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German Research Report for 1999

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Subarea 1

A. Status of the Fishery

In 1999, fishing was conducted with low effort in Division 1D inside the Greenland EEZ from September until November. The fishery was directed towards Greenland halibut (*Reinhardtius hippoglossoides*) and oceanic redfish (*Sebastes mentella*) with bottom and pelagic trawls, respectively. While the demersal fishery for Greenland halibut is a normal activity, the pelagic fishery for oceanic redfish occurred for the first time off West Greenland due to a change in distribution pattern of the stock in westerly direction as derived from an international hydro-acoustic survey conducted by Iceland, Russia and Germany. By end of the year, reported catches amounted to 439 tons of Greenland halibut and 154 tons of oceanic redfish. There was negligible by-catch of roundnose grenadiers, wolffish and skates reported. Their nominal catch did not exceed 1 ton. Table 1 and 2 list a breakdown of the effort, catches, and non-standardised Greenland halibut and oceanic redfish CPUE by month.

B. Special Studies

1. Environment

During the German groundfish survey off Greenland (04.10.-18.11.1999), fishery oceanographic measurements were performed at 102 fishing stations by means of CTD/Rosette. Additionally, temperature and salinity at stations of 3 NAFO standard oceanographic sections off West Greenland (Cape Desolation, Fyllas Bank, Holsteinsborg) were measured in order to describe climatic trends. For the annual meeting of the NAFO Scientific Council a climatic review for the Greenland area was prepared which comprised information on air temperature anomalies and ice distribution (Stein, 2000). To continue the discussion in NAFO on the suitability of Environmental Indices which may be used for the fishery assessment process, a paper is submitted (Stein and Borovkov, 2000). As part of the Russian/German project on „Assessment of Short-time Climatic Variations in the Labrador Sea“ a report is presented on the project meeting in Hamburg, Germany, 9-16 April 2000.

2. Biological Studies

Since 1982, annual groundfish surveys were conducted. During the fourth quarter, stratified random surveys covered shelf areas and the continental slope off West Greenland (Divisions 1B-1F) outside the 3-mile limit to the 400 m isobath. In October-November 1999, 67 valid hauls were carried out and the standard survey area was completely covered. The total survey catch amounted to 1608 kg. 26913 specimens were classified to 49 taxonomic units. Based on this survey information, assessments of the stock status for redfish (*Sebastes marinus, S. mentella*), American plaice (*Hippoglossoides platessoides*),

Atlantic wolffish (*Anarhichas lupus*), and thorny skate (*Raja radiata*) are documented (Siegstad et al., 2000, Siegstad and Rätz, 2000).

For 1996-99, estimates of catches, effort and catch rates for Greenland halibut and oceanic redfish by year and quarter are presented (Tab. 1 and 2, Fig. 1). The trend of Greenland halibut CPUE is shown in Figure 1 and does reveal stable catch rates.

Subareas 2 and 3

A. Status of the Fishery

In 1999, German fishing vessels did not fish in Sub-areas 2 and 3.

B. Special Studies

1. **Environment**

No research in relation to environment was carried out by Germany in NAFO Sub-areas 2 and 3.

2. **Biological studies**

No biological samplings or studies were performed by Germany in NAFO Sub-areas 2 and 3.

References

Siegstad, H., H.-J. Rätz and C. Stransky 2000. Redfish in NAFO Sub-area 1. Announced for NAFO Scientific Council Meeting June 2000.

Siegstad, H. and H.-J. Rätz 2000. Other Finfish in NAFO Sub-area 1. Announced for NAFO Scientific Council Meeting June 2000.

Stein, M. 2000. Climatic Conditions Around Greenland - 1999. Announced for NAFO Scientific Council Meeting June 2000.

Stein, M. and V. Borovkov 2000. Correlation between the recruitment of Northern Cod (Gadus morhua) and environmental parameters in the Northwest Atlantic. Announced for NAFO Scientific Council Meeting June 2000.

Table 1. German effort (hours fished), catches (tons), unstandardized CPUE (kg/h) and accompanied standard deviations for Greenland halibut by division and month, 1996-99.

Year	Month	Effort 1D	Catch 1D	CPUE 1D	St.Dev.
1996	September	74	19	265	97
1996	October	490	136	270	104
1996	November	562	259	457	147
1996	December	90	37	415	150
1996	∑	1217	452	365	158
1997	November	758	334	456	262
1997	December	262	112	423	138
1997	∑	1020	446	448	237
1998	October	34	16	482	225
1998	November	506	205	430	191
1998	December	267	129	494	154
1998	∑	806	350	446	186
1999	September	208	89	428	80
1999	October	439	163	371	71
1999	November	462	187	400	83
1999	∑	1108	439	393	80

Table 2. German effort (hours fished), pelagic catches (tons), unstandardized CPUE (kg/h) and accompanied standard deviations for oceanic redfish (*Sebastes mentella*) by division (inside Greenland EEZ only) and month, 1999.

Year	Month	Effort 1F	Catch 1F	CPUE 1F	St.Dev.
1999	September	231	154	663	226
1999	∑	231	154	663	226

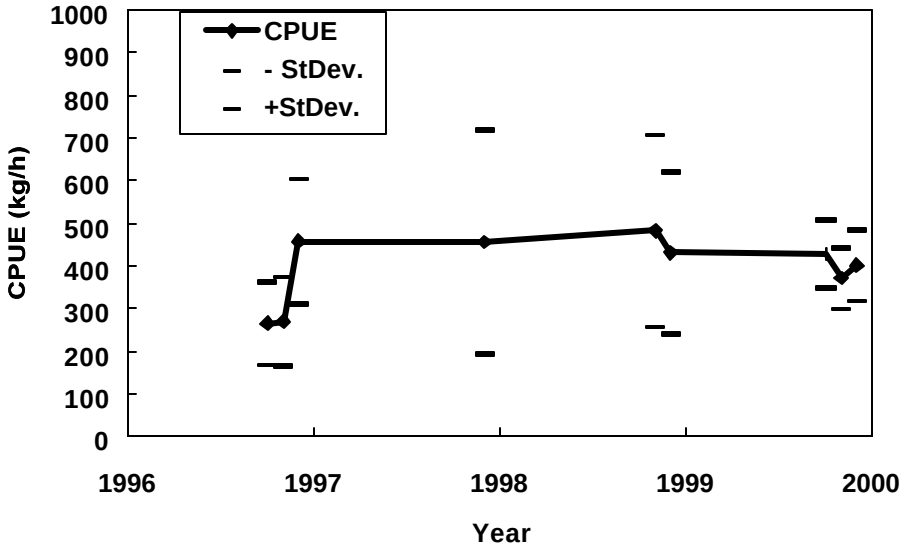

Fig. 1. Greenland halibut in NAFO Div. 1D. CPUE and accompanied standard deviation by year and month as derived from German commercial catches, 1996-99. Respective values are listed in Table 1.