

DESCRIPTION OF THE BLUEFIN TUNA FISHERY (THUNNUS THYNNUS) IN THE CANARY ISLANDS

by

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1. HISTORY OF THE FISHERY

Bluefin tuna fishing in the Canary Islands has taken place fundamentally during the 19th and 20th centuries. Until recently, the fishermen engaged in bluefin fishing used very inadequate methods.

The most spectacular development of this fishery occurred during the 1970's when "bermeano" type vessels were incorporated to the local Canarian fleet. During this same period of 1970 to 1974, the fleet size increased from 1,000 to 4,000 GRT.

2. FISHING GROUNDS AND SEASONS

The most favorable fishing seasons occur during the months of March, April, May, September and October.

The catches are made in the waters of the archipelago and their surroundings.

3. DESCRIPTION OF THE GEAR AND FISHING VESSELS, NO. OF GEARS, VESSELS, CREW MEMBERS AND VESSELS BY SIZE

Because of the large size of bluefin tuna, fishing is carried out using pole and lines which are duly baited. In the last few years, buoys have been attached to the lines so as to more easily tire the fish.

The vessels used in bluefin tuna fishing are between 5 and 100 GRT and the smallest do not have covered decks. The bluefin fleet is as follows:

	TRIPS/VESSEL	TOTAL GRT	AVERAGE GRT	NO. VESSELS
Vessels without decks (well)	4	1,250	5	250
Vessels with decks (Canarian construction)	6	342	18	19
Bermeanos - Small	6	236	24	10
" Medium	8	498	55	9
" Large	12	<u>1,419</u>	<u>95</u>	<u>15</u>
TOTAL		3,745	12.5	303

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Original Report in Spanish.

4. RELATION WITH OTHER FISHERIES AND SPECIES

The Canarian fishery is a multi-species one and catches bluefin, skipjack, albacore, yellowfin and bigeye, as well as tuna-like species (Xiphias, Tetrapturus, etc.)

5. TYPE OF BAIT USED (IF USED)

The type of bait most often used is the mackerel (Scomber) and the horse mackerel (Trachurus).

6. FISHING OPERATION

a) Description of a normal fishing operation

Vessels depart at midnight to catch by seine the bait to be used the following day. At dawn the vessels go to the areas where they think tuna will be found, while observing with binoculars the horizon in search of concentrations of marine birds or jumping fish, both of which denote the presence of tuna.

The vessels usually tow a troll and during this phase of the fishing operation live bait is tossed at sea at short intervals.

Once contact has been established with a school, the vessel's motor is cut and large amounts of bait are tossed into the water. In the meantime, lines are set at 50 m depths. Once the fish are on the hooks, one buoy or many are attached to the line, as was indicated in a previous section of this report.

b) Effects of weather and hydrographical conditions

No studies were conducted in this aspect. However, in 1979, a program was initiated jointly with the Physics Department in order to ascertain the most favorable conditions for the catch of tunas in the Islands.

c) Conservation and storage methods

Tuna caught by large vessels are conserved on ice when the fishing operations take place far from the ports. The other vessels land their catches on the same day. The fish are then quartered at the canning factories or are frozen for export.

7. CATCHES AND TENDENCIES

Catch for the period 1974-78 were as follows:

1974	546 MT
1975	978
1976	832
1977	1,250
1978	1,548

As can be seen from the above, there is a tendency for the catches to increase. However, catches in the first quarter of 1979 are 40% less than those of the previous year.

8. FISHING EFFORT

Since this fishery is a multi-species one, there is no good measure of effort. Vessel days at sea are available.

9. SIZE AND MATURITY OF THE CAPTURED FISH

The average weight of the fish caught in the last few years is 300 kgs. No tuna in a ripe stage have been observed.

10. PROCESSING METHODS, FISH CONSUMPTION, AVERAGE PRICE, ETC.

The major part of the tuna caught in the Island waters is frozen for later export. A few fish are sold fresh for local markets. The present average price ranges between 80-90 pesetas per kilo.

Table 1.

	1975		1976		1977		1978	
	FRE: %	FRE. %	FRE. %	FRE. %	FRE. %	FRE. %	FRE. %	FRE. %
60-64.9		9 10.12		8 4.34				
65-69.9		11 12.36		4 2.17				
70		3 3.37		4 2.17				
75								
80								
85				1 0.54				
90				8 4.34				
95				16 8.69				
100				4 2.17				
105								
110				1 0.54				
115				3 1.63				
120				18 9.77				
125				7 3.80				
130								
135								
140								
145								
150								
155								
160								
165								
170								
175	1 0.30							
180								
185								
190								
195								
200		1 1.12				2 1.35		
205	2 0.59			1 0.54		4 2.70		
210	3 0.89					1 0.68		
215						4 2.70		
220	1 0.30	2 2.25		3 1.63		4 2.70		
225	7 2.07	1 1.12		1 0.54		6 4.06		
230	14 4.14			3 1.63		13 8.79		
235	18 5.33	2 2.25		11 5.97		17 11.49		
240	52 15.39	3 3.37		11 5.97		17 11.49		
245	35 10.36	7 7.87		4 2.17		11 7.44		
250	45 13.32	10 11.24		12 6.52		22 14.87		
255	47 13.91	9 10.12		15 8.14		17 11.49		
260	59 17.46	9 10.12		18 9.77		22 14.87		
265	18 5.33	12 13.49		11 5.97		5 3.38		
270	20 5.92	2 2.25		6 3.26		1 0.68		
275	3 0.89	8 8.99		6 3.26				
280	7 2.07			3 1.63				
285	6 1.78			4 2.17		1 0.68		
290				1 0.54		1 0.68		
295								
300								
TOTAL	338 100	89 100		184 100		148 100		