

PROSJEKTRAPPORT



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Rapport:
FISKEN OG HAVET

Nr. - År
12 - 2004

Oversikt over tokt og stasjoner tatt i 2003

Report on oceanographic cruises and data stations, 2003

Forfatter(e):

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Norsk Marint Datasenter

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75

Sammendrag (norsk):

Rapporten gir en oversikt over toktene til Havforskningsinstituttets forskningsfartøy - ny "G.O.Sars gamle "G.O. Sars"/"Sarsen", "Johan Hjort", Håkon Mosby" og "G.M. Dannevig" i 2003. Kartene viser hovedsakelig CTD- og trålstasjoner, men også plankton stasjoner. For de fleste toktene vises kurs- og stasjonskart, samt oversikt over når de faste snittene er tatt med antall observasjoner pr. måned for de faste stasjonene langs kysten. Oversiktene er innrapportert til Det internasjonale råd for havforskning (ICES) sammen med "Cruise Summary Report".

Data fra toktene er tilgjengelig fra Norsk Marint Datasenter. Rapporten kan brukes til å finne ut hvilke data man ønsker å bruke.

Summary (English):

The present report shows the course tracks and stations occupied by the research vessels "G.O.Sars", "Johan Hjort", "H. Mosby" and "G.M. Dannevig" during 2003.

The first tables shows the cruise number and the periods for each cruise. The next page shows the standard sections worked out by the Institute of Marine Research and the position of the fixed stations in the coast water. The following tables (page 2 and 3) indicate when the standard sections are worked out, and show the number of observations per month of each of the fixed stations. The data is available on request. This report may be used to identify ship and station numbers.

Emneord (norsk):

1. Kurskart
2. Stasjonskart
- 3.

Subject heading (English):

1. Cruise track chart
2. Stations chart
- 3.

.....
prosjektleder

.....
forskningsgruppeleder

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CHART - overview CTD stations 2003	1
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STANDARD sections and stations	3

"G.O. SARS" new 2003

(Ship no 10)

Cruise no	Period of cruises	CTD no	Page of track chart
	25 Jul - 5 Jul	Test	
2003109	7 Jun - 23 Jul		no chart
2003110	25 Jul - 14 Sep	7 - 138	4 - 7
2003111	19 Sep - 14 Oct	139 - 230	8
2003112	16 Oct - 6 Nov	231 - 354	9
2003113	8 Nov - 26 Nov	355 - 383	10-11
2003114	28 Nov - 16 Dec	384 - 411	12

"G.O. SARS"/"Sarsen" 2003

(Ship no 15)

Cruise no	Period of cruises	CTD no	Page of track chart
2003001	16 Jan - 23 Jan	1 - 15	13
2003002	27 Jan - 5 Mar	16 - 153	14-15
2003003	6 Mar - 21 Mar	154 - 162	16
2003004	21 Mar - 6 Apr	163 - 321	17-18
2003005	6 Apr - 21 Apr	322 - 396	19-20
2003006	24 Apr - 10 Jun	397 - 554	21-22
2003007	10 Jun - 27 Jun	555 - 621	23-24
2003008	1 Jul - 22 Jul	622 - 768	25-26
2003009	23 Jul - 27 Jul	769 - 786	27
2003011	16 Sep - 8 Oct	983 - 1043	28-31

"JOHAN HJORT" 2003

(Ship no 12)

Cruise no	Period of cruises		Page of track chart
2003201	16 Jan - 26 Jan	1 - 37	32
2003202	27 Jan - 5 Mar	38 - 147	33-34
2003203	8 Mar - 26 Mar	149 - 208	35-36
2003204	29 Mar - 28 Apr	209 - 300	37-38
2003205	16 May - 25 May	301 - 356	39
2003206	27 May - 16 Jun	357 - 487	40-41
2003207	17 Jun - 7 Jul	488 - 553	42-44
2003208	12 Jul - 29 Jul	554 - 621	45
2003209	5 Aug - 16 Sep	662 - 757	46-49
2003209 last part	16 Sep - 2 Oct	758 - 812	50-51
2003210	3 Oct - 8 Oct	813 - 847	52
2003211	10 Oct - 8 Nov	848 - 928	53
2003212	13 Nov - 27 Nov		no chart
2003213	29 Nov - 19 Dec	929 - 953	54-55

"HAKON MOSBY" 2003

(Ship no 11)

Cruise no	Period of cruises		Page of track chart
2003601	6 Jan - 30 Jan	1 - 122	56-57
2003604	12 Feb - 4 Mar	183 - 192	58-59
2003605	5 Mar - 19 Mar	193 - 315	60
2003608	8 Apr - 21 Apr	352 - 476	61
2003609	22 Apr - 4 May	477 - 531	62-63
2003610	5 May - 15 May	532 - 592	64
2003616	29 Oct - 13 Nov	675 - 736	65
2003617	16 Nov - 10 Dec	737 - 800	66-67

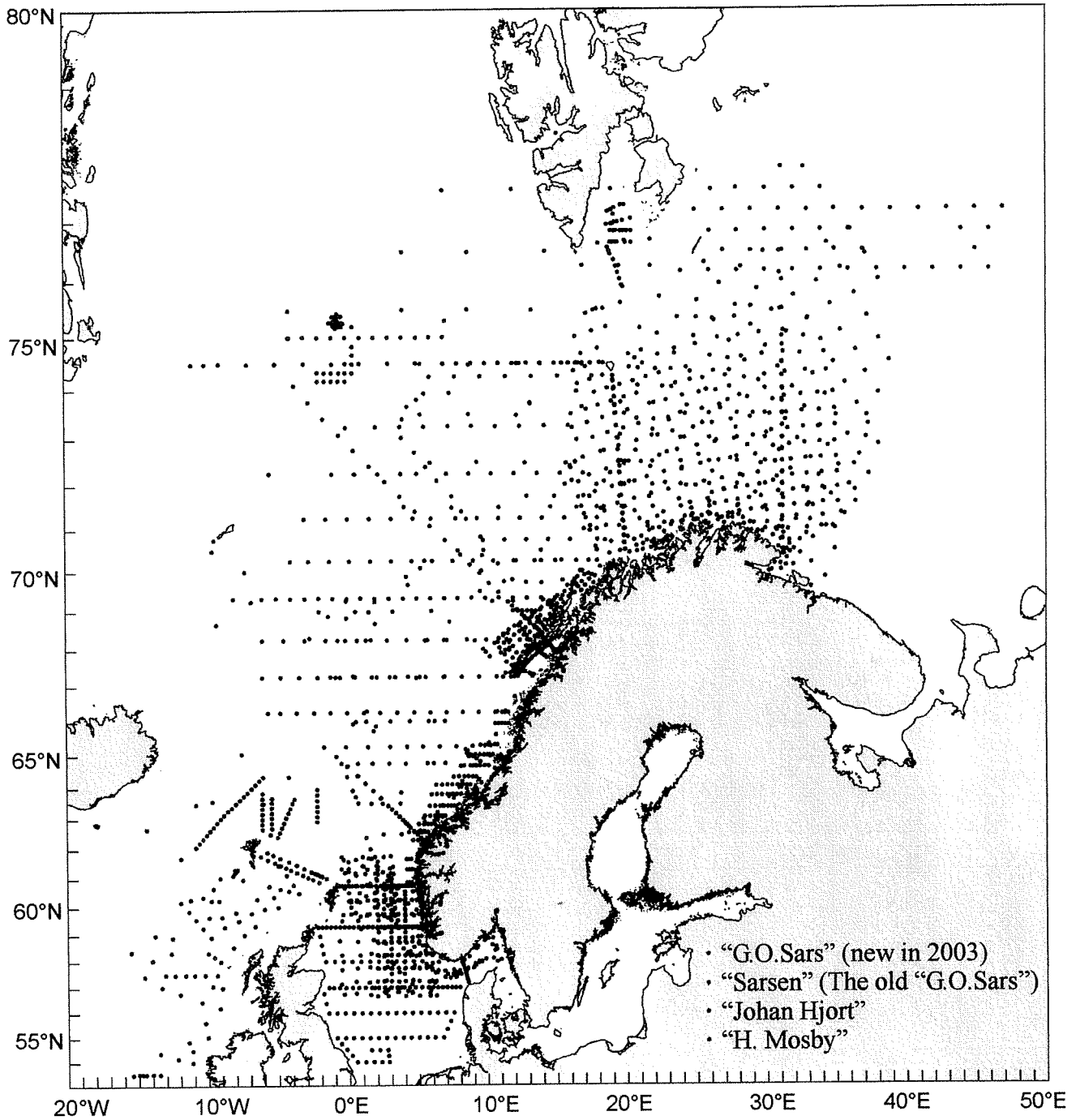
"G.M. DANNEVIG" 2003

(Ship no 16)

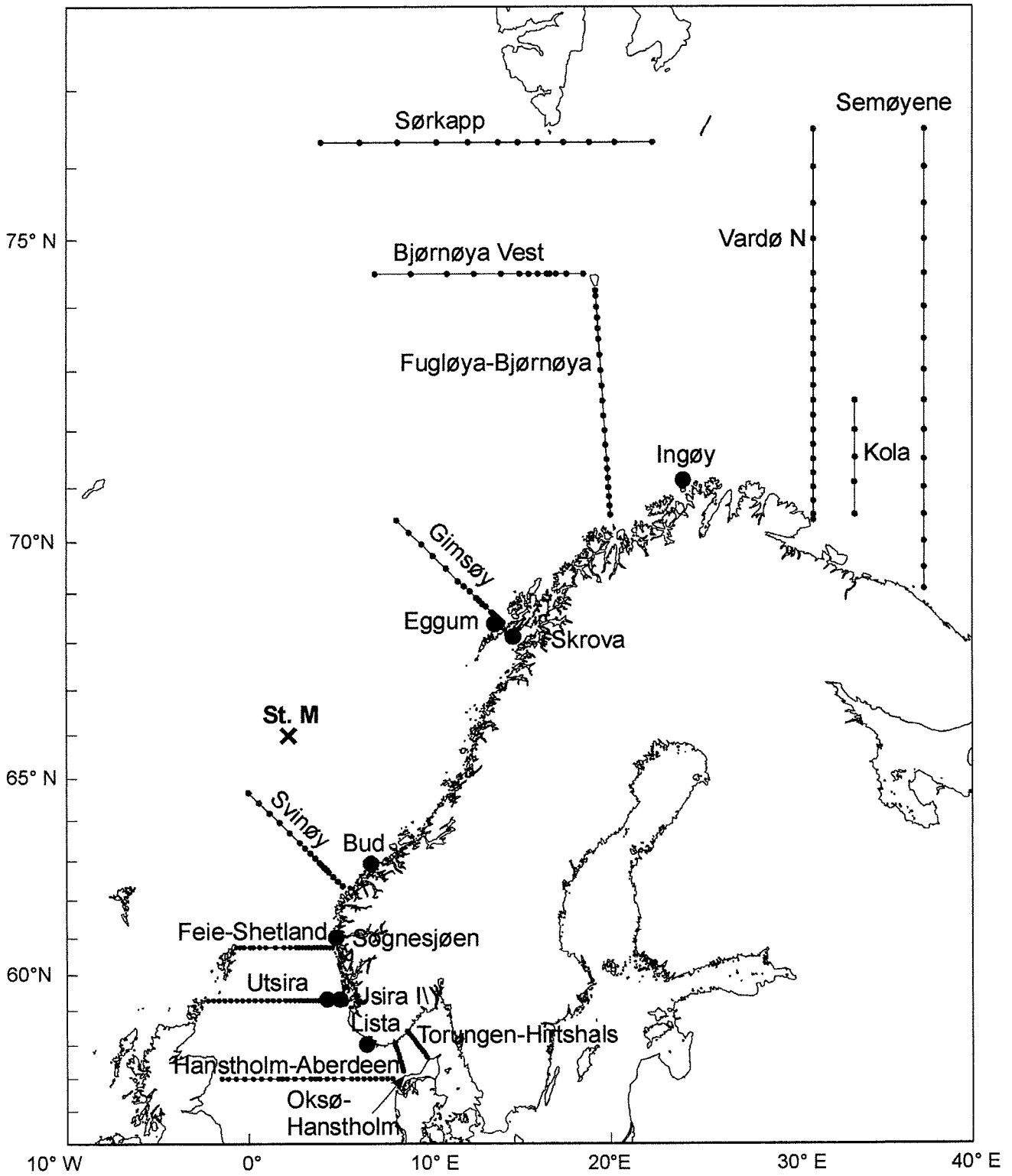
Cruise no	Period of cruise	Purpose	Area	CTD no	Page of track chart
2003301	7 Jan - 8 Jan	Hydrographic section, environmental investigation.	Skagerrak		
2003302	7 Jan - 8 Jan	Longterm environmental monitoring	Arendal	1-12	68
2003303	9 Jan - 12 Jan	Local and regional influence on the environment.	Norwegian Skagerrak coast		
	9 Jan - 12 Jan	Kristiansand (NIVA)	Kristiansand	13-18	
2003304	13 Jan - 21 Jan	Verksted	Hirtshals		
2003305	23 Jan	Longterm environmental monitoring	Arendal	19	
2003306	17 Feb	Longterm environmental monitoring	Arendal	20	
2003307	17 Feb - 22 Feb	Cod spawning and distribution of larvae.	Tvedestrand	21-38	
2003309	23 Feb - 24 Feb	Hydrographic section, environmental investigation.	Skagerrak	39-50	68
200338	25 Feb - 27 Feb	Local and regional influence on the environment.	Norwegian Skagerrak coast	51-63	69
2003310	27 Feb	Longterm environmental monitoring	Arendal	64-65	
2003311	17 Mar - 18 Mar	Hydrographic section, environmental investigation.	Skagerrak		
2003312	17 Mar - 18 Mar	Longterm environmental monitoring	Arendal	66-77	68
2003313	19 Mar - 22 Mar	Local and regional influence on the environment.	Norwegian Skagerrak coast	78-91	70
2003314	23 Mar - 28 Mar	Cod spawning and distribution of larvae.	Tvedestrand	92-126	
2003315	28 Mar	Longterm environmental monitoring	Arendal	127	
2003316	30 Mar - 13 Apr	Reke, sjøkreps undersøkelser	Skagerrak, Nordsjøen		
2003317	15 Apr	Longterm environmental monitoring	Arendal		
2003318	15 Apr - 30 Apr	Environmental investigation after the springbloom.	Eastern North Sea/ Skagerrak/ Kattegat	128-241	68 and 71
2003319	1 May - 3 May	Local and regional influence on the environment.	Norwegian Skagerrak coast		
2003320	4 May - 5 May	Hydrographic section, environmental investigation.	Skagerrak		
2003321	4 May - 5 May	Overvåke miljøtilstand. Longterm environmental monitoring	Arendal	242-253	68
2003322	7 May - 17 May	Environmental condition and fish distribution	Skagerrak coast	254-255	
2003323	17 May	Longterm environmental monitoring	Arendal	256	
2003324	31 May	Longterm environmental monitoring	Arendal	257	
2003325	2 Jun - 7 Jun		Bergen		

2003326	8 Jun - 10 Jun	Local and regional influence on the environment.	Norwegian Skagerrak coast	258-271	70
2003327	11 Jun - 13 Jun	Hydrographic section, environmental investigation.	Skagerrak		
2003328	13 Jun	Longterm environmental monitoring	Arendal	272-283	68
2003329	1 Jul - 3 Jul	Local and regional influence on the environment.	Norwegian Skagerrak coast		
2003330	1 Jul	Hydrografis snitt, miljøundersøkelser. Hydrographic section, environmental investigation.	Skagerrak	284-295	68
2003331	1 Jul	Longterm environmental monitoring	Arendal		
2003332	20 Aug - 22 Aug	Local and regional influence on the environment.	Norwegian Skagerrak coast	308-321	73
2003333	18 Aug - 19 Aug	Hydrographic section, environmental investigation.	Skagerrak		
2003334	18 Aug	Longterm environmental monitoring	Arendal	296-307	68
2003335	12 Sep - 13 Sep	Hydrographic section, environmental investigation.	Skagerrak		
2003336	12 Sep - 13 Sep	Longterm environmental monitoring	Arendal	322-333	68
2003337	15 Sep - 3 Oct	Beach seine studies	Skagerrak		
2003338	18 Sep	Longterm environmental monitoring	Arendal	334-371	
2003339	3 Oct	Longterm environmental monitoring	Arendal	372	
2003340	17 Oct - 18 Oct	Hydrographic section, environmental investigation.	Skagerrak		
2003341	17 Oct - 18 Oct	Longterm environmental monitoring	Arendal	373-384	68
2003342	19 Oct - 22 Oct	Local and regional influence on the environment.	Norwegian Skagerrak coast	385-398	72
2003343	24 Oct - 2 Nov	Monitoring toxic substances in the Grenland fjords.	Skagerrak		
2003344	1 Nov	Longterm environmental monitoring	Arendal	399	
2003345	13 Nov - 14 Nov	Hydrographic section, environmental investigation.	Skagerrak		
2003346	13 Nov - 14 Nov	Longterm environmental monitoring	Arendal	400-411	68
203347	15 Nov - 6 Dec	Demersal fish resources	Skagerrak coast	412-423	
2003348	7 Dec - 8 Dec	Hydrographic section, environmental investigation.	Skagerrak		
2003349	7 Dec - 8 Dec	Longterm environmental monitoring	Arendal	424-435	68
2003350	9 Dec - 12 Dec	Local and regional influence on the environment.	Norwegian Skagerrak coast	436-449	75

Overview
CTD stations 2003



Standard sections and standard stations



**STANDARD
SECTIONS**

2003

Cruise no/ship

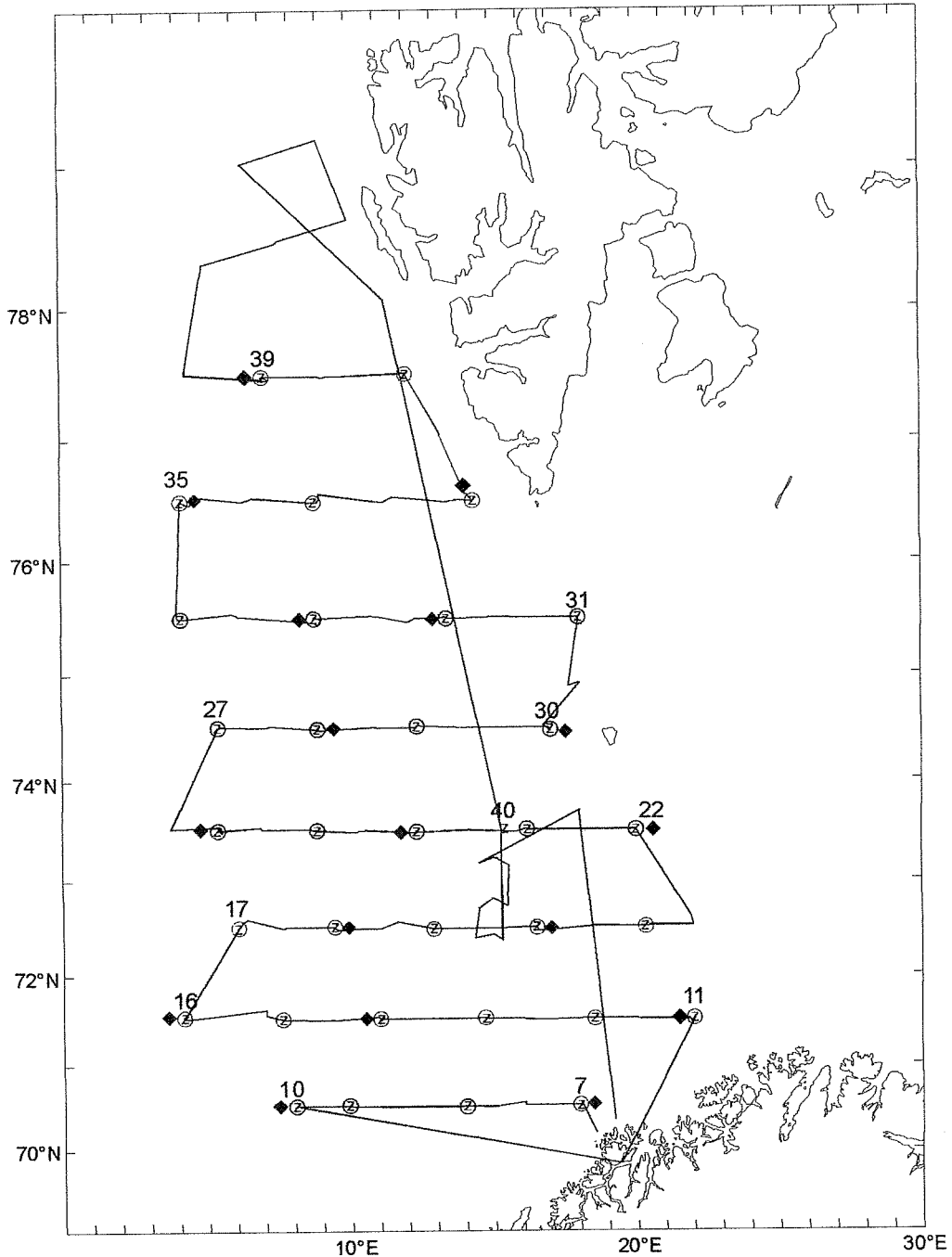
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Torungen - Hirtshals	2003302GMD	2003309GMD	2003312GMD	2003318GMD	2003321GMD	2003328GMD	2003330GMD	2003334GMD	2003336GMD	2003341GMD	2003346GMD	2003349GMD
Oksø - Hanstholm	2003601HM						2003008Sarsen					
Hanstholm - Aberdeen	2003601HM		2003605HM				2003008Sarsen					
Utsira West	2003601HM		2003605HM		2003610HM		2003008Sarsen				2003112GOS	
Feie - Shetland	2003601HM				2003610HM		2003008Sarsen			2003112GOS		
Svinøy - North/West	2003001Sarsen		2003203JH	2003006Sarsen			2003009Sarsen		2003111GOS	2003111GOS	2003113GOS	
Gimsøy - North/West Sørkapp			2003206JH		2003206JH							
Fugløya - Bjørnøya	2003201JH		2003203JH	2003005Sarsen		2003206JH			2003110GOS 2003111GOS	2003210JH		
Bjørnøya West						2003206JH				2003210JH		
Vardø - North	2003201JH		2003203JH			2003007Sarsen		2003209JH	2003209JH			
Semøyene - North												

3

No of observations in 2003

**STANDARD
STATIONS**

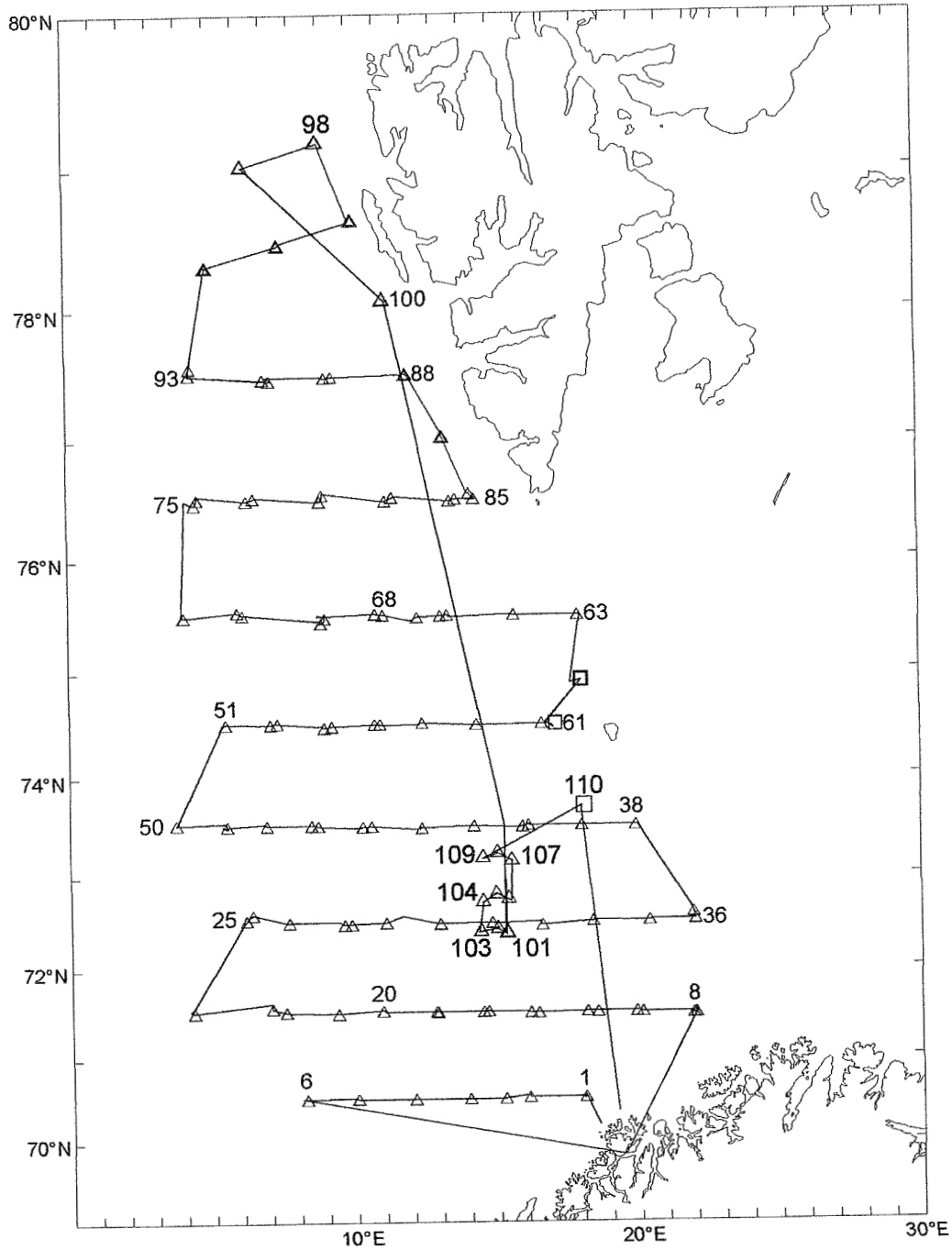
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
LISTA													
N58° 05.1' E06° 32.5'	3	2	3	3	3	2	3	4	4	2	2	3	34
UTSIRA Y													
N59° 19' E04° 44'	2	3	3	3	3	3	3	2	1			1	24
UTSIRA I													
N59° 19' E04° 59'	2	3	2	3	2	3	3	2	1			1	22
SOGNESJØEN													
N61° 01' E04° 50'	1	3	3	2	1	4	2	3	3	3	2	2	29
BUD													
N62° 56' E 06° 47'		3	2	2	2	3	3	2	3	2	3		25
SKROVA													
N68° 07' E14° 39'	5	4	4	3	5	4	5	4	4	5	4	5	52
EGGUM													
N 68° 23' E13° 38'	2	2	3	2	3	3	3	2	3	2	3	3	31
INGØY													
N71° 08' E 24° 01'	4	3	4	4	4	4	3	3	4	4	3	3	43



PART I: 25 July - 20 August 2003
 Cruise no 2003110

z CTD st. no 7 - 40
 ○ Plankton st. (WP-II-net)
 ◆ Moored st.

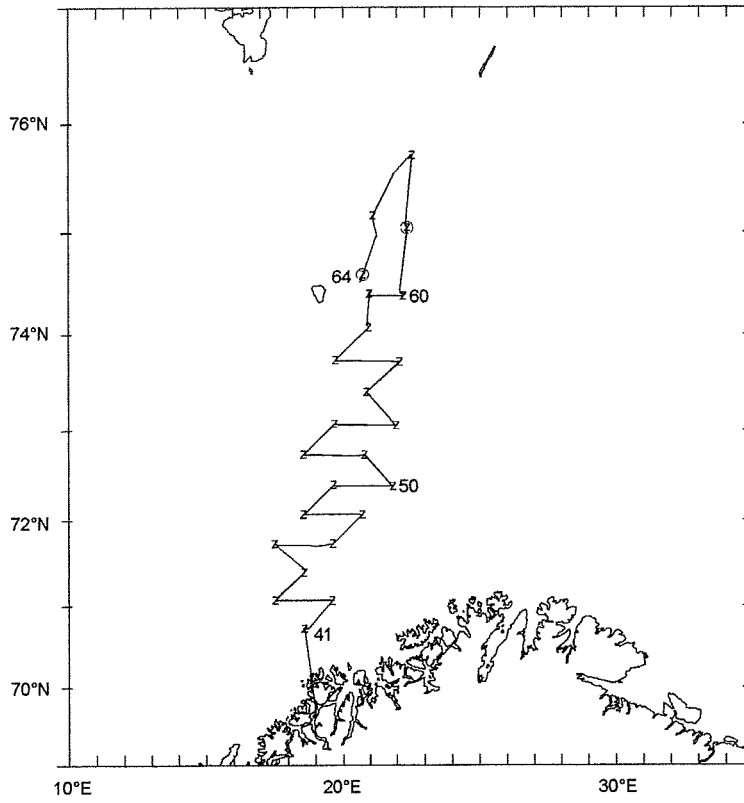
"G.O. Sars"



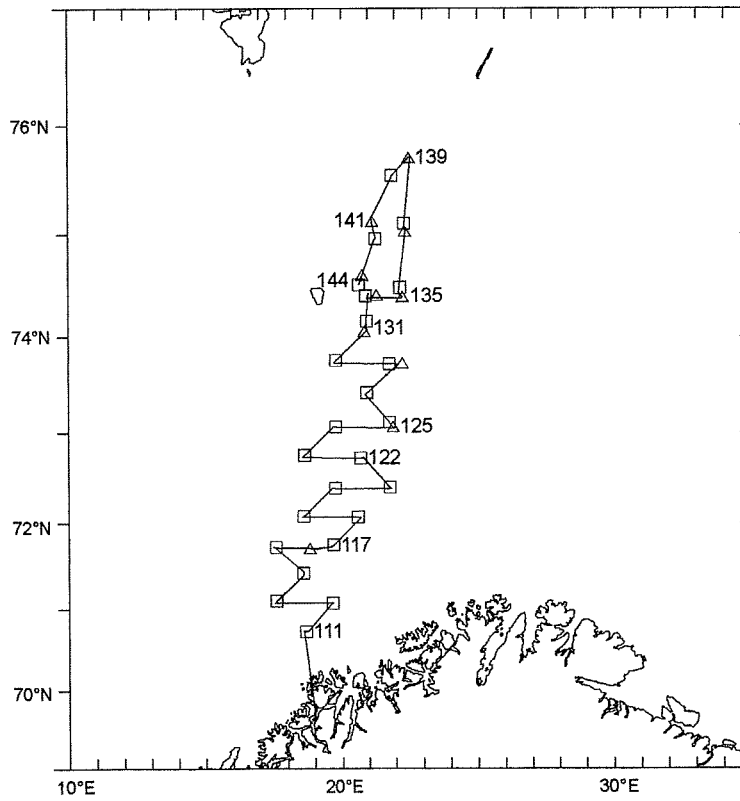
PART I: 25 July - 20 August 2003
Cruise no 2003110

Trawl st.no 1 - 110
 △ Pelagic trawl
 □ Bottom trawl

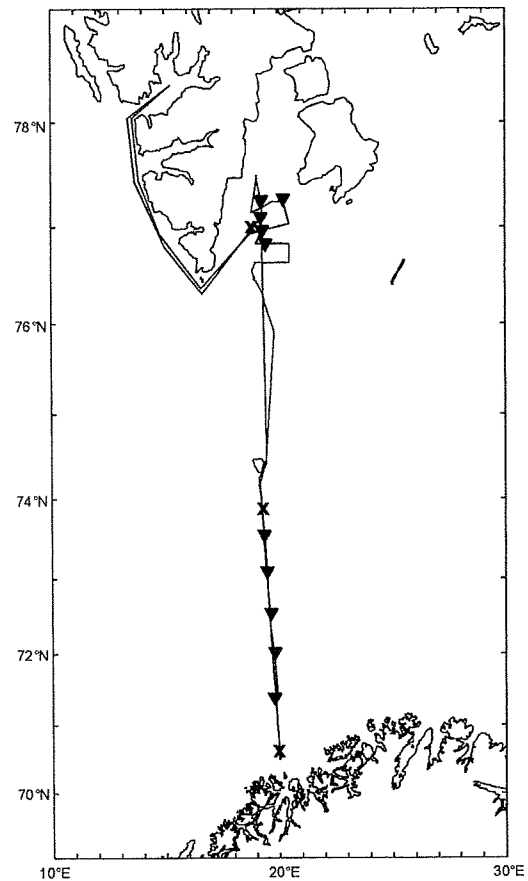
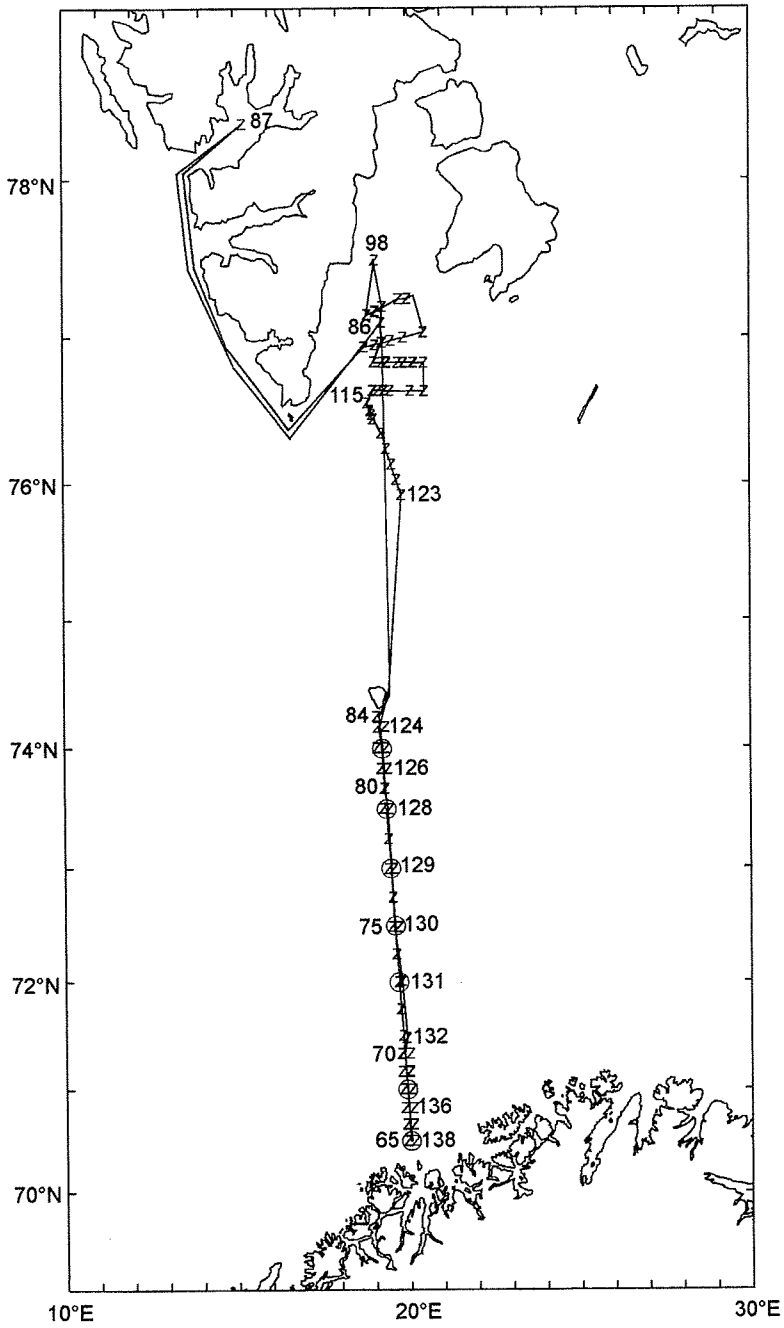
"G.O. Sars"



PART II: 21 - 31 August 2003 z CTD st.no 41 - 64 "G.O. Sars"
 Cruise no 2003110 ○ Plankton st. (WP-II-net)

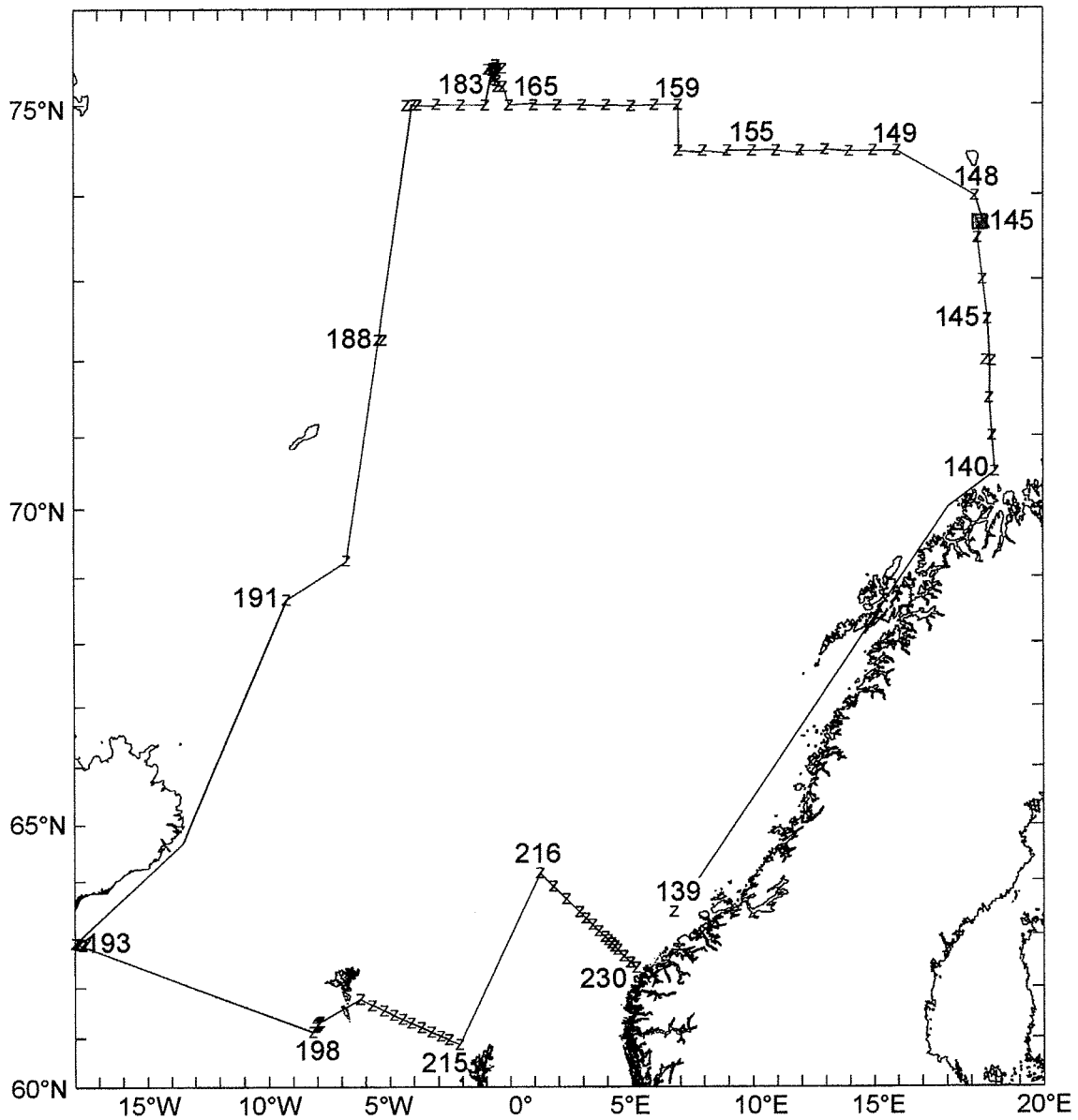


PART II: 21 - 31 August 2003 Trawl st.no 111 -144 "G.O. Sars"
 Cruise no 2003110 △ Pelagic trawl
 □ Bottom trawl



