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Portuguese Research Report, 1981

by

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This paper summarises the biological informations collected by portuguese observers in Subareas 3 and 4 during 1981, on board of the otter trawl "Luis Ferreira de Carvalho" in Division 3M, 3NO and 4W, in order to obtain informations about length composition, growth and maturity of the catches.

This fishing vessel fished mainly Silver Hake, so, only a few samples of Cod and Redfish were collected.

SUBAREA 3

Special Research Studies

1 - Enviromental studies

No research studies were carried out on these subjects.

2 - Biological studies

2.1. Cod

Biological studies on cod were carried out in Division 3M and the results were already presented to NAFO (SCR doc 81/IX/101)

2.2. Redfish

Only 150 fish were measured (3 samples in June) and 139 pairs of otoliths collected in Division 3M. The length distribution is shown in Fig. 1. The age composition is not yet available.

2.3. Silver hake

Only three samples were collected, during July, with a total os 300 fishes measured and 56 pairs of otoliths collected for age determination.

The length distribution is presented in Fig. 2 and shows a mode at 30cm. The right hand part of the curve is similar to the ones presented for Div. 4W (Fig 2 ), however the left hand part is different and it suggests is was truncated.

SUBAREA 4

Special Research Studies

1 - Enviromental studies

No research studies were carried out on these subjects.

2 - Biological studies

2.1. Cod

A total of 995 fishes were measured during June and 76 pairs of otoliths taken for age determination.

The length distributions were unimodal (Fig. 3) mainly from 33 to 66cm Lt, with a mode at 45cm.

The information for age determination is not yet available.

2.2. Silver hake

The samples were collected during May and June with a total of 4 300 fishes measured (43 samples) and 298 pairs of otoliths for age determination. The length distribution (presented in Fig. 4 ) ranged in both months mainly from 24 to 38cm, with a mode at 30cm. Fish of 16 to 20cm also appear in both months.

The information for age composition is not yet available.

