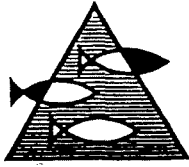


# PROSJEKTRAPPORT



ISSN 0071-5638

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Distribusjon:

ÅPEN

HI-prosjektnr.:

Oppdragsgiver(e):

Oppdragsgivers referanse:

Rapport:

FISKEN OG HAVET

NR. 2 - 1995

Tittel:

REPORT ON OCEANOGRAPHIC CRUISES  
AND DATA STATIONS 1994

Senter:

Marint miljø

Seksjon: Fysisk oseanografi  
og akustikk

Forfatter(e):

Red. Karen Gjertsen

Antall sider, vedlegg inkl.:

62

Dato:

17.01.1995

Sammendrag:

Rapporten gir en oversikt over Havforskningsinstituttets forskningsfartøy "G.O. Sars"; "Johan Hjort", "Michael Sars" og G.M. Dannevig's tokt i 1994.

For de fleste tokt vises kurskart med stasjoner som er tatt. Disse er også innrapportert til ICES sammen med Roscop skjema. Rapporten viser også en oversikt over faste snitt og faste stasjoner tatt i 1994.

Summary:

The present report shows the course tracks and stations occupied by R/V G.O. Sars, R/V Johan Hjort, R/V Michael Sars and R/V G.M. Dannevig during 1993. An overview of fixed stations sections are also given.

Emneord - norsk:

1. Kurskart

2. Stasjonskart

3.

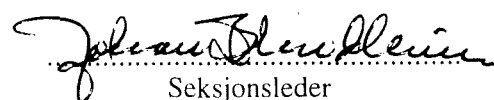
Emneord - engelsk:

1. Course track maps

2. Stations maps

3.

  
.....  
Prosjektleder

  
.....  
Seksjonsleder

1968 / 1304



	Page
CHART oceanographic stations and sections	1
STANDARD sections	2
STANDARD stations	3

### "G. O. SARS" 1994

(Ship no 15)

Cruise no		Period of cruises	Page of track chart
1	1994001	5 Jan - 27 Jan	4
2	1994002	1 Feb - 10 Mar	5,6
3	1994003	11 Mar - 7 Apr	7,8,9
4	1994004	15 Apr - 19 Apr	
5	1994005	19 Apr - 6 May	10
6	1994006	10 May - 28 May	11
7	1994007	30 May - 27 Jun	12
8	1994008	2 Jul - 21 Jul	13
9		17 Aug - 3 Oct	
	1994901	17 Aug - 8 Sep (Part I)	14,15
	1994903	9 Sep - 3 Oct (Part II)	16,17
10	1994904	10 Oct - 9 Nov	18
11	1994009	14 Nov - 13 Dec	19

### "JOHAN HJORT" 1994

(Ship no 12)

Cruise no		Period of cruises	Page of track chart
1	1994201	6 Jan - 17 Jan	20
2	1994901	21 Jan - 6 Mar	21,22
3	1994202	7 Mar - 17 Mar	
4	1994203	21 Mar - 16 Apr	23
5	1994902	18 Apr - 29 Apr	24
6	1994206	24 May - 6 Jun	25
7	1994207	6 Jun - 4 Jul	
		6 Jun - 29 Jun (Part I)	26
		30 Jun - 4 Jul (part II)	27
8	1994208	5 Jul - 22 Jul	28
9		23 Jul - 16 Aug	29
10	1994903	17 Aug - 5 Oct	
		17 Aug - 6 Sep (Part I)	30,31
		8 Sep - 5 Oct (Part II)	32,33
11	1994210	6 Oct - 27 Oct	34
12	1994211	28 Oct - 26 Nov	35
13	1994212	1 Dec - 15 Dec	36

#### Guidelines:

- z Vertical Oceanogr. st., CTD ST.
- Δ Pelagic trawl station
- Bottom trawl station
- Ⓢ CTD and PLANKTON st

## "MICHAEL SARS" 1994

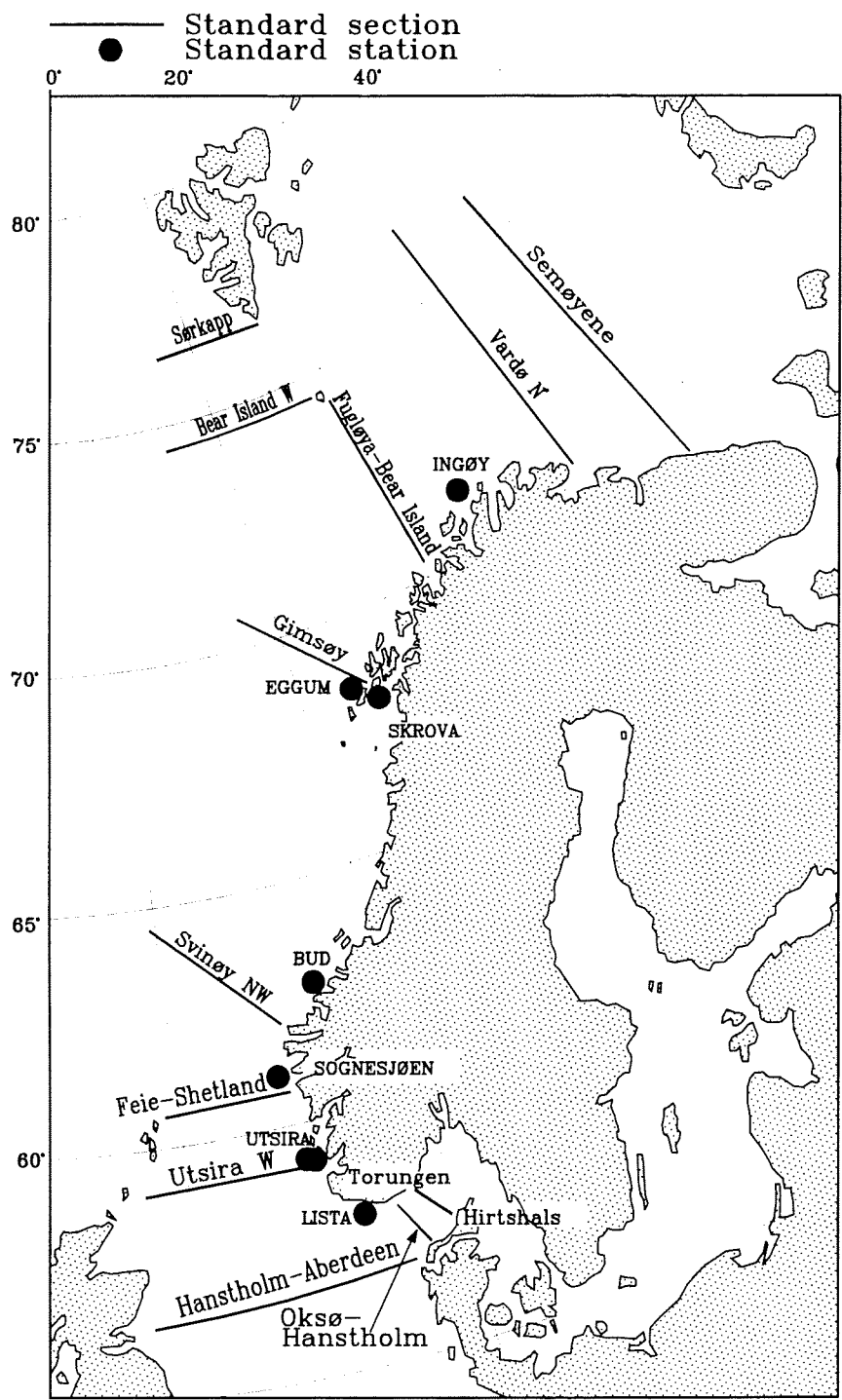
(Ship no 11)

Cruise no		Period of cruises	Page of track chart
1	1994100	15 Feb - 14 Mar	37
2	1994101	No research activities	
3	1994102	6 Apr - 22 Apr	38
4	1994103	No research activities	
5	1994104	16 May - 3 Jun	39
6	1994106	6 Jul - 14 Jun	
7	1994107	22 Jul - 16 Jul	40
8	1994108	16 Jul - 15 Aug	41
9		15 Aug - 19 Sep	
	1994903	15 Aug - 20 Aug	42
	1994109	20 Aug - 19 Sep	42
10	1994110	21 Sep - 19 Oct:	
		Norw. Inst. of Fish. and Aquaculture	
11	1994111	21 Sep - 19 Oct	43
12	1994112	10 Nov - 13 Dec	44, 45

## "G. M. DANNEVIG" 1994


(Ship no 16)

Cruise no		Period of cruises	Page of track chart
		Torungen - Hirtshals	46
		St Arendal 2 and 3	47
1		17 Jan - 18 Jan	46
2		25 Jan - 26 Jan	48
4, Part I		7 Feb - 26 Feb	
3		15 Feb - 16 Feb	46
5		16 Mar	
		19 Mar - 20 Mar	46
6		22 Mar - 28 Mar	49
7		5 Apr - 7 Apr	50
8		13 Apr - 14 Apr	46
9		13 Apr - 29 Apr	51
4, part II		2 May - 7 May	52
11		18 May - 19 May	46
10		24 May - 26 May	53
17		6 Jun - 11 Jun	
4, part III		13 Jun - 14 Jun	54
13		16 Jun - 18 Jun	55
12		20 Jun - 21 Jun	46
14		28 Jun - 5 Jul	56
15		12 Jul - 13 Jul	46
18		9 Aug - 12 Aug	57
19		23 Aug - 24 Aug	46
26, part I		31 Aug - 3 Sep	58
20		7 Sep - 9 Sep	
21		14 Sep - 1 Oct	59
22		4 Oct - 5 Oct	46
26, part II		10 Oct - 14 Oct	60
23		17 Oct - 19 Oct	
24		1 Nov - 2 Nov	46
25		7 Nov - 8 Nov	
26, part III		21 Nov - 26 Nov	61, 62
27		9 Dec - 10 Dec	46
26, part IV		12 Dec - 16 Dec	



