

RECENT STATUS OF THE JAPANESE LONGLINE FISHERY IN THE ATLANTIC OCEAN LAYING STRESS ON ALBACORE CATCHES

Uozumi, Y.¹

SUMMARY

The recent status of the Japanese longline fishery in the 1990's was reviewed briefly. The annual fishing effort of the Japanese fishery increased to around 90 million hooks in the early 1990's from about 60 million hooks in the 1980s. Fishing effort has concentrated mainly in the southeast Atlantic in the 1990s, which is the most important bigeye fishing ground for the Japanese longline fishery. The Japanese catch of albacore has comprised 1-3% of the total Atlantic catch and fluctuated at around 1,000 metric tons. The catch has gradually decreased in the north, but fluctuated without trends in the south Atlantic.

RÉSUMÉ

La situation de la pêcherie palangrière japonaise dans les années quatre-vingt-dix a été brièvement examinée. L'effort de pêche annuel a augmenté à environ 90 millions d'hameçons au début des années quatre-vingt-dix, alors qu'il n'était que de 60 millions d'hameçons dans les années quatre-vingt. Dans les années quatre-vingt-dix, l'effort de pêche a porté principalement sur la zone Sud-Est de l'Atlantique. Il s'agit de la zone de pêche la plus importante pour les palangriers japonais qui visent le thon obèse. Les captures japonaises de germon, qui s'élèvent à environ 1000 TM, représentaient 1 à 3% des captures totales dans l'Atlantique. Les captures ont diminué progressivement dans le Nord et elles ont fluctué sans tendance dans l'Atlantique Sud.

RESUMEN

Se examinó brevemente el estado de la pesquería de palangre de Japón en la década de los años 90. El esfuerzo pesquero anual de la pesquería de palangre japonesa se incrementó en torno a 90 millones de anzuelos a comienzos de los años 90, de unos 60 millones de anzuelos en los años 80. El esfuerzo de pesca en los años 90 se concentró principalmente en el Atlántico sudeste, donde se encuentra el caladero de patudo más importante de la pesquería de palangre de Japón. La captura japonesa de atún blanco ha supuesto el 1-3% de la captura atlántica total, y fluctuó en torno a 1.000 toneladas métricas. La captura ha descendido gradualmente en el norte, pero fluctuó sin tendencias en el Atlántico sur.

Introduction

The Japanese longline fishery commenced in 1956 in the Atlantic Ocean at the western part of equatorial waters. Then the fishing ground had expanded into the whole tropical area in the mid-1960s. In the 1970s the Japanese longline fishery changed the strategy on target species from albacore to bigeye, bluefin, and southern bluefin tunas with the development of super cold freezer. As a consequence of the change of the targeting strategy, the fishing ground and gear configuration had been changed very quickly in the 1970s. The effort has been concentrated in some restricted area such as off Nova Scotia, off Morocco/Sahara, off Angola, and off South Africa. In the 1980s the distribution pattern of fishing effort has been stable in these four major fishing grounds. The detailed description on these historical changes was done by Uozumi (1994). In this paper, the recent status of the Japanese longline fishery in the 1990s is described. The data in 1995 have been still preliminary one.

1) Fishing effort

Total fishing effort in terms of number of hooks used for the Japanese longline fishery in the Atlantic Ocean fluctuated at around 60 millions hooks in the 1980s (Fig. 1). It increased to around 90 millions hooks in the beginning of the 1990s and fluctuated at this level until 1994, except for higher number of hooks in 1995. Before the mid-1980s, the amount of fishing efforts in both north and south Atlantic were similar to each other, but the effort in the south Atlantic has become larger than that in the north Atlantic since the mid-1980s. This tendency became clearer in the 1990s. The fishing effort in the east Atlantic Ocean has

¹ National Research Institute of Far Seas Fisheries, 7-1 Orido, 5-chome, Shimizu-shi, 424 Japan.

dominated than that in the west Atlantic since the early 1970s and this trend has become clearer in the 1990s. In the 1990s, the effort in the west Atlantic has continued to decrease gradually, but it has increased in the east Atlantic.

