

**ACTIVITY OF THE SPANISH SURFACE LONGLINE FLEET CATCHING SWORDFISH  
(*XIPHIAS GLADIUS*) IN THE ATLANTIC, YEARS 1994 AND 1995**

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**SUMMARY**

This paper presents some descriptive plots of the activity of the Spanish longline fleet in the years 1994 and 1995. As in previous papers, plots of catches, nominal effort and nominal catch rates, by 5x5 degree squares, are provided.

**RÉSUMÉ**

Le présent document présente quelques graphiques descriptifs de la flottille palangrière espagnole pendant les années 1994 et 1995. Comme dans les travaux antérieurs, on indique le taux d'effort nominal et de capture nominale en carrés de 5°x 5°.

**RESUMEN**

Este documento presenta una simple descripción gráfica de la actividad de la flota española de palangre de superficie en los años 1994 y 1995. Como se hizo en documentos presentados en años anteriores, se ofrecen gráficos de capturas, esfuerzo nominal y tasas de captura nominales, por cuadrículas de 5x 5 grados.

**INTRODUCTION**

A number of documents have reported that the activity of various fleets targeting swordfish began as a relatively coastal fishery (Becket, 1974; Caddy, 1976; Hoey & Nelson, 1988). Later this activity underwent a progressive geographical expansion, reaching distant zones both in the North and South Atlantic (Hoey et al., 1988; Mejuto & Garcés, 1988; Rey et al., 1988).

Although data on the description of the fisheries has become less important in many working groups, experience shows that this descriptive information is still an important tool for the correct interpretation of several parameters commonly used as indicators of these fisheries.

The purpose of this paper is simply to supplement the information provided in earlier documents (Mejuto et al., 1992; Mejuto et al., 1993) by including plots and descriptions of the activity of the Spanish fleet in 1994 and 1995.

The combination of these data and plots with the data bases provided by other fleets could result in a positive contribution to improve our knowledge of the fishing resource and to arrive at an accurate definition of possible management units.

**MATERIAL AND METHODS.**

The data bases from 1994 and 1995 reflect the activity of the Spanish surface longline fleet targeting the swordfish in the Atlantic and Mediterranean. These data bases have traditionally been made available to ICCAT and include detailed information by 5x5 degree squares of the total activity of the Spanish fleet, including nominal effort (thousands of hooks), number of fish sampled, catch in number and weight (kg round weight), catch by size class (LJ-FL from 50 to 350 cm.), etc.

In order to carry out the analyses by size categories, three size groups were established as follows:

Size group 1: sizes LJ-FL ≤ 125 cm.

Size group 2: sizes 130 ≤ LJ-FL ≤ 165 cm.

Size group 3: sizes 170 ≤ LJ-FL.

Additional information about methodological bases can be obtained in previous papers.

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RESULTS.

A total number of 469061 fishes were sampled in the Atlantic Ocean and Mediterranean Sea during 1994 and 1995. Figure 1 shows plots of nominal effort (1a), landings in number (1b) and landings in weight (1c), for years 1994 y 1995.

The activity of the fleet known as traditional in the Atlantic is still being carried out almost exclusively North of 15° North latitude. This fleet has changed its fishing strategy in recent years (SCRS/96/141). On the other hand the activity of the vessels with freezing systems has shifted to the south of 5° North latitude.

If we compare these figures to those presented in previous papers, we can see that the latter fleet has partially shifted its fishing effort from equatorial zones to the South Atlantic, prospecting new fishing grounds year after year.

Figure 2 shows data on nominal catch rates (nominal CPUE's) in number of fishes (2a) and in weight (2b). The high yields found in the areas of more recent access are noteworthy.

Figure 3 exhibits data on nominal catch rates for each group of a specific size. Medium (Group 2) and large (Group 5) sized individuals appear to be distributed primarily in reproduction zones in equatorial waters and in areas of the South Atlantic.