PART III: 1 - 14 September 2003 z CTD st.no 65-138 "G.O. Sars"
 Cruise no 2003110 o Plankton st. (WP-II-net)
 Standard section Fugløya - Bjørnøya

▼ Deployed and recovered current meter mooring
 x Deployed "trawl-proof" bottom ADCP



19 Sep - 14 Oct 2003
Cruise no 2003111

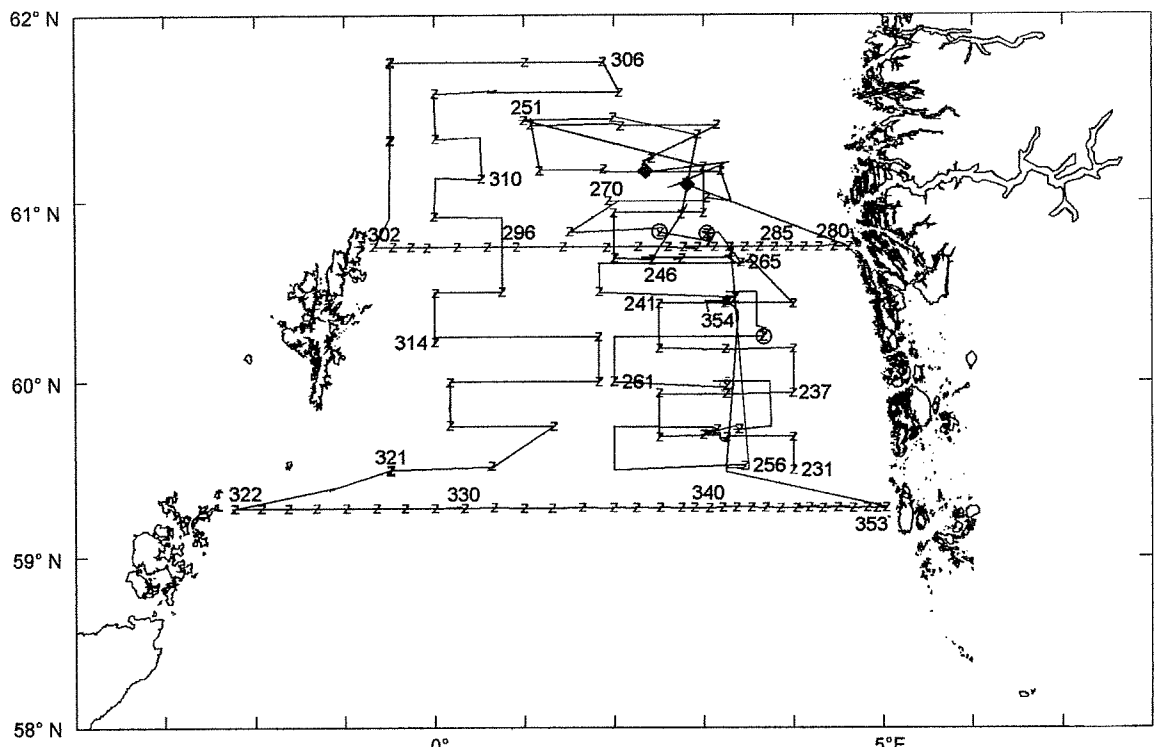
z CTD st.no 139 - 230

"G.O. Sars"

■ Trawl st.no 145

Standard section: Fugløya - Bjørnøya: st.no 140-148

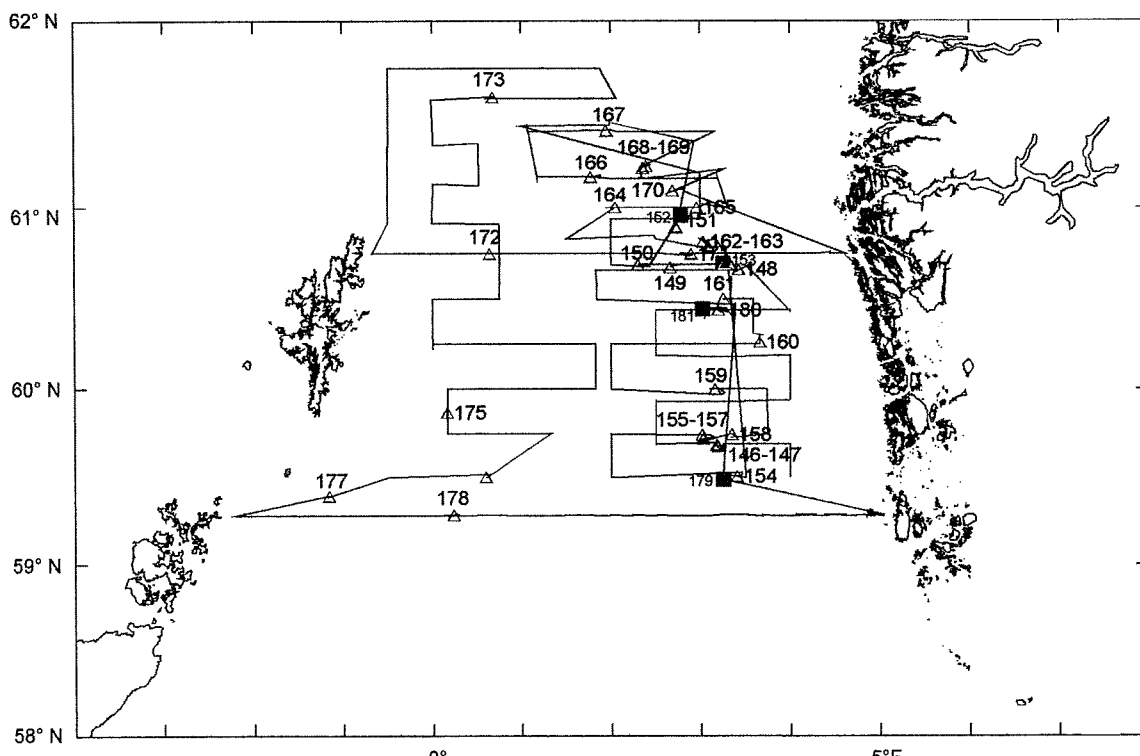
Svinøy NW: st.no 216-230



16 October - 6 November 2003
Cruise no 2003112

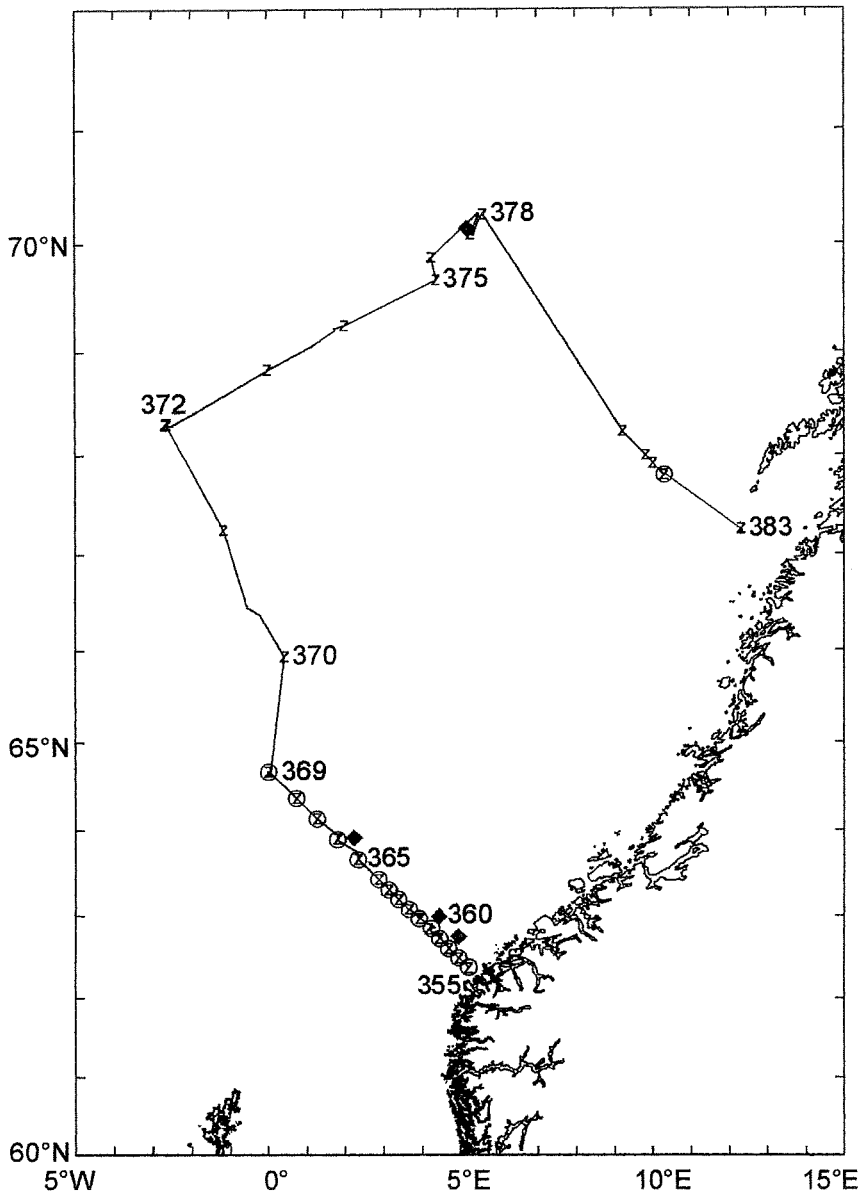
z CTD st.no 231-354 "G.O. Sars"
Standard section Feie - Shetland st.no 280-302
Utsira W st.no 322-353

- Plankton st. (WP-II-net)
- ◆ Mocness st.

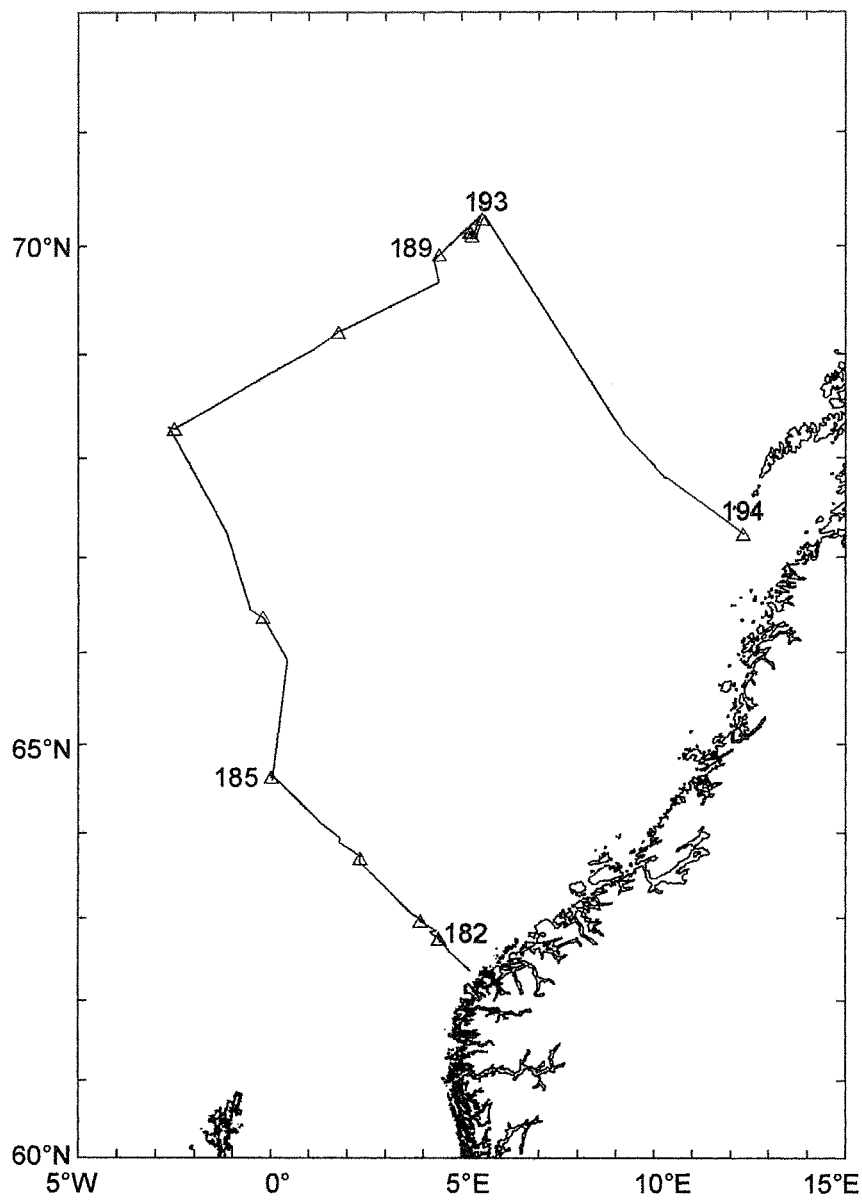


Trawl st.no 146-181

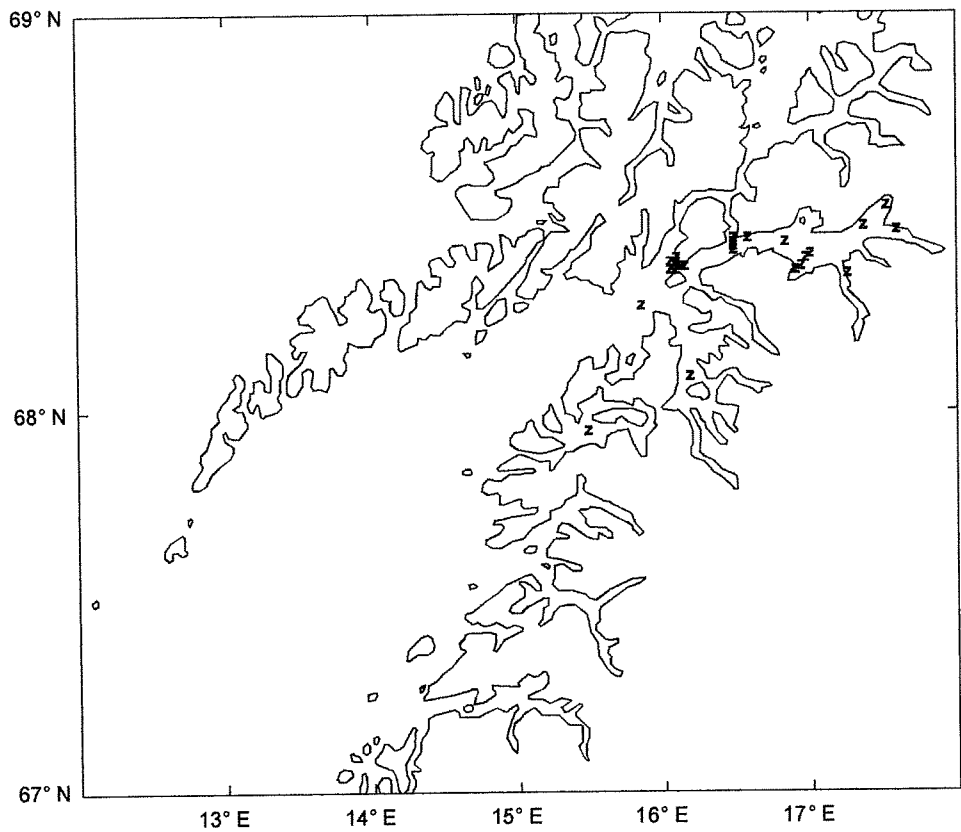
- △ Pelagic trawl
- Bottom trawl



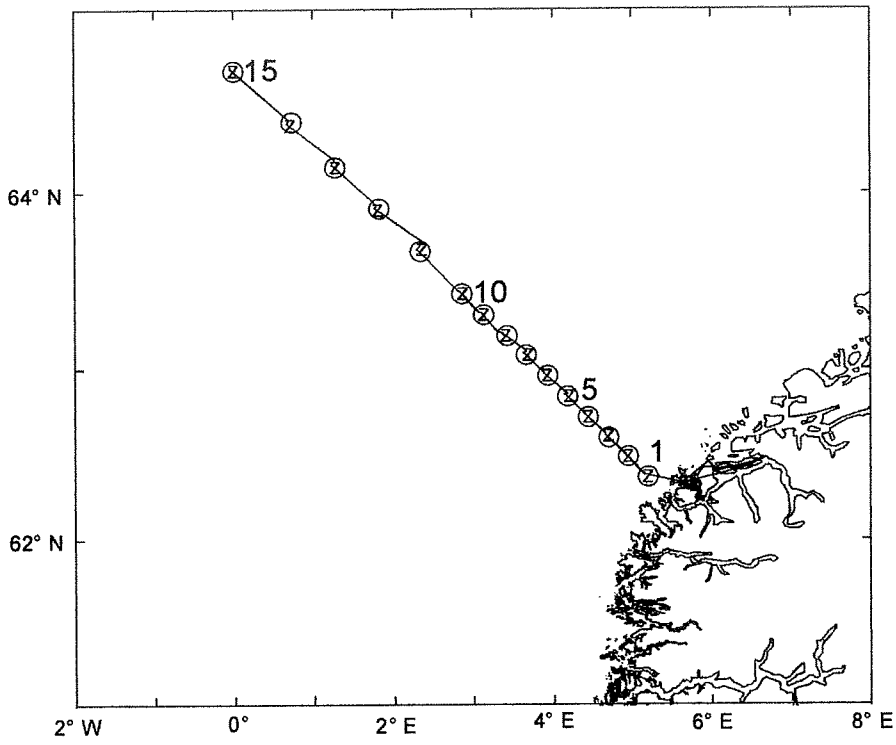
8 - 26 November 2003 z CTD st.no 355-383 "G.O. Sars"
 Cruist no 2003113 Plankton st:
 ○ WP-II-net
 ◆ Mocness st.
 Standard section Svinøy NW: st.no 355-383



8 - 26 November 2003 \triangle Pelagic trawl st.no 182-194 "G.O. Sars"
Cruist no 2003113

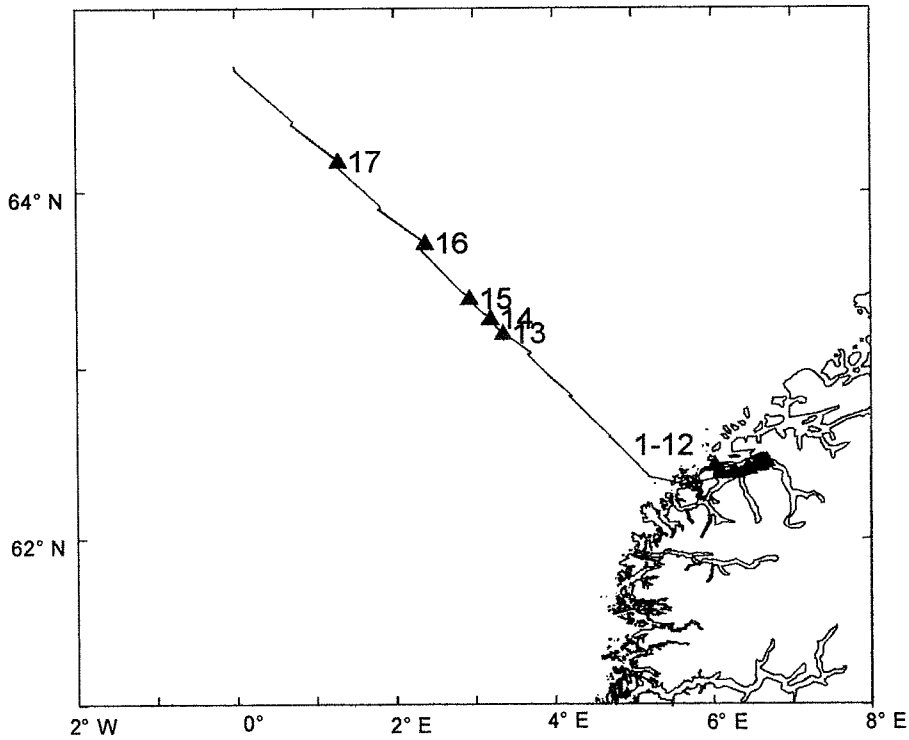


28 Nov - 16 Dec 2003 z CTD st.no 384-411 "G.O. Sars"
Cruise no 2003114

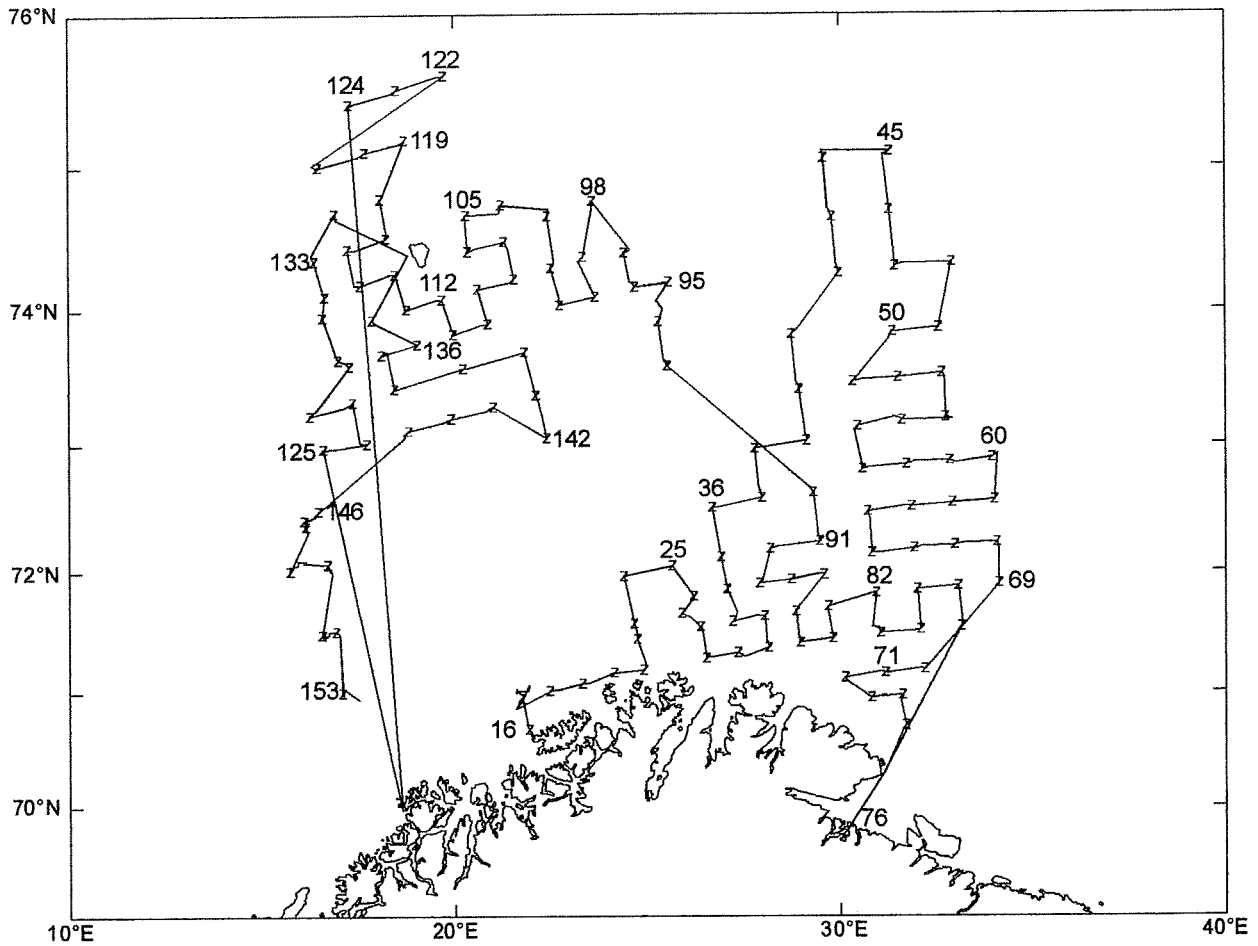


16 - 23 January 2003
Cruise no 2003001

z CTD st.no 1 - 15 "G.O. Sars"/"Sarsen"
 (Z) CTD and plankton st. (WP-II-net)
 Standard section Svinøy NW st.no 1-15

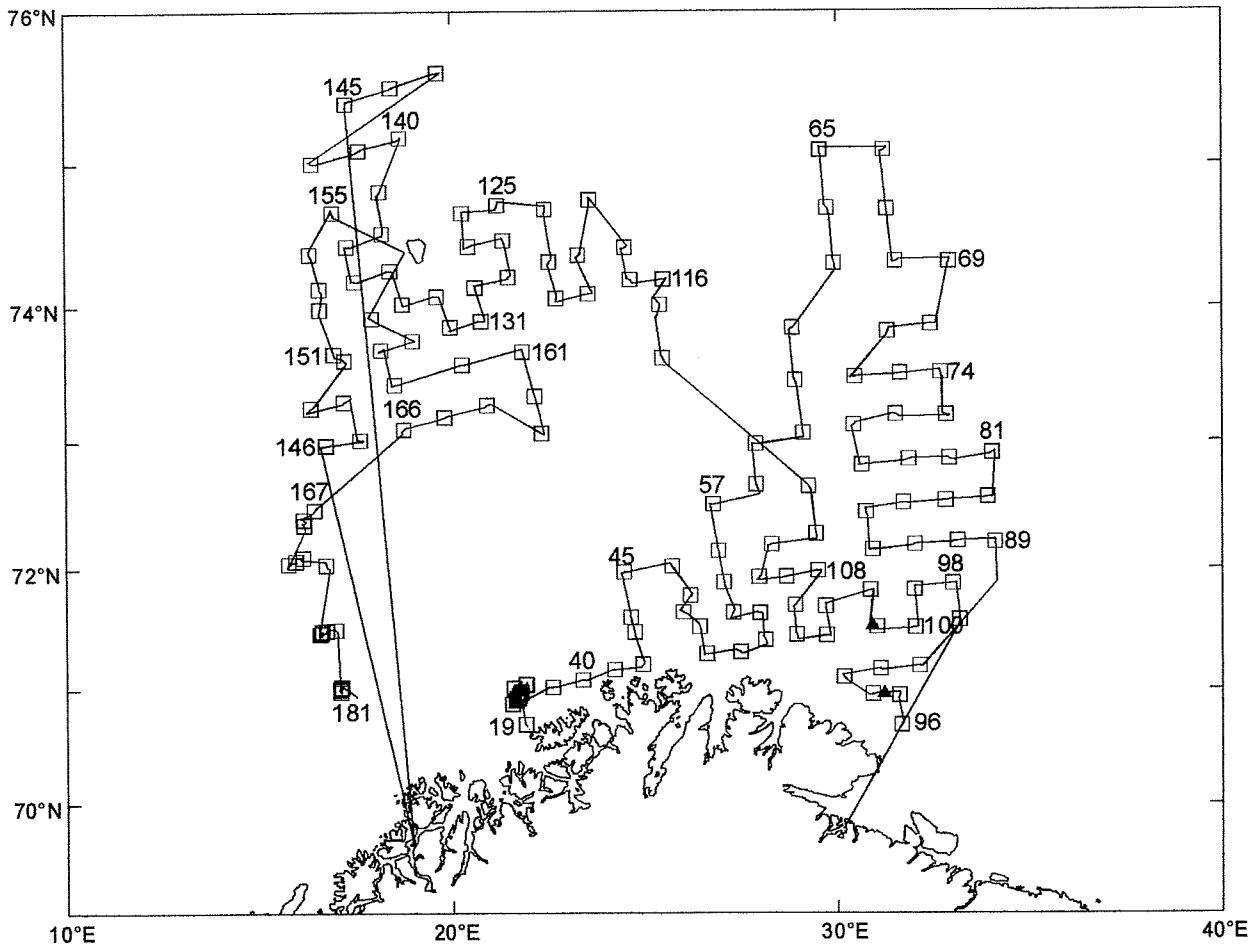


▲ Pelagic trawl st.no 1-17
Gear research



27 January - 5 March 2003 z CTD st.no 16 - 153
 Cruise no 2003002

"G. O. Sars"/"Sarsen"



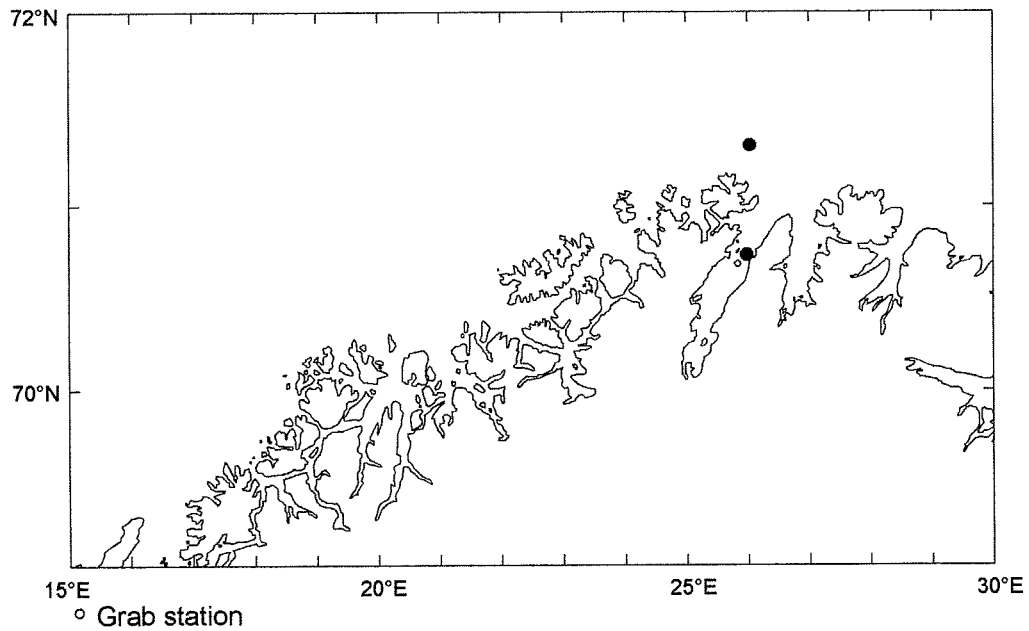
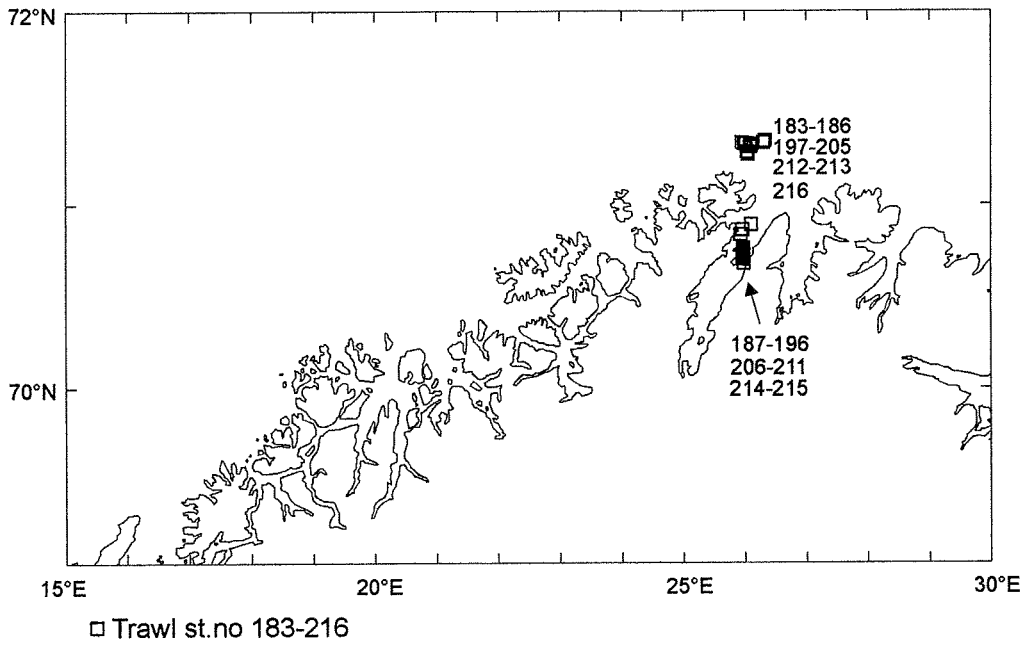
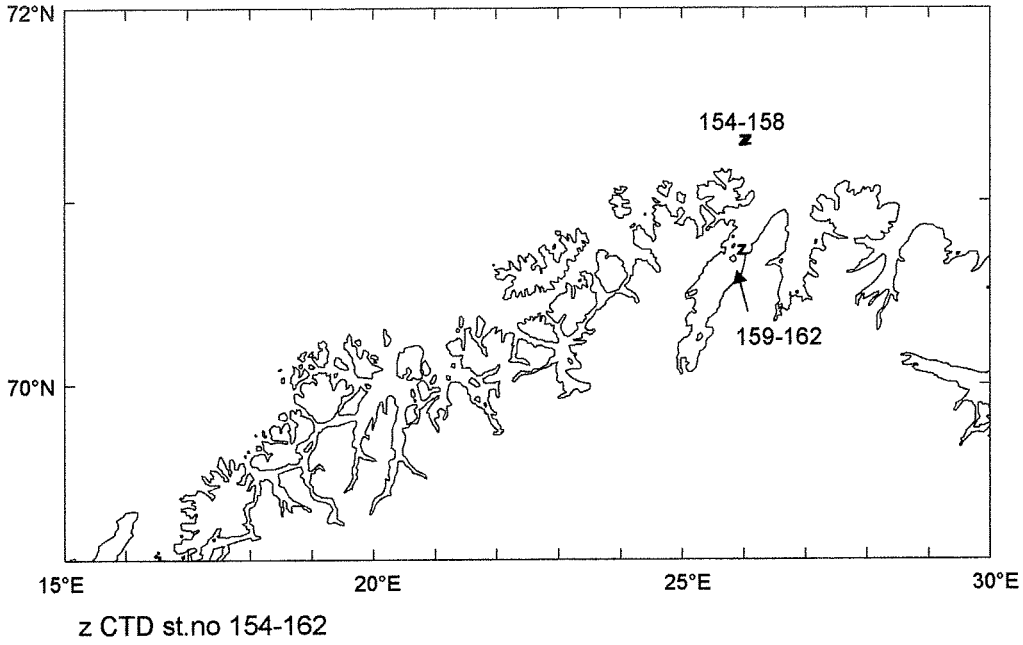
27 January - 5 March 2003
 Cruise no 2003002

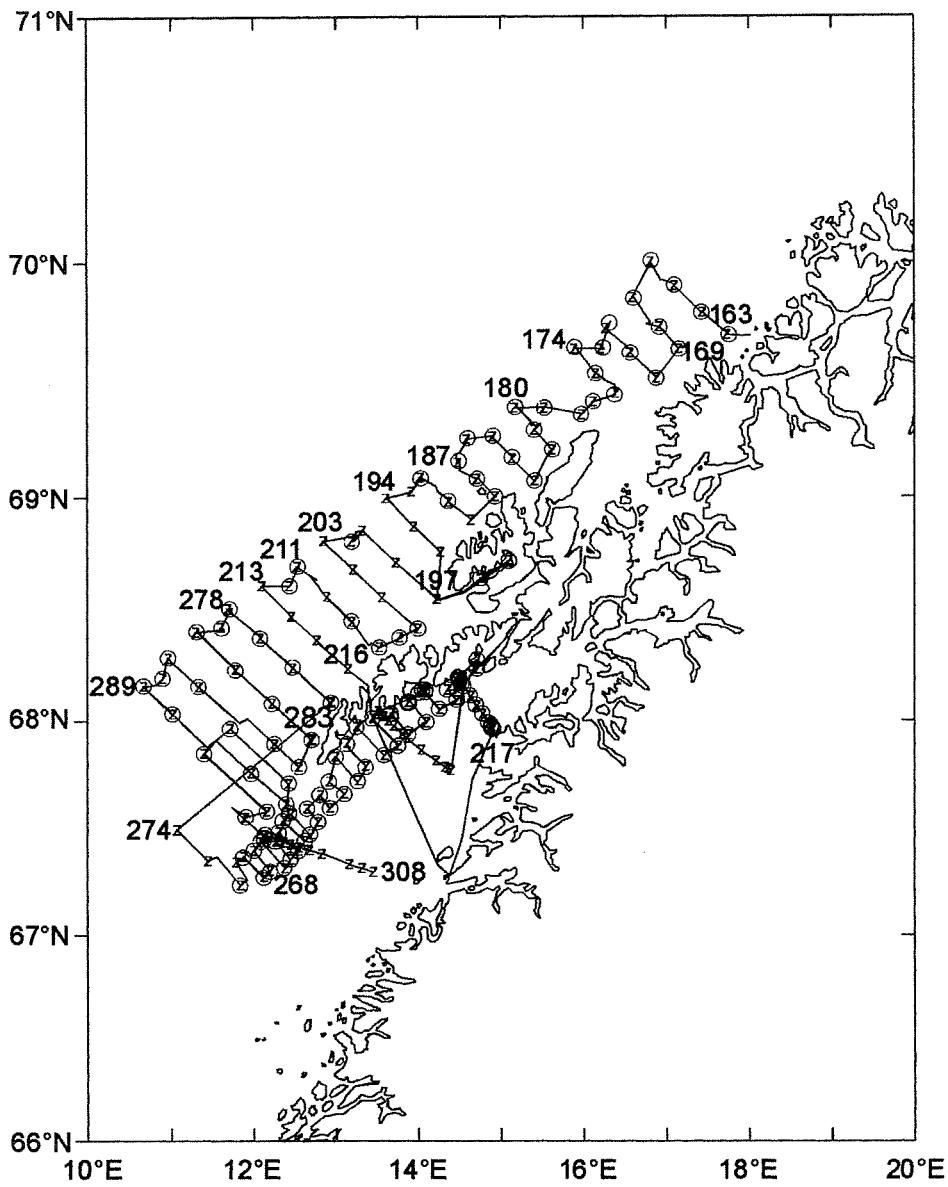
Trawl st.no 19 - 181
 □ Bottom tr.
 ▲ Pelagic tr.

