

DESCRIPTION OF THE LONGLINE FISHERY IN THE SPANISH MEDITERRANEAN

by

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1. BRIEF HISTORY

The use of the longline in the Mediterranean by Spanish fishermen is old and dates back to the last century. However, we only have written information on the use of this method dating back to the beginning of this century which indicates that each port had its own system of setting up and using the longline fishing method.

This gear, which is widely used at present, is called shark-line ("marrajera") in the South and Southeast of the Iberian Peninsula, since fishing there consisted essentially of various types of sharks, one of which is the marrajo (*Isurus oxyrinchus*). These species have lost some of their earlier commercial value and their fishing is now secondary.

Slowly the differences between the various types of longline began to decrease and after the decade of the 1940's a standard type of longline came into use in which the traditional materials such as hemp, cotton, etc. were substituted by synthetic fibers. At the same time, a new type of hook called the "Japanese" hook, was introduced. This hook is shorter and more curvy than that traditionally used by Spanish fishermen.

2. FISHING SEASONS AND GROUNDS

Fishing occurs throughout the year and the maximum catches are taken during the months of April and September, inclusive.

The fishing zone is very wide although generally it develops along the Mediterranean continental slope of the Iberian Peninsula, the Balearic Islands and the northern coast of Algeria and Morocco.

3. FISHING METHOD AND FLEET

A longline unit used consists of 8 to 10 hooks with a 40 m distance between the branch lines with a hook attached. The branch lines are united to the main line. The length of the branch lines depends on the species to be caught. The hook is generally united to the branch line by cable.

The longlines are joined, at both ends, to cork buoys which bear the number of the longline and a small flag for locating purposes. At the beginning and the end of the series, the buoys have a small battery which powers a small light.

The length of the float line varies just as in the case of the length of the branch line, depending on the species to be caught. However, it is never more than 200 m in depth in either case.

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The longline fleet is composed mainly of vessels of other types, which during the fishing season are equipped for longline fishing. The vessels employed are of very distinct tonnages. Within the small vessel class are those of not more than 25 tons; medium-sized vessels are those between 25 and 60 tons and large-sized vessels are those which are more than 60 tons.

The number of fishing vessels varies considerably from one year to another, depending on the evolvement of the normal activity of the vessels (trawl and purse seine).

The number of crewmen of each vessel is dependent on the tonnage of the vessel. The average number of crewmen per vessel is 6,

4. RELATION WITH OTHER FISHERIES

The species which is economically most interesting and consequently the most sought after by the longline method is swordfish (Xiphias gladius). The second most important species is bluefin (Thunnus thynnus) and of least importance are shark species (Gen. Alopisa, Prionance, Isurus, etc.). Longline fishing is presently directed fundamentally towards swordfish (Xiphias gladius).

5. TYPE OF BAIT USED

The type of bait used varies and their availability depends on the time of the year and the selling price. The general tendency is towards the use of fresh cephalopods (if not available fresh, then frozen) and of these the most widely used is the pota (Gen. Todarodes).

6. DESCRIPTION OF THE FISHING OPERATION

There is no information available.

7. CATCHES AND TENDENCIES

Bluefin tuna catches are not important if compared with the catches by other fishing methods used by other Mediterranean countries. The total bluefin catch by longline for 1977 was 60 MT.

The average catch per trip cannot be defined since effort is directed towards swordfish. Besides, the bluefin fishing season is much shorter than that for swordfish.

The lack of a reliable data series does not allow us to define the catch tendencies.

8. FISHING EFFORT

The unit of fishing effort is:
$$\frac{\text{No. fishing days} \times \text{average no. of hooks}}{1000}$$

The validity of the effort is good in the case of swordfish. However, it is not good for bluefin for the same reasons as outlined in point 7 above.

9. CATCHES

The weight of the fish caught ranges between 20 and 320 kgs; the majority are in the 80-140 kg. range.

During the months of May and June, the fish caught show gonads which are in a state of maturation or pre-spawning, while the gonads of those fish caught at later dates are in a post-spawning stage. (The end of the bluefin fishing season occurs at the end of August.)

10. PROCESSING AND CONSUMPTION

The fish caught, after being auctioned off, usually are shipped directly to the fresh fish markets. A considerable part of the catches is salted and dried in the sun, a product which brings in very high prices.