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**Preliminary results from the
winter 2000 demersal fish survey in the Barents Sea**

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NORWAY

1. INTRODUCTION

IMR, Bergen has performed acoustic measurements of demersal fish in the Barent Sea since 1976. Since 1981 a bottom trawl survey has been combined with this acoustic survey. The survey area was somewhat increased in 1993. Since then the typical effort of the combined survey has been 10-14 vessel-weeks, and about 350 bottom trawl hauls have been made each year. Most years 3 vessels have participated from about 1 February to 1 March.

The purpose of the investigations is:

- Obtain acoustic abundance indices of cod, haddock and redfish
- Obtain swept area indices of abundance by length (and age) groups of cod, haddock, Greenland halibut and redfish.
- Map the geographical distribution of those fish stocks
- Estimate length, weight and maturity at age for those stocks
- Collect stomach samples from cod as a basis for estimating predation by cod

The results and the collected data are used both in the ICES stock assessments and by several research projects at IMR.

In the early 90-ies the cod distribution area increased both due to improved climate and increasing stock size. In 1993 the survey area therefore was increased, and since then the survey has been aimed towards covering the whole cod distribution area outside the ice-boarders. In 1997 and 1998 the Norwegian research vessels were not allowed to cover the Russian zone, and in 1999 the coverage was partly limited by a rather unusually wide ice-extension. The coverage in 2000 was therefore far better than in the three previous years.

This report presents the results from the survey in February 2000. This year the Russian research vessel "Persey III" participated in addition to the Norwegian research vessels "G.O. Sars" and "Johan Hjort" and the hired factory trawler "Varegg". The total duration of the survey was from 27 January to 29 February. The total scientific crew on the Norwegian vessels was 28 (see Annex 1). One scientist from PINRO, Murmansk participated onboard "Johan Hjort", and a Russian observer participated on both "G.O. Sars" and "Johan Hjort". Both vessels visited Murmansk for inspection at 3 February.

SUMMARY

The preliminary **swept area** results for 2000 indicate:

- the 1998 year class of cod is weak and the 1999 year class is very weak
- the abundance indices of 3-6 year old cod (1997-1994 year classes) are about as expected from last assessment
 - the numbers of 7 year and older cod are very low
- the 1998 year class of haddock is fairly strong, while 96 and 99 is about average
- length and weight at age and weight increment are about as last year both for cod and haddock
- survey mortalities has decreased for most age groups of cod and haddock
- the abundance indices of the redfish species are among the lowest in the time series and there are no signs of improved recruitment

Acoustic estimates. Both for cod, haddock and the redfish species the acoustic estimates indicate a more optimistic stock situation than the swept area estimates indicate.

Tabell 3.1. Areal (n.mil²) dekka i botntrålundersøkingane i Barentshavet vinteren 1981-2000.
Area (n.miles²) covered in the bottom trawl surveys in the Barents Sea winter 1981-2000.

Område (Area)	År (Year)								
	1981-1992	1993	1994	1995	1996	1997 ¹	1998 ¹	1999	2000
A	23299	23929	27131	27131	25935	27581	27581	27581	27054
B	8372	8372	8372	8372	9701	9701	9701	9701	9701
C	5348	5348	5348	5348	5048	5048	5048	5048	5048
D	51116	51186	51186	51186	53932	23592	23592	43786	52836
D'	-	23152	24975	56822	53247	2684	5886	7961	28963
E	-	8965	12576	14859	5818	1954	3819	5772	14148
Svalbard		16690	14252	22836	11600	16989	23587	18470	24685
ABCD	88835	88835	92037	92037	94016	65922	65922	86116	94639
Total	88835	137642	143840	186554	165281	87549	99214	118320	162435

¹⁾ Norsk sone og del av Svalbardområdet
Norwegian EEZ and part of the Svalbard area

Tabell 3.2. Tal for trålstasjonar, lengdemålt (L) og aldersbestemt (A) fisk for kvart hovudområde og stasjonstype i Barentshavet vinteren 2000. B1=fast botntrål, B2=annan botntrål, P=pelagisk trål.
Number of trawl stations, fish measured for length (L) and age (A) for main areas and trawl types in the Barents Sea winter 2000. B1=fixed bottom trawl, B2=other bottom trawl, P=pelagic trawl.

Område (Area)	Trål type (Trawl type)	Tal hal (No. hauls)	Torsk (Cod)		Hyse (Haddock)		Vanleg uev (S. marinus)		Snabeluer (S. mentella)		Blåkveite (Greenland halibut)	
			L	A	L	A	L	A	L	A	L	A
A	B1	54	3181	591	4919	311	265		4258		55	
	B2		91	0	136	0	5		1		0	
	P		154	41	705	66	2		56		0	
B	B1	22	625	191	2416	199	200		329		4	
	B2		155	0	716	0	10		0		0	
	P		1	0	0	0	0		0		0	
C	B1	11	899	134	896	97	58		467		7	
	B2		0	0	0	0	0		0		0	
	P		0	0	0	0	0		0		0	
D	B1	128	14297	1143	12072	621	335		1481		110	
	B2		2920	33	1803	10	37		5		12	
	P		500	46	694	41	0		0		0	
D'	B1	33	1497	75	528	22	1		0		0	
	B2		38	0	1	0	0		0		0	
	P		13	0	0	0	0		0		0	
E	B1	17	1350	144	437	21	11		41		213	
	B2		0	0	0	0	0		0		0	
	P		0	0	0	0	0		0		0	
S	B1	50	5800	473	558	38	237		2101		145	
	B2		0	0	0	0	0		0		0	
	P		0	0	0	0	0		0		0	
Total	B1	317	27671	2751	21826	1309	1107		8677		534	
	B2		3204	33	2656	10	52		6		12	
	P		668	87	1399	107	2		56		0	
Sum			31543	2871	25881	1426	1161		8739		546	

Tabell 5.1. Ekkomengde av torsk, hyse og uer i det pelagiske sjiktet (P) og i 10 m sjiktet over botn (B) i kvart hovudområde av Barentshavet vinteren 2000 (m^2 reflekterende overflate $\cdot 10^{-3}$).
Echo abundance of cod, haddock and redfish in the pelagic layer (P) and in the 10 m layer above the bottom (B) in main areas of the Barents Sea winter 2000 (m^2 reflecting surface $\cdot 10^{-3}$).

Område (Area)	Torsk (Cod)			Hyse (Haddock)			Uer (Redfish)		
	P	B	Total	P	B	Total	P	B	Total
A	235	74	309	248	47	295	310	68	378
B	193	63	256	101	64	165	76	31	107
C	177	19	196	93	9	108	37	4	41
D	948	278	1226	660	202	862	60	8	68
D'	90	46	136	27	16	42	-	-	-
E	64	39	103	8	4	12	2	-	2
S	280	92	372	7	+	7	95	9	104
Total	1986	610	2596	1144	343	1487	580	121	701

Tabell 5.2. Torsk og hyse. Total ekkomengde og ekkomengde i 10 m sjiktet over botn fra akustisk undersøkingar i Barentshavet vinteren 1981-2000 (m^2 reflekterande overflate $\cdot 10^{-3}$). 1981-1992 inkluderer i hovudsak områda A, B, C og D.
Cod and haddock. Total echo abundance and echo abundance in the 10 m layer above the bottom from acoustic surveys in the Barents Sea winter 1981-2000 (m^2 reflecting surface $\cdot 10^{-3}$). 1981 - 1992 includes mainly areas A, B, C and D.

År (Year)	Ekkomengde (Echo abundance)								
	Total			Botn (bottom)			Botn/total (bottom/total)		
	Torsk (Cod)	Hyse (Had.)	Sum	Torsk (Cod)	Hyse (Had.)	Sum	Torsk (Cod)	Hyse (Had.)	Sum
1981			2097			799			0.38
1982			686			311			0.45
1983			597			169			0.28
1984			2284			604			0.26
1985			5187			736			0.14
1986			5990			820			0.14
1987			2676			608			0.23
1988			1696			579			0.34
1989			914			308			0.34
1990			1355			536			0.40
1991			2706			803			0.30
1992			4128			951			0.23
1993	3905	2854	6759	1011	548	1559	0.26	0.19	0.23
1994	5076	3650	8726	1201	609	1810	0.24	0.17	0.21
1995	4125	3051	7176	1525	651	2176	0.37	0.21	0.30
1996	2729	1556	4285	1004	626	1630	0.37	0.40	0.38
1997 ¹	1354	995	2349	530	258	788	0.39	0.26	0.34
1998 ¹	2406	581	2987	632	143	775	0.26	0.29	0.26
1999	1364	704	2068	389	145	534	0.29	0.21	0.26
2000	2596	1487	4083	610	343	953	0.23	0.23	0.23

¹⁾ Norsk sone og del av Svalbardområdet
Norwegian EEZ and part of the Svalbard area

Tabell 6.1. TORSK. Mengdeindeksar for lengde- og aldersgrupper frå den akustiske undersøkinga i Barentshavet vinteren 2000 (talet på fisk i millionar).

COD. Abundance indices at length and age from the acoustic survey in the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) cm	Alder (årsklasse) / Age (year-class)										Sum
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
5-9	2.2										2.2
10-14	132.7	2.1									134.8
15-19	19.2	75.9	0.5								95.6
20-24		118.4	33.3								151.6
25-29		24.9	102.5	2.1							129.6
30-34			0.1	85.6	13.5						99.3
35-39				20.7	57.1	1.0					78.9
40-44				2.4	58.0	7.2					67.6
45-49				0.1	23.1	32.6	0.3	0.1			56.1
50-54					3.9	55.1	2.8				61.8
55-59					0.8	34.5	10.7	0.5	0.3		47.0
60-64					0.4	9.5	17.1	0.3	0.2		27.5
65-69						1.7	11.3	3.5	0.3		16.8
70-74						0.4	2.6	3.2	0.6	+	6.8
75-79							0.6	1.4	1.2	0.3	3.5
80-84							+	0.6	1.2	1.0	2.9
85-89								0.1	0.5	0.9	1.5
>90								0.2	0.7	0.9	1.8
Sum	154.1	221.4	245.2	158.9	142.1	45.4	9.6	4.7	3.0	1.1	985.4

Tabell 6.2. TORSK. Akustiske mengdeindeksar i det pelagiske sjiktet (P) og i 10 m sjiktet over botn (B) for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

COD. Acoustic abundance indices in the pelagic layer (P) and in the 10 m layer above the bottom (B) for the main areas of the Barents Sea winter 2000 (numbers in millions).

Omr. (Area)	Sjikt (Layer)	Alder (årsklasse) / Age (year-class)										Total
		1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
A	P	2.4	2.8	3.7	8.4	18.9	8.1	1.0	0.4	0.2	0.1	46.1
	B	2.3	1.6	1.7	2.2	5.0	2.8	0.4	0.2	0.2	+	16.2
B	P	2.8	1.5	2.5	2.6	7.3	6.0	3.0	1.5	1.1	0.3	28.6
	B	0.9	0.4	1.1	0.7	2.1	2.0	1.1	0.5	0.3	0.1	9.3
C	P	17.8	8.2	4.6	4.1	13.3	4.5	1.0	0.4	0.3	0.1	54.3
	B	1.8	0.9	0.5	0.4	1.4	0.5	0.1	+	+	-	5.6
D	P	71.2	76.9	110.0	78.6	46.2	12.5	2.2	1.1	0.6	0.4	399.6
	B	26.0	35.3	43.9	22.3	10.6	2.7	0.5	0.2	0.1	0.1	141.7
D'	P	3.4	39.1	19.7	1.9	0.4	0.4	+	-	-	-	65.0
	B	5.6	22.1	8.8	0.9	0.3	0.2	+	-	-	-	38.0
E	P	6.3	7.2	8.7	4.5	3.0	1.0	0.1	0.1	-	-	30.8
	B	5.4	5.8	5.8	2.3	1.6	0.6	+	+	-	-	21.6
S	P	4.9	14.6	26.0	22.2	24.1	3.1	0.2	0.2	0.1	0.0	95.5
	B	3.3	5.0	8.3	7.7	7.9	1.0	0.1	+	+	0.0	33.2
ABCD	P	94.2	89.2	120.8	93.7	85.6	31.1	7.1	3.4	2.2	0.9	528.6
	B	31.0	38.1	47.1	25.6	19.1	8.0	2.0	1.0	0.6	0.2	172.8
Total	P	108.8	150.4	175.2	122.4	113.2	35.6	7.4	3.6	2.4	0.9	719.8
	B	45.3	71.0	69.9	36.5	28.9	9.8	2.1	1.0	0.6	0.2	265.5
	Sum	154.1	221.4	245.1	158.8	142.0	45.3	9.5	4.6	2.9	1.0	985.3

Tabell 6.3. TORSK. Mengdeindeksar frå akustiske undersøkingar i Barentshavet vinteren 1981-2000 (talet på fisk i millionar). 1981-1992 inkluderer i hovudsak områda A, B, C og D.
COD. Abundance indices from acoustic surveys in the Barents Sea winter 1981-2000 (numbers in millions). 1981-1992 includes mainly areas A, B C and D.