"G. O. Sars"/"Sarsen"

6 - 21 March 2003
Cruise no 2003003

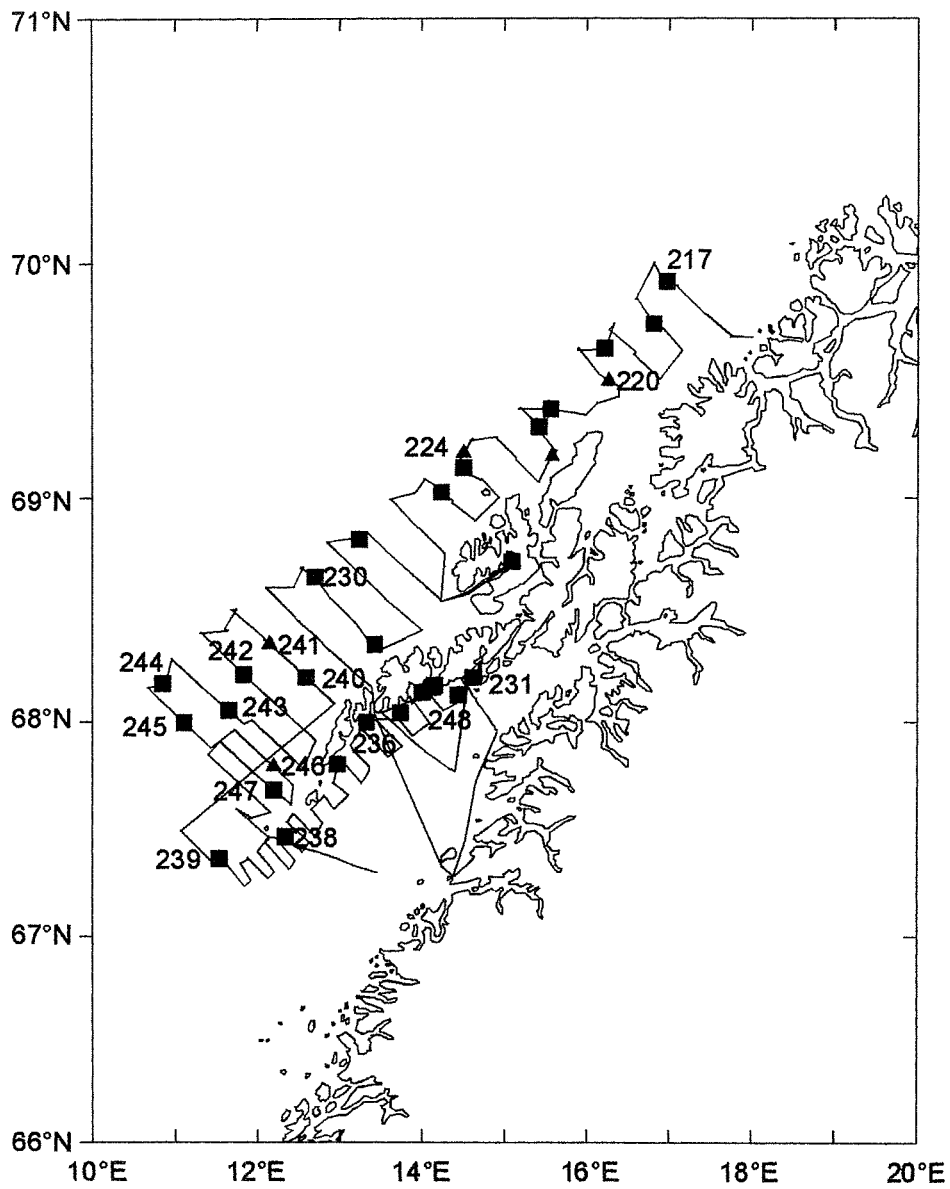
"G.O.Sars"/"Sarsen"





21 March - 6 April 2003
 Cruise no 2003004

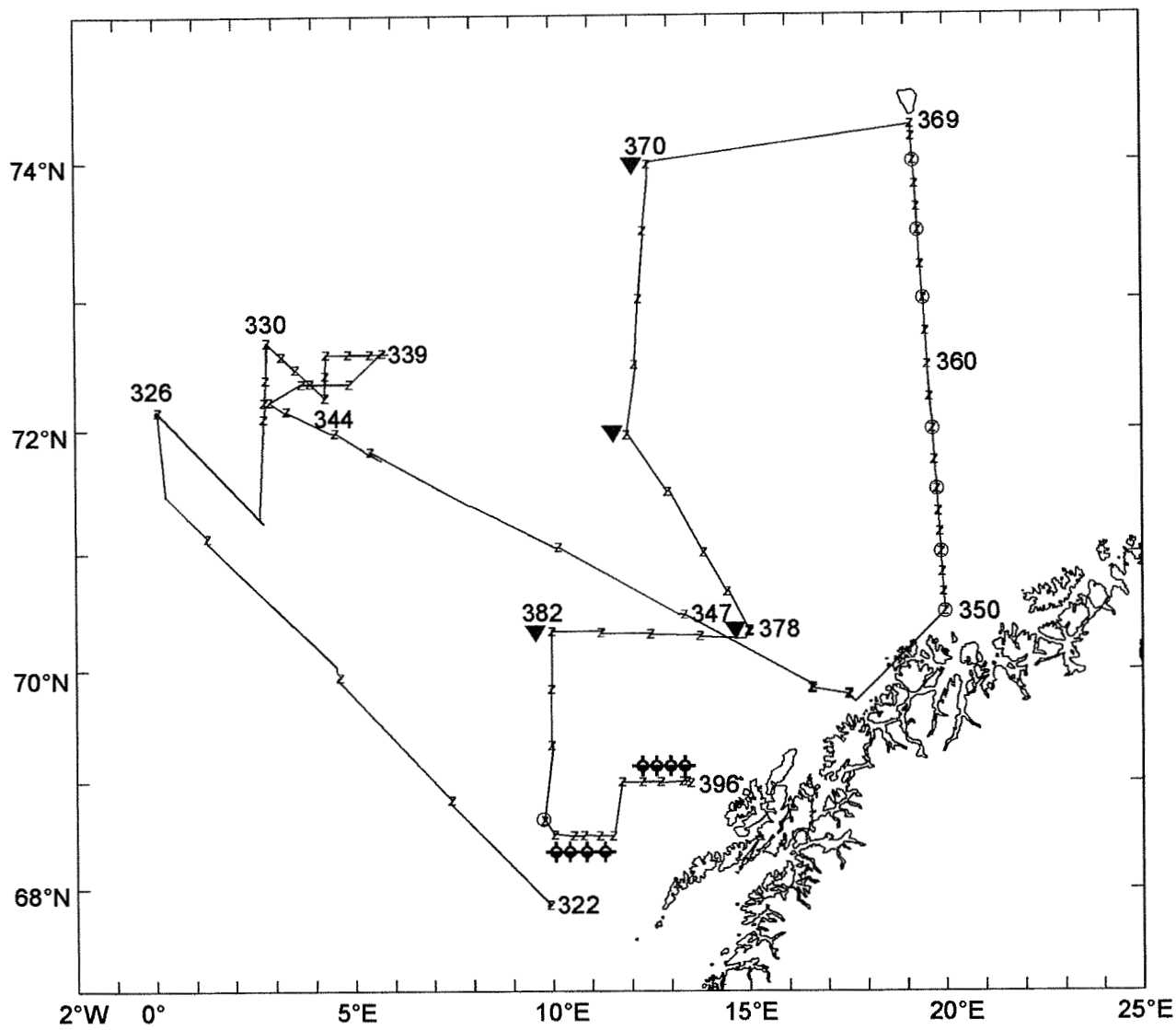
z CTD st.no 163-321 "G.O.Sars"/"Sarsen"
 ○ Plankton st. (WP-II-net)



21 March - 6 April 2003
Cruise no 2003004

Trawl st.no 217-248
▲ Pelagic trawl
■ Bottom trawl

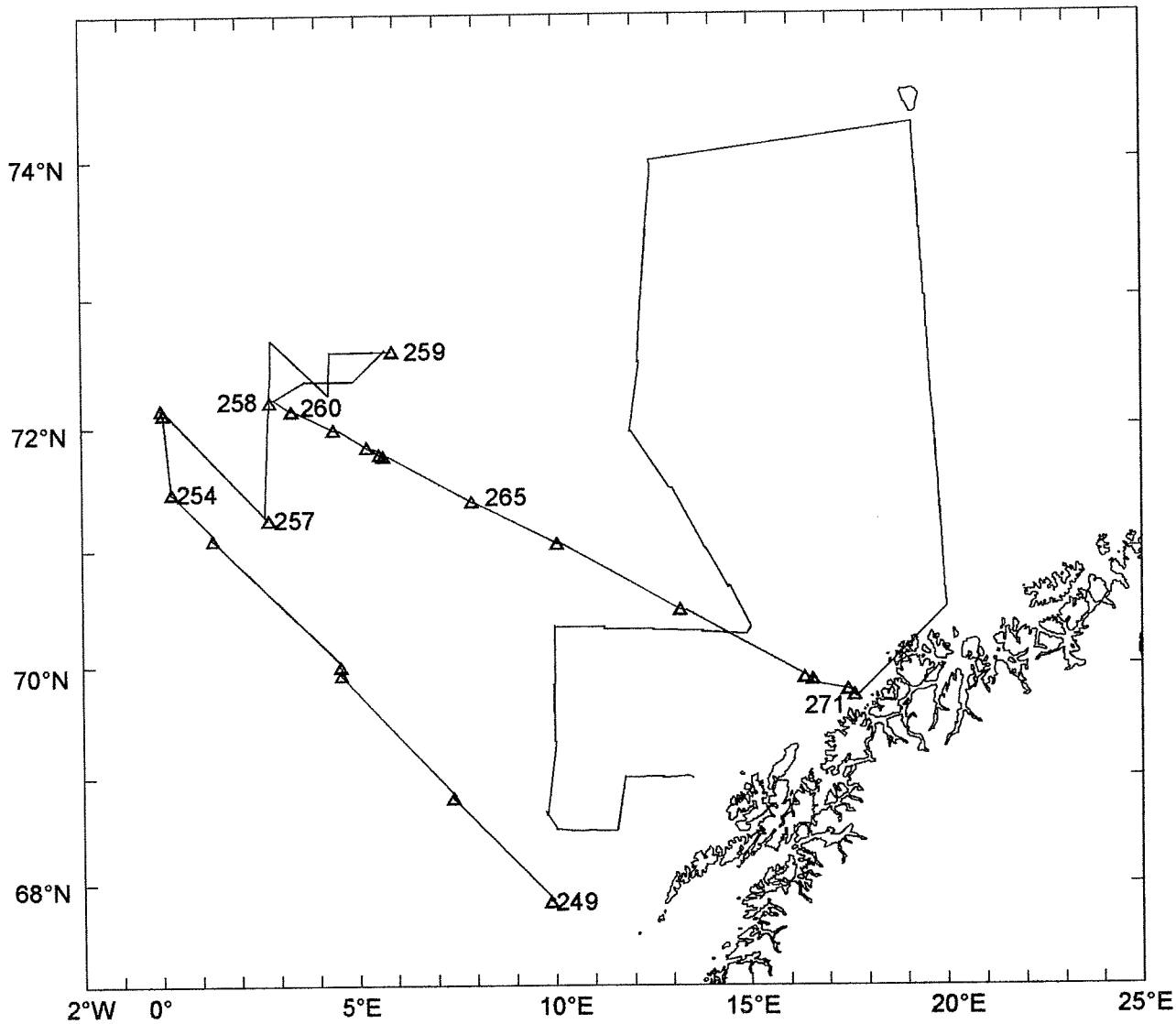
"G.O.Sars"/"Sarsen"



6 - 21 April 2003
Cruise no 2003005

z CTD st.no 322 - 396
o Plankton st. (WP-II-net)
▼ Mooring deployed
◆ Floats deployed
Standard section Fugløya-Bjørnøya st.no 350-369

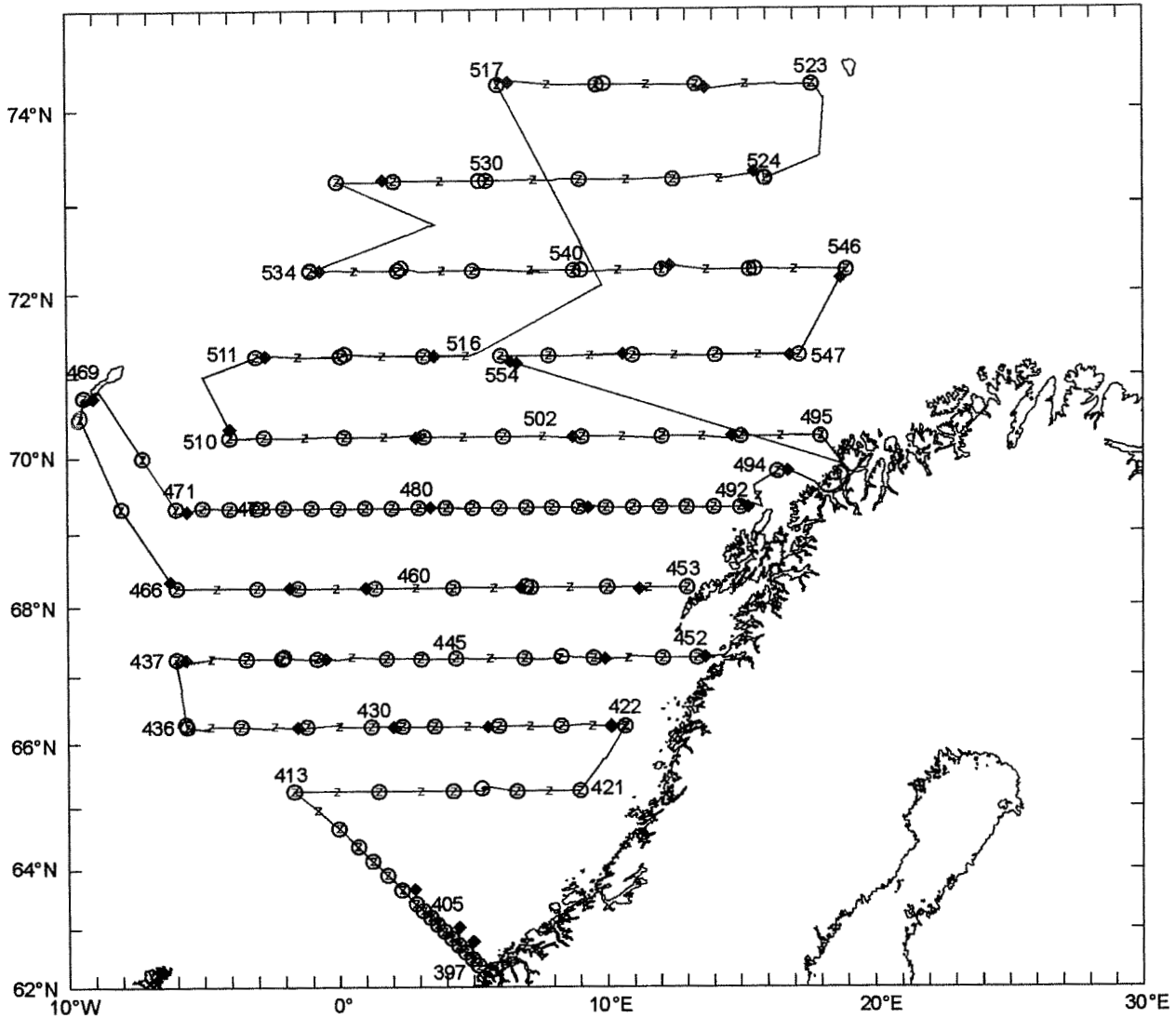
"G.O. Sars"/"Sarsen"



6 - 21 April 2003
Cruise no 2003005

△ Pelagic trawl st.no 249-271

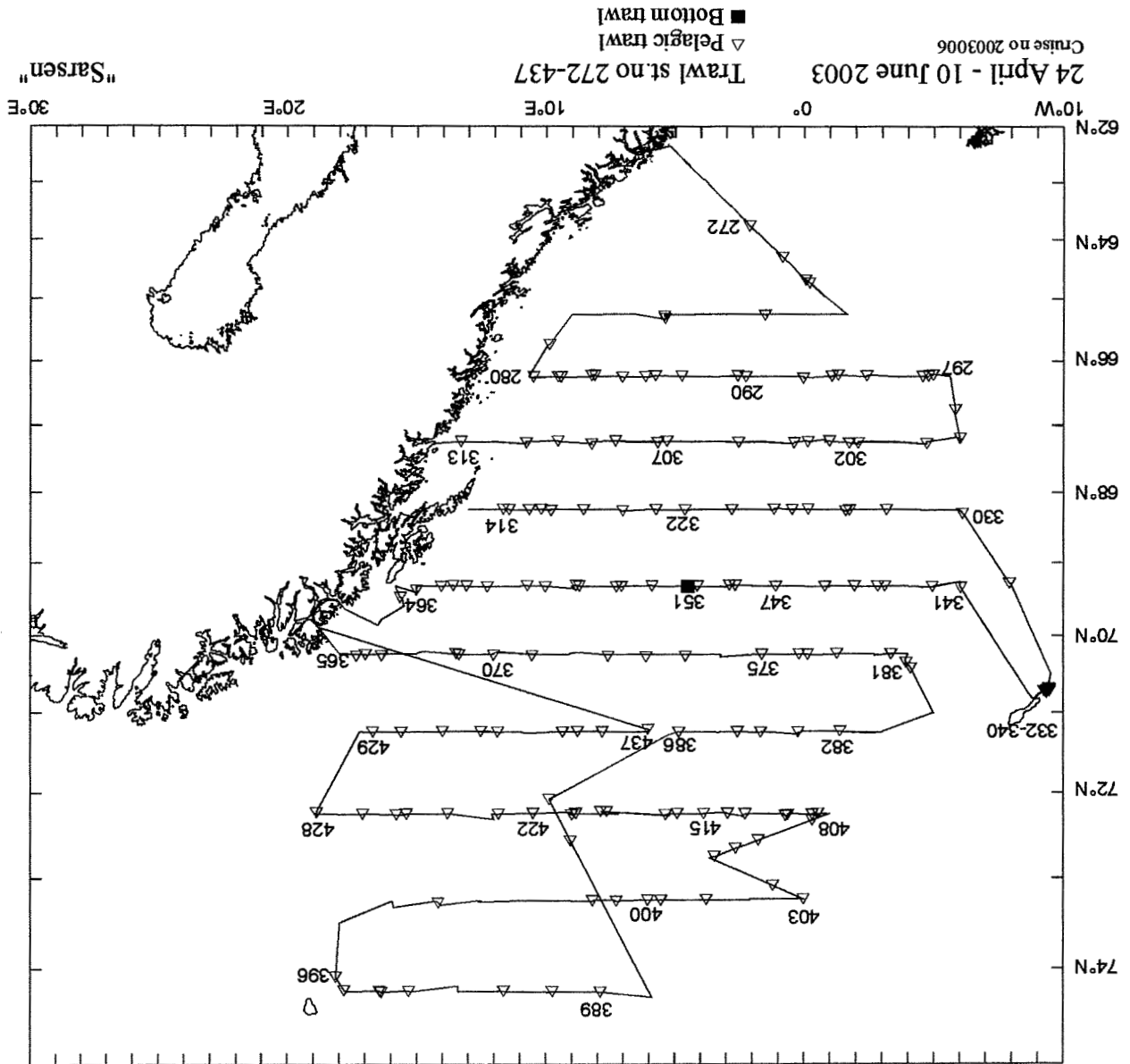
"G.O.Sars"/"Sarsen"

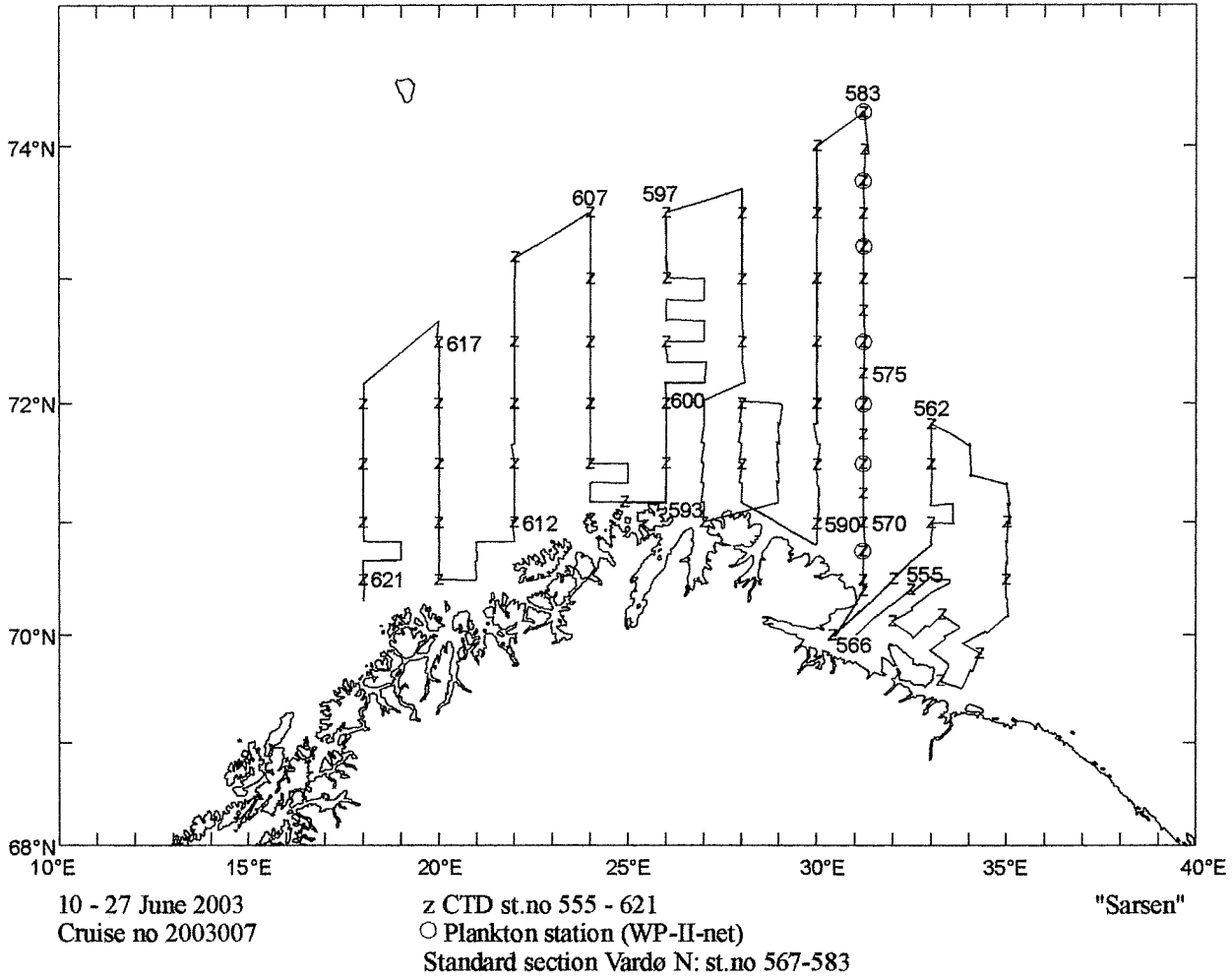


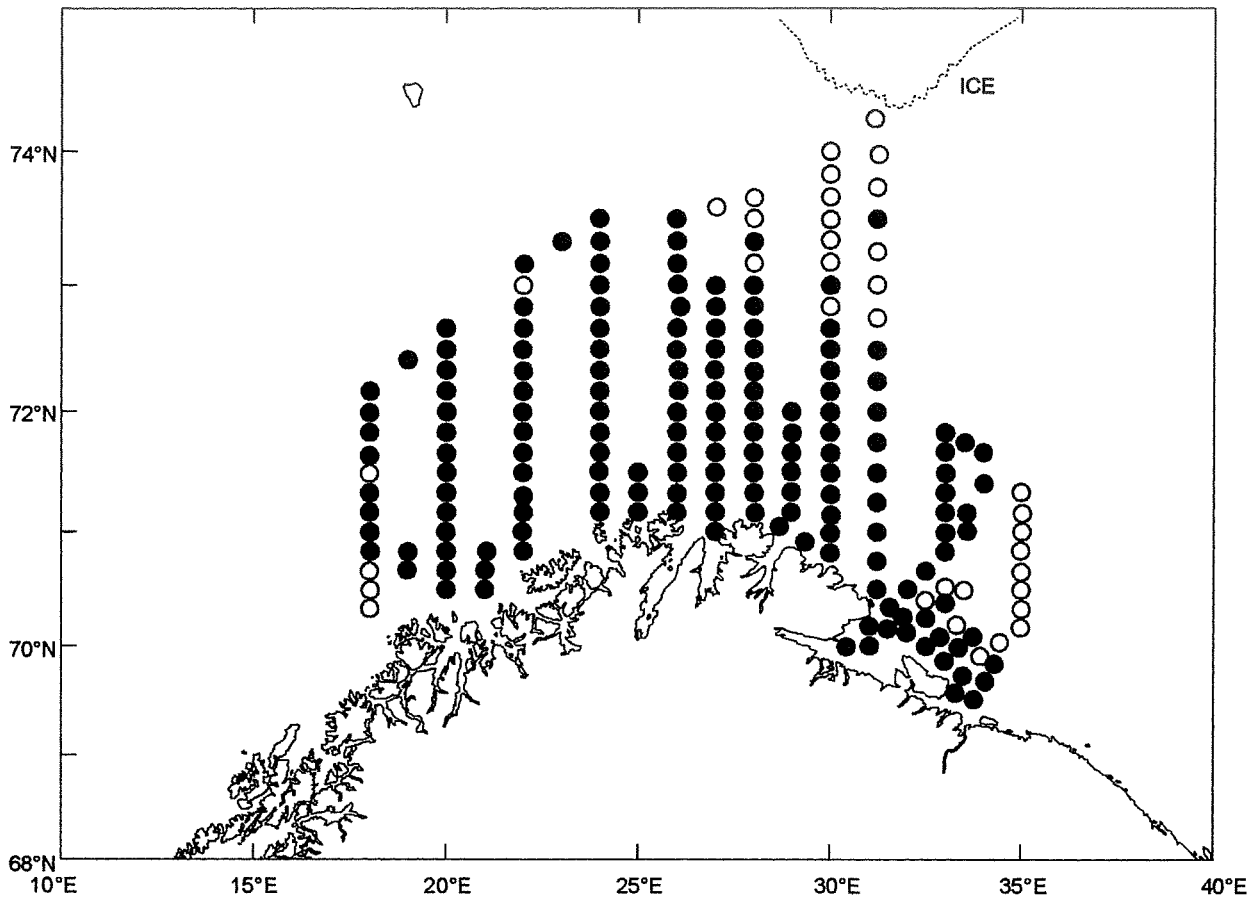
24 April - 10 June 2003
Cruise no 2003006

z CTD st.no 397-554
○ Plankton st (WP-II-net)
◆ Plankton st (Mocness)
Standard section Svinøy NW: st.no 397-413

"Sarsen"





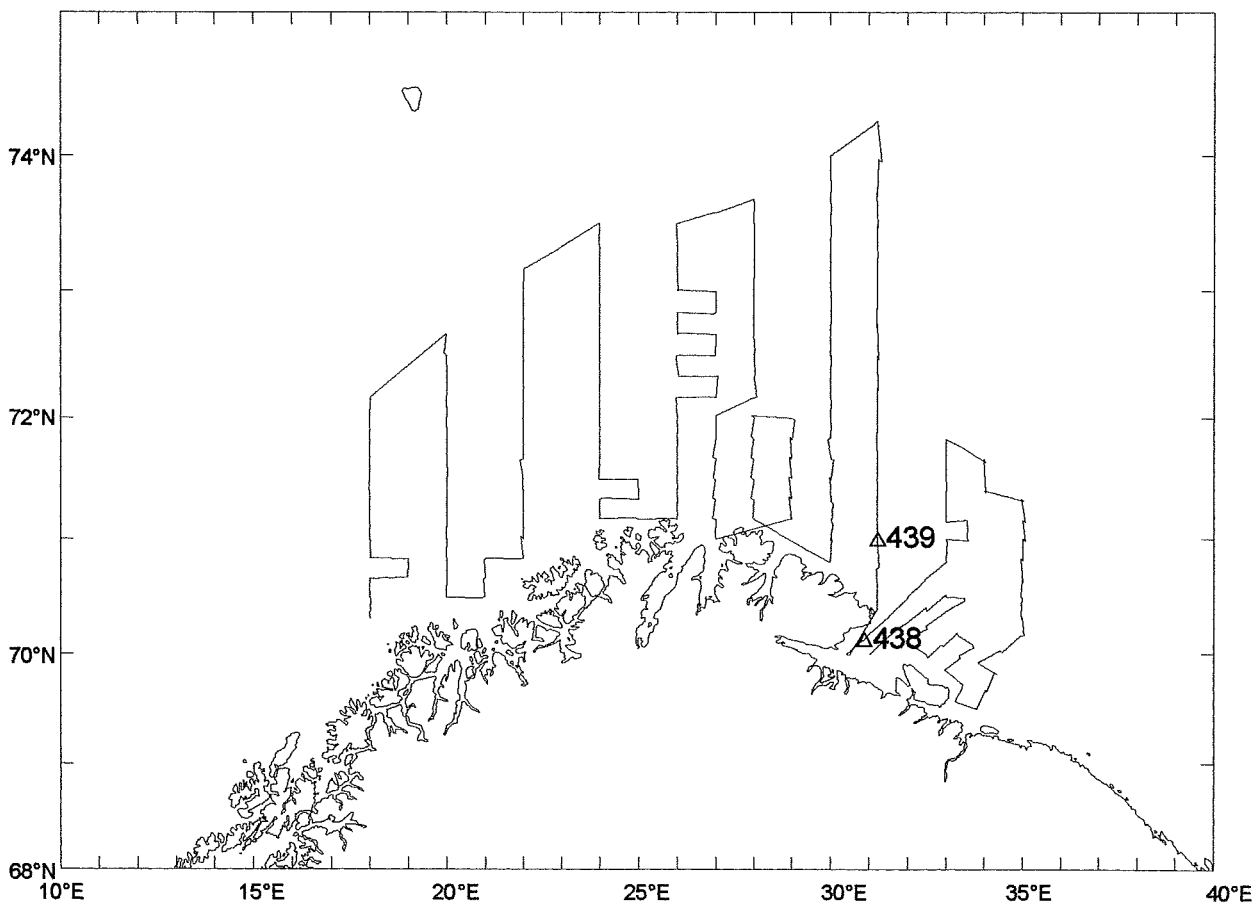


10 - 27 June 2003
Cruise no 2003007

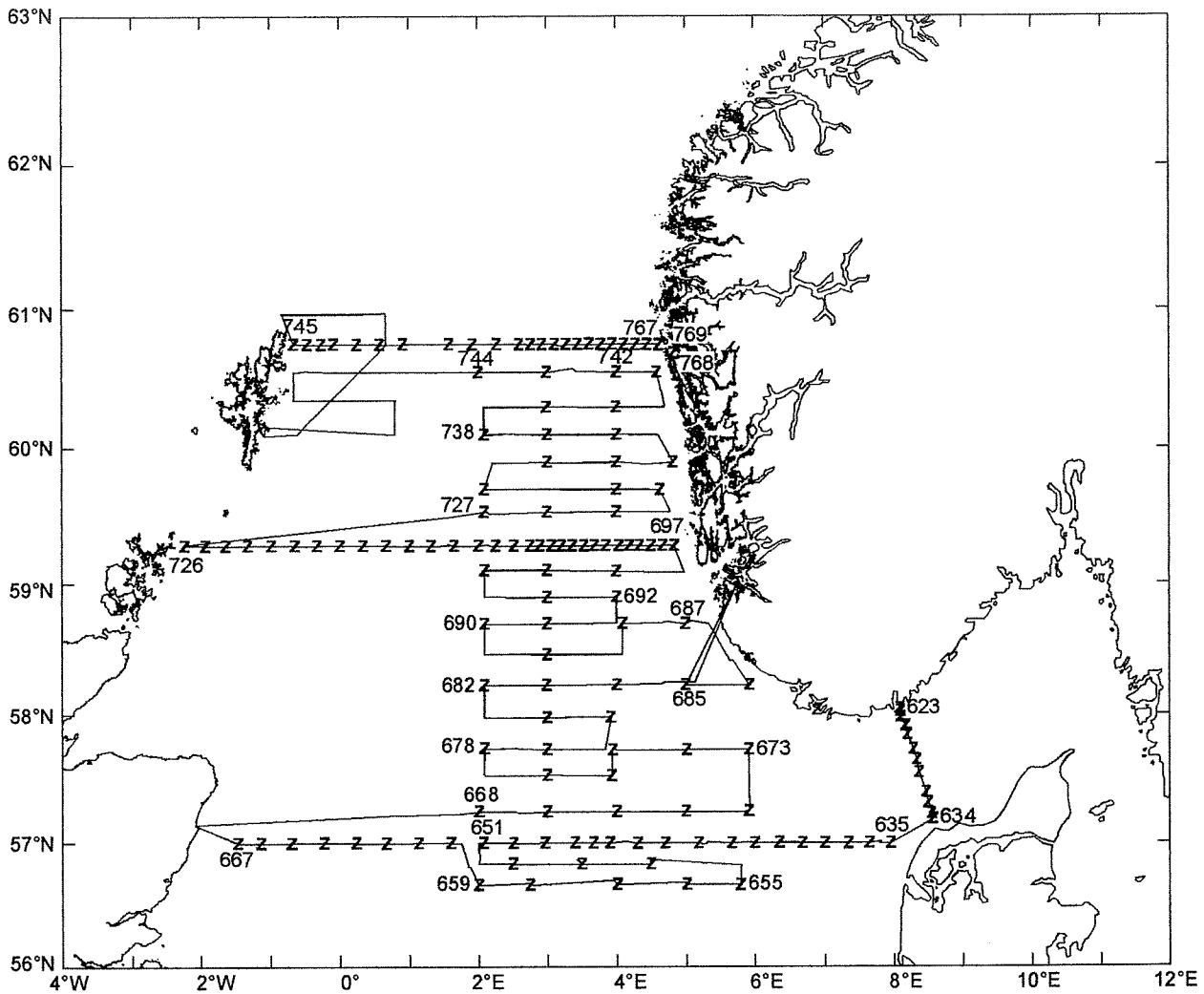
Plankton sampler (Gulf III)

"Sarsen"

- No catch
- Capelin larvae



△ Pelagic trawl st.no 438-439

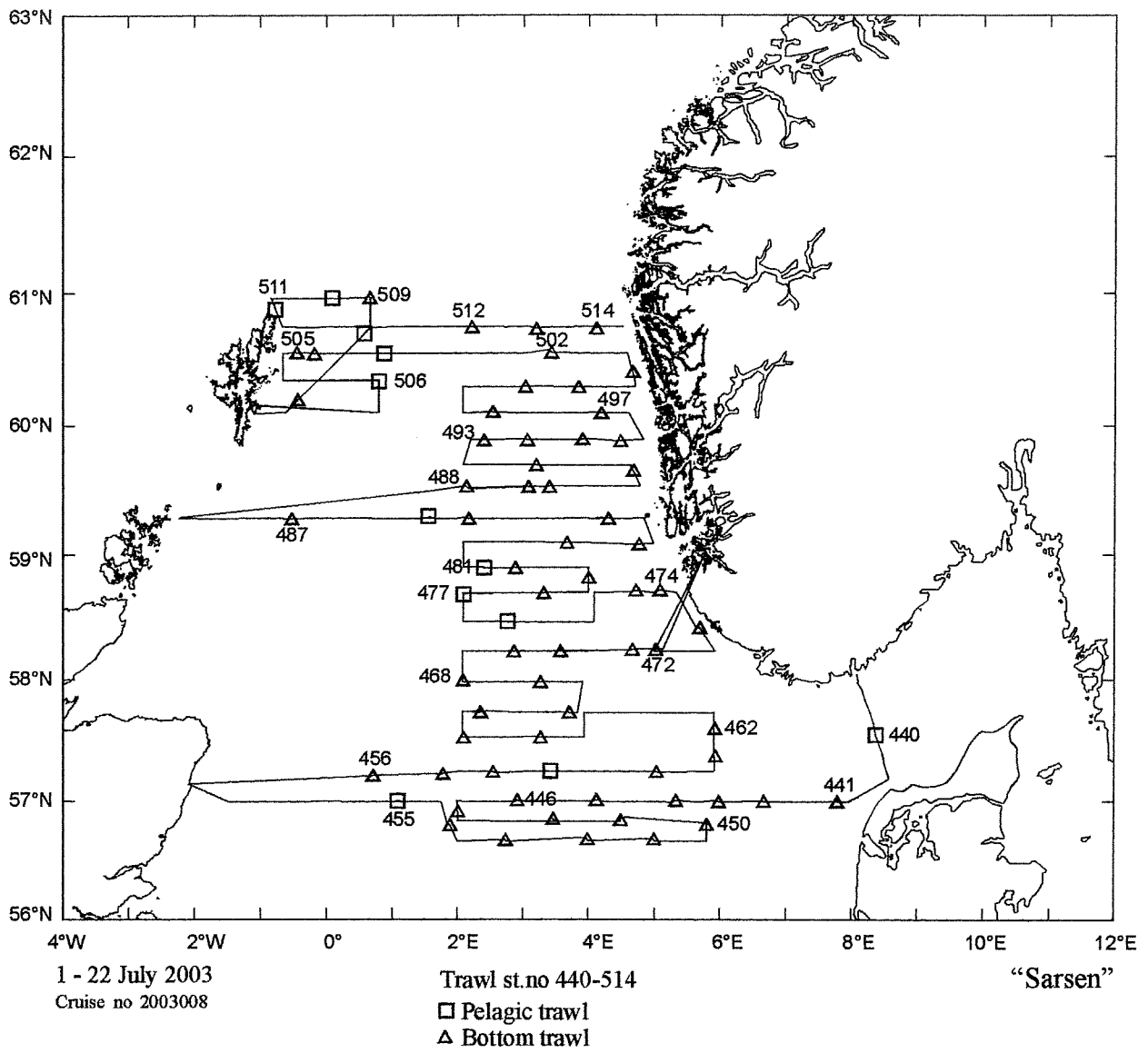


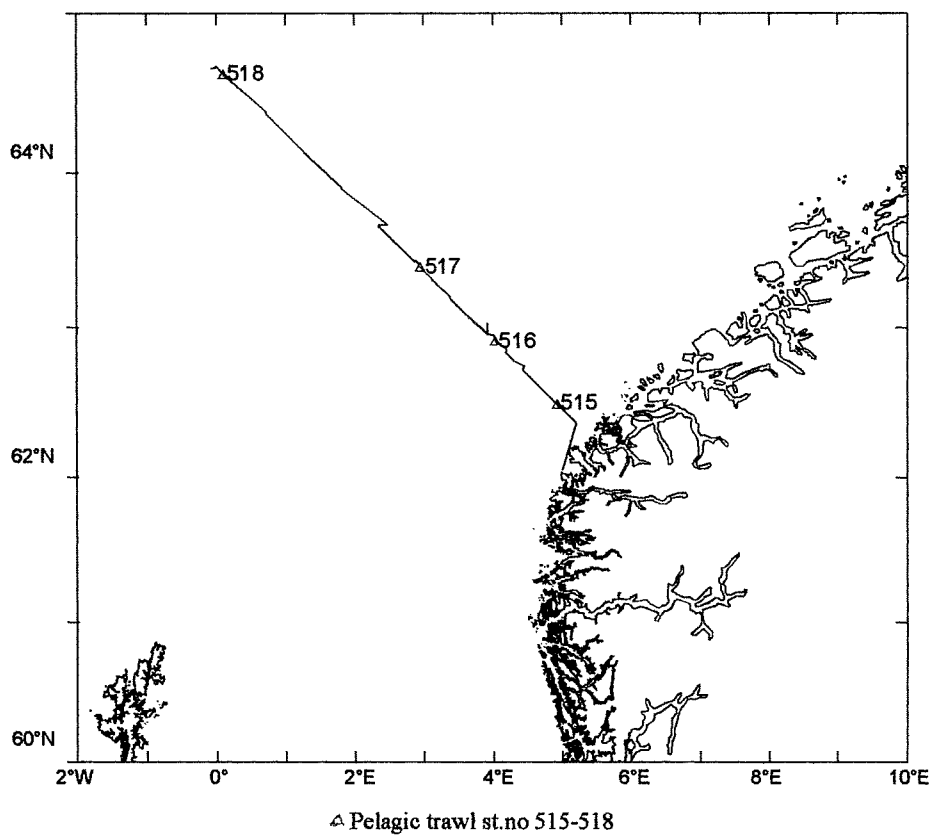
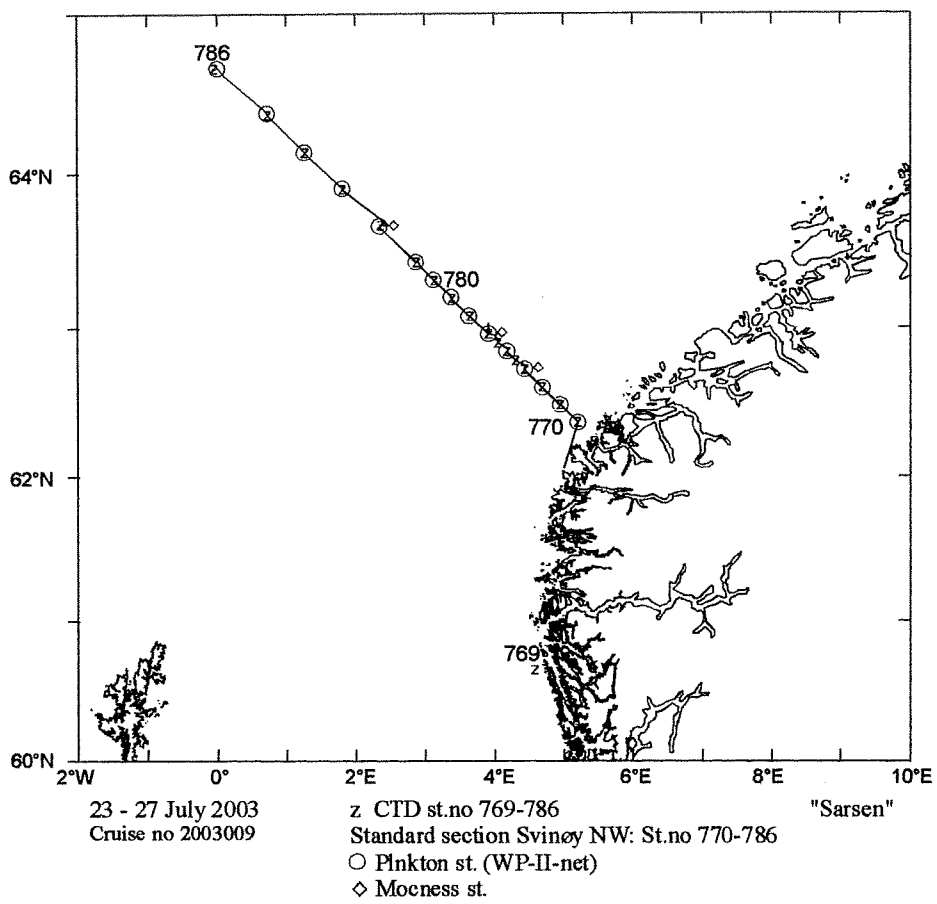
1 - 22 July 2003
Cruise no 2003008

