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The Greenland Fishery for Northern Shrimp (*Pandalus borealis*)
on Flemish Cap, NAFO Division 3M, in 1998 and 1999

by

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Introduction

In 1998 only two Greenland trawlers participated in the Flemish Cap fishery from May to August and in 1999 (by mid October) only one Greenland trawler has participated the fishery. Based on weekly reporting to Greenland authorities by Greenland vessels the total catch at Flemish Cap in 1998 amounted to 853 tons. The total catch in 1999 until mid October amounted to 579 tons.

Logbook records provided information on fleet performance to the Greenland Institute of Natural Resources. Logbook data covered 3.596 hours of trawling and a total catch of 852 tons in 1998. In 1999 received logbooks until mid October covers 1.867 trawling hours and 577 tons of catch

This paper updates information on the geographical distribution and catches rates in Div. 3M for 1997, 1998 and 1999. No new data from biological samples from the commercial shrimp fishery in 1998 and 1999 is presented.

Materials and Methods

Based on compulsory weekly reporting to Greenland authorities total catches and numbers of vessels in the shrimp fishery in NAFO Div. 3M was compiled from 1993 until mid October 1999.

Catch and effort data from individual fishing vessels as reported in vessels logs were analysed to show the monthly distribution of catches, fishing effort and mean unstandardized catch rates.

Results

Reported catches till October 1999

Nominal catches off shrimp and numbers of Greenland vessels participating in the Flemish Cap fishery from 1993 to 1999 (up to mid October) are:

<u>Year</u>	<u>1993</u>	<u>1994</u>	<u>1995</u>	<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>
Catch (tons)	3778	2275	2400	1107	105	853	579
No. of vessel:	12	9	6	6	2	2	1

Catch, effort and CPUE

In 1997, 1998 and 1999 the fishery commenced from May to August. The unstandardized catch rates for single and twin trawl in 1997 and 1998 were less than 180 kg/hours and 280 kg/hr respectively. Catch rates in June and July in 1999 were more than 300 kg/hours, higher than 1997 and 1998.

Catch (tons), effort (hours) and catch rates divided in single trawl fishery (1) and twin trawl fishery (2) (effort in the twin trawl is corrected with a factor 2), as reported in vessel logs in 1997, 1998 and 1999 are

Year	Month Trawl	May		June		July		August		Total 1+2
		1	2*	1	2*	1	2*	1	2*	
1997	Tons	45	-	14	-	-	46	-	-	105
	Hours	262	-	82	-	-	259	-	-	603
	kg/hr	171	-	171	-	-	178	-	-	174
1998	Tons	3	95	9	245	27	464	-	9	852
	Hours	12	470	40	900	140	1990	-	44	3596
	kg/hr	234	202	215	272	189	233	-	208	237
1999	Tons	-	98	6	294	2	177	-	-	577
	Hours	-	388	16	876	9	578	-	-	1867
	kg/hr	-	251	392	335	169	306	-	-	309

2* Effort in dobbeltrawl is corrected with a factor 2

Annual catch and unstandardized catch rates (effort in twin trawl corrected with a factor 2) from 1993 to 1999 is showed in figure 1. Overall catch rates decreased from 1993 until 1997, but increased again in 1998 and 1999.

Shrimp Discard and By-catches

Total shrimp discard is reported in logbooks to 150 kilo, 2.946 kilo and 2.665 kilo in 1997, 1998 and 1999 respectively or less than 1% of the total shrimp catches.

Redfish reported as by-catch in logbook data from 1997 amounted a total of 400 kilo (less than 1% of total shrimp catches) and other fin-fish reported as by-catch amounted 220 kilo. The information on by-catches from 1998 and 1999 is recorded as fin-fish only and amounted 6.436 kilo and 5.165 kilo respectively or less than 1% of total shrimp catches.

