

**Annual Review of SBT Fisheries for the Annual
Meeting of the Extended Commission**

Korea

2012

**Ministry for Food, Agriculture,
Forestry and Fisheries**

1. Introduction

Korean-flagged commercial longliners with distant water fishing licenses have been catching Southern Bluefin Tuna (SBT) since 1991 and the species was introduced into the Quota Management System (QMS) of the CCSBT in 2001, when Korea became a member of the CCSBT.

Under the QMS, the Korean government allocates the national quota to companies, which then distribute their allocations among their vessels and the allocations can be transferred if any company is not able to exhaust its share. This allocation system is designed to prevent a race for fish. Korea's SBT catch limit for the 2011/2012 fishing year was 849 tons. The final SBT catch of Korea for 2011/2012 is about 737 tons.

Korea's administrative fishing season for SBT begins on April 1st and ends on March 31st, but most of the operation is usually finished before around December. Currently, only four fisheries companies are engaged in the SBT fishery with a total of 19 large-scale longliners, which also catch albacore, yellowfin and bigeye tuna. During the fishing season of 2011/2012 (from April 1, 2011 to March 31, 2012), only 7 of them participated in SBT fishing.

2. Operational Constraints on Efforts

Voluntary Measures

Until a few years ago, there were as many as 19 vessels participated in SBT fisheries. However, in 2010, when Korea's national allocation was reduced, the Korean fisheries authorities took voluntary measures to reduce SBT vessels to nine, and subsequently to seven in 2011.

Regulatory Measures

The Distant Water Fisheries Development Act of Korea provides the legal grounds for the government to regulate Korean-flagged distant water fishing vessels, including those which are engaged in the SBT fishery on high seas.

In accordance with the Act, all vessels that operate on high seas shall comply with international conventions, recommendations, resolutions and conservation and management measures. Terms and conditions such as catch reporting and transshipment

requirements are attached to high seas fishing licenses to regulate the activity of the license holders. Catch and effort data, landings, monthly catches and interactions with ERS species are subject to the reporting. Additionally, SBT fishing vessels are required to provide their monthly, ten-day and daily catch reports to the authorities.

The Distant Water Fisheries Development Act prohibits direct and indirect involvement of Korean-flagged vessels in IUU fishing activities. To ensure this, the Act stipulates that all vessels operating on distant waters of the high seas should be equipped with vessel monitoring systems (VMS) and cooperate with the on-board inspection by national and international inspectors. Any breaches of the law including quota overruns are subject to penalties and suspension of the vessel operation.

All Korean-flagged vessels engaged in the SBT fishery conduct their operation on high seas. No Korean-flagged vessel can conduct SBT operations unless it meets certain requirements. They are required to be registered to the Korean Vessel Registry, to hold distant water fishing licenses issued by the authorities and to adhere to the catch limit allocated to them.

An additional domestic catch reporting requirements are in place to ensure Korean-flagged vessels' compliance with the CCSBT resolutions. These requirements are applied to landing, transshipping and/or exporting SBT. The Trade Information Scheme was introduced in 2009 and the Catch Documentation Scheme (CDS) entered into force as from 1 January 2010.

3. Catch and Effort

Catch

Korea's SBT fishing operations usually starts in April and ends in December, though the administrative fishing season is from April 1st to March 31 of the subsequent year. During the first half of the fishing season, which is from April to July or August, Korean longliners usually fish on high seas of the western Indian Ocean off South Africa with a few occasional trips to the southeastern Atlantic. During the second half, they move to the eastern Indian Ocean off Western Australia. This SBT fishing pattern and the fishing grounds have rarely changed for the past 20 years with an exception of year 1991.

The annual catches of SBT from 1991 to 2011 (calendar year) appear in Table 1 below. It reached a peak in 1998, and then kept decreasing until 2005, after which the catch

show increases again.