Our findings point to a continuity of the resource from 45° or 50° North latitude to at least 10° South latitude, confirming previous analyses (Mejuto et al., 1992; Mejuto et al., 1993). However, we must bear in mind that the available data pertain to only one fleet whose activity in some areas is non-existent or highly limited, thus this continuity could be even greater (Farber, 1988). In this sense, these available data bases from the ICCAT combined with those from other fleets could offer an overall view which could be of great interest.

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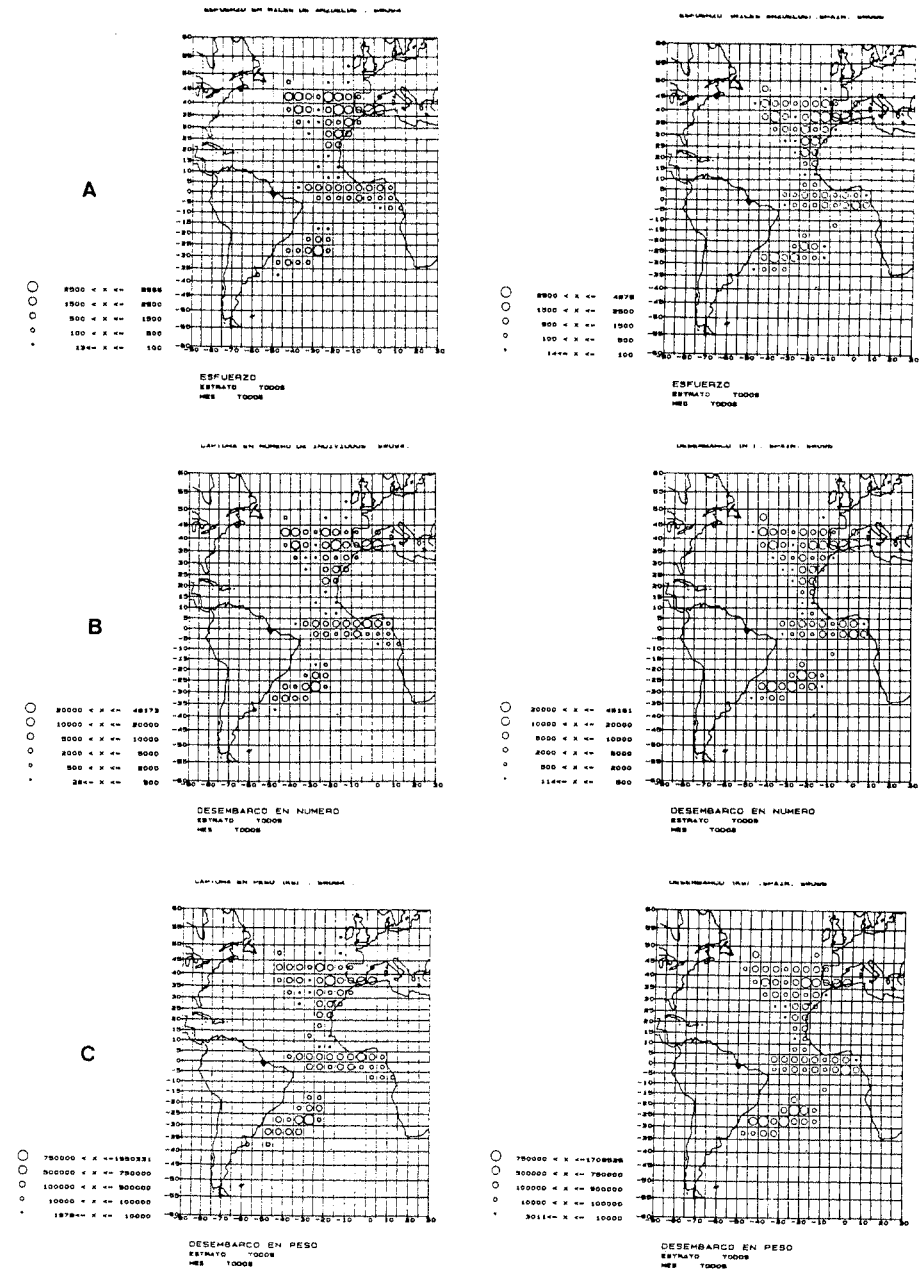