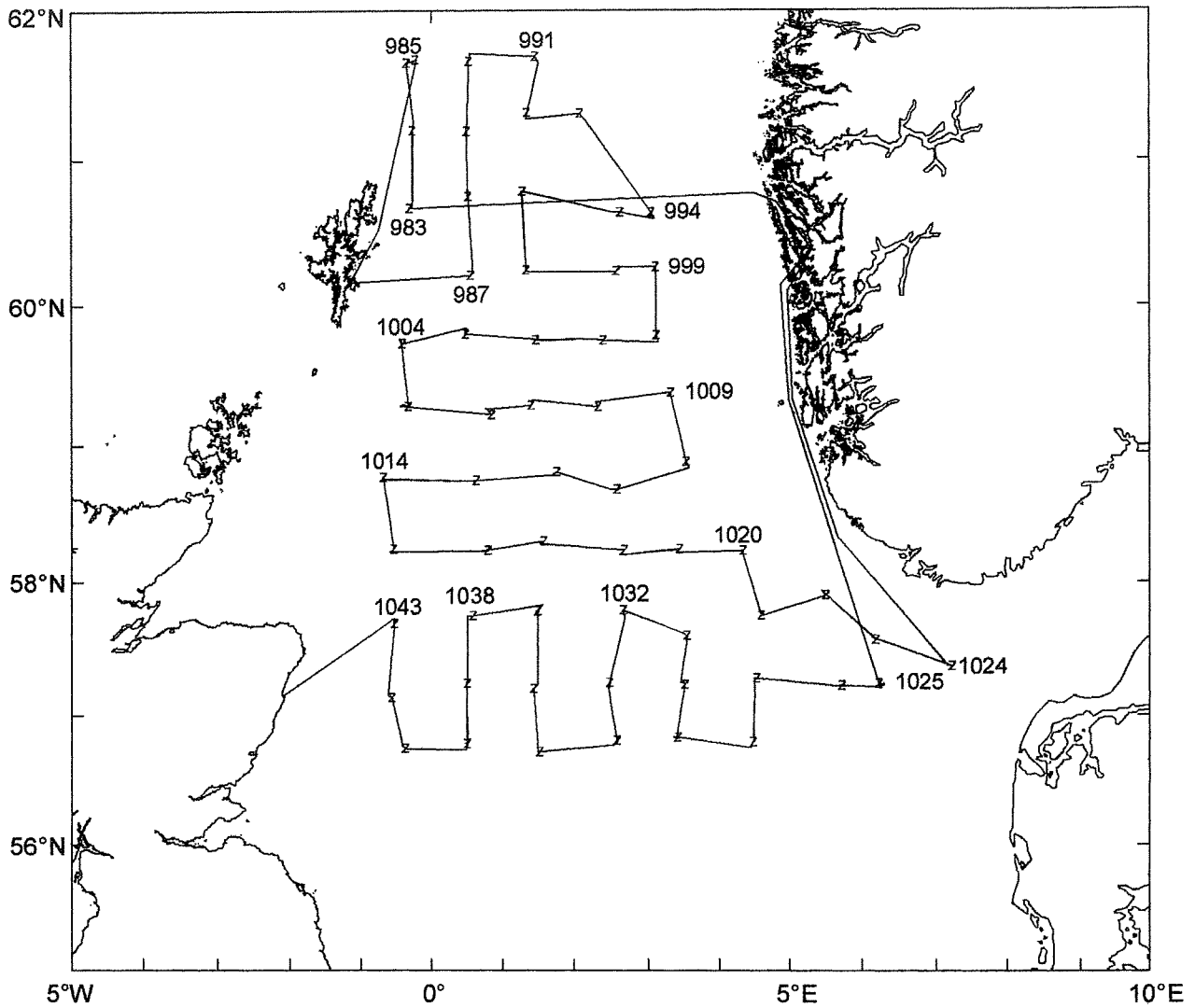
z CTD st. no 622 - 768

"Sarsen"

Standard sections: Oksøy-Hanstholm st.no 623-634
 Hanstholm-Aberdeen st.no 635-651,660-667
 Usira W st.no 697-726
 Feie-Shetland st.no 745-767 and 769 (St. 769 taken 23.7.03)



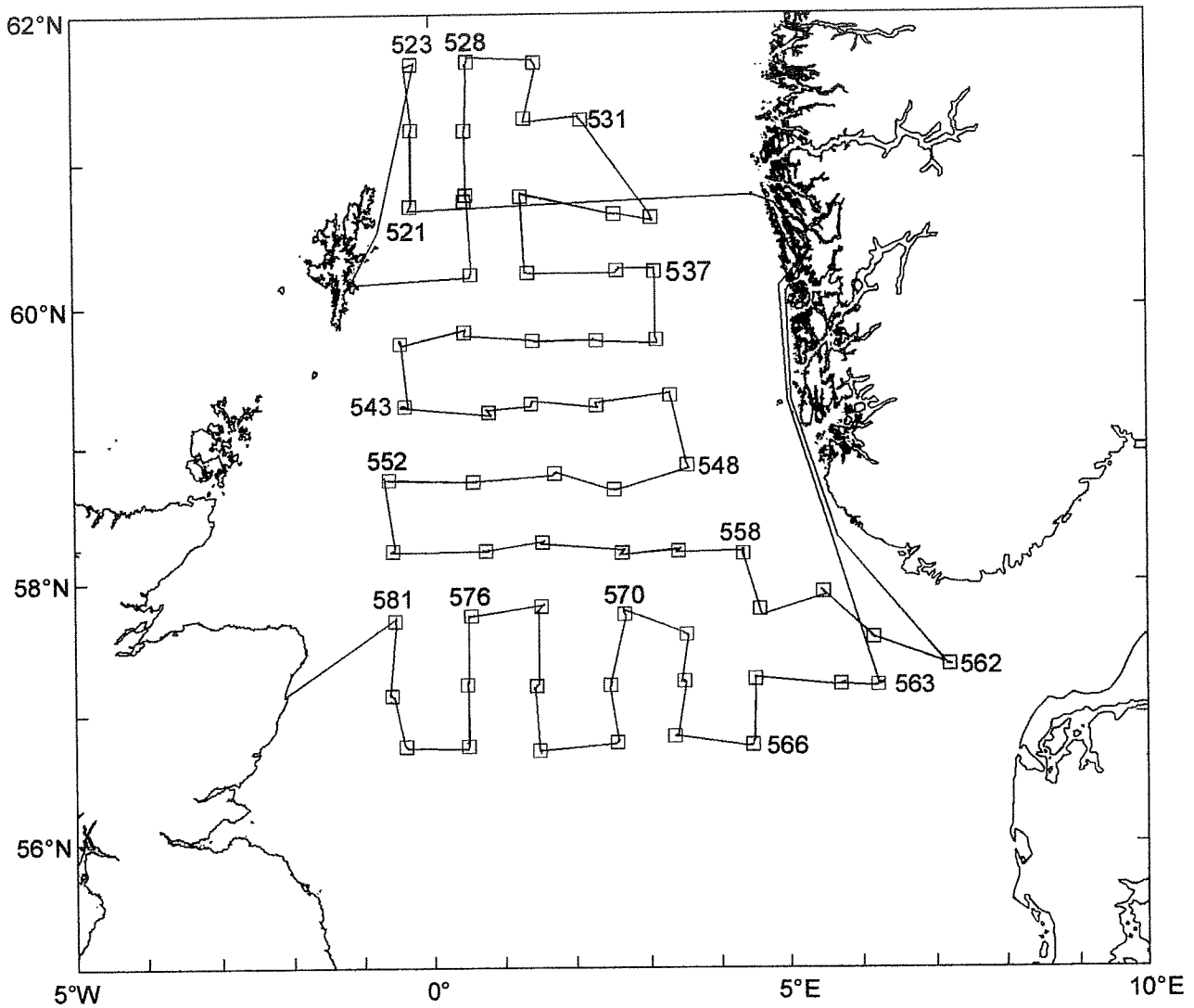




16 Sep - 8 Oct 2003
Cruise no 2003011

z CTD st.no 983 - 1043

"Sarsen"

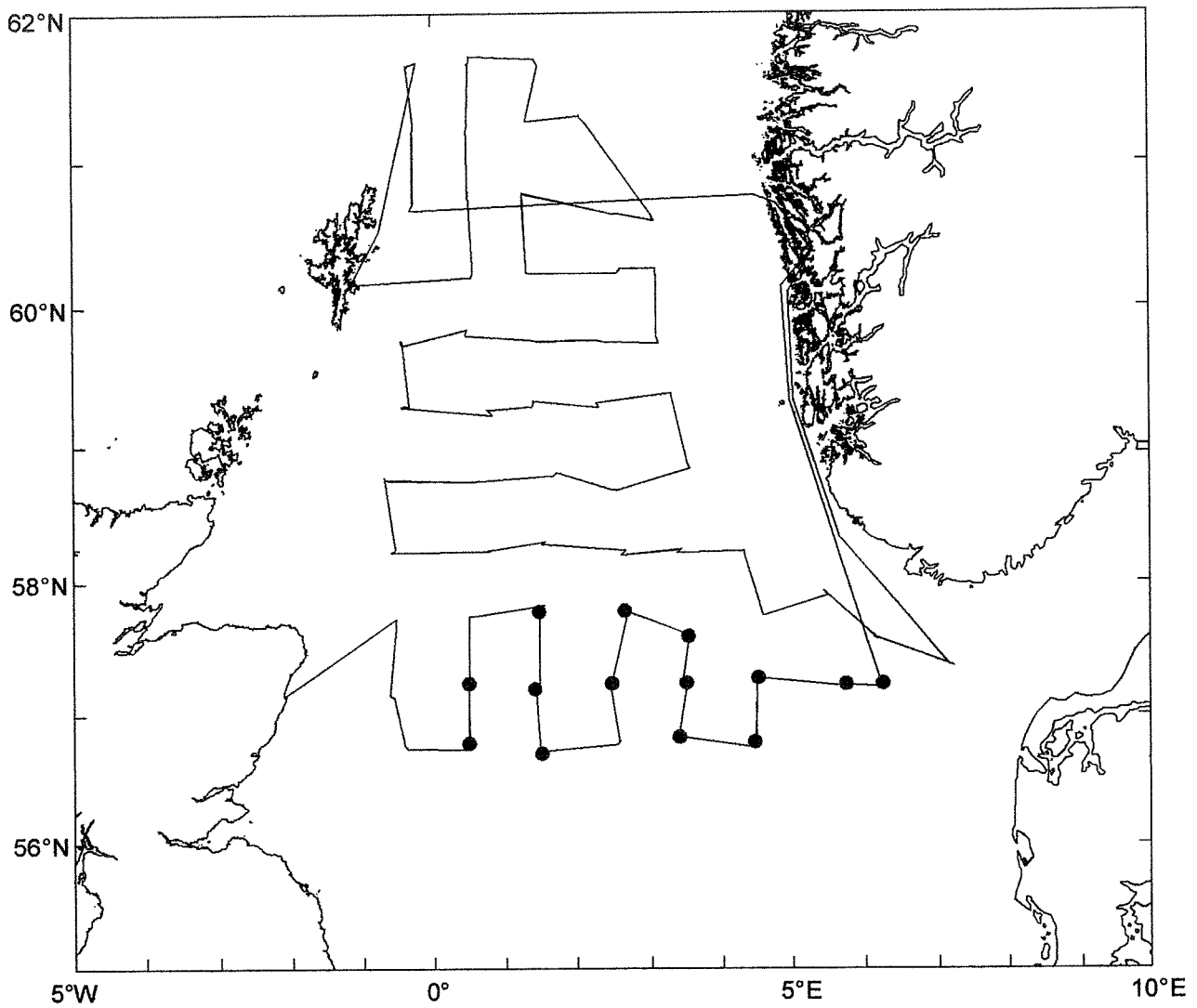


16 Sep - 8 Oct 2003

Cruise no 2003011

□ Bottom trawl st.no 521 - 581

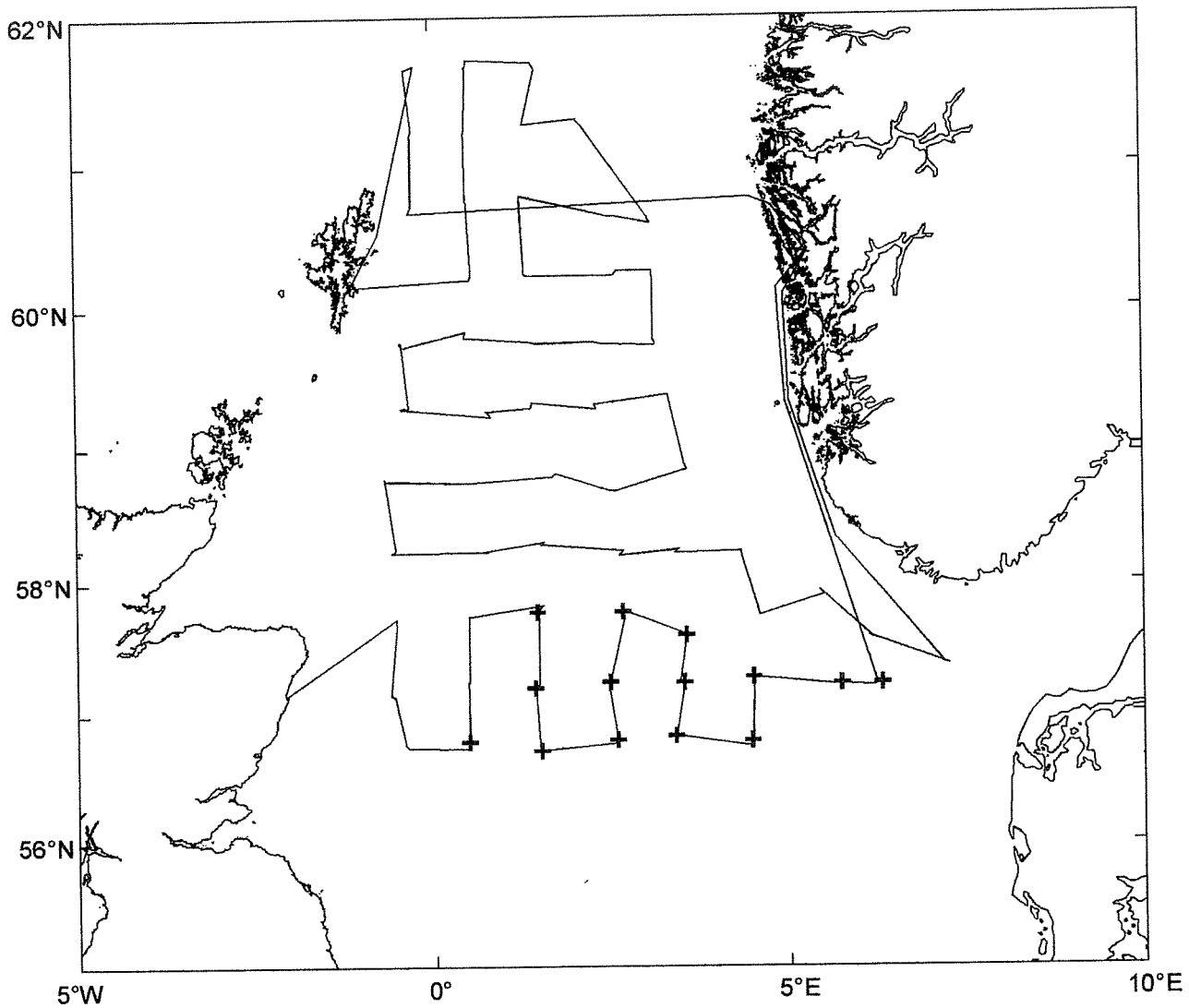
“Sarsen”



16 Sep - 8 Oct 2003
 Cruise no 2003011

● Grab

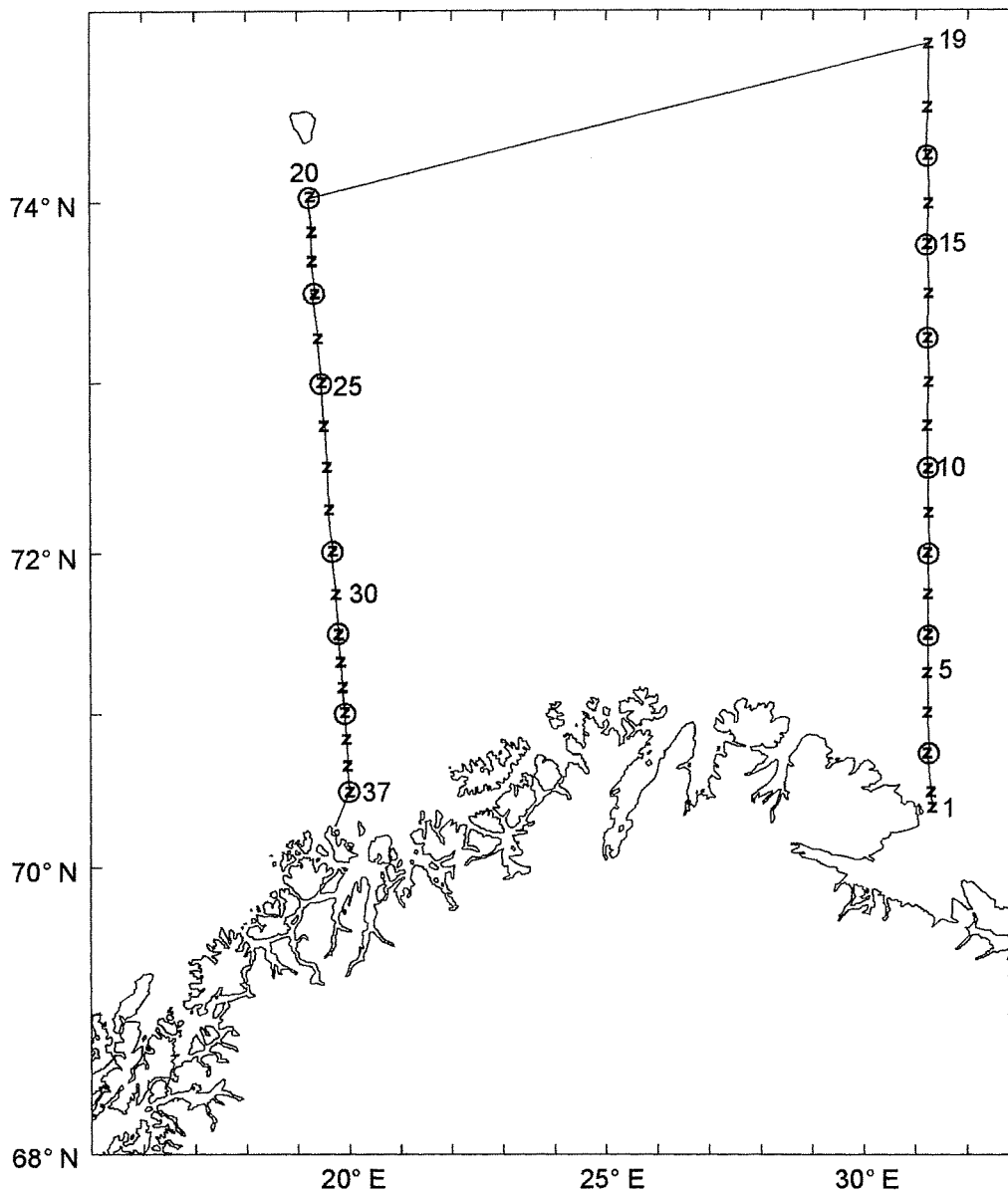
“Sarsen”



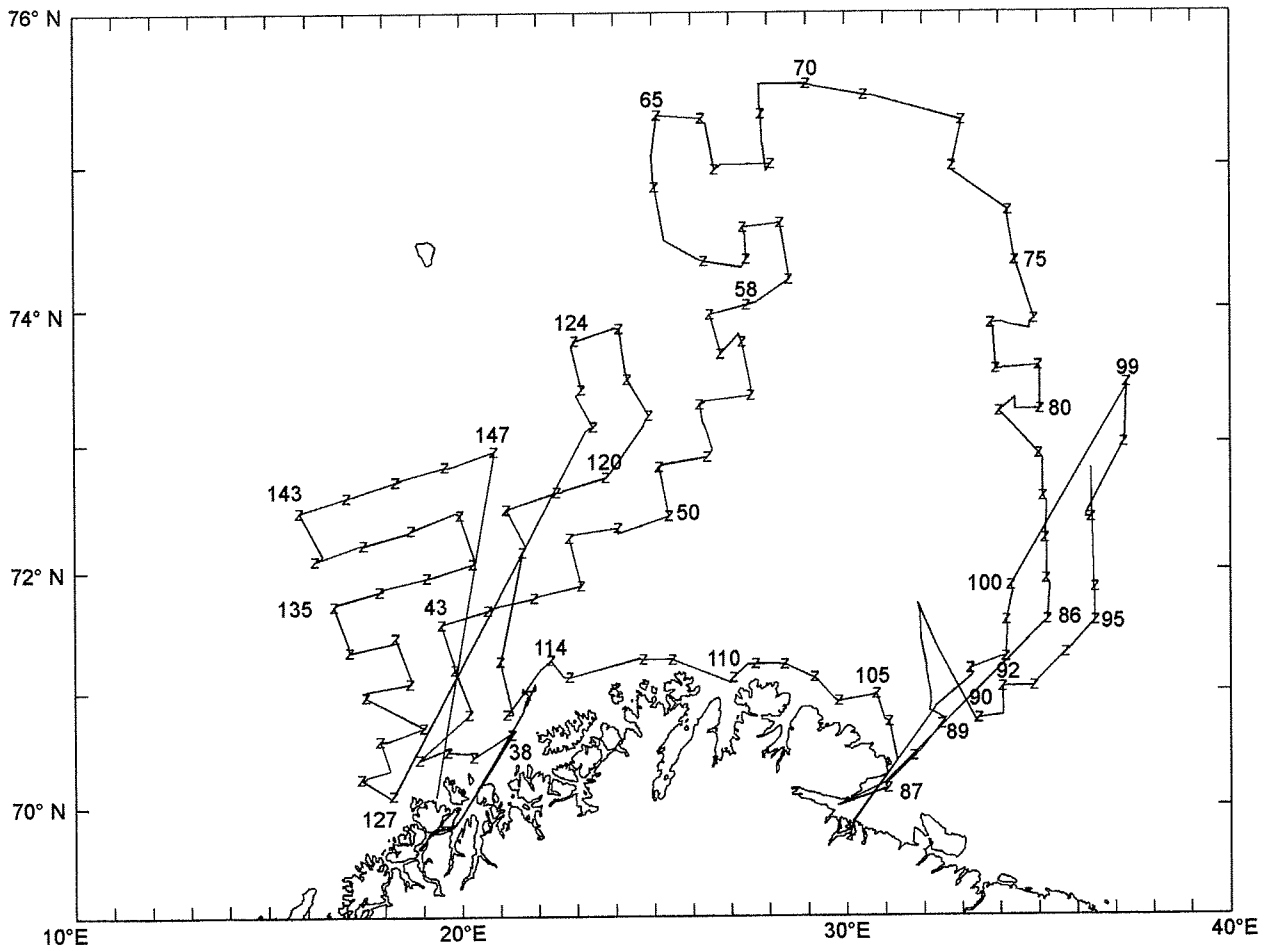
16 Sep - 8 Oct 2003
Cruise no 2003011

+ Beam trawl

"Sarsen"



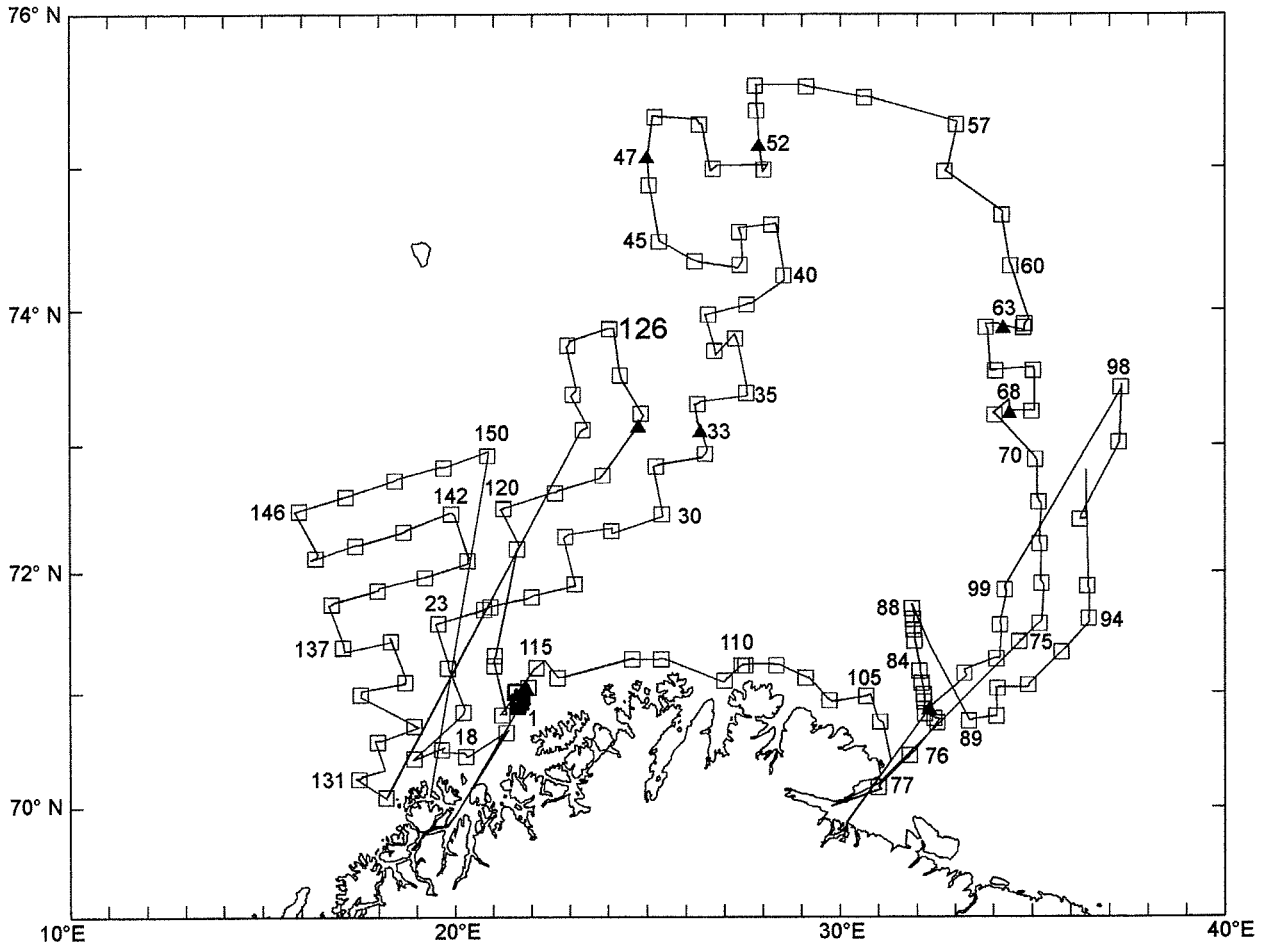
16 - 26 January 2003 z CTD st. no 1- 37 "Johan Hjort"
 Cruise no 2003201 z CTD and plankton st (WP-II-net)
 Standard section Vardø N: st.no 1-19
 Fugløya-Bjørnøya st.no 20-37



27 January - 5 March 2003
Cruise no 2003202

z CTD st.no 38 - 147

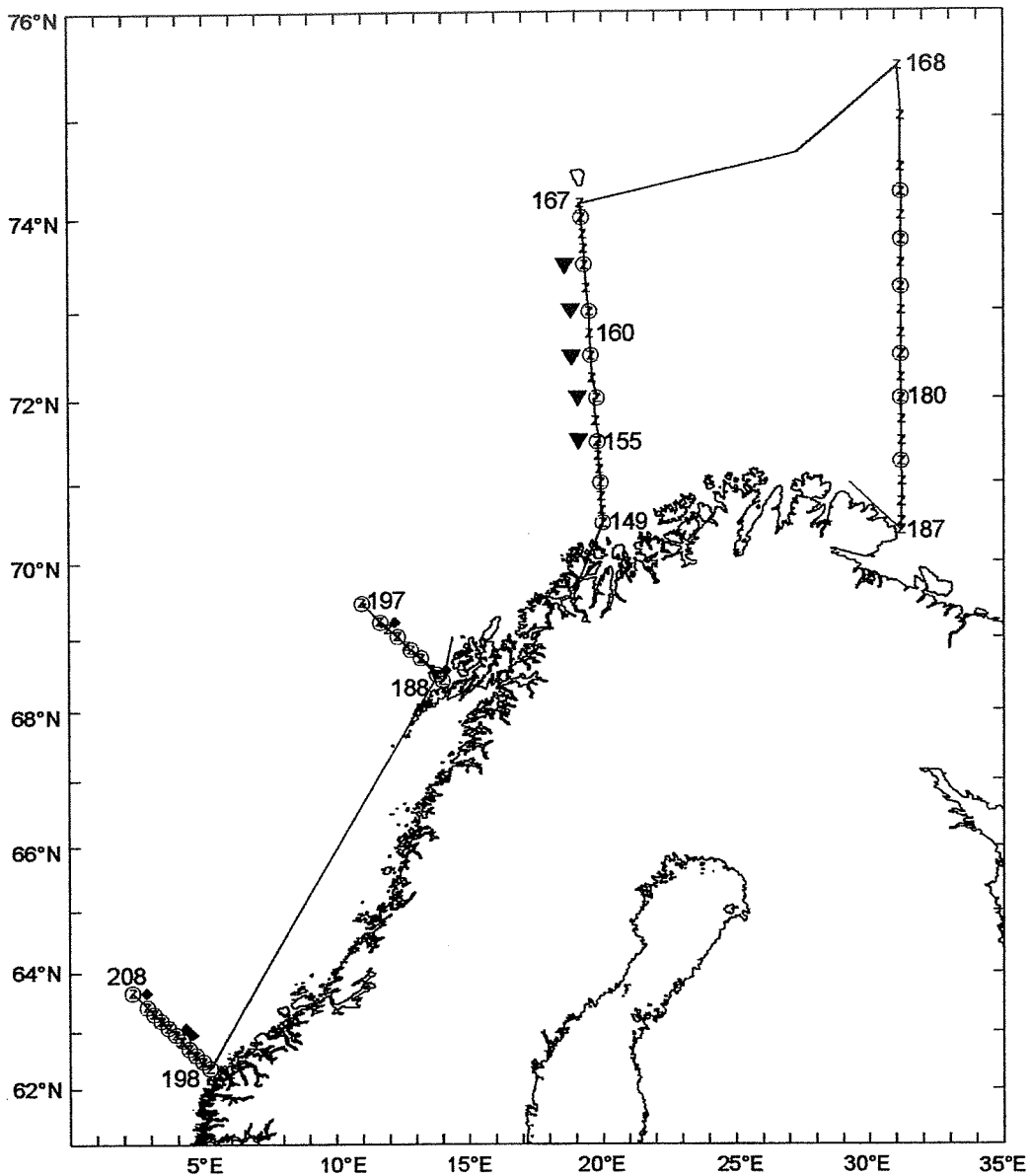
"Johan Hjort"



27 January - 5 March 2003
Cruise no 2003202

Trawl st.no 1 - 150
□ Bottom tr.
▲ Pelagic tr.

"Johan Hjort"



8 - 26 March 2003
Cruise no 2003203

"Johan Hjort"

z CTD st.no 149-208

○ Plankton st. (WP-II-net)

◆ Moored st.