Table 1. The annual number of active Korean lonline vessels fishing for SBT and their annual SBT catches in CCSBT convention area, 1991-2010 (calendar year)

Year	No. of vessels	Catch (mt)	Year	No.of vessels	Catch (mt)
1991	3	214	2002	10	649
1992	1	36	2003	4	221
1993	1	80	2004	7	114
1994	1	119	2005	7	33
1995	3	317	2006	9	130
1996	8	1,148	2007	12	453
1997	14	1,238	2008	19	987
1998	19	1,562	2009	19	1,014
1999	16	1,271	2010	9	867
2000	13	987	2011	7	705
2001	10	735			

* Catch unit : RD weight in mt

** Except the year of 2011, Korea's catch of the calendar year is same as the catch of the fishing season.

Effort

The National Fisheries Research and Development Institute (NFRDI) collects log sheet sampling data from vessels. The log sheet indicates fishing location, catches by species, the number of hooks used, and other relevant operational data. In accordance with the Distant Water Fisheries Development Act, fishing vessels are obliged to submit their log sheets and biological data of their catches to the NFRDI upon returning to home ports. In 2011, the log sheets were reported electronically by months and the hard copies of the logbooks were submitted to the NFRDI as soon as fishing operations ended. During the fishing season of 2011/2012 seven Korean-flagged vessels participated in the SBT fishing and caught 737,152 Kg against 848,914 Kg. About 111,762 Kg of the Korean allocation was not used.

The SBT catch distribution of 2011 in terms of CPUE is mapped in Figure 1. This map indicates that the fishing was operated mainly off the eastern part of South Africa and off Western Australia.

Fig. 1. The CPUE distribution of Korean longlines targeting SBT by year and by area, 2006-2011