Figure 1. Nominal fishing effort, in thousands hooks (1a), landing in number (1b), landings in weight (kg round weight)(1c), of the Spanish surface longline fleet, for the years 1994 (left) and 1995 (right).

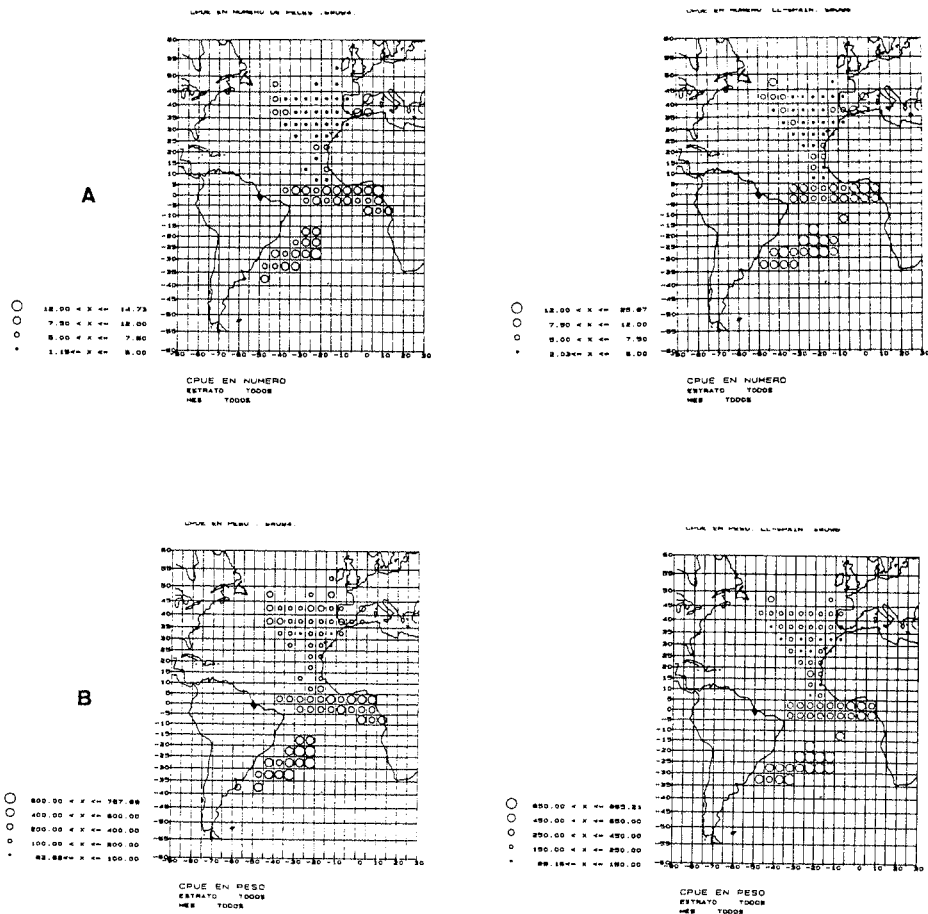


Figure 2. Nominal catch rates (CPUE) in number of fish and weight (kg round weight), for thousand of hooks, of the Spanish surface longline fleet, for the years 1994 (left) and 1995 (right).