År (Year)	Alder (Age)										Total
	1	2	3	4	5	6	7	8	9	10+	
1981	8.0	82.0	40.0	63.0	106.0	103.0	16.0	3.0	1.0	1.0	423.0
1982	4.0	5.0	49.0	43.0	40.0	26.0	28.0	2.0	+	0.0	197.0
1983	60.5	2.8	5.3	14.3	17.4	11.1	5.6	3.0	0.5	0.1	120.5
1984	745.4	146.1	39.1	13.6	11.3	7.4	2.8	0.2	0.0	0.0	966.0
1985	69.1	446.3	153.0	141.6	19.7	7.6	3.3	0.2	0.1	0.0	840.9
1986	353.6	243.9	499.6	134.3	65.9	8.3	2.2	0.4	0.1	0.0	1308.2
1987	1.6	34.1	62.8	204.9	41.4	10.4	1.2	0.2	0.7	0.0	357.3
1988	2.0	26.3	50.4	35.5	56.2	6.5	1.4	0.2	0.0	0.0	178.4
1989	7.5	8.0	17.0	34.4	21.4	53.8	6.9	1.0	0.1	0.1	150.1
1990	81.1	24.9	14.8	20.6	26.1	24.3	39.8	2.4	0.1	0.0	234.1
1991	181.0	219.5	50.2	34.6	29.3	28.9	16.9	17.3	0.9	0.0	578.7
1992	241.4	562.1	176.5	65.8	18.8	13.2	7.6	4.5	2.8	0.2	1092.9
1993	1074.0	494.7	357.2	191.1	108.2	20.8	8.1	5.0	2.3	2.5	2264.0
1994	858.3	577.2	349.8	404.5	193.7	63.6	12.1	3.7	1.7	0.9	2465.4
1995	2619.2	292.9	166.2	159.8	210.1	68.8	16.7	2.1	0.7	1.0	3537.4
1996	2396.0	339.8	92.9	70.5	85.8	74.7	20.6	2.8	0.3	0.4	3083.8
1997 ¹	1623.5	430.5	188.3	51.7	49.3	37.2	22.3	4.0	0.7	0.1	2407.5
1998 ¹	3401.3	632.9	427.7	182.6	42.3	33.5	26.9	13.6	1.7	0.3	4762.8
1999	358.3	304.3	150.0	96.4	45.1	10.3	6.4	4.1	0.8	0.3	976.0
2000	154.1	221.4	245.1	158.8	142.0	45.3	9.5	4.6	2.9	1.0	985.3

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

Tabell 6.4. TORSK. Mengdeindeksar (I) for lengdegrupper med standard feil (S) frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet fisk i millionar)
 COD. Abundance indices (I) at length with standard error of mean (S) from bottom trawl hauls for main areas of the Barents Sea winter 2000 (no. in millions).

Lengde (Length) cm	Område (Area)														Total I S CV (%)		
	A		B		C		D		D'		E		S				
	I	S	I	S	I	S	I	S	I	S	I	S	I	S			
5-9	+	+	0.1	+	+	+	1.1	0.4	0.6	0.3	0.1	0.1	1.6	1.2	3.5	1.3	38.5
10-14	9.4	3.1	0.8	0.3	5.2	2.5	54.9	5.5	6.2	1.5	17.3	6.4	15.1	6.8	109.0	11.6	10.7
15-19	3.8	0.7	0.2	0.1	2.5	1.2	38.7	5.0	26.3	11.4	11.4	4.4	15.2	4.7	98.2	14.1	14.3
20-24	4.3	0.7	0.1	0.1	1.3	0.6	66.7	11.4	64.8	27.3	12.3	3.2	32.6	8.9	182.0	31.1	17.1
25-29	2.7	0.5	0.1	0.1	0.7	0.3	64.1	12.4	26.0	12.1	10.1	2.7	28.0	6.5	131.7	18.7	14.2
30-34	3.1	0.5	0.2	0.1	0.6	0.2	46.8	8.8	11.1	7.6	5.2	1.5	18.6	3.0	85.7	12.1	14.1
35-39	3.9	0.6	0.3	0.1	0.7	0.3	33.8	5.9	4.3	2.9	3.4	1.1	21.6	4.3	67.9	8.0	11.7
40-44	4.0	0.5	0.3	0.1	0.8	0.3	25.5	3.8	1.2	0.6	2.2	0.7	21.2	4.3	55.2	5.8	10.6
45-49	6.2	0.8	0.3	0.1	1.1	0.3	16.0	2.0	0.8	0.4	1.9	0.7	19.8	4.0	46.2	4.6	9.9
50-54	9.3	1.0	1.2	0.2	1.8	0.4	11.5	1.2	0.4	0.2	2.0	0.6	20.1	3.7	46.2	4.1	8.9
55-59	7.8	0.8	1.7	0.4	2.1	0.4	7.4	0.8	0.3	0.1	1.7	0.6	10.0	2.2	31.1	2.6	8.2
60-64	4.2	0.4	1.5	0.4	1.5	0.5	4.0	0.4	0.1	0.1	0.7	0.2	4.0	0.9	15.9	1.2	7.6
65-69	2.4	0.3	1.6	0.4	0.7	0.2	1.8	0.2	0.1	0.1	0.3	0.1	1.0	0.3	7.8	0.7	8.4
70-74	1.1	0.2	0.7	0.2	0.3	0.1	0.6	0.1	0.1	0.1	0.2	0.1	0.4	0.1	3.3	0.4	11.3
75-79	0.4	0.1	0.6	0.2	0.2	0.1	0.4	0.1	+	+	+	+	0.1	0.1	1.7	0.3	14.7
80-84	0.3	0.1	0.4	0.1	0.1	0.1	0.2	0.1	+	+	+	+	0.2	0.1	1.1	0.2	18.4
85-89	0.2	0.1	0.3	0.1	+	+	0.1	+	+	+	+	+	+	+	0.6	0.1	20.5
>90	0.1	0.1	0.1	0.1	0.1	+	0.2	0.1	+	+	+	+	0.1	0.1	0.6	0.2	41.4
Sum	63.3	10.5	10.5	3.1	19.7	7.5	373.8	58.2	142.3	64.7	68.8	22.4	209.6	51.2	887.7	117.1	13.2

Tabell 6.5. TORSK. Mengdeindeksar for lengde- og aldersgrupper frå botntrålundersøkinga i Barentshavet vinteren 2000 (talet på fisk i millionar).

COD. Abundance indices at length and age from the bottom trawl survey in the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) (cm)	Alder (årsklasse) / Age (year-class)										Sum
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
5-9	3.5										3.5
10-14	106.9	2.0									109.0
15-19	18.4	78.9	0.9								98.2
20-24		143.9	38.2								182.0
25-29		23.4	105.3	3.0							131.7
30-34		+	72.9	12.7							85.7
35-39			16.7	50.1	1.2						67.9
40-44			1.2	47.1	6.8						55.2
45-49			+	16.5	29.4	0.3	+				46.2
50-54				2.0	42.7	1.5					46.2
55-59				0.7	22.5	7.6	0.2	0.1		0.1	31.1
60-64				0.1	4.9	10.6	0.1	0.1			15.9
65-69					0.7	5.3	1.5	0.3			7.8
70-74					0.1	1.3	1.6	0.3	+		3.3
75-79						0.3	0.7	0.6	0.2		1.7
80-84						+	0.2	0.4	0.5		1.1
85-89						+	0.2	0.3	0.1		0.6
>90							0.1	0.2	0.3		0.6
Sum	128.8	248.3	235.2	132.1	108.3	26.9	4.3	2.0	1.2	0.4	887.5

Tabell 6.6. TORSK. Mengdeindeksar frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

COD. Abundance indices from bottom trawl hauls for main areas of the Barents Sea winter 2000 (numbers in millions.)

Omr. (Area)	Alder (årsklasse) / Age (year-class)										Total
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
A	10.1	6.8	7.3	10.1	19.2	7.7	1.1	0.5	0.3	0.1	63.3
B	0.9	0.4	0.9	1.0	2.8	2.3	1.2	0.6	0.4	0.1	10.4
C	6.1	2.9	1.6	1.5	5.3	1.7	0.3	0.1	0.1	+	19.5
D	62.8	92.5	117.3	64.4	28.1	6.7	1.2	0.4	0.2	0.1	373.4
D'	9.9	94.6	34.5	2.1	0.6	0.6	0.1	-	-	-	142.4
E	22.6	17.5	16.3	6.2	4.3	1.6	0.1	0.1	-	-	68.8
S	16.4	33.5	57.3	46.9	48.0	6.4	0.4	0.3	+	+	209.4
ABCD	79.9	102.6	127.1	77.0	55.4	18.4	3.8	1.6			
Total	128.8	248.3	235.2	132.1	108.3	26.9	4.3	2.0	0.4	0.4	887.5

Tabell 6.7. TORSK. Mengdeindeksar frå botntrålundersøkingar i Barentshavet vinteren 1981-2000 (talet på fisk i millionar). 1981-1992 inkluderer berre hovudområda A, B, C og D.
COD. Abundance indices from bottom trawl surveys in the Barents Sea winter 1981-2000 (numbers in millions). 1981-1992 includes only main areas A, B, C and D.

År (Year)	Alder (Age)										Total
	1	2	3	4	5	6	7	8	9	10+	
1981	4.6	34.3	16.4	23.3	40.0	38.4	4.8	1.0	0.3	0.0	163.1
1982	0.8	2.9	28.3	27.7	23.6	15.5	16.0	1.4	0.2	0.0	116.4
1983	152.9	13.4	25.0	52.3	43.3	17.0	5.8	3.2	1.0	0.1	313.9
1984	2755.0	379.1	97.5	28.3	21.4	11.7	4.1	0.4	0.1	0.1	3297.7
1985	49.5	660.0	166.8	126.0	19.9	7.7	3.3	0.2	0.1	0.1	1033.6
1986	665.8	399.6	805.0	143.9	64.1	8.3	1.9	0.3	0.0	0.0	2089.1
1987	30.7	445.0	240.4	391.1	54.3	15.7	2.0	0.5	0.0	0.0	1179.8
1988	3.2	72.8	148.0	80.5	173.3	20.5	3.6	0.5	0.0	0.0	502.5
1989	8.2	15.6	46.4	75.9	37.8	90.2	9.8	0.9	0.1	0.1	285.0
1990	207.2	56.7	28.4	34.9	34.6	20.6	27.2	1.6	0.4	0.0	411.5
1991	460.5	220.1	45.9	33.7	25.7	21.5	12.2	12.7	0.6	0.0	832.7
1992	126.6	570.9	158.3	57.7	17.8	12.8	7.7	4.3	2.7	0.2	959.0
1993	534.5	420.4	273.9	140.1	72.5	15.8	6.2	3.9	2.2	2.4	1471.9
1994	1035.9	535.8	296.5	310.2	147.4	50.6	9.3	2.4	1.6	1.3	2391.0
1995	5253.1	541.5	274.6	241.4	255.9	76.7	18.5	2.4	0.8	1.1	6666.2
1996	5768.5	707.6	170.0	115.4	137.2	106.1	24.0	2.9	0.4	0.5	7032.5
1997 ¹	4815.5	1045.1	238.0	64.0	70.4	52.7	28.3	5.7	0.9	0.5	6321.1
1998 ¹	2418.5	643.7	396.0	181.3	36.5	25.9	17.8	8.6	1.0	0.5	3729.8
1999	484.6	340.1	211.8	173.2	58.1	13.4	6.5	5.1	1.2	0.4	1294.4
2000	128.8	248.3	235.2	132.1	108.3	26.9	4.3	2.0	1.2	0.4	887.5

1580 1600 1700 1800 1900 2000

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

Tabell 6.8. TORSK. Lengde (cm) ved alder i kvart hovudområde av Barentshavet vinteren 2000.

COD. Length (cm) at age in main areas of the Barents Sea winter 2000.

Omånde (Area)	Alder (årsklasse / Age (year-class))							
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)
A	12.9	20.0	30.1	42.6	53.0	62.1	71.4	75.3
B	12.6	19.9	35.9	51.5	57.4	64.5	71.0	78.1
C	13.1	19.9	30.7	41.5	55.2	63.5	72.4	77.5
D	12.8	21.0	28.9	39.6	51.2	61.2	68.9	73.6
D'	13.4	21.5	29.2	42.1	52.8	55.3	72.3	-
E	13.5	21.1	28.0	39.5	51.7	61.1	71.2	88.3
S	12.6	19.7	27.8	38.9	50.4	60.7	70.3	71.8
Total	13.0	21.0	28.7	39.7	51.5	61.6	70.5	75.7

Tabell 6.9. TORSK. Lengde (cm) ved alder i Barentshavet fra undersøkingane vinteren 1978 -2000.
COD. Length (cm) at age in the Barents Sea from the investigations winter 1978 - 2000.

År (Year)	Alder (Age)							
	1	2	3	4	5	6	7	8
1978	14.2	23.1	32.1	45.9	54.2	64.6	67.6	76.9
1979	12.8	22.9	33.1	40.0	52.3	64.4	74.7	83.0
1980	17.6	24.8	34.2	40.5	52.5	63.5	73.6	83.6
1981	17.0	26.1	35.5	44.7	52.0	61.3	69.6	77.9
1982	14.8	25.8	37.6	46.3	54.7	63.1	70.8	82.9
1983	12.8	27.6	34.8	45.9	54.5	62.7	73.1	78.6
1984	14.2	28.4	35.8	48.6	56.6	66.2	74.1	79.7
1985	16.5	23.7	40.3	48.7	61.3	71.1	81.2	85.7
1986	11.9	21.6	34.4	49.9	59.8	69.4	80.3	93.8
1987	13.9	21.0	31.8	41.3	56.3	66.3	77.6	87.9
1988	15.3	23.3	29.7	38.7	47.6	56.8	71.7	79.4
1989	12.5	25.4	34.7	39.9	46.8	56.2	67.0	83.3
1990	14.4	27.9	39.4	47.1	53.8	60.6	68.2	79.2
1991	13.6	27.2	41.6	51.7	59.5	67.1	72.3	77.6
1992	13.2	23.9	41.3	49.9	60.2	68.4	76.1	82.8
1993	11.3	20.3	35.9	50.8	59.0	68.2	76.8	85.8
1994	12.0	18.3	30.5	44.7	55.4	64.3	73.5	82.4
1995	12.7	18.7	29.9	42.0	54.1	64.1	74.8	80.6
1996	12.6	19.6	28.1	41.0	49.3	61.4	72.2	85.3
1997 ¹	11.4	18.8	28.0	40.4	49.9	59.3	69.1	80.6
1998 ¹	10.9	17.4	28.7	40.0	50.5	58.9	67.5	76.3
1999	12.1	18.8	29.0	40.6	50.6	59.9	70.3	78.0
2000	13.0	21.0	28.7	39.7	51.5	61.6	70.5	75.7

¹⁾ Justerte lengder
Adjusted lengths

Tabell 6.10. TORSK. Vekt (g) ved alder i kvart hovudområde av Barentshavet vinteren 2000.
COD. Weight (g) at age in main areas of the Barents Sea winter 2000.