▼ Current meters deployed/recovered

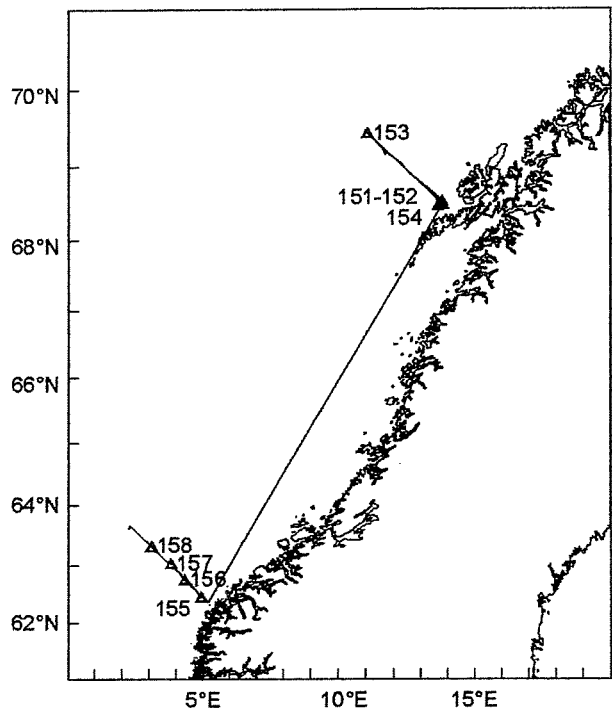
Standard sections:

Fugløya - Bjørnøya: st.no 149-167

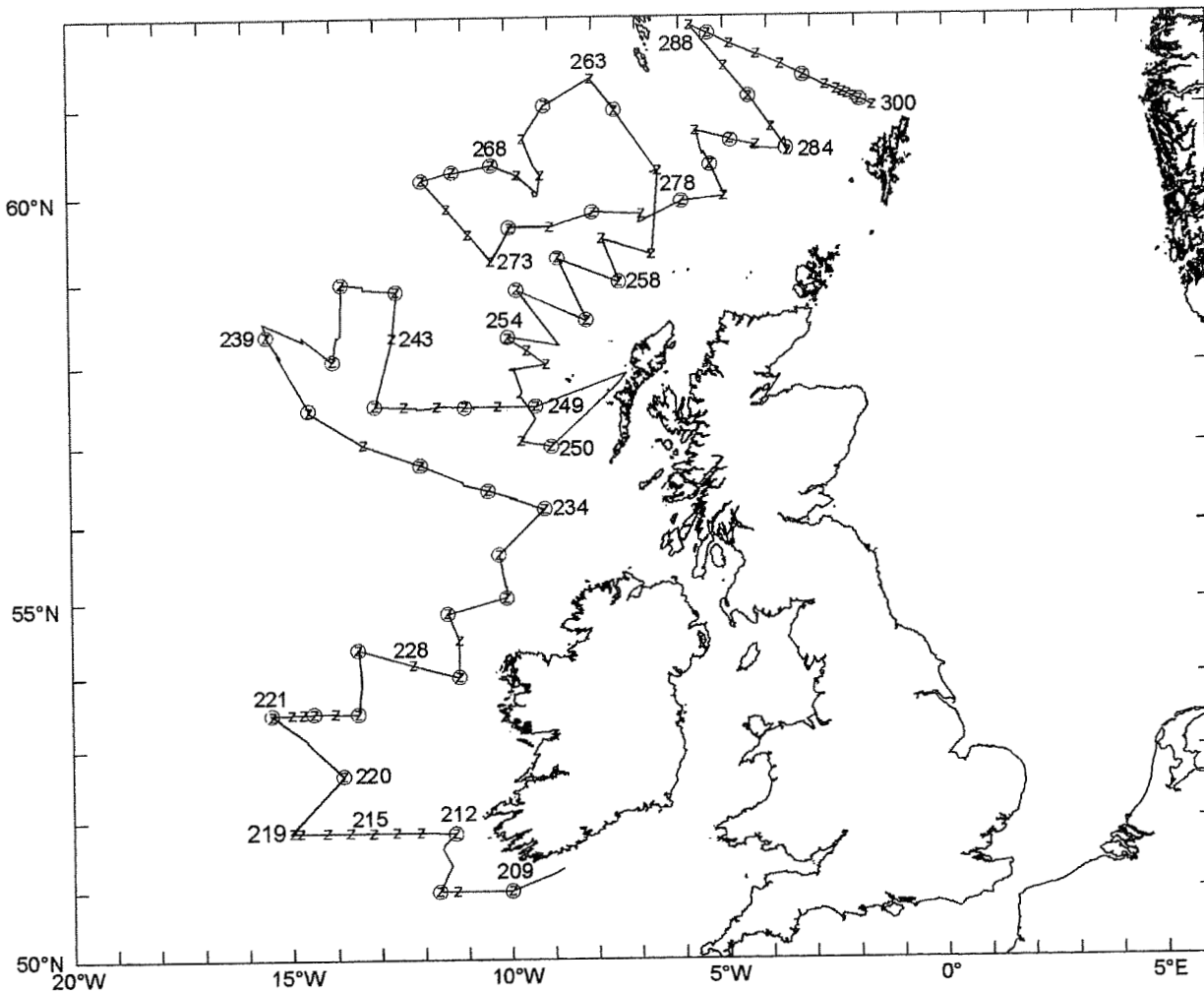
Vardø N: st.no 168-187

Gimsøy NW: st.no 188-197

Svinøy NW: st.no 198-208



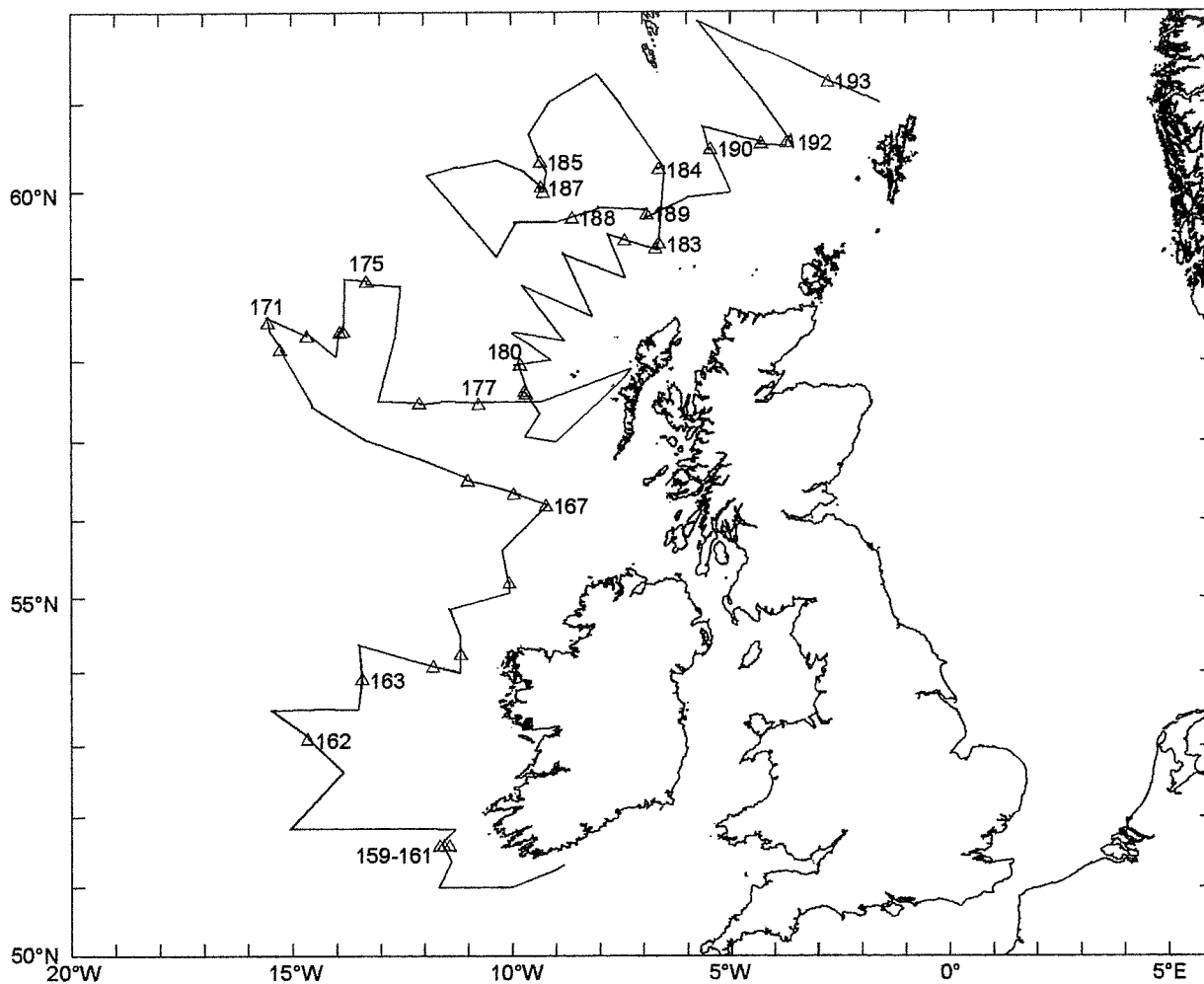
8 - 26 March 2003 ▲ Pelagic trawl "Johan Hjort"
Cruise no 2003203 st. no 151-158



29 March - 28 April 2003
Cruise no 2003204

z CTD st.no. st.no 209-300
o Plankton st. (WP-II-net)

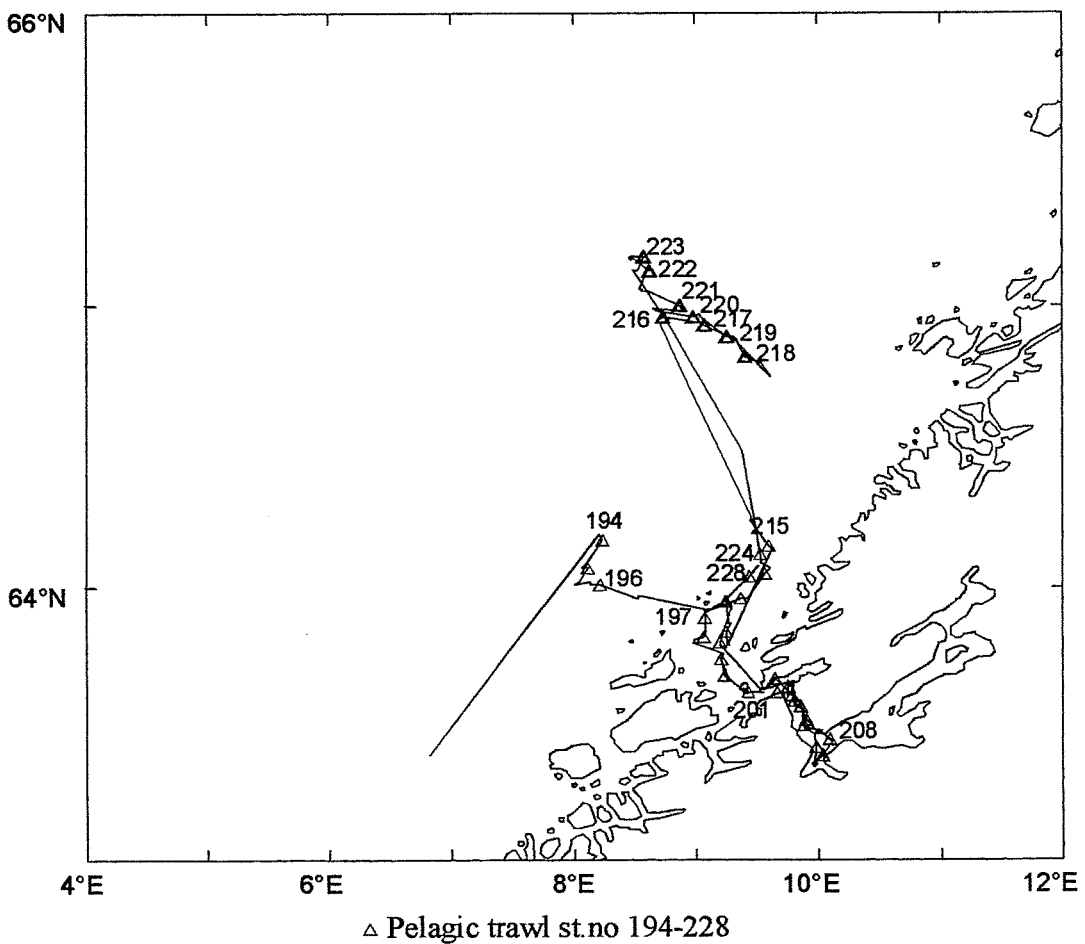
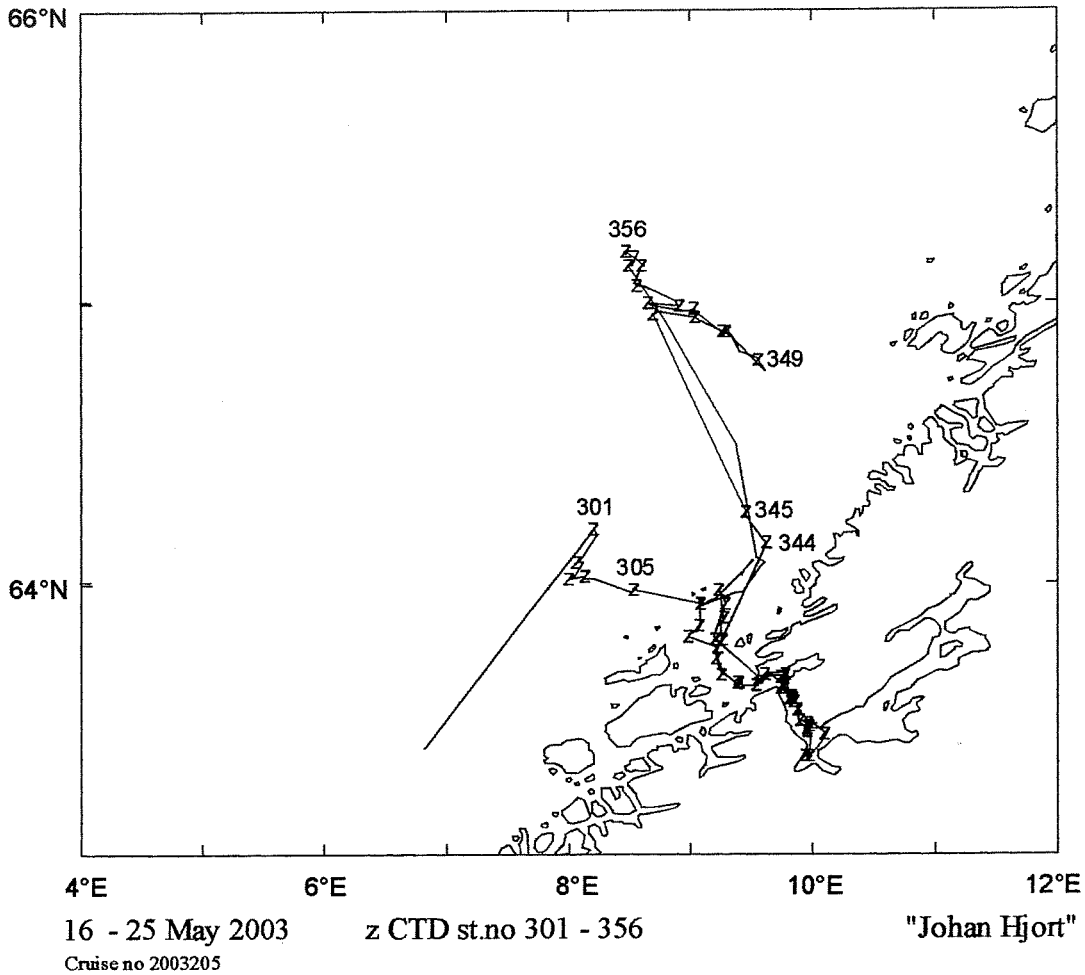
"Johan Hjort"

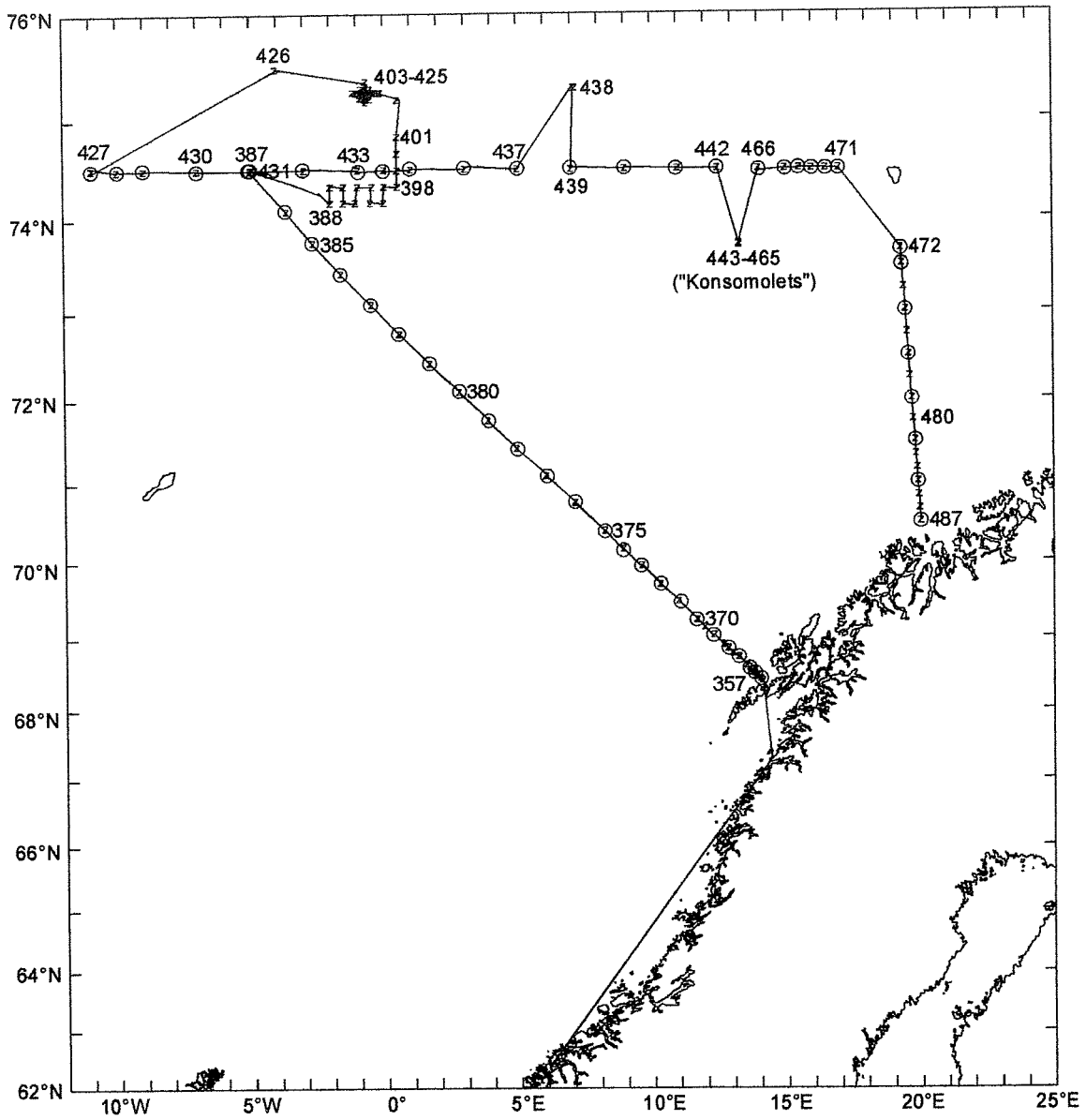


29 March - 28 April 2003
Cruise no 2003204

△ Pelagic trawl st.no 159-193

"Johan Hjort"





27 May - 16 June 2003
Cruise no 2003206

z CTD st.no 357-487

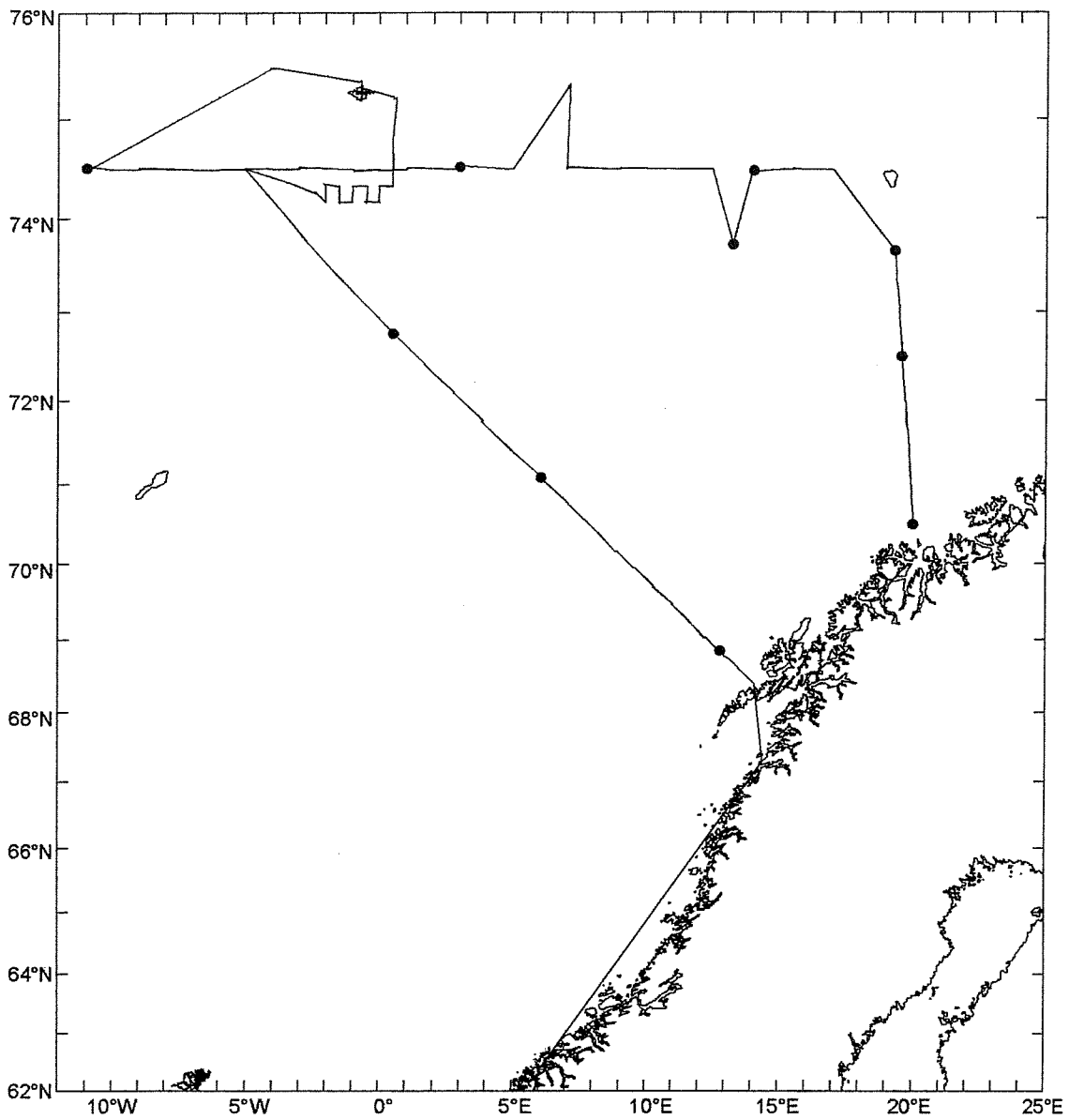
"Johan Hjort"

○ Plankton station (WP-II-net)

Standard sectionæ Gimsøy NW: st.no 357-375

Bjørnøya W: st.no 437, 439-442, 466-471

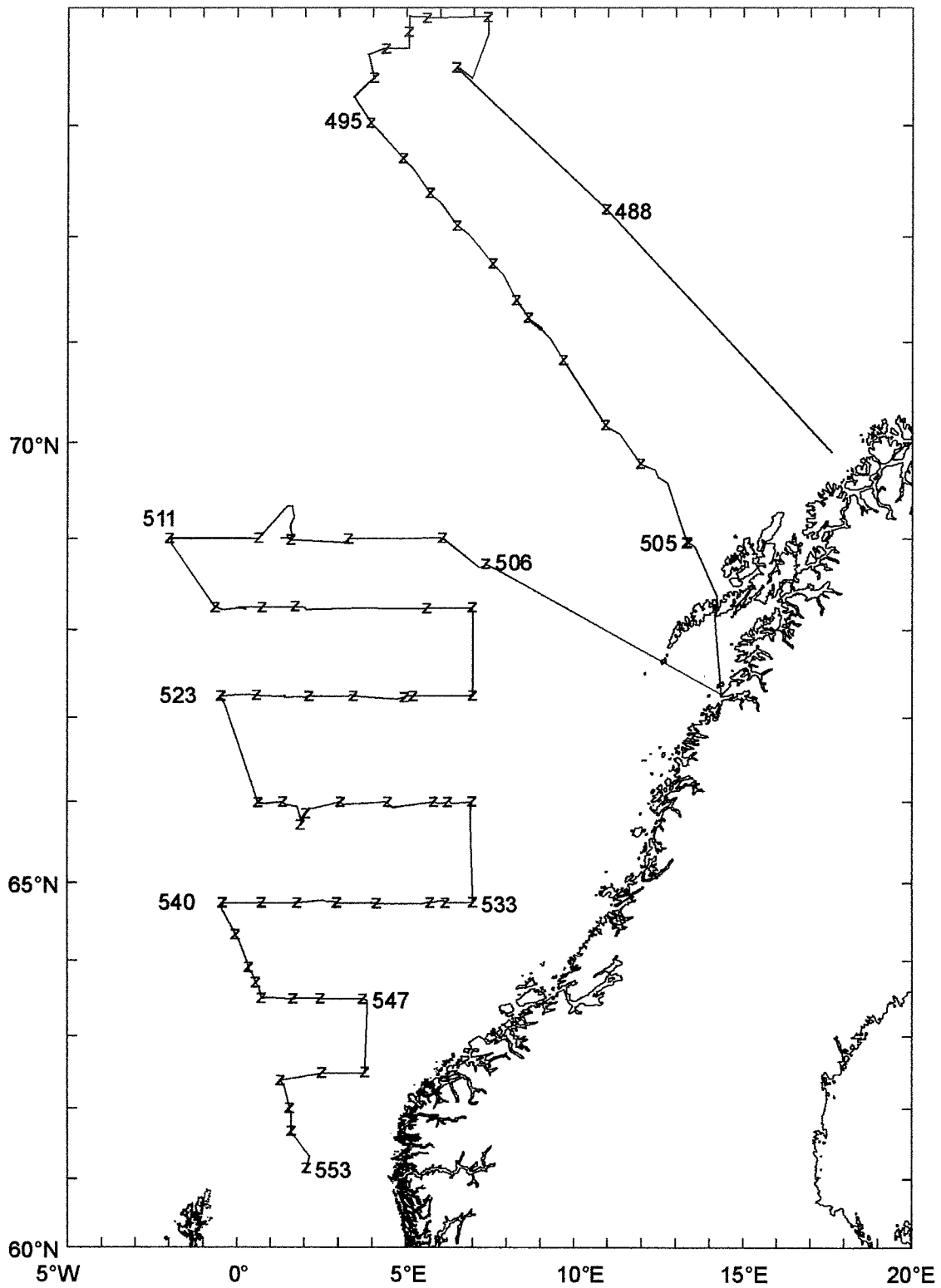
Fugløya-Bjørnøya: st.no 472-487



27 May - 16 June 2003
Cruise no 2003206

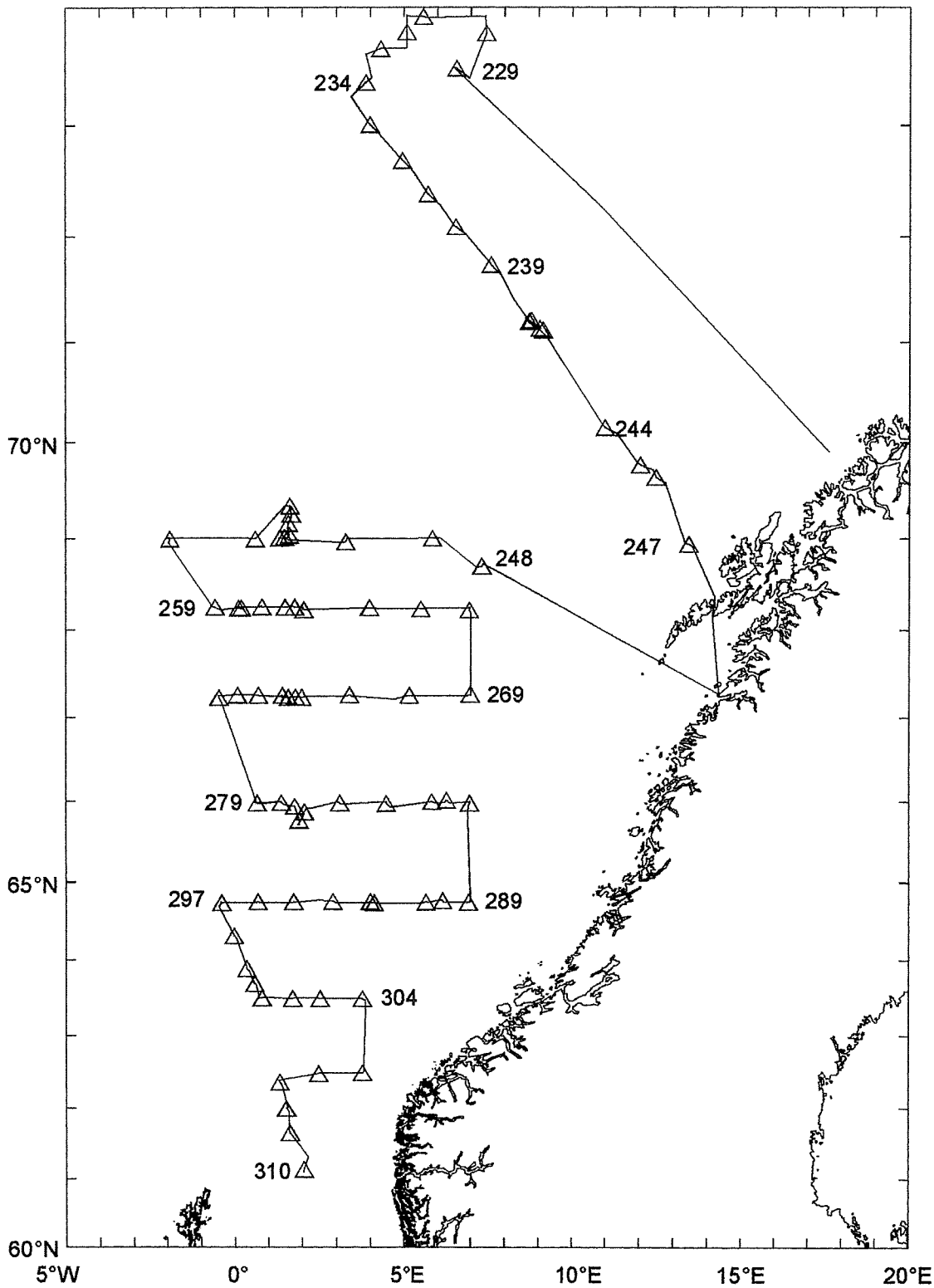
• Grab station

"Johan Hjort"



17 June - 7 July 2003 z CTD st.no 488 -553
 Cruise no 2003207

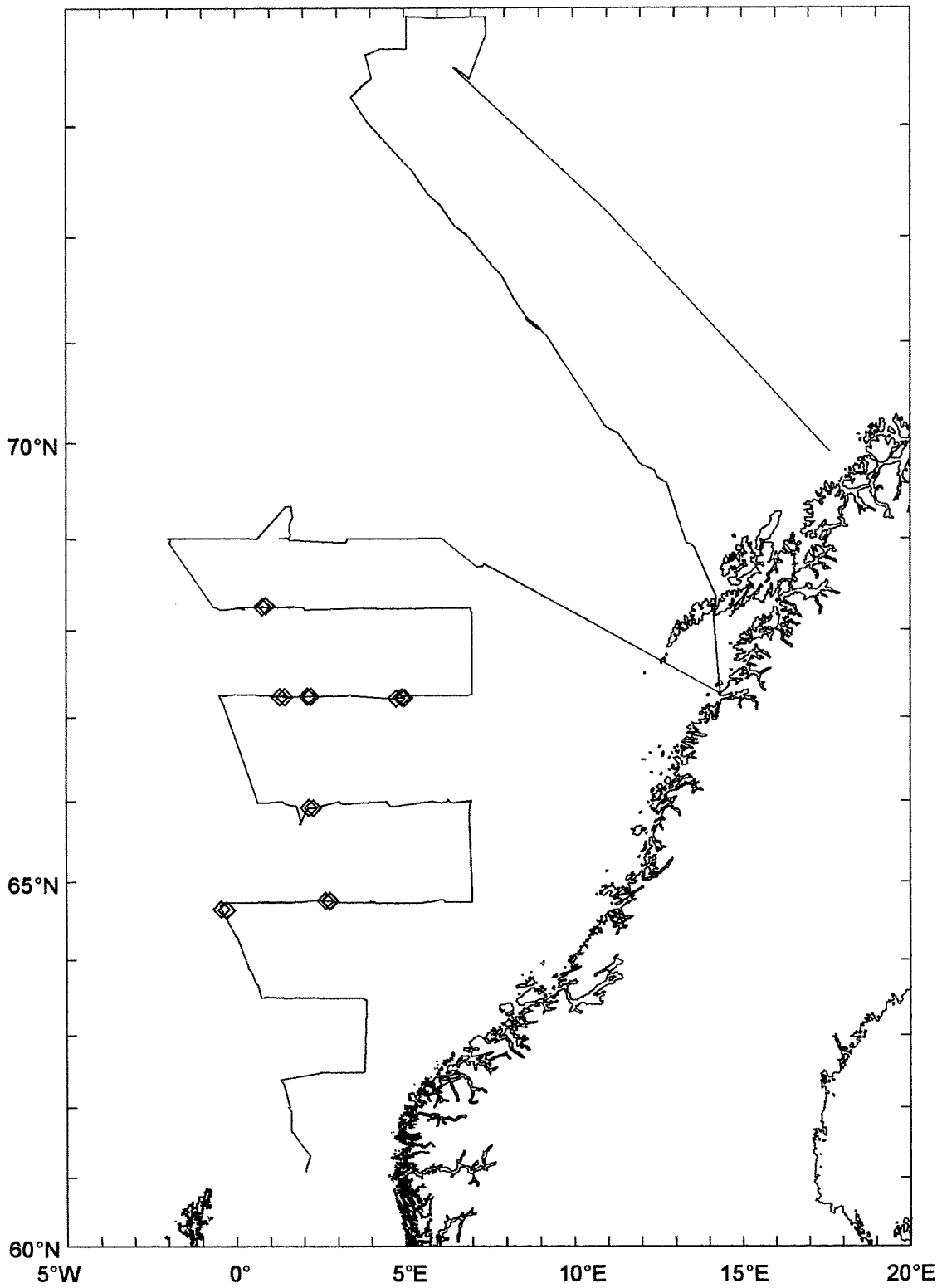
"Johan Hjort"



17 June - 7 July 2003
Cruise no 2003207

△ Pelagic trawl st.no 229-310

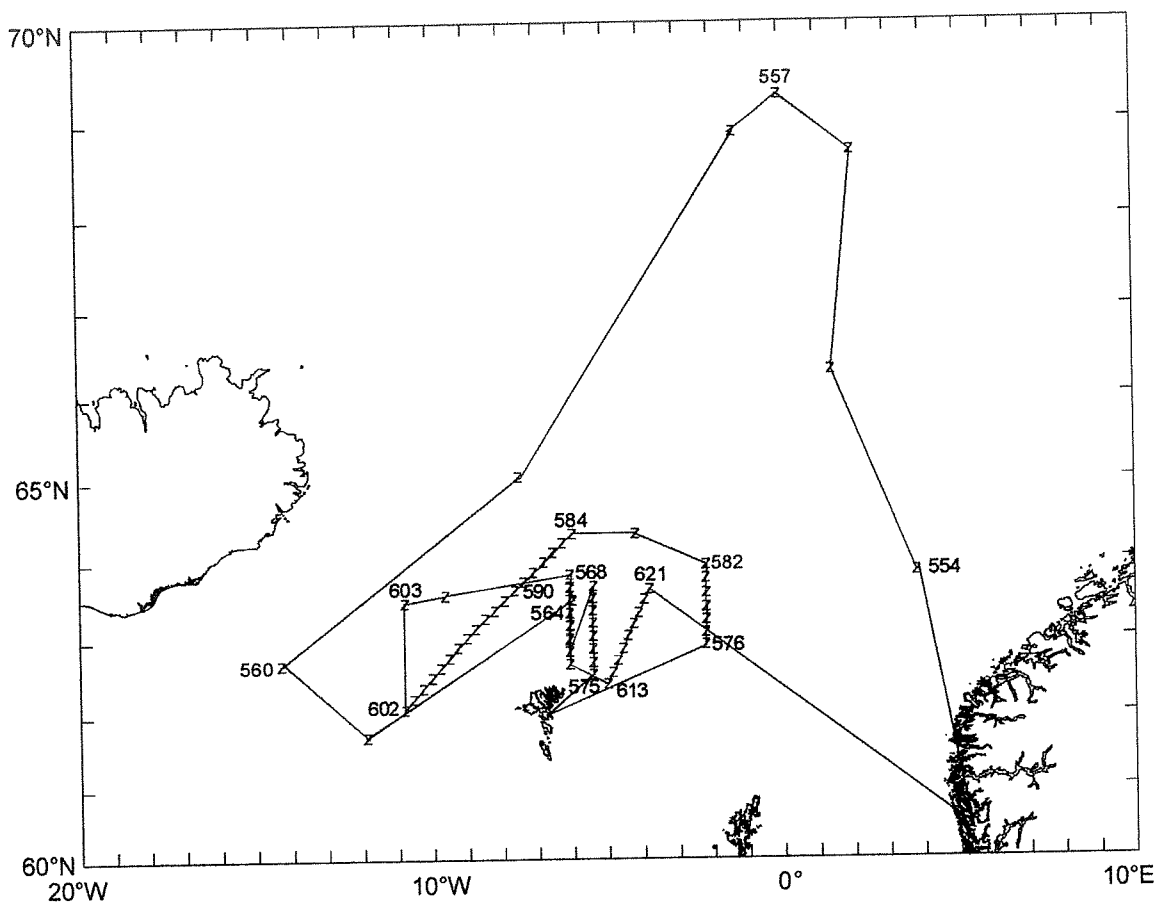
"Johan Hjort"



17 June - 7 July 2003
Cruise no 2003207

◇ MİK stations (Plankton hauls)

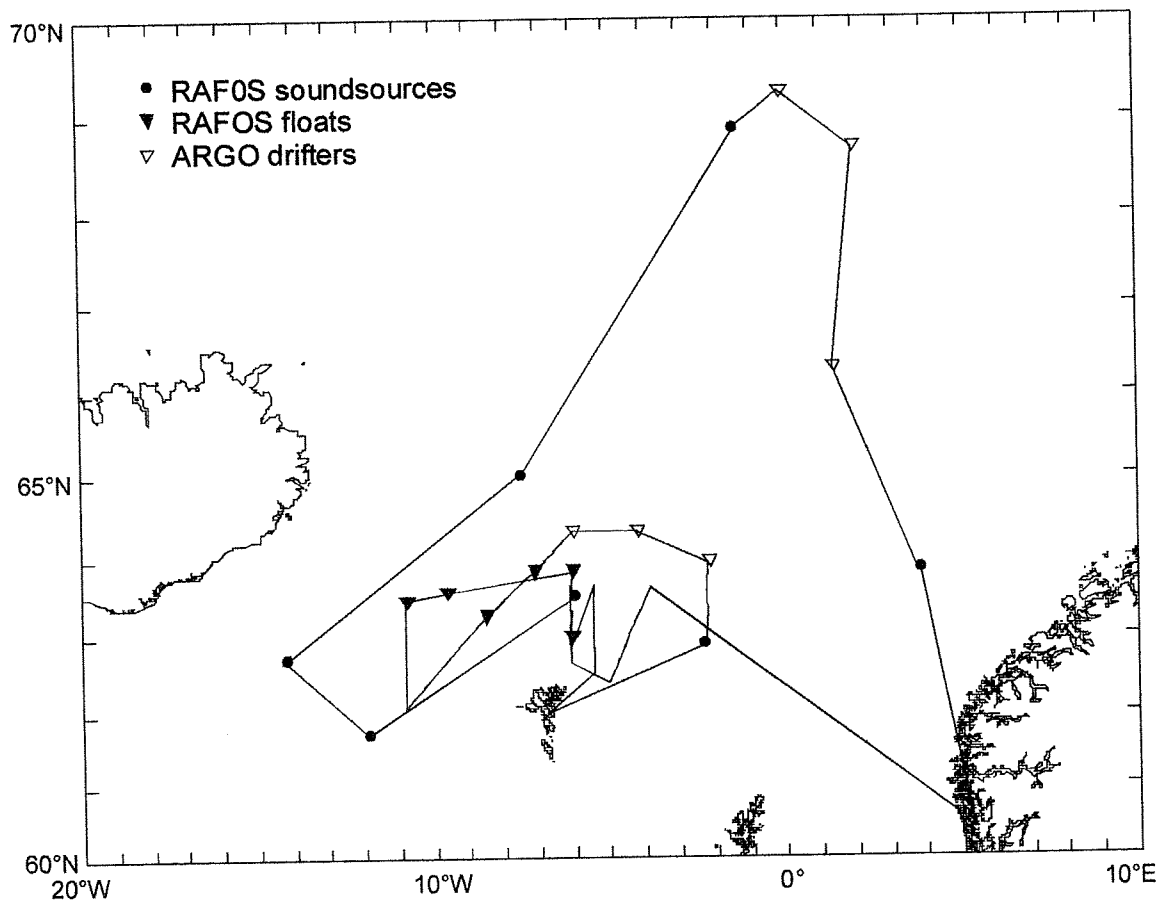
"Johan Hjort"