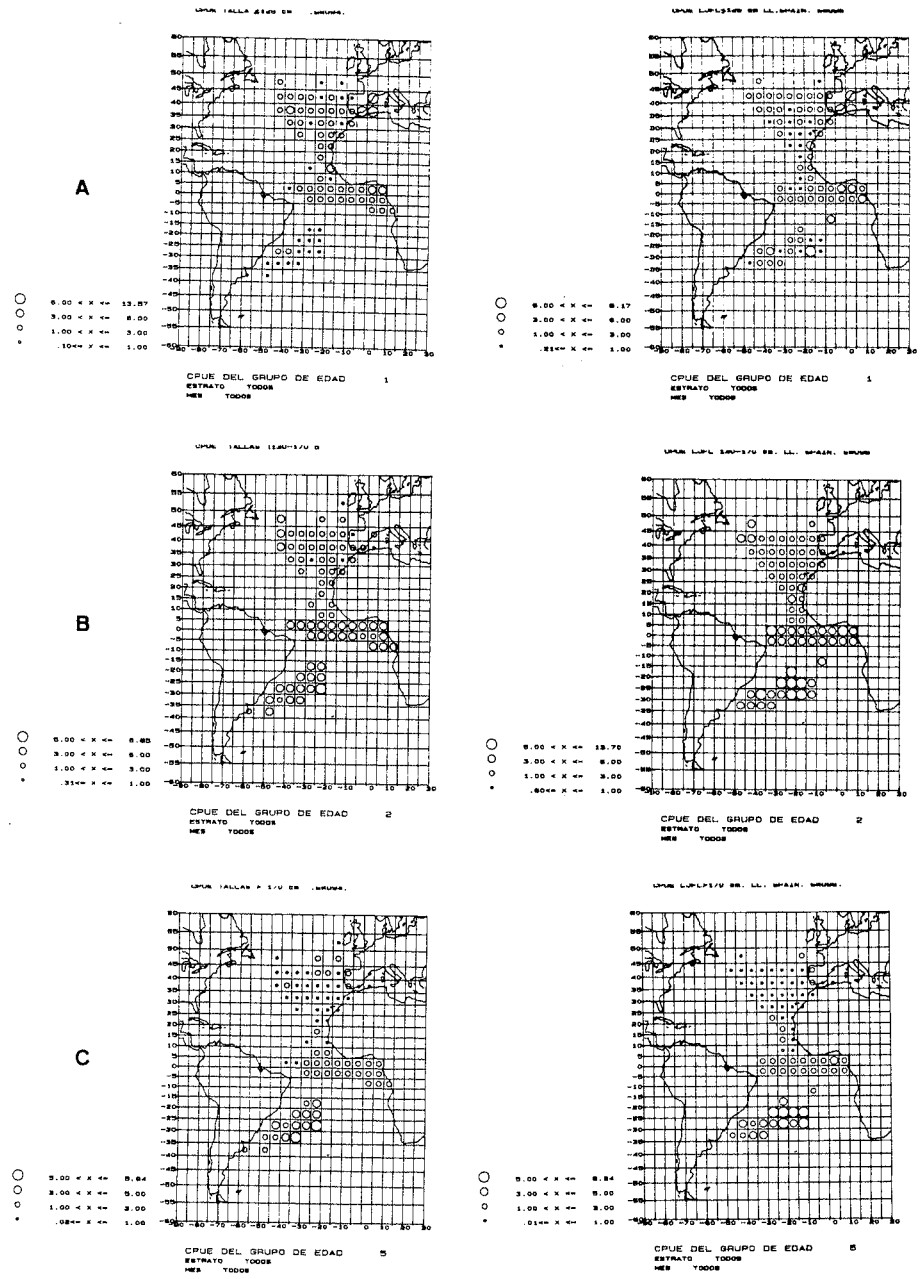


Figure 3. Nominal catch rates (CPUE) in number of fish for thousands of hooks of the Spanish surface longline fleet, for years 1994 (left) and 1995 (right). Size Group 1: LJ-FL <= 125 cm. Size Group 2: 130 <= LJ-FL <= 165 cm. Size Group 5: 170 <= LJ-FL.