

GENERAL REVIEW OF DEMERSAL FISH RESOURCES AROUND TAIWAN¹

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ABSTRACT

The trawl fisheries around Taiwan can be divided into three categories: otter trawlers, pair trawlers and baby trawlers. The main fishing ground of the otter trawlers is the southern part of the East China Sea, that of the pair trawlers is the Taiwan Strait and those of the baby trawlers are waters northward to Taiwan and the Taiwan Strait.

The fishing effort (in hauls) of the otter trawlers increased since 1970, and reached the maximum in 1974, but suddenly decreased in 1975. In 1976, the effort risen to almost the same level of 1974. The catch (in tons) is similar in trend to effort, but the catch of 1976 is only 82% of 1973. The CPUE of 1973 is the highest level in the years of 1970-73. In 1975 and 1976, the CPUE decreased to the lowest level. For pair trawlers, the effort decreased since 1970, and reached the lowest level in 1974. From 1975, the effort risen again. The trend of catch is similar to that of effort. The CPUE reached the highest level in 1973, after then it decreased. For baby trawlers, the effort had a marked upward trend from 1967 to 1974, but decreased in 1975 and 1976. The catch had increased since 1967. In 1976, the catch reached the highest value in the past years. The CPUE had a trend of slight decrease in 1967 to 1974, but the trend increased again from 1975.

The main species caught by the otter trawlers are hair tail, sea eel, cuttle fish, crabs, white pomfret, white croaker, black croaker, min croaker, small yellow croaker and squid. The catch of hair tail, sea eel, cuttle fish, crabs and white pomfret occupies above 50% of the total catch of otter trawlers. The main species caught by the pair trawlers are hair tail, lizard fish, cuttle fish, white croaker, sea eel, big eye, red sea bream, squid, butter fish and black croaker. That of hair tail, lizard fish, cuttle fish, white croaker, sea eel occupies about 50% of the total catch of the pair trawlers. In these main species caught by otter and pair trawlers the hair tail is the most abundant one. The main species caught by the baby trawlers are different according to areas. For the area around the Pescadores and northward to Taiwan, the main species is shrimps, as for the area around the Formosa Bank, the main species is lizard fish.

There is significant change of species composition between 1970 and 1973, and between 1970 and 1976 for the otter trawlers operating in the Taiwan Strait. The reason is that the catch of golden thread, big eye, yellow sea bream, lizard fish and squid decreases while the catch of hair tail, sea eel, cuttle fish and crabs increases.

The demersal fish resources around Taiwan have been heavily exploited, the fishing intensity should not be encouraged, and some effective management should be adopted as soon as possible.

INTRODUCTION

This paper, which presents a general review of the current state of demersal fish resources around Taiwan, is submitted to "Colloquium on Research and Development of Marine Resources in the Areas Adjacent to Taiwan".

The Taiwanese trawlers have operated in the East and the South China Seas for a long time. And there are a lot of papers concerning the biology of certain demersal fish species

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