

RECENT CHANGE IN CATCH PER UNIT OF EFFORT OF SKIPJACK AND YELLOWFIN TUNA
IN JAPANESE POLE-AND-LINE FISHERY IN THE EASTERN EQUATORIAL ATLANTIC

by

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SUMMARY

Monthly changes in catch per unit of effort (cpue) of skipjack and yellowfin tuna caught by the Japanese pole-and-line fleet in the eastern equatorial Atlantic since 1973 are presented in this paper. It is shown that cpue of yellowfin tuna increases in the later half of the year reaching a peak in September or October, and there seems to be no clear seasonal change in skipjack cpue.

RESUME

Le présent document fait état des variations mensuelles de la capture par unité d'effort (CPUE) du listao et de l'albacore pris par la flottille japonaise de canneurs dans l'Atlantique Tropical Oriental depuis 1973. On montre que le CPUE de l'albacore augmente au cours de la deuxième moitié de l'année, atteignant un sommet en septembre ou octobre, tandis que celui du listao ne semble pas subir de changements saisonniers évidents.

RESUMEN

Presenta los cambios mensuales de la CPUE de listado y rabil capturados por la flota japonesa de caña-liña en el Atlántico ecuatorial oriental desde 1973. Señala que la CPUE de rabil aumenta durante el segundo semestre del año, alcanzando su nivel máximo en septiembre-octubre, mientras que la CPUE de listado no muestra cambios estacionales evidentes.

Recently, catch and effort statistics by area, Task 2 of SCRS, for Japanese pole-and-line fishery in the Atlantic Ocean have become made available. This paper is prepared to observe the seasonal change in catch per unit of effort (cpue) of skipjack and yellowfin tuna, the two major species, caught by the above fishery in the eastern equatorial Atlantic since 1973.

Source of data

The available logbook records of the Japanese pole-and-line fleet operating in the Atlantic Ocean and submitted to the Fisheries Agency were compiled by 1° square and month. Resultant catch and effort statistics of 1973 and onward were then summarized in large areas of Annobon and Sherbro for skipjack and Abidjan and Pointe Noire for yellowfin tuna (Fig. 1). Current data of the first semester of 1976 were supplemented.

In the middle part of 1975, the Japanese Atlantic pole-and-line fleet stopped essentially their fishing activity and some of them withdrew from the Atlantic. The data corresponding to that period were not available. Monthly number of vessels the logbooks of which were covered and incorporated in this report is shown in Table 1.

As a unit effort, "fishing day" was chosen, which is the day when the species is caught. The cpue is expressed in terms of catch in tons divided by number of fishing days.

Skipjack

In Annobon area, the main skipjack fishing ground of the Japanese pole-and-line fleet, the monthly change in the cpue of skipjack within a year does not show common trend among years, and it is difficult to find a regular seasonal change.

1975 was a poor fishing year for skipjack being with about half catch of the previous year, the record year. The cpue of 1975 in Annobon area appears to have been lower than that of 1974. It seems to be that the cpue of skipjack in Annobon area is recovering upward during the first half of 1976.

Yellowfin tuna

Monthly cpue's of yellowfin tuna in Abidjan area are higher in the later half of the year with the peak in September or October. The cpue's in Pointe Noire area seems to indicate the similar seasonal change.

From late 1975 to June 1976, the cpue has been rather remarkably lower than that of the previous years. It should be mentioned that this does not necessarily give a sign of the lowering of the yellowfin abundance in the area, because the Japanese fleet has been intentionally avoiding to capture the small sized yellowfin, which are abundant in this area, to follow the size limit on the species imposed by the ICCAT (Kume 1975).

References

- Kume, S. 1975: Japanese fisheries and research activities on tunas and tuna-like fishes in the Atlantic Ocean, 1973-1975 (MS, SCRS/75/22).

Table 1. Monthly number of vessels from which logbook records of the Japanese pole-and-line fishery were obtained in the eastern equatorial Atlantic.