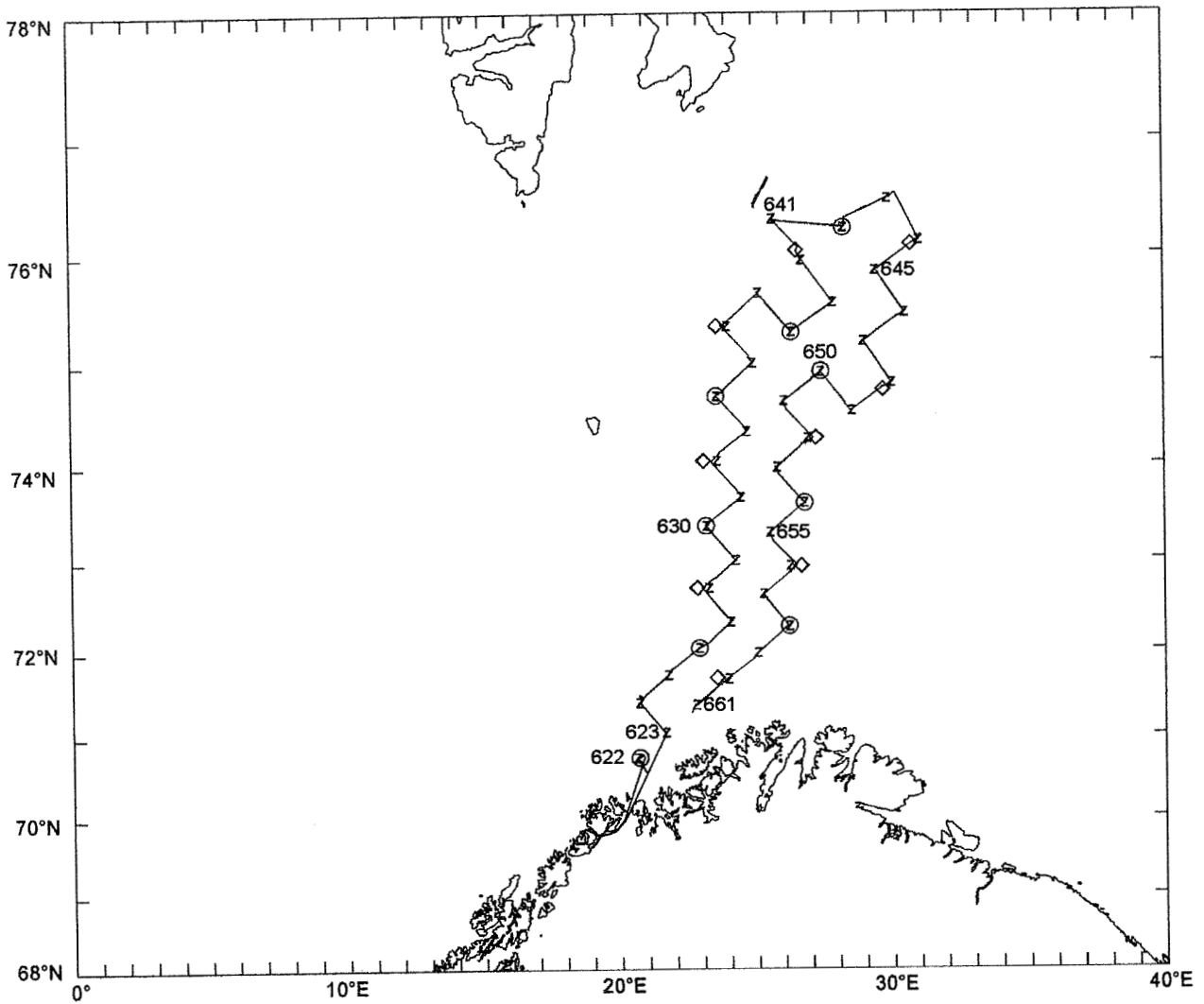
12 - 29 July 2003
Cruise no 2003208

z CTD st.no 554 - 621

"Johan Hjort"



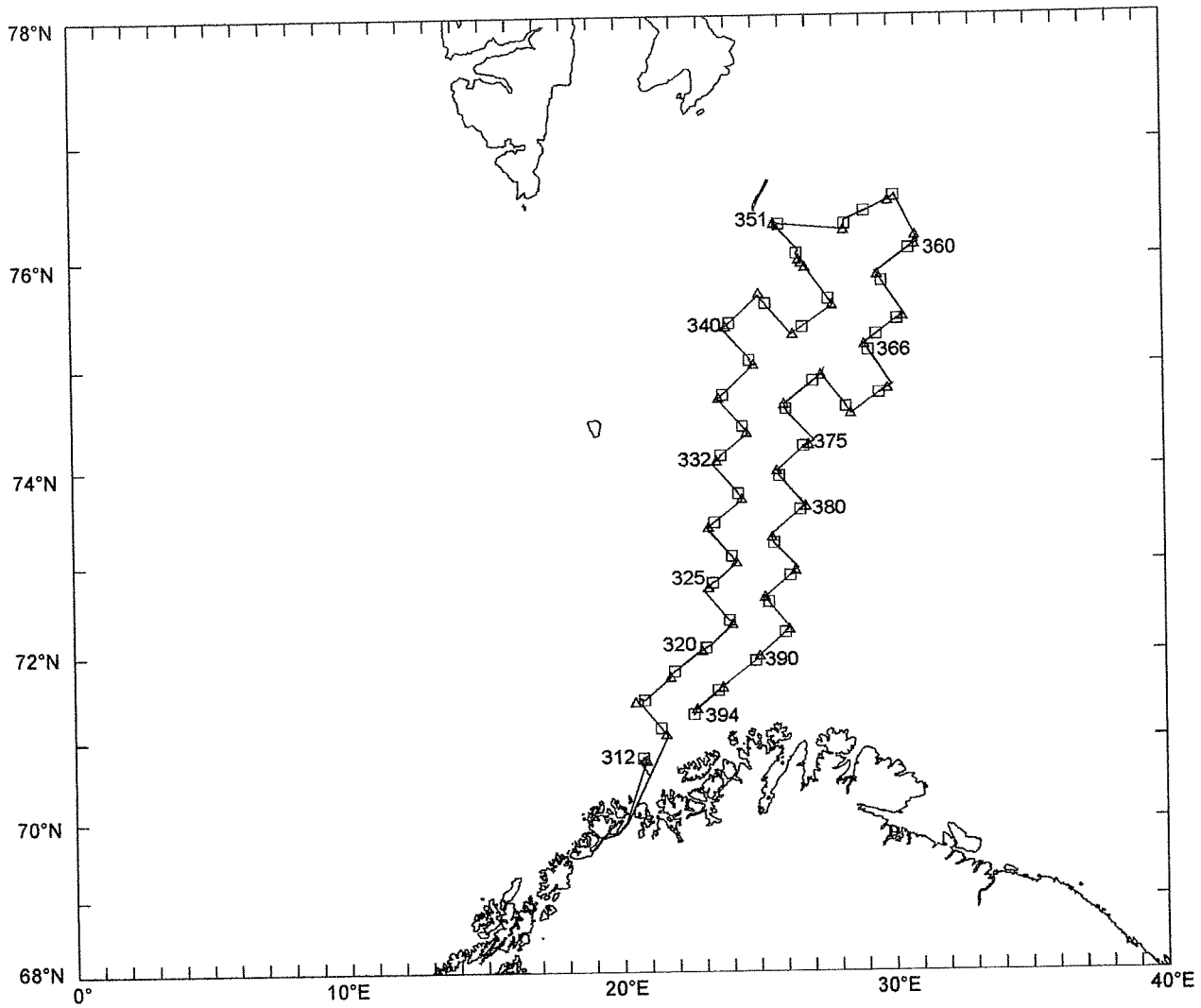
- RAFOS soundsources
- ▼ RAFOS floats
- ▽ ARGO drifters



Part I: 5 - 19 August 2003
 Cruise no 2003209

z CTD str.no 622 - 661
 ○ Plankton st. (WP-II-net)
 ◇ Mocness st.

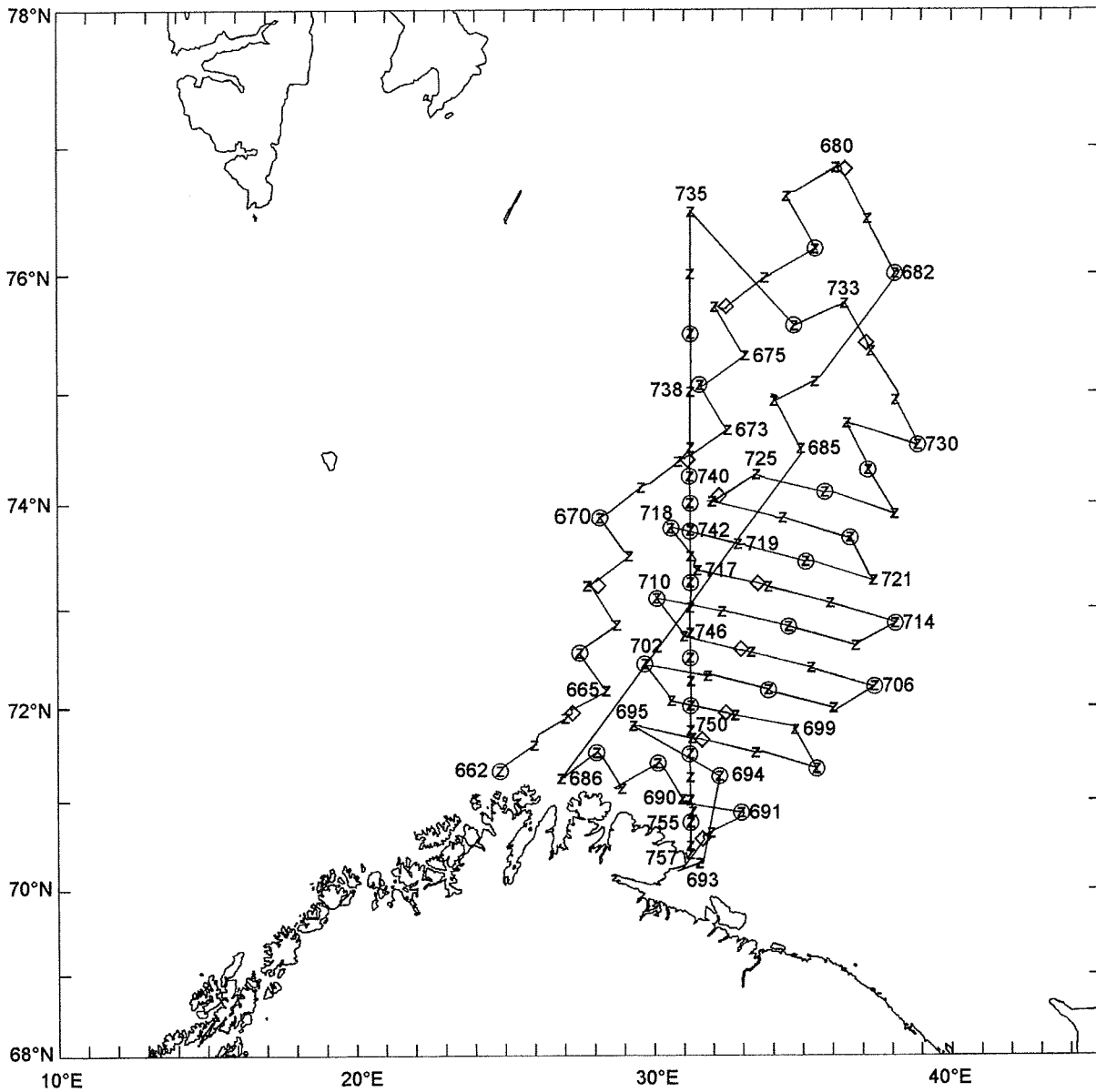
“Johan Hjort”



Part 1: 5 - 19 August 2003
 Cruise no 2003209

Trawl st.no 312 - 394
 ▲ Pelagic trawl
 □ Bottom trawl

“Johan Hjort”



Part II: 19 Aug - 16 Sep 2003
 Cruise no 2003209

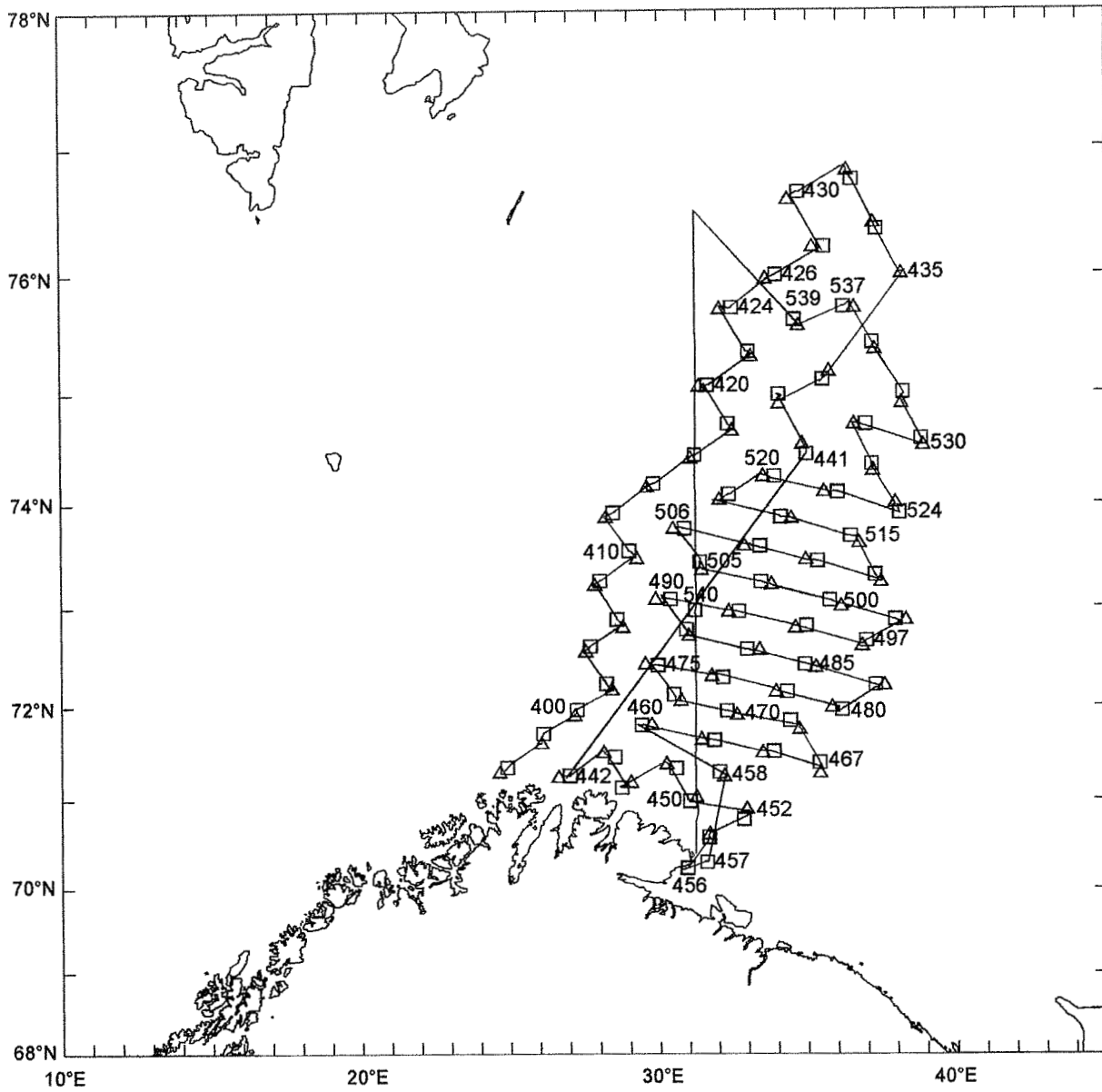
z CTD st.no 662 - 757

“Johan Hjort”

○ Plankton st. (WP-II-net)

◇ Mocness st.

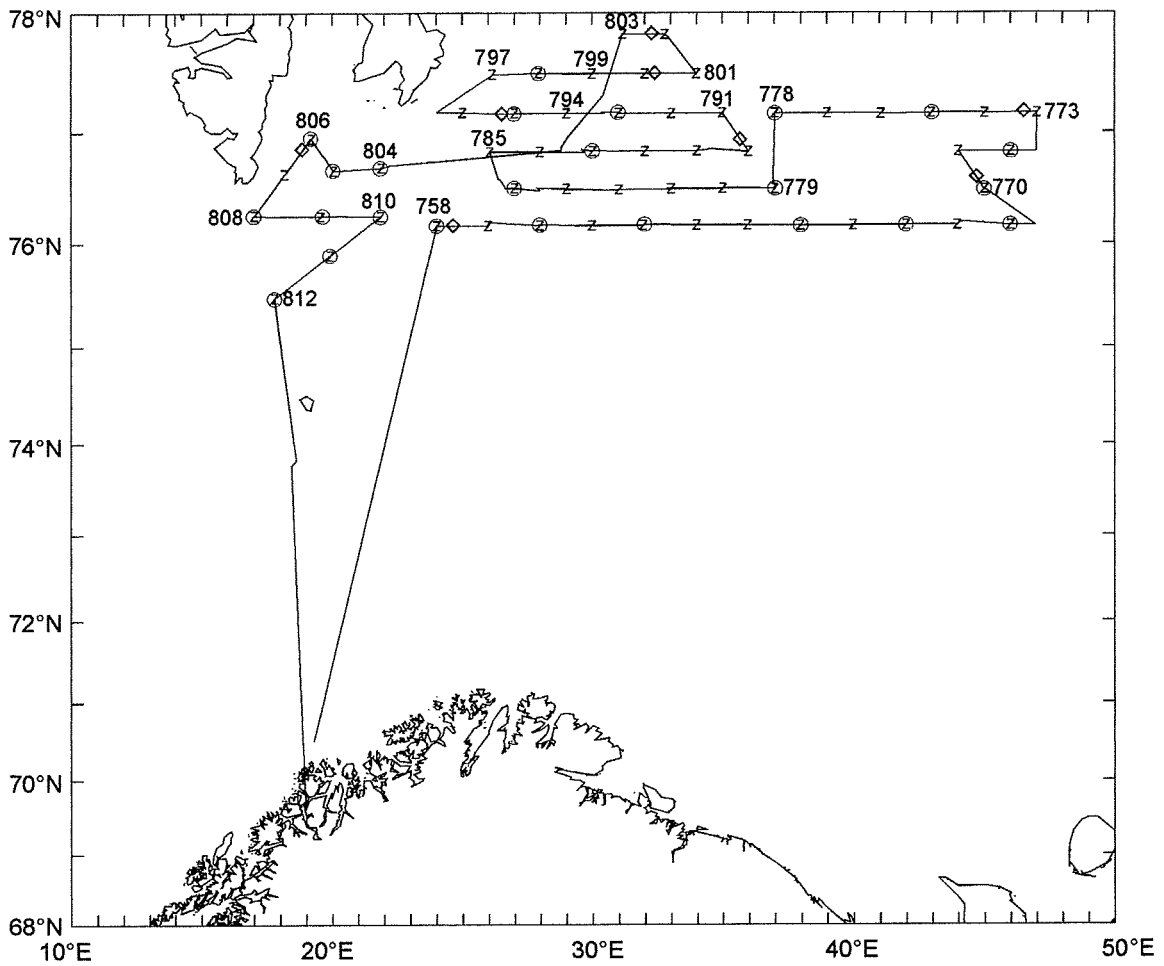
Standard section Vardø N st.no 735 - 757



Part II: 19 Aug - 16 Sep 2003
 Cruise no 2003209

Trawl st.no 395 - 540
 ▲ Pelagic trawl
 □ Bottom trawl

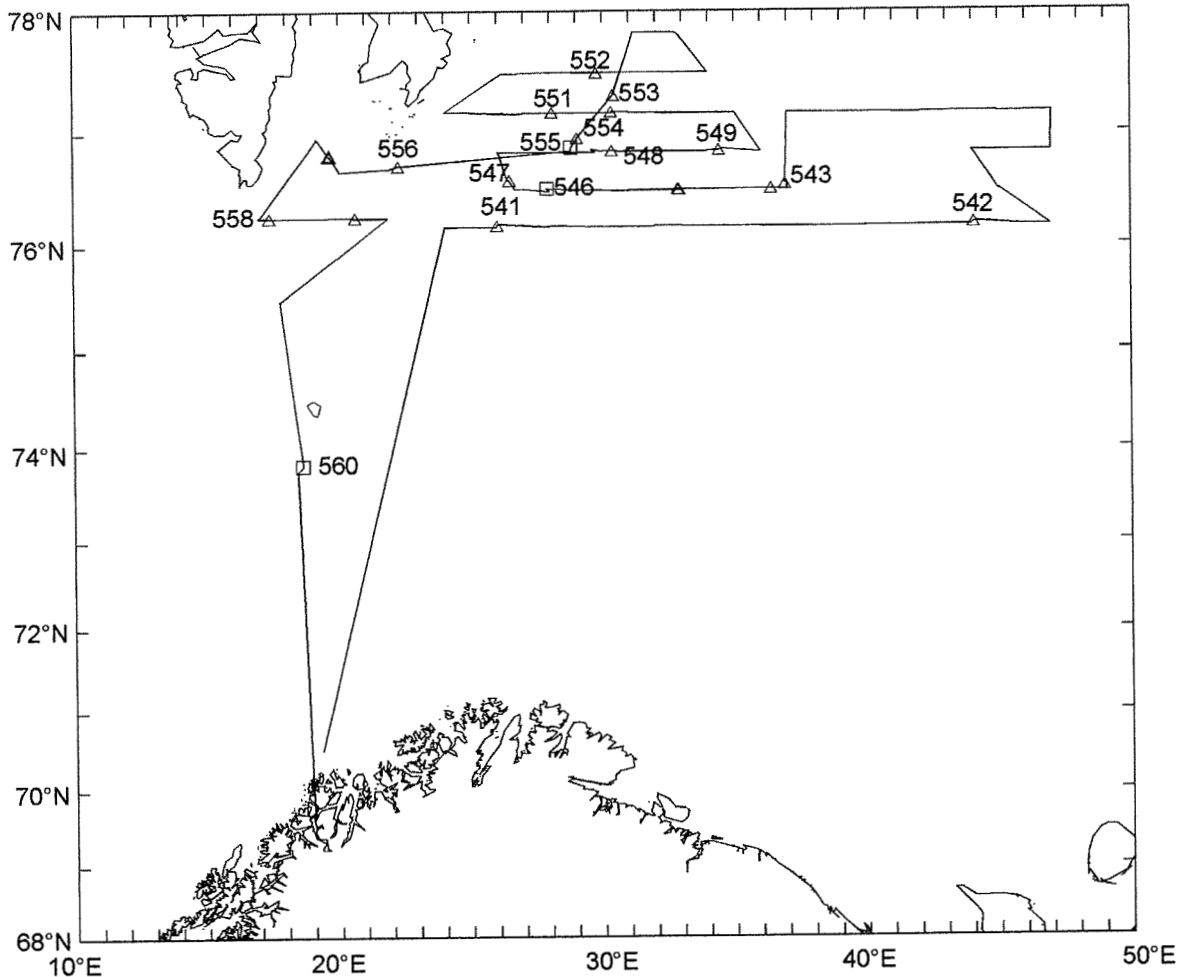
“Johan Hjort”



16 Sep - 2 Oct 2003
 Cruise no 2003209 -last part

z CTD st.no 758 - 812
 ○ Plankton st. (WP-II-net)
 ◇ Moored st.

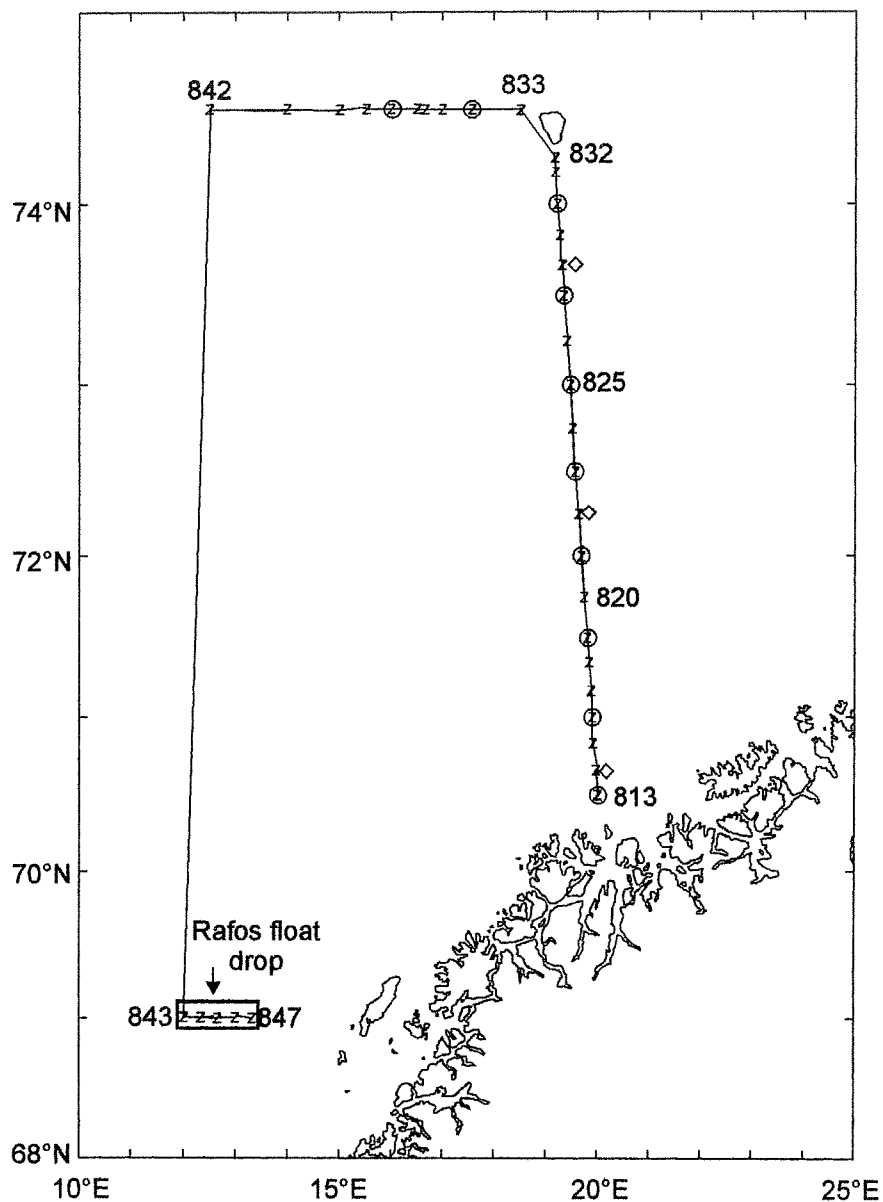
"Johan Hjort"



16 Sep - 2 Oct 2003
 Cruise no 2003209 -last part

Trawl st.no 541-560
 □ Pelagic trawl
 △ Bottom trawl

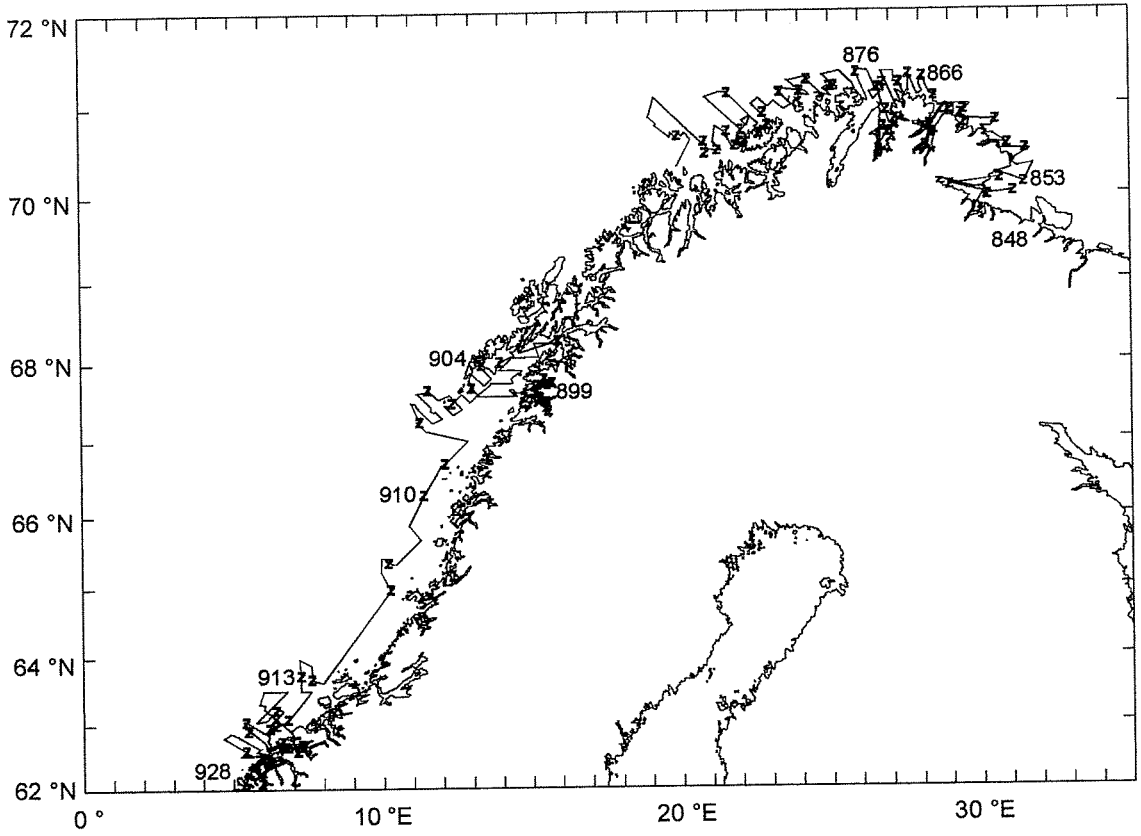
“Johan Hjort”



3 - 8 October 2003
Cruise no 2003210

z CTD st.no 813 - 847 "Johan Hjort"
○ Plankton st. (WP-II-net)
◇ Mocness st.

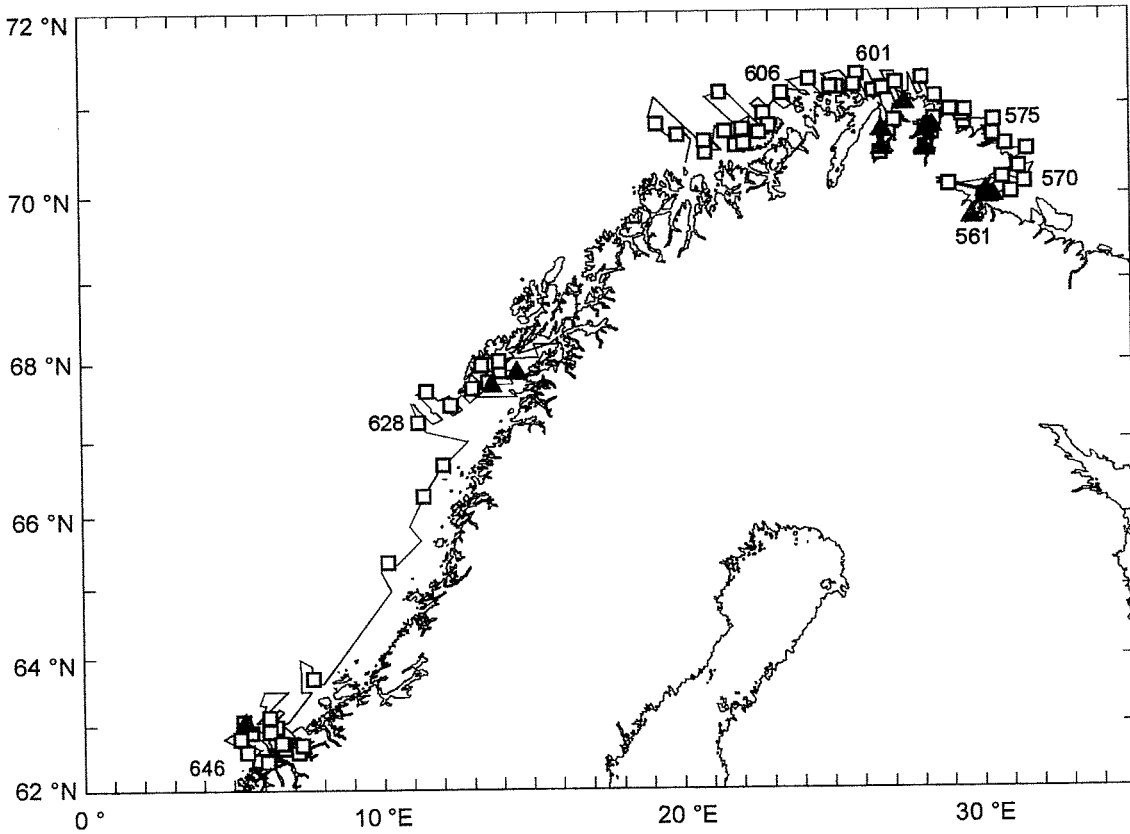
Standard section Fugløya- Bjørnøya - St.no 813-832
Bjørnøya W st.no 833-842



10 October - 8 Nov 2003
Cruise no 2003211

z CTD st.no 848-928

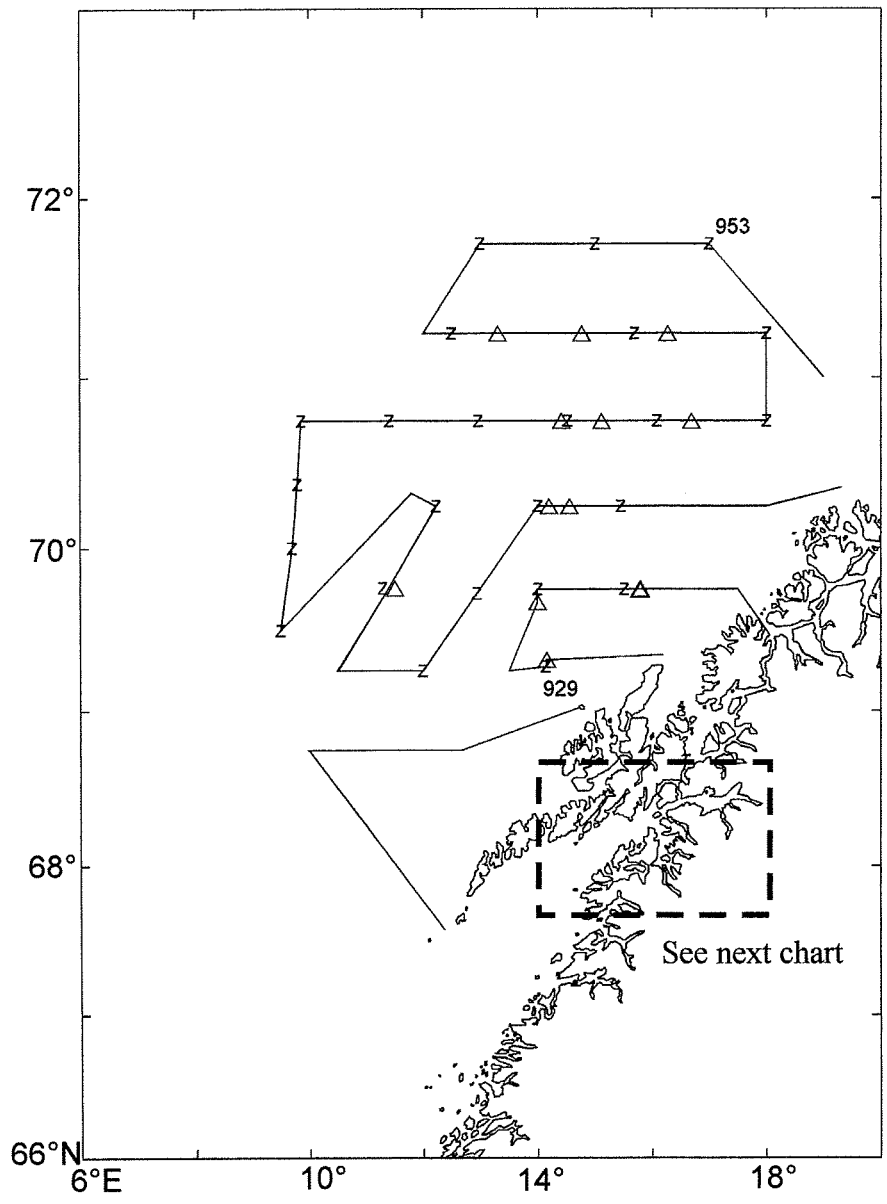
“Johan Hjort”



Trawl st.no 561-646

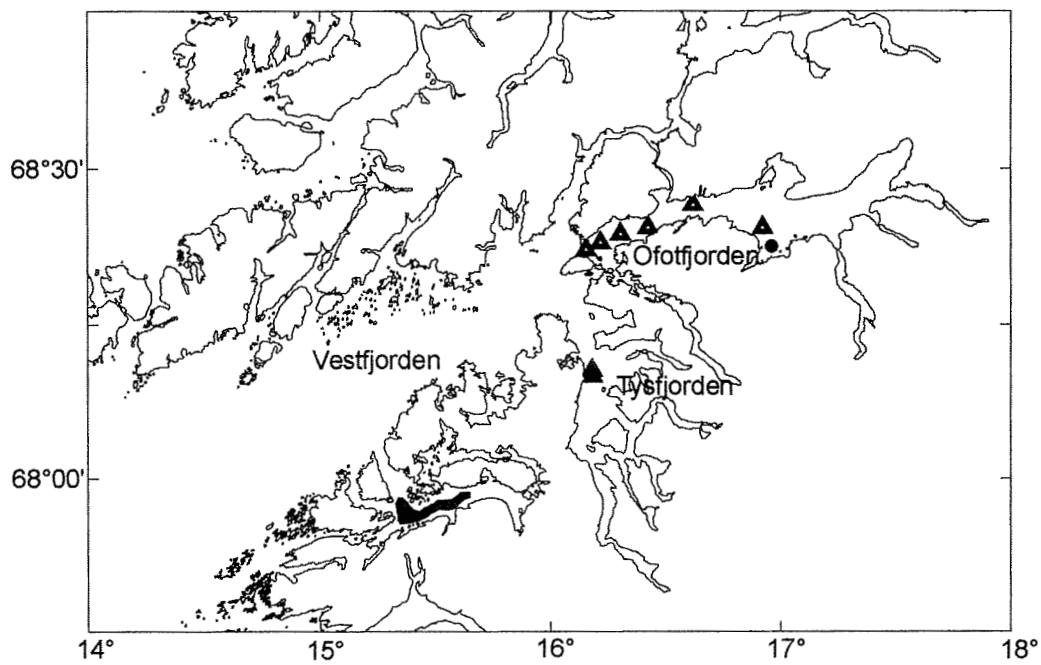
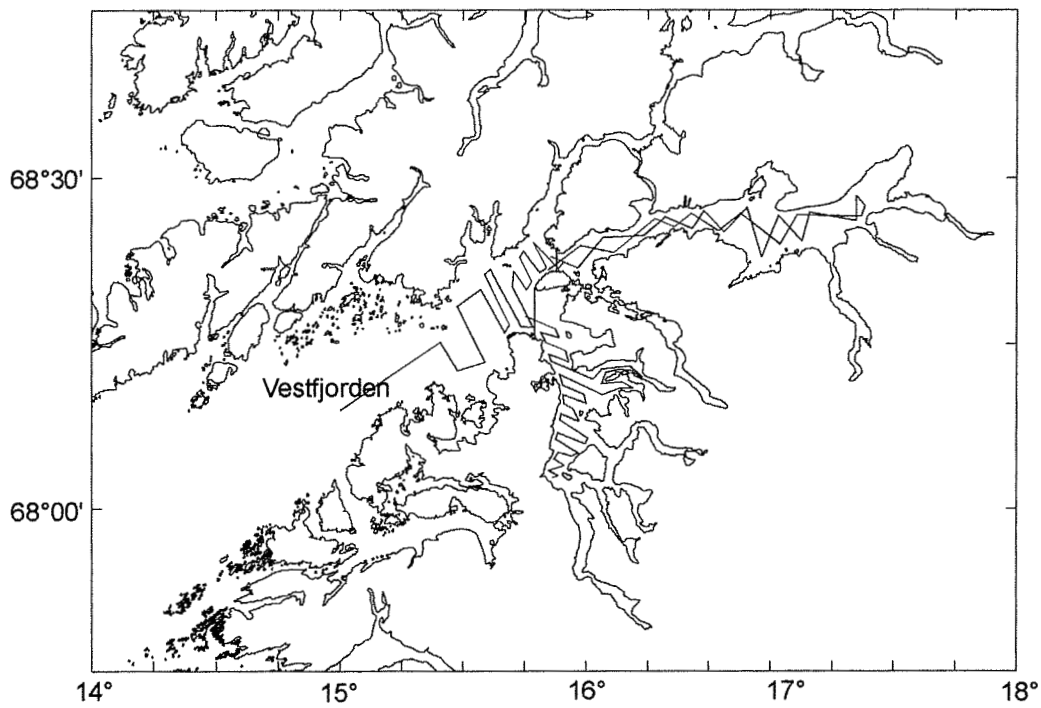
□ Bottom trawl