**STANDARD  
SECTIONS**

**Cruise no/ship**

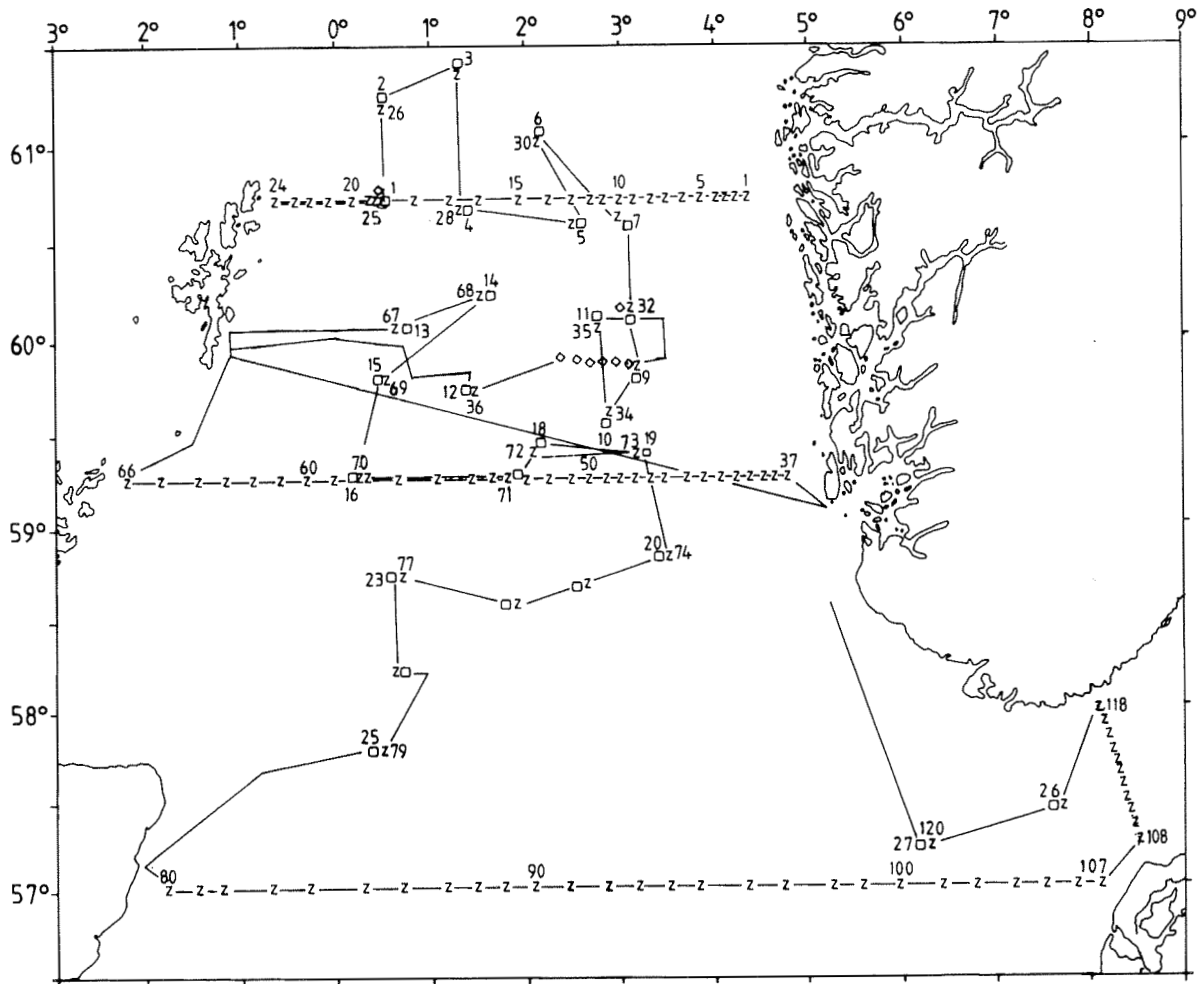
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
(Date/Ship) 	<b>G.M.Dannevig :</b>											
Torungen - Hirtshals	17-18.1.	15-16.2	19-20.3	13-14.4	18-19.5	20-21.6	12-13.7	23-24.8		4-5.10	1.11	9.12
Oksø - Hanstholm	1/G.O.Sars						8/G.O.Sars				10/G.O.Sars	11/G.O.Sars
Hanstholm - Aberdeen	1/G.O.Sars						8/G.O.Sars				10/G.O.Sars	11/G.O.Sars
Utsira West	1/G.O.Sars				6/G.O.Sars					10/G.O.Sars	11/G.O.Sars	
Feie - Shetland	1/G.O.Sars						8/G.O.Sars			10/G.O.Sars	11/G.O.Sars	
Svinøy - North/west				5/J.Hjort		7/G.O.Sars		9/J.Hjort		12/J.Hjort		
Gimsøy - North/West			3/G. O. Sars									
Sørkapp								10/J.Hjort				
Fugløya - Bear Island	2/J.Hjort		2/G.O.Sars	3/M. Sars			7/J.Hjort	10/J.Hjort		9/G.O.Sars		
Bear Island - West												
Vardø - North	2/J.Hjort		2/J.Hjort			7/J.Hjort		9/G.O.Sars				
Sem. Island - North		2/J.Hjort						10/J.Hjort				

1994

No of observations

**STANDARD  
STATIONS**

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	TOTAL
<b>LISTA</b>													
N58 01 E06 32	3	3	3	3	3	3	3	4	3	2	3	3	36
<b>UTSIRA Y</b>													
N59 19 E04 44	3	3	3	3	3	3	3	3	3	3	3	3	36
<b>UTSIRA I</b>													
N59 19 E04 59	3	3	3	3	3	3	3	3	3	3	3	3	36
<b>SOGNESJØEN</b>													
N61 01 E04 50	3	3	4	3	4	4	3	4	4	4	4	3	43
<b>BUD</b>													
N62 56 E 06 47	2	3	2	2	2	1	2	2	2	2	1	2	23
<b>SKROVA</b>													
N68 07 E14 39	4	4	8	7	4	5	4	4	4	5	2	4	55
<b>EGGUM</b>													
N 68 23 E13 38	3	3	3	4	3	3	2	3	3	2	4	3	36
<b>INGØY</b>													
N71 08 E 24 01	3	4	4	4	2	3	4		2	3	4	4	37



5 - 27 Jan 1994

z CTD St. no. 1 - 120

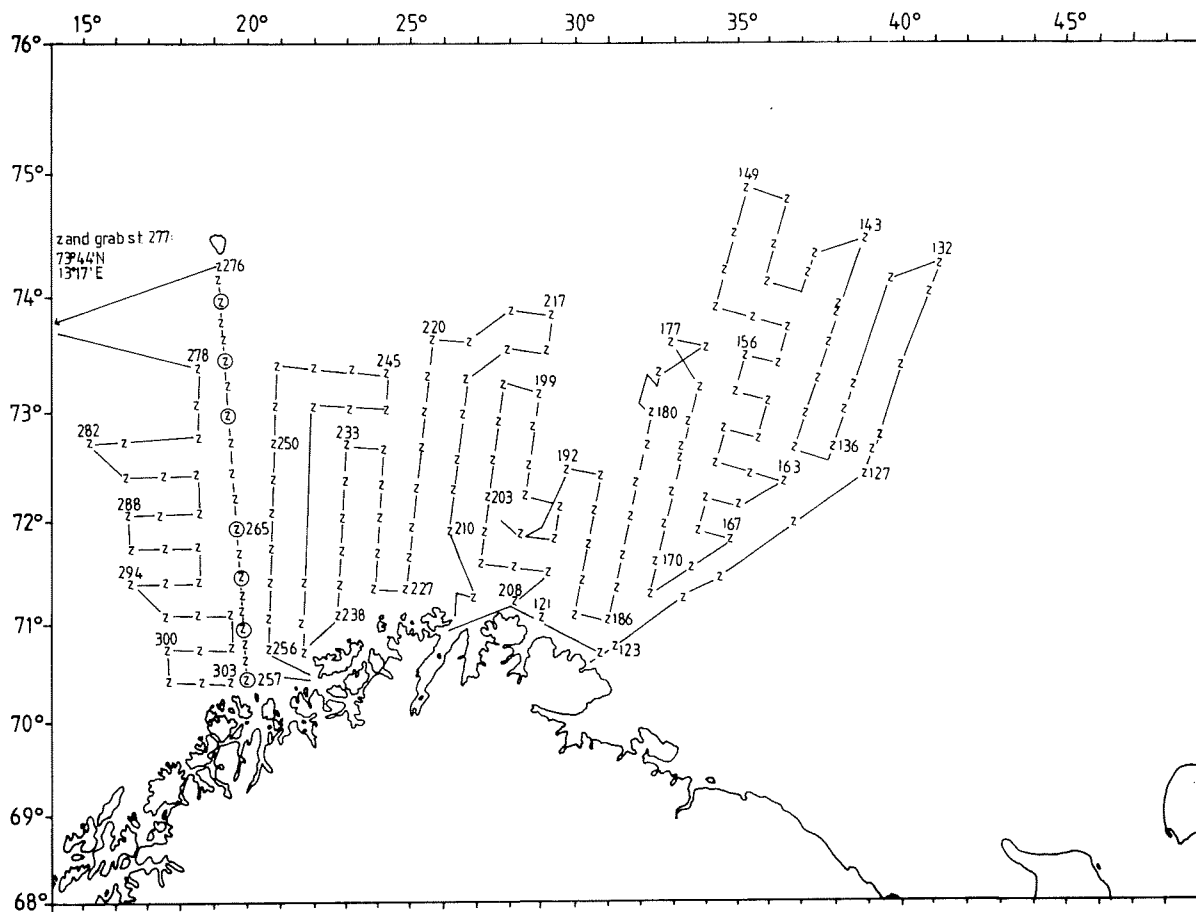
"G. O. Sars"

□ TRAWL St. no. 1 - 27 (Bottom tr.)

◇ PLANKTON St.

