>Taractichthys steindachneri</i>	Sickle pomfret	8	0.0004
<i>Taractes rubescens</i>	Dagger pomfret	18	0.0008
<i>Brama brama</i>	Atlantic pomfret	3	0.0001
Bramidae (other)	Other pomfrets and fanfishes	5	0.0002
<i>Assurger anzac</i>	Razorback scabbardfish	7	0.0003
<i>Gempylus serpens</i>	Snake mackerel	40	0.0018
<i>Lepidocybium flavobrunneum</i>	Escolar	242	0.0111
<i>Ruvettus pretiosus</i>	Oilfish	4	0.0002
<i>Lampris guttatus</i>	Opah	1310	0.0600
<i>Lophotus capellei</i>	Unicornfish	9	0.0004
Trachipteridae	Ribbonfish and Dealfish	1	0
<i>Alepisaurus ferox</i>	Longnose lancetfish	802	0.0367
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0
<i>Mola mola</i>	Ocean sunfish	4	0.0002
Total	-	21847	1

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	2575	0.7779
<i>Thunnus obesus</i>	Bigeye tuna	187	0.0565
<i>Thunnus albacares</i>	Yellowfin tuna	109	0.0329
<i>Xiphias gladius</i>	Swordfish	11	0.0033
<i>Makaira mazara</i>	Indo-Pacific blue marlin	52	0.0157
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	120	0.0363
<i>Acanthocybium solandri</i>	Wahoo	244	0.0737
<i>Coryphaena hippurus</i>	Dolphinfish	4	0.0012
<i>Lepidocybium flavobrunneum</i>	Escolar	5	0.0015
<i>Lampris guttatus</i>	Opah	3	0.0009
Total	-	3310	1

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus albacares</i>	Yellowfin tuna*	265	0.0983
<i>Thunnus obesus</i>	Bigeye tuna*	224	0.0831
<i>Katsuwonus pelamis</i>	Skipjack tuna	30	0.0111
<i>Xiphias gladius</i>	Swordfish	347	0.1287
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	13	0.0048
<i>Kajikia audax</i>	Striped marlin	153	0.0568
<i>Makaira mazara</i>	Indo-Pacific blue marlin	28	0.0104
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	17	0.0063
<i>Carcharhinus falciformis</i>	Silky shark	268	0.0994
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	124	0.0460
<i>Prionace glauca</i>	Blue shark	309	0.1146
<i>Sphyrna lewini</i>	Scalloped hammerhead	8	0.0030
<i>Sphyrna zygaena</i>	Smooth hammerhead	95	0.0352
<i>Alopias pelagicus</i>	Pelagic thresher	226	0.0838
<i>Alopias superciliosus</i>	Bigeye thresher	168	0.0623
<i>Isurus oxyrinchus</i>	Shortfin mako	19	0.0070
<i>Isurus paucus</i>	Longfin mako	1	0.0004
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	8	0.0030
<i>Manta birostris</i>	Giant manta	2	0.0007
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	115	0.0427
<i>Coryphaena hippurus</i>	Dolphinfish	173	0.0642
<i>Acanthocybium solandri</i>	Wahoo	21	0.0078

<i>Gempylus serpens</i>	Snake mackerel	2	0.0007
<i>Lepidocybium flavobrunneum</i>	Escolar	52	0.0193
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0004
<i>Alepisaurus ferox</i>	Longnose lancetfish	9	0.0033
<i>Mola mola</i>	Ocean sunfish	1	0.0004
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0004
<i>Lepidochelys olivacea</i>	Olive ridley turtle	1	0.0004
<i>Chelonia mydas</i>	Green turtle	15	0.0056
Total	-	2696	1

Note: * indicate target species

Table 11 Observed catch and composition during observer trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	4846	0.6479
<i>Thunnus albacares</i>	Yellowfin tuna	108	0.0144
<i>Thunnus obesus</i>	Bigeye tuna	421	0.0563
<i>Katsuwonus pelamis</i>	Skipjack tuna	585	0.0782
<i>Xiphias gladius</i>	Swordfish	15	0.0020
<i>Kajikia audax</i>	Striped marlin	1	0.0001
<i>Makaira mazara</i>	Indo-Pacific blue marlin	86	0.0115
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	517	0.0691
<i>Prionace glauca</i>	Blue shark	3	0.0004
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	9	0.0012
<i>Acanthocybium solandri</i>	Wahoo	368	0.0492
<i>Coryphaena hippurus</i>	Dolphinfish	282	0.0377
<i>Gempylus serpens</i>	Snake mackerel	13	0.0017
<i>Lepidocybium flavobrunneum</i>	Escolar	153	0.0205
<i>Taractichthys steindachneri</i>	Sickle pomfret	2	0.0003
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0001
<i>Lampris guttatus</i>	Opah	28	0.0037
<i>Lophotus capellei</i>	Unicornfish	5	0.0007
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	1	0.0001
<i>Alepisaurus ferox</i>	Longnose lancetfish	10	0.0013
<i>Lagocephalus lagocephalus</i>	Rabbit puffer	1	0.0001
<i>Ranzania laevis</i>	Slender sunfish	24	0.0032
Total	-	7479	1.0000

Note: * indicate target species

Table 12 Observed catch and composition during observer trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	4601	0.5829
<i>Thunnus albacares</i>	Yellowfin tuna	154	0.0195
<i>Thunnus obesus</i>	Bigeye tuna	488	0.0618
<i>Katsuwonus pelamis</i>	Skipjack tuna	328	0.0416
<i>Xiphias gladius</i>	Swordfish	19	0.0024
<i>Makaira mazara</i>	Indo-Pacific blue marlin	49	0.0062
<i>Istiompax indica</i>	Black marlin	1	0.0001
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	331	0.0419
<i>Kajikia audax</i>	Striped marlin	17	0.0022
<i>Carcharhinus falciformis</i>	Silky shark	1	0.0001
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.0001
<i>Prionace glauca</i>	Blue shark	1	0.0001
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0001
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	1	0.0001
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	297	0.0376
<i>Acanthocybium solandri</i>	Wahoo	285	0.0361
<i>Coryphaena hippurus</i>	Dolphinfish	146	0.0185
<i>Coryphaena equiselis</i>	Pompano dolphinfish	2	0.0003
<i>Gempylus serpens</i>	Snake mackerel	41	0.0052
<i>Lepidocybium flavobrunneum</i>	Escolar	202	0.0256
<i>Promethichthys prometheus</i>	Roudi escolar	4	0.0005
<i>Taractichthys steindachneri</i>	Sickle pomfret	5	0.0006
<i>Taractes rubescens</i>	Dagger pomfret	2	0.0003
<i>Brama brama</i>	Atlantic pomfret	1	0.0001
<i>Lampris guttatus</i>	Opah	43	0.0054
<i>Lophotus capellei</i>	Unicornfish	7	0.0009
<i>Alepisaurus ferox</i>	Longnose lancetfish	816	0.1034
<i>Alepisaurus brevirostris</i>	Shortnose lancetfish	13	0.0016
<i>Ranzania laevis</i>	Slender sunfish	36	0.0046
Total	-	7893	1.0000

Note: * indicate target species

Table 13 Observed catch and composition during observer trip 12

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	5477	0.6964
<i>Thunnus albacares</i>	Yellowfin tuna	177	0.0225
<i>Thunnus obesus</i>	Bigeye tuna	497	0.0632
<i>Katsuwonus pelamis</i>	Skipjack tuna	397	0.0505
<i>Xiphias gladius</i>	Swordfish	46	0.0058
<i>Makaira mazara</i>	Indo-Pacific blue marlin	4	0.0005
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	417	0.0529
<i>Kajikia audax</i>	Striped marlin	62	0.0079
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	33	0.0042
<i>Acanthocybium solandri</i>	Wahoo	359	0.0455
<i>Coryphaena hippurus</i>	Dolphinfish	91	0.0116
<i>Gempylus serpens</i>	Snake mackerel	2	0.0003
<i>Lepidocybium flavobrunneum</i>	Escolar	190	0.0242
<i>Promethichthys prometheus</i>	Roudi escolar	3	0.0004
<i>Taractes rubescens</i>	Dagger pomfret	2	0.0003
<i>Taractichthys steindachneri</i>	Sickle pomfret	6	0.0008
<i>Lampris guttatus</i>	Opah	57	0.0072
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	3	0.0004
<i>Alepisaurus ferox</i>	Longnose lancetfish	33	0.0042
<i>Ranzania laevis</i>	Slender sunfish	9	0.0011
Total	-	7865	1.0000

Note: * indicate target species

Table 14 Observed catch and composition during observer trip 13

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	7381	0.6235
<i>Thunnus albacares</i>	Yellowfin tuna	107	0.0090
<i>Thunnus obesus</i>	Bigeye tuna	309	0.0261
<i>Katsuwonus pelamis</i>	Skipjack tuna	650	0.0549
<i>Xiphias gladius</i>	Swordfish	38	0.0032
<i>Makaira mazara</i>	Indo-Pacific blue marlin	8	0.0007
<i>Istiompax indica</i>	Black marlin	1	0.0001
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	656	0.0554
<i>Kajikia audax</i>	Striped marlin	52	0.0044
<i>Prionace glauca</i>	Blue shark	3	0.0003
<i>Alopias superciliosus</i>	Bigeye thresher	8	0.0007
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	9	0.0008

<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.0001
Unidentified shark	shark	187	0.0158
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	671	0.0567
<i>Acanthocybium solandri</i>	Wahoo	244	0.0206
<i>Coryphaena hippurus</i>	Dolphinfish	107	0.0090
<i>Gempylus serpens</i>	Snake mackerel	555	0.0469
<i>Lepidocybium flavobrunneum</i>	Escolar	140	0.0118
<i>Ruvettus pretiosus</i>	Oilfish	3	0.0003
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0001
<i>Taractes asper</i>	Rough pomfret	1	0.0001
<i>Lampris guttatus</i>	Opah	673	0.0569
<i>Lophotus capellei</i>	Unicornfish	7	0.0006
<i>Regalecus glesne</i>	Oarfish	2	0.0002
<i>Alepisaurus ferox</i>	Longnose lancetfish	14	0.0012
<i>Masturus lanceolatus</i>	Sharptail sunfish	2	0.0002
Unidentified Sea turtle	Sea turtle	1	0.0001
Unidentified Sea bird	Sea bird	6	0.0005
Unidentified Dolphin	Dolphin	1	0.0001
Total	-	11838	1.0000

