2026 Annual Report to the Ecologically Related Species Working Group (ERSWG)

Republic of Korea

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1. Introduction

Korean longline fleets have engaged in fishing for southern bluefin tuna, *Thunnus maccoyii* (SBT) in the CCSBT convention area. This fishery commenced with a small experimental operation in the Indian Ocean in 1957, mainly fishing for bigeye tuna, yellowfin tuna and albacore tuna but shifted targeting SBT in 1991. In 2024, SBT catch in calendar year of Korean tuna longline fishery was 1,514 mt (1,514 mt in fishing year) with 9 active vessels. In general, fishing occurs between 35ºS-45ºS and 10ºE-120ºE, in the western Indian Ocean (Area 9) from April to July/August and in the eastern Indian Ocean (Area 8) from July/August to December. However, since 2014 SBT fishing vessels have moved westward than previous years, and mainly operated in the western Indian Ocean and eastern Atlantic Ocean between 20ºW-35ºE (Area 9). CPUE stayed relatively low until the early 2010s, and has increased since 2012. In general, the CPUE was higher in Area 9 than in Area 8. In particular, during 2017-2019 there has been no fishing in Area 8.

This paper describes information and data on Ecologically Related Species (ERS) caught by Korean longline vessels fishing for SBT, which have been collected by scientific observer program.

2. Review of SBT Fisheries

Korean longline vessels fishing for the SBT are all deep freezers with a range from 200 to 500 gross tonnage. After 1996 the annual number of fishing vessels has fluctuated between 4 and 19. Since 2010, annually 7 to 12 fishing vessels have operated for fishing SBT corresponding to the national quota allocated, and 9 vessels operated to fish for SBT in 2024 (Table 1).

SBT catch of Korean longline fisheries was less than 400 mt during the early phase of the fishery (1991-1995), increased up to 1,796 mt in 1998, but sharply decreased to below 200 mt in the mid-2000s. Korea became a member of the CCSBT Commission in 2001 and was allocated to 1,140 mt of annual catch limit as membership, although, until 2007, Korean SBT catches were much lower than the national catch limit. Since 2008 the annual catch ranged from 705 mt to 1,268 mt, which well commensurate with the national catch limit (Table 1). In 2024 calendar year, SBT catch by Korean longline fisheries was 1,514 mt (1,514 mt in fishing

year).

As for the distribution of SBT CPUE of Korean longline fisheries, fishing vessels generally operated between 35°S-45°S and 10°E-120°E, in the western Indian Ocean (10°E-50°E) of area 9 from April to July/August and in the eastern Indian Ocean (90°E-120°E) of area 8 from July/August to December. After 2014, however, they moved further westward than previous years, operating mainly in the western Indian Ocean and in the eastern Atlantic Ocean between 20°W-35°E.

3. Fisheries Monitoring for Each Fleet

Korea initiated a scientific observer program for distant-water fisheries in 2002 and has applied the program to the SBT longline fishery from 2004. The tasks of observers are the same as those adopted by the RFMOs. The recent observer coverages of Korean SBT longline fisheries are shown in Table 2. In 2024, 3 observers were placed onboard 3 longline vessels targeting SBT. They observed the SBT catch of 185 mt and the effort of 382×10^3 hooks in 192 sets in the fishing area, and the observer coverage was 21% in fishing efforts.

The data collected by the observer program are vessel and gear attributes, setting and catch details (including discards/releases), incidental catch and interaction of ERS (ecologically related species), biological measured information, sighting of marine mammals, etc.

In terms of data collection and reporting requirements, the Act on Fisheries Information and Data Reporting was revised and put into effect from December 2012. The revision includes data collection and reporting requirements recently adopted by the tuna RFMOs regarding ecologically important species, discard/release and bycatch mitigation, etc. Since 1st September 2015, the Act on Fisheries Information and Data Reporting has obliged fishers to report the catch statistics every day to National Institute of Fisheries Science (NIFS) through the Electronic Reporting (ER) system in order to manage/cross-check the data in real time.

SBT catch statistics are obtained from two sources of data reporting. Korea Overseas Fisheries Association (KOFA) collects total SBT catch by month and vessel through Catch Documentation Scheme (CDS) issued by National Fishery Products Quality Management Service (NFQS). NIFS collects logbook data through the ER system filled out by captain onboard. The data collected are verified and confirmed through cross-checking between NIFS and KOFA.