Standard sections: Feie- Shetland : st.no 1 - 24  
 Utsira - Start Point : st.no 37 -66  
 Hanstholm - Aberdeen: st.no 80 - 107  
 Oksø - Hanstholm: st.no 108 - 118





1 Feb - 10 Mar 1994

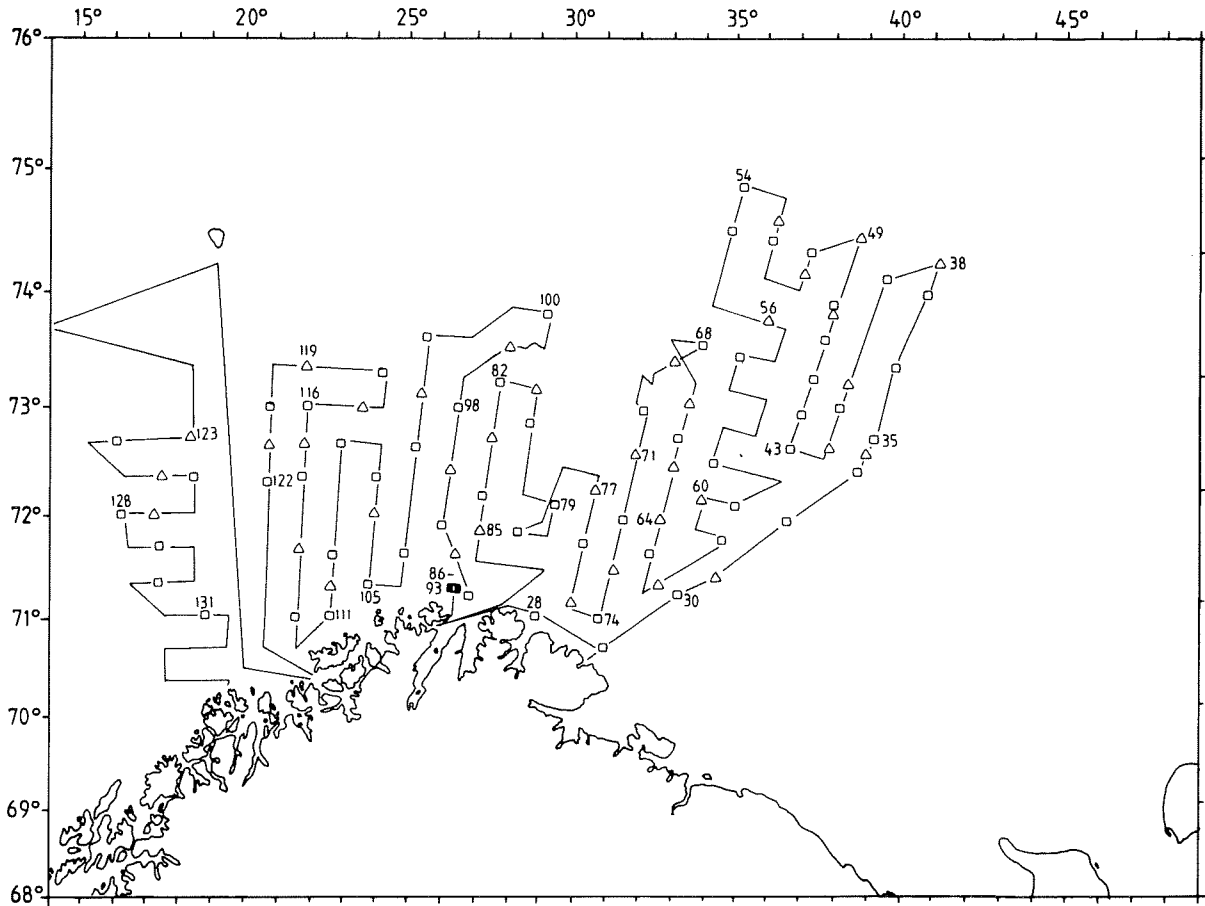
z CTD st.no. 121 - 303

"G. O. Sars"

Ⓢ CTD and PLANKTON st.

Standard section:

Fugløya- Bear Island: st.no 257 - 276



1 Feb - 10 Mar 1994

TRAWL St. no. 28 - 131

"G.O. Sars"

□ Bottom tr.    △ Pel tr.

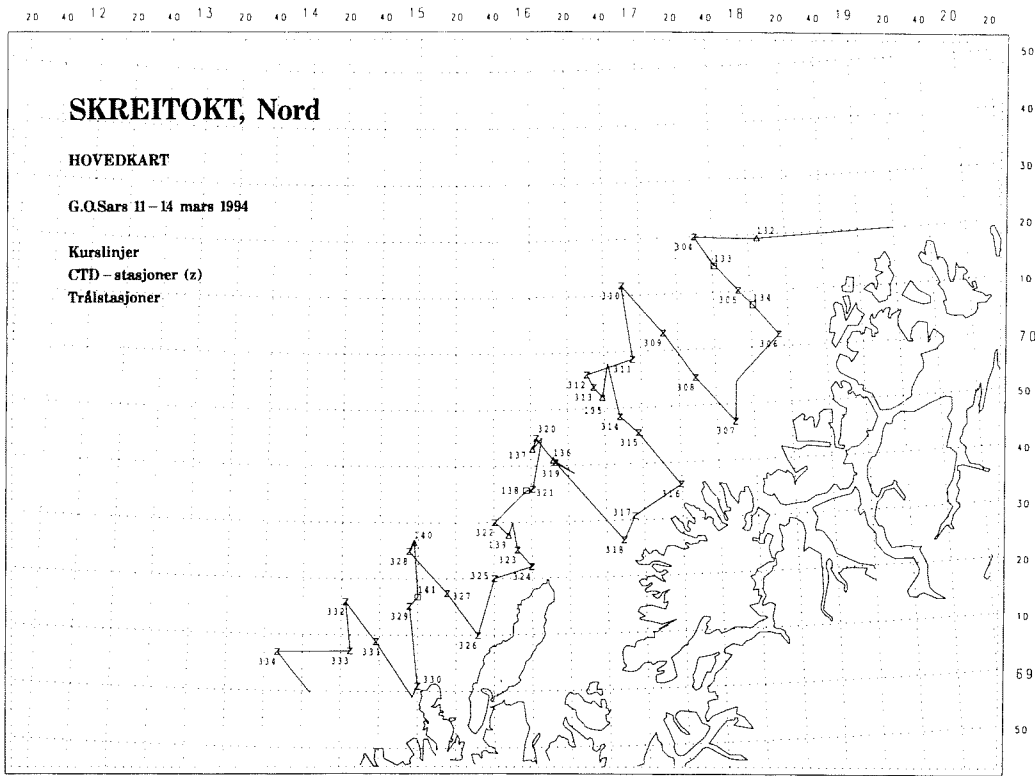
11 Mar - 7 Apr 1994

z CTD St.no. 304 - 569

△○ TRAWL St.no. 132 - 175

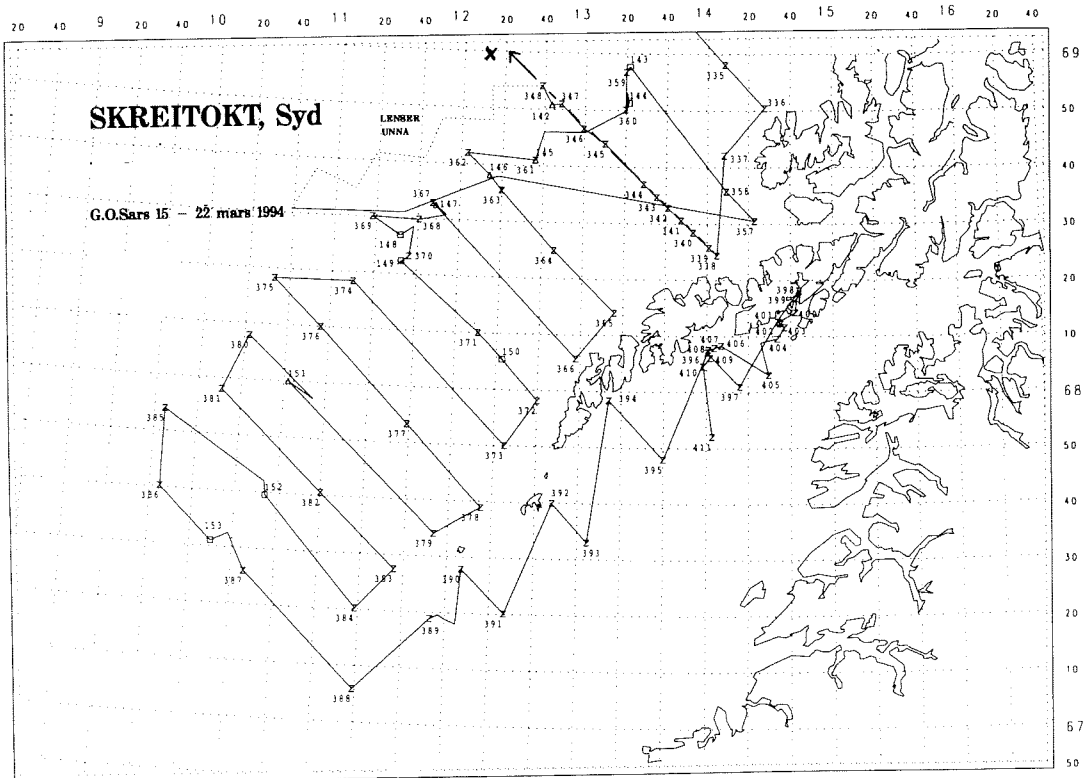
○ Bottom tr. △ Pel tr.

Plankton samples taken at almost every ctd st.