Område (Area)	Alder (årsklasse) / Age (year-class)							
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)
A	14	62	237	671	1260	2011	3039	3582
B	15	69	415	1202	1750	2378	3192	4279
C	16	60	245	594	1353	1927	3134	3959
D	16	77	219	557	1176	1944	2755	3504
D'	16	80	212	668	1234	1523	3189	-
E	21	86	206	599	1230	1977	2869	4773
S	15	67	183	513	1113	1882	2787	3261
Total	17	77	210	559	1189	1978	2989	3797

Tabell 6.11. TORSK. Vekt (g) ved alder i Barentshavet fra undersøkingane vinteren 1983-2000.
COD. Weight (g) at age in the Barents Sea from the investigations winter 1983-2000.

År (Year)	Alder (Age)							
	1	2	3	4	5	6	7	8
1983	-	190	372	923	1597	2442	3821	4758
1984	23	219	421	1155	1806	2793	3777	4566
1985	-	171	576	1003	2019	3353	5015	6154
1986	-	119	377	997	1623	2926	3838	7385
1987 ¹	21	65	230	490	1380	2300	3970	-
1988	24	114	241	492	892	1635	3040	4373
1989	16	158	374	604	947	1535	2582	4906
1990	26	217	580	1009	1435	1977	2829	4435
1991	18	196	805	1364	2067	2806	3557	4502
1992	20	136	619	1118	1912	2792	3933	5127
1993	9	71	415	1179	1743	2742	3977	5758
1994	13	55	259	788	1468	2233	3355	4908
1995	16	54	248	654	1335	2221	3483	4713
1996	15	62	210	636	1063	1999	3344	5514
1997 ²	12	54	213	606	1112	1790	2851	4761
1998 ²	10	47	231	579	1145	1732	2589	3930
1999	13	55	219	604	1161	1865	2981	3991
2000	17	77	210	559	1189	1978	2989	3797

¹⁾ Estimerte vekter (*Estimated weights*)

²⁾ Justerte vekter (*Adjusted weights*)

Tabell 6.12. TORSK. Årleg tilvekst (g) fra undersøkingane i Barentshavet vinteren 1983 - 2000.

COD. Yearly weightincrement (g) from the investigations in the Barents Sea winter 1983 - 2000.

År (Year)	Alder (Age)						
	1-2	2-3	3-4	4-5	5-6	6-7	7-8
1983-84	-	231	783	883	1196	1335	745
1984-85	148	357	582	864	1547	2222	2377
1985-86	-	206	421	620	907	485	2370
1986-87	-	111	113	383	677	1044	-
1987-88	93	176	262	402	255	740	403
1988-89	134	260	363	455	643	947	1866
1989-90	201	422	635	831	1030	1294	1853
1990-91	170	588	784	1058	1371	1580	1673
1991-92	118	423	313	548	725	1127	1570
1992-93	51	279	560	625	830	1185	1825
1993-94	46	188	373	289	490	613	931
1994-95	41	193	395	547	753	1250	1358
1995-96	46	156	388	409	664	1123	2031
1996-97	39	151	396	476	727	852	1417
1997-98	35	177	366	539	621	799	1079
1998-99	45	172	373	582	720	1249	1402
1999.00	64	155	340	585	817	1124	816

Tabell 6.13. Total dødsrate for torsk observert under vintertoktet i Barentshavet i perioden 1993-99.

Total mortality observed for cod during the winter survey in the Barents Sea in 1993-99.

År (Year)	Alder (Age)							
	1-2	2-3	3-4	4-5	5-6	6-7	7-8	8-9
	Akustiske undersøkingar (Acoustic investigations)							
1993-94	0.62	0.35	-0.12	-0.01	0.53	0.55	0.78	1.06
1994-95	1.08	1.24	0.78	0.66	1.03	1.34	1.77	1.65
1995-96	2.04	1.15	0.86	0.62	1.03	1.21	1.80	2.10
1996-97	1.72	0.59	0.59	0.36	0.83	1.21	1.65	1.39
1997-98	0.94	0.01	0.03	0.20	0.39	0.33	0.49	0.85
1998-99	2.41	1.44	1.49	1.40	1.41	1.65	1.88	2.86
1999-00	0.48	0.22	-0.06	-0.39	0.00	0.07	0.33	0.31
	Botntrål-undersøkingar (Bottomtrawl investigations)							
1993-94	0.00	0.35	-0.12	-0.05	0.36	0.54	0.94	0.88
1994-95	0.65	0.67	0.21	0.19	0.65	1.00	1.35	1.12
1995-96	2.00	1.16	0.87	0.57	0.88	1.16	1.87	1.84
1996-97	1.71	1.09	0.98	0.49	0.96	1.32	1.44	1.14
1997-98	2.01	0.97	0.27	0.56	1.00	1.09	1.19	1.74
1998-99	1.96	1.11	0.83	1.14	1.00	1.39	1.25	2.00
1999-00	0.70	0.34	0.51	0.46	0.65	1.01	1.18	1.63

Tabell 7.1. HYSE. Mengdeindeksar for lengde- og aldersgrupper frå den akustiske undersøkinga i Barentshavet vinteren 2000 (talet på fisk i millionar).

HADDOCK. Abundance indices at length and age from the acoustic survey in the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) (cm)	Alder (årsklasse) / Age (year-class)										Sum
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
5-9	0.1										0.1
10-14	242.5										242.5
15-19	780.3	160.0									940.3
20-24	1.6	229.3									230.9
25-29		118.8	14.3	0.2							133.3
30-34		0.8	13.4	2.6							16.8
35-39			4.2	12.7	0.1						17.1
40-44			0.2	31.9	2.2	1.1	0.7	0.1			36.3
45-49				14.7	10.4	2.5					27.6
50-54				2.8	5.0	5.0	0.1		0.2	0.1	13.2
55-59					0.8	1.6	0.5	0.2	0.7	+	3.9
60-64						0.2	0.2	0.2	0.3	0.1	0.9
65-69							+		0.6		0.6
70-74										0.1	0.1
75-79										+	+
80-84											
85-89											
>90											
Sum	1024.4	508.9	32.2	64.9	18.5	10.5	1.6	0.5	1.8	0.4	1663.8

Tabell 7.2. HYSE. Akustiske mengdeindeksar i det pelagiske sjiktet (P) og i 10 m sjiktet over botn (B) for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

HADDOCK. Acoustic abundance indices in the pelagic layer (P) and in the 10 m layer above the bottom (B) for the main areas of the Barents Sea winter 2000 (numbers in millions).

Omr. (Area)	Sjikt (Layer)	Alder (årsklasse) / Age (year-class)										Total
		1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
A	P	152.3	64.1	4.9	13.7	4.8	4.6	0.3	0.1	1.2	0.1	246.3
	B	45.2	15.7	0.7	0.9	0.5	0.5	+	+	0.3	+	63.9
B	P	75.1	43.3	2.7	3.5	1.4	0.3	0.3	0.1	0.1	+	126.8
	B	50.3	26.6	1.2	2.4	1.0	0.2	0.1	0.1	+	0.0	81.8
C	P	67.3	9.7	0.9	4.6	2.8	1.6	0.1	0.2	0.0	0.0	87.3
	B	5.9	1.0	0.1	0.5	0.3	0.2	0.0	0.0	0.0	+	8.0
D	P	489.8	232.0	13.6	29.3	6.1	2.4	0.6	0.0	0.0	0.2	774.0
	B	101.0	85.3	6.3	9.1	1.6	0.5	0.2	0.0	0.0	0.0	204.1
D'	P	6.6	14.1	1.2	0.5	0.0	0.1	0.0	0.0	0.0	0.0	22.5
	B	6.7	8.5	0.6	0.2	0.0	0.0	0.0	0.0	0.0	0.0	16.0
E	P	10.9	2.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.0	13.3
	B	5.0	1.0	+	+	0.0	0.0	0.0	0.0	0.0	0.0	6.1
S	P	8.0	5.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13.3
	B	0.3	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.5
ABCD	P	784.5	349.1	22.0	51.1	15.1	9.0	1.2	0.4	1.5	0.3	1234.3
	B	202.4	128.5	8.2	12.9	3.4	1.4	0.3	0.1	0.3	+	357.7
Total	P	810.0	370.6	23.3	51.8	15.1	9.0	1.2	0.4	1.5	0.3	1283.4
	B	214.4	138.2	8.8	13.1	3.4	1.4	0.3	0.1	0.3	+	380.3
	Sum	1024.4	508.9	32.1	64.8	18.5	10.4	1.6	0.5	1.8	0.3	1663.7

Tabell 7.3. HYSE. Mengdeindeksar frå akustiske undersøkingar i Barentshavet vinteren 1981-2000 (talet på fisk i millionar). 1981-1992 inkluderer i hovudsak områda A, B, C og D.
HADDOCK. Abundance indices from acoustic surveys in the Barents Sea winter 1981-2000 (numbers in millions). 1981-1992 includes mainly areas A, B, C and D.

År (Year)	Alder (Age)										Total
	1	2	3	4	5	6	7	8	9	10+	
1981	7	14	5	21	60	18	1	+	+	+	126
1982	9	2	3	4	4	10	6	+	+	+	38
1983	0	5	2	3	1	1	4	2	+	+	18
1984	1685	173	6	2	1	+	+	+	+	+	1867
1985	1530	776	215	5	+	+	+	+	+	+	2526
1986	556	266	452	189	+	+	+	+	+	+	1463
1987	85	17	49	171	50	+	+	+	0	+	372
1988	18	4	8	23	46	7	+	0	0	+	106
1989	52	5	6	11	20	21	2	0	0	0	117
1990	270	35	3	3	4	7	11	2	+	+	335
1991	1890	252	45	8	3	3	3	6	+	0	2210
1992	1135	868	134	23	2	+	+	1	2	+	2165
1993	947	626	563	130	13	+	+	+	+	3	2282
1994	562	193	255	631	111	12	+	+	+	+	1764
1995	1379	285	36	111	387	42	2	+	+	+	2242
1996	249	229	44	31	76	151	8	+	0	+	788
1997 ¹	693	24	51	17	12	43	43	2	+	+	885
1998 ¹	220	122	20	28	12	5	13	16	1	+	437
1999	856	46	57	13	14	4	1	2	2	+	994
2000	1024	509	32	65	19	10	2	1	2	+	1664

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.
Indices raised to also represent the Russian EEZ.

Tabell 7.4. HYSE. Mengdeindeksar (I) for lengdegrupper med standard feil (S) frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet fisk i millionar).
HADDOCK. Abundance indices (I) at length with standard error of mean (S) from bottom trawl hauls for main areas of the Barents Sea winter 2000 (no. in mill).

Lengde (Length) cm	Område (Area)														Total CV (%)		
	A		B		C		D		D'		E		S				
	I	S	I	S	I	S	I	S	I	S	I	S	I	S			
5-9	0	0	+	+	0	0	0	0	0	0	0	0	0	0	0		
10-14	59.7	13.3	18.5	4.2	6.3	2.6	101.7	14.1	3.1	1.2	8.4	4.5	5.1	2.4	202.9	20.7	100.0
15-19	230.1	39.5	105.8	26.6	35.6	15.0	366.1	49.2	5.9	2.9	26.3	11.4	16.1	5.8	785.9	71.3	10.2
20-24	26.9	4.5	19.7	4.4	4.2	1.4	113.3	15.3	6.8	3.9	5.5	2.8	5.2	1.2	181.5	17.3	9.1
25-29	4.9	1.3	2.0	0.6	0.9	0.3	108.3	18.6	24.8	18.0	0.7	0.5	0.3	0.1	141.9	25.9	9.5
30-34	1.5	0.3	1.8	0.5	0.2	0.1	8.4	2.1	2.0	1.4	0	0	+	+	13.9	2.6	18.3
35-39	1.4	0.3	1.0	0.2	0.3	0.1	7.5	1.1	0.3	0.3	0.1	0.1	+	+	10.6	1.2	18.7
40-44	1.7	0.3	1.0	0.3	0.7	0.2	14.9	2.5	0.2	0.2	0.3	0.3	+	+	18.9	2.6	11.4
45-49	2.4	0.5	1.6	0.5	1.1	0.3	8.5	1.2	+	+	0	0	0.1	0.1	13.7	1.5	13.7
50-54	1.7	0.4	0.8	0.3	0.9	0.2	1.2	0.2	0	0	0	0	0.1	+	4.6	0.6	10.5
55-59	0.9	0.3	0.5	0.1	0.3	0.1	0.2	0.1	+	+	0	0	+	0	1.8	0.3	12.4
60-64	0.4	0.1	0.2	0.1	0.1	0.1	0.1	+	0	0	0	0	0	+	0.7	0.1	16.9
65-69	0.1	+	+	+	+	+	0	0	0	0	0	0	+	0	0.1	+	20.6
70-74	+	+	+	+	0	0	0	0	0	0	0	0	0	0	0.1	+	35.4
75-79	+	+	0	0	0	0	0	0	0	0	0	0	0	0	+	+	79.9
80-84	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	100.0
85-89	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
>90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sum	331.7	60.8	152.9	37.8	50.6	20.4	730.2	104.4	43.1	27.9	41.3	19.6	26.9	9.6	1376.6	144.1	10.5

Tabell 7.5. HYSE. Mengdeindeksar for lengde- og aldersgrupper frå botntrålundersøkinga i Barentshavet vinteren 2000 (talet på fisk i millionar).