Note: * indicate target species

Table 15 Observed catch and composition during observer trip 14

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	54	0.0941
<i>Thunnus albacares</i>	Yellowfin tuna	96	0.1672
<i>Katsuwonus pelamis</i>	Skipjack tuna	4	0.0070
<i>Xiphias gladius</i>	Swordfish	78	0.1359
<i>Makaira mazara</i>	Indo-Pacific blue marlin	27	0.0470
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	22	0.0383
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	5	0.0087
<i>Kajikia audax</i>	Striped marlin	52	0.0906
<i>Carcharhinus falciformis</i>	Silky shark	24	0.0418
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	3	0.0052
<i>Prionace glauca</i>	Blue shark	48	0.0836
<i>Sphyrna lewini</i>	Scalloped hammerhead	2	0.0035
<i>Alopias superciliosus</i>	Bigeye thresher	6	0.0105
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0017
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	24	0.0418
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	46	0.0801
<i>Acanthocybium solandri</i>	Wahoo	11	0.0192
<i>Coryphaena hippurus</i>	Dolphinfish	20	0.0348

<i>Lepidocybium flavobrunneum</i>	Escolar	22	0.0383
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0017
<i>Lampris guttatus</i>	Opah	3	0.0052
<i>Alepisaurus ferox</i>	Longnose lancetfish	25	0.0436
Total	-	574	1.0000

Note: * indicate target species

Table 16 Observed catch and composition during observer trip 15

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	1479	0.2594
<i>Thunnus albacares</i>	Yellowfin tuna	396	0.0694
<i>Thunnus alalunga</i>	Albacore	216	0.0379
<i>Katsuwonus pelamis</i>	Skipjack tuna	30	0.0053
<i>Xiphias gladius</i>	Swordfish	684	0.1200
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	73	0.0128
<i>Kajikia audax</i>	Striped marlin	31	0.0054
<i>Makaira mazara</i>	Indo-Pacific blue marlin	55	0.0096
<i>Carcharhinus falciformis</i>	Silky shark	1	0.0002
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	2	0.0004
<i>Prionace glauca</i>	Blue shark	343	0.0602
<i>Alopias superciliosus</i>	Bigeye thresher	185	0.0324
<i>Isurus oxyrinchus</i>	Shortfin mako	10	0.0018
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	5	0.0009
<i>Zameus squamulosus</i>	Velvet dogfish	1	0.0002
Unidentified shark	Shark	2	0.0004
<i>Mobula japonica</i>	Spinetail mobula	1	0.0002
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	393	0.0689
<i>Acanthocybium solandri</i>	Wahoo	109	0.0191
<i>Coryphaena hippurus</i>	Dolphinfish	4	0.0007
<i>Assurger anzac</i>	Razorback scabbardfish	1	0.0002
<i>Gempylus serpens</i>	Snake mackerel	142	0.0249
<i>Promethichthys prometheus</i>	Roudi escolar	32	0.0056
<i>Lepidocybium flavobrunneum</i>	Escolar	1427	0.2503
<i>Taractichthys steindachneri</i>	Sickle pomfret	30	0.0053
<i>Taractes rubescens</i>	Dagger pomfret	2	0.0004
<i>Lampris guttatus</i>	Opah	34	0.0060
<i>Alepisaurus ferox</i>	Longnose lancetfish	14	0.0025
Total	-	5702	1

Note: * indicate target species

Table 17 Observed catch and composition during observer trip 16

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	3875	0.8339
<i>Thunnus albacares</i>	Yellowfin tuna	94	0.0202
<i>Thunnus obesus</i>	Bigeye tuna	37	0.0080
<i>Katsuwonus pelamis</i>	Skipjack tuna	150	0.0323
<i>Xiphias gladius</i>	Swordfish	10	0.0022
<i>Makaira mazara</i>	Indo-Pacific blue marlin	21	0.0045
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	2	0.0004
<i>Acanthocybium solandri</i>	Wahoo	79	0.0170
<i>Lepidocybium flavobrunneum</i>	Escolar	115	0.0247
<i>Lampris guttatus</i>	Opah	264	0.0568
Total	-	4647	1.0000

Note: * indicate target species

Table 18 Observed catch and composition during observer trip 17

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	6195	0.8663
<i>Thunnus albacares</i>	Yellowfin tuna	112	0.0157
<i>Thunnus obesus</i>	Bigeye tuna	68	0.0095
<i>Katsuwonus pelamis</i>	Skipjack tuna	266	0.0372
<i>Xiphias gladius</i>	Swordfish	7	0.0010
<i>Makaira mazara</i>	Indo-Pacific blue marlin	53	0.0074
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	63	0.0088
<i>Prionace glauca</i>	Blue shark	57	0.0080
<i>Pteroplatytrygon violacea</i>	Pelagic stingray	40	0.0056
<i>Acanthocybium solandri</i>	Wahoo	100	0.0140
<i>Coryphaena hippurus</i>	Dolphinfish	4	0.0006
<i>Lepidocybium flavobrunneum</i>	Escolar	21	0.0029
<i>Lampris guttatus</i>	Opah	6	0.0008
<i>Alepisaurus ferox</i>	Longnose lancetfish	159	0.0222
Total	-	7151	1.0000

Note: * indicate target species

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**2018 ANNUAL SCIENTIFIC OBSERVER REPORT FOR CHINA TUNA
LONGLINE FISHERY IN THE IATTC CONVENTION AREA**

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2018, China conducted ten longline observer trips in the IATTC convention area (east of 150°W), but one observer is still at sea. This report is the preliminary one for the nine-observer trips. More than 960 fishing days were observed during the nine trips (**Table 1**). The Chinese observer trips were mostly carried out in the second half year. This is the period in which Chinese observers are suitable to be sent out due to the availability of such observers. Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel does the observations across the boundary of longitude line 150°W. Sets of the observer trips deployed in the WCPO areas were removed.

The observed set stations for the completed trips are shown in **Figure 1**. These trips targeted albacore or bigeye tuna using the circle hooks.

Table 1 Information of four Chinese LL observer trips in the IATTC area in 2018

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	90	261750	Feb 11,2018- Jul 03,2018	10~31°S,114~143°W
Trip 2	133	301359	Aug2,2018- Dec31,2018	2°N~18°S,116~149°W
Trip 3	124	232632	Jul 30,2018- Jan 11,2019	10°N~5°S,110~135°W
Trip 4	99	335,426	Aug27,2018- Dec 30,2018	6~20°S,116~ 149°W

Trip 5	83	256880	Sep14,2018- Dec31,2018	6°N~4°S,120~ 147°W
Trip 6	230	581621	May4,2018- Dec 31,2018	3°N~15°S,119~ 149°W
Trip 7	24	49200	Sep5,2018- Nov 22,2018	1~ 9°S,145~ 149°W
Trip 8	131	472609	Jun29,2018- Dec30,2018	8~ 34°S,101~ 145°W
Trip 9	54	154854	Sep 5,2018- Nov 4,2018	1~ 7°S,143~ 149°W

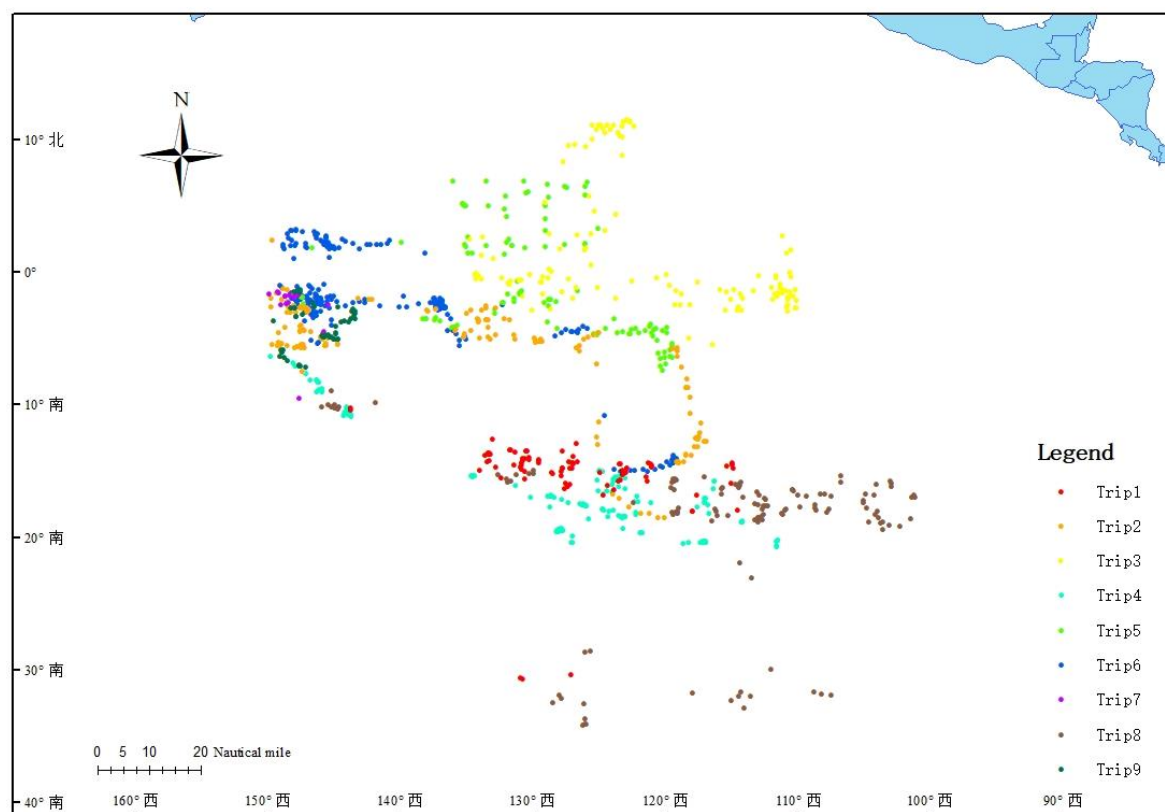


Fig. 1 Set stations of nine Chinese longline observer trips in 2018

2. Observer coverage

Because the total fishing effort of China for the fishing year 2018 has not been estimated yet, the observer coverage with fishing days will not be calculated until the fishery data compilation for the year 2018 is completed. Furthermore, deployed hooks, instead of fishing days, are generally reported as fishing effort in longline fishery statistics; therefore, it will take more time to estimate fishing days. For the coming years, we suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the on-board observer recorded effort (hooks), catch by species,

and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2-10**.

