INTER-AMERICAN TROPICAL TUNA COMMISSION

SCIENTIFIC ADVISORY COMMITTEE

TENTH MEETING

San Diego, California (USA)
13-17 May 2019

DOCUMENT SAC-10 INF-C(c)

NATIONAL REPORT 2018

REPUBLIC OF KOREA

National Institute of Fisheries Science (NIFS)
216 Gijang-Haeanro, Gijang-eup, Gijang-gun, Busan 46083, Rep. of Korea

Summary

The distribution of the Korean longline fishing effort was mainly formed in the area of 10N-10S and 120-145W. The total catch was 8,803 ton(provisional), which is the lowest catch since 2013, and bigeye tuna was the most dominant species, accounting for 65.9%. Silky shark recorded the highest catch (28 ton) among shark species, however, it did not exceed the allowable bycatch limit. No marine mammals, marine turtles and seabirds were caught and loaded on the deck.

1. Annual Fisheries Information

1.1. Fishing effort

The number of Korean tuna longline vessels operated in the IATTC convention area in 2018 was 69, which was slightly increased compared to the last 3 years. The number of fishing days and hooks were 8,498 days and 19,437 thousand hooks, respectively (**Table 1**).

The distribution of the Korean tuna longline fishing effort in 2018 was mainly formed in the area of 10N-10S and 120-145W (**Figure 1**).

1.2. Catch

The catch of tunas and tuna-like species caught by Korean tuna longline fishery in the IATTC convention area in 2018 was about 8,803 ton, which is the lowest catch since 2013, especially catches of bigeye tuna, swordfish and blue marlin were sharply decreased. The most

dominant species in 2018 were bigeye tuna, accounting for 65.9%, and followed by yellowfin tuna (11.9%), swordfish (7.0%), which were a little bit lower than 2017 except yellowfin tuna (**Table 2**).

The distribution of bigeye and yellowfin tunas in 2018 were shown in **Figure 2**. The areas which have higher density of both species are shown almost similar patterns.

1.3. Bycatch species

The most dominant shark species caught by Korean tuna longline fishery in the IATTC convention area in 2018 were silky shark, accounting for 45.2%, and followed by thresher sharks (27.4%) and hammerhead sharks (11.3%). Silky shark recorded the highest catch (28 ton) among shark species, however, it did not exceed the allowable bycatch limit in accordance with C-16-06. And most shark species catches have been largely decreased since 2016, and the total catch of shark species in 2018 was 62 ton, which is much lower than the average of the last 10 years.

No marine mammals, marine turtle and seabirds were caught and loaded on the deck.

2. Research and Statistics

2.1. Statistical data collection

Since 1st September 2015, the Act on Fisheries Information and Data Reporting has obliged fishers of distant water fisheries to report catch information to the National Institute of Fisheries Science (NIFS) in real time through the electronic reporting (ER) system. Since then, the coverage of data reporting by ER has remained at 100%. It includes data collection and reporting requirements recently adopted by the all tRFMOs regarding especially ecologically important species, discard/release and bycatch mitigation, etc.

2.2. Observer program

In 2018, 10 observers had been deployed on the Korean tuna longline vessels operating in the IATTC convention area and observed 379 days, which covered about 4% of total number of days at fished. Korean tuna longline fleets, as a distant water fishing nation, have many difficulties with observer's health and safety issues due to long-term voyages. However, Korea is doing its best to solve these problem in various ways through the observer priority assignment to vessels to be operated in the IATTC convention area.

Table 1. Annual fishing effort of Korean tuna longline fishery operated in the IATTC convention area, 2014-2018

	No. of vessel	Fishing days	No. of hooks(X1,000)
2014	83	10,287	22,727
2015	65	12,753	28,055
2016	64	10,407	23,250
2017	61	12,424	27,535
2018*	69	8,498	19,437

* Provisional data

Table 2. Catch by species of Korean tuna longline fishery in the IATTC convention area, 2008-2018

(unit : ton)

Year	BET	YFT	ALB	SKJ	SWO	BUM	MLS	BLM	SAI	BIL	SHK	OTH
2008	2,837	317	53	< 1	337	157	25	6	1	-	21	7
2009	4,538	528	52	2	705	301	23	8	1	-	118	30
2010	7,190	563	429	2	824	387	56	39	1	-	536	261
2011	5,462	673	391	2	847	261	60	28	1	-	613	228
2012	5,812	507	169	11	711	260	32	11	1	-	275	174
2013	8,007	852	493	4	1,348	678	74	26	1	-	740	332
2014	7,448	646	201	24	988	566	91	31	2	1	537	258
2015	9,640	1,117	316	45	1,389	710	87	108	2	22	342	308
2016	6,987	1,032	579	62	1,097	550	84	20	5	86	82	348
2017	7,628	1,045	560	40	998	514	62	12	5	72	102	395
2018*	5,805	1,048	576	34	619	379	51	20	3	40	62	166

※ BET : Bigeye tuna, YFT : Yellowfin tuna, ALB : Albacore tuna, SKJ : Skipjack tuna, SWO : Swordfish, BUM : Blue marlin, MLS : Stripe marlin, BLM : Black marlin, SAI : Sailfish, BIL : Billfishes, SHK : all sharks species included, OTH : Other tunas and fishes.