Month	number of vessel			
	1973	1974	1975	1976
1	14	18	17	7
2	13	17	10	9
3	12	16	1	10
4	13	16	-	10
5	13	15	-	9
6	14	14	-	6
7	17	16	1	
8	16	17	2	
9	16	17	2	
10	17	17	2	
11	17	17	2	
12	17	16	7	

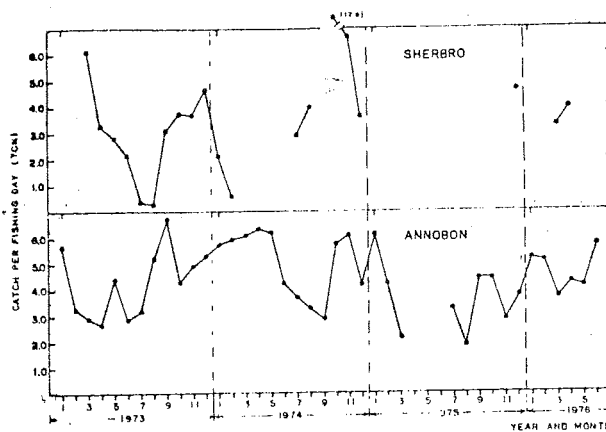
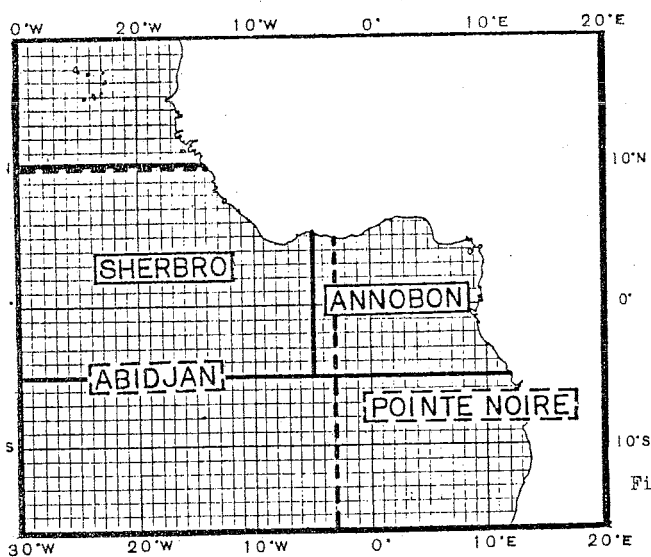


Fig. 2. Fluctuation of monthly cpue of skipjack caught by Japanese pole-and-line fishery in the eastern equatorial Atlantic since 1973. (1976 figures are preliminary)



g. 1. Area division
 - - - - - ABIDJAN and POINTE NOIRE for yellowfin,
 _____ SHERBRO and ANNOBON for skipjack.

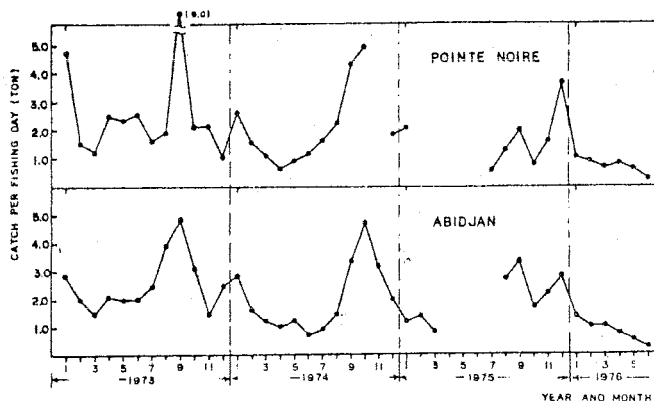


Fig. 3. Fluctuation of monthly cpue of yellowfin tuna caught by Japanese pole-and-line fishery in the eastern equatorial Atlantic since 1973. (1976 figures are preliminary)