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Between 11 July and 10 September, 1962, the research vessel "Thalassa" completed an exploratory cruise between Georges Bank and the Laurentian Channel in depths principally between 150 and 350 m.

Fishing was carried out with a trawl of 30 m headrope, 41 m footrope and 50 mm mesh size between knots.

Subarea 5 Region of the Gulf of Maine and Georges Bank

Herring were found principally in the cold waters (6°-8°C) of this region, namely:

- in the Gulf of Maine (Stellwagen)
- along the north and west slopes of Georges Bank and in the region northeast of this bank.

However, it should be noted that this species on the northern edge of Georges Bank, appeared equally at the surface, in about 14°-15°C water, as long narrow shoals. The presence of herring in this relatively warm layer can perhaps be explained by the abundance of Euphausiids, equally visible at the surface.

Haddock were only found in notable quantities on the northeast edge of Georges Bank not far from one of the areas where herring were abundant.

Silver hake (Merluccius bilinearis) were never found in very great quantities. The best catches (NW and NE of Georges Bank) were made in water temperatures varying from 7° to 12°C. But on the southeast edge of Georges Bank, in analogous conditions, catches were very small. Hake (Merluccius albidus) were found, in very small quantities, in the southernmost part of the explored region, also, occasionally a few specimens, on the southeast slope of Georges Bank.

Some lobsters were caught in 11°-13° water, 80 miles south of Cape Cod. It is noted that this species has also been taken, but in appreciably less important quantities, on the southeast edge of Georges Bank, where the warm Atlantic influence is evident.

Subareas 4 and 3Ps

- (a) Brown, LaHave and Sambro Banks and the slopes between Emerald Bank and Sable Island

Redfish were taken in important quantities southeast of Sambro Bank in water 6°C and 120 m average depth. In the remainder of the region captures were sporadic: on the slopes one noted a concentration of catches at depths, in the cooler Atlantic waters, that is, waters more than 250-300 m deep and 5° to 7°C.

Silver hake were found especially on the slopes of the region. Here, the best catches of the cruise were made at 250 m in water about

6°C. All of the best catches were made between 5°C and 8°C and between 115 to 380 m. That is, the habitat of this species is not very restricted and is not limited to the regions warmed by the Atlantic influence.

Argentine were most abundant at about 300 m and 7°C.

Lobsters were sometimes found, in small quantities, along the slopes at 7.5°C to 9.5°C.

(b) South-eastern and eastern edge of Banquereau

Redfish were noticeably dominant in catches from 140 to 240 m at 5°C to 7°C. Argentine were found especially from 230 to 260 m.

(c) Western and eastern edge of the Laurentian Channel. Burgeo Bank and the middle of the Channel.

Redfish were dominant in all these regions, generally in water 5°-6°C, but sometimes colder (4°C on south-eastern Burgeo Bank) and at depths between 160 to 340 m with a noticeable increase in catch with depth.

Cod only appeared in the cold Labrador water layer or in the neighbourhood of this layer, at lesser depths not more than 200 m.

Argentine were almost always taken in small quantities on the western edge of St. Pierre Bank, mixed with redfish.

Finally, silver hake, present only on the western edge of St. Pierre Bank, were encountered especially on the north half at 220 m in waters about 6°C (conditions analogous to those observed last year). That this species did not appear frequently in the east and north part of Laurentian Channel (the edge of Misaine and Burgeo Banks), is probably because of the too low temperatures in the region (3° to 5°C average), where the Atlantic influence is small. Likewise on the western edge of St. Pierre Bank, one notes a decrease of silver hake with depth (depths above 300 m) probably for the same reason.

The following table summarizes the observations made on the catch per hour and the composition of the catches. (See table page 3).

Region	Total Catch (Kg.) per hour Trawling	Silver Hake	Percentage by weight of the Different Species in the Total Catch per hour Trawling					Lobster
			Herring	Redfish	Argentina	Haddock		
Cape Cod	645	3.6	47.1	7.4	-	7.8	-	
North, north-west western Georges Bank	965	10.2	66.4	0.3	-	3.0	-	
Slopes 80 miles south of Cape Cod	120	11.7	-	-	-	-	42.5	
South-eastern Georges Bank	76	25.0	-	-	-	-	7.1	
North-east Georges Bank and channel separating it from Brown Bank	4,062	1.2	79.2	-	-	16.7	-	
Brown Bank	386	-	-	-	70.5	12.7	-	
La Have and Sambro Banks	1,367	0.4	-	91.5	-	-	-	
Southern edge of Emerald Bank and Sable Island	356	34.0	-	18.8	11.5	8.1	0.4	
South and south-east Banquerneau	1,642	0.5	-	53.5	29.6	-	-	
Western St. Pierre Bank	498	12.6	-	41.9	15.9	-	-	
Misaine Bank	513	0.1	-	87.5	-	-	-	
Laurentian Channel	476	-	-	85.5	-	-	-	