Geographical Distribution of the Fishery

Figure 2, 3 and 4 shows the geographical distribution of total catches in 1997, 1998 and 1999 respectively as recorded in vessel logs. In 1997 the fishery was concentrated at the north-western part of the Flemish Cap, whereas in 1998 and 1999 the fishery took place at the northern and north-eastern part where also the highest catch rates were recorded.

Conclusions

Greenland catches has been decreasing since the beginning of the fishery, from about 3.800 tons in 1993 to 105 tons in 1997. In 1998 and 1999 the catches increased again to 852 tons and 577 tons respectively. Numbers of vessels that participated in the fishery decreased to only one vessel in 1999. The decreasing interest in the shrimp fishery during the history may be explained by the distance to the fishing grounds and unprofitable catch rates.

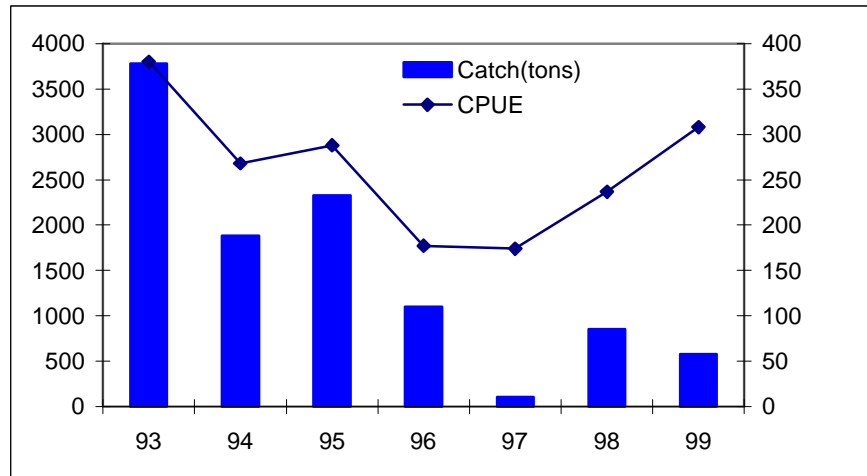


Figure 1. Total catch (tons) and CPUE (unstandardized kg/hour) from 1993-99 (twin trawl is corrected with a factor 2).

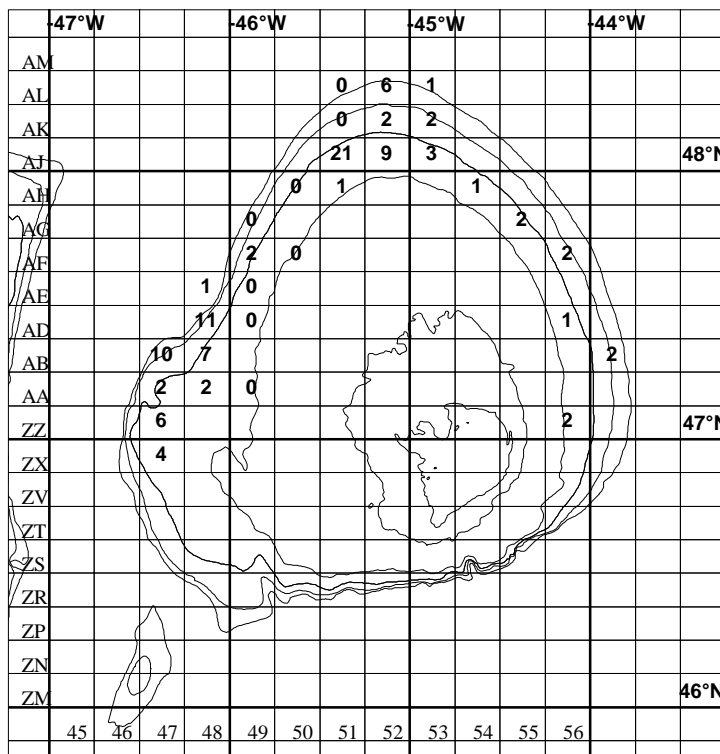


Figure 2. Geographical distribution of shrimp catches in 1997 on Flemish Cap (tons by statistical unit).