* Provisional data

Table 3. Catch by shark species of Korean tuna longline fishery in the IATTC convention area, 2008-2018

(unit : ton)

Year	BSH	FAL	SMA	SPN	THR	SHK
2008	-	-	-	-	-	21
2009	-	-	-	-	-	118
2010	< 1	-	< 1	< 1	-	535
2011	17	-	1	9	10	574
2012	26	< 1	2	10	36	201
2013	142	15	18	100	195	270
2014	155	12	9	55	187	118
2015	117	-	6	12	173	34
2016	5	5	2	9	48	13
2017	14	21	5	18	43	1
2018*	2	28	2	7	17	6

※ BSH : Blue shark, FAL : Silky shark, SMA : Shortfin mako shark, SPN : Hammerhead sharks, THR : Thresher sharks

* Provisional data

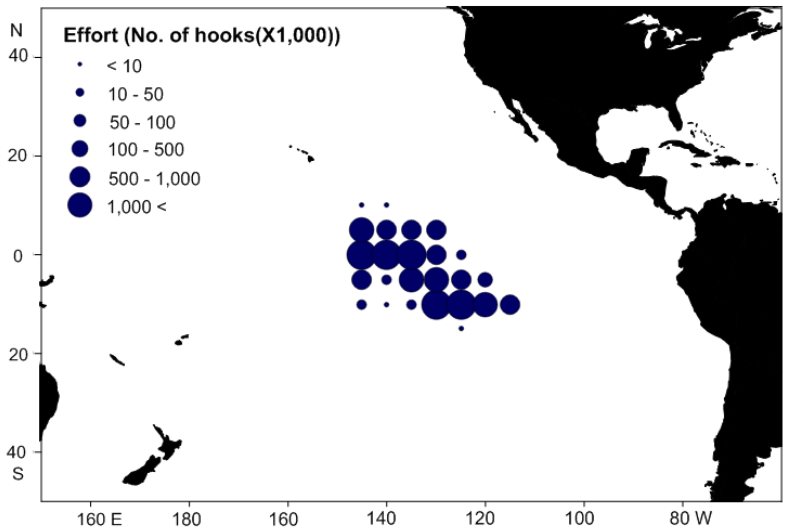

Figure. 1. Geographical distribution of the Korean tuna longline fishing effort (No. of hooks) in the IATTC convention area, 2018.

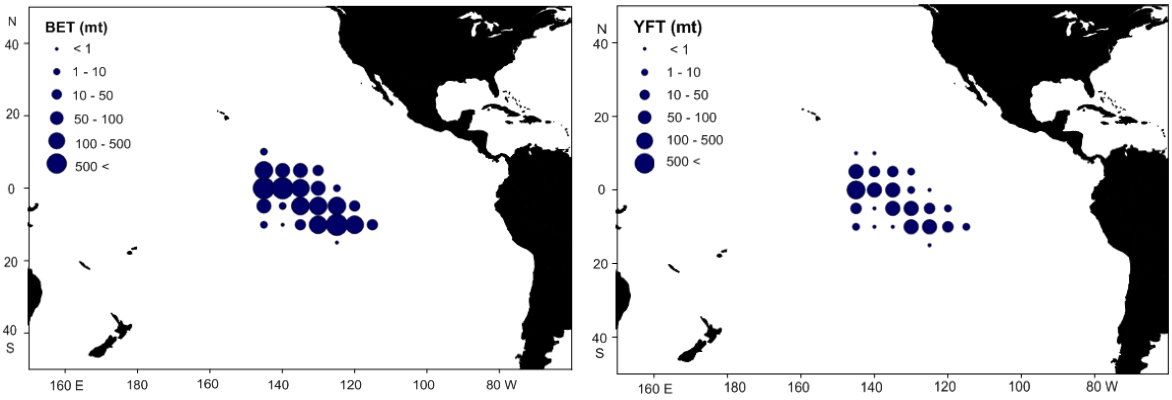

Figure. 2. Geographical distribution of bigeye (left) and yellowfin (right) tunas catch (in weight) by the Korean tuna longline fishery in the IATTC convention area, 2018.