HADDOCK. Abundance indices at length and age from the bottom trawl survey in the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) (cm)	Alder (årsklasse) / Age (year-class)										Sum
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
5-9	+										+
10-14	202.9										202.9
15-19	643.1	142.9									785.9
20-24	1.2	180.4									181.5
25-29		128.4	13.3	0.1							141.9
30-34		0.6	11.1	2.1							13.9
35-39			2.6	7.9	0.1						10.6
40-44			0.2	16.6	1.2	0.4	0.4	+			18.9
45-49				7.7	4.9	1.1					13.7
50-54				0.9	1.9	1.7	0.1		0.1		4.6
55-59					0.4	0.7	0.3	0.1	0.3	+	1.8
60-64						0.1	0.1	0.1	0.3	+	0.7
65-69							+		0.1	0.1	0.1
70-74									0.1		0.1
75-79										+	+
Sum	847.2	452.2	27.2	35.4	8.4	4.0	0.8	0.3	0.7	0.2	1376.6

Tabell 7.6. HYSE. Mengdeindeksar frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

HADDOCK. Abundance indices from bottom trawl hauls for main areas of the Barents Sea winter 2000 (numbers in millions).

Omr. (Area)	Alder (årsklasse) / Age (year-class)										Total
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)	9 (91)	10+	
A	237.7	81.5	3.8	4.3	1.7	1.7	0.1	0.1	0.6	0.1	331.7
B	91.4	53.4	2.7	3.3	1.4	0.3	0.2	0.1	+	+	152.9
C	42.0	5.1	0.3	1.5	0.9	0.6	+	0.1	0	0	50.6
D	418.8	261.6	18.1	25.3	4.5	1.3	0.4	0	0.1	0.1	730.2
D'	9.0	31.6	2.0	0.5	0	0	0	0	0	0	43.1
E	34.7	6.0	0.2	0.4	0	0	0	0	0	0	41.3
S	13.5	13.1	0.1	0.1	0	0.1	0	0	0	0	26.9
ABCD											
Total	847.1	452.2	27.2	35.4	8.4	4.0	0.8	0.3	0.7	0.2	1376.6

Tabell 7.7 HYSE. Mengdeindeksar frå botntrålundersøkingar i Barentshavet vinteren 1981-2000 (talet på fisk i millionar). 1981-1992 inkluderer berre hovudområda A, B, C og D.

HADDOCK. Abundance indices from bottom trawl surveys in the Barents Sea winter 1981-2000 (numbers in millions). 1981-1992 includes only main areas A, B, C and D.

År (Year)	Alder (Age)										
	1	2	3	4	5	6	7	8	9	10+	Total
1981	3.1	7.3	2.3	7.8	1.8	5.3	0.5	0.2	0.0	0.0	163.1
1982	3.9	1.5	1.7	1.8	1.9	4.8	2.4	0.2	0.0	0.0	116.4
1983	2919.3	4.8	3.1	2.4	0.9	1.9	2.5	0.7	0.0	0.0	2935.5
1984	3832.6	514.6	18.9	1.5	0.8	0.2	0.1	0.4	0.1	0.0	4369.2
1985	1901.1	1593.8	475.9	14.7	0.5	0.5	0.1	0.1	0.4	0.3	3987.4
1986	665.0	370.3	384.6	110.8	0.6	0.2	0.1	0.1	0.1	0.1	1531.9
1987	163.8	79.9	154.4	290.2	52.9	0.0	0.0	0.0	0.0	0.3	741.6
1988	35.4	15.3	25.3	68.9	116.4	13.8	0.1	0.0	0.0	0.0	275.0
1989	81.2	9.5	14.1	21.6	34.0	32.7	3.4	0.1	0.0	0.0	196.5
1990	644.1	54.6	4.5	3.4	5.0	9.2	11.8	1.8	0.0	0.0	734.5
1991	2006.0	300.3	33.4	5.1	4.2	2.7	1.7	4.2	0.0	0.0	2357.7
1992	1659.4	1375.5	150.5	24.4	2.1	0.6	0.7	1.6	2.3	0.0	3217.0
1993	727.9	599.0	507.7	105.6	10.5	0.6	0.4	0.3	0.4	1.1	1953.4
1994	603.2	228.0	339.5	436.6	49.7	3.4	0.2	0.1	0.2	0.6	1661.5
1995	1463.6	179.3	53.6	171.1	339.5	34.5	2.8	0.0	0.1	0.0	2244.6
1996	309.5	263.6	52.5	48.1	148.6	252.8	11.6	0.9	0.0	0.1	1087.6
1997 ¹	1268.0	67.9	86.1	28.0	19.4	46.7	62.2	3.5	0.1	0.0	1581.8
1998 ¹	212.9	137.9	22.7	33.2	13.2	3.4	8.0	8.1	0.7	0.1	440.0
1999	1244.9	57.6	59.8	12.2	10.2	2.8	1.0	1.7	1.1	0.0	1391.4
2000	847.1	452.2	27.2	35.4	8.4	4.0	0.8	0.3	0.7	0.2	1376.5

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

Tabell 7.8. HYSE. Lengde (cm) ved alder i kvart hovudområde av Barentshavet vinteren 2000.

HADDOCK. Length (cm) at age in main areas of the Barents Sea winter 2000.

Område (Area)	Alder (årsklasse) / Age (year-class)							
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)
A	16.0	20.0	28.7	42.4	48.2	51.4	56.3	59.5
B	16.4	20.0	31.2	40.8	50.2	55.0	58.5	48.3
C	16.5	22.6	33.9	45.6	48.8	52.3	62.0	60.4
D	15.6	23.5	30.3	41.4	46.5	48.5	44.1	-
D'	14.8	26.0	32.0	41.1	-	-	-	-
E	15.5	21.0	28.0	40.6	-	-	-	-
S	15.4	20.4	29.2	38.4	-	53.0	-	-
Total	15.8	22.5	30.3	41.6	47.7	50.8	51.1	56.5

Tabell 7.9. HYSE. Lengde (cm) ved alder i Barentshavet fra undersøkingane vinteren 1983 – 2000.
HADDOCK. Length (cm) at age in the Barents Sea from the investigations winter 1983 – 2000.

År (Year)	Alder (Age)						
	1	2	3	4	5	6	7
1983	16.8	25.2	34.9	44.7	52.5	58.0	62.4
1984	16.6	27.5	32.7	-	56.6	62.4	61.8
1985	15.7	23.9	35.6	41.9	58.5	61.9	63.9
1986	15.1	22.4	31.5	43.0	54.6	-	-
1987	15.4	22.4	29.2	37.3	46.5	-	-
1988	13.5	24.0	28.7	34.7	41.5	47.9	54.6
1989	16.0	23.2	31.1	36.5	41.7	46.4	52.9
1990	15.7	24.7	32.7	43.4	46.1	50.1	52.4
1991	16.8	24.0	35.7	44.4	52.4	54.8	55.6
1992	15.1	23.9	33.9	45.5	53.1	59.2	60.6
1993	14.5	21.4	31.8	42.4	50.6	56.1	59.4
1994	14.7	21.0	29.7	38.5	47.8	54.2	56.9
1995	15.4	20.1	28.7	34.2	42.8	51.2	55.8
1996	15.4	21.6	28.6	37.8	42.0	46.7	55.3
1997 ¹	16.1	21.1	27.7	35.4	39.7	47.5	50.1
1998 ¹	14.4	22.9	29.2	35.8	41.3	48.4	50.9
1999	14.7	20.8	32.3	39.4	45.5	52.3	54.6
2000	15.8	22.5	30.3	41.6	47.7	50.8	51.1

¹⁾ Justerte lengder
Adjusted lengths

Tabell 7.10. HYSE. Vekt (g) ved alder i kvart hovudområde av Barentshavet vinteren 2000.
HADDOCK. Weight (g) at age in main areas of the Barents Sea winter 2000.

Område (Area)	Alder (årsklasse) / Age (year-class)							
	1 (99)	2 (98)	3 (97)	4 (96)	5 (95)	6 (94)	7 (93)	8 (92)
A	34	70	220	786	1150	1400	1754	2162
B	34	74	287	724	1250	1684	1930	1320
C	32	94	351	865	1121	1399	2412	2156
D	31	121	273	701	972	1164	949	-
D'	28	169	303	698	-	-	-	-
E	34	88	195	690	-	-	-	-
S	29	79	239	515	-	1600	-	-
Total	32	108	269	720	1068	1341	1430	1910

Tabell 7.11. HYSE. Vekt (g) ved alder i Barentshavet fra undersøkingane vinteren 1983 - 2000.

HADDOCK. Weight (g) at age in the Barents Sea from the investigations winter
1983 - 2000.

År (Year)	Alder (Age)						
	1	2	3	4	5	6	7
1983	52	133	480	1043	1641	2081	2592
1984	36	196	289	964	1810	2506	2240
1985	35	138	432	731	1970	2517	-
1986	47	100	310	734	-	-	-
1987 ¹	24	91	273	542	934	-	-
1988	23	139	232	442	743	1193	1569
1989	43	125	309	484	731	1012	1399
1990	34	148	346	854	986	1295	1526
1991	41	138	457	880	1539	1726	1808
1992	32	136	392	949	1467	2060	2274
1993	26	93	317	766	1318	1805	2166
1994	25	86	250	545	1041	1569	1784
1995	30	71	224	386	765	1286	1644
1996	30	93	220	551	741	1016	1782
1997 ²	35	88	200	429	625	1063	1286
1998 ²	25	112	241	470	746	1169	1341
1999	27	85	333	614	947	1494	1616
2000	32	108	269	720	1068	1341	1430

¹⁾ Estimerte vekter (*Estimated weights*)

²⁾ Justerte vekter (*Adjusted weights*)

Tabell 7.12. HYSE. Årleg tilvekst (g) fra undersøkingane i Barentshavet vinteren 1983 - 2000.

HADDOCK. Yearly weightincrement (g) from the investigations in the Barents Sea
winter 1983 - 2000.

År (Year)	Alder (Age)					
	1-2	2-3	3-4	4-5	5-6	6-7
1983-84	144	156	484	767	865	159
1984-85	102	236	442	1006	707	-
1985-86	65	172	302	-	-	-
1986-87	44	173	232	200	-	-
1987-88	115	141	169	201	259	-
1988-89	102	170	252	289	269	206
1989-90	105	221	545	502	564	514
1990-91	104	309	534	685	740	513
1991-92	95	254	492	587	521	548
1992-93	61	181	374	369	338	106
1993-94	60	157	228	275	251	-
1994-95	46	138	136	220	245	75
1995-96	63	149	327	355	251	496
1996-97	58	107	209	74	322	270
1997-98	77	153	270	316	544	277
1998-99	60	221	373	477	748	447
1999-00	81	184	387	464	394	-64

Tabell 7.13. Total dødsrate for hyse observert under vintertoktet i Barentshavet for perioden 1993-99.
Total mortality observed for haddock during the winter survey in the Barents Sea for the period 1993-99.

År (Year)	Alder (Age)						
	1-2	2-3	3-4	4-5	5-6	6-7	7-8
	Akustiske undersøkingar (Acoustic investigations)						
1993-94	1.59	0.90	-0.11	0.16	0.08	-	-
1994-95	0.68	1.68	0.83	0.49	0.97	1.79	-
1995-96	1.80	1.87	0.15	0.38	0.94	1.66	-
1996-97	2.34	1.50	0.95	0.95	0.57	1.26	1.39
1997-98	1.74	0.18	0.60	0.35	0.88	1.20	0.99
1998-99	1.59	0.76	0.43	0.69	1.39	1.61	2.56
1999-00	0.52	0.35	-0.12	-0.35	0.29	0.81	1.03
	Botntrål-undersøkingar (Bottom trawl investigations)						
1993-94	1.16	0.57	0.15	0.75	1.12	1.10	1.25
1994-95	1.21	1.45	0.69	0.25	0.36	0.21	2.30
1995-96	1.71	1.23	0.11	0.14	0.29	1.10	1.13
1996-97	1.52	1.12	0.63	0.91	1.16	1.40	1.19
1997-98	2.22	1.10	0.95	0.75	1.76	1.77	2.04
1998-99	1.31	0.84	0.62	1.18	1.55	1.17	1.56
1999-00	1.01	0.75	0.52	0.37	0.94	1.25	1.20

Tabell 8.1. VANLEG UER. Akustiske mengdeindeksar for kvart hovudområde av Barentshavet vinteren 2000

(talet på fisk i millionar).

SEBASTES MARINUS. Acoustic abundance indices for main areas of the Barents Sea winter 2000 (numbers in millions).

Område (Area)	Lengdegruppe (cm) / Length group (cm)								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	>45	
A	+	+	+	1.0	3.0	1.0	0.4	0.6	6.3
B	1.4	2.2	2.8	1.4	2.9	2.8	2.4	0.7	16.7
C	0.3	0.1	0.1	0.4	1.5	1.1	0.4	0.4	4.4
D	0.7	0.4	1.2	0.9	1.1	0.9	0.2	0.2	5.6
D'	-	-	-	-	-	-	-	-	-
E	-	-	-	-	-	-	-	-	-
S	-	-	0.1	0.8	1.0	0.1	+	+	2.0
ABCD	2.5	2.7	4.1	3.8	8.5	5.9	3.4	1.9	33.0
Total	2.5	2.7	4.2	4.6	9.5	6.0	3.4	2.0	35.0

Tabell 8.2. VANLEG UER. Mengdeindeksar frå akustiske undersøkingar i Barentshavet vinteren 1986-2000 (talet på fisk i millionar). 1986-1992 inkluderer berre området som vart dekka i 1986.

