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The Greenland Fishery for Northern Shrimp (*Pandalus borealis*) on
Flemish Cap, May-August 1993

by

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INTRODUCTION

The total catch by all Greenland vessels at Flemish Cap (NAFO Div. 3M) in 1993 amounts to 3.593 tons until August 30th, based on weekly reporting to Greenland authorities. The fishery began in late May, and by the end of August only one Greenland vessel remained on the fishing ground. Eleven vessels have participated.

Logbook records provided information on fleet performance. Logbook data from nine of eleven vessels, have been available to the Greenland Fisheries Research Institute. Logbook data cover 6.798 hours of trawling and a total catch of 2.658 tons, about 75 % of total Greenland catch.

This paper presents information on the geographical distribution, catch rates and by-catches by the Greenland fleet from May-August, 1993.

MATERIALS AND METHODS

Based on the compulsory weekly reporting to Greenland authorities total catches and numbers of vessels in the shrimp fishery in NAFO Div. 3M were compiled by week from May-August.

Available logbook data were analyzed to show the overall distribution of effort and catches, and catch (kg) per unit effort (hours) (CPUE) calculated by week and month. Logbooks from nine out of eleven vessels have been analyzed.

Data on by-catch were compiled from logbook as percentages of the total shrimp catch by each month. Estimates of the proportions of discarded shrimp were also derived from logbook data.

RESULTS

Reported catches May-August, 1993.

Table 1 shows catches by week and the numbers of reporting vessels on Flemish Cap from the start of the fishery in late May to last week in August. The total shrimp catch in Division 3M was 3.593 tons. Eleven vessels has participated.

Catch and effort

The catch reported in vessel logs was divided by corresponding effort, providing an

unstandardized catch rate. Catch(tons), CPUE(kg/hr) and effort(hours trawled) for shrimp by week and month are given in Tables 2 and 3, respectively.

Geographical distribution of the fishery

Figure 1 shows the geographical distribution of the fishery and total catches(tons) as recorded in logbook data from nine Greenlandic trawlers. The fishery concentrated between 46°30'N and 48°30'N. Highest catches were taken at the North-ernmost and Western grounds. Figure 2a-2c show the monthly distribution of catch-rate (kg/h) and effort from May through July.

Shrimp discard and by-catches

Data on by-catches and shrimp discard were compiled as percentages of total shrimp catch by month (Table 4). Redfish was the most dominant species in the by-catch. However, reported levels on shrimp discard and by-catches should be taken with caution.

CONCLUSIONS

Reported catches of shrimp August 1993 from the Greenland part of the fishery at Flemish Cap totalled 3.593 tons. Eleven vessels joined the shrimp fishery. The fishery peaked in June and July, and only one vessel remained on the fishing ground in August.

Reported	31.May	7.Jun	14.Jun	21.Jun	28.Jun	5.Jul	12.Jul	20.Jul	26.Jul	2.Aug	9.Aug	16.Aug	23.Aug	30.Aug	TOTAL
Shrimp catches (tons)	16	384	547	488	446	517	399	319	183	102	50	52	54	36	3593
No. of vessels	2	6	10	9	11	11	11	8	6	3	1	1	1	1	11

Table 1. Shrimp catches (tons) and no. of vessels by each week May-August in 1993 in NAFO Div.3M as reported to Greenland authorities.

Available logbook data	31.May	7.Jun	14.Jun	21.Jun	28.Jun	5.Jul	12.Jul	20.Jul	26.Jul	2.Aug	9.Aug	16.Aug	23.Aug	30.Aug	TOTAL
Shrimp catches (tons)	16	308	476	413	369	433	299	259	60	25					2658
CPUE kg/hour	303	544	441	412	342	368	379	342	340	209					391
Effort in hour	52	567	1080	1001	1079	1178	790	756	177	118					6798

Table 2. Catch(t), CPUE(kg/hour) and effort(h) from available logbook data by each week May-August in NAFO Div.3M.

	CPUE Kg/h	Catch Tons	Effort Hours
May	469	53	113
June	413	1722	4169
July	351	883	2516
Mean/Total	391	2658	6798

Table 3. CPUE(kg/hour), catch(t) and effort(hrs) by month - NAFO Div.3M, 1993.

SPECIES(KG)	May	June	July
Redfish	215	19731	13538
Mixed	395	10699	6782
Cod	-	-	400
Halibut	-	-	270
Grl. halibut	-	-	335
Catfish	-	-	375
Total by-catch(kg)	610	30430	21700
Corresponding shrimp catch(kg)	52996	1722206	882864
By-catches in % of shrimp catch	1.2	1.8	2.5
Reported discard(kg)	15	3091	2640
Discard in % of shrimp catch	0.03	0.2	0.3

Table 4. By-catch(kg), shrimp discard(kg) and % of total shrimp catch as reported in logbook in Div.3M, 1993.

