

1987 NATIONAL REPORT OF TAIWAN (REPUBLIC OF CHINA)

H. C. Liu
 Institute of Oceanography, National Taiwan University
 Taipei, Taiwan, Republic of China

1. Status of the fisheries

In 1986, total 39,492 MT were produced by 190 Taiwanese longliners, and in comparison to 1985 annual production (37,728 MT), there were about 4.7% increases under 5.6% increases of number of fishing vessel operated in the Atlantic. As the result, level of catch per unit effort (CPUE) indicating fishing success obviously declined from 209.6MT/vessel in 1985 to 207.9 MT/vessel in 1986. Among the species caught by longliners : ablacore, yellowfin, bigeye, bluefin, swordfish and skipjack etc., albacore is still the dominant catch species which occupied about 90.9% of the total 1986 catch. Also for 35,880 MT of albacore catch, 21,082 MT and 14,806 MT were caught from the South and the North Atlantic, respectively, whereas about 1,528 MT difference of catch becomes much broader than that of 1985.

The geographical distribution of high catch rate (>2.0 fish/100 hooks) shows seasonal difference between the South and the North Atlantic. The distribution of high catch rate of the North Atlantic fishery is concentrated on (1) 30°-40°N and 45°W westward, and 20°-36° N and 35°W eastward for January-March; (2) 15°-25°N for April-June; (3) uniform distribution of low catch rate (<2.0 fish/100 hooks) for July-September, and; (4) 20°-40°N and 35°W westward for October-December. Of the South Atlantic fishery, there is (1) 35°-46°S and 15 W westward, and 30°-40°S and 5°W eastward for January-March; (2) 25°-

40° S for April-June; (3) 15°-40°S and 35° W eastward for July-September, and; (4) uniform distribution of low catch rate for October-December.

2. Statistics

As is the years before 1985, the catch statistics is regularly processed by Tuna Resource Research Center, Institute of Oceanography, National Taiwan University under the cooperation of logbook collection by Taiwan Fisheries Bureau (Taiwan Province , Rep. of China), and sponsored by the Council of Agriculture, Executive Yuan (Rep. of China). Landings were used to estimated the task I statistics, 58,011 MT was preliminarily estimated for 1986 annual catch of Atlantic Tuna by Taiwanese longlines. Logbook and daily radio reports were used to estimate the task II statistics. After data processed, monthly and quadrat's coverage rate were estimated in the range between 1.0 and 0.08, with 0.55(S.D.=0.23) in average for the year and all quadrats. The total production, 39,492 MT ,was estimated by Taiwanese longliners in Atlantic in 1986.

3. Quick projected annual catch estimate of 1987

By the landing reports of January-July, 1987, there were 165 longliners operating in the Atlantic, and 20,673 MT landed. Therefore, a simple quick projected annual catch estimate of 1987 will be approximately 35,440 MT which will be about 4,000 MT less than the level of 1986.

4. Research studies

Total 130,686 individuals were measured for the species of albacore (124,077), yellowfin tuna (3,793), and bigeye tuna (2,363). In further assessment study, we will expect using these data to compile the information of catch at age.

In order to take into account of the dynamics of albacore resource, catch and effort on albacore were standardized and updated to 1986 by Honma's method, also the production model was applied in the analysis of the southern albacore stock. Incorporated with the catch and effort records of the northern albacore stock, provided by ICCAT, the stock will be studied sooner in the coming year.

Beside these, an overview of fishery trend and catch rate distribution pattern of the northern albacore stock was studied recently in order to preliminarily understand the tendency of operation favor of Taiwanese longliners and, to prospect their further change of operation configuration as possible.