

VI. A Brief Preliminary Report of the Scientific Spanish Researches Made in Newfoundland Waters Aboard the Trawler *Vendeval*, February-March, 1953

FORWARDED BY THE SPANISH DELEGATION TO THE ANNUAL MEETING, MAY, 1953

A complete report of the results will only be available at a later date when the material has been fully treated.

Date: February and March, 1953

Zone: South of Great Bank
Bank of St. Pierre
Brief Exploration in Banquereau

Personnel: Mr. D. Rafael Lopez Costa, Chemist
of the Spanish Institute of Oceanography

Mr. D. Olegario Rodriguez Martin,
Biologist on the General Direction
of Fisheries

The following species were made the objects of researches:

Cod	<i>Gadus callarias</i>
Haddock	<i>Melanogrammus aeglefinus</i>
Pollock	<i>Pollachius virens</i>
White Hake	<i>Phycis tenuis</i>

These species are the only ones of interest to our fishermen, because they are best suited for preservation in salt. Halibut or redfish, were not fished for, and a quantity of these present in the net caused the fishermen to seek other fishing grounds.

Problems that faced us:

a—size. The most current sizes have been:

	Great Bank	St. Pierre
Cod	40 to 60 cms.	55 to 65 cms.
Haddock	40 to 50 „	45 to 55 „
Pollock	60 to 70 „	60 to 70 „
White Hake	70 to 80 „	70 to 80 „

Fish of size less than 40 cms. were not used.

b—sexual stage

Sexual Stage		I	II	III	IV	V	VI	Total of fish observed
Cod	male	107	4	7	—	9	—	127
	female	95	10	5	—	6	—	116
Haddock	male	8	7	14	13	4	—	46
	female	9	5	6	15	4	—	39
Pollock	male	1	1	—	1	1	24	28
	female	2	2	—	—	—	13	17
White Hake	male	—	—	2	15	5	—	22
	female	1	13	5	4	6	1	30

c—food. Collections of stomach contents were made for each of four species for later examinations.

d— conversion factors

To estimate the loss of weight weighings of samples of fish were carried out for each of the following treatments:

- a) by cleansing, by heading, gutting and boning.
- b) by salting.

The fish weighed were marked with metal tags so that they could be weighed again upon their arrival at port.

The loss in weight by cleansing of the four species can be anticipated as follows:

Cod	Large (94 to 130 cms.)	49% loss
	Medium (70 to 94 „)	43.5% „
	Small (37 to 66 „)	42.1% „
Haddock		37% „
Pollock		32% „
White Hake		47.6% „

The losses by salting will be reported on later.

e—plankton

Surface plankton was collected with special indicator, as well as with silk sleeve, the samples are being kept in formaldehyde for later studies.

f—scales and otoliths

For all four species mentioned scales and otoliths were collected in connection with individual measurements and determinations of stage of maturity.

g—observations on water temperature both from the surface and from various deeper water layers were made.

h—salinity Samples of water were collected.

i—phosphorus Determinations of contents per cubic meter were carried out during the cruise.