z CTD St.no. 304 - 334

△○ TRAWL St no. 132 - 141

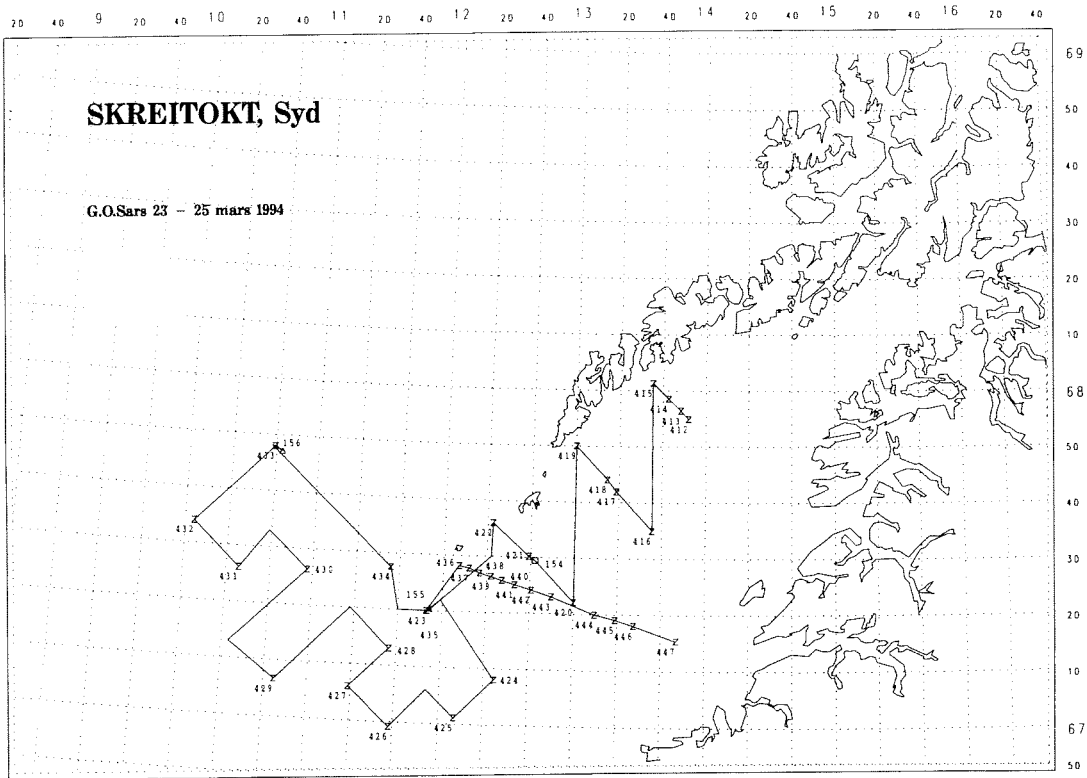


z CTD St.no. 335 - 411

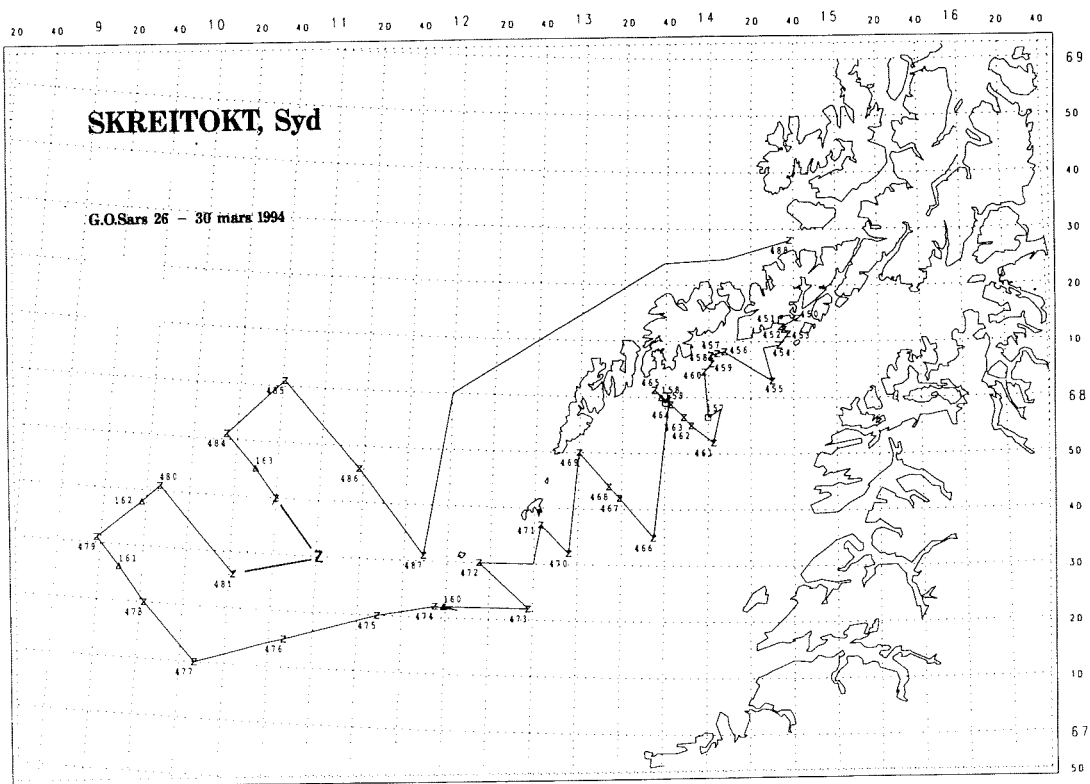
△○ TRAWL St.no. 142 - 153

Standard section:

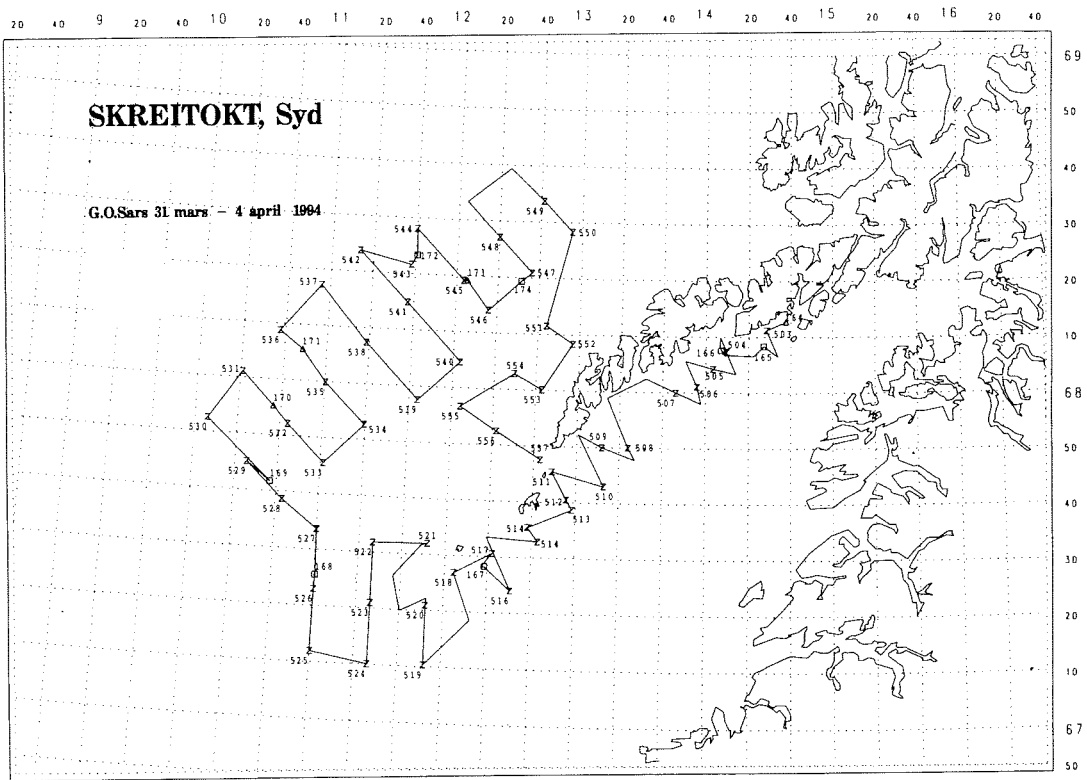
Gimsøy: St.no 338 - 356



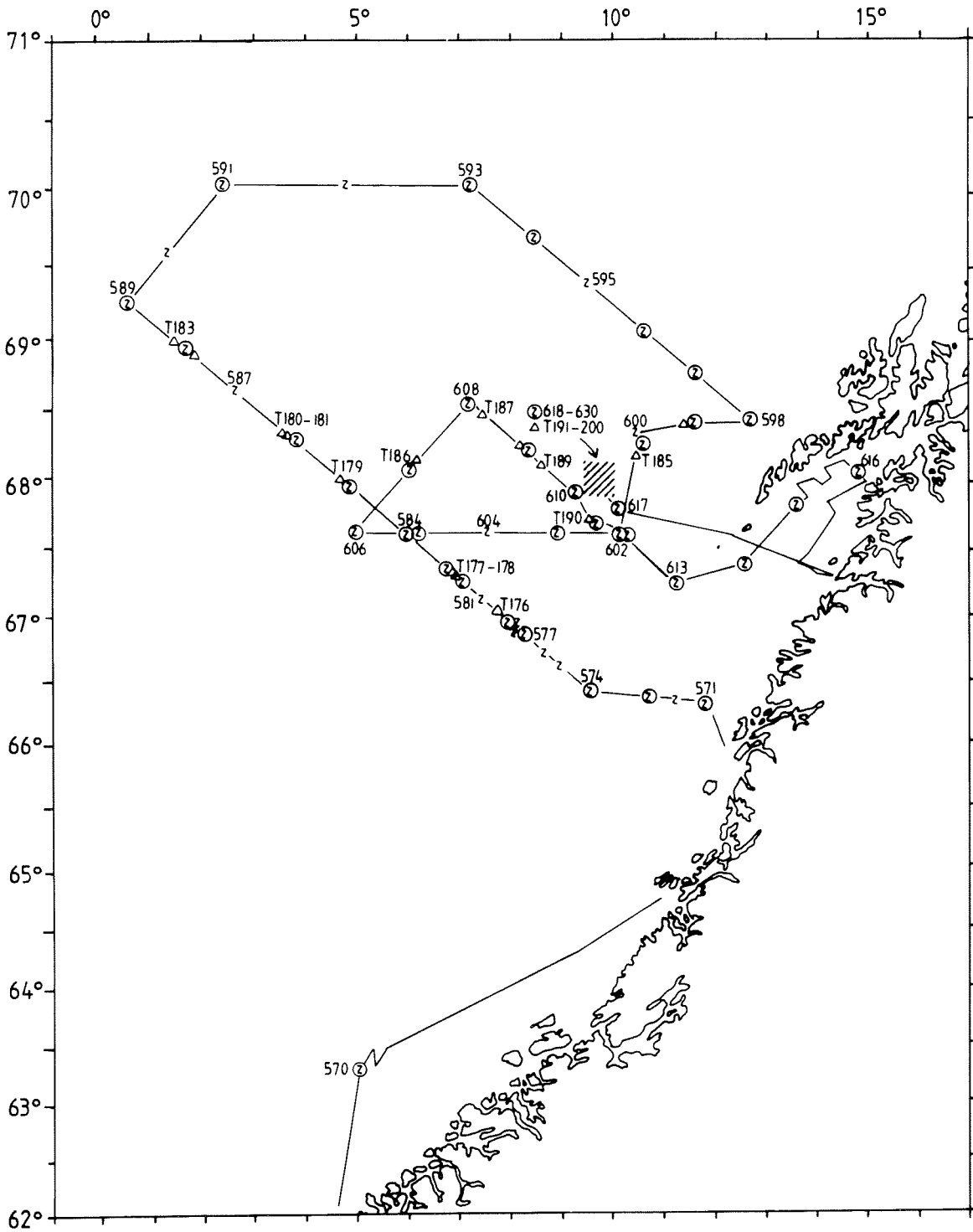
z CTD St.no. 412 - 447  
 □△ TRAWL St.no. 154 - 156



