

National Report of Chinese Taipei to SPRFMO Scientific Working Group on the Squid Jigging Fishery in the South Pacific Ocean

1. Description of Fishery

Taiwanese squid jiggers started exploring jumbo flying squid (*Dosidicus gigas*) in the waters off Peru in 1992. However, as the taste of jumbo flying squid appeared to be sour, its commercial value was low for processing, and there was no fishing activity after the exploratory operation. Poor catch of Argentine shortfin squid (*Illex Argentinus*) in the Southwest Atlantic Ocean in 2000 and 2001 triggered 18 jiggers to restart seasonal fishing in the Southeast Pacific Ocean (SEPO) in 2002 after the *Illex* fishing season in the Southwest Atlantic Ocean which runs from June to September, is over. The number of fishing vessel reached an historical high of 29 in 2004, reducing to a level below 20 after 2004 and maintaining at 13 in 2007 and 2008 (Figure1).

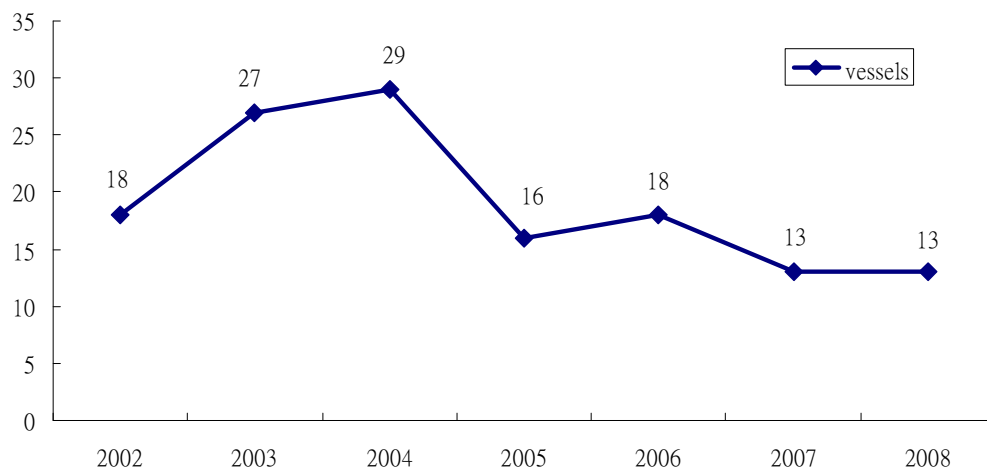


Figure 1. Numbers of active squid jigger operating in SEPO from 2002 to 2008.

Figure2 shows the fishing days deployed by month by Chinese Taipei fleet in 2008, and it was noted that there was no significant seasonal pattern.

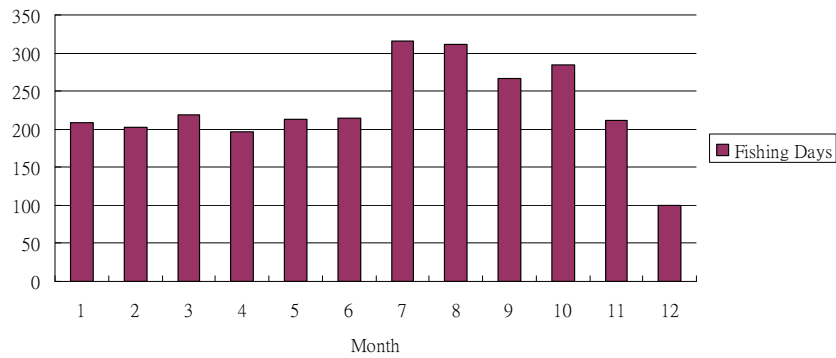


Figure 2. Monthly fishing days of Chinese Taipei fleet deployed in SEPO in 2008.

Beginning from 2007, some fishing vessels had changed their fishing patterns and started operating in this area all year round without shifting to other fishing grounds. In 2008, the number of fishing vessels remained in SEPO all year round for fishing jumbo flying squid increased (Figur3).

