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# Northwest Atlantic



# Fisheries Organization

Serial No. N803

NAFO SCS Doc. 84/VI/10

#### SCIENTIFIC COUNCIL MEETING - JUNE 1984

Spanish Research Report, 1983

by

M. G. Larrañeta

Instituto de Investigaciones Pesqueras Muelle de Bouzas, Vigo, Spain

1. SUBAREA 3

### A. Status of the Fisheries

The Spanish fishery in Div. 3L was irregular, but compared with 1982 cod abundance seems to have improved. Fishing was spacially successful in July. Annual cod catches were 1449 t in 1982 and 5052 t in 1983. Fishing effort increased by about 2.3 and catches by about 3.5. During the second quarter, modal length classes were 51-59 cm, and the modal age-group 5 yr.

In Div. 3M Spanish cod catches were 4513 t in 1982 and 4407 t in 1983. Fishing effort has decreased by 9% from 1982 to 1983. Cod catch-per-unit effort was 0.52 in 1982 and 0.55 in 1983, and the daily catch was for PTB-4 6.03 t in 1982 and 7.06 t in 1983. That is to say, from Spanish catches, it seems that the 3M cod fishery improved slightly from 1982 to 1983. The best season during 1983 for the Spanish fishery was the fall. Modal length classes were 45-46 cm during second quarter and 72-80 cm during third quarter. Age group 3 appears to have been more abundant than age group 4, and modal age groups were 5-6 yr.

In Div. 3N, Spanish cod catches were 14361 t in 1982 and 12320 t in 1983. Spanish fishing effort has decreased from 1982 to 1983 by 39%. Catch-per-unit effort of cod was 0.57 in 1982 and 0.83 in 1983. The daily catch for PTB-4 was 6.24 t in 1982 and 9.38 t in 1983, and for PTB-5 was 7.97 t in 1982 and 6.13 t in 1983. In general, it may be said that from the Spanish fishery there has been a substantial increase in the density of the 3N cod stock from 1982 to 1983. The success of the Spanish cod fishery in Div. 3N was at a similar level throughout 1983. Cod length distribution in Div. 3N Spanish catches was rather polymodal, with important quantities of small fish (27-41 cm), and modes at 54-56, 60-65 and 90-95 cm classes. Modal age groups were 5, 8 and 9 yr. It seems that the 1980 year-class (age-group 3) will be important.

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### Biological studies

Two biologists were from April to August on board two Spanish bottom pair trawlers, to sample catches and to observe fishing operations in order to improve statistics. Number of fish sampled 14577, number of fish extracted otoliths 1888, number of fish aged 1630.