z CTD St.no. 450 - 488  
 □△ TRAWL St.no. 157 - 163



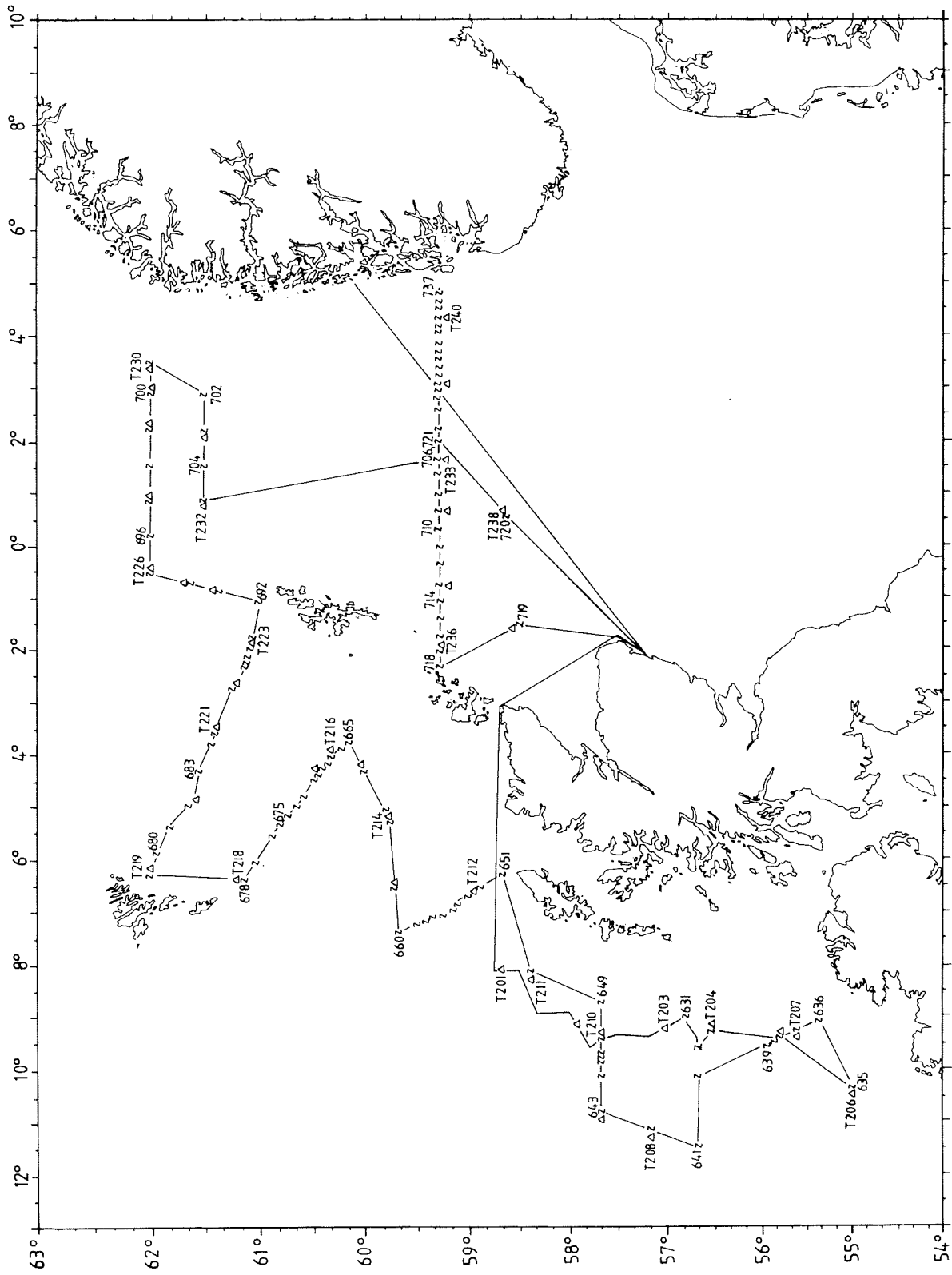
z CTD St.no. 503 - 557  
 □△TRAWL St.no. 164 - 174



19 Apr - 6 May 1994

z CTD st. no 570 - 630  
 Ⓣ CTD and PLANKTON st.  
 △ PEL. TRAWL st. no 176 - 200

"G.O. Sars"



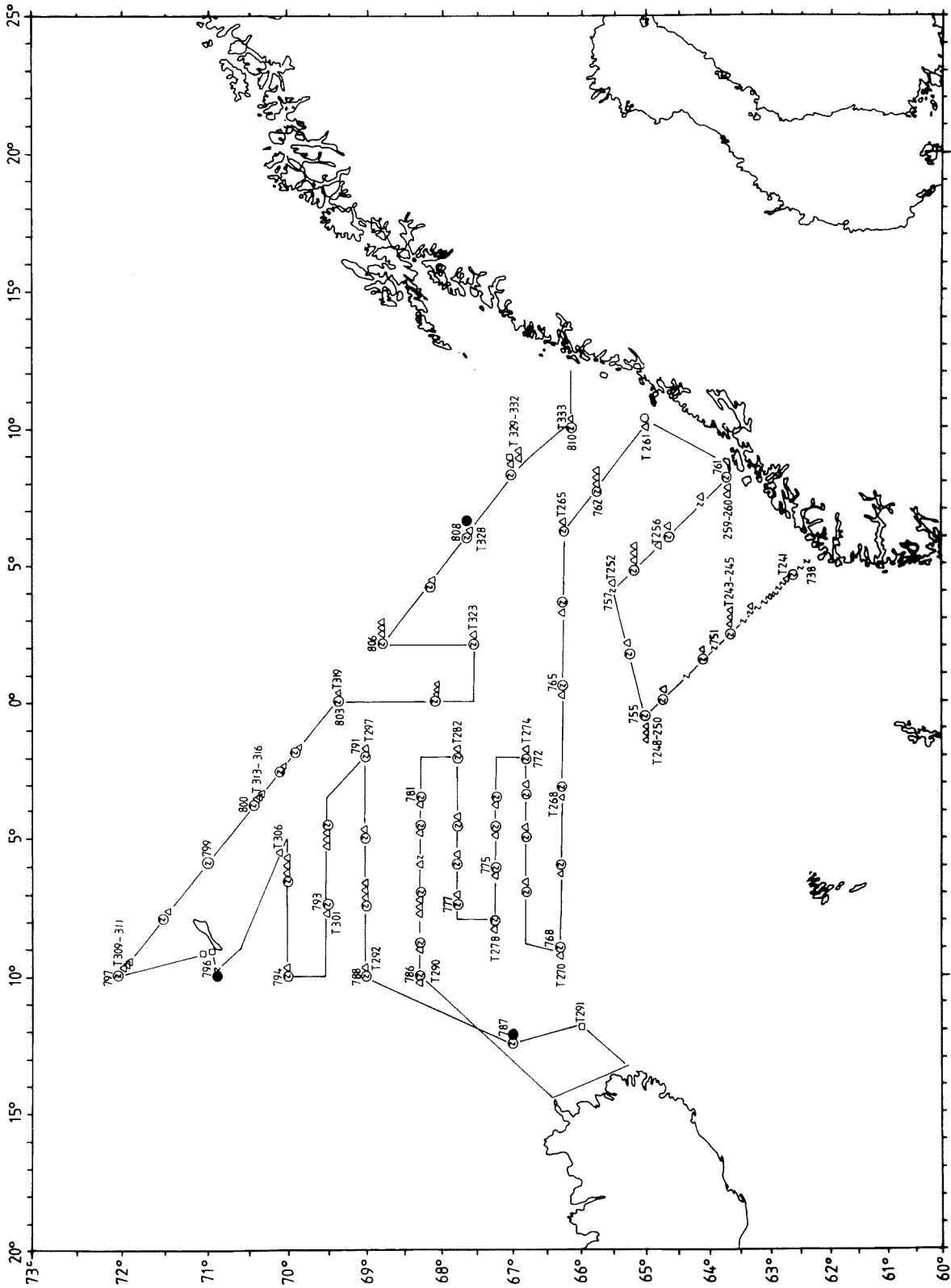
"G.O. Sars"

z CTD St.no. 631 - 737

Δ TRAWL St.no. 201 - 240

Standard section: Utsira: st. no 706-718, 721-737

10 - 28 May 1994



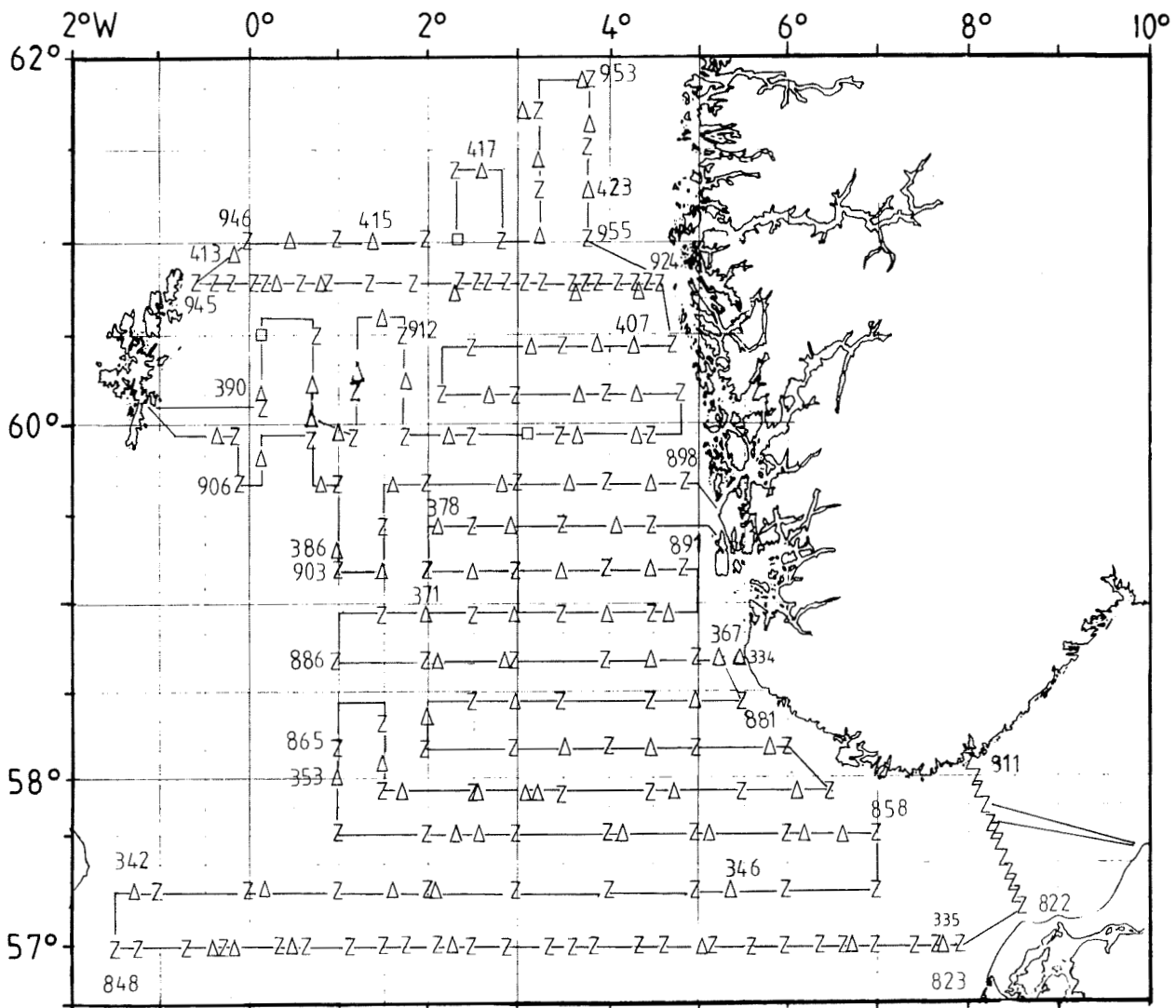
"G.O. Sars"

- Z CTD St.no. 738 - 810
- ⊙ CTD and PLANKTON st.
- Δ TRAWL St.no. 241 - 333
- (Pel tr., ⊙ Bottom tr.)
- Grab st.

