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DANISH RESEARCH REPORT, 1967

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Subarea 1

A. Status of the Fisheries.

Table 1 shows the nominal catch by species taken by Denmark (Greenland) in Subarea 1, 1967.

Table 1. Denmark (G) 1967, Subarea 1.

Species	Nom.catch, metric tons	% increase or decrease compared to 1966 figures.
Cod	27,523	-5 %
Wolffish	2,706	+9 %
Greenland halibut	1,834	-29 %
Atlantic salmon	1,280	+2 %
Other fish for consumption	373	-58 %
Capelin	3,735	+175 %
Sand-eel	320	-34 %
Other industrial fish	383	
Deep sea prawn	5,644	+5 %
Total	43,798	+1 %

- 1) Does not include catches by Danish and Faroese drifters.
- 2) Including 143 tons lumpsucker roe not converted to whole fish.

The total nominal catch for 1967 is unchanged from 1966 but the composition of the catch in 1967 differs somewhat from that of 1966. The main trends for the most important species are:

I. Cod.

There has been a 5% overall decrease in nominal catch from 1966 to 1967. This is due to a great decrease in the northernmost districts (Divs. 1A, 1B) whereas there has been some increase in the southern districts (Divs. 1C-1F).

The 1960 and 1961 year-classes has been of major importance to the fishery but also the 1963 year-class has been of some importance, especially in pound net catches in Divs. 1D-1F, although not all specimens of this year-class has reached the required minimum size (42 cm total length) for fileting. There has been an unknown but not insignificant discarding of cod belonging to this year-class.

The 1963 year-class seems to be the only year-class of some importance since ~~between~~ the year-classes 1961 ~~and 1965~~ (no information about year-classes 1966 and 1967). This 1963 year-class will probably predominate the 1968 and 1969 catches. The 1960 and 1961 year-classes may still be of some importance for the long-liners but will not contribute very much to the hand-line and pound net fishery in 1968 and 1969.

The 1968 fishery has up to now (late March) shown a serious decrease of 65% compared to the 1967 fishery at the same time but the major part of this decrease may possibly be ascribed to severe weather and ice condition.

II. Atlantic salmon.

The 1967 fishery is very similar to that of 1966. Greenland fishermen has fished by fixed gill nets in inshore waters only.

III. Other fish.

The catches of wolffish increased by 220 tons (9%) whereas the fishery for Greenland halibut decreased by 735 tons (29%) from 1966 to 1967.

Production of lumpsucker roe decreased from 579 tons in 1966 to 143 tons in 1967.

The fishery for industrial fish (capelin, sand-eel and other fish) increased by 2020 tons (84%) from 1966 to 1967. The fishery for sand-eel started in 1967, fishing by otter trawl by a single vessel. Catches were very promising but technique and experience is not yet adopted to that fishery.

The important fishery for deep sea prawn increased in the Disko Bay but decreased in southernmost Greenland, giving an overall increase of 5% compared to 1966.

B. Special Research Studies.

I. Environmental studies.

Very little has been done as regards hydrographic work and no collection of plankton material has been taken owing to the fact that only the small 30 feet motorboat was available most of the season. On account of different circumstances R/V DANA could not work in Greenland waters in 1967 and ADOLF JENSEN I could only be used until May. The new vessel ADOLF JENSEN II came to Greenland ultimo September and started the work primo October.

1. Hydrography.

Only on the station at the entrance to the Godthåb Fjord regular observations have been taken from January to August and in December. In January and February rather high temperatures were found near the bottom and only in the uppermost ten meters negative temperatures were found.

In the spring and first summer months the temperatures were a little below the normal in the uppermost layers.

In December the uppermost waterlayers were cooled very much while the bottom temperatures were about or a little below the normal.

II. Biological studies of fish by species.

1. Cod.

a. Larvae. No fishing with stramin net for cod larvae has been carried out in 1967.

b. Occurrence of small cod (age groups I, II, and III).

Very few small cod younger than 4 years have been taken by fishing with prawn trawl. There is reason to believe that the year-classes 1966, -65, and -64 are poor year-classes.

c. Age and size of cod in commercial stock.

Fig. 1 shows the length and age composition of catches taken in pound net in Igaliko Fjord and in the coastal area near Sermersoq (Div. 1F) in July. The two catches are very much alike. The year-class 1963 was predominating in both catches and the maxima on the length curves were between 39 and 41 cm.

Fig. 2 gives the age analyses of cod from the Greenlanders' catches. It is evident that the year-class 1960 has decreased very much since last year. It predominated only in one sample taken on the northernmost station Div. 1A, No. 1. In the Godthåb Fjord (1D) and in Divs. 1E and 1F it is nearly absent. In all other samples except Nos. 5, 9, and 10 the year-class 1961 predominates. Year-classes older than 1960 are very rare. Only in one sample No. 7, 1C an old year-class 1957 is represented with more than 15%, in all other samples except No. 8 in 1C where it is between 5 and 10% it is below 5%. Between youngest year-classes the year-class 1963 predominate in three samples No. 5 in 1B, and Nos. 9 and 10 in 1C.