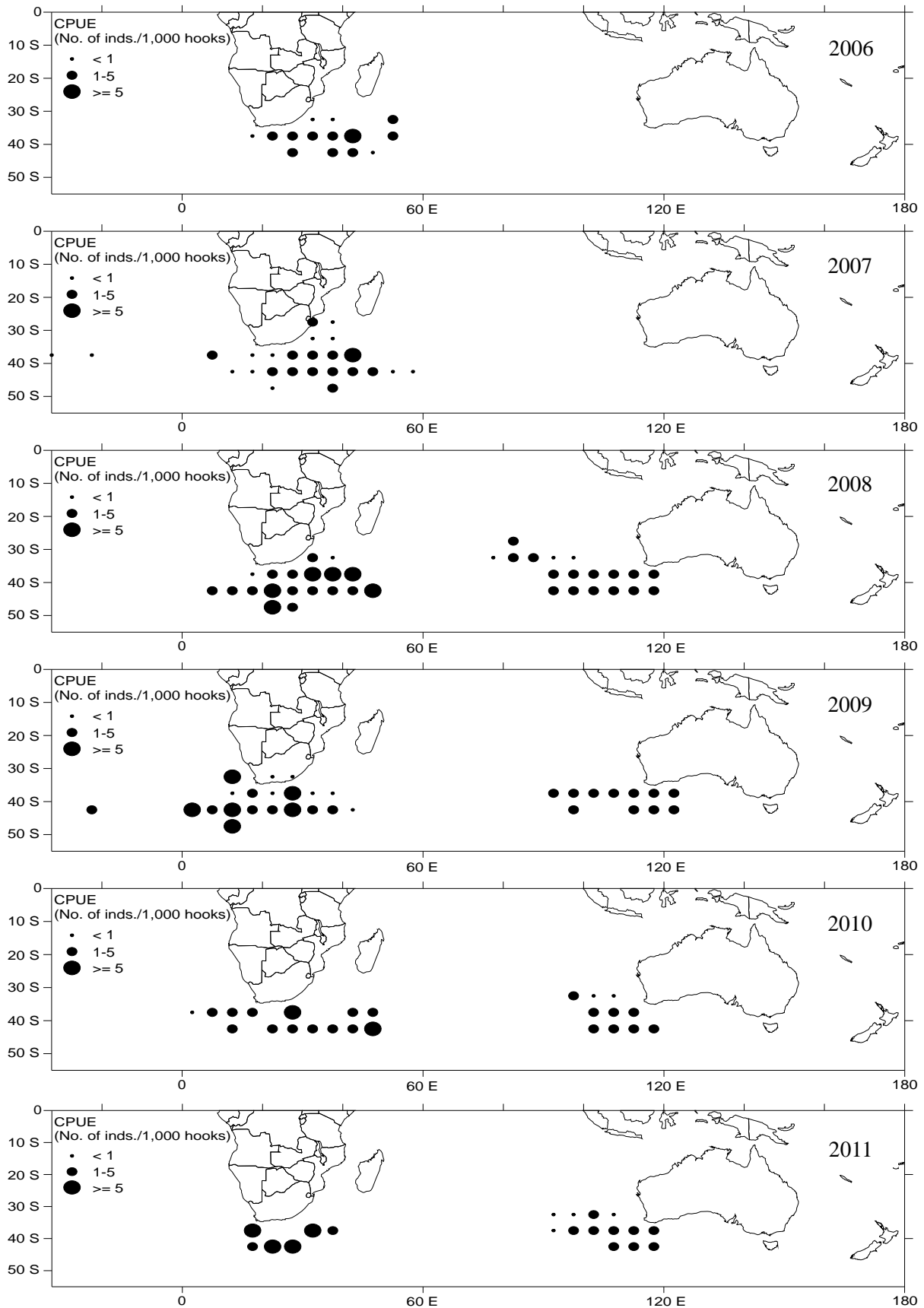


Table 2. The catch of SBT and the effort of Korean longline vessels targeting SBT by year and area, 2006-2011

Year	Total			Area 2			Area 8			Area 9			Others		
	No. of inds.	No. of hooks ($\times 10^3$)	CPUE	No. of inds.	No. of hooks ($\times 10^3$)	CPUE	No. of inds.	No. of hooks ($\times 10^3$)	CPUE	No. of inds.	No. of hooks ($\times 10^3$)	CPUE	No. of inds.	No. of hooks ($\times 10^3$)	CPUE
2006	3,737	1,437	2.60	-	-	-	-	-	-	3,722	785	4.74	15	651	0.02
2007	6,689	3,391	1.97	-	-	-	-	-	-	6,615	2,696	2.45	74	695	0.11
2008	16,853	4,972	3.39	607	229	2.64	6,926	2,597	2.67	9,301	1,798	5.17	19	347	0.05
2009	19,789	5,962	3.32	0	3	0.00	4,348	2,142	2.03	15,269	3,501	4.36	172	315	0.55
2010	6,689	2,068	3.23	82	95	0.86	2,834	1,062	2.67	3,773	910	4.14	-	-	-
2011	8,415	2,489	3.38	39	60	0.65	4,430	1,928	2.30	3,946	501	7.88	-	-	-

* Catch and effort compiled from logbook.

Fig. 2. The total catch of SBT and the number of Korean active longline vessels targeting SBT, 1991-2011

