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Longline Fishery for Greenland Halibut
in the Davis Strait, November 1989

by

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Introduction

A stratified longline survey for Greenland halibut (*Reinhardtius hippoglossoides* W.) was conducted in November 1989 by the Faroese longliner 'Vestfart' in NAFO Divisions 1B (south), 1C and 1D in the Davis Strait to investigate the possibility for a future fishery for Greenland halibut.

Materials and Methods

'Vestfart' is a 593 gross register tonnage shelterdecker equipped with an autoliner system. The fishing gear consisted of 7.5 mm thick polyesterlines to which 50 cm long snoods, distanced 140 cm, with Mustad no. 8 hooks were attached. Typically one linesetting consisted of 4000 hooks. Cuttle-fish was used as bait. The linesettings were stratified by depth and NAFO-division (Table 1 and Fig.1). All Greenland halibut caught were measured, weighed, sexed and the gonad maturity was determined. Otoliths were sampled for age determination. Total weight of catch per linesetting was recorded for each species.

Results

Generally, CPUE was low over the whole area. Highest CPUE was found in Div. 1D at depths beyond 1000 m, with a maximum catch of 146 g of Greenland halibut per hook at depths between 1200 and 1400 m (Table 1). As seen in Fig. 2 and Table 2 the mean length increases by depth.

Although mature fish were common in the catches no fish in a condition close to spawning were observed. From Fig. 2 it appears that the sex ratio is equal for depths lesser than 1000 m, while there is a surplus of males lesser than 60 cm at greater depths. Largest male was 79 cm and largest female was 103 cm.

When comparing the CPUE in the survey with the CPUE from the fishery for Greenland halibut in the fjords of West Greenland, CPUE's in the survey seems much lower than in the inshore fishery and mean lengths are lesser, too. However, this conclusion is based on 13 linesettings only, and no firm conclusion can be drawn on the possibilities of longline fishery for Greenland halibut in the Davis Strait.

Table 1. CPUE (grams per hook) of Greenland halibut by depth strata and NAFO-division. Figures in brackets indicate number of linesettings.

Division	Depth (m)					
	400- 600	600- 800	800- 1000	1000- 1200	1200- 1400	1400- 1600
1Bs	3 (1)	69 (1)	77 (1)			
1C	0.3 (1)		38 (1)	54 (1)		
1D		12 (1)		81 (3)	146 (2)	126 (1)

Table 2. Mean length of Greenland halibut in the catches by strata.

Division	Depth (m)						weighted mean
	400- 600	600- 800	800- 1000	1000- 1200	1200- 1400	1400- 1600	
1Bs	44.7	48.5	50.7				49.3
1C	43.0		49.9	54.8			52.7
1D		50.9		57.3	62.8	78.1	61.1
weighted mean	44.5	48.8	50.4	56.8	62.8	78.1	