Fig. 3 shows the age and length composition in two catches. No. 13 is a long line catch taken on Fylla Bank (1D) from a Greenland long-line vessel. No. 14 is from a sample from the Faroese trawler SKÁLABERG from ~~Kræ~~ Frederikshåb Bank (1E), this material is collected between 11 May and 18 June. The trawl ~~catch~~ sample had much bigger and older year-classes of cod than the long-line catch. Usually the opposite is the case. The reason must ~~be~~^{to} some degree be due to that the small cod caught by the trawler have been discarded and therefore not measured.

d. Tagging experiments.

960 cod have been tagged in coastal area and fjords in 1C and 1D.

2. Atlantic salmon.

Like in 1966 material for salmon studies were collected in collaboration with English, Scottish and Canadian scientists. In addition fishing experiments with T-net were carried out.

In the period from 22 August to 13 November a number of 1874 salmon were caught. While 1848 salmon were caught in gill net only 26 were caught in T-net. A total of 372 salmon ~~were~~ was tagged. 358 (19.4%) salmon taken in gill net could be tagged, while 14 (53.8%) salmon taken in T-net could be used for tagging. The high percentage of undamaged salmon caught in T-net makes it desirable to use that gear, but T-net catches are so small that if a reasonable number of salmon should be caught for tagging the gill net must be preferred. It is, however, planned to continue the fishing experiments with T-net in 1968.

Ten salmon from each of the Divs. 1B, 1C, 1E, and 1F has been sent to a Canadian specialist to be investigated for parasites.

Measurements and weights together with samples of scales have been collected on different fisheries stations.

From the tagging experiments in 1966 in Greenland four recaptures have been reported from foreign rivers. Three were recaptured in Scotland and one in Canada.

186 salmon tagged in foreign countries were recaptured in Greenland waters in 1967. The tags were distributed as follows: Canada 106, U.S.A. 38, Scotland 27, England 6, Sweden 8, and Iceland 1.

