

## National report of Korea to the SPRFMO Science Working Group

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### 1. Description of the fishery

#### 1.1 Jack mackerel fishery

Korean trawl fishery targeting for jack mackerel was commenced in 2003 for the scientific research survey by R/V Tamgu No. 1 and two commercial mid-water trawl vessels. Since then the Korean jack mackerel fishery has operated in this fishing ground until recent years. The numbers of fishery vessels were 2-3 vessels during last five years (Table 1).

Table 1. Number of vessels and size for jack mackerel fishery in the SPRFMO area

Years	Number of vessels	Gross registered Tonnage		
		2,000-2,999	3,000-3,999	4,000-4,999
2004	3	1	1	1
2005	2	1	1	-
2006	3	1	1	1
2007	3	1	1	1
2008	3	1	1	1

#### 1.2 Bottom fishery

Korean bottom trawl fisheries were operated in high seas by 1-2 vessels during last five years (Table 2).

Table 2. Number of vessels and size for bottom fishery in the SPRFMO area

Years	Number of vessels	Gross registered Tonnage		
		600-699	700-799	800-899
2004	2	1	-	1
2005	-	-	-	-
2006	1	-	-	1
2007	1	-	-	1
2008	-	-	-	-

## 2. Catch, effort and CPUE summaries

Annual catches of jack mackerel by the Korean jack mackerel fishery have increased gradually from 7,400 ton in 2004 to 12,000 ton in 2008. Table 3 and 4 represents annual catches for the Korean fleets during the past five years in the SPRFMO area.

Table 3. Catches and efforts for jack mackerel fishery in the SPRFMO area

Years	Number of fishing days	Catches (ton)	CPUE (ton/hr)
2004	205	7,438	3.88
2005	170	9,126	5.69
2006	232	10,474	5.01
2007	237	10,940	5.18
2008	249	12,600	5.98

Table 4. Annual catches for bottom fishery in the SPRFMO area

Years	Number of fishing days	Catches (ton)	Orange roughy (ton)	Others
2004	51	143.8	137.9	5.9
2005	-	-	-	-
2006	32	83.1	77.2	5.9
2007	29	48.8	44.2	4.4
2008	-	-	-	-

## 3. Fisheries data collection and research activities

Official catches by distant-water fishery is obtained from two sources of data reports. Korea Overseas Association (KOFA) collects total catches by gear type from Korean distant-water fishery industries, which are used as our official total catch. National Fisheries Research and Development Institute (NFRDI) collects logbook data from vessels. The logbook contains location, catches by species and effort data, etc. It is current domestic regulation that distant-water fishery vessels are obliged to report their catch statistics to NFRDI when they returns to home based port.

NFRDI introduces a new logbook in recent year for collection bycatch species data and VME encounters data.

### 3.1 Data collection by captain

Each commercial vessel of distant-water fisheries submits the "Catch Report and Biological Report (logbook)" which recorded data on vessel, fisheries and biological information by domestic regulation (Fig. 1). The data provided by captain were input to the statistical DB system for Korean official catch.

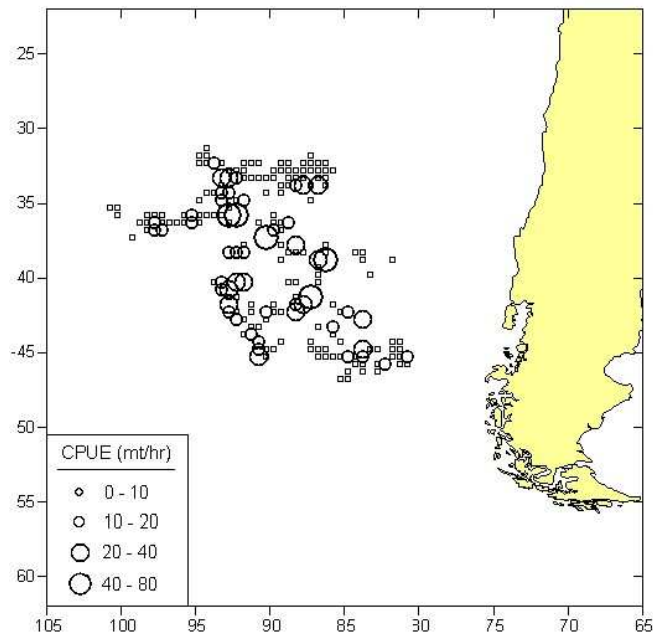


Fig. 1. Distribution of Korean jack mackerel fishing ground in the SPRFMO area in 2008.

### 3.2 Data collection by observer at sea

For the analysis of the biological characteristics for jack mackerel, fork length, body weight, sex and reproduction indices have been collected from the commercial vessels.

## 4. Biological sampling and length/age composition of catches

Biological sampling for mid-water trawl catch has been carried out by on-board observer to obtain size data and information on reproductive biology of jack mackerel. A total of 344 jack mackerel were sampled for size frequency and GSI index during 2008. The range of fork length were 31-45 cm (mean 36.9 cm) for female and 33-49 cm (mean 38.8 cm) for male, respectively (Fig. 2).

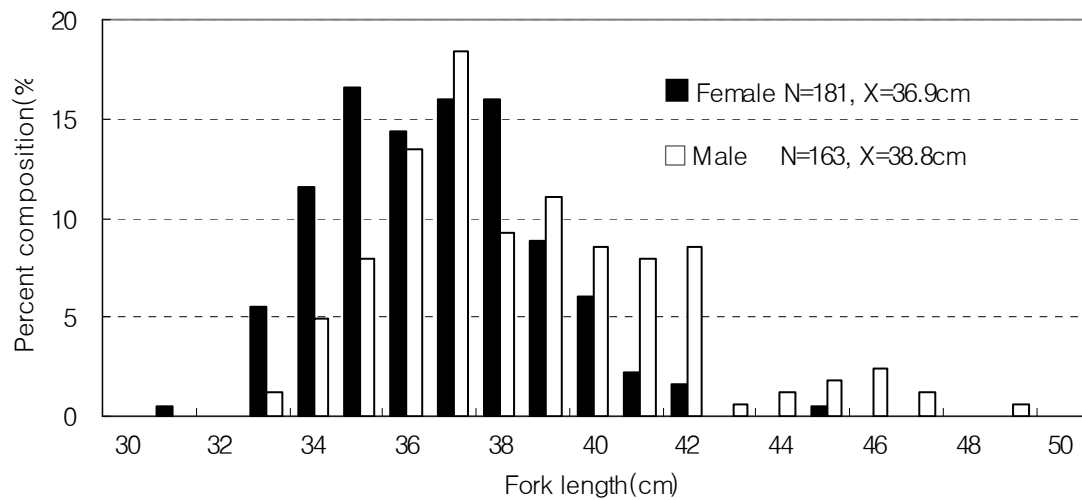


Fig. 2. Length distribution of jack mackerel caught by Korean fleets in the SPRFMO area in 2008.

#### 5. Summary of observer and port sampling programmes

Korea began to develop observer program for distant-water fisheries in 2002. The purpose of this program is to meet the requirements of relevant regional fisheries bodies and therefore the mission of trained observers are similar to those set out in the convention of the fisheries bodies. Three Korean vessels operated (10 tows during 9 days) in the SPRFMO area in 2008. Scientific observers were deployed on these trips and observer coverage of fishing efforts was 4% of tows.