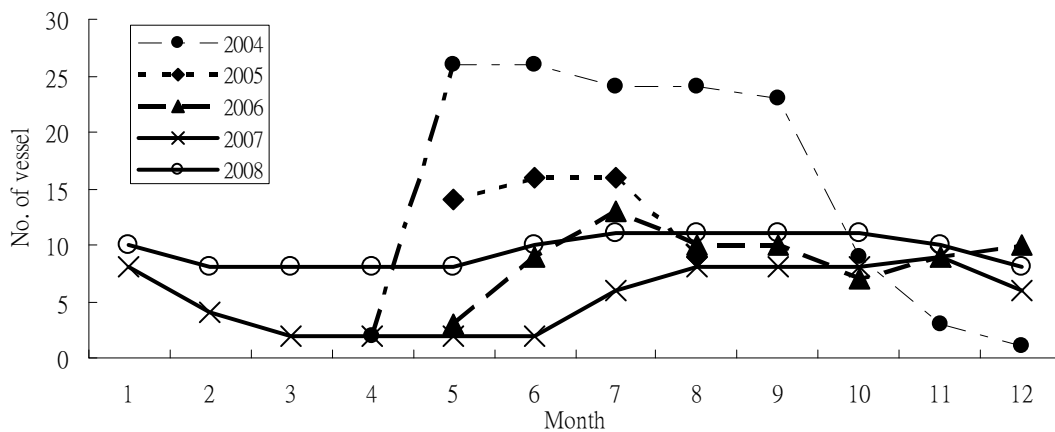


Figure 3. The monthly number of squid jigger operating in SEPO between 2004 and 2008

2. Catch, Effort and CPUE Summaries

Table1 summarizes information on the number of vessel, fishing days and catch of the fishery from 2004 to 2008.

Table 1. Nominal effort and catch statistics from 2004 to 2008

Year	2004	2005	2006	2007	2008
No. of vessel	29	16	18	13	13
Fishing days	3,218	1,195	1,572	1,393	2,744
Catch (tons)	39,450	15,976	18,349	14,750	31,161

The nominal CPUE trend from 2004 to 2008 is illustrated in Figure3. It shows a variable annual nominal CPUE between 14 tons/day and 10 tons/day without obvious fluctuation.

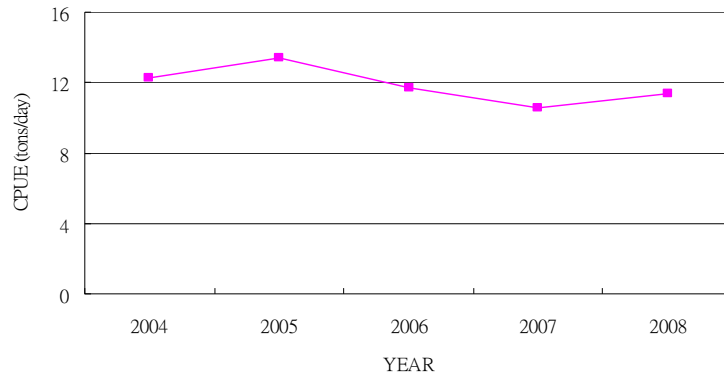


Figure 4. Nominal CPUE trend from 2004 to 2008

From the logbook collected, there was no information on bycatch. Since squid jigging is of high selectivity, it's believed that the bycatch in the fishery is very low.

Figure 5 shows the distribution of annual fishing efforts from 2004 to 2008. The major fishing area was located in area around $76^{\circ}\text{W} - 84^{\circ}\text{W} / 5^{\circ}\text{S} - 15^{\circ}\text{S}$ with some fishing activities extended to the area around $30^{\circ}\text{S}-40^{\circ}\text{S}$. It was also observed that some fishing activities were conducted in the EEZ of Peru in 2007 and 2008 by one squid jigger under fishing license issued by the Peruvian government.