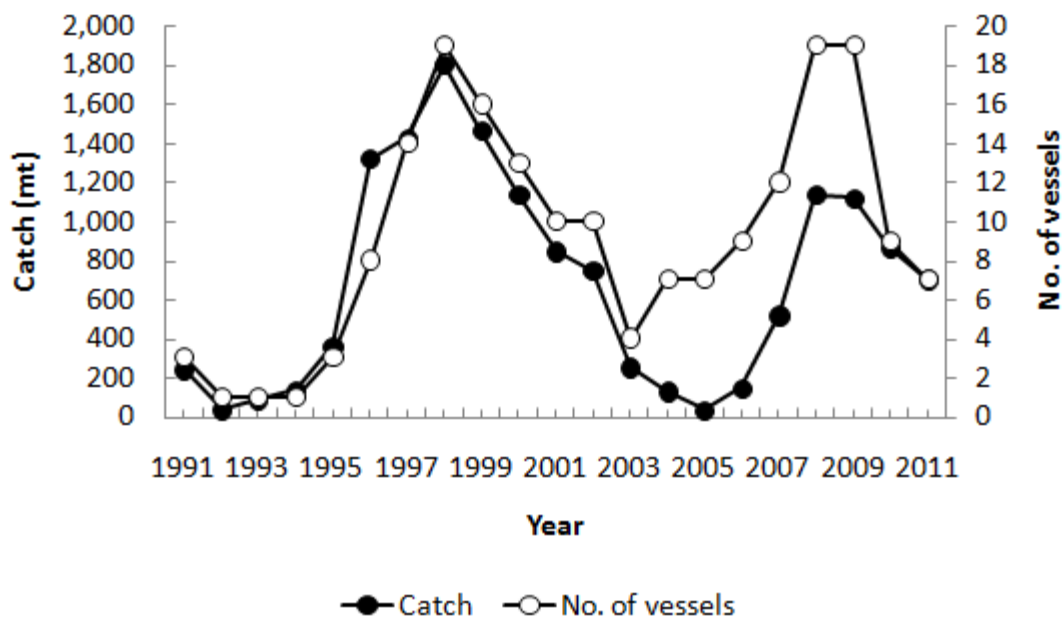
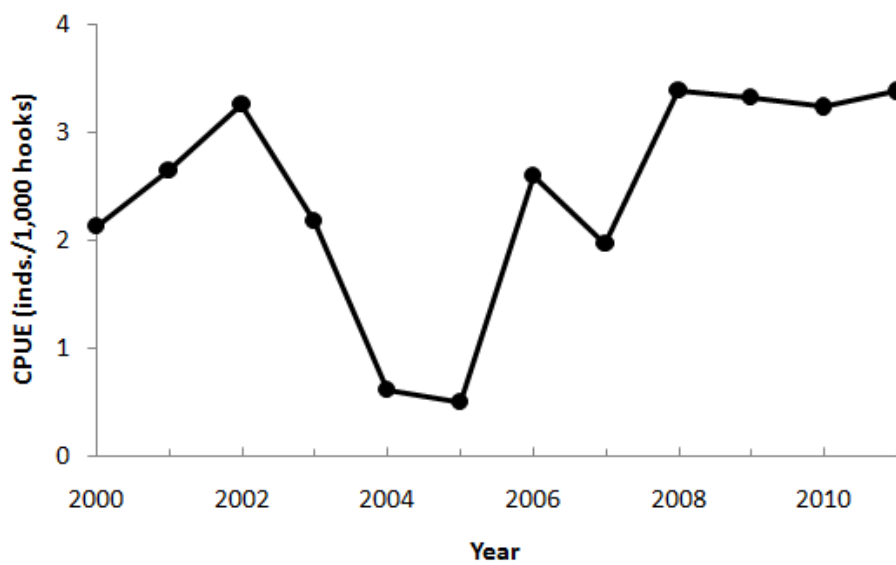


Fig. 3. The SBT catch (number of fish) and fishing effort (number of hook) compiled from Korean longline vessel logbooks, 2000-2011..



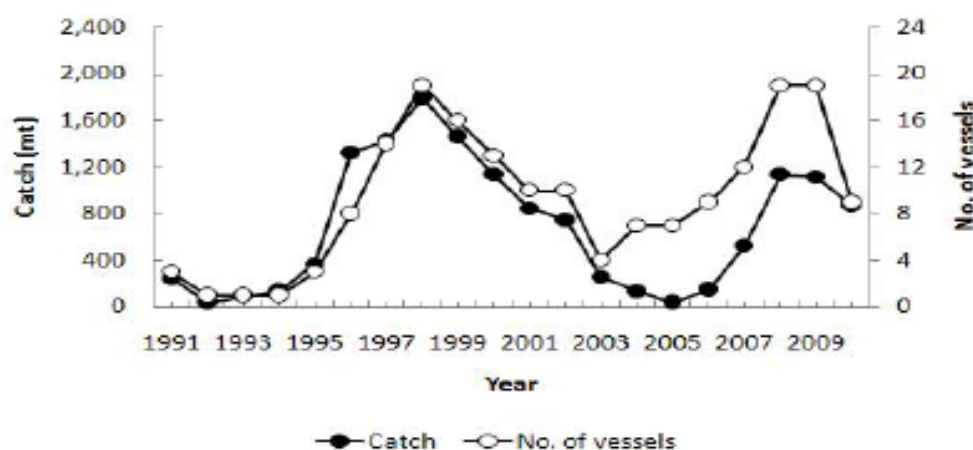
Fig. 4. The nominal CPUE series of Korean SBT longline vessel targeting SBT form 2000 to 2011