4. Seabird

Total bycatch, CPUE and mortality of seabirds by species incidentally caught by Korean SBT longline fisheries are shown in Table 3. In 2023, a total of 18 individuals belonging to 4 species, i.e., grey-headed albatross (*Thalassarche chrysostoma*), black-browed albatross (*Thalassarche melanophrys*), buller's albatross (*Thalassarche bulleri*) and southern royal albatross (*Diomedea epomophora*), were recorded by the Korean observer program for Korean SBT longline fisheries. In 2024, a total of 15 individuals belonging to 7 species, i.e., black-browed albatross (*Thalassarche melanophrys*), wandering albatross (*Diomedea exulans*), black-footed albatross (*Phoebastria nigripes*), sooty albatross (*Phoebetria fusca*), great shearwater (*Puffinus gravis*), king penguin (*Aptenodytes patagonicus*) and royal penguin (*Aptenodytes forsteri*), were recorded by the Korean observers.

5. Shark

Total bycatch, CPUE and mortality of sharks by species incidentally caught by Korean SBT longline fishery are shown in Table 3. In 2023, a total of 4,138 individuals belonging to 7 species, i.e., blue shark (*Prionace glauca*), shortfin mako (*Isurus oxyrinchus*), salmon shark (*Lamna ditropis*), porbeagle (*Lamna nasus*), velvet dogfish (*Scymnodon squamulosus*), crocodile shark (*Pseudocarcharias kamoharai*) and silky shark (*Carcharhinus falciformis*), were recorded by the Korean observer program for Korean SBT longline fisheries. In 2024, a total of 2,344 individuals belonging to 7 species, i.e., blue shark (*Prionace glauca*), velvet dogfish (*Scymnodon squamulosus*), porbeagle (*Lamna nasus*), shortfin mako (*Isurus oxyrinchus*), whitetail dogfish (*Scymnodalatias albicauda*), crocodile shark (*Pseudocarcharias kamoharai*) and salmon shark (*Lamna ditropis*), were recorded by the Korean observers.

The sharks mainly bycaught by Korean SBT longline fisheries were blue shark, porbeagle, shortfin mako, salmon shark and velvet dogfish, of which the dominant species was blue shark.

6. Marine Mammal and Marine Reptile

No marine mammal or reptile were caught by Korean SBT longline fisheries during 2023-2024. Observers also reported that marine mammal or reptile were not caught incidentally by Korean SBT longline fisheries.

7. Mitigation Measures to Minimise Seabird and Other Species Bycatch

7.1. Mandatory Measures

According to the conservation and management measures on reducing seabird bycatch adopted by the tuna-RFMOs (ICCAT, IOTC and WCPFC), Korean longline fisheries operating south of 25ºS are obligated to use 2/3 options (night setting, seabirds scaring line and weighted line).

For compliance monitoring, Korea has implemented the scientific observer program and the ER system that fishermen should record not only catch information but also seabird mitigation measures used.

Korea has fully implemented ERS mitigation measures, and most of the fishing vessels have used seabirds scaring line and weighted line for mitigating the mortality of seabirds.

7.2. Voluntary Measures

To mitigate the impact of fishing operations on marine reptiles, Korean tuna longline fisheries have to retain and use necessary equipment, including de-hooking, line cutting tools and scoop nets, for appropriate release of marine reptiles caught incidentally and non-target shark species. The measures implemented are monitored through the observer program.

8. Public Relations and Education Activities

To avoid or reduce mortality of ERS by Korean longline vessels, guidebooks, booklets and posters on general information and safe release of these species have been distributed to fishing vessels since 2007. NIFS has conducted regular education sessions for vessel captains, and captains should make a visit to the Korean Tuna Longline Fishing Association prior to their fishing trip. The education largely includes recording and reporting of fishing activity,

information of target species and ERS, newly adopted measures and better practices from tuna RFMOs concerned.

To increase awareness of seabirds, especially albatrosses, and their conservation, NIFS and BirdLife South Africa hosted an education workshop on the use of best practice seabird bycatch mitigation measures for fishermen in Korea, 2018.

9. Implementation of the IPOA-Seabirds and IPOA-Sharks

Korea established and has implemented the NPOA-Sharks since August 2011, and the NPOA-Seabirds was established in January 2014.

Annex 1

Summary of papers submitted to ERSWG

In 2024, the number of active vessels was 9 for longline fishery. With this fishing capacity, Korean tuna longline fishery caught 1,514 mt in 2024 calendar year. In general, fishing occurs between 35°S-45°S and 10°E-120°E, in the western Indian Ocean (Area 9) from April to July/August and in the eastern Indian Ocean (Area 8) from July/August to December. However, since 2014 SBT fishing vessels have moved further westward than previous years, and mainly operated in the western Indian Ocean and eastern Atlantic Ocean between 20°W-35°E (Area 9). Since 2012 the CPUE has increased. In general, the CPUE in Area 9 is higher than in Area 8. During 2023-2024, 3 observers were placed onboard 3 longline vessels every year.

The data collected by the observer program are vessel and gear attributes, setting and catch details (including discards/releases), incidental catch and interaction of ERS (ecologically related species), biological measured information, sighting of marine mammals, etc. The sharks mainly bycaught by Korean SBT longline fisheries were blue shark, porbeagle and shortfin mako, of which the dominant species was blue shark.