There was one seabird incidentally captured in trip 8. Twenty-four turtles (ten green turtles, three olive ridley turtles and eleven leatherback turtles) were captured in trip 2, trip 3, trip4 and trip6. All the sea turtles are retrieved on board with proper treatment and are safely released alive (with dehooker equipment based on Sea Turtle Handle Guideline). There were two marine mammals incidentally captured. Oceanic whitetip sharks and silky sharks were released or discarded as soon as possible when they were incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	2947	0.6993
<i>Thunnus albacares</i>	Yellowfin tuna	257	0.0610
<i>Thunnus obesus</i>	Bigeye tuna	206	0.0489
<i>Katsuwonus pelamis</i>	Skipjack tuna	239	0.0567
<i>Xiphias gladius</i>	Swordfish	7	0.0017
<i>Makaira nigricans</i>	Blue marlin	17	0.0040
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	1	0.0002
<i>Tetrapturus audax</i>	Striped marlin	55	0.0131
<i>Acanthocybium solandri</i>	Wahoo	104	0.0247
<i>Lepidocybium flavobrunneum</i>	Escolar	34	0.0081
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0002
<i>Taractichthys steindachneri</i>	Sickle pomfret	9	0.0021
<i>Brama brama</i>	Atlantic pomfret	4	0.0009
<i>Lampris guttatus</i>	Opah	11	0.0026
<i>Sphyrna barracuda</i>	Great barracuda	1	0.0002
<i>Alepisaurus ferox</i>	Longnose lancetfish	126	0.0299
<i>Promethichthys Prometheus</i>	Roundi escolar	1	0.0002
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	1	0.0002
<i>Coryphaena hippurus</i>	Common dolphinfish	1	0.0002
<i>Gempylus serpens</i>	Snake mackerel	1	0.0002
<i>Ranzania laevis</i>	Truncated sunfish	1	0.0002
<i>Dasyatis violacea</i>	Sting ray	154	0.0365
<i>Prionace glauca</i>	Blue shark	34	0.0081
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.0005
Total		4214	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	732	0.1890
<i>Thunnus albacares</i>	Yellowfin tuna	152	0.0392
<i>Thunnus alalunga</i>	Albacore	214	0.0553
<i>Katsuwonus pelamis</i>	Skipjack tuna	94	0.0243
<i>Tetrapturusaudax</i>	Striped marlin	12	0.0031
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	3	0.0008
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	4	0.0010
<i>Xiphias gladius</i>	Swordfish	146	0.0377
<i>Makaira nigricans</i>	Blue marlin	18	0.0046
<i>Ruvettus pretiosus</i>	Oilfish	5	0.0013
<i>Remora osteochir</i>	Marlinsucker	4	0.0010
<i>Lepidocybium flavobrunneum</i>	Escolar	260	0.0671
<i>Sphyrna barracuda</i>	Great barracuda	1	0.0003
<i>Taractichthys steindachneri</i>	Sickle pomfret	137	0.0354
<i>Lampris guttatus</i>	Opah	24	0.0062
<i>Alepisaurus ferox</i>	Long snouted lancetfish	309	0.0798
<i>Mola mola</i>	Ocean sunfish	1	0.0003
<i>Taractes rubescens</i>	Dagger pomfret	90	0.0232
<i>Coryphaena hippurus</i>	Common dolphinfish	39	0.0101
<i>Acanthocybium solandri</i>	Wahoo	45	0.0116
<i>Gempylus serpens</i>	Snake mackerel	351	0.0906
<i>Dasyatis violacea</i>	Pelagic stingray	331	0.0855
<i>Isurus paucus</i>	Longfin mako	2	0.0005
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	200	0.0516
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	137	0.0354
<i>Scymnodon squamulosus</i>	Velvet dogfish	138	0.0356
<i>Alopias superciliosus</i>	Bigeye thresher	233	0.0602
<i>Prionace glauca</i>	Blue shark	165	0.0426
<i>Sphyrna zygaena</i>	Smooth hammerhead	17	0.0044
<i>Isurus oxyrinchus</i>	Shortfin mako	6	0.0015
<i>Carcharhinus falciformis</i>	Silky shark	2	0.0005
<i>Chelonia mydas</i>	Green turtle	1	0.0003
Total		3873	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus albacares</i>	Yellowfin tuna*	172	0.0497

<i>Thunnus obesus</i>	Bigeye tuna	134	0.0387
<i>Katsuwonus pelamis</i>	Skipjack tuna	8	0.0023
<i>Xiphias gladius</i>	Swordfish	901	0.2605
<i>Makaira nigricans</i>	Blue marlin	92	0.0266
<i>Tetrapturus audax</i>	Striped marlin	177	0.0512
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	44	0.0127
<i>Lstiophorus platypterus</i>	Indo-pacific sailfish	11	0.0032
<i>Alepisaurus ferox</i>	Longnose lancetfish	8	0.0023
<i>Lepidocybium flavobrunneum</i>	Escolar	39	0.0113
<i>Gempylus serpens</i>	Snake mackerel	25	0.0072
<i>Acanthocybium solandri</i>	Wahoo	37	0.0107
<i>Coryphaena hippurus</i>	Common dolphinfish	595	0.1720
<i>Alopias superciliosus</i>	Bigeye thresher	101	0.0292
<i>Alopias pelagicus</i>	Pelagic thresher	162	0.0468
<i>Isurus oxyrinchus</i>	Shortfin mako	19	0.0055
<i>Prionace glauca</i>	Blue shark	330	0.0954
<i>Carcharhinus falciformis</i>	Silky shark	122	0.0353
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	56	0.0162
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	48	0.0139
<i>Sphyrna zygaena</i>	Smooth hammerhead	51	0.0147
<i>Sphyrna lewini</i>	Scalloped hammerhead	3	0.0009
<i>Dasyatis violacea</i>	Pelagic stingray	281	0.0812
<i>Mobula japonica</i>	Spinetail mobula	26	0.0075
<i>Euthynnus affinis</i>	Kawakawa	2	0.0006
<i>Rhincodon typus</i>	Whale shark	2	0.0006
<i>Lepidochelys olivacea</i>	Olive ridley turtle	1	0.0003
<i>Chelonia mydas</i>	Green turtle	6	0.0017
<i>Dermochelys coriacea</i>	Leatherback turtle	5	0.0014
Delphinidae	Dolphin	1	0.0003
Total		3459	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	3949	0.8531
<i>Thunnus albacares</i>	Yellowfin tuna	88	0.0190
<i>Thunnus obesus</i>	Bigeye tuna	113	0.0244
<i>Katsuwonus pelamis</i>	Skipjack tuna	89	0.0192
<i>Xiphias gladius</i>	Swordfish	10	0.0022
<i>Makaira nigricans</i>	Blue marlin	1	0.0002
<i>Xiphias gladius</i>	Shortbill Spearfish	39	0.0084
<i>Tetrapturus audax</i>	Striped Marlin	4	0.0009
<i>Makaira indica</i>	Black marlin	6	0.0013

<i>Alepisaurus feroxlowe</i>	Longnose lancetfish	76	0.0164
<i>Lampris guttatus</i>	Opah	3	0.0006
<i>Taractes rubescens</i>	Dagger pomfret	4	0.0009
<i>Lepidocybium flavobrunneum</i>	Escolar	55	0.0119
<i>Acanthocybium solandri</i>	Wahoo	88	0.0190
<i>Coryphaena hippurus</i>	Common dolphinfish	3	0.0006
<i>Dasyatis violacea</i>	Pelagic stingray	98	0.0212
<i>Mola mola</i>	Ocean sunfish	1	0.0002
<i>Prionace glauca</i>	Blue shark	2	0.0004
Total		4629	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	340	0.1659
<i>Thunnus albacares</i>	Yellowfin tuna	171	0.0834
<i>Katsuwonus pelamis</i>	Skipjack tuna	31	0.0151
<i>Xiphias gladius</i>	Swordfish	293	0.1429
<i>Makaira nigricans</i>	Blue marlin	35	0.0171
<i>Tetrapturus audax</i>	Striped marlin	69	0.0337
<i>Istiophorus platypterus</i>	Sailfish	2	0.0010
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	3	0.0015
<i>Alepisaurus feroxlowe</i>	Longnose lancetfish	195	0.0951
<i>Lampris guttatus</i>	Opah	11	0.0054
<i>Taractes rubescens</i>	Dagger pomfret	27	0.0132
<i>Taractichthys steindachneri</i>	Sickle pomfret	54	0.0263
<i>Lepidocybium flavobrunneum</i>	Escolar	75	0.0366
<i>Gempylus serpens</i>	Snake mackerel	154	0.0751
<i>Eumegistus illustris</i>	Lustrous pomfret	3	0.0015
<i>Ruvettus pretiosus</i>	Oilfish	4	0.0020
<i>Acanthocybium solandri</i>	Wahoo	15	0.0073
<i>Coryphaena hippurus</i>	Dolphinfish	29	0.0141
<i>Sphyrna barracuda</i>	Great barracuda	2	0.0010
<i>Zameus squamulosus</i>	Velvet dogfish	64	0.0312
<i>Alopias superciliosus</i>	Bigeye thresher	25	0.0122
<i>Isurus paucus</i>	Longfin mako	4	0.0020
<i>Isurus oxyrinchus</i>	Shortfin mako	5	0.0024
<i>Alopias pelagicus</i>	Pelagic thresher	6	0.0029
<i>Prionace glauca</i>	Blue shark	393	0.1917
<i>Carcharhinus falciformis</i>	Silky shark	34	0.0166
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	58	0.0283
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	81	0.0395
<i>Sphyrna zygaena</i>	Smooth hammerhead	2	0.0010