Standard section: Svinøy : st. no 738 - 755

30 May - 27 Jun 1994





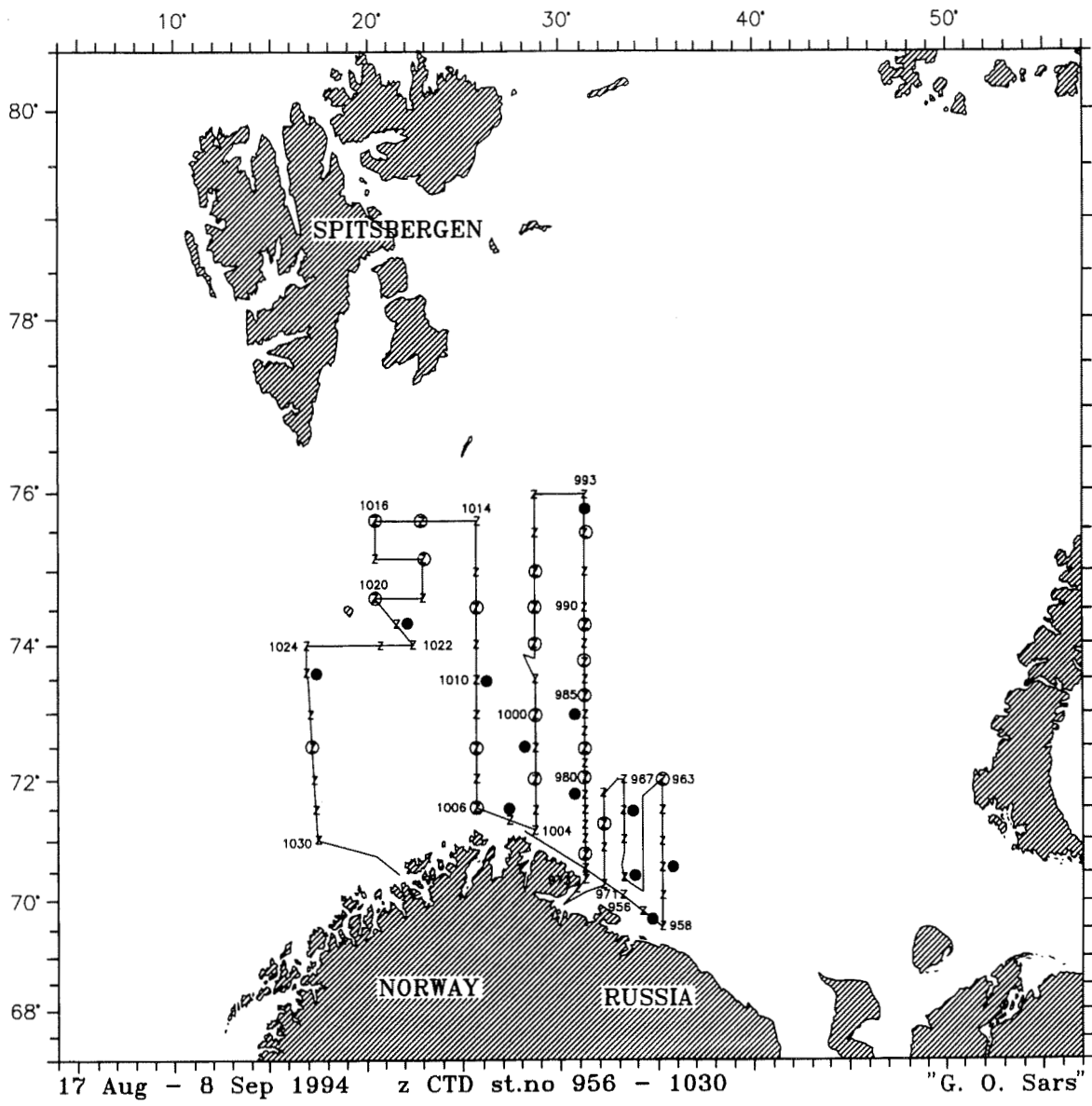
2 - 21 Jul 1994

z CTD st.no 811 - 955  
 Δ Pel. TRAWL st.no 334 - 423

"G.O.Sars"

Standard sections:

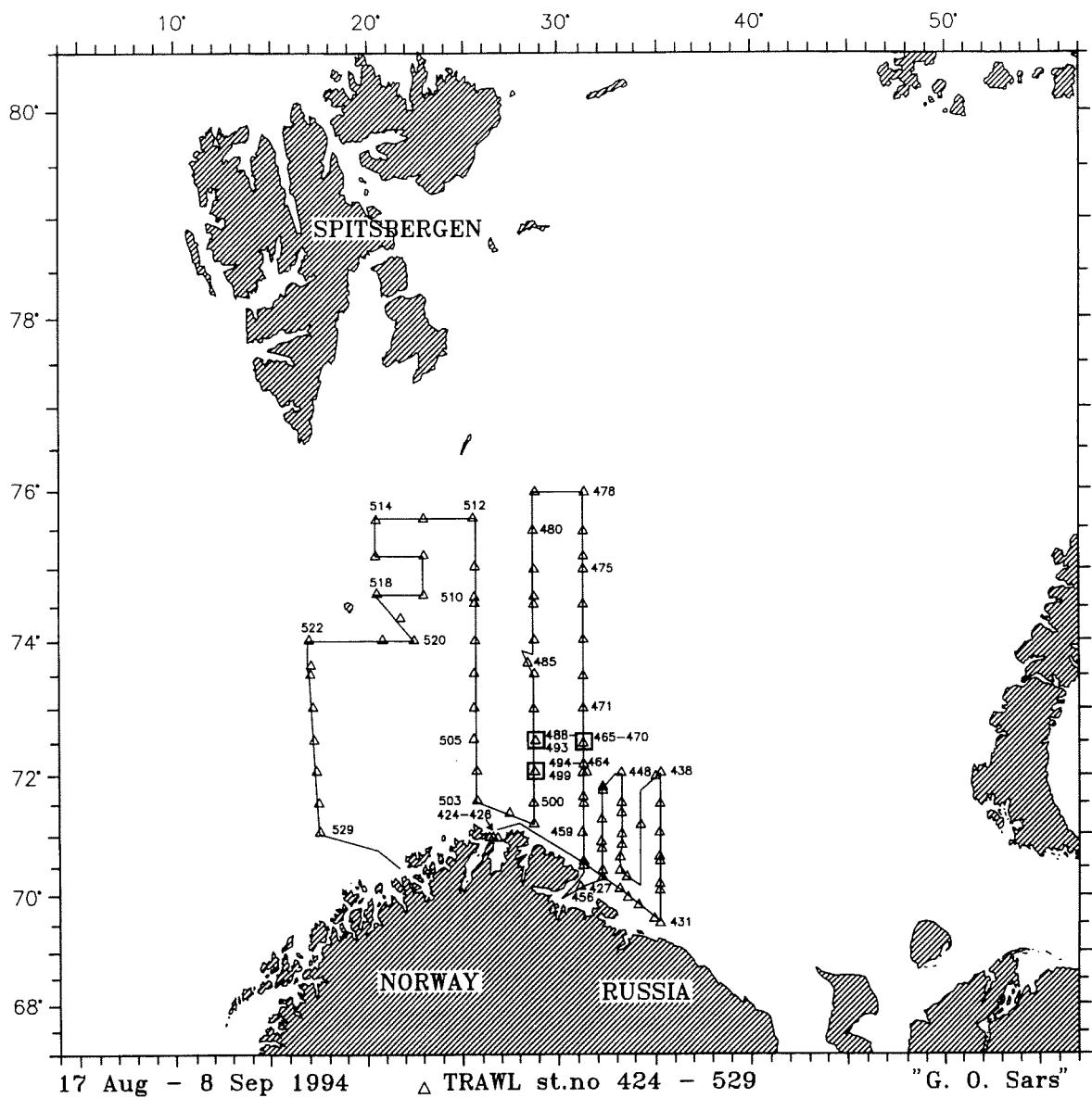
- Okse - Hanstholm : st.no 811 - 822
- Hanstholm - Aberdeen: st.no 823 - 848
- Feie - Shetland: st.no 924 - 945