SEBASTES MARINUS. Abundance indices from acoustic surveys in the Barents Sea winter 1986-2000 (numbers in millions). 1986-1992 includes only the area covered in 1986.

År (Year)	Lengdegruppe (cm) / Length group (cm)								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	>45	
1986	4	7	7	8	5	1	+	6	38
1987	6	17	13	8	3	3	2	3	55
1988	1	1	5	4	2	1	1	+	15
1989	4	3	7	9	6	4	2	1	36
1990	2	2	6	9	9	6	5	4	43
1991	21	10	15	20	21	14	7	7	115
1992	2	4	9	11	13	11	5	3	58
1993	3	6	9	11	24	18	8	7	86
1994	5	11	5	5	7	5	2	1	41
1995	5	11	15	13	14	16	10	6	90
1996	1	4	9	13	15	22	10	4	77
1997 ¹	0	2	9	11	12	12	6	3	56
1998 ¹	8	3	9	11	11	9	6	4	61
1999	1	+	2	4	6	4	2	1	20
2000	2	3	4	5	10	6	3	2	35

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

Tabell 8.3. SNABELUER.¹ Akustiske mengdeindeksar for kvart hovudområde av Barentshavet vinteren 2000

(talet på fisk i millionar).

*SEBASTES MENTELLA.*¹ Acoustic abundance indices for main areas of the Barents Sea winter 2000 (numbers in millions).

Område (Area)	Lengdegruppe (cm) / Length group (cm)								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	>45	
A	2.4	15.4	35.7	69.0	54.5	15.3	5.3	1.1	198.8
B	0.2	0.2	1.5	2.2	5.1	5.1	0.6	+	13.9
C	2.0	0.3	4.0	3.3	7.5	1.2	0.4	0.1	18.8
D	12.6	7.7	22.9	7.9	6.2	1.0	+	-	58.4
D'	-	-	-	-	-	-	-	-	-
E	0.6	1.3	0.4	0.1	+	-	-	-	2.4
S	0.1	5.7	7.7	27.3	13.9	5.4	0.8	-	61.0
ABCD	17.3	23.6	64.3	82.4	63.4	22.6	6.4	1.3	291.2
Total	18.0	30.6	72.4	109.8	87.3	28.0	7.2	1.3	354.6

¹⁾ Inkluderer uidentifiserte *Sebastes* individer, for det meste mindre enn 15 cm.

Includes unidentified Sebastes specimens, mostly less than 15 cm.

Tabell 8.4. SNABELUER.¹ Mengdeindeksar frå akustiske undersøkingar i Barentshavet vinteren 1986-2000

(talet på fisk i millionar). 1986-1992 inkluderer berre området som vart dekkja i 1986.

*SEBASTES MENTELLA.*¹ Abundance indices from acoustic surveys in the Barents Sea winter 1988-2000 (numbers in millions). 1986-1992 includes only the area covered in 1986.

År (Year)	Lengdegruppe (cm) / Length group (cm)								Total
	10-14	15-19	20-24	25-29	30-34	35-39	40-44	>45	
1986	83	54	11	22	19	9	2	1	201
1987	17	178	86	34	10	3	1	+	329
1988	13	46	75	15	13	8	1	+	171
1989	35	12	89	36	6	10	2	+	190
1990	77	12	33	73	23	40	3	1	262
1991	549	88	31	75	38	33	3	+	817
1992	386	207	24	23	23	8	1	+	672
1993	1560	599	188	48	47	18	4	+	2464
1994	687	299	111	18	13	4	1	+	1133
1995	80	565	414	108	78	34	3	1	1283
1996	147	183	283	128	44	15	4	+	723
1997 ²	167	41	229	165	44	25	2	0	672
1998 ²	133	79	98	213	68	50	5	1	646
1999	4	35	18	44	19	7	1	+	130
2000	18	31	72	110	87	28	7	1	355

¹⁾ Inkluderer uidentifiserte *Sebastes* individer, for det meste mindre enn 15 cm.

Includes unidentified Sebastes specimens, mostly less than 15 cm.

²⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the the Russian EEZ.

Tabell 8.5. LUSUER. Akustiske mengdeindeksar for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

SEBASTES VIVIPARUS. Acoustic abundance indices for main areas of the Barents Sea winter 2000 (numbers in millions).

Område (Area)	Lengdegruppe (cm) / Length group (cm)					Total
	10-14	15-19	20-24	25-29	>30	
A	+	19.7	14.0	2.0	+	35.8
B	7.9	24.9	17.6	3.3	0.5	54.3
C	-	+	0.1	0.1	-	0.2
D	+	0.1	+	+	-	0.1
D'	-	-	-	-	-	-
E	-	-	-	-	-	-
S	-	+	0.1	+	-	0.1
ABCD	8.0	44.9	31.7	5.4	0.5	90.5
Total	8.0	44.9	31.8	5.4	0.5	90.6

Tabell 8.6. LUSUER. Mengdeindeksar frå akustiske undersøkingar i Barentshavet vinteren 1986-2000 (talet på fisk i millionar). 1986-1992 inkluderer berre området som vart dekka i 1986.

SEBASTES VIVIPARUS. Abundance indices from acoustic surveys in the Barents Sea winter 1986-2000 (numbers in millions). 1986-1992 includes only the area covered in 1986.

År (Year)	Lengdegruppe (cm) / Length group (cm)					Total
	10-14	15-19	20-24	25-29	> 30	
1986	1	1	+	+	+	4
1987	+	+	+	+	+	2
1988	2	3	3	1	+	10
1989	3	5	5	1	0	14
1990	6	11	16	4	+	37
1991	17	29	23	4	+	73
1992	17	10	7	3	1	38
1993	45	15	11	4	0	75
1994	40	14	8	1	+	63
1995	304	64	30	2	+	400
1996	70	30	27	4	+	132
1997	19	21	16	4	-	61
1998	16	42	10	1	+	71
1999	4	8	2	1	+	15
2000	8	45	32	5	1	91

Tabell 8.7. VANLEG UER. Mengdeindeksar (I) for lengdegrupper med standard feil (S) frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

SEBASTES MARINUS. Abundance indices (I) at length with standard error of mean (S) from bottom trawl hauls for main areas of the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) cm	Område (Area)												Total I S CV (%)				
	A		B		C		D		D'		E		S				
	I	S	I	S	I	S	I	S	I	S	I	S	I	S			
5-9	+	0	0	0	0	0	+	0.2	0	0	0.1	0.1	0	0	0.5	0.2	36.8
10-14	0.1	+	0.4	0.3	0.1	0.1	0.1	0.2	0	0	0	0	+	+	1.1	0.3	30.4
15-19	+	0.1	0.6	0.2	+	+	0.6	0.2	0	0	+	+	0.1	0.1	1.5	0.3	20.4
20-24	0.2	+	1.1	0.5	0	0	2.0	0.8	0.1	0.1	0.2	0.1	0.7	0.2	4.2	1.0	23.3
25-29	0.5	0.1	0.5	0.1	0.1	0.1	1.6	0.5	0	0	0.1	0.1	1.9	0.8	4.7	1.0	21.8
30-34	1.4	0.3	0.7	0.2	0.5	0.3	1.1	0.4	0	0	0	0	1.4	0.8	5.0	1.4	27.9
35-39	1.6	1.0	0.9	0.4	0.4	0.2	+	0.1	0	0	+	+	0.2	0.1	3.5	1.1	30.8
40-44	0.9	1.0	0.6	0.2	0.1	0.1	+	0.1	0	0	0	0	0.1	+	1.8	0.5	28.8
>45	0.8	0.8	0.1	+	0.2	0.1	0.1	0.1	0	0	0	0	+	+	1.2	0.3	25.0
Sum	5.5	3.3	4.9	1.9	1.4	0.9	5.5	2.6	0.1	0.1	0.4	0.3	4.4	2.0	23.5	6.1	25.9

Tabell 8.8. SNABELUER.¹ Mengdeindeksar (I) for lengdegrupper med standard feil (S) frå botntrålhal for kvart hovudområde av Barentshavet vinteren 2000 (talet på fisk i millionar).

SEBASTES MENTELLA.¹ Abundance indices (I) at length with standard error of mean (S) from bottom trawl hauls for main areas of the Barents Sea winter 2000 (numbers in millions).

Lengde (Length) cm	Område (Area)												Total I S CV (%)				
	A		B		C		D		D'		E		S				
	I	S	I	S	I	S	I	S	I	S	I	S	I	S			
5-9	3.2	0.8	0.1	0.1	0.2	0.1	3.1	0.6	0	0	0.9	0.6	1.6	0.8	9.0	1.4	15.7
10-14	4.8	1.2	0.2	0.1	1.1	0.5	5.3	0.8	0	0	0.9	0.4	0.5	0.3	12.7	1.6	12.7
15-19	21.4	5.2	0.2	0.2	0.2	0.1	4.7	1.2	0	0	1.2	0.8	11.6	2.9	39.4	6.1	15.5
20-24	46.2	9.7	1.1	1.0	3.3	1.8	11.8	2.8	0	0	0.2	0.2	14.2	3.0	76.8	10.8	14.0
25-29	93.7	20.4	1.6	1.0	2.3	1.1	4.5	1.7	0	0	0	0	39.7	11.2	141.9	23.4	16.5
30-34	66.3	20.4	3.2	2.1	5.0	1.9	3.0	1.8	0	0	0.1	0.1	19.5	6.8	97.1	21.8	22.4
35-39	16.8	8.0	2.7	2.5	0.8	0.3	0.4	0.2	0	0	0	0	5.9	2.3	26.6	8.7	32.6
40-44	5.9	4.9	0.3	0.2	0.3	0.1	0	0	0	0	0	0	0.4	0.2	6.9	5.0	71.8
>45	1.2	1.1	+	+	0.1	+	0	0	0	0	0	0	0.3	0.3	1.5	1.3	86.5
Sum	259.5	71.7	9.4	7.2	13.3	5.9	32.8	9.1	0	0	3.3	2.1	93.7	27.8	411.9	80.1	19.5

¹⁾ Inkluderer uidentifiserte *Sebastes* individer, for det meste mindre enn 15 cm.

*Includes unidentified *Sebastes* specimens, mostly less than 15 cm.*

Tabell 8.9. VANLEG UER. Mengdeindeksar frå botntrålundersøkingar i Barentshavet vinteren 1986-2000
 (talet på fisk i millionar). 1986-1992 inkluderer berre hovudområde A, B, C og D.
SEBASTES MARINUS. Abundance indices from bottom trawl surveys in the Barents Sea winter
 1986-2000 (numbers in millions). 1986-1992 includes only main areas A, B, C and D.

År (Year)	Lengdegruppe (cm) / Length group (cm)								Total
	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	
1986	3.0	11.7	26.4	34.3	17.7	21.0	12.8	4.4	2.6
1987	7.7	12.7	32.8	7.7	6.4	3.4	3.8	3.8	4.2
1988	1.0	5.6	5.5	14.2	12.6	7.3	5.2	4.1	3.7
1989	48.7	4.9	4.3	11.8	15.9	12.2	6.6	4.8	3.0
1990	9.2	5.3	6.5	9.4	15.5	14.0	8.0	4.0	3.4
1991	4.2	13.6	8.4	19.4	18.0	16.1	14.8	6.0	4.0
1992	1.8	3.9	7.7	20.6	19.7	13.7	10.5	6.6	5.8
1993	0.1	1.2	3.5	6.9	10.3	14.5	12.5	8.6	6.3
1994	0.7	6.5	9.3	11.7	11.5	19.4	9.1	4.4	2.8
1995	0.6	5.0	13.1	11.5	9.1	15.9	17.2	10.9	4.7
1996	+	0.7	3.5	6.4	9.4	11.7	16.6	7.9	3.9
1997 ¹	-	0.5	1.5	3.2	6.6	21.4	28.0	8.4	3.3
1998 ¹	0.2	6.0	2.5	10.5	49.5	25.2	13.1	6.9	2.3
1999	0.2	0.9	2.1	4.0	4.6	6.4	6.0	5.3	3.3
2000	0.5	1.1	1.5	4.2	4.7	5.0	3.5	1.8	1.2
									24

¹⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

Tabell 8.10. SNABELUER.¹ Mengdeindeksar frå botntrålundersøkingar i Barentshavet vinteren 1986-2000
 (talet på fisk i millionar). 1986-1992 inkluderer berre hovudområde A, B, C og D.

SEBASTES MENTELLA.¹ Abundance indices from bottom trawl surveys in the Barents Sea winter
 1986-2000 (numbers in millions). 1986-1992 includes only main areas A, B, C and D.