<i>Dasyatis violacea</i>	Sting ray	201	0.0980
<i>Mola mola</i>	Ocean sunfish	1	0.0005
<i>Lepidochelys olivacea</i>	Olive ridley turtle	2	0.0010
<i>Dermochelys coriacea</i>	Leatherback turtle	1	0.0005
Total		2050	1

Note: * indicate target species

Table 7 Observed catch and composition during observer trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	1196	0.1466
<i>Thunnus albacares</i>	Yellowfin tuna	253	0.0310
<i>Thunnus alalunga</i>	Albacore	385	0.0472
<i>Katsuwonus pelamis</i>	Skipjack tuna	61	0.0075
<i>Xiphias gladius</i>	Swordfish	437	0.0536
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	16	0.0020
<i>Tetrapturus audax</i>	Striped marlin	28	0.0034
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	33	0.0040
<i>Makaira nigricans</i>	Blue marlin	81	0.0099
<i>Alepisaurus ferox</i>	Longnose lancetfish	1084	0.1329
<i>Taractichthys steindachneri</i>	Sickle pomfret	52	0.0064
<i>Eumegistus illustris</i>	Lustrous pomfret	37	0.0045
<i>Sphyrna barracuda</i>	Great barracuda	14	0.0017
<i>Lepidocybium flavobrunneum</i>	Escolar	348	0.0427
<i>Coryphaena hippurus</i>	Common dolphinfish	64	0.0078
<i>Gempylus serpens</i>	Snake mackerel	529	0.0649
<i>Acanthocybium solandri</i>	Wahoo	85	0.0104
<i>Lagocephalus lagocephalus</i>	Rabbit Puffer	1	0.0001
<i>Ruvettus pretiosus</i>	Oilfish	33	0.0040
<i>Taractes rubescens</i>	Dagger pomfret	275	0.0337
<i>Zu elongates</i>	Tapertail ribbonfish	1	0.0001
<i>Mola mola</i>	Ocean sunfish	2	0.0002
<i>Lampris guttatus</i>	Opah	24	0.0029
<i>Dasyatis violacea</i>	Pelagic stingray	1363	0.1671
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	477	0.0585
<i>Isurus paucus</i>	Longfin mako	5	0.0006
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	360	0.0441
<i>Zameus squamulosus</i>	Velvet dogfish	249	0.0305
<i>Isurus oxyrinchus</i>	Shortfin mako	19	0.0023
<i>Alopias vulpinus</i>	Thresher shark	8	0.0010
<i>Mobula japonica</i>	Spinetail mobula	4	0.0005
<i>Alopias superciliosus</i>	Bigeye thresher	14	0.0017
<i>Prionace glauca</i>	Blue shark	329	0.0403
<i>Sphyrna zygaena</i>	Smooth hammerhead	17	0.0021

<i>Carcharhinus falciformis</i>	Silky shark	263	0.0322
<i>Chelonia mydas</i>	Green turtle	3	0.0004
<i>Dermochelys coriacea</i>	Leatherback turtle	5	0.0006
<i>Grand dauphin</i>	Common bottle-nose dolphin	1	0.0001
Total		8156	1

Note: * indicate target species

Table 8 Observed catch and composition during observer trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	214	0.5107
<i>Katsuwonus pelamis</i>	Skipjack tuna	3	0.0072
<i>Tetrapturus audax</i>	Striped marlin	14	0.0334
<i>Makaira indica</i>	Black marlin	3	0.0072
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	3	0.0072
<i>Xiphias gladius</i>	Swordfish	74	0.1766
<i>Taractichthys steindachneri</i>	Sickle pomfret	23	0.0549
<i>Lampris guttatus</i>	Opah	1	0.0024
<i>Alepisau rusferox</i>	Long snouted lancetfish	32	0.0764
<i>Lepidocybium flavobrunneum</i>	Escolar	26	0.0620
<i>Acanthocybium solandri</i>	Wahoo	1	0.0024
<i>Dasyatis violacea</i>	Pelagic stingray	1	0.0024
<i>Isurus oxyrinchus</i>	Shortfin mako	3	0.0072
<i>Scymnodon squamulosus</i>	Velvet dogfish	1	0.0024
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	5	0.0119
<i>Alopias superciliosus</i>	Bigeye thresher	4	0.0095
<i>Sphyrna zygaena</i>	Smooth hammerhead	1	0.0024
<i>Prionace glauca</i>	Blue shark	10	0.0239
Total		419	1

Note: * indicate target species

Table 9 Observed catch and composition during observer trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	8262	0.7836
<i>Thunnus obesus</i>	Bigeye tuna	222	0.0211
<i>Katsuwonus pelamis</i>	Skipjack tuna	269	0.0255
<i>Thunnus albacares</i>	Yellowfin tuna	482	0.0457
<i>Xiphias gladius</i>	Swordfish	21	0.0020
<i>Tetrapturus audax</i>	Striped marlin	44	0.0042
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	236	0.0224
<i>Makaira indica</i>	Black marlin	9	0.0009
<i>Lepidocybium lavobrunneum</i>	Escolar	162	0.0154

<i>Coryphaena hippurus</i>	Common dolphinfish	47	0.0045
<i>Acanthocybium solandri</i>	Wahoo	172	0.0163
<i>Lampris guttatus</i>	Opah	244	0.0231
<i>Omosudis lowei</i>	Omosudid	1	0.0001
<i>Assurger anzac</i>	Razorback scabbardfish	1	0.0001
<i>Dasyatis violacea</i>	Pelagic stingray	1	0.0001
<i>Remora remora</i>	Sharksucker	7	0.0007
<i>Alepisaurus ferox</i>	Long snouted lancetfish	106	0.0101
<i>Gasterochisma melampus</i>	Butterfly kingfish	4	0.0004
<i>Taractes rubescens</i>	Dagger pomfret	8	0.0008
<i>Dasyatis violacea</i>	Sting ray	227	0.0215
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0001
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	6	0.0006
<i>Scymnodon squamulosus</i>	Velvet dogfish	1	0.0001
<i>Isurus paucus</i>	Longfin mako	1	0.0001
<i>Prionace glauca</i>	Blue shark	1	0.0001
	Unidentified Shark	8	0.0008
	Seabird	1	0.0001
Total		10544	1

Note: * indicate target species

Table 10 Observed catch and composition during observer trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye tuna*	192	0.2379
<i>Thunnus alalunga</i>	Albacore	4	0.0050
<i>Thunnus albacares</i>	Yellowfin tuna	24	0.0297
<i>Katsuwonus pelamis</i>	Skipjack tuna	48	0.0595
<i>Xiphias gladius</i>	Swordfish	40	0.0496
<i>Makaira nigricans</i>	Blue marlin	14	0.0173
<i>Tetrapturus audax</i>	Striped marlin	12	0.0149
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	3	0.0037
<i>Lepidocybium flavobrunneum</i>	Escolar	10	0.0124
<i>Gempylus serpens</i>	Snake mackerel	25	0.0310
<i>Sphyrna barracuda</i>	Great barracuda	77	0.0954
<i>Alepisaurus feroxlowe</i>	Longnose lancetfish	182	0.2255
<i>Taractichthys steindachneri</i>	Sickle pomfret	23	0.0285
<i>Lampris guttatus</i>	Opah	5	0.0062
<i>Dasyatis violacea</i>	Sting ray	3	0.0037
<i>Prionace glauca</i>	Blue shark	54	0.0669
<i>Mobula japonica</i>	Spinetail mobula	75	0.0929
<i>Carcharhinus galapagensis</i>	Galapagos shark	16	0.0198
Total		807	1

Note: * indicate target species

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2017 ANNUAL SCIENTIFIC OBSERVER REPORT FOR
CHINA TUNA LONGLINE FISHERY IN THE IATTC
CONVENTION AREA

CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2017 IN THE
IATTC CONVENTION AREA

CHINA

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2017, China conducted eleven (11) longline observer trips in the IATTC convention area (east of 150°W). More than 1100 fishing days were observed during these trips (**Table 1**). The Chinese observer trips were mostly carried out in the second half year. This is the period in which Chinese observers are suitable to be sent out due to the availability of such observers. Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel do observations across the boundary of longitude line of 150°W. Sets of the observer trips which deployed in the WCPO area were removed.

The observed set stations for the completed trips are shown in **Figure 1**. These trips targeted albacore or bigeye tuna using circle hook.