Fig. 2 shows the geographical distribution of fishing effort from 1991 to 1994. The general distribution pattern of fishing effort is similar to that in the 1980s. The fishing effort has been concentrated in some restricted areas. One is the waters from off east coast of Canada to off the Strait of Gibraltar where is the fishing ground for bluefin tuna, another is the waters off the west coast of Africa ranged between 20° N and 20° S where is the fishing ground for bigeye tuna, and the waters off South Africa where is the one for southern bluefin tuna. This distribution pattern has been stable for the four years shown in Fig. 2.

2) Catch and CPUE

The Japanese catch of albacore in the north Atlantic continued to decrease in the 1990s and attained only to 460 metric tons in 1994 (Table 1). The catch in the south Atlantic fluctuated at 470-650 metric tons. The percentage of the Japanese catch in the total fluctuated between 1 and 3%.

The distributions of catch and CPUE are shown in Fig. 3. Most catch in the north Atlantic was obtained in the waters off Canada where is one of the major fishing ground for bluefin tuna. In the South Atlantic, there are two areas where albacore is mainly caught. One is the waters off South Africa where is one of the major fishing ground for southern bluefin tuna. The other is the central tropical Atlantic where is the major fishing ground for bigeye and most fishing effort is concentrated in this area. The high CPUEs were obtained from the temperate waters in the western side of the Atlantic. In the south Atlantic, the high CPUEs were obtained from the temperate waters off South America. The discrepancy in the distribution pattern between catch and CPUE may be derived from that albacore is caught as by-catch.

References

Uozumi, Y. 1994 A historical review of Japanese longline fishery and albacore catch in the Atlantic Ocean. SCRS/94/41, 12pp.

Table 1. Catch in metric tons of albacore in the Atlantic Ocean. % denotes the percentage of the Japanese catch in the total. The Japanese catch in 1995 is preliminary.

	North			South		
	All Countries	Japan	%	All Countries	Japan	%
1965	60,387	14,325	23.7	29,845	28,309	94.9
1966	47,234	5,860	12.4	27,296	21,023	77.0
1967	58,567	4,771	8.1	15,883	7,719	48.6
1968	45,675	3,306	7.2	25,688	11,857	46.2
1969	47,286	4,717	10.0	28,493	6,331	22.2
1970	46,155	5,875	12.7	23,653	5,898	24.9
1971	57,556	6,472	11.2	24,885	3,218	12.9
1972	49,450	1,319	2.7	33,179	2,087	6.3
1973	46,973	1,467	3.1	28,213	277	1.0
1974	52,286	2,059	3.9	19,703	109	0.6
1975	41,448	1,331	3.2	17,607	306	1.7
1976	57,326	1,345	2.3	19,459	73	0.4
1977	53,821	825	1.5	21,665	105	0.5
1978	50,047	531	1.1	23,169	135	0.6
1979	51,365	1,219	2.4	22,628	105	0.5
1980	38,704	1,036	2.7	22,930	333	1.5
1981	34,111	1,740	5.1	24,040	558	2.3
1982	41,998	781	1.9	29,672	569	1.9
1983	50,893	1,156	2.3	14,924	162	1.1
1984	39,454	576	1.5	13,862	224	1.6
1985	40,427	844	2.1	30,245	623	2.1
1986	47,465	470	1.0	36,888	739	2.0
1987	38,085	494	1.3	40,286	357	0.9
1988	33,694	723	2.1	29,164	405	1.4
1989	32,076	764	2.4	26,864	450	1.7
1990	36,587	737	2.0	28,628	587	2.1
1991	25,969	691	2.7	25,378	654	2.6
1992	31,275	466	1.5	32,798	583	1.8
1993	38,536	485	1.3	32,941	467	1.4
1994	33,148	457	1.4	33,486	650	1.9
1995	-	222	-	-	612	-

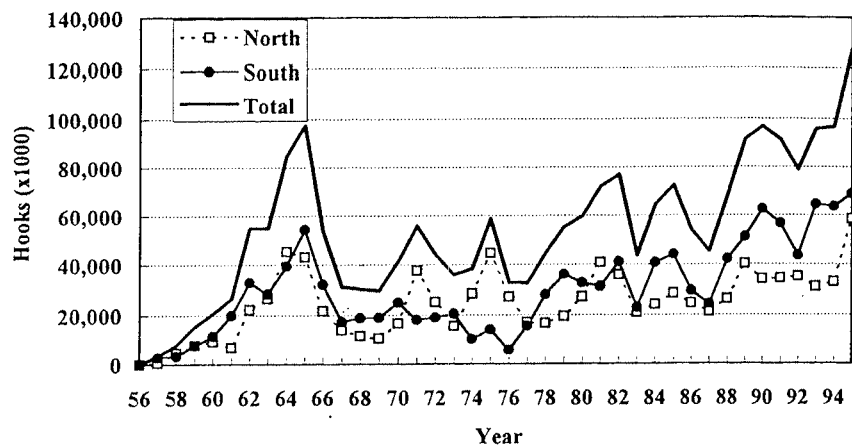


Fig. 1. Historical changes of the Japanese longline effort in the Atlantic Ocean from 1956 to 1995. The values in 1995 are preliminary.