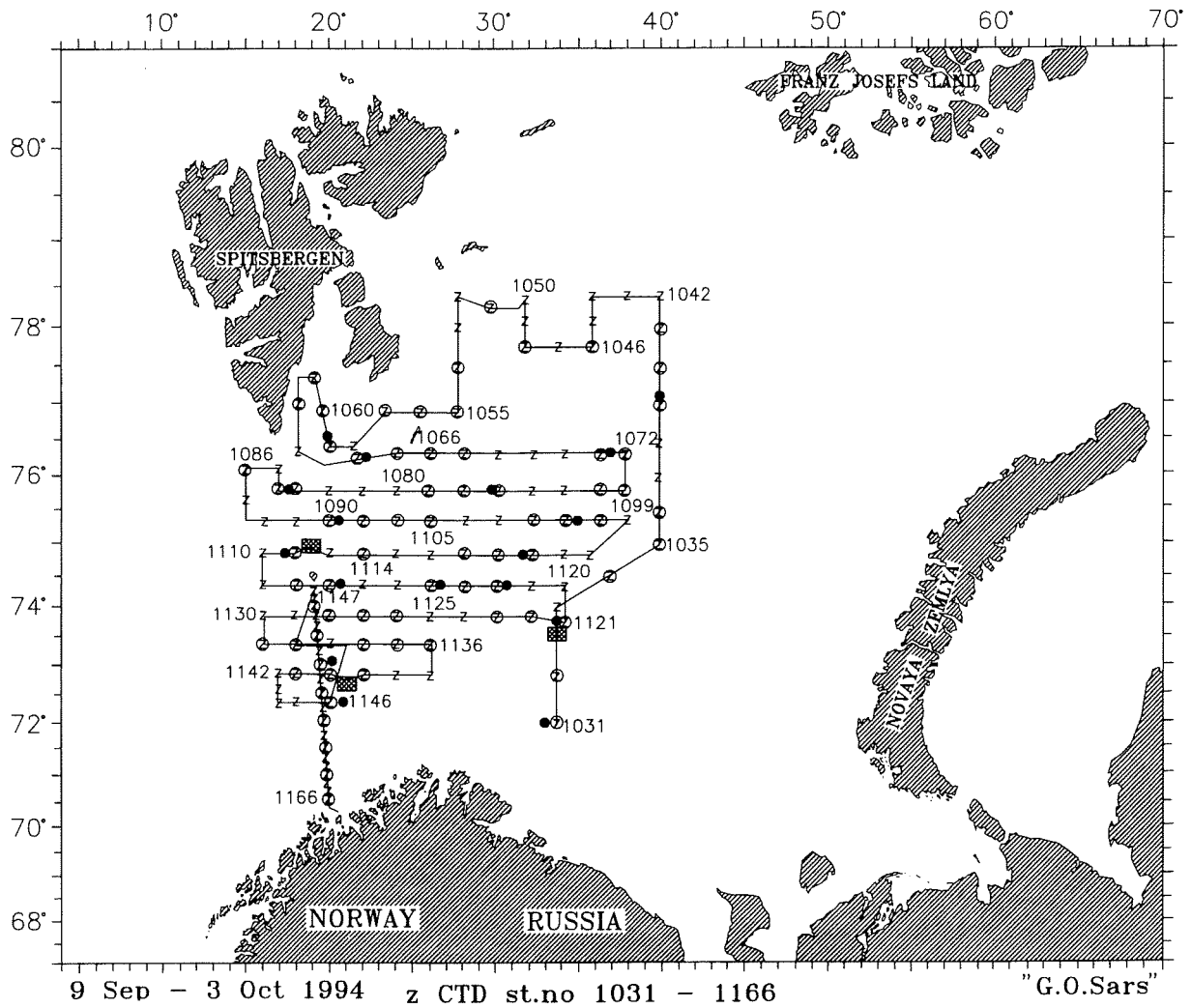


○ CTD and PLANKTON St.

● MOCNESS St.

Standard section: Vardø N: St.no 973 - 993



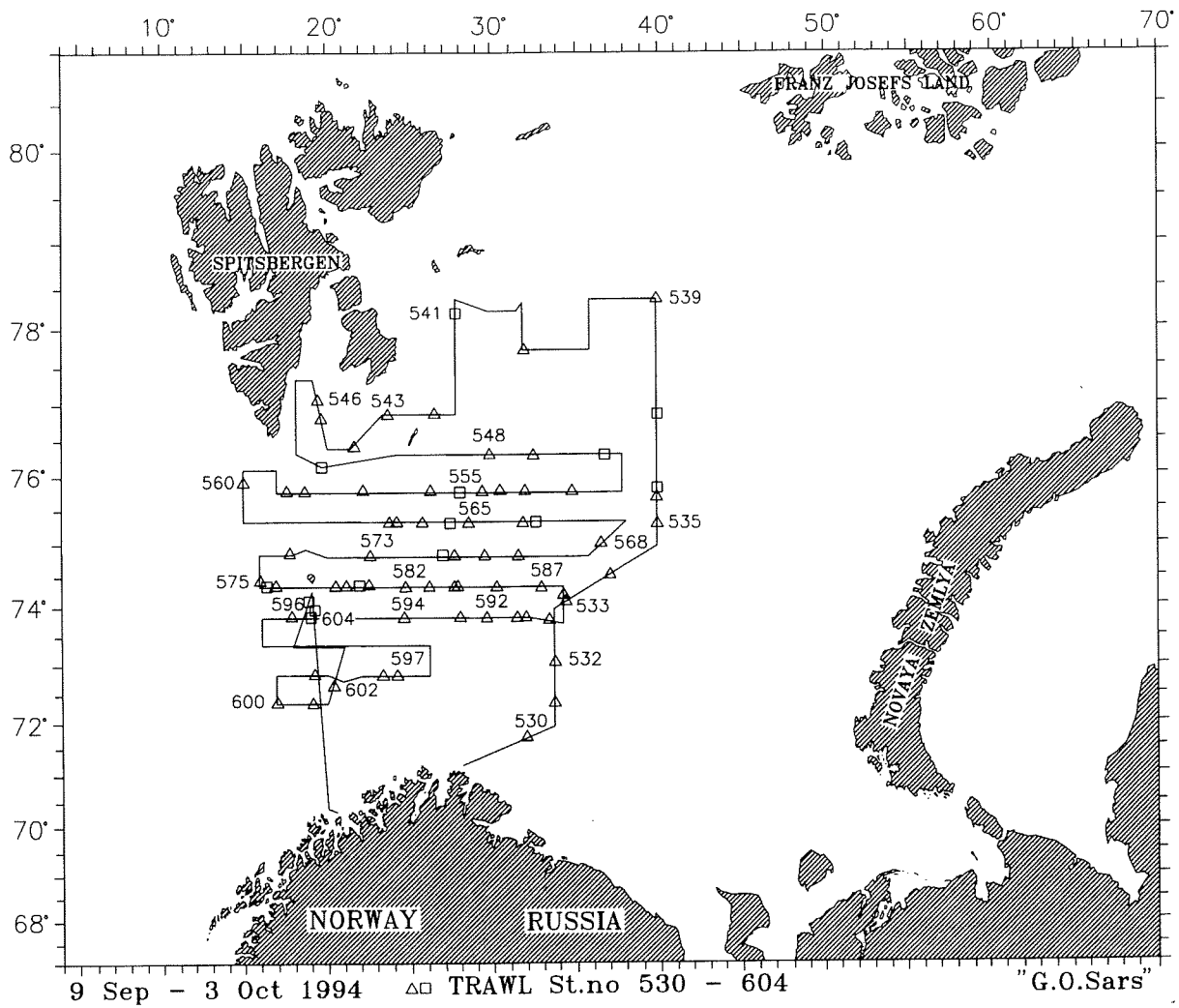


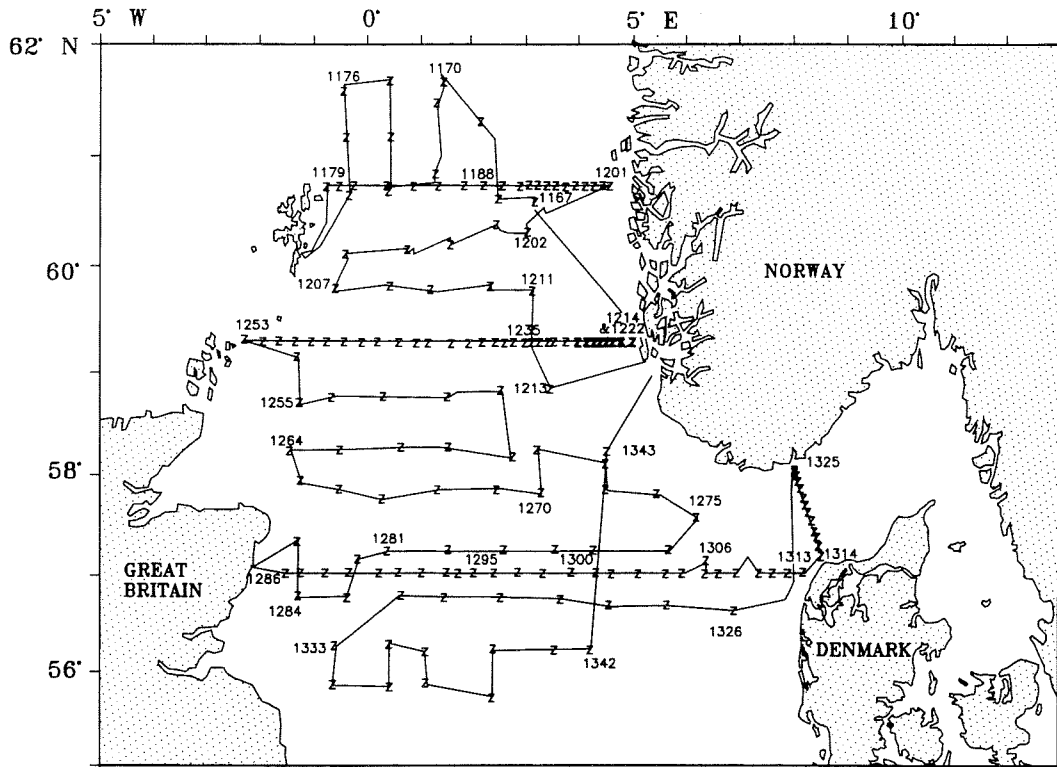
⊙ CTD and PLANKTON st. (WPII)

• MOCNESS st.