År (Year)	Lengdegruppe (cm) / Length group (cm)								Total
	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	
1986	81.3	151.9	205.4	87.7	169.2	129.8	87.5	23.6	13.8
1987	71.8	25.1	227.4	56.1	34.6	11.4	5.3	1.1	0.1
1988	587.0	25.2	132.6	182.1	39.6	50.1	47.9	3.6	0.1
1989	622.9	55.0	28.4	177.1	58.0	9.4	8.0	1.9	0.3
1990	323.6	304.5	36.4	55.9	80.2	12.9	12.5	1.5	0.2
1991	395.2	448.8	86.2	38.9	95.6	34.8	24.3	2.5	0.2
1992	139.0	366.5	227.1	34.6	55.2	34.4	7.5	1.8	0.5
1993	30.8	592.7	320.2	116.3	24.2	25.0	6.3	1.0	+
1994	6.9	258.6	289.4	284.3	51.4	69.8	19.9	1.4	0.1
1995	263.7	71.4	637.8	505.8	90.8	68.8	31.3	3.9	0.5
1996	213.1	100.2	191.2	337.6	134.3	41.9	16.6	1.4	0.3
1997 ²	63.2	120.9	24.8	278.2	271.8	70.9	39.8	5.2	0.1
1998 ²	1.3	88.2	62.5	101.0	203.2	40.4	12.9	1.1	0.2
1999	2.2	6.8	68.2	36.8	167.4	71.3	21.0	3.1	0.1
2000	9.0	12.7	39.4	76.8	141.9	97.1	26.6	6.9	1.5
									412

¹⁾ Inkluderer uidentifiserte Sebastes individer, for det meste mindre enn 15 cm.

Includes unidentified Sebastes specimens, mostly less than 15 cm.

²⁾ Indeksar oppjusterte til også å omfatta russisk sone.

Indices raised to also represent the Russian EEZ.

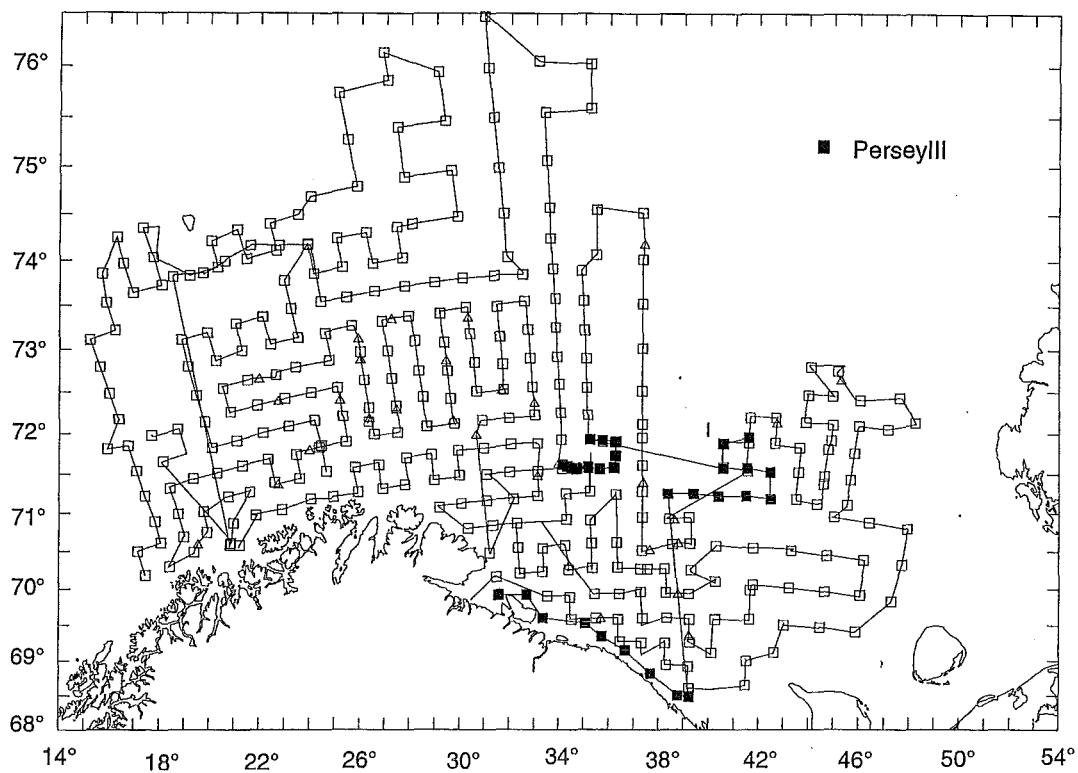
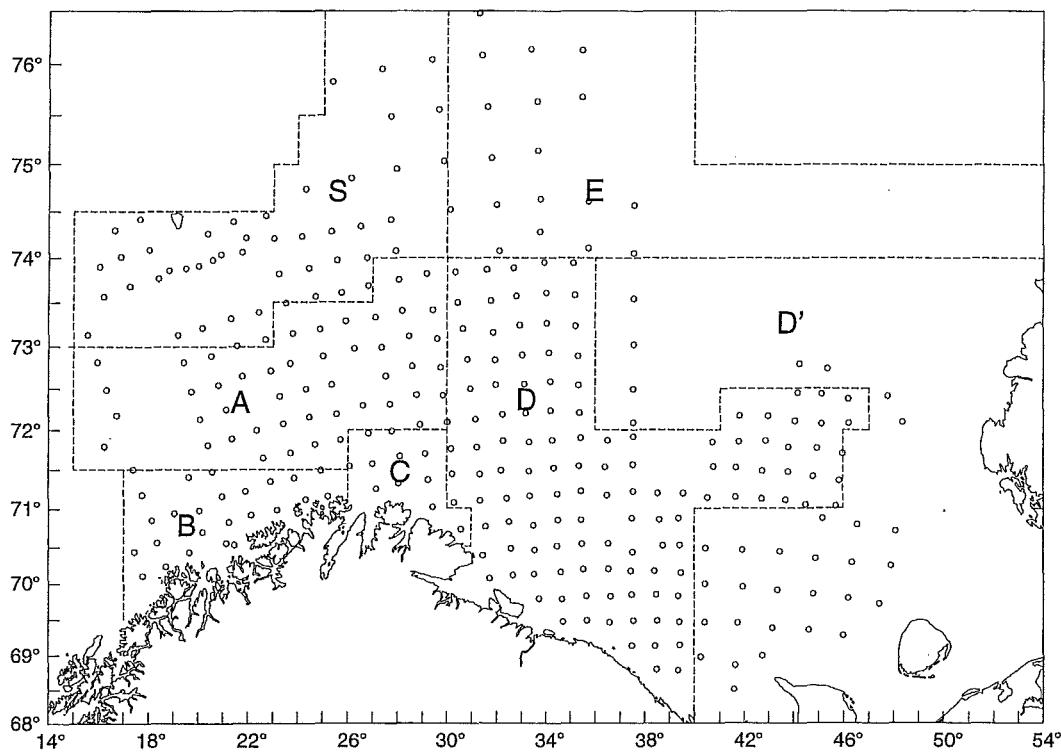


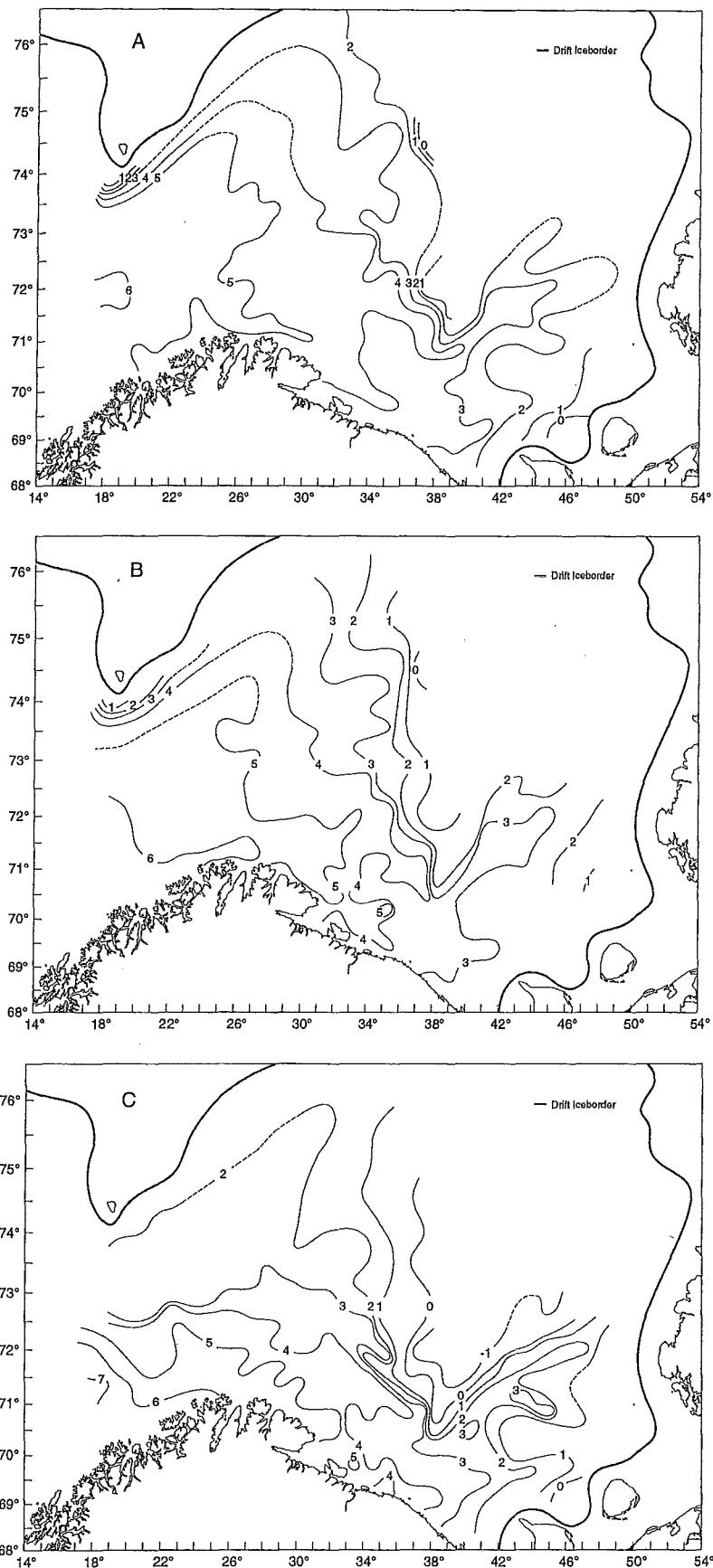
Fig. 3.1. Kurslinjer og trålstasjonar; F/F "G.O. Sars" 29.1-24.2, F/F "Johan Hjort" 1.2-29.2,
F/F "Varegg" 27.1-6.2. og F/F "Persey III" 7.2-17.2.2000.

*Survey tracks and trawl stations; R/V "G.O. Sars" 29.1-24.2, R/V "Johan Hjort" 1.2-29.2,
F/F "Varegg" 27.1-6.2. and F/F "Persey III" 7.2-17.2.2000.*

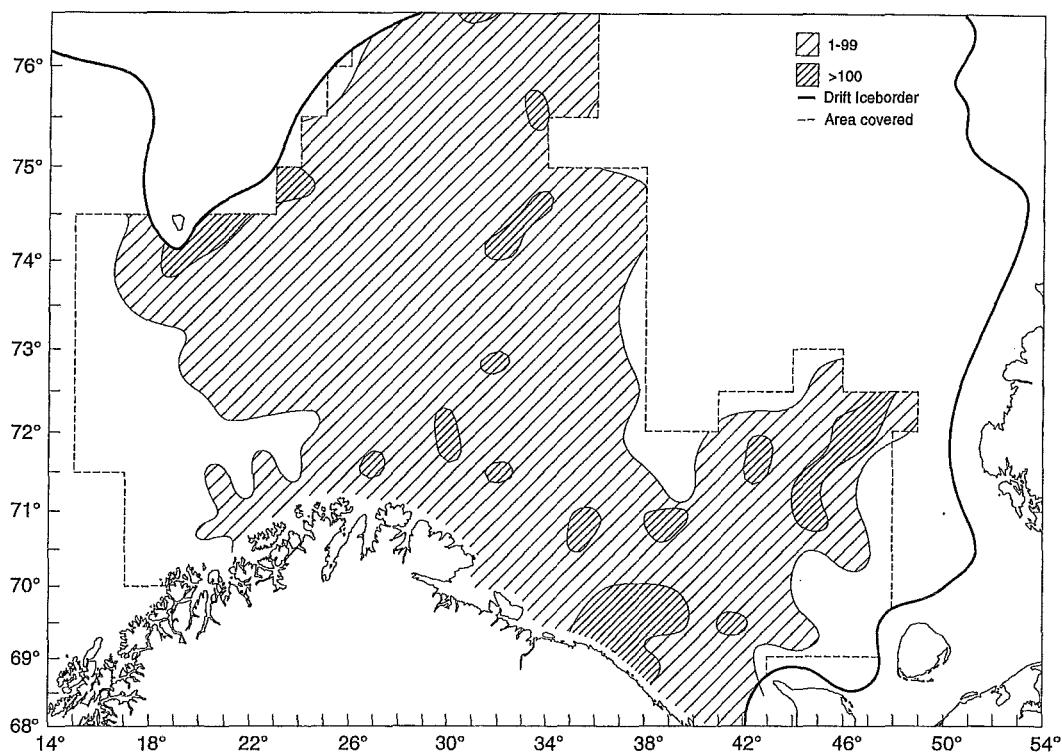


Figur 3.2. Undersøkingsområdet med hovedområde A, B, C og D, tilleggsområde D', E og S og trålstasjonar
teke i botntrålundersøkinga 27.1 - 29.2 2000.