Table 1 Information of four Chinese LL observer trips in the IATTC area for 2017

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	85	274,680	Oct12,2017- Jan 04,2018	15~32S,110~122°W
Trip 2	62	170,667	Sep 26,2017- Dec 25,2017	7~21°S,108~135°W
Trip 3	56	196,336	Sep 23,2017- Nov 28,2017	12~20°S,114~135°W
Trip 4	99	335,426	Jun 15,2017- Oct 16,2017	14~34°S,107~ 144°W
Trip 5	88	195,312	Jul 22,2017- Oct 24,2017	7~13°S,119~ 133°W
Trip 6	80	287,812	Nov 11,2017- Feb14,2018	14~21°S,114~ 132°W
Trip 7	98	185,390	Jun 25,2017- Oct 24,2017	0~12°N,103~ 141°W
Trip 8	62	148,536	Nov 06,2017- Jan 26,2018	11 °N ~4°S,120~ 145°W
Trip 9	173	340,697	Jun 13,2017- Dec 26,2017	3°N ~14°S,126~ 149°W
Trip10	173	622,053	Jul 06,2017- Mar 09,2018	12~32°S,109~ 135°W
Trip11	161	462,429	Jul 06,2017- Mar 09,2018	12~33°S,109~ 135°W

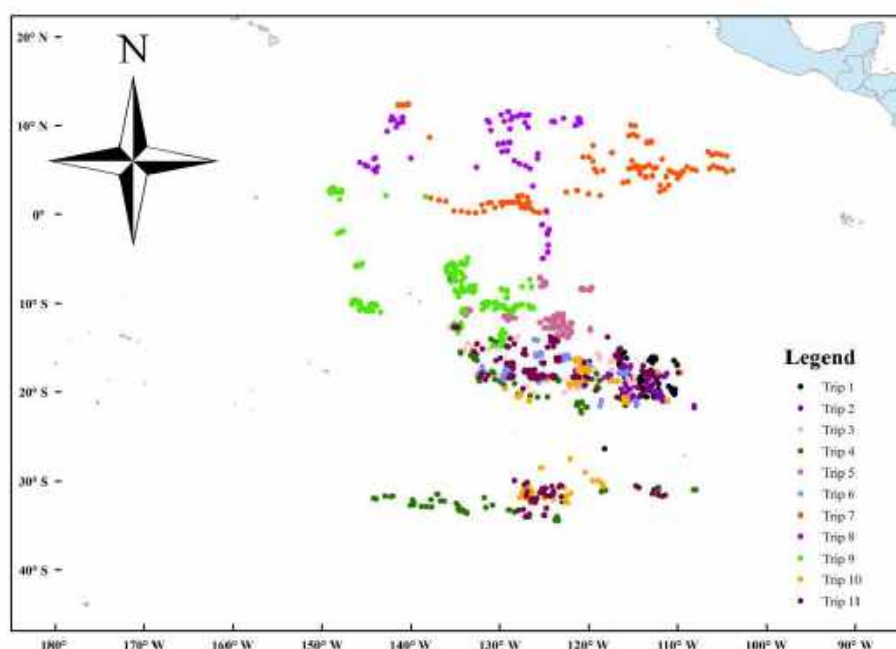


Fig. 1 Set stations of eleven Chinese longline observer trips for 2017

2. Observer coverage

Because the total fishing effort of China for the fishing year 2017 has not been estimated by now, the observer coverage with fishing days will not be calculated until the fishery data compilation for the year 2017 is completed. It is anticipated that the coverage will exceed 5%.

3. Total catch and catch composition

For each trip, the onboard observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2**.

There were four individuals of seabird incidentally captured in Trip 4. Twenty-seven turtles were incidentally captured in Trip 7 and Trip 8. Oceanic whitetip sharks were released or discarded as soon as possible when they are incidentally caught.

Table 2 Observed catch and composition during observer Trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	5781	0.8111
<i>Thunnus albacares</i>	Yellowfin tuna	207	0.0290
<i>Thunnus obesus</i>	Bigeye tuna	97	0.0136
<i>Katsuwonus pelamis</i>	Skipjack tuna	168	0.0236
<i>Xiphias gladius</i>	Swordfish	11	0.0015
<i>Makaira mazara</i>	Indo-Pacific Blue marlin	7	0.0010
<i>Tetrapturus audax</i>	Striped Marlin	28	0.0039
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	258	0.0362
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	114	0.0160
<i>Lampris guttatus</i>	Opah	61	0.0086
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0001
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0001
<i>Lepidocybium flavobrunneum</i>	Escolar	72	0.0101
<i>Gempylus serpens</i>	Snake mackerel	4	0.0006
<i>Acanthocybium solandri</i>	Wahoo	157	0.0220
<i>Coryphaena hippurus</i>	Dolphinfish	56	0.0079
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0001
<i>Isurus oxyrinchus</i>	Shortfin mako	1	0.0001
<i>Prionace glauca</i>	Blue shark	41	0.0058
<i>Dasyatis violacea</i>	Sting ray	60	0.0084
Total		7127	1.0000

Table 3 Observed catch and composition during observer Trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore *	2081	0.6316
<i>Thunnus albacares</i>	Yellowfin tuna	98	0.0298
<i>Thunnus obesus</i>	Bigeye tuna	62	0.0188
<i>Katsuwonus pelamis</i>	Skipjack tuna	60	0.0182
<i>Xiphias gladius</i>	Swordfish	17	0.0005
<i>Makaira mazara</i>	Blue marlin	37	0.0112
<i>Tetrapturus audax</i>	striped marlin	3	0.0009
<i>Shortbill spearfish</i>	Shortbill spearfish	118	0.0358
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	372	0.1129
<i>Lampris guttatus</i>	Opah	4	0.0012
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0003
<i>Lepidocybium flavobrunneum</i>	Escolar	84	0.0255
<i>Acanthocybium solandri</i>	Wahoo	109	0.0331
<i>Coryphaena hippurus</i>	Dolphinfish	30	0.0091
<i>Taractichthys steindachneri</i>	sickle pomfret	1	0.0003
<i>Dasyatis violacea</i>	Sting ray	2	0.0006
<i>Mola mola</i>	ocean sunfish	1	0.0003
<i>Gempylus serpens</i>	Snake mackerel	3	0.0009
<i>Remora osteochir</i>	Marlinsucker	51	0.0155
<i>Prionace glauca</i>	blue shark	110	0.0334
<i>Alopias superciliosus</i>	Bigeye thresher	2	0.0006
<i>Isurus oxyrinchus</i>	Shortfin mako	14	0.0043
	Sharks	25	0.0076
<i>Isurus paucus</i>	Longfin mako	3	0.0009
<i>Pseudocarcharias kamoharai</i>	crocodile shark	4	0.0012
<i>Carcharhinus falciformis</i>	silky shark	2	0.0006
Total		3294	1

Table 4 Observed catch and composition during observer Trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	2473	0.7183
<i>Thunnus albacares</i>	Yellowfin tuna	96	0.0279
<i>Thunnus obesus</i>	Bigeye tuna	152	0.0441
<i>Katsuwonus pelamis</i>	Skipjack tuna	95	0.0276
<i>Xiphias gladius</i>	Swordfish	11	0.0032
<i>Makaira nigricans</i>	Blue marlin	19	0.0055
<i>Tetrapturus audax</i>	Striped marlin	6	0.0017
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	83	0.0241
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	163	0.0473
<i>Lampris guttatus</i>	Opah	3	0.0009
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0003
<i>Lepidocybium flavobrunneum</i>	Escolar	74	0.0215
<i>Acanthocybium solandri</i>	Wahoo	113	0.0328
<i>Coryphaena hippurus</i>	Dolphinfish	32	0.0093
<i>Prionace glauca</i>	Blue shark	2	0.0006
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	1	0.0003
	Sharks	56	0.0163
<i>Dasyatis violacea</i>	Sting ray	28	0.0081
<i>Ranzania laevis</i>	Truncated sunfish	1	0.0003
<i>Remora osteochir</i>	Marlinsucker	30	0.0087
<i>Common remora</i>	Common remora	4	0.0012
Total		3443	1

Table 5 Observed catch and composition during observer Trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	4027	0.7881
<i>Thunnus albacares</i>	Yellowfin tuna	116	0.0227
<i>Thunnus obesus</i>	Bigeye tuna	155	0.0303
<i>Katsuwonus pelamis</i>	Skipjack tuna	91	0.0178
<i>Xiphias gladius</i>	Swordfish	6	0.0012
<i>Makaira mazara</i>	Blue marlin	4	0.0008
<i>Tetrapturus pfluegeri</i>	Longbill spearfish	2	0.0004
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	58	0.0114
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	213	0.0417
<i>Lampris guttatus</i>	Opah	72	0.0141
<i>Taractichthys steindachneri</i>	Sickle pomfret	4	0.0008
<i>Lepidocybium flavobrunneum</i>	Escolar	135	0.0264
<i>Gempylus serpens</i>	Snake mackerel	1	0.0002
<i>Acanthocybium solandri</i>	Wahoo	99	0.0194
<i>Coryphaena hippurus</i>	Dolphinfish	30	0.0059
<i>Sphyrna tiburo</i>	Great barracuda	1	0.0002
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0002
<i>Isurus paucus</i>	Shortfin mako	1	0.0002
<i>Prionace glauca</i>	Blue shark	71	0.0139
<i>Dasyatis violacea</i>	Sting ray	12	0.0023
<i>Masturus lanceolatus</i>	Sharptail sunfish	7	0.0014
<i>Phoebastria immutabilis</i>	Sooty albatross	1	0.0002
<i>Thalassarche cauta</i>	Shy Mollymawk	1	0.0002
<i>Diomedea epomophora</i>	Southern royal albatross	2	0.0004
Total		5110	1

Table 6 Observed catch and composition during observer Trip 5

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	138	0.0372
<i>Thunnus albacares</i>	Yellowfin tuna	120	0.0323
<i>Thunnus obesus</i>	Bigeye tuna	610	0.1643
<i>Xiphias gladius</i>	Swordfish	430	0.1158
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	23	0.0062
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	3	0.0008
<i>Makaira indica</i>	Black marlin	10	0.0027
<i>Makaira mazara</i>	Blue marlin	14	0.0038
<i>Tetrapturus audax</i>	Striped marlin	21	0.0057
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	19	0.0051
<i>Lampris guttatus</i>	Opah	39	0.0105
<i>Taractes rubescens</i>	Dagger pomfret	24	0.0065
<i>Taractichthys steindachneri</i>	sickle pomfret	22	0.0059
<i>Lepidocybium flavobrunneum</i>	Escoler	1331	0.3585
<i>Gempylus serpens</i>	Snake mackerel	2	0.0005
<i>Acanthocybium solandri</i>	Wahoo	91	0.0245
<i>Coryphaena hippurus</i>	Dolphinfish	44	0.0119
<i>Zameus squamulosus</i>	Velvet dogfish	4	0.0011
<i>Alopias superciliosus</i>	Bigeye thresher	95	0.0256
<i>Isurus paucus</i>	Longfin mako	11	0.0030
<i>Isurus oxyrinchus</i>	Shortfin mako	19	0.0051
<i>Prionace glauca</i>	Blue shark	480	0.1293
<i>Carcharhinus falciformis</i>	Silky shark	64	0.0172
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	17	0.0046
<i>Pseudocarcharias kamoharai</i>	crocodile shark	18	0.0048
<i>Sphyrna zygaena</i>	Smooth hammerhead	8	0.0022
<i>Sphyrna lewini</i>	Scalloped Hammerhead	1	0.0003
<i>Dasyatis violacea</i>	Sting ray	33	0.0089
<i>Mobula japonica</i>	Spinetail mobula	2	0.0005
<i>Mola mola</i>	Ocean sunfish	1	0.0003
<i>Ruvettus pretiosus</i>	Oilfish	19	0.0051
Total		3713	1