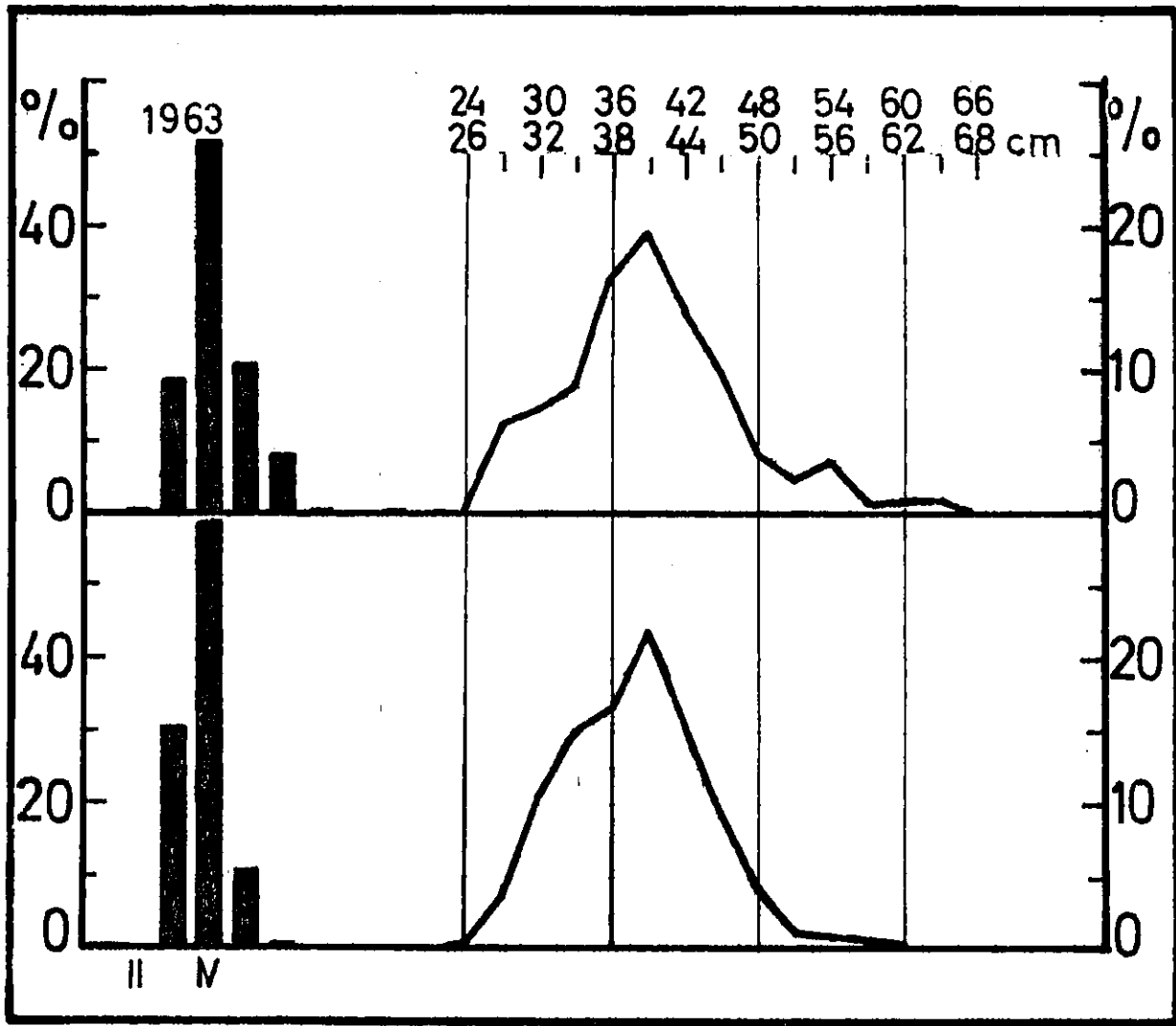


Fig. 1. Cod. West Greenland. Length and age composition of pound net catches in inshore waters Div. 1F in July, 1967.

1967

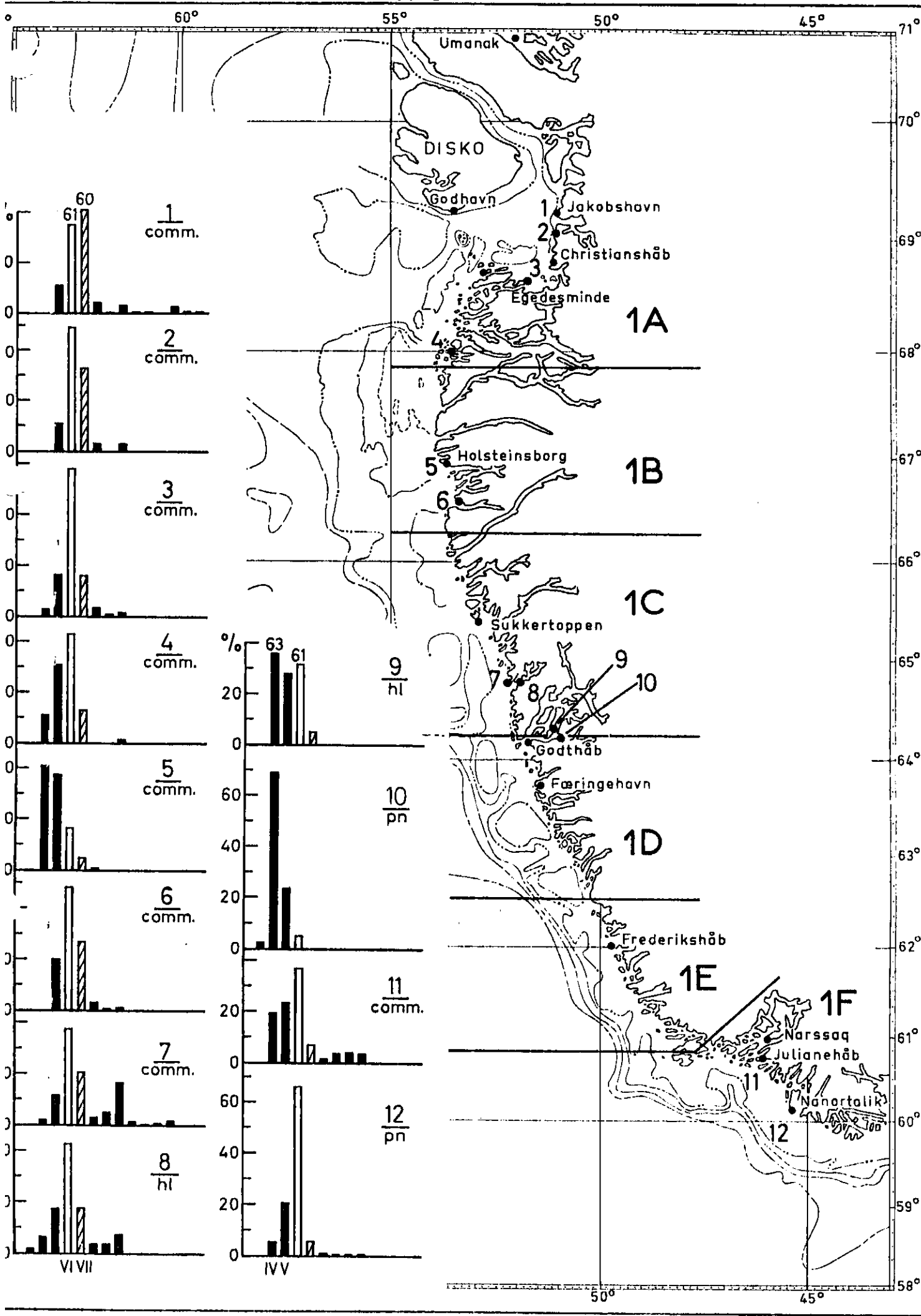


Fig. 2. Cod. West Greenland. Age composition of Greenlanders' catches from inshore waters, 1967.