■ Recovery of current meter mooring

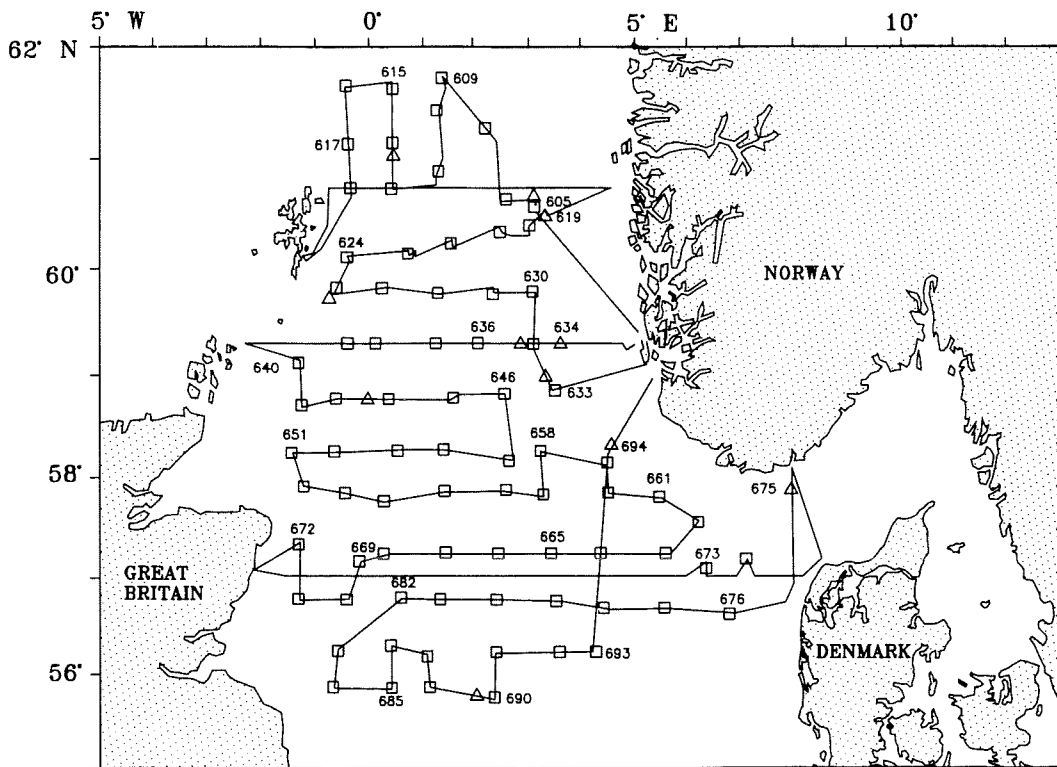
Standard section: Fugløya-Bear Island: St.no 1147 - 1166



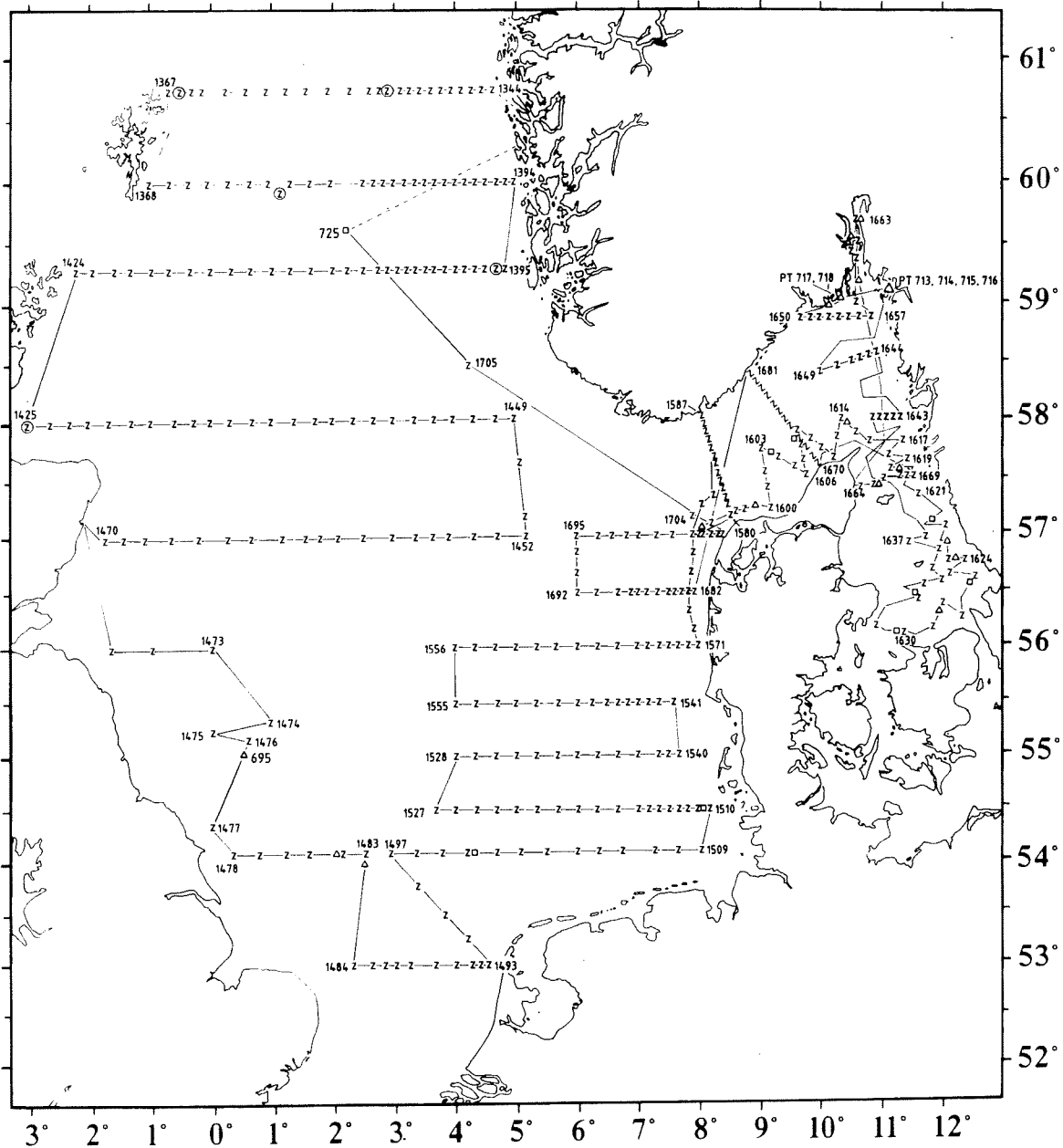


10 Oct - 9 Nov 1994 z CTD st.no. 1167 - 1343 "G.O.Sars"

Standard sections: Feie - Shetland: st.no 1179-1201  
 Utsira West: st.no 1222-1253  
 Hanstholm - Aberdeen: st.no 1286-1313  
 Okse - Hanstholm : st.no 1314-1325

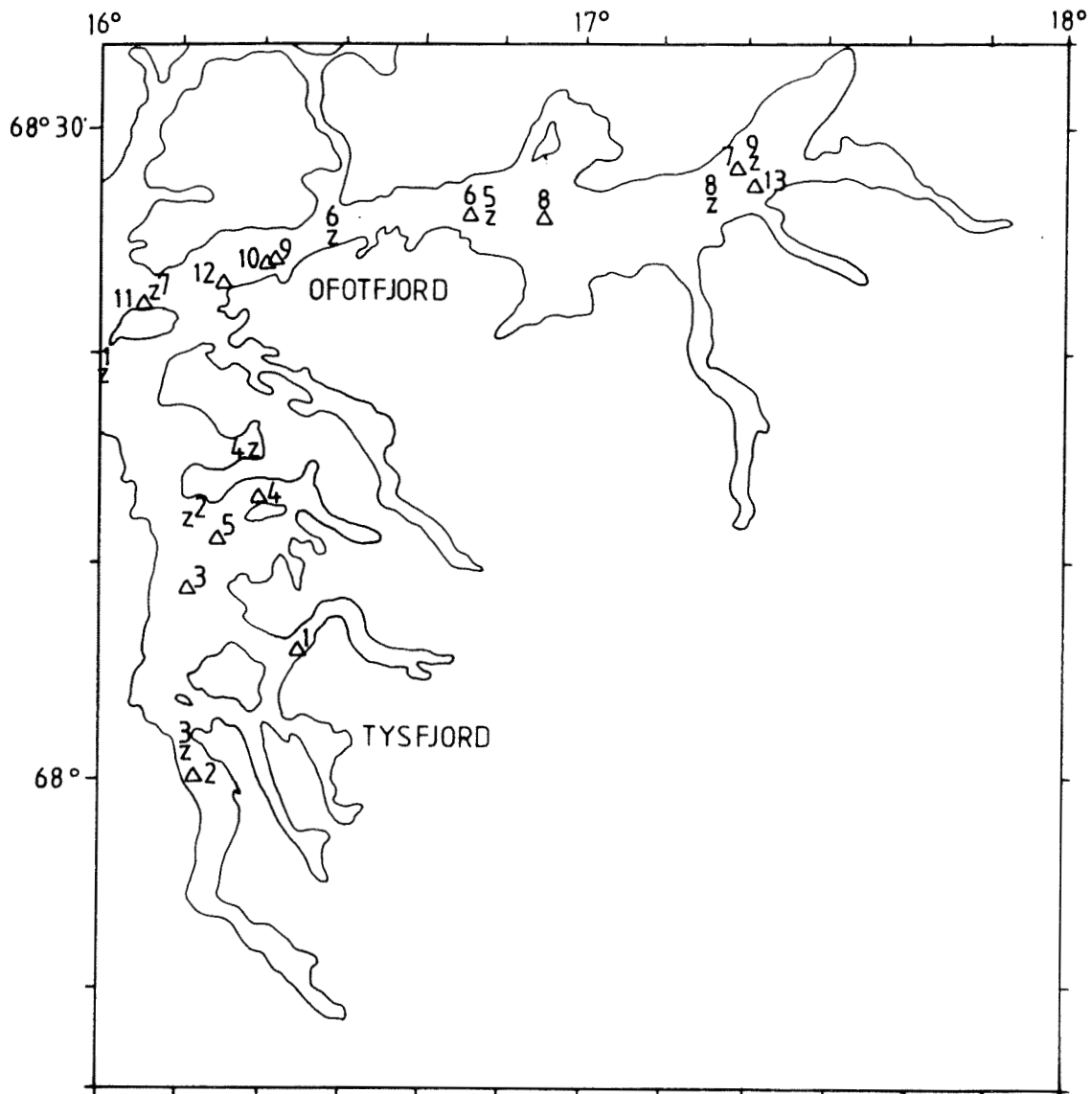


10 Oct - 9 Nov 1994  $\Delta \square$  TRAWL st.no 605-694 "G.O.Sars"



14 Nov - 13 Dec 1994 z CTD st.no. 1344 - 1705 "G.O.Sars"  
 △□ TRAWL st.no 695 - 725 (△pel.tr. □ dem.tr)  
 ○ Grab st.

Standard sections:  
 Fele - Shetland: st.no 1344-1367  
 Utsira: st. no 1395-1424  
 Hanstholm - Aberdeen: st.no 1452-1470,1695-1703  
 Okse - Hanstholm : st.no 1587-1598  
 Torungen - Hirtshals: st.no 1670-1681