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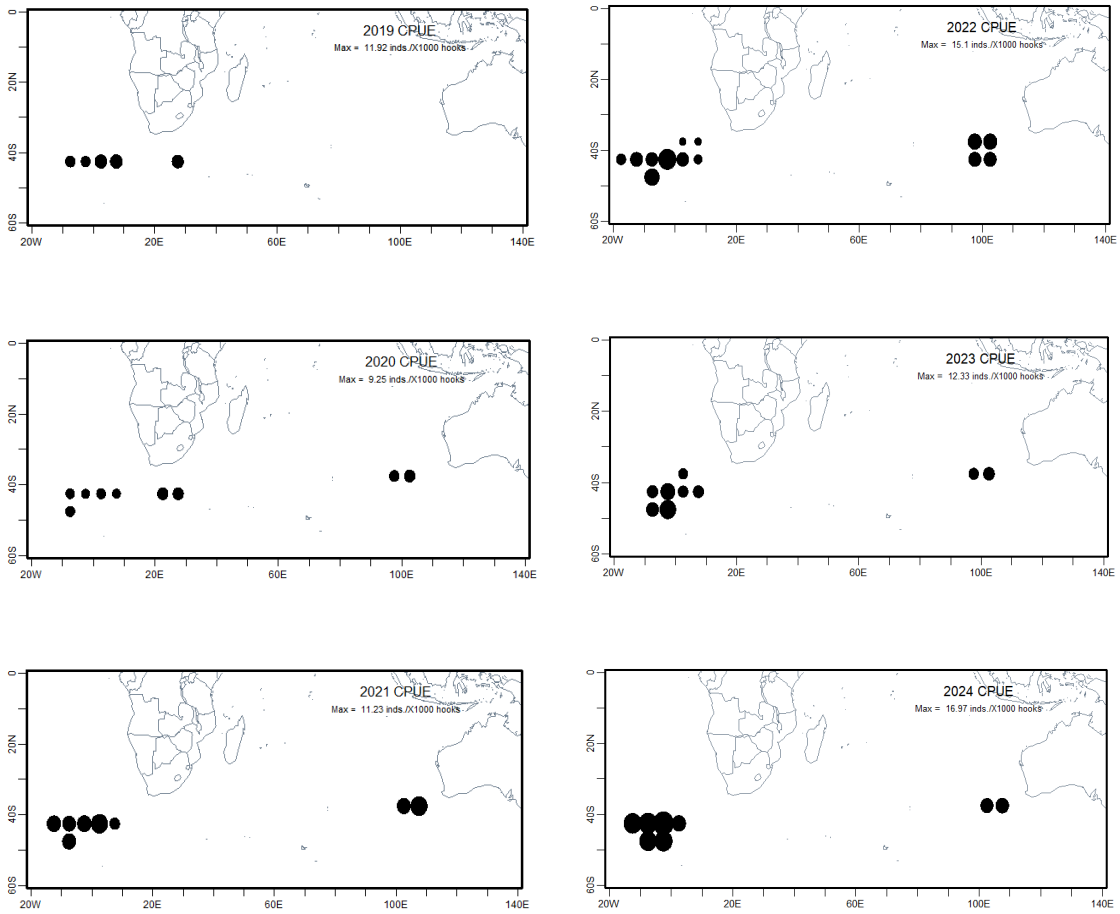


Fig. 1. The distributions of nominal SBT CPUE of Korean longline fisheries, 2019-2024.

Table 1. The annual number of active Korean tuna longline vessels fishing for SBT and their annual SBT catches in the CCSBT convention area, 1991-2024

Year	Number of longline vessel	Catch (mt)	Year	Number of longline vessel	Catch (mt)
1991	3	246	2008	19	1,134
1992	1	41	2009	19	1,117
1993	1	92	2010	9	867
1994	1	137	2011	7	705
1995	3	365	2012	7	922
1996	8	1,320	2013	9	918
1997	14	1,424	2014	9	1,044
1998	19	1,796	2015	10	1,051
1999	16	1,462	2016	11	1,121
2000	13	1,135	2017	12	1,080
2001	10	845	2018	10	1,268
2002	10	746	2019	11	1,238
2003	4	254	2020	9	1,231
2004	7	131	2021	9	1,241
2005	7	38	2022	9	1,173
2006	9	150	2023	9	1,305
2007	12	521	2024	9	1,514

Table 2. Observer coverage for the Korean SBT fisheries through the Korean observer program, 2020-2024

Year	Trips observed	Effort observed (×1,000)	Total effort estimated (×1,000)	Catch observed of SBT (mt)	Coverage (%)
2020	-	-	2,395	-	-
2021	-	-	2,608	-	-
2022	2	543	2,413	168	23
2023	3	501	2,478	249	20
2024	3	382	1,854	185	21

* During 2020-2021, observers were not placed onboard Korean longline vessels targeting SBT due to the spread of the COVID-19.

