

Northwest Atlantic



Fisheries Organization

Serial No. N578

NAFO SCS Doc. 82/IX/19

FOURTH ANNUAL MEETING - SEPTEMBER 1982

Cuban Research Report, 1981

by

O. Leiva and E. Fraxedas

Flota Cubana de Pesca
Ave. La Pesquera Muelle Osvaldo Sánchez
Ciudad de La Habana, Cuba

A. Status of the fisheries

During 1981, the Cuban Fishing Fleet conducted its fishing activities in Subareas 3 and 4. The overall nominal catch in both Subareas was 6667.0 mt (Table 1). This amount represented a decrease of 2587.7 mt when compared to 1980 and 5814.7 mt in comparison to 1979. The main reason for these results was the low catches obtained in the Silver Hake and Squid fisheries.

1 Subarea 3

Cuban catches in Subarea 3 amounted to 4134.0 mt and were taken in Divisions 3M, 3N and 3Ø.

The main species was Atlantic Redfish which represented a 98% of the total catch obtained in this Subarea. The fishing effort mainly concentrated in Division 3N, although the results were higher in Division 3M. Table 2 shows the catches and the species composition. A decrease of 14% was observed in relation to 1980.

Redfish fisheries in this Subarea were carried out during the period April - November.

2 Subarea 4

In this Subarea 2533.0 mt were caught (Table 3). This means a decrease of 38% in relation to 1980. The fishing effort was directed to Squid and Silver Hake. They represented a 72.3% and 25.3% respectively of the total catch obtained in this Subarea.

Concerning the Squid fishery, the catch was higher than that obtained in 1980 and represented an increase of 15.1%. However, the Silver Hake catches were extremely lower than those in 1980, representing a decrease of 72%.

The fisheries began in May and lasted until November and the fishing effort concentrated in June and July.

It should be pointed out that the execution of the Cuban fishing operation in the Northwest Atlantic was considered unsatisfactory, mainly due to some factors which made impossible to catch allocations of resources that were in good conditions.

Out of five vessels operating in the area, only two of them reached good results. The others experienced some engineering problems during the whole season which affected the successful development of the fisheries.

B. Special Research Studies

1 Selectivity Study

A selectivity study on Redfish was conducted during May, 1981 in Division 3M. Selection parameters for the 90 and 120 mm mesh kapron codends were determined from parallel and alternate fishing operations by two commercial trawlers engaged in the Redfish fisheries. 50% retention lengths of 28.4 and 31.4 cm and selection factors of 3.1 and 2.6 for the 90 and 120 mm codends respectively were obtained.

2 Miscellaneous Studies

2.1 Taking into account the last four years samples of otoliths obtained from the Cuban commercial and research vessels, age length keys for assessment purpose were made on Silver Hake in the Scotian Shelf. The Von Bertalanffy growth equation was used to describe the growth of males, females and both.

2.2 The mortality rates for the 0th Silver Hake year class was estimated using the Leslie matrix algorithm. Assuming an equilibrium population, the mortality rate obtained indicates about 4 survivors per million eggs in the first year of life.

Table 1. Nominal catches by Subareas during 1980 and 1981.

S U B A R E A S	1980		1981	
	mt	%	mt	%
3	4807.7	51.9	4134.0	62.0
4	4080.5	44.1	2533.0	38.0
5 + 6	366.5	4.0	-	-
T O T A L	9254.7	100.0	6667.0	100.0

Table 2. Catches in Subarea 3, 1980 and 1981.

S P E C I E S	CATCHES (MT)		%	
	1980	1981	1980	1981
Atlantic Cod	52.9	1.0	1.1	0.0
Atlantic Redfish	4679.3	4050.0	97.3	98.0
Flatfishes n.e.i.	17.9	-	0.4	-
Groundfishes n.e.i.	-	37.0	-	0.9
Silver Hake	43.0	-	0.9	-
Red hake	10.9	-	0.3	-
Pollock	1.3	-	0.0	-
Atlantic Mackerel	-	-	-	-
Squid	-	46.0	-	1.1
Atlantic Halibut	1.5	-	0.0	-
Haddock	0.9	-	0.0	-
T O T A L	4807.7	4134.0	100.0	100.0

Table 3. Catches in Subarea 4, 1980 and 1981.

S P E C I E S	CATCHES (MT)		%	
	1980	1981	1980	1981
Silver Hake	2286.7	642.0	56.0	25.3
Atlantic Redfish	9.8	-	0.2	-
Argentine	4.3	-	0.1	-
Red Hake	27.3	5.0	0.7	0.2
Groundfishes n.e.i.	20.0	3.0	0.5	0.1
Atlantic Cod	60.9	35.0	1.5	1.4
Haddock	19.5	14.0	0.5	0.6
Mackerel	18.8	3.0	0.5	0.1
Squid	1589.3	1830.0	39.0	72.3
Flatfishes n.e.i.	5.1	1.0	0.1	0.0
Pollock	31.7	0	0.8	0
Atlantic Herring	6.6	-	0.1	-
Atlantic Halibut	0.5	0	0.0	0
T O T A L	4080.5	2533.0	100.0	100.0