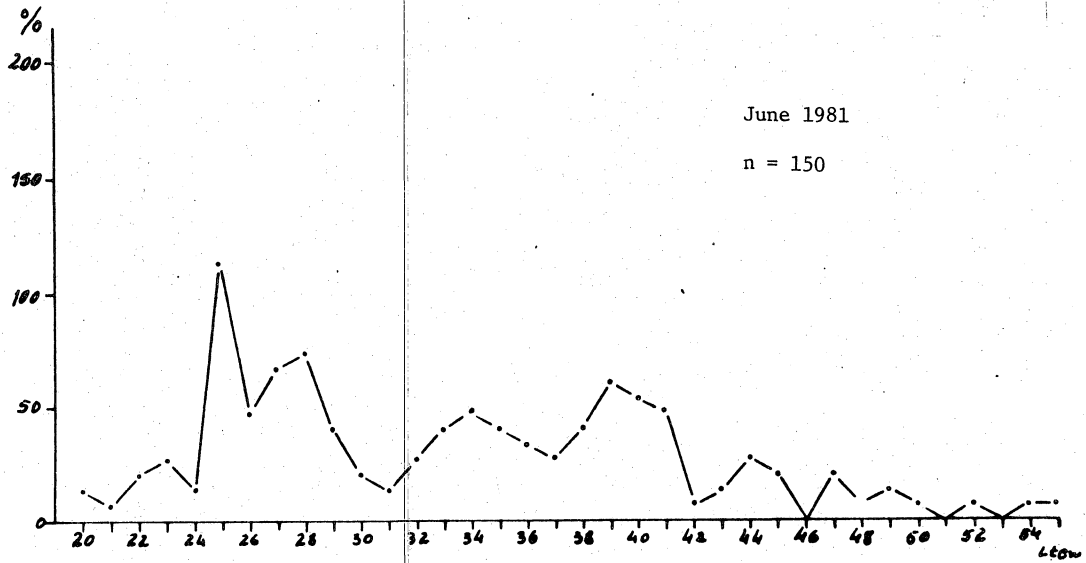


Fig. 1. Redfish length distribution, Division 3M

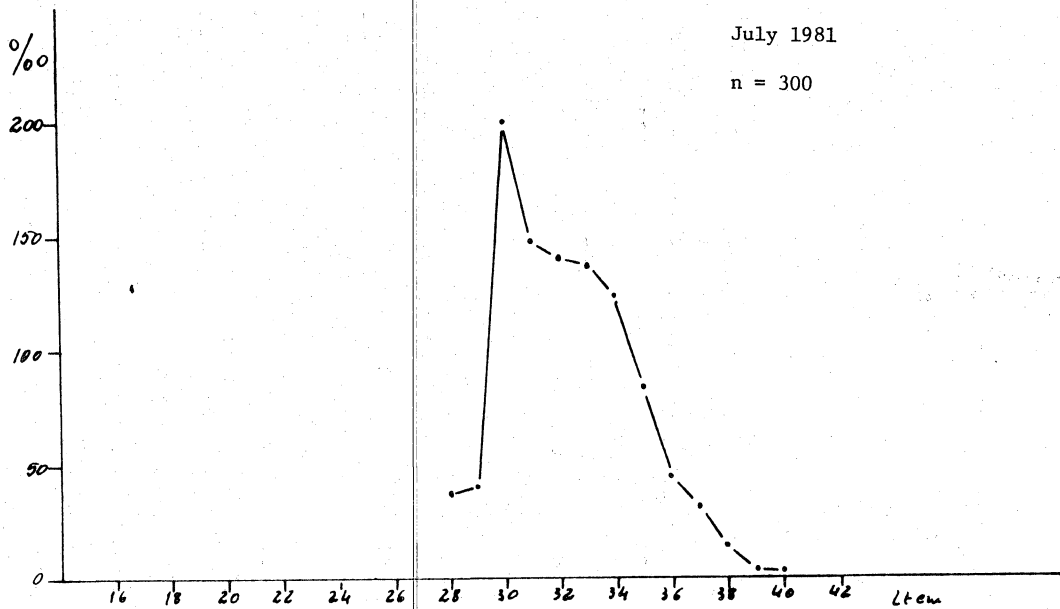


Fig. 2. Silver hake length distribution, Division 3NO.

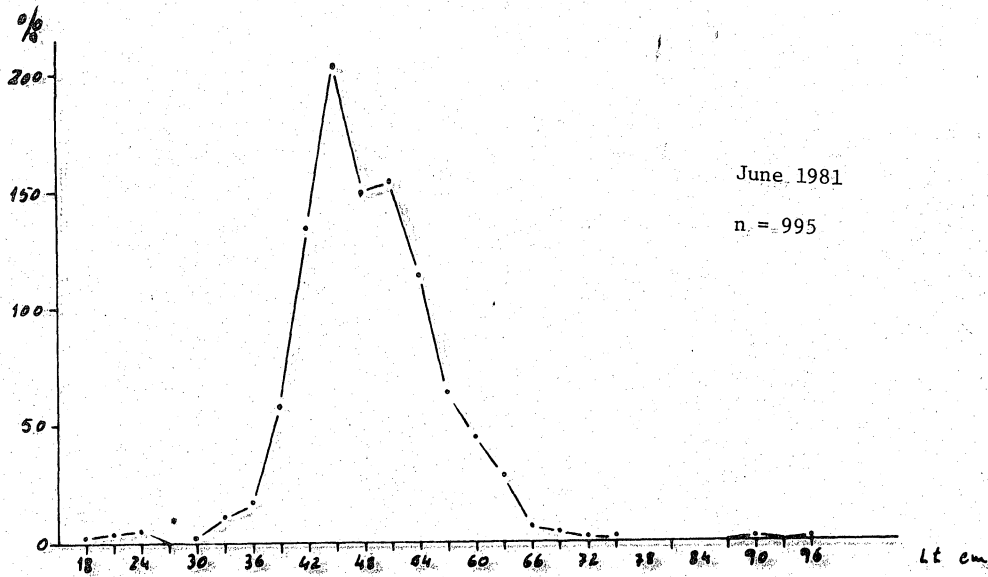


Fig. 3. Cod length distribution, Div. 4W, 1981.