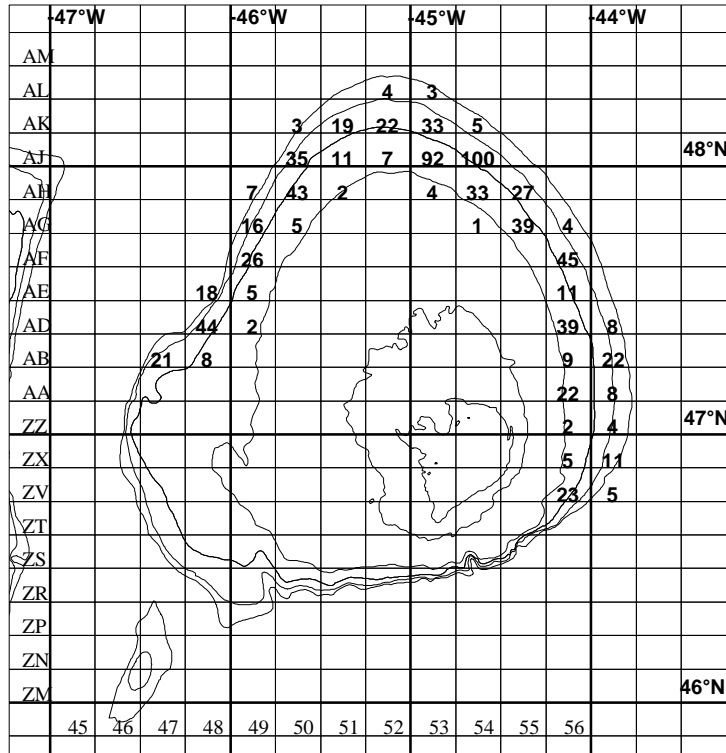


Figure 3. Geographical distribution of shrimp catches in 1998 on Flemish Cap (tons by statistical unit).

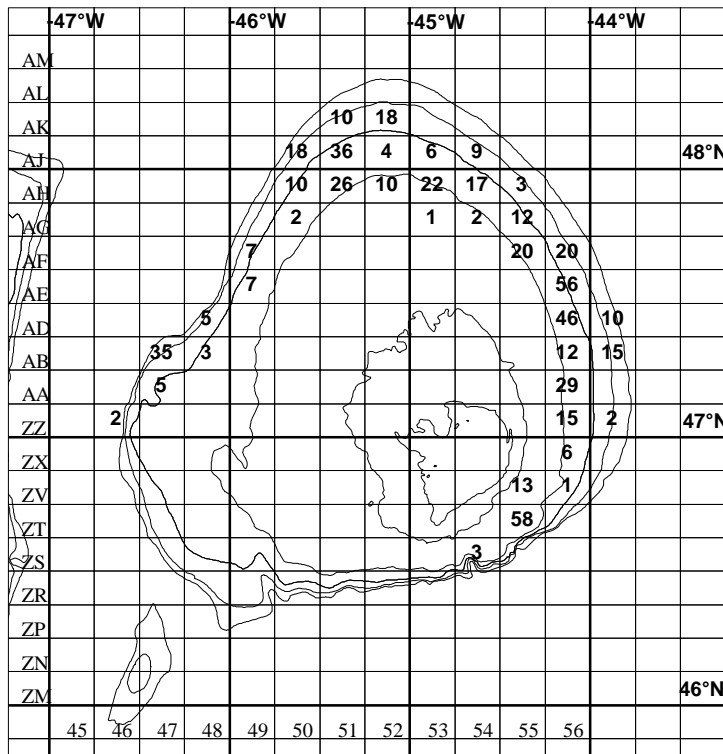


Figure 4. Geographical distribution of shrimp catches in 1999 on Flemish Cap (tons by statistical unit).