Table 7 Observed catch and composition during observer Trip 6

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	3585	0.8410
<i>Thunnus obesus</i>	Big eye tuna	92	0.0216
<i>Thunnus albacares</i>	yellowfin tuna	109	0.0256
<i>Katsuwonus pelamis</i>	Skipjack	144	0.0338
<i>Xiphias gladius</i>	Swordfish	9	0.0021
<i>Makaira indica</i>	Black marlin	31	0.0073
<i>Makaira mazara</i>	Blue marlin	9	0.0021
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	68	0.0160
<i>Acanthocybium solandri</i>	Wahoo	159	0.0373
<i>Tetrapturus audax</i>	Striped marlin	1	0.0002
<i>Lepidocybium flavobrunneum</i>	Escolar	26	0.0061
<i>Ruvettus pretiosus</i>	Oilfish	2	0.0005
<i>Prionace glauca</i>	Blue shark	3	0.0007
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	5	0.0012
<i>Dasyatis violacea</i>	Pelagic stingray	4	0.0009
<i>Alepisaurus ferox</i>	Longnose lancetfish	10	0.0023
<i>Lampris guttatus</i>	Opah	4	0.0009
<i>Coryphaena equiselis</i>	Pompano dolphinfish	2	0.0005
Total		4263	1

Table 8 Observed catch and composition during observer Trip 7

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	2	0.0009
<i>Thunnus albacares</i>	Yellowfin tuna	67	0.0294
<i>Thunnus obesus</i>	Bigeye tuna	87	0.0382
<i>Katsuwonus pelamis</i>	Skipjack tuna	4	0.0018
<i>Xiphias gladius</i>	Swordfish	580	0.2548
<i>Makaira mazara</i>	Blue marlin	55	0.0242
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	7	0.0031
<i>Tetrapturus audax</i>	Striped Marlin	110	0.0483
<i>Tetrapturus angustirostris</i>	Shortbill Spearfish	10	0.0044
<i>Prionace glauca</i>	Blue shark	612	0.2689
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	32	0.0141
<i>Alopias vulpinus</i>	Thresher, shark	2	0.0009
<i>Isurus paucus</i>	Longfin mako	1	0.0004
<i>Isurus oxyrinchus</i>	Shortfin mako	9	0.0040
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	171	0.0751
<i>Dasyatis violacea</i>	Sting ray	188	0.0826
<i>Mobula japonica</i>	Spinetail mobula	2	0.0009
<i>Sphyrna barracuda</i>	Great barracuda	1	0.0004
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	21	0.0092
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0004
<i>Coryphaena hippurus</i>	Dolphinfish	223	0.0980
<i>Lepidocybium flavobrunneum</i>	Escolar	25	0.0110
<i>Gempylus serpens</i>	Snake mackerel	19	0.0083
<i>Acanthocybium solandri</i>	Wahoo	22	0.0097
<i>Chelonia mydas</i>	Green turtle	11	0.0048
<i>Lepidochelys olivacea</i>	Olive Ridley turtle	12	0.0053
	Mammal animal	2	0.0009
Total		2276	1

Table 9 Observed catch and composition during observer Trip 8

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Sphyrna barracuda</i>	Great barracuda	2	0.0011
<i>Thunnus albacares</i>	Yellowfin tuna	112	0.0623
<i>Thunnus obesus</i>	Bigeye tuna	24	0.0133
<i>Katsuwonus pelamis</i>	Skipjack tuna	12	0.0067
<i>Xiphias gladius</i>	Swordfish	102	0.0567
<i>Makaira mazara</i>	Blue marlin	46	0.0256
<i>Lstiophorus platypterus</i>	Indo-pacific sailfish	9	0.0050
<i>Tetrapturus audax</i>	Striped marlin	83	0.0461
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	1	0.0006
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	36	0.0200
<i>Lampris guttatus</i>	Opah	2	0.0011
<i>Lepidocybium flavobrunneum</i>	Escoler	4	0.0022
<i>Gempylus serpens</i>	Snake mackerel	4	0.0022
<i>Ruvettus pretiosus</i>	Oilfish	1	0.0006
<i>Coryphaena hippurus</i>	Dolphinfish	719	0.3997
<i>Acanthocybium solandri</i>	Wahoo	32	0.0178
<i>Carcharhinus amblythynchos</i>	Grey reef shark	1	0.0006
<i>Scalloped Hammerhead</i>	<i>Sphyrna lewini</i>	4	0.0022
<i>Alopias superciliosus</i>	Bigeye thresher	20	0.0111
<i>Isurus paucus</i>	Longfin mako	10	0.0056
<i>Isurus oxyrinchus</i>	Shortfin mako	12	0.0067
<i>Alopias Pelagicus</i>	Pelagic thresher	60	0.0334
<i>Prionace glauca</i>	Blue shark	344	0.1912
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	65	0.0361
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	38	0.0211
<i>Sphyrna zygaena</i>	Smooth hammerhead	16	0.0089
<i>Dasyatis violacea</i>	Sting ray	31	0.0172
<i>Mobula japonica</i>	Spinetail mobula	4	0.0022
<i>rabbit puffer,oceanic</i>	Lagocephalus	1	0.0006
<i>Eretmochelys imbricata</i>	Hawksbill turtle	1	0.0006
<i>Lepidochelys olivacea</i>	Olive ridley turtle	1	0.0006
<i>Chelonia mydas</i>	Green turtle	2	0.0011
Total		1799	1

Table 10 Observed catch and composition during observer Trip 9

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	146	0.0343
<i>Thunnus albacares</i>	Yellowfin tuna	259	0.0609
<i>Thunnus obesus</i>	Bigeye tuna	1145	0.2690
<i>Katsuwonus pelamis</i>	Skipjack tuna	2	0.0005
<i>Xiphias gladius</i>	Swordfish	180	0.0423
<i>Tetrapturus audax</i>	Striped marlin	3	0.0007
<i>Makaira mazara</i>	Blue marlin	40	0.0094
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	182	0.0428
<i>Lampris guttatus</i>	Opah	50	0.0117
<i>Taractes rubescens</i>	Dagger pomfret	112	0.0263
<i>Taractichthys steindachneri</i>	Sickle pomfret	96	0.0226
<i>Lepidocybium flavobrunneum</i>	Escolar	331	0.0778
<i>Gempylus serpens</i>	Snake mackerel	16	0.0038
<i>Acanthocybium solandri</i>	Wahoo	42	0.0099
<i>Coryphaena hippurus</i>	Dolphinfish	124	0.0291
<i>Zameus squamulosus</i>	Velvet dogfish	41	0.0096
<i>Alopias superciliosus</i>	Bigeye thresher	121	0.0284
<i>Isurus paucus</i>	Longfin mako	27	0.0063
<i>Isurus oxyrinchus</i>	Shortfin mako	36	0.0085
<i>Sphyrna lewini</i>	Scalloped Hammerhead	4	0.0009
<i>Alopias pelahicus</i>	Pelagic thresher	2	0.0005
<i>Prionace glauca</i>	Blue shark	486	0.1142
<i>Carcharhinus falciformis</i>	Silky shark	205	0.0482
<i>Carcharhinus longimanus</i>	Oceanic whitetip shark	45	0.0106
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	325	0.0764
<i>Sphyrna zygaena</i>	Smooth hammerhead	7	0.0016
<i>Dasyatis violacea</i>	Sting ray	186	0.0437
<i>Mobula japonica</i>	Spinetail mobula	4	0.0009
<i>Mola mola</i>	Ocean sunfish	11	0.0026
<i>Remora osteochir</i>	Marlinsucker	12	0.0028
<i>Remora remora</i>	Common remora	8	0.0019
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0002
<i>Sphyraena barracuda</i>	Great barracuda	7	0.0016
Total		4256	1

Table 11 Observed catch and composition during observer Trip 10

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	6458	0.8387
<i>Thunnus obesus</i>	Bigeye tuna	155	0.0201
<i>Thunnus albacares</i>	Yellowfin tuna	186	0.0242
<i>Katsuwonus pelamis</i>	Skipjack tuna	247	0.0321
<i>Xiphias gladius</i>	Swordfish	23	0.0030
<i>Makaira mazara</i>	Blue marlin	6	0.0008
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	1	0.0001
<i>Tetrapturus audax</i>	Striped Marlin	16	0.0021
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	101	0.0131
<i>Makaira indica</i>	Black marlin	27	0.0035
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0001
<i>Lampris guttatus</i>	Opah	121	0.0157
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	28	0.0036
<i>Taractes rubescens</i>	Dagger pomfret	3	0.0004
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0001
<i>Coryphaena hippurus</i>	Dolphinfish	23	0.0030
<i>Acanthocybium solandri</i>	Wahoo	205	0.0266
<i>Gempylus serpens</i>	Snake mackerel	21	0.0027
<i>Lepidocybium</i>	Escoler		
<i>flavobrunneum</i>		59	0.0077
<i>Dasyatis violacea</i>	Sting ray	17	0.0022
<i>Remora osteochir</i>	Marlinsucker	1	0.0001
Total		7700	1