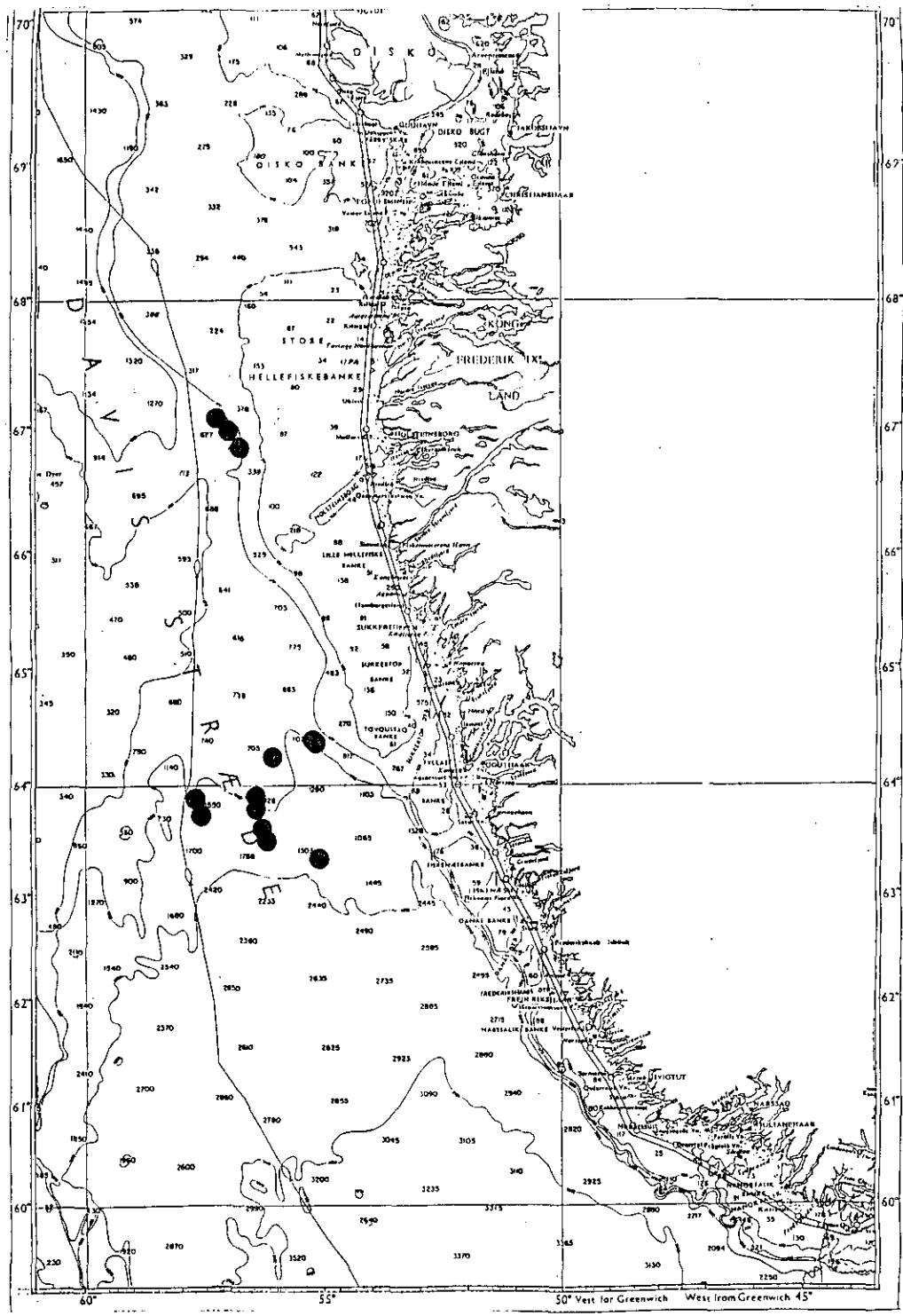
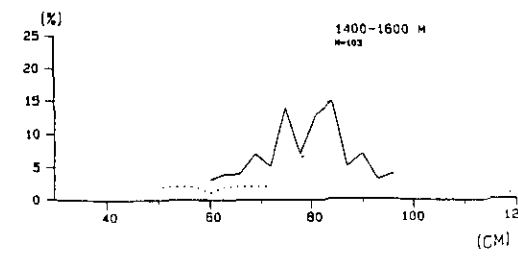
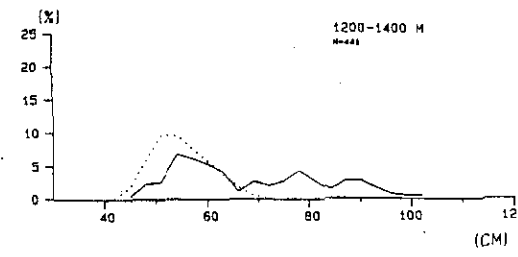
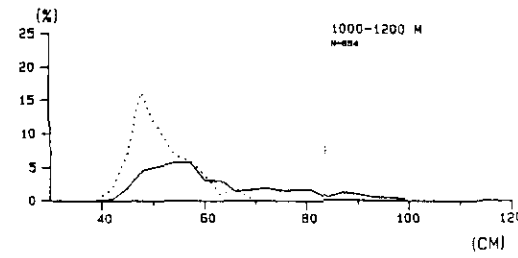
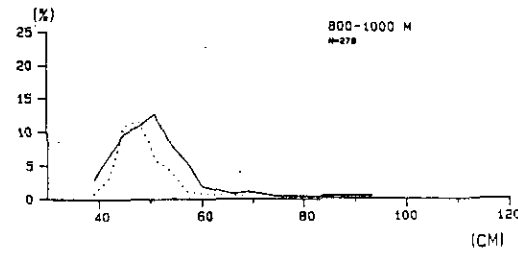
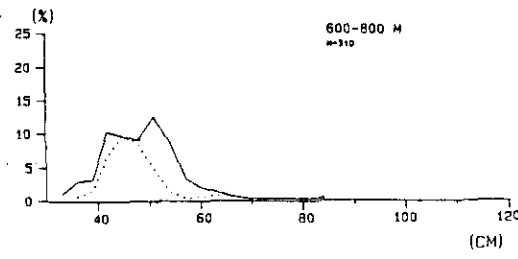
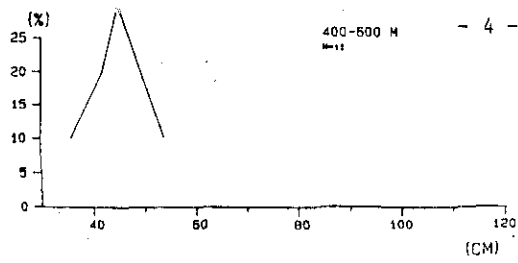


Fig. 1. Stratification of the 13 linesettings in the area off West Greenland surveyed by "Vestfart" nov. 1989.



..... Males
 _____ Females

Fig. 2. Length distribution of Greenland halibut by sex and division.