

## STATUS OF TAIWANESE LONGLINE FISHERY IN THE ATLANTIC, 1989

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## 1. Status of the fishery

In 1989, the monthly numbers of Taiwanese longliner operated in the Atlantic were maintained at between 107 and 114 (Table 1), which was comparatively a little lower than the corresponding time in 1988. Of those vessels, most fishing activities were made in the south Atlantic and very few in the north, resulting in great difference of nominal fishing efforts set by  $68.74 \times 10^6$  hooks and  $3.62 \times 10^6$  hooks, respectively. The total annual catches of tunas and tuna-like species in the Atlantic by Taiwanese tuna longline fishery in 1989 amounted to 25,109 MT with a total fishing effort of  $72.36 \times 10^6$  nominal hooks, both of figures show mild decrease in comparison with those in 1988. And among the 1989 catches, 1,520 MT and 23,589 MT are produced from the north and south Atlantic, respectively.

Table 1. The numbers of Taiwanese longliners sustained their fishing activities in the Atlantic by the specified months of 1989

Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
108	108	106	111	110	107	109	110	111	108	114	114

In the north Atlantic, both of the catch and effort of Taiwanese longline fishery have continued the decreasing trend since 1986, whose year showed the highest catch and fishing effort during recent 5 years, the declining trend of catch and fishing effort may result from the economic viewpoint of cost and revenue to influence fishermen's willingness of operation. The nominal effort and catches by species for the recent 5 years are listed in Table 2. In 1989, albacore is the dominant species about 85.2% (or 1,295 MT) in the catch; followed by the 142 MT (or 9.34%) catch for yellowfin tuna, and; about 15 MT (or 1%) for bigeye tuna.

In the south Atlantic, the catch and fishing effort of Taiwanese tuna longliners have slightly decreased since 1987. Of the 23,589 MT catches in 1989, albacore is still the dominant species (about 18,390 MT or 78% of the catches); and the next important species in the catches are: bigeye tuna which amounted to 1,209 MT (or 5.1%); striped marlin, 979 MT (or 4.2%); yellowfin tuna, 758 MT (or 3.2%), and swordfish, 722 MT (or 3.2%). The species composition in the catches of Taiwanese longline fishery is almost similar with that of the previous year.

Table 2 The nominal effort ( $10^6$  hooks) and catches (MT) by species of Taiwanese tuna longline fishery in north Atlantic from 1985 to 1989

North Atlantic:

Year	Effort	Total	Alb.	BET.	Catch by species						
					YFT.	BFT.	SwF.	StM.	BuM.	BaM.	Skj.
1985	37.84	15566	14430	297	493	3	108	100	86	0	2
1986	60.05	22039	19646	436	1165	6	176	319	117	1	1
1987	23.81	7725	6636	243	440	-	82	153	52	1	2
1988	5.22	2184	2117	28	2	-	18	-	20	-	-
1989	3.62	1520	1295	15	142	-	8	4	8	-	-

South Atlantic:

Year	Effort	Total	Alb.	BET.	Catch by species						
					YFT.	BFT.	SwF.	StM.	BuM.	BaM.	Skj.
1985	48.18	20928	18924	718	226	8	196	134	95	3	4
1986	68.27	30143	27592	938	558	40	229	196	98	3	1
1987	86.53	34507	28790	2052	926	66	524	613	265	0	2
1988	72.75	25952	20746	1260	1348	15	610	514	204	0	8
1989	68.74	23589	18390	1209	758	50	722	979	335	0	8

2. Statistics and research

The collection of tuna fishery logbooks, landings, size frequency and the information of activities of longliners used in processing catch statistics has been continued by Taiwan Fishery Bureau, and data have been proceeded by Tuna Research Center, Institute of Oceanography, National Taiwan University since 1970's. All of the processings of tuna catch statistics are financed by Council of Agriculture, the government of Republic of China. The catch statistics estimated is based on two-stage sampling technique which the logbooks and daily vessel reports provided the information of the first stage; and the actual numbers of longliners by month are constituted of the information of the second stage. Then all the catch and effort data submitted regularly to the Secretariat of ICCAT are estimated by  $5^{\circ} \times 5^{\circ}$  square and by month, and raised sufficiently.

The main organization involving in researches of tunas is the Institute of Oceanography, National Taiwan University. The research of Atlantic tuna is only for the albacore stock which is the target species of Taiwanese tuna longline fishery. Scientific activities included the verification of catch, effort and biological data, albacore stock assessment and participation of scientific meetings of regional tuna organizations. In 1989 and 1990, a delegation has been despatched to join the Albacore Workshop held at the Headquarter of ICCAT in Madrid, Spain.

3. Estimates of 1990 catches

Using the semi-annual landings (January to June, 1990) reported from the Atlantic base Ports, the 1990 catches by species could be predicted as

in Table 3.

As been expected, albacore may still be the target species for Taiwanese tuna longline fishery in 1990.

Table 3 The estimates of 1990 catches by Taiwanese longline fishery in the Atlantic, using the Landings of January-June, 1990 reported from the Atlantic Base Ports to raised to the annual catches (MT)

Time strata	Catches by species									
	Total	Alb.	BET.	YFT.	BFT.	SwF.	StM.	BuM.	BaM.	Oth.
Jan.-										
Jun.	12359.4	10263.1	303.4	424.9	0.5	260.8	238.9	122.1	23.7	722.0
Jul.-										
Dec.	*									
Total	24719	20626	607	850	1	522	478	244	47	1444
est.										

\* : data unavailable.