▲ Pelagic trawl



29 Nov - 19 Dec 2003
 Cruise no 2003213

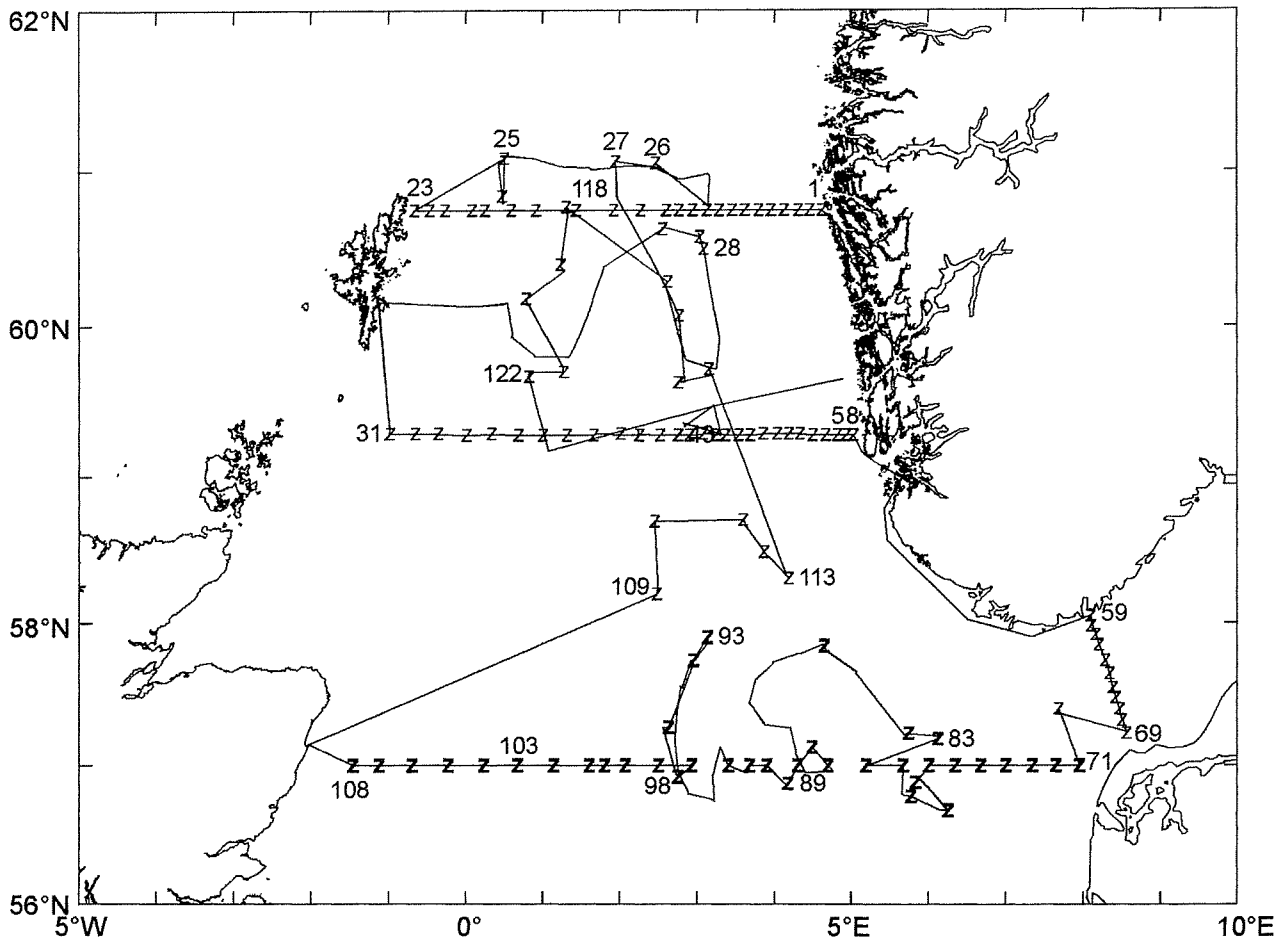
Z Ctd st. no 929-953
 Δ Pel. trawl st. no 705-716



29 Nov - 19 Dec 2003
Cruise no 2003213

▲ Pelagic trawl st.no 696-704

“Johan Hjort”

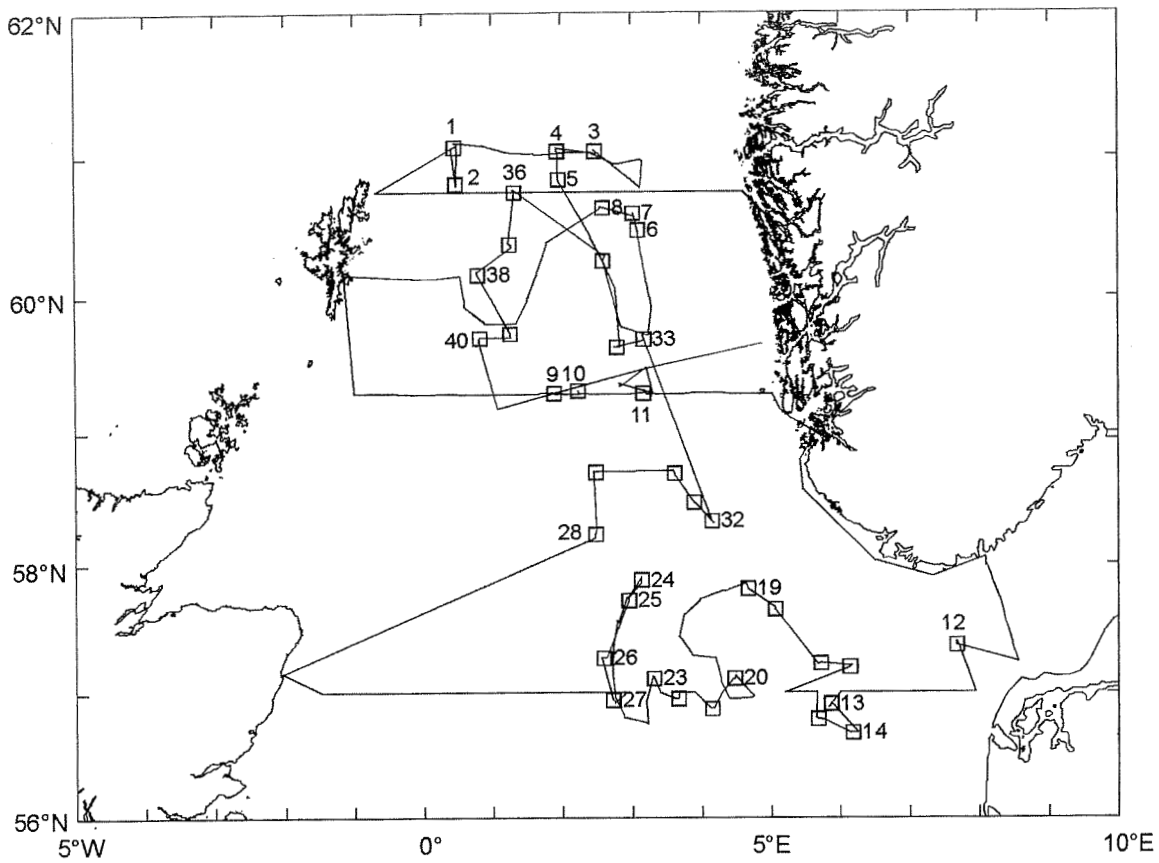


6 - 30 January 2003
Cruise no 2003601

z CTD st.no 1-122
Standard section Feie - Shetland st.no 1-23

"Håkon Mosby"

Utsira W st.no 31-58
Hanstholm - Aberdeen st.no 71-77, 81-82, 86, 88, 90-92, 97-108
Oksø - Hanstholm st.no 59-69

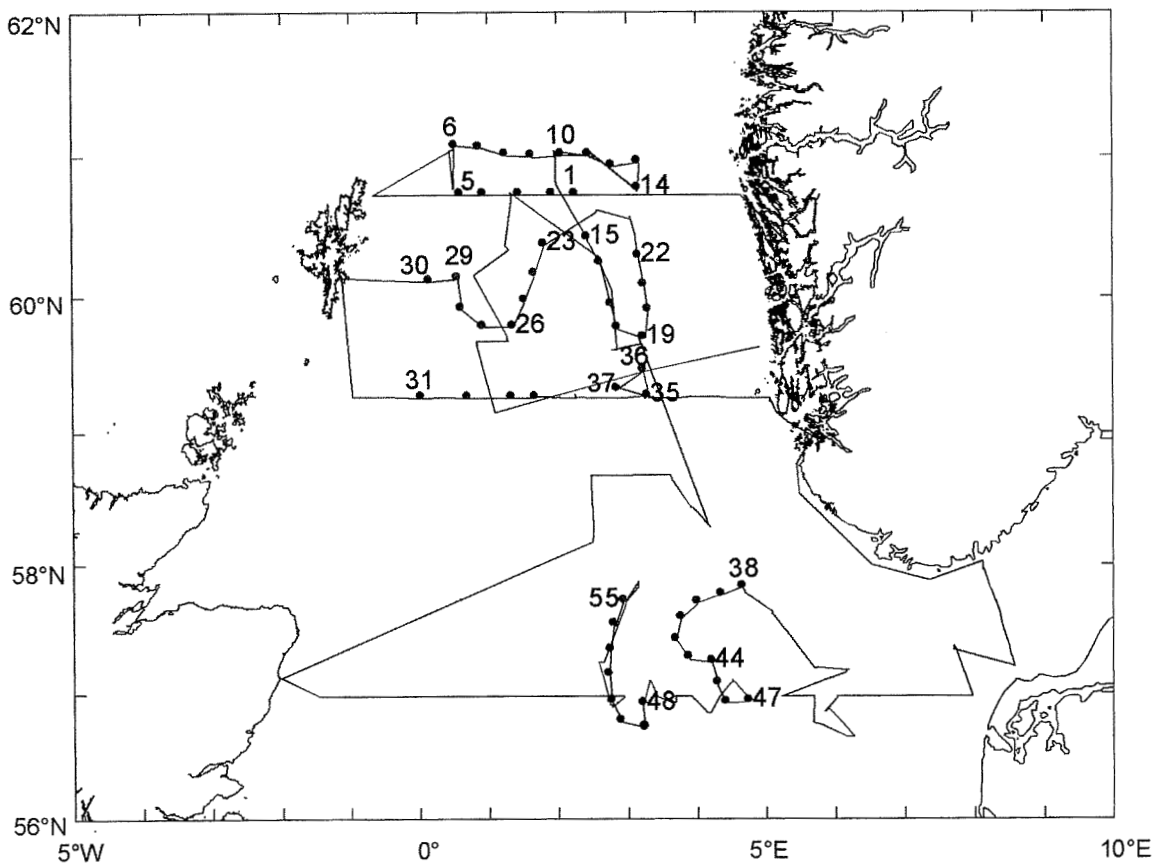


6 - 30 January 2003

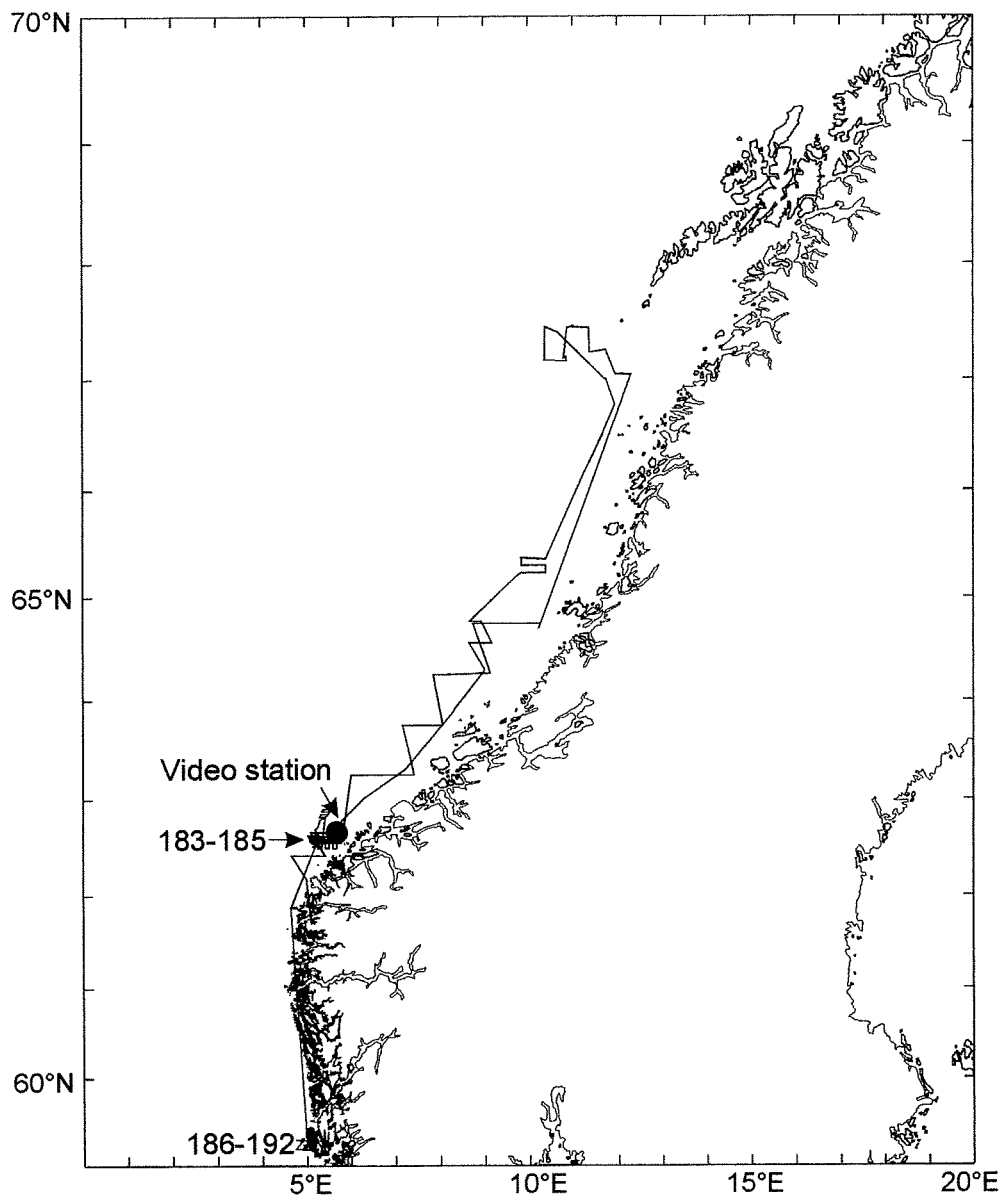
□ Bottom trawl st.no 1- 40

"Håkon Mosby"

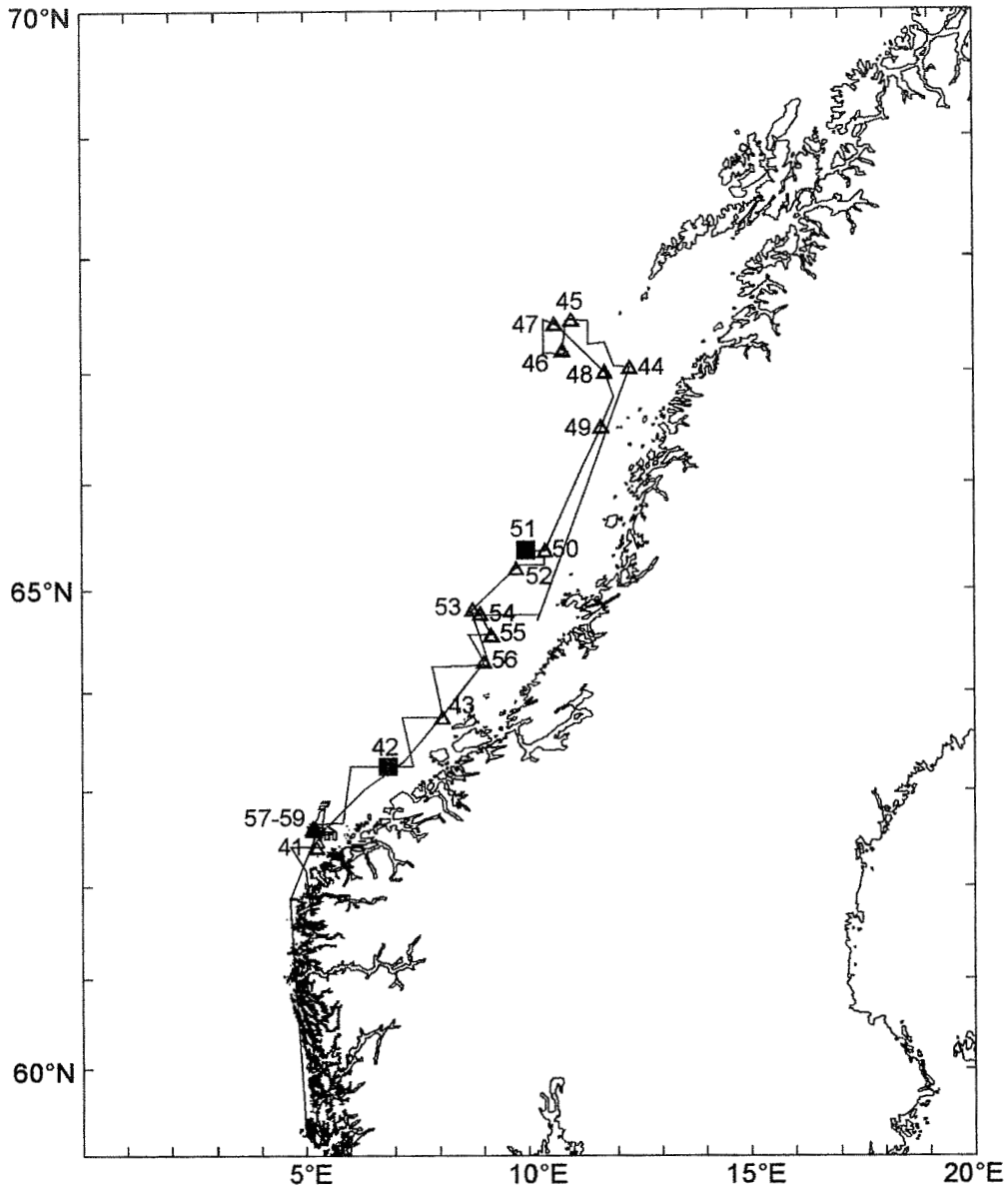
Cruise no 2003601



• MIK st.no 1- 55



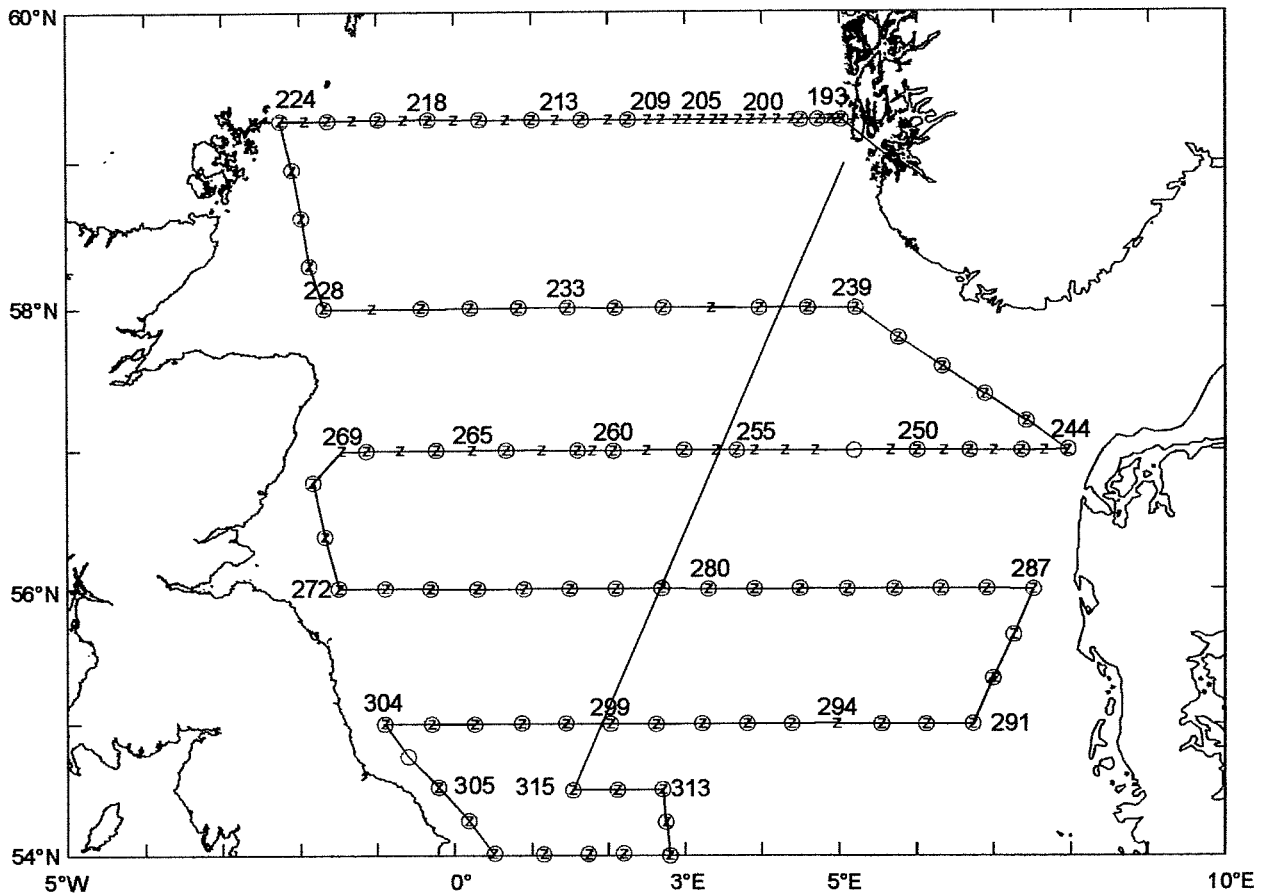
12 February - 4 March 2003 z CTD st.no 183-192 "Håkon Mosby"
Cruise no 2003604



12 February - 4 March 2003
Cruise no 2003604

Trawl st.no 41-59
△ Pelagic tr.
■ Bottom tr.

"Håkon Mosby"



5 - 19 March 2003
Cruise no 2003605

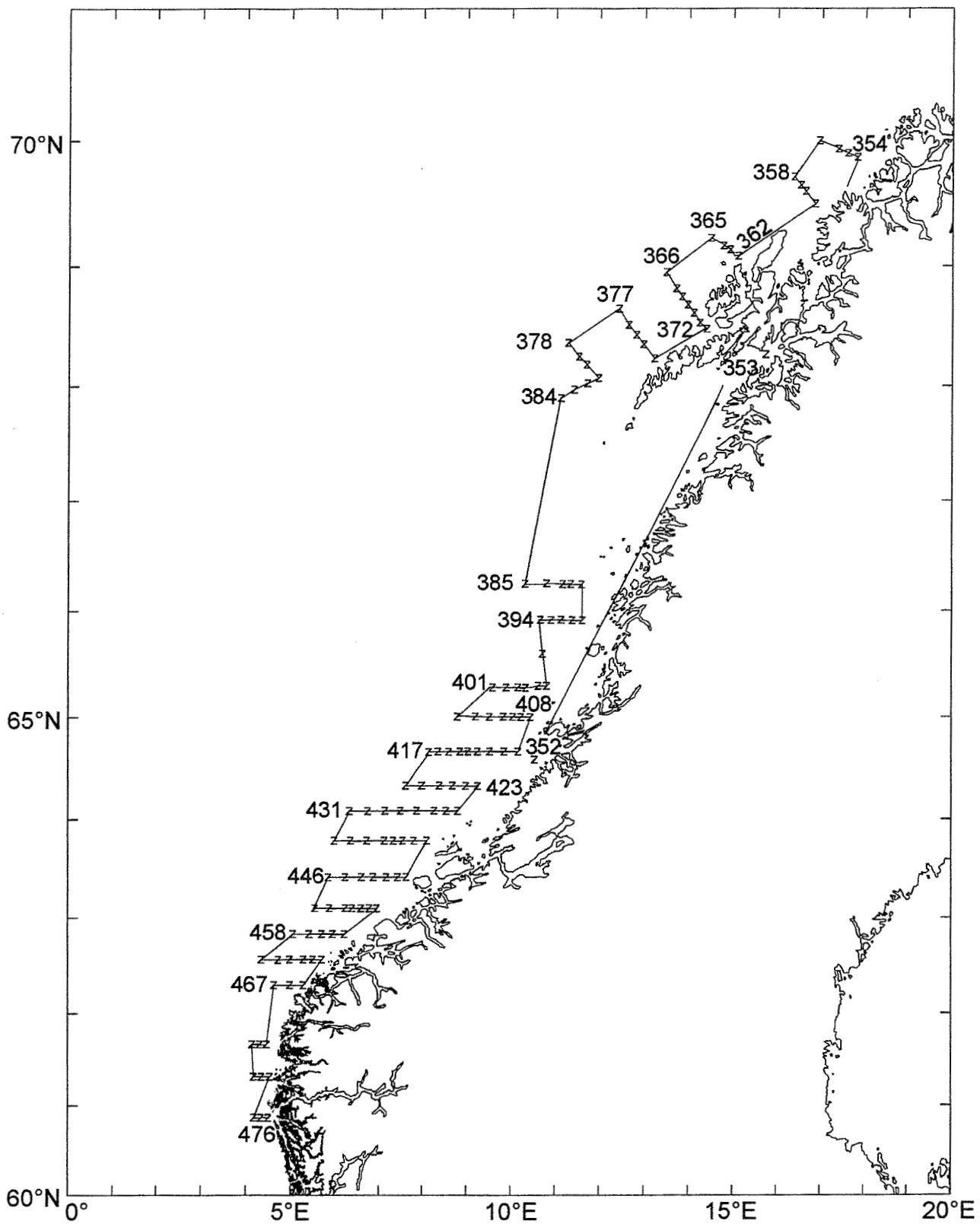
z CTD st.no 193-315

"Håkon Mosby"

○ Plankton, egg/larvae st. (WP-II-net)

Standard section Utsira W st.no 193-224

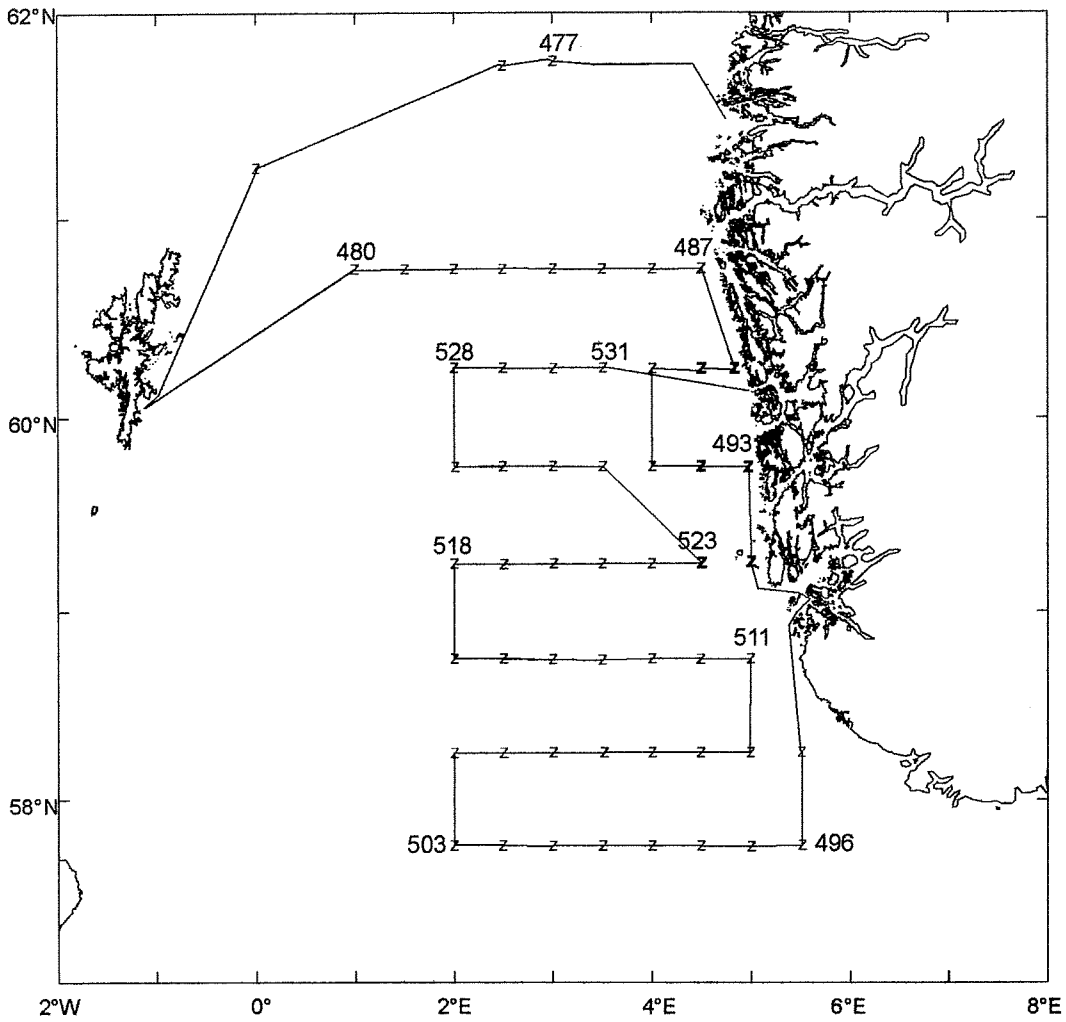
Hanstholmen-Aberdeen st.no 244-269



8 - 21 April 2003
Cruise no 2003608

z CTD and plankton (WP-II-net/Gulf III) station.
St.no 352 - 476

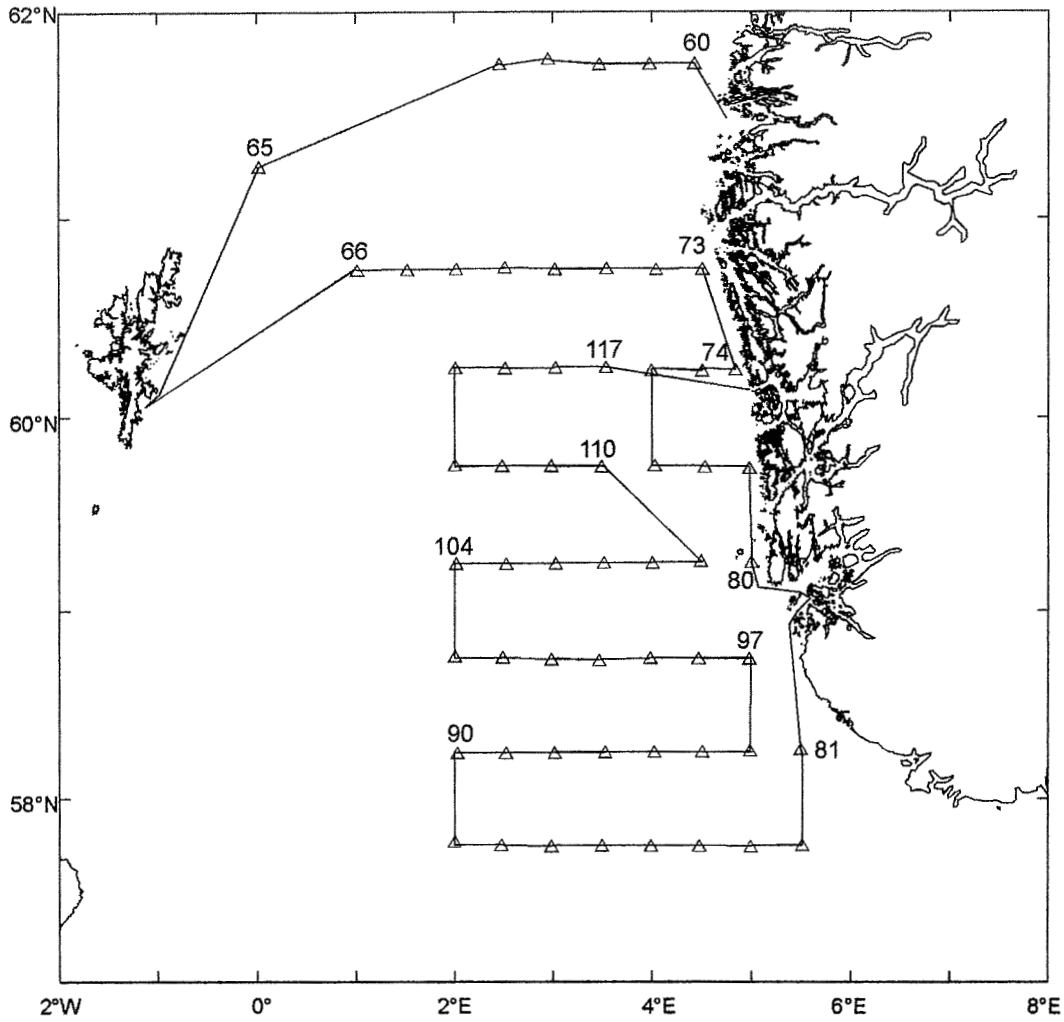
"Håkon Mosby"



22 April - 4 May 2003
 Cruise no 2003609

z CTD st.no 477-531

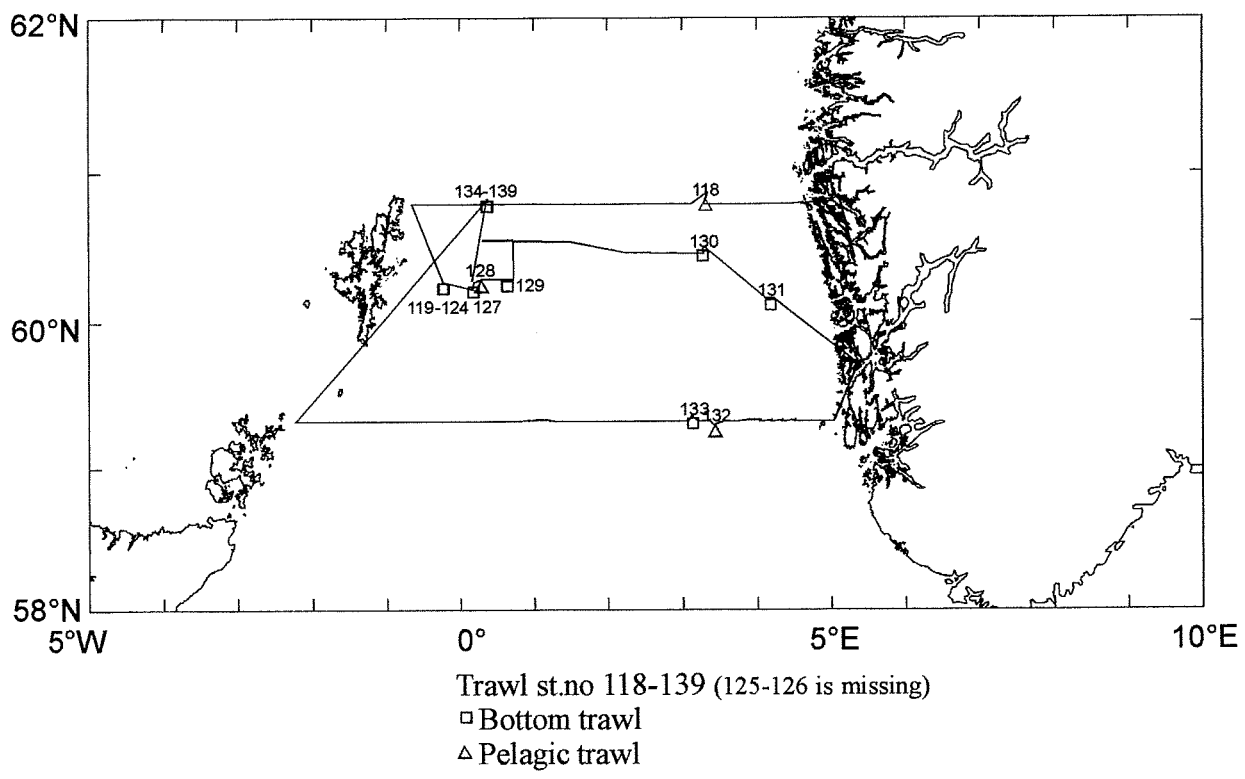
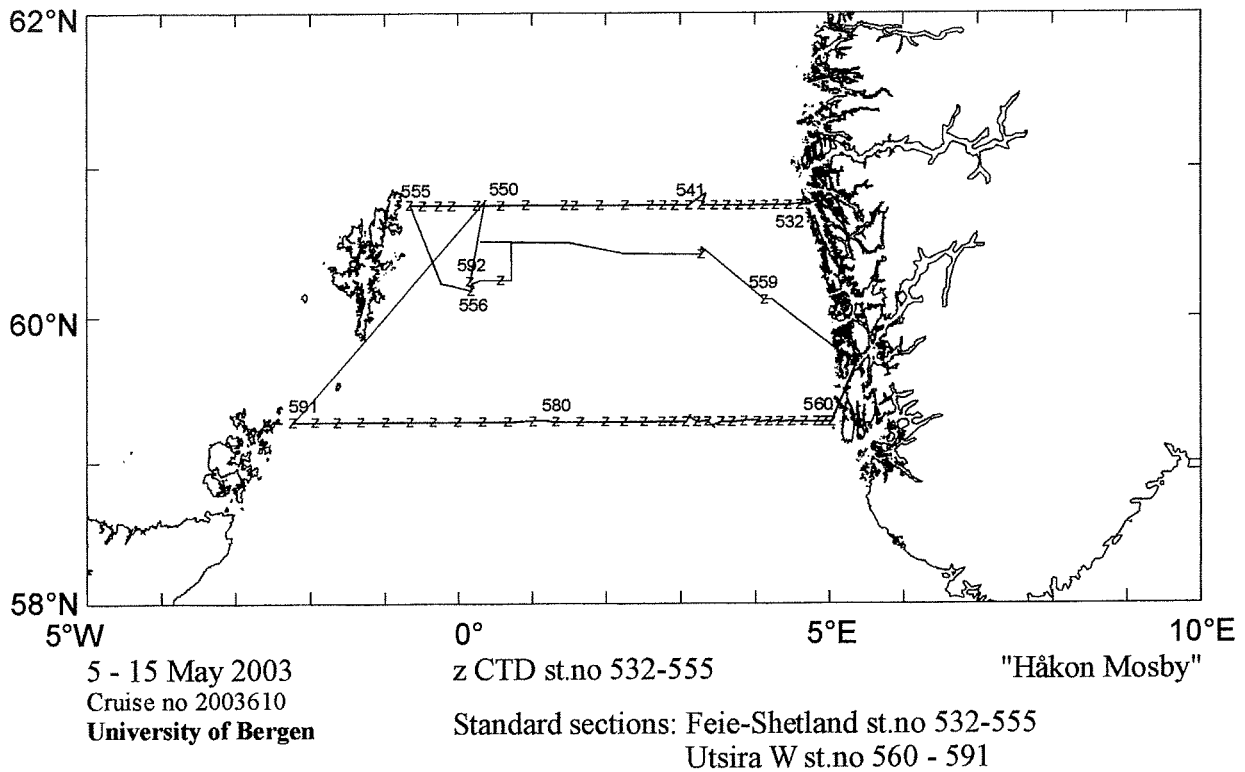
"Håkon Mosby"