4. Historical Catch and Effort

Korean SBT fisheries started in 1991 with three longliners operating in tropical waters where they targeted albacore, bigeye and yellowfin tunas. SBT had not been one of the species of interest before the early 1990s, when the value of the species in the high-end sushi and sashimi market began to be recognized. Consequently, the number of longliners sharply increased to 19 vessels in 1998. Since then, the annual fleet size has stayed more or less the same with the voluntary regulation of the Korea Overseas Fishing Association (KOFA). In general, the annual number of active vessels engaged in the SBT fishery largely depends on the Japanese market trends and exchange rate of the money. The graph below shows the total catch of SBT and the number of active vessels targeting SBT from 1991-2010.

Figure 5. the total catch of SBT and the number of active vessels targeting SBT from 1991-2010.



5. Annual Fleet Size and Distribution

All nineteen vessels authorized to fish SBT are longliners over 40 meters in length and over 350 gross tons. The table below shows the changes in the number of vessels engaged in the SBT fishery from 1991 to 2011.

Table 3. Changes in the number of vessels engaged in the SBT fishery from 1991 to 2011.

Year	1991	1992 - 1994	1995	1996	1997	1998
vessels	3	1	3	8	14	19
Year	2001 - 2002	2004 - 2005	2006	2007	2008-2009	2010-2011
vessels	10	7	9	12	19	9

6. Historical Fleet Size and Distribution

Refer the provision 5 above

7. Fisheries Monitoring

In 2011, observers were not placed on board of SBT vessels due to the lack of trained observers. However, efforts were made to train crew members to collect data on catches and bycatch. Based on logbook data, relevant scientific reports were made. As for transshipments, there were three rounds of at-sea transshipment in 2011, all of which were monitored by transshipment observers dispatched from the IOTC Secretariat. As for landing, an inspection team traveled to landing ports to conduct physical inspections on the landing as part of the process to go through before issuing catch documents.

7. Other Factors(SBT Export/Re-export / Import/Re-import Statistics)

(Export/Re-export)

Category	Country	2010		2011		end of June, 2012	
		No. of cases	Quantity(kg)	No. of cases	Quantity(kg)	No. of cases	Quantity (kg)
(aggregated total export+ re-export)		29	973,969.2	12	583,594.4	6	379,783
Export	total	25	957,591	10	563,044.4	6	378,378
	Japan	25	957,591	10	563,044.4	6	378,378
Re-export	total	4	16,378.2	2	20,550	1	1,405
	Japan	4	16,378.2	2	20,550	-	-
	China	-	-	-	-	1	1,405

(Import/Re-Import)

Category	Country	2010		2011		end of June, 2012	
		No. of cases	Quantity(kg)	No. of cases	Quantity(kg)	No. of cases	Quantity (kg)
aggregated total (import + re-import)		102	104,715	117	146,052.2	76	40,524.2
Import	total	101	99,866	36	64,959.4	21	7,466.4
	Japan	20	37,283	1	120	-	-
	Australia	64	33,101	2	49,705.4	-	-
	Indonesia	17	29,482	33	15,134	21	7,466.4
Re-import	total	1	4,849	81	81,092.8	55	33,057.8
	Japan	-	-	81	81,092.8	55	33,057.8
	Chinese Taipei	1	4,849				

(Markets)

As given in the sections of the Import/Re-import and Export/Re-export, SBT market has emerged since 2010. Almost all the SBTs caught by Korean vessels are exported to Japanese market and some of them are going to the Chinese market. Korea imported SBT mainly from Indonesia in 2010 and 2011.

(Mitigation)

As part of the efforts to mitigate seabird, shark and marine mammal bycatch, MIFFAF and the NFRDI have published guidebooks, information booklets and posters on bycatch species and relevant mitigation measures. The published materials have been distributed to all longline vessels fishing for tuna and tuna-like species, including SBT, to assist fishers in identifying and recording the species frequently taken as bycatch and to raise their awareness on the importance of bycatch reduction.

(ERS interactions)

Please refer to the “Mitigation” above.