Table 3. Estimation of total mortality of ERS caught incidentally by Korean SBT fisheries, 2023-2024

Country Republic of Korea Year (calendar year) 2023

		Total & Observed Effort[1]				Observed Captures				Proportion of observed effort with specific mitigation measures								
Stratum (*CCSBT Statistical Areas or finer scale*)	Human Observer / EM[2]	Total Effort[3]	Total Observed Effort[3]	Observer Coverage[4]	Species[5]	Fate (*numbers*)				TP + NS[6]	TP + WB[6]	NS + WB[6]	TP + WB + NS[6]	TP[6]	NS[6]	WB[6]	NIL	Others[7]
						Retained (dead)	Discarded (dead)	Released (live)	Other[8]									
9	Human Observer	2,275,094	500,830	22%	BSH	-	1,330	1,726	-		100							
9	Human Observer	2,275,094	500,830	22%	DIB	-	1	-	-		100							
9	Human Observer	2,275,094	500,830	22%	DIC	-	11	-	-		100							
9	Human Observer	2,275,094	500,830	22%	DIM	-	5	-	-		100							
9	Human Observer	2,275,094	500,830	22%	DIP	-	1	-	-		100							
9	Human Observer	2,275,094	500,830	22%	FAL	-	-	2	-		100							
9	Human Observer	2,275,094	500,830	22%	LMD	-	335	27	-		100							
9	Human Observer	2,275,094	500,830	22%	POR	-	7	103	-		100							

[1] Values in these shaded cells will be repeated for all species within a strata.
[2] Use codes OBS = Human observers, EM = Electronic monitoring. The ERSWG recognised that there was no agreement that EM replace the requirement for 10% observer coverage, and that the proposed inclusion of the option to report on EM results was not intended to imply any such agreement but only to clarify the source of any data that were reported.
[3] For longline provide number of hooks, for purse seine provide number of sets.
[4] For longline provide as a percentage of the number of hooks, for purse seine provide as a percentage of the number of shots.
[5] Use FAO's 3 alpha species codes.
[6] TP = tori poles, NS = night setting, WB = weighted branchline.
[7] Add extra columns for other categories of mitigation measures, if required.
[8] All other captures not included in the columns for Retained (dead), Discarded (dead), and Released (live), e.g. released with undetermined life status.

9	Human Observer	2,275,094	500,830	22%	PSK	-	1	15	-		100							
9	Human Observer	2,275,094	500,830	22%	SMA	-	3	512	-		100							
9	Human Observer	2,275,094	500,830	22%	SSQ	-	17	60	-		100							
TOTAL		2,478,341	500,830	22%		-	1,711	2,445	-									

Table 3. Continued

Country __Republic of Korea_____ Year (calendar year) __2024_____

		Total & Observed Effort				Observed Captures				Proportion of observed effort with specific mitigation measures								
Stratum (*CCSBT Statistical Areas or finer scale*)	Human Observer / EM	Total Effort	Total Observed Effort	Observer Coverage	Species	Fate (*numbers*)				TP + NS	TP + WB	NS + WB	TP + WB + NS	TP	NS	WB	NIL	Others
						Retained (dead)	Discarded (dead)	Released (live)	Other									
9	Human Observer	1,897,723	381,854	20%	BSH	-	181	1,715	-		100							
9	Human Observer	1,897,723	381,854	20%	DIM	-	4	-	-		100							
9	Human Observer	1,897,723	381,854	20%	DIX	-	4	-	-		100							
9	Human Observer	1,897,723	381,854	20%	DKN	-	1	-	-		100							
9	Human Observer	1,897,723	381,854	20%	KFY	-	-	1	-		100							
9	Human Observer	1,897,723	381,854	20%	KPY	-	3	-	-		100							
9	Human Observer	1,897,723	381,854	20%	LMD	-	-	7	-		100							
9	Human Observer	1,897,723	381,854	20%	PHU	-	1	-	-		100							
9	Human Observer	1,897,723	381,854	20%	POR	-	53	79	-		100							
9	Human Observer	1,897,723	381,854	20%	PSK	-	-	9	-		100							
9	Human Observer	1,897,723	381,854	20%	PUG	-	-	1	-		100							
9	Human Observer	1,897,723	381,854	20%	SMA	-	12	57	-		100							

9	Human Observer	1,897,723	381,854	20%	SSQ	-	35	178	-		100							
9	Human Observer	1,897,723	381,854	20%	YSA	-	4	14	-		100							
TOTAL		1,897,723	381,854	20%		-	298	2,061	-									