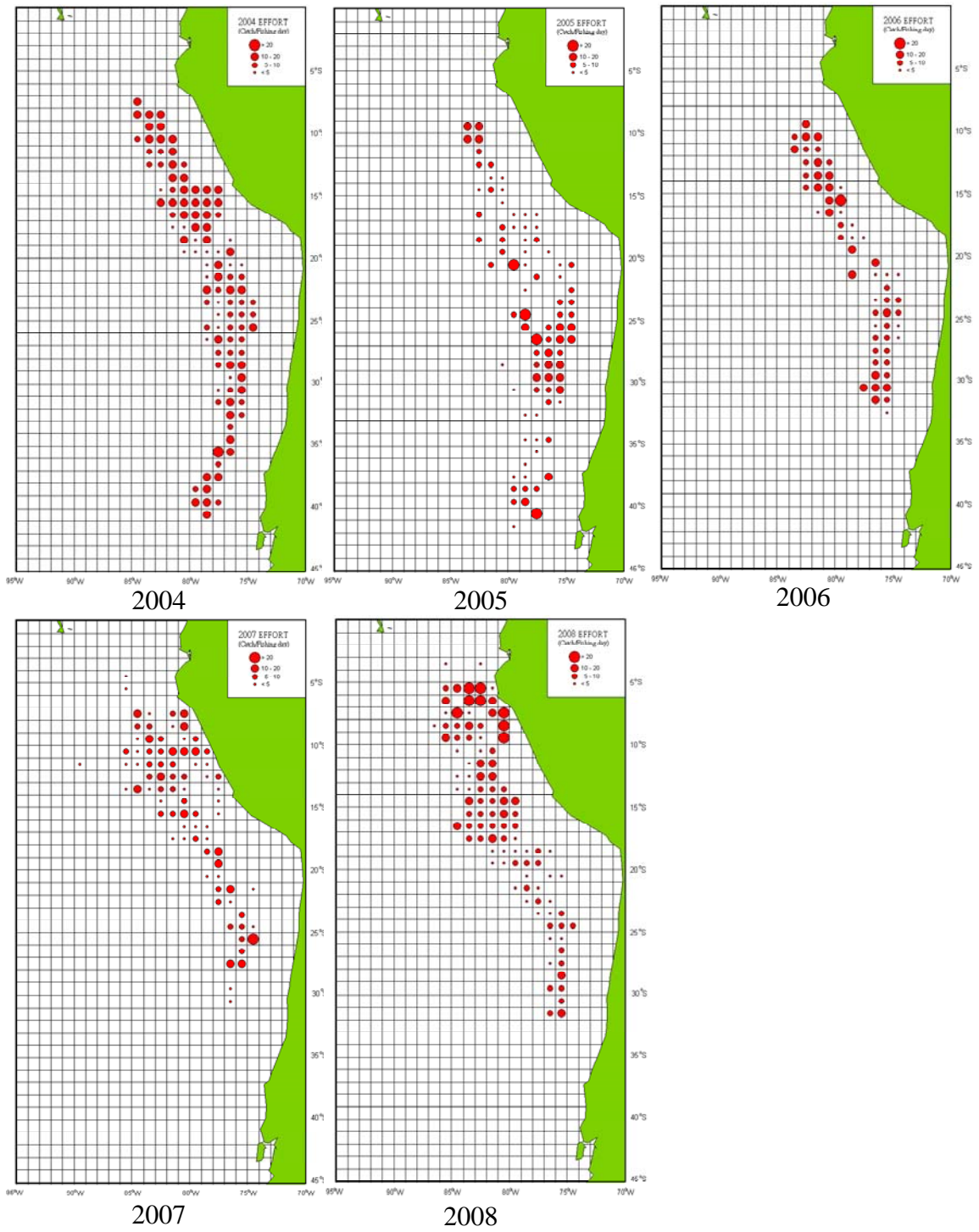


Figure 5. Fishing effort distributions from 2004 to 2008

3. Fishery Data Collection and Research Activities

3.1 Logbook system

The logbook coverage rate is 100%. From 2007, all squid jiggers were required to report their catch in a timely manner through e-logbook system.

3.2 Transshipment declaration

According to the existing regulation, all fishing vessels are required to report the amount of catch for transshipment based on their catch report before transshipment operation. These records will be compiled into the catch of individual vessel and cross check with the logbook data.

3.3 Research

Research on the effectiveness of environmental factors on the population size of jumbo flying squid was conducted. In 2004, Chinese Taipei conducted a research program on the conversion factors of different processing products of jumbo flying squid.

4. Biological Sampling and Length/Age Composition of Catches

The data of size composition are collected from logbook data. Columns are designed in logbook to record the number of boxes containing fish of different round weights (<1kg, 1~2kg, >2kg), as well as columns to record the number of boxes containing processed products (head, tube, wing).

5. Summary of Observer and Port Sampling Program

High luminance of fishing light used on board to attract squid is said to cause visual damage, and scientific observers were dispatched on squid jiggers to collect information on the light luminance.

6. Implementation of Management Recommendations

In compliance with the interim measure on data collection, Chinese Taipei had modified the logbook and e-logbook format according to Standard for Squid Jigging Fishing Activity Data under Annex 4 of SFRFMO Standards for the Collection, Reporting, Verification and Exchange of Data.