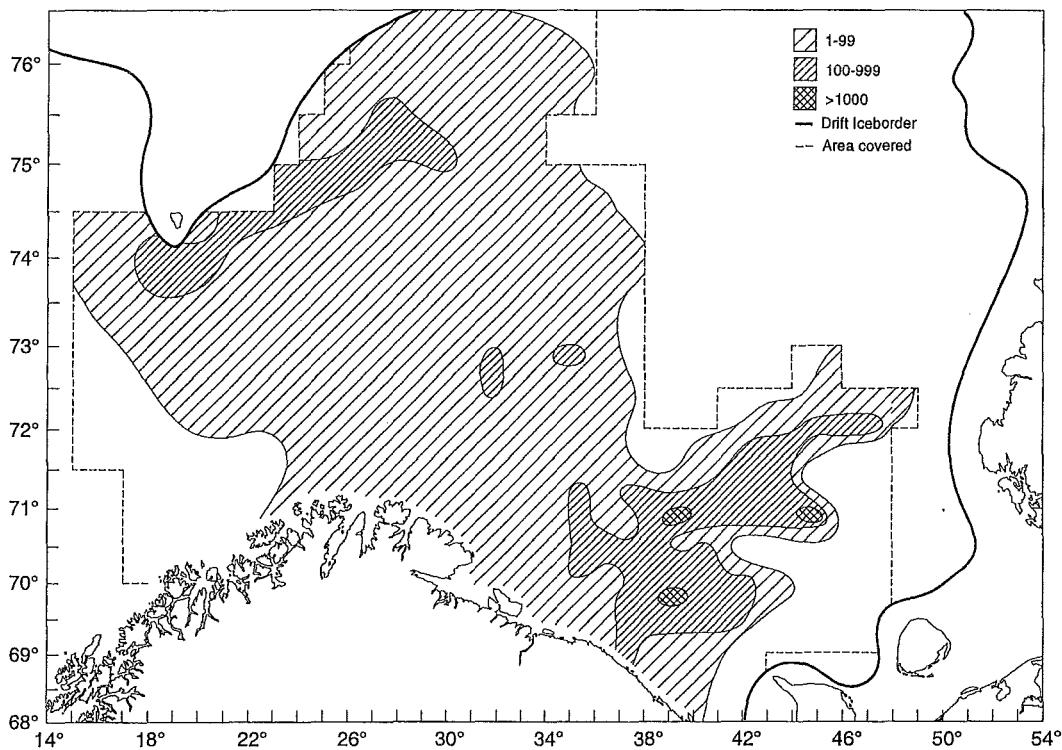
*The survey area with main areas A, B, C and D, additional areas D', E and S and stations taken in
the bottom trawl survey 27.1 - 29.2 2000.*



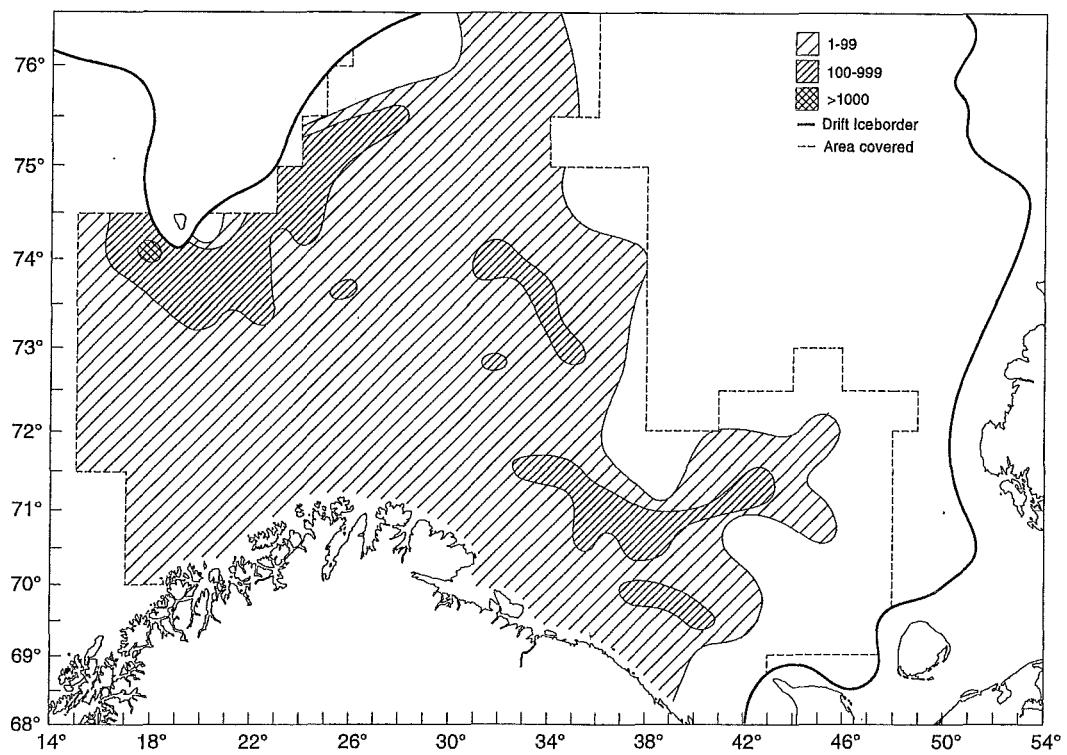
Figur 4.2. Temperaturfordeling februar 2000. A) ved overflata, B) i 100 m djup, C) ved botnen.
Temperature distribution February 2000. A) surface, B) 100 m depth, C) bottom.



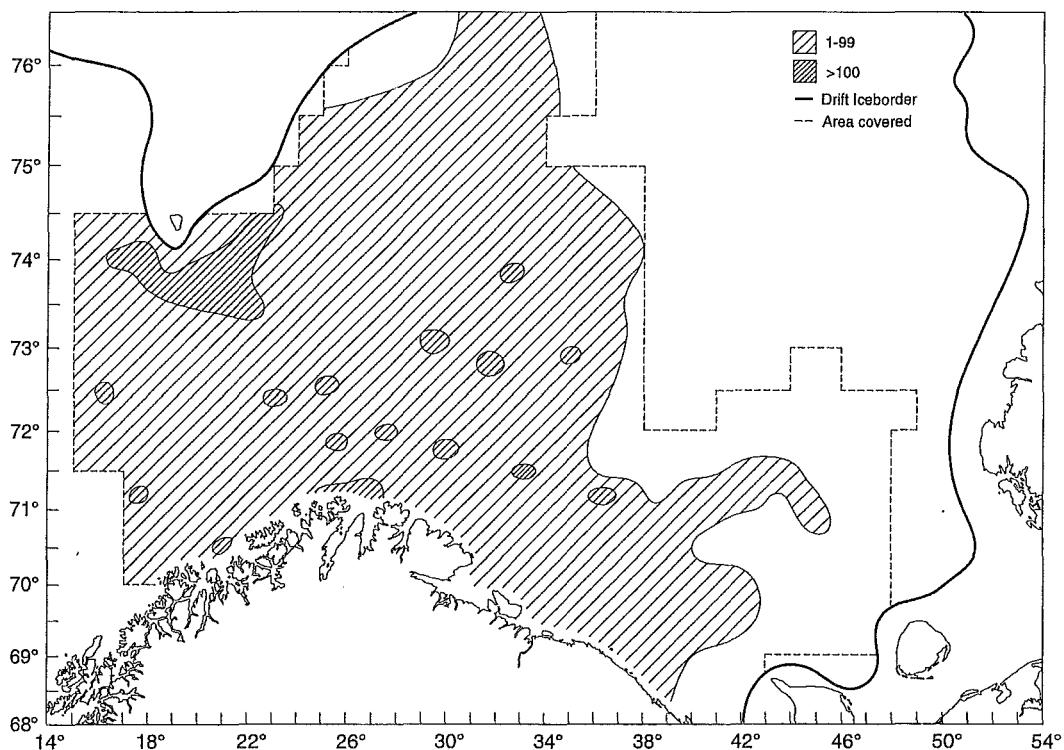
Figur 6.7. TORSK < 20 cm. Fordeling i trålfangstane vinteren 2000(talet på fisk pr. tråltime).
COD < 20 cm. Distribution in the trawl catches winter 2000(number per hour trawling).



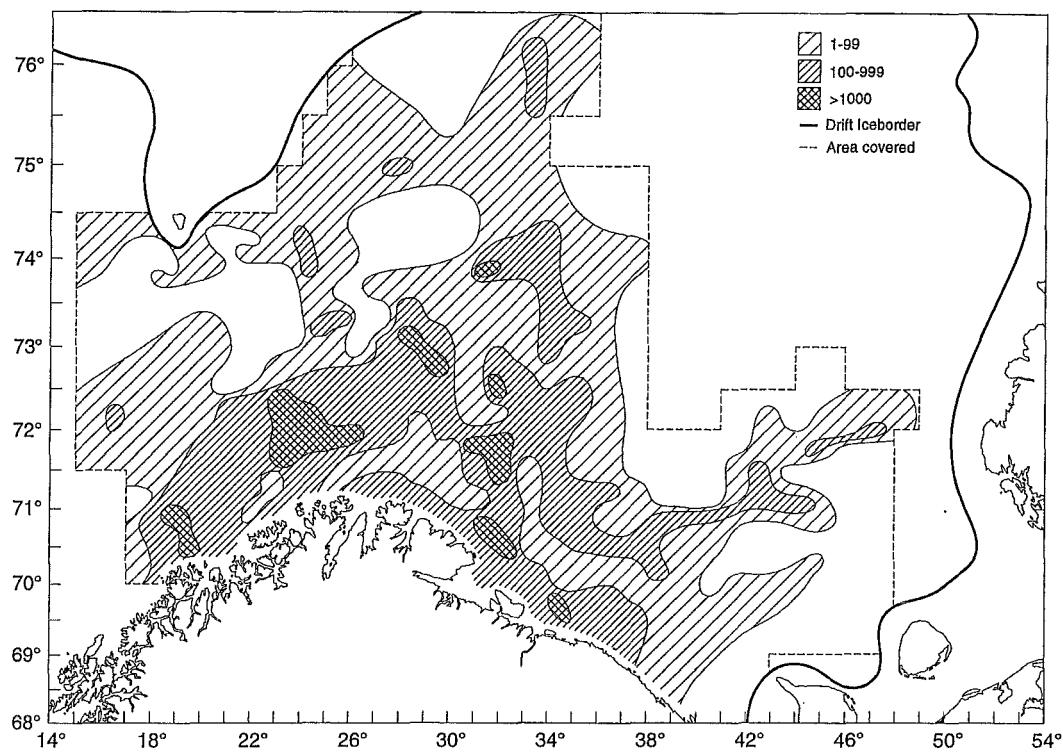
Figur 6.8. TORSK 20-34 cm. Fordeling i trålfangstane vinteren 2000(talet på fisk pr. tråltime).
COD 20-34 cm. Distribution in the trawl catches winter 2000(number per hour trawling).



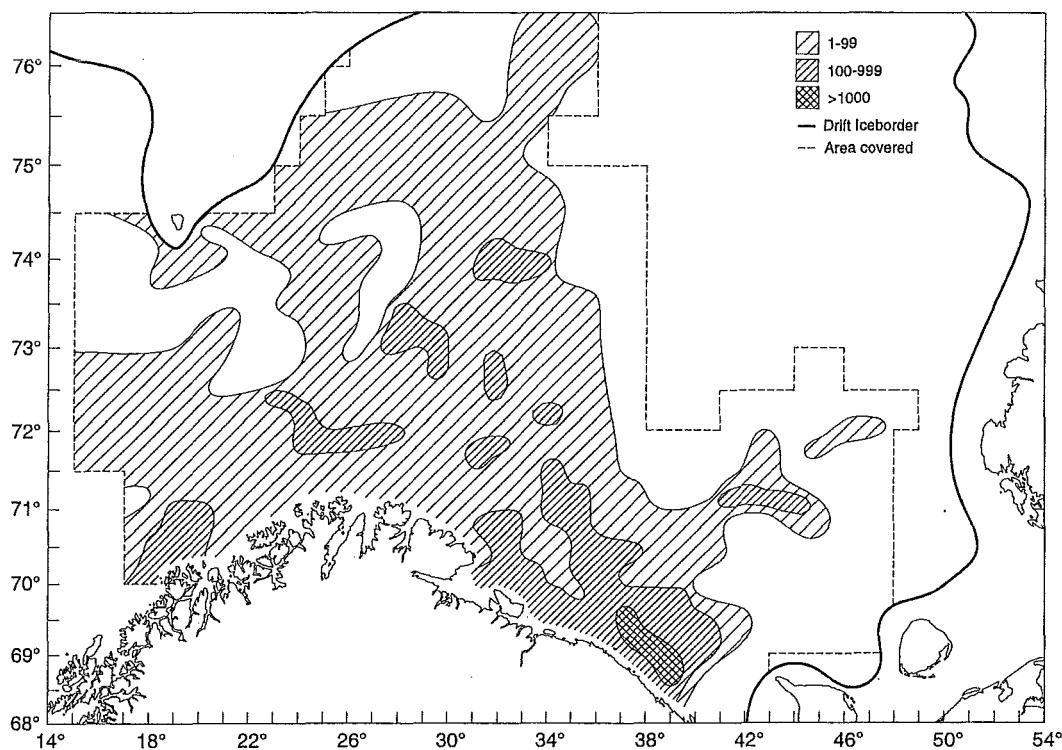
Figur 6.9. TORSK 35-49 cm. Fordeling i trålfangstane vinteren 2000(talet på fisk pr. tråltime).
COD 35-49 cm. Distribution in the trawl catches winter 2000(number per hour trawling).