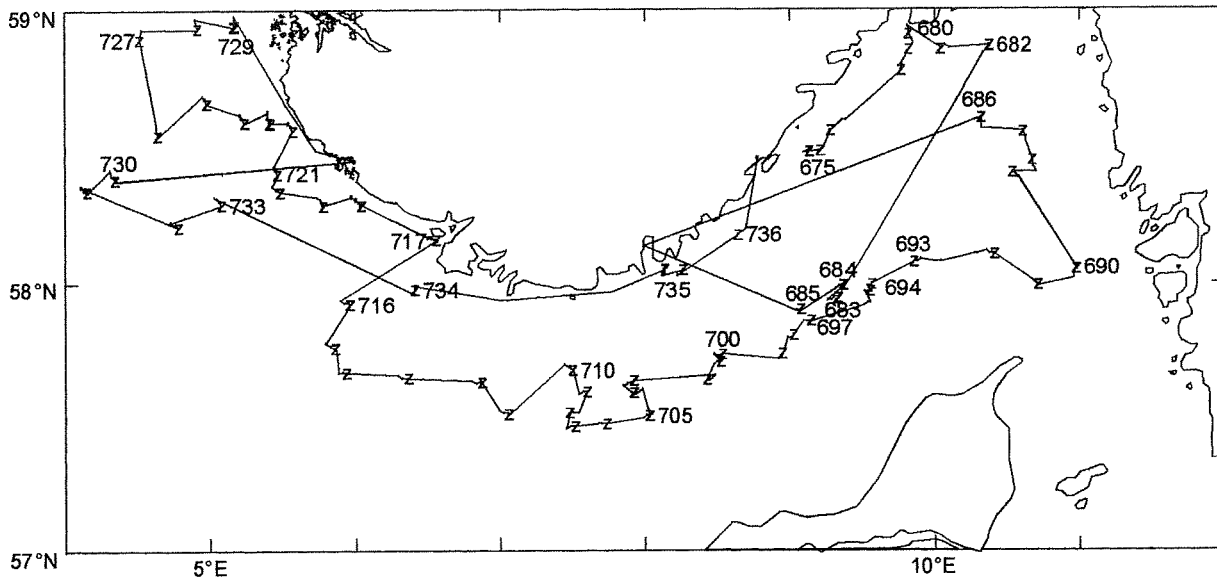


22 April - 4 May 2003
Cruise no 2003609

△ Pelagic trawl st.no 60-117

"Håkon Mosby"

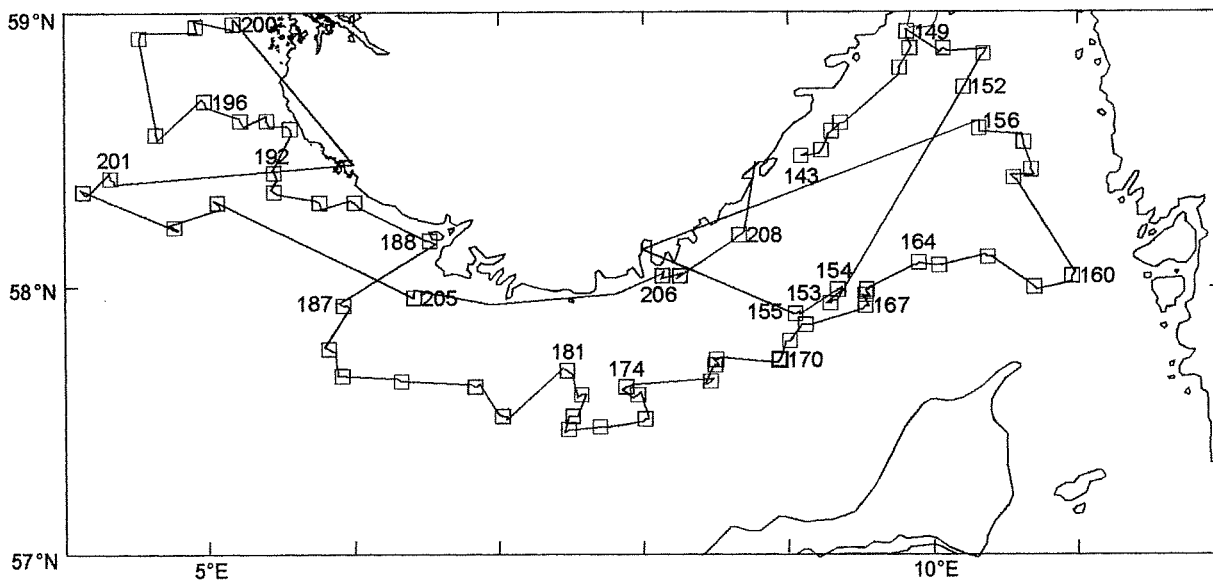




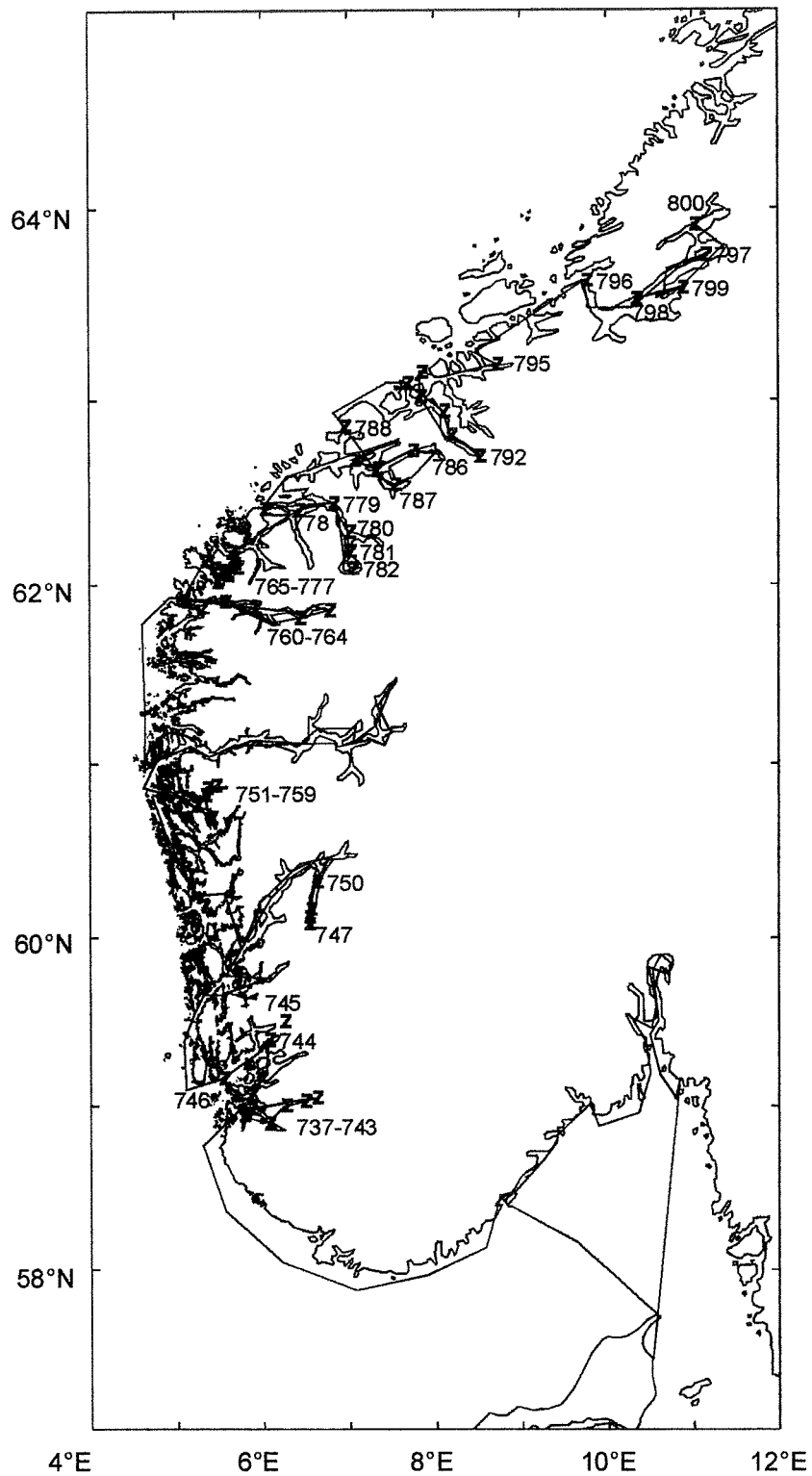
29 Oct - 13 Nov 2003
Cruise no 200316

z CTD st.no 675 - 736

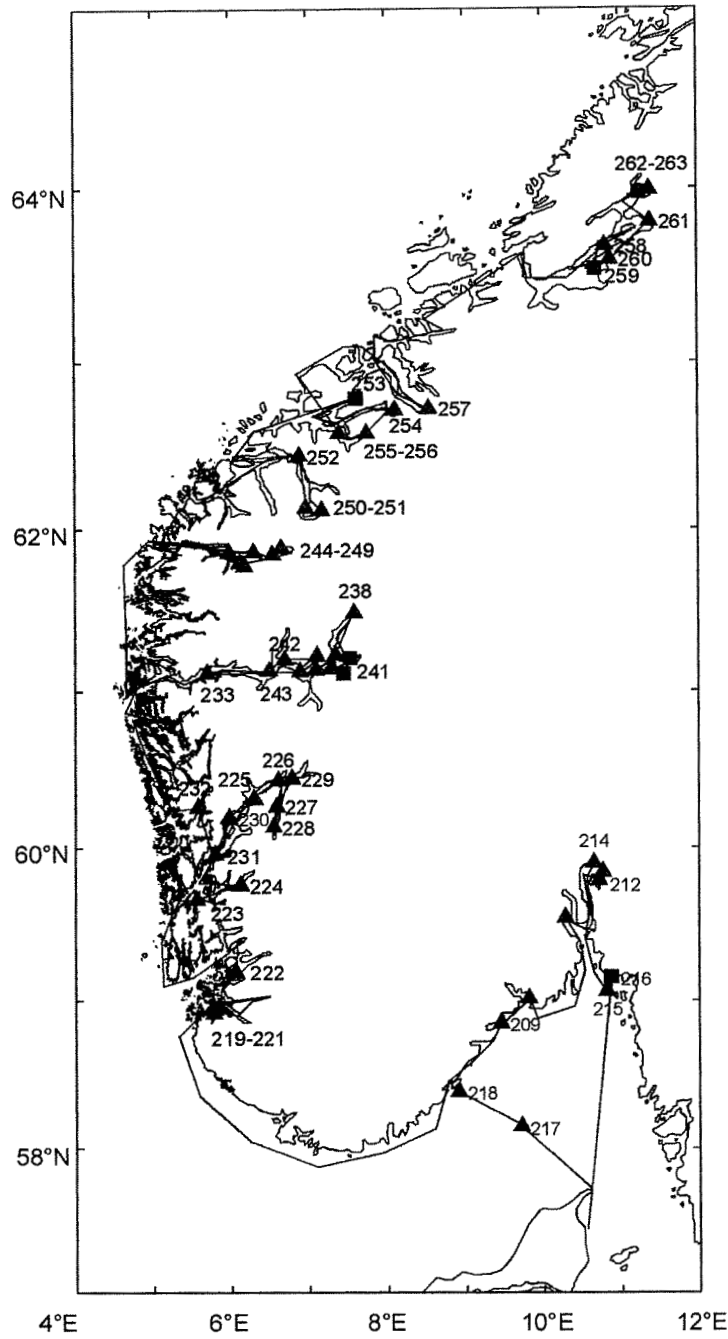
“Håkon Mosby”



□ Bottom trawl st.no 143-208

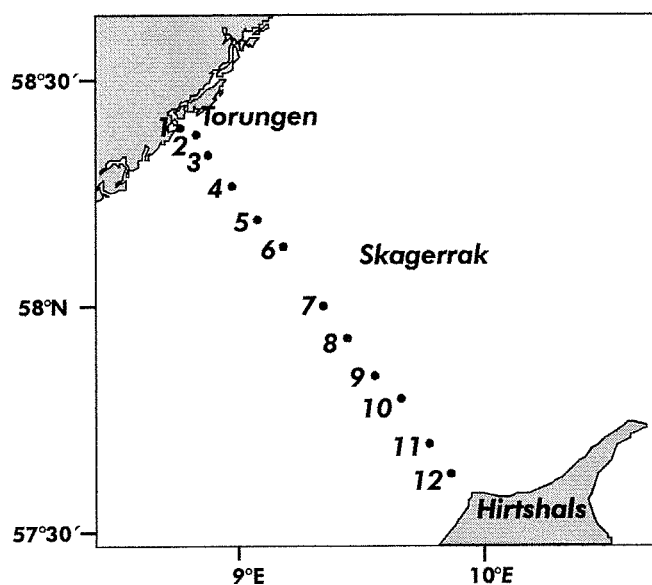


16 November - 10 December 2003 z CTD st.no 737 -800 "Håkon Mosby"
 Cruise no 2003617

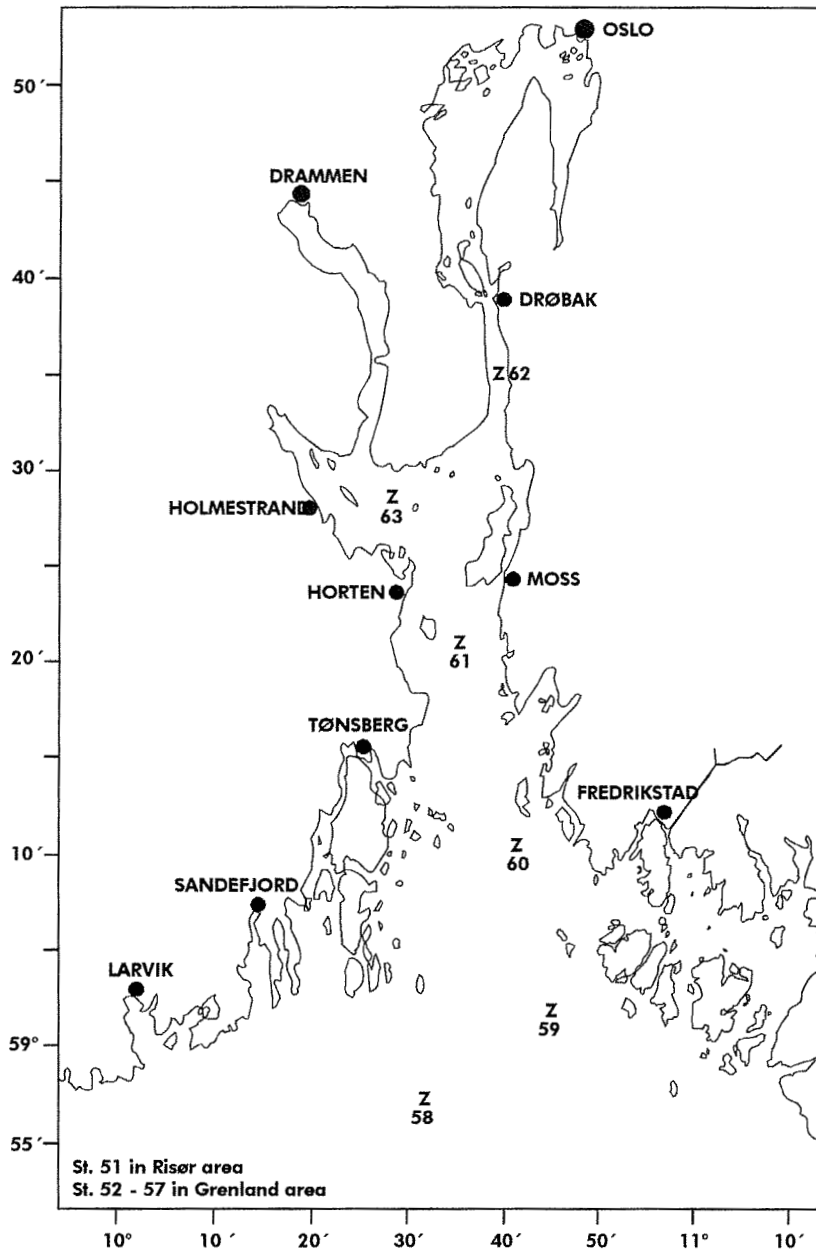


16 November - 10 December 2003 Trawl st.no 209-263 "Håkon Monby"
 Cruise no 2003617
 ▲ Pelagic trawl
 ■ Bottom trawl

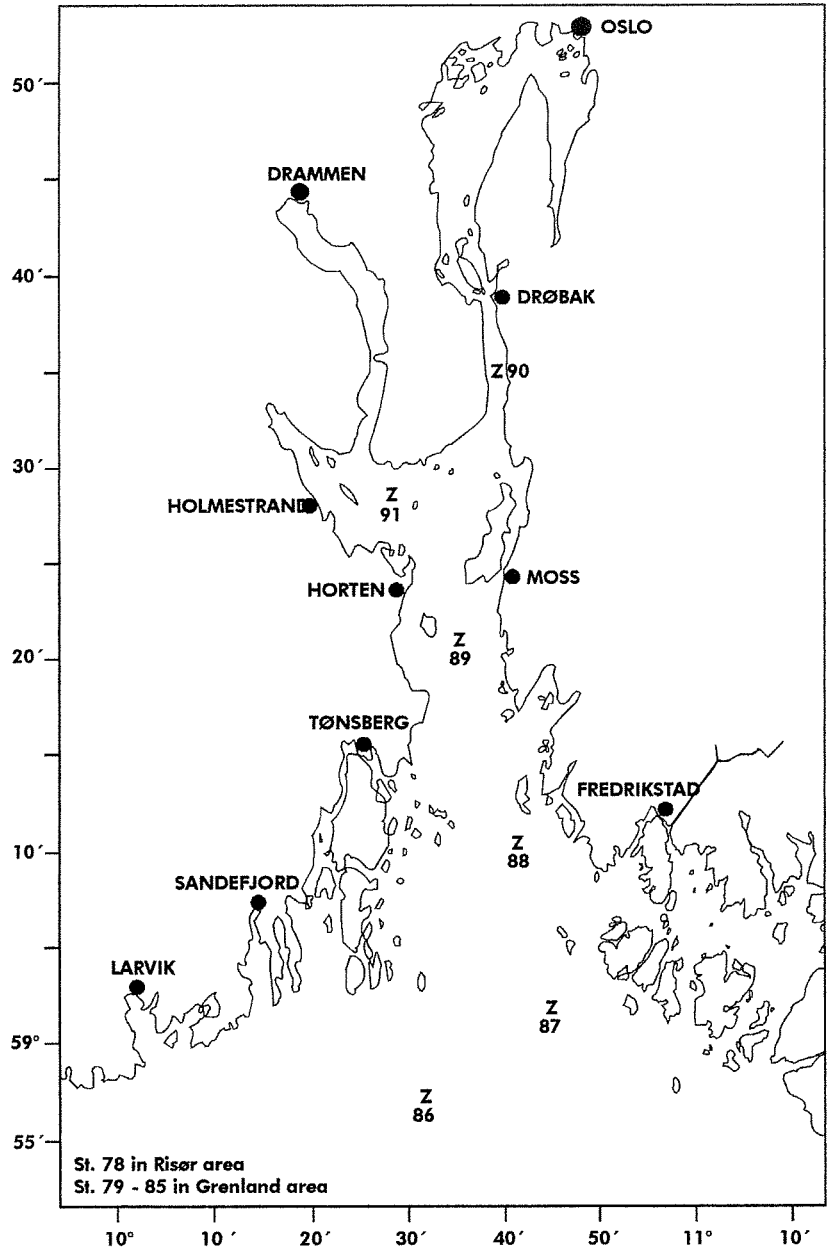
TORUNGEN - HIRTSHALS 2003



	CTD st. no
January	1 - 12
February	39 - 50
March	66 - 77
April	128 - 139
May	242 - 253
June	272 - 283
July	284 - 295
August	296 - 307
September	322 - 333
October	373 - 384
November	400 - 411
December	424 - 435

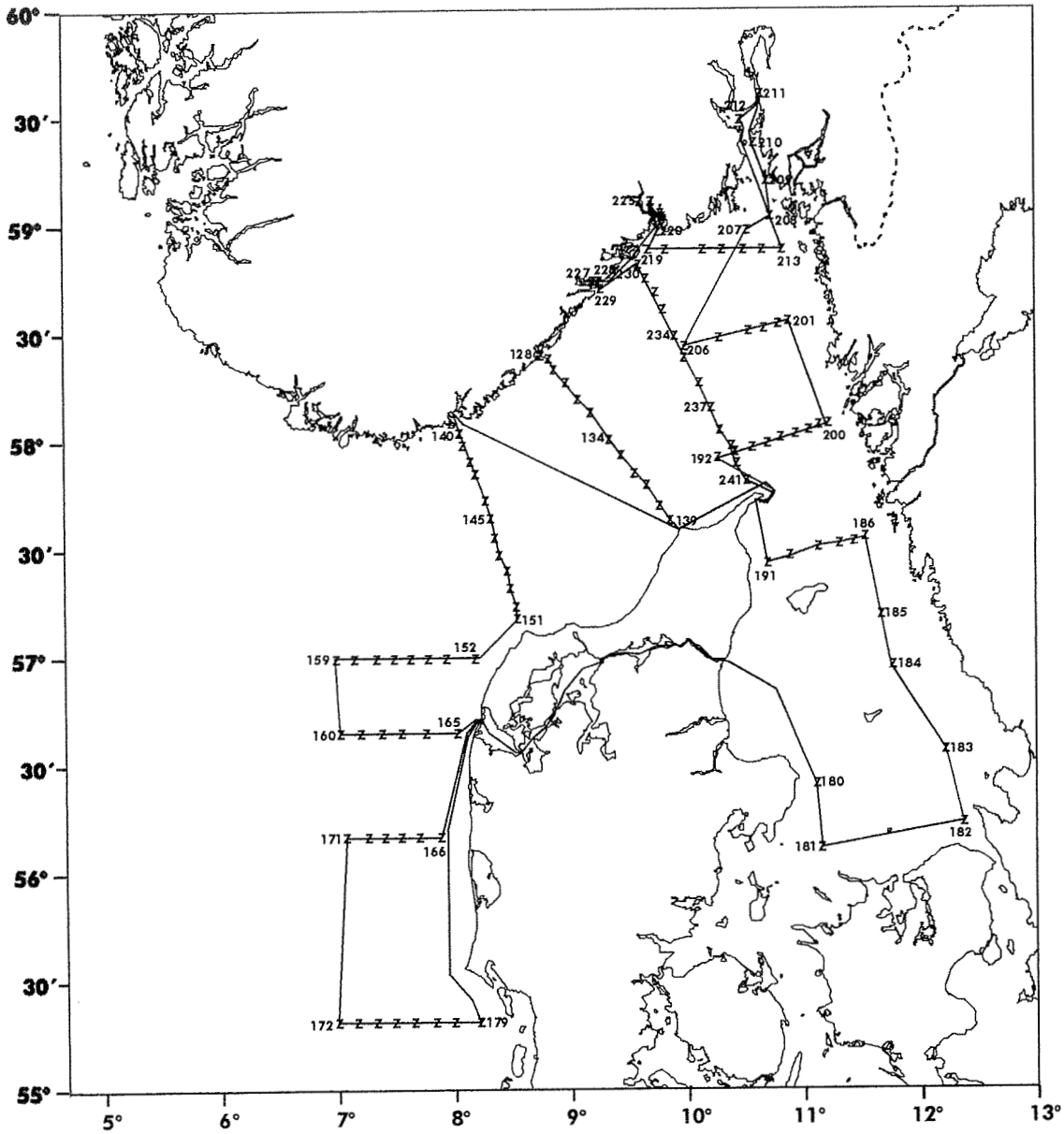


25 - 27 Februar 2003 z CTD st.no 51-63 "G. M. Dannevig"
 Criose no 2003338



19 - 21 March 2003
 Cruise no 2003313

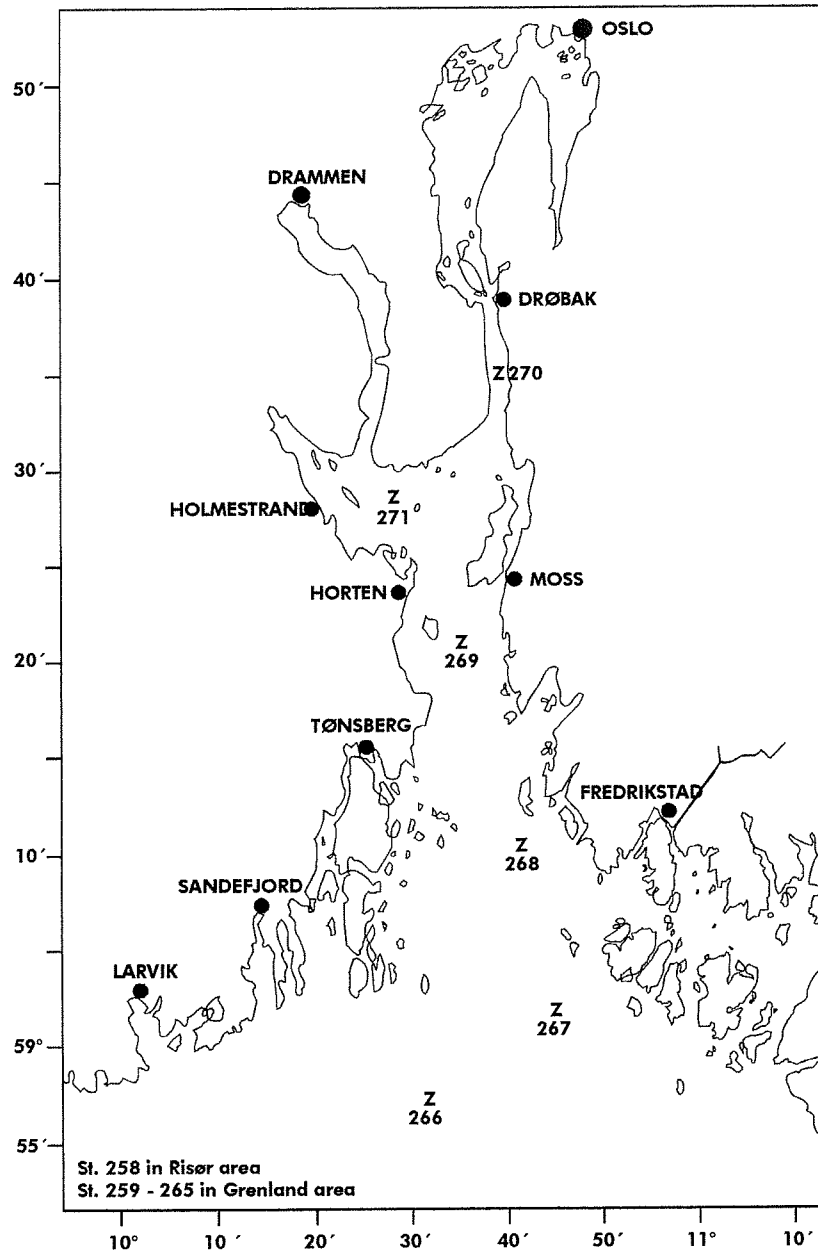
z CTD st.no 78-91 "G. M. Dannevig"



15 April - 5 May 2003
Cruise no 2003318

z CTD st.no 128-241

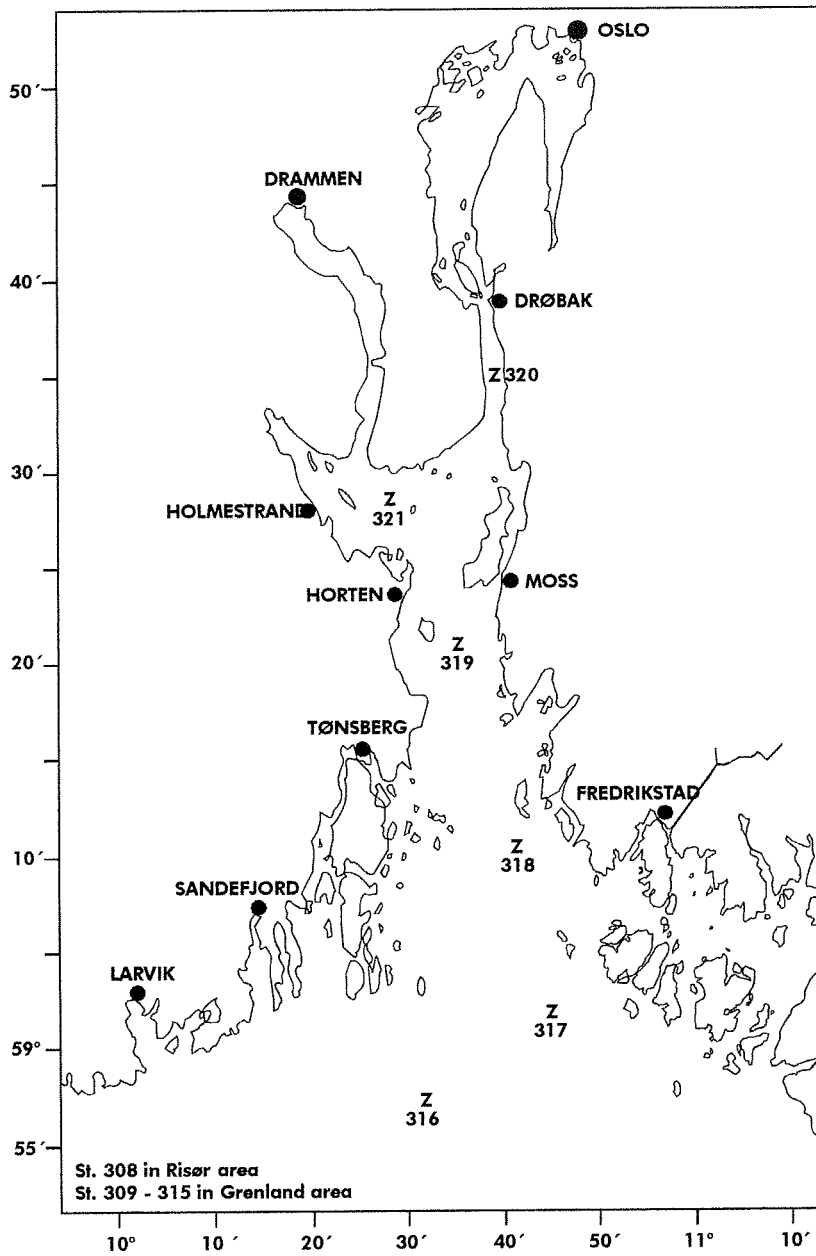
"G. M. Dannevig"



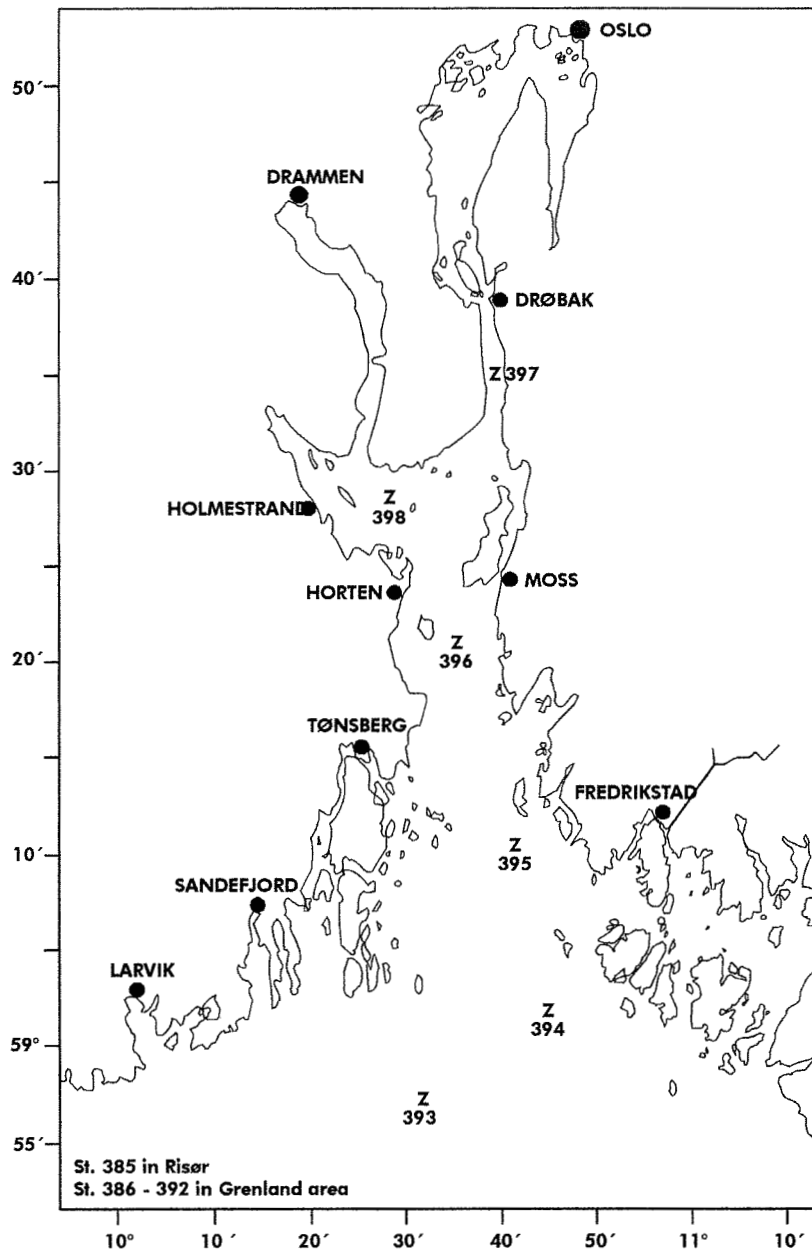
8 - 10 June 2003
Cruise no 2003326

z CTD st.no 258-271

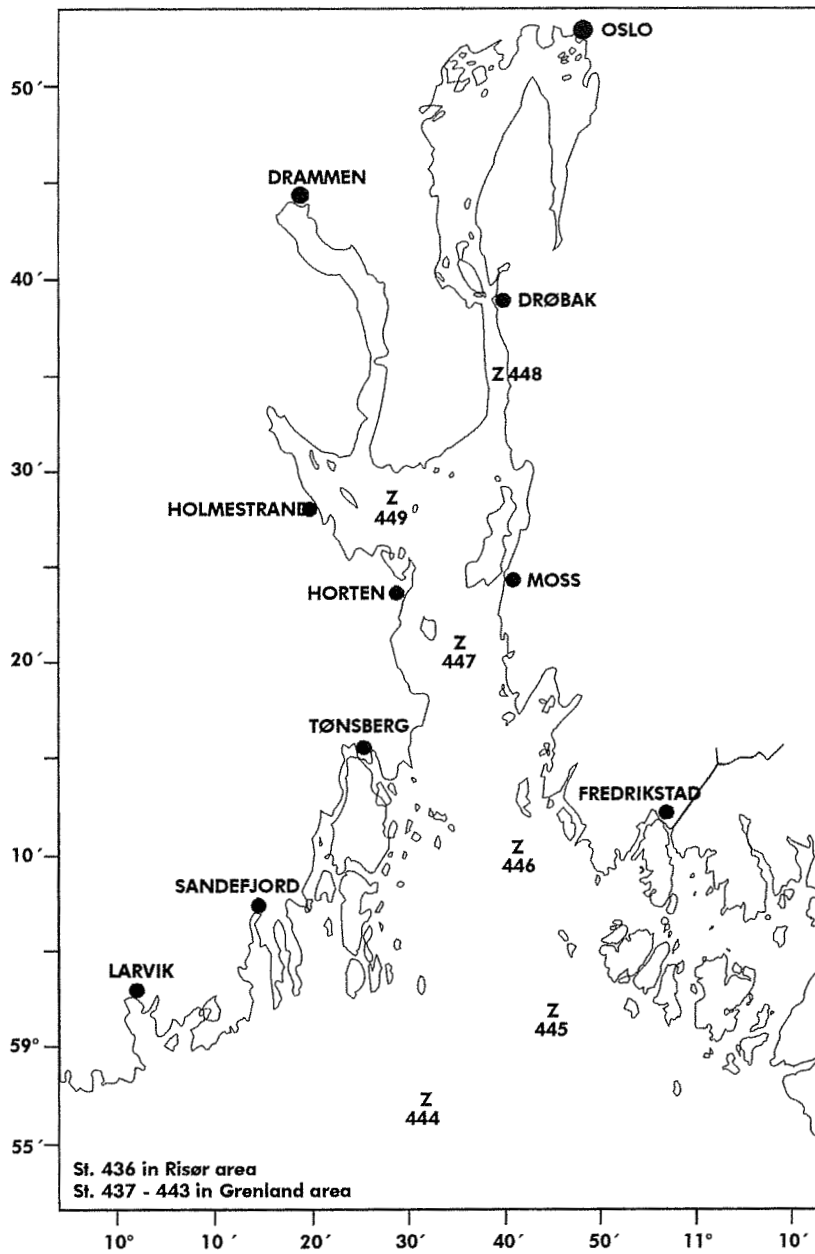
"G. M. Dannevig"



20 - 22 August 2003 z CTD st.no 308-321 "G. M. Dannevig"
 Cruise no 2003332



19 - 21 October 2003 z CTD st.no 385-398 "G. M. Dannevig"
 Cruise no 2003342



9 - 11 December 2003 z CTD st.no 436-449 "G. M. Dannevig"
 Cruise no 2003350