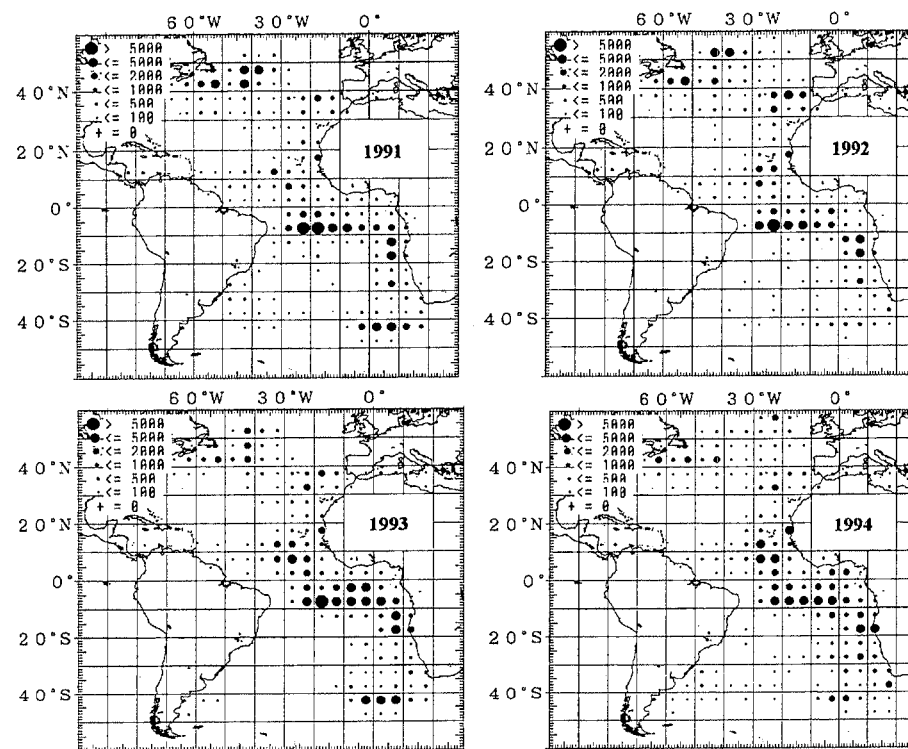


Fig. 2. Distribution of fishing effort (number of hooks in thousand) for the Japanese longline fishery in the Atlantic Ocean from 1991 to 1994.

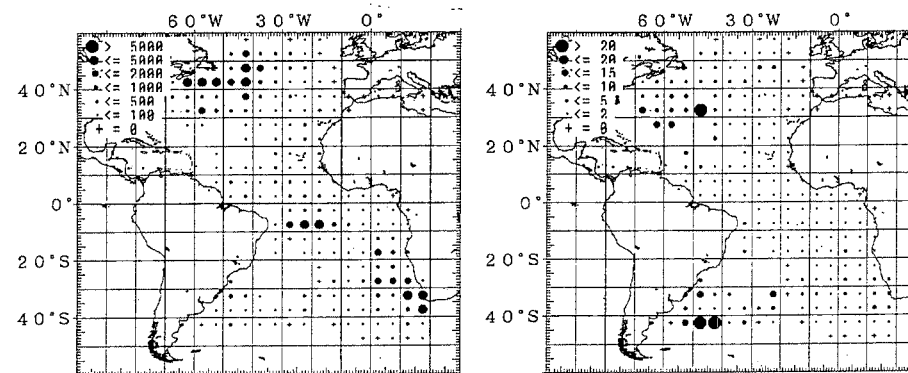


Fig. 3. Distribution of annual catch of albacore in thousand fish (left) and CPUE in number per 1000 hooks (right) in the 1990s (1990-1995).