Table 12 Observed catch and composition during observer Trip 11

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore	7286	0.8585
<i>Thunnus obesus</i>	Bigeye tuna	126	0.0148
<i>Thunnus albacares</i>	Yellowfin tuna	222	0.0262
<i>Katsuwonus pelamis</i>	Skipjack tuna	318	0.0375
<i>Xiphias gladius</i>	Swordfish	8	0.0009
<i>Makaira mazara</i>	Blue marlin	6	0.0007
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	2	0.0002
<i>Tetrapturus audax</i>	Striped Marlin	14	0.0016
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	84	0.0099
<i>Makaira indica</i>	Black marlin	3	0.0004
<i>Taractichthys steindachneri</i>	Sickle pomfret	1	0.0001
<i>Lampris guttatus</i>	Opah	62	0.0073
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	11	0.0013
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0001
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0001
<i>Mola mola</i>	Ocean sunfish	1	0.0001
<i>Coryphaena hippurus</i>	Dolphinfish	10	0.0012
<i>Acanthocybium solandri</i>	Wahoo	197	0.0232
<i>Gempylus serpens</i>	Snake mackerel	30	0.0035
<i>Lepidocybium flavobrunneum</i>	Escolar	82	0.0097
<i>Pteraclis aesticola</i>	Pacific fanfish	1	0.0001
<i>Ruvettus pretiosus</i>	Oilfish	2	0.0002
<i>Dasyatis violacea</i>	Sting ray	15	0.0018
<i>Remora remora</i>	Common remora	4	0.0005
Total		8487	1

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CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2016 IN

THE IATTC CONVENTION AREA

CHINA

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1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2016, China conducted four longline observer trips in the IATTC convention area (east of 150°W). So far, all the observer trips have been completed. Nearly 400 fishing days were observed during these trips (**Table 1**). The Chinese observer trips were mostly carried out in the second half year. This is the period in which Chinese observers are suitable to be sent out due to the availability of such observers. Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel do observations across the boundary of longitude line 150°W. Therefore, a few sets of the observer trips were deployed in the WCPO areas, which were not removed.

The observed set stations for the completed trip are shown in **Figure 1**. These trips targeted albacore tuna using circle hook in the southern area.

Table 1 Information of four Chinese LL observer trips in the IATTC area in 2016

Trips	Observed fishing days	Observed hooks	Observation period	Observation area
Trip 1	90	281,288	Sep 11,2016- Jan 06,2017	10~22°S,112~169°W

Trip 2	99	290,525	Sep 29,2016- Jan 23,2017	15~33°S,106~149°W
Trip 3	91	275,975	Oct 01,2016- Jan 23,2017	18~32°S,122~147°W
Trip 4	93	288,765	Nov 05,2016- Feb 16,2017	16~19°S,111~ 130°W

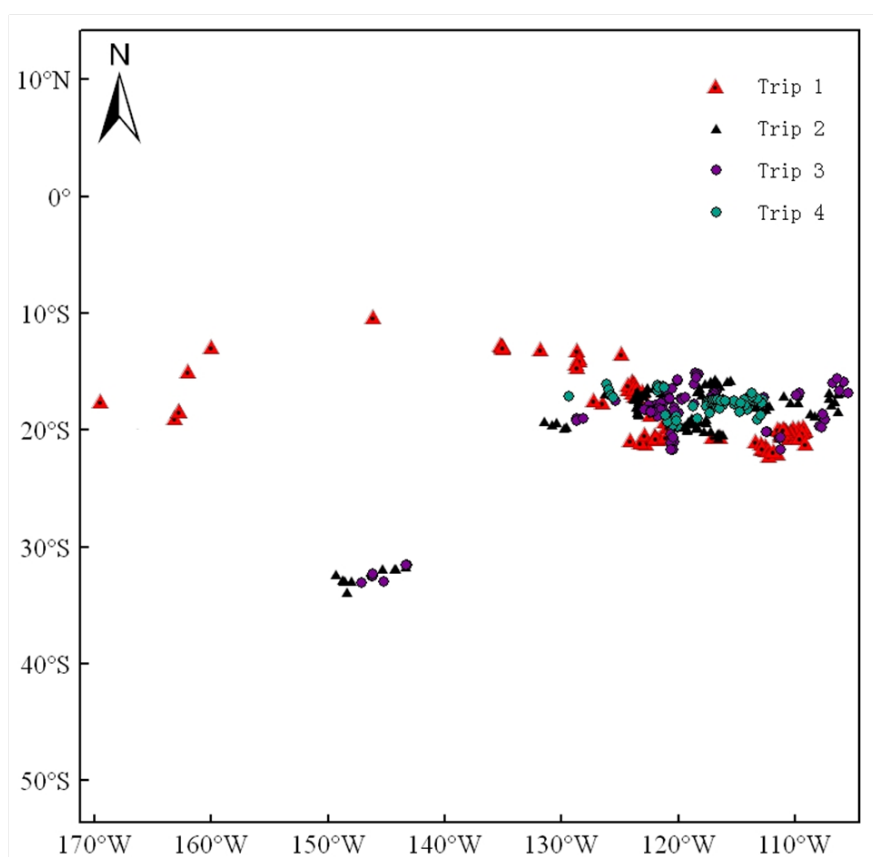


Fig. 1 Set stations of four Chinese longline observer trips in 2016

2. Observer coverage

Because the total fishing effort of China for the fishing year 2016 has not been estimated by now, the observer coverage with fishing days will not be calculated until the fishery data compilation for the year 2016 is completed. Furthermore, deployed hooks, instead of fishing days, are generally reported as fishing effort in longline fishery statistics; therefore it will take more time to estimate fishing days. For the coming years, it is suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the onboard observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets

observed for each set was about 80-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2-5**.

There were five individuals of seabird incidentally captured in trip 2 and trip 3. No sea turtles were captured during the four trips. Oceanic whitetip sharks were released or discarded as soon as possible when they are incidentally caught.

Table 2 Observed catch and composition during observer trip 1

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore*	3443	0.6621
<i>Thunnus albacares</i>	Yellowfin tuna	207	0.0398
<i>Thunnus obesus</i>	Bigeye tuna	317	0.061
<i>Katsuwonus pelamis</i>	Skipjack tuna	156	0.03
<i>Xiphias gladius</i>	Swordfish	30	0.0058
<i>Makaira nigricans</i>	Blue marlin	58	0.0116
<i>Makaira indica</i>	Black marlin	1	0.0002
<i>Istiophorus platypterus</i>	Indo-Pacific sailfish	4	0.0008
<i>Alepisaurus ferox lowe</i>	Longnose lancetfish	341	0.0656
<i>Lampris guttatus</i>	Opah	12	0.0023
<i>Taractes rubescens</i>	Dagger pomfret	1	0.0002
<i>Lepidocybium flavobrunneum</i>	Escolar	87	0.0167
<i>Gempylus serpens</i>	Snake mackerel	1	0.0002
<i>Acanthocybium solandri</i>	Wahoo	234	0.045
<i>Coryphaena hippurus</i>	Dolphinfish	76	0.0146
<i>Eumegistus illustris</i>	lustrous pomfret	6	0.0012
<i>Lophotus capellei</i>	Unicornfish	1	0.0002
<i>Sphyrna barracuda</i>	Great barracuda	2	0.0004
<i>Dasyatis violacea</i>	Sting ray	19	0.0037
<i>Mola mola</i>	Ocean sunfish	12	0.0023
<i>Tetrapturus audax</i>	Striped marlin	8	0.0015
<i>Trachipterus fukuzakii</i>	Tapertail ribbonfish	1	0.0002
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	93	0.0179
<i>Masturus lanceolatus</i>	Sharptail sunfish	1	0.0002
<i>Prionace glauca</i>	blue shark	5	0.001
<i>Remora osteochir</i>	Marlin sucker	71	0.0137
<i>Common remora</i>	Common remora	13	0.0025
Total		5200	1

Note: * indicate target species

Table 3 Observed catch and composition during observer trip 2

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore *	4269	0.8200
<i>Thunnus albacares</i>	Yellowfin tuna	94	0.0181
<i>Thunnus obesus</i>	Bigeye tuna	163	0.0313
<i>Katsuwonus pelamis</i>	Skipjack tuna	120	0.0231
<i>Xiphias gladius</i>	Swordfish	30	0.0058
<i>Makaira nigricans</i>	Blue marlin	33	0.0063
<i>Tetrapturus audax</i>	Striped marlin	7	0.0013
<i>Alepisaurus ferox</i> lowe	Longnose lancetfish	86	0.0165
<i>Lampris guttatus</i>	Opah	57	0.0109
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	67	0.0129
<i>Lepidocybium flavobrunneum</i>	Escoler	85	0.0163
<i>Acanthocybium solandri</i>	Wahoo	109	0.0209
<i>Coryphaena hippurus</i>	Dolphinfish	29	0.0056
<i>Isurus oxyrinchus</i>	Shortfin mako	5	0.0010
<i>Prionace glauca</i>	Blue shark	43	0.0083
<i>Dasyatis violacea</i>	Sting ray	5	0.0010
<i>Mola mola</i>	Ocean sunfish	1	0.0002
<i>Diomedea bulleri</i>	Buller's Albatross	1	0.0002
<i>Diomedea cauta</i>	White-capped albatross	1	0.0002
<i>Thalassareche melanophrys</i>	Black-browed albatross	1	0.0002
Total		5206	1