1967

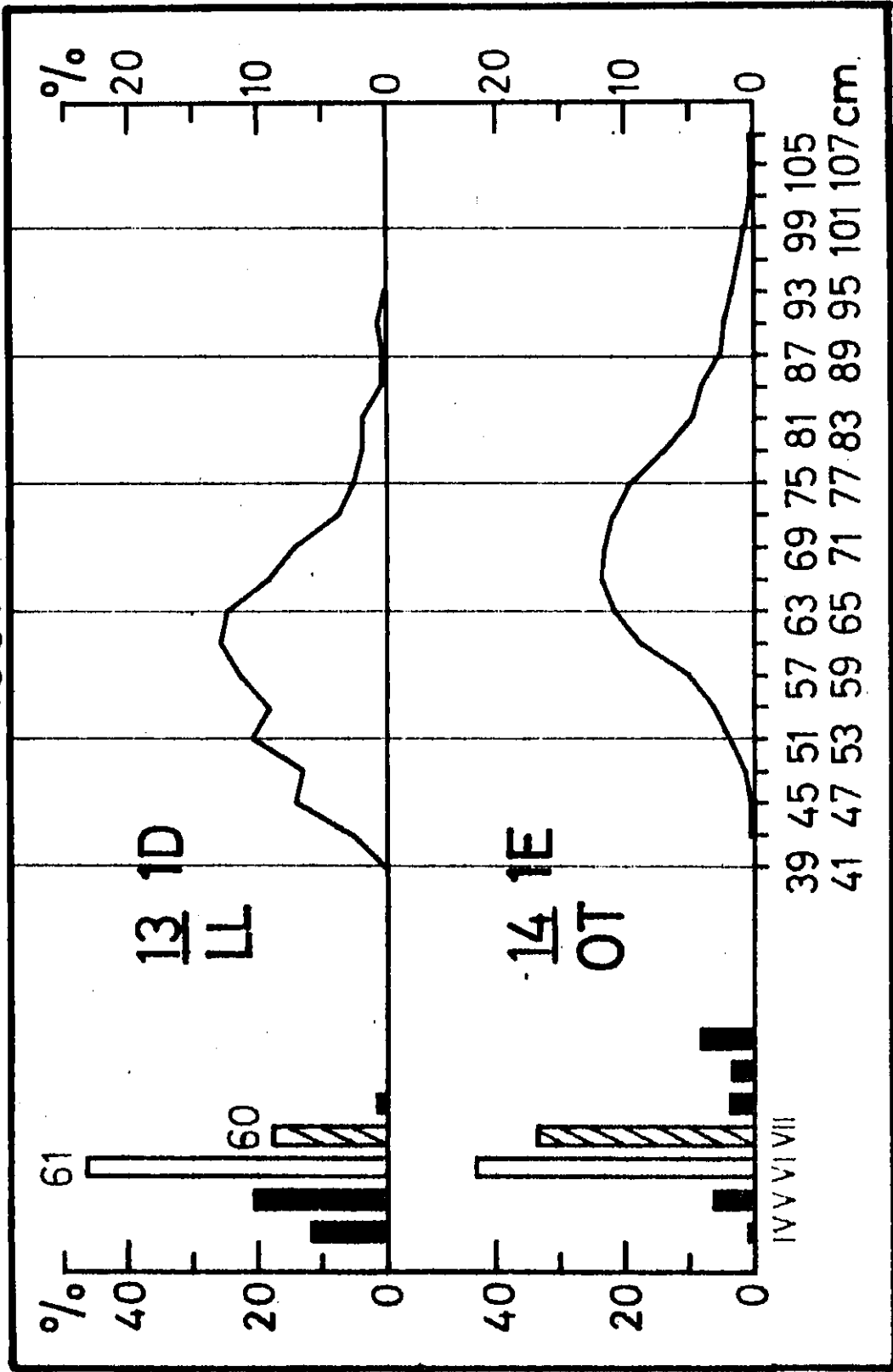


FIG. 3. Cod, West Greenland. Length and age composition of long-line (LL) and trawl (OT) catches. No. 13 Fylla Bank (1D) and No. 14 Frederikshåb Bank (1E). 1967.