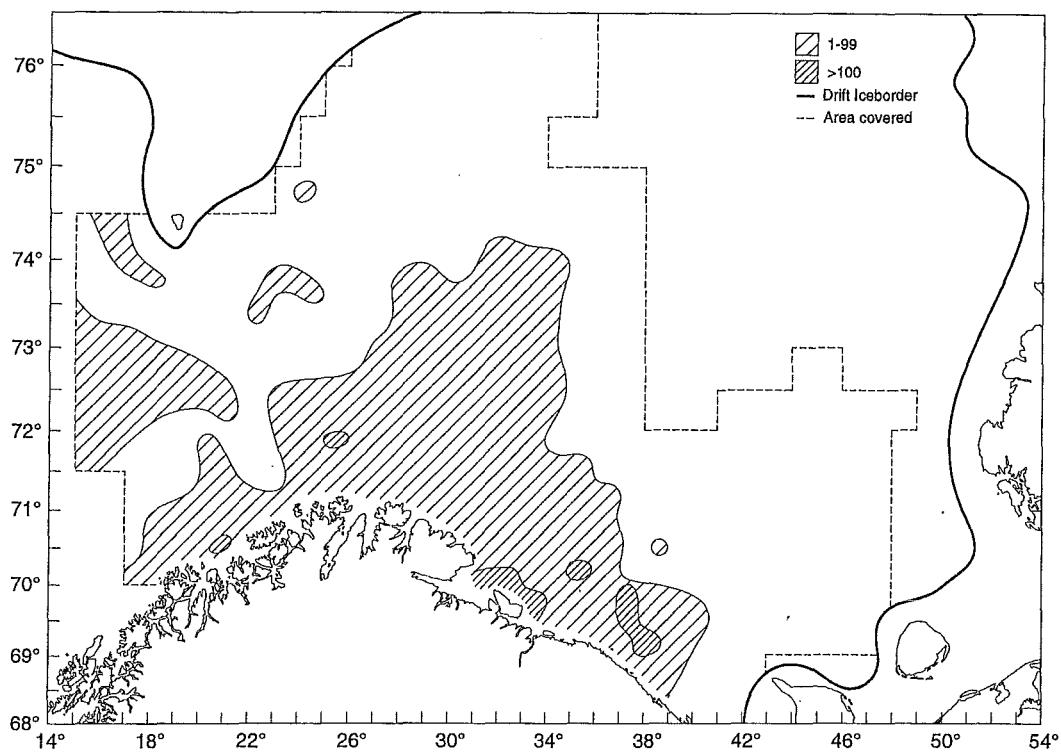
Figur 6.10. TORSK > 50 cm. Fordeling i trålfangstane vinteren 2000(talet på fisk pr. tråltime).
COD > 50 cm. Distribution in the trawl catches winter 2000(number per hour trawling).



Figur 7.7. HYSE < 20 cm. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. tråltume).
HADDOCK < 20 cm. Distribution in the trawl catches winter 2000 (number per hour trawling).

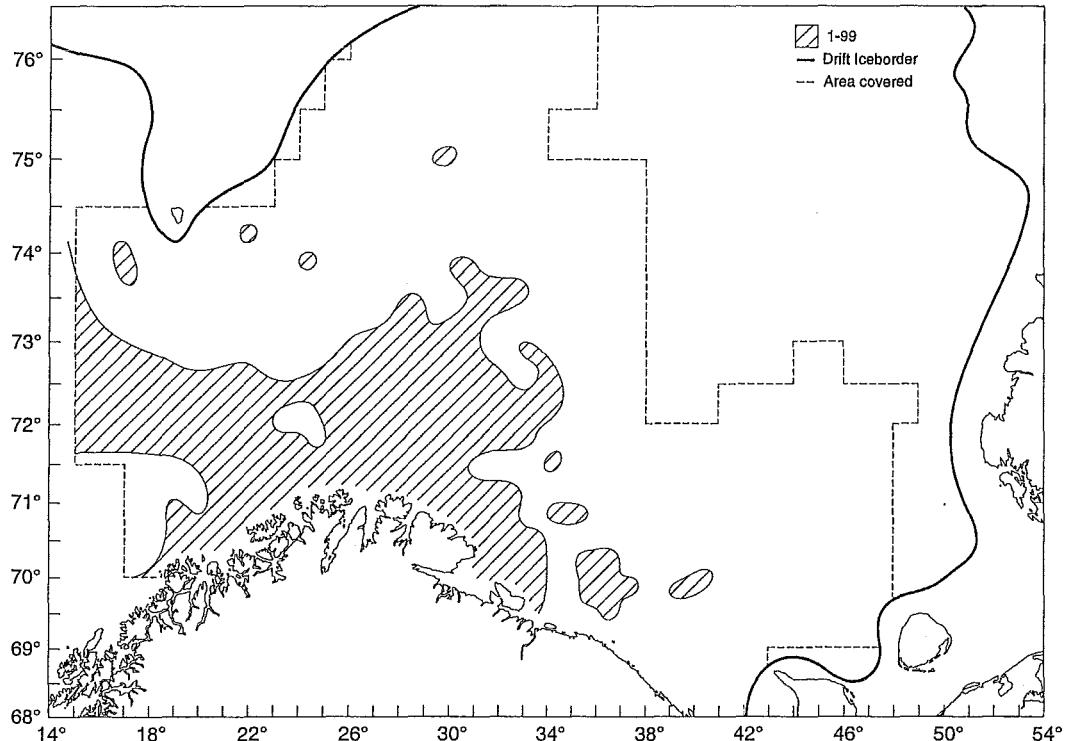


Figur 7.8. HYSE 20-34 cm. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. tråltume).
HADDOCK 20-34 cm. Distribution in the trawl catches winter 2000 (number per hour trawling).



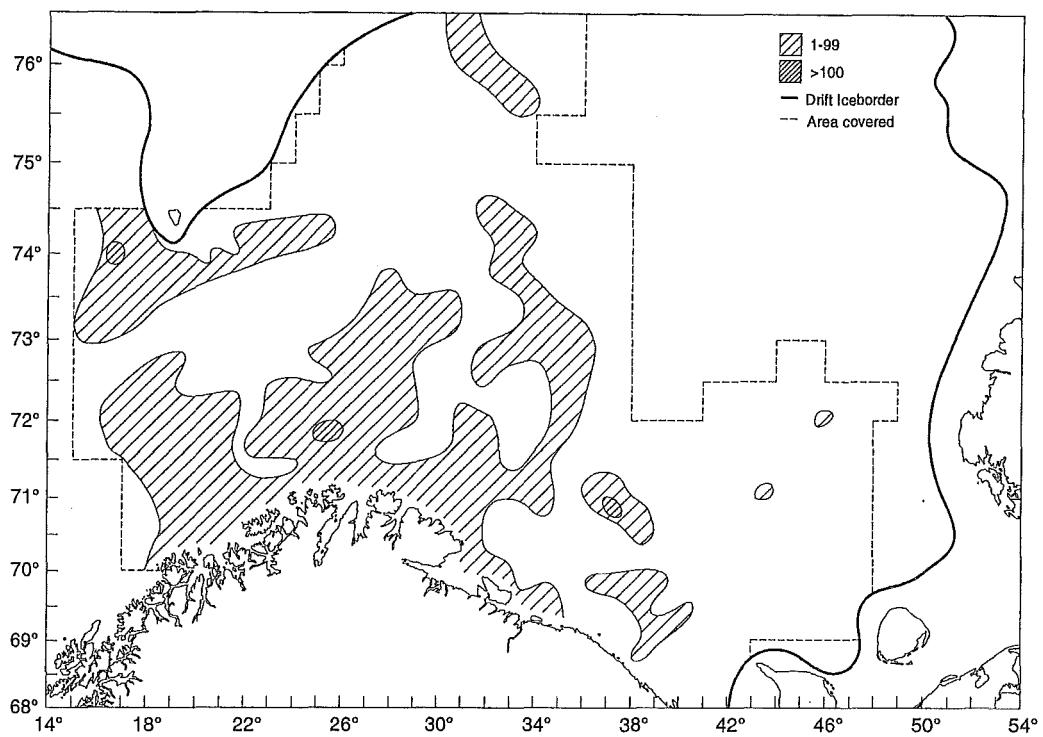
Figur 7.9. HYSE 35-49 cm. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. trålttime).

HADDOCK 35-49 cm. Distribution in the trawl catches winter 2000 (number per hour trawling).

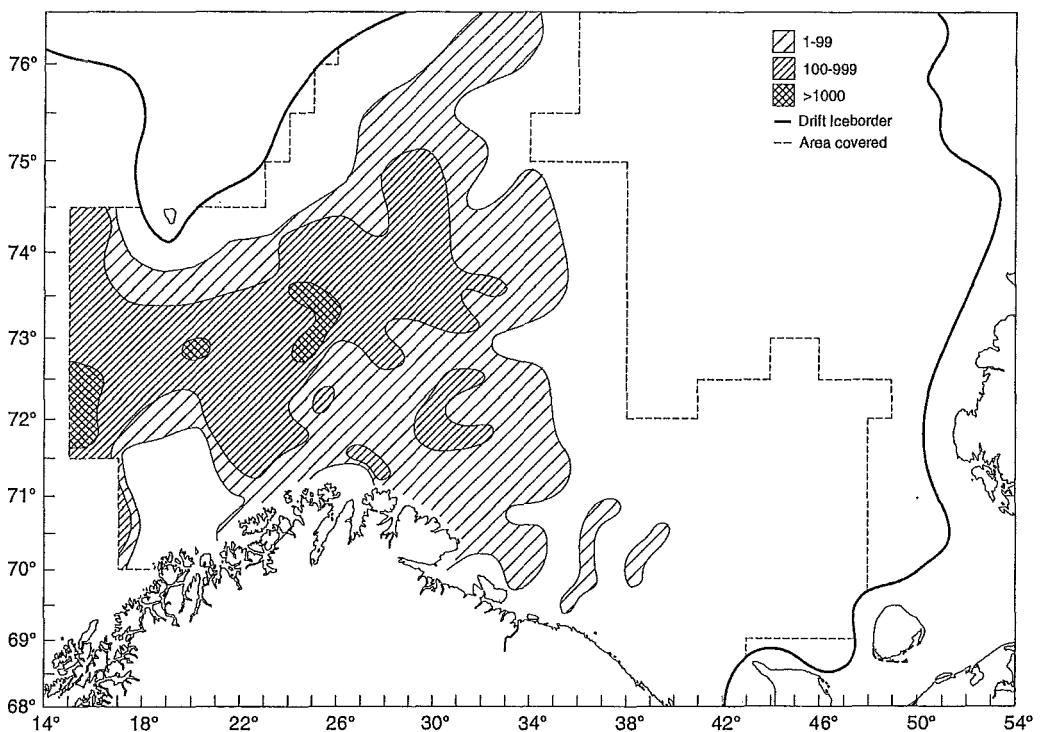


Figur 7.10. HYSE > 50 cm. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. trålttime).

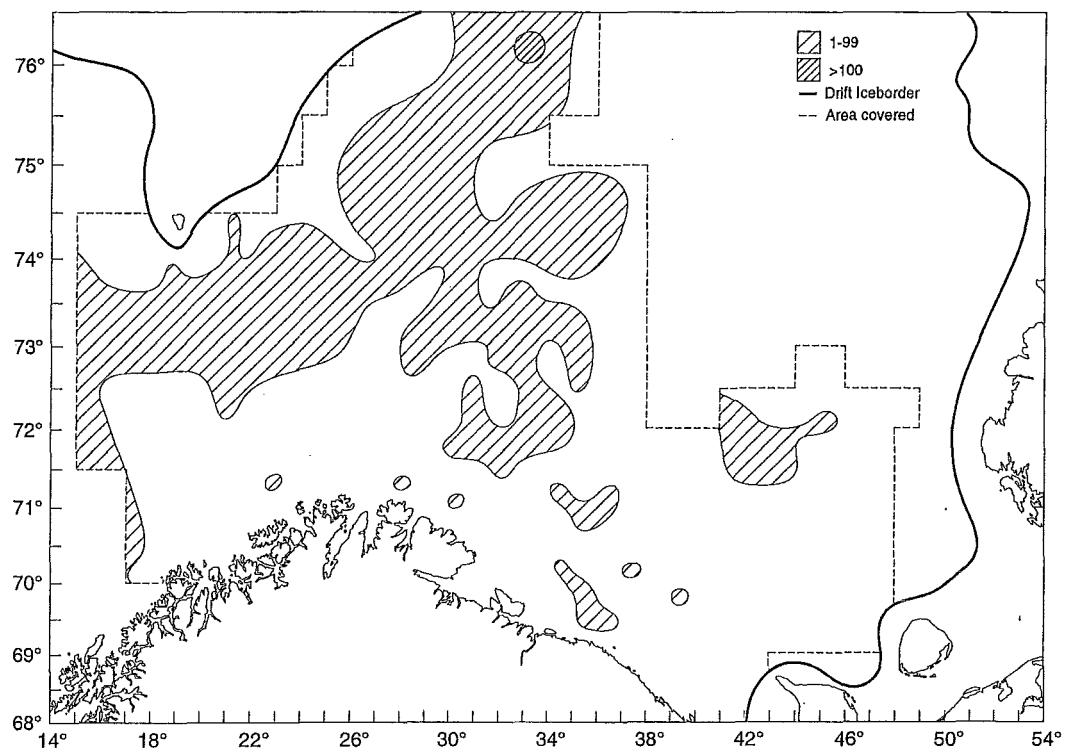
HADDOCK > 50 cm. Distribution in the trawl catches winter 2000 (number per hour trawling).



Figur 8.2. VANLEG UER. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. tråltime).
SEBASTES MARINUS. Distribution in the trawl catches winter 2000 (no. per hour trawling).



Figur 8.3. SNABELUER. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. tråltime).
SEBASTES MENTELLA. Distribution in the trawl catches winter 2000 (no. per hour trawling).



Figur 9.1. BLÅKVEITE. Fordeling i trålfangstane vinteren 2000 (talet på fisk pr. tråltime).

GREENLAND HALIBUT. Distribution in the trawl catches winter 2000 (no. per hour trawling).