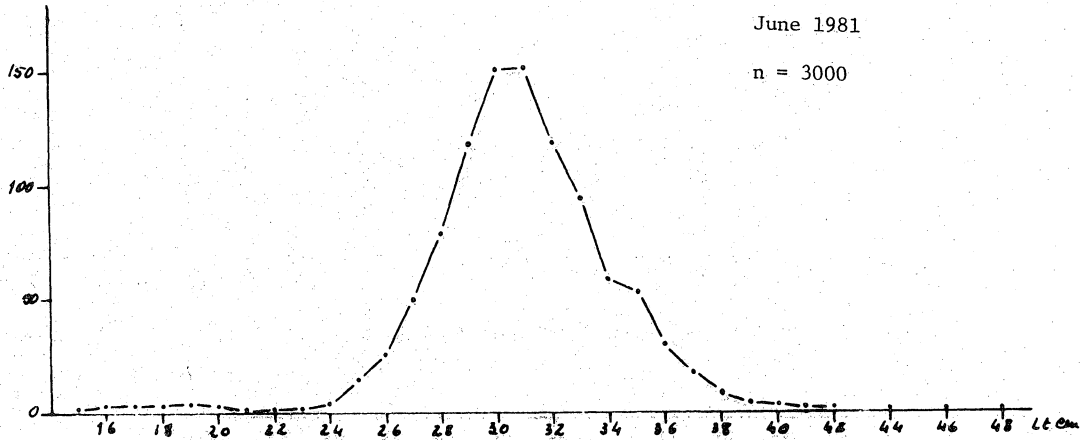
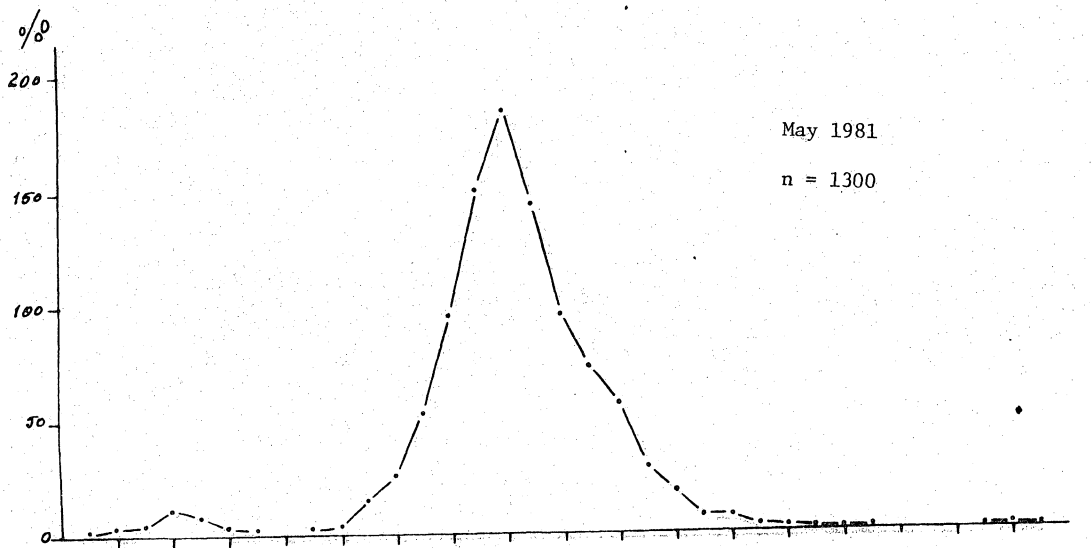


Fig. 4. Silver hake length distribution, Division 4W, 1981.