Note: * indicate target species

Table 4 Observed catch and composition during observer trip 3

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus alalunga</i>	Albacore *	3710	0.5981
<i>Thunnus albacares</i>	Yellowfin tuna	259	0.0418
<i>Thunnus obesus</i>	Bigeye tuna	144	0.0232
<i>Katsuwonus pelamis</i>	Skipjack tuna	215	0.0347
<i>Xiphias gladius</i>	Swordfish	40	0.0064
<i>Makaira nigricans</i>	Blue marlin	32	0.0052
<i>Tetrapturus audax</i>	Striped marlin	10	0.0016
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	158	0.0255
<i>Makaira indica</i>	Black marlin	1	0.0002
<i>Alepisaurus ferox</i>	Longnose lancetfish	787	0.1269
<i>Alepisaurus brevirostris</i>	Shortnose lancetfish	1	0.0002
<i>Lampris guttatus</i>	Opah	62	0.0100
<i>Taractes rubescens</i>	Dagger pomfret	13	0.0021
<i>Taractichthys steindachneri</i>	Sickle pomfret	8	0.0013
<i>Lepidocybium flavobrunneum</i>	Escoler	127	0.0205

<i>Gempylus serpens</i>	Snake mackerel	7	0.0011
<i>Sphyræna barracuda</i>	great barracuda	2	0.0003
<i>Acanthocybium solandri</i>	Wahoo	188	0.0303
<i>Coryphaena hippurus</i>	Dolphinfish	27	0.0044
<i>Alopias superciliosus</i>	Bigeye thresher	1	0.0002
<i>Isurus paucus</i>	Longfin mako	3	0.0005
<i>Isurus oxyrinchus</i>	Shortfin mako	2	0.0003
<i>Prionace glauca</i>	Blue shark	127	0.0205
<i>Pseudocarcharias kamoharai</i>	Crocodile shark	3	0.0005
<i>Dasyatis violacea</i>	Sting ray	92	0.0148
<i>Mola mola</i>	Ocean sunfish	2	0.0003
<i>Phoebastria fusca</i>	Sooty albatross	2	0.0003
Total		6203	1

Note: * indicate target species

Table 5 Observed catch and composition during observer trip 4

Scientific name	English name	Observed catch in number	Percentage (%)
<i>Thunnus obesus</i>	Bigeye	118	0.0249
<i>Thunnus Albacares</i>	Yellowfin	97	0.0206
<i>Thunnus alalunga</i>	Albacore*	3619	0.7673
<i>Katsuwonus pelamis</i>	Skipjack	532	0.1128
<i>Makaira mazara</i>	Blue Marlin	5	0.001
<i>Tetrapturus audax</i>	Striped Marlin	13	0.0027
<i>Xiphias gladius</i>	Swordfish	27	0.0057
<i>Makaira indica</i>	Black Marlin	3	0.0006
<i>Tetrapturus angustirostris</i>	Shortbill spearfish	63	0.0133
<i>Prionace glauca</i>	Blue shark	24	0.005
<i>Lsurus oxyrinchus</i>	Short finned Mako shark	1	0.0002
<i>Isurus paucus</i>	Long finned Mako shark	1	0.0002
<i>Alepisaurus ferox</i>	Longnose lancetfish	13	0.0028
<i>Taractichthys steindachneri</i>	Sicekle pomfret	2	0.0004
<i>Taractes rubescens</i>	Dagger pomfret	6	0.0012
<i>Coryphaena hippurus</i>	Mahi mahi	9	0.0019
<i>Acanthocybium solandri</i>	Wahoo	128	0.0271
<i>Lepidocybium flavobrunneum</i>	Escolar	64	0.0136
<i>Gempylus serpens</i>	Snake mackerel	5	0.001
<i>Lampris guttatus</i>	Opah	31	0.0066
Total		4761	1

Note: * indicate target species

INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

SEVENTH MEETING

La Jolla, California (USA)

09-13 May 2016

DOCUMENT SAC-07 INF A(f)

**CPC OBSERVER ANNUAL REPORT FOR THE YEAR 2015 IN THE IATTC
CONVENTION AREA**

1. Trip description

Longline is the only fishing gear for the Chinese tuna fishery in the EPO. For the year 2015, China conducted three longline observer trips in the IATTC convention area (east of 150°W). So far, only one observer trip has been completed. Seventy-nine fishing days were observed for this trip (**Table 1**). The Chinese observer trips were mostly carried out in the second half year. This is the period in which Chinese observers are suitable to be sent out due to the availability of such observers. Some of the Chinese observer trips for the EPO area are shared with those for the WCPFC area (west of 150°W), i.e., the same observer with the same longline vessel do observations across the boundary of longitude line 150°W. Therefore, the original observer trips are separated into two trips for the west side and east side.

The observed set stations for the completed trip are shown in **Figure 1**. This trip targeted albacore tuna using circle hook in the southern area.

Table 1 Information of one of the Chinese LL observer trips in the IATTC area in 2015

Trips	Observed fishing days	Observed hooks	Observation period (2015)	Observation area
No.1	79	288,171	Sep 30- Dec 31	15-21° S, 107-134° W

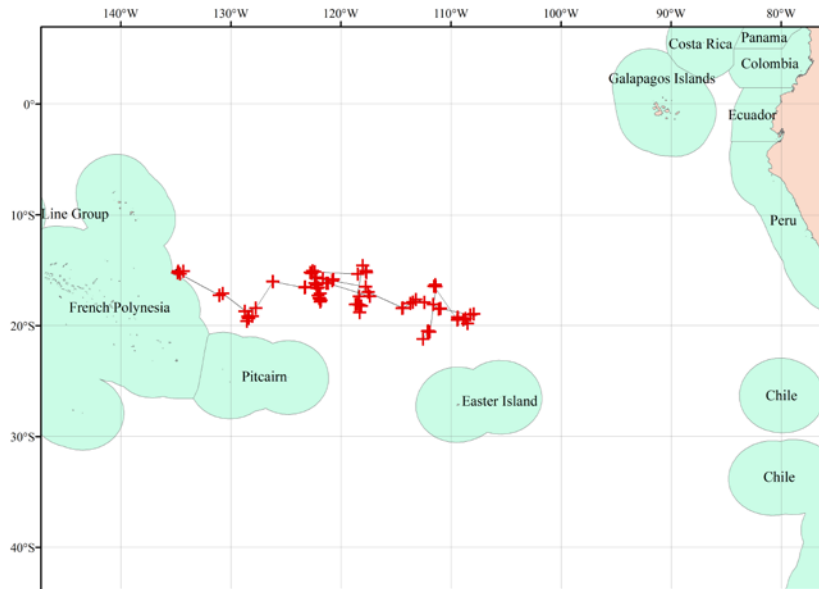


Fig. 1 Set stations of one of the Chinese longline observer trips in 2015

2. Observer coverage

Because the total fishing effort of China for the fishing year 2015 has not been estimated by now and two other observer trips have not finished yet, the observer coverage with fishing days will not be calculated until the fishery data compilation for the year 2015 is completed. Furthermore, deployed hooks, instead of fishing days, are generally reported as fishing effort in longline fishery statistics; therefore it will take more time to estimate fishing days. For the coming years, it is suggested that the observer annual report be submitted by the same deadline with fishery data.

3. Total catch and catch composition

For each trip, the onboard observer recorded effort (hooks), catch by species, and size composition by species for all the target and bycatch species including sharks, sea turtles and birds. Gender and other biological information (e.g., maturity) were also examined for randomly sampled individuals. The proportion of baskets observed for each set was about 70-90%, due to long hauling time.

The observed catches in number for each trip, including target and bycatch species, are listed in **Table 2**.

No sea turtles and no seabirds were captured in this trip. Oceanic whitetip sharks were released or discarded as soon as possible when they are incidentally caught.

Table 2 Observed catch and composition during observer trip

English name	Scientific name	Observed catch in number	Percentage (%)
<i>Albacore*</i>	<i>Thunnus alalunga</i>	4325	66.1
<i>Bigeye tuna</i>	<i>Thunnus obesus</i>	548	8.4
<i>Yellowfin tuna</i>	<i>Thunnus albacares</i>	171	2.6
<i>Skipjack tuna</i>	<i>Katsuwonus pelamis</i>	164	2.5
<i>Swordfish</i>	<i>Xiphias gladius</i>	59	0.9
<i>Shortbill Spearfish</i>	<i>Tetrapturus angustirostris</i>	188	2.9
<i>Blue marlin</i>	<i>Makaira nigricans</i>	13	0.2
<i>Striped marlin</i>	<i>Tetrapturus audax</i>	9	0.1
<i>Longnose lancetfish</i>	<i>Alepisaurus ferox</i>	507	7.7
<i>Brilliant pomfret</i>	<i>Eumegistus illustris</i>	12	0.2
<i>opah</i>	<i>Lampris guttatus</i>	56	0.9
<i>Truncated sunfish</i>	<i>Ranzania laevis</i>	7	0.1
<i>Dealfish</i>	<i>Desmodema polystictum</i>	1	0.02
<i>Escolar</i>	<i>Lepidocybium flavobrunneum</i>	170	2.6
<i>Oilfish</i>	<i>Ruvettus pretiosus</i>	1	0.02
<i>Roudi escolar</i>	<i>Promethichthys prometheus</i>	1	0.02
<i>Sharptail sunfish</i>	<i>Masturus lanceolatus</i>	1	0.02

<i>Wahoo</i>	<i>Acanthocybium solandri</i>	131	2.0
<i>Dolphinfish</i>	<i>Coryphaena hippurus</i>	13	0.2
<i>Pelagic stingray</i>	<i>Dasyatis violacea</i>	74	1.1
<i>Black gemfish</i>	<i>Nesiarchus nasutus</i>	1	0.02
<i>Blue shark</i>	<i>Prionace glauca</i>	18	0.3
<i>Oceanic whitetip shark</i>	<i>Carcharhinus longimanus</i>	1	0.02
<i>Longfin mako</i>	<i>Isurus paucus</i>	1	0.02
<i>Silvertip shark</i>	<i>Carcharhinus albimarginatus</i>	1	0.02
<i>Shortfin mako</i>	<i>Isurus oxyrinchus</i>	8	0.1
<i>Silky shark</i>	<i>Carcharhinus falciformis</i>	1	0.02
<i>Snake mackerel</i>	<i>Gempylus serpens</i>	23	0.4
Other		31	0.5
Total		6539	100

Note: * indicate target species