

Northwest Atlantic



Fisheries Organization

Serial No. N383

NAFO SCS Doc. 81/IX/22

THIRD ANNUAL MEETING - SEPTEMBER 1981

Cuban Research Report, 1980

by

E. Praxedas and O. Leiva

Flota Cubana de Pesca  
Ave. Pesquera esq. Mercados  
Habana, Cuba

A. Status of the fisheries

The Cuban fishing activities in 1980 were conducted in Subareas 3, 4, 5 and 6. The total nominal catch obtained amounted to 9254.7 M.T., representing a decrease of 3227.0 M.T. when compared to 1979 (Table 1). This difference was mainly due to the low catches of hake and squid.

1. Subarea 3

Catches obtained in this Subarea to a level of 4807.7 M.T. were taken in Divisions 3K, 3L, 3M, 3N and 3O.

Table 2 shows the catches and the species composition. Redfish was the directed species in this Subarea and a fairly good abundance was noted. This species made up 97.3% of the total catch. The remaining species had a very low percentage in the by-catch index.

Redfish fisheries in this Subarea were carried out during the period March-June, mainly in Divisions 3M, 3N and 3O.

2. Subarea 4

Directed fisheries were conducted on Silver Hake and Squid. Silver Hake made up 56% of the total catch obtained in this Subarea, while Squid represented a 39%. The rest of the species constituted a low percentage in the by-catch index (Table 3).

The fishery in this Subarea began on April and lasted until September. The greatest amount of effort was expended during the period May-August.

As it happened in previous years, no fisheries of Argentine were conducted due to the fact that the commercial concentrations of this species occur in the litigation zone between U.S.A. and Canada.

It should be pointed out that the small mesh size line obstructed the Silver Hake fisheries, impeding the movement of commercial fishing vessels to areas northward the line. Silver Hake concentrations are determined by environmental conditions that may change annually, provoking the movement of the species and thus limiting the searching and catching of commercial concentrations of fish.

On the other hand, the fishing area of the so called "Silver Hake box" is too small and does not allow wide-range movements of vessels while trying to avoid by-catch problems. In relation to this, it should be

noted that occasionally, when beginning a fishery, the by-catch limit may go beyond the allowable index for haddock, pollock and cod; however, at the end of the season or any extended period, the by-catch percentage is found to be within the rates established. The lack of flexibility concerning this matter constantly brings about operational difficulties that could be easily avoided if the allowable percentage is tailored to the by-catch requirements of the different periods of the season.

3. Subareas 5 + 6

Catches in Subareas 5 + 6 were taken during March in Subdivision 5Ze and Division 6A within the fishing windows established in that zone.

The total nominal catch obtained in both Subareas amounted to 366.5 M.T.

Silver Hake was the directed species in the former areas, but the predominant species was mackerel (64.1% of the total catch) mainly in Division 6A. Small quantities of other species were also caught (Table 4).

B. Special Research Studies

1. Biological studies by species

During 1980 the Observer Programme on board commercial Cuban fishing vessels continued throughout the fishing season, so biological sampling was conducted on Short-finned Squid and Silver Hake from Divisions 3LN, 3O and 3M. Forms CFS-1 with a part of length frequencies of the former species were sent to NAFO Secretariat.

A sample of 3196 Redfish was taken (2518 from Division 3M and 678 from Division 3LN) which allowed to compute the length-weight relationship of this species for each Division.

347 pairs of Silver Hake otoliths were removed (123 males and 224 females) in order to determine and update the age-length key.

Table 1.- Nominal catches by Subareas during 1979 and 1980.

S U B A R E A S	1979		1980	
	M.T.	%	M.T.	%
2	882.3	7.1	-	-
3	5792.4	46.4	4807.7	51.9
4	5807.0	46.5	4080.5	44.1
5 + 6	-	-	366.5	4.0
T O T A L	12481.7	100.0	9254.7	100.0

Table 2.- Catches in Subarea 3, 1979 and 1980.

S P E C I E S	CATCHES (MT)		%	
	1979	1980	1979	1980
Atlantic cod	410.0	52.9	7.0	1.1
Atlantic redfish	5147.7	4679.3	88.9	97.3
Flatfishes n.e.i.	14.9	17.9	0.3	0.4
Groundfishes n.e.i.	23.3	-	0.4	-
Silver hake	34.0	43.0	0.6	0.9
Red hake	3.2	10.9	0.1	0.3
Pollock	2.6	1.3	0.0	0.0
Atlantic cackerel	27.4	-	0.5	-
Squid	129.3	-	2.2	-
Atlantic halibut	-	1.5	-	0.0
Haddock	-	0.9	-	0.0
T O T A L	5792.4	4807.7	100.0	100.0

Table 3.- Catches in Subarea 4, 1979 and 1980.

S P E C I E S	CATCHES (MT)		%	
	1979	1980	1979	1980
Silver hake	1798.2	2286.7	30.9	56.0
Atlantic redfish	9.8	9.8	0.2	0.2
Argentine	1.1	4.3	-	0.1
Red hake	0.9	27.3	-	0.7
Groundfish n.e.i.	1.1	20.0	-	0.5
Atlantic cod	12.9	60.9	0.2	1.5
Haddock	20.5	19.5	0.4	0.5
Mackerel	23.3	18.8	0.4	0.5
Squid	3887.3	1589.3	66.9	39.0
Flatfish n.e.i.	1.1	5.1	-	0.1
Pollock	51.1	31.7	1.0	0.8
Atlantic herring	-	6.6	-	0.1
Atlantic Halibut	-	0.5	-	0.0
T O T A L	5807.3	4080.5	100.0	100.0

Table 4.- Nominal catches in Subareas 5 + 6 during 1980.

S P E C I E S	C A T C H E S (M T)			
	SUBAREA 5	SUBAREA 6	TOTAL 5+6	%
Silver hake	1.9	47.9	49.8	13.6
Red hake	0.2	13.8	14.0	3.8
Atlantic Butterfish	0.9	9.1	10.0	2.7
Atlantic Mackerel	-	234.8	234.8	64.4
Long Finned squid (Loligo)	-	0.9	0.9	0.3
Pelagic Fishes n.e.i.	-	23.6	23.6	6.4
Groundfishes n.e.i.	-	33.4	33.4	9.1
<b>GRAN TOTAL</b>	<b>3.0</b>	<b>363.5</b>	<b>366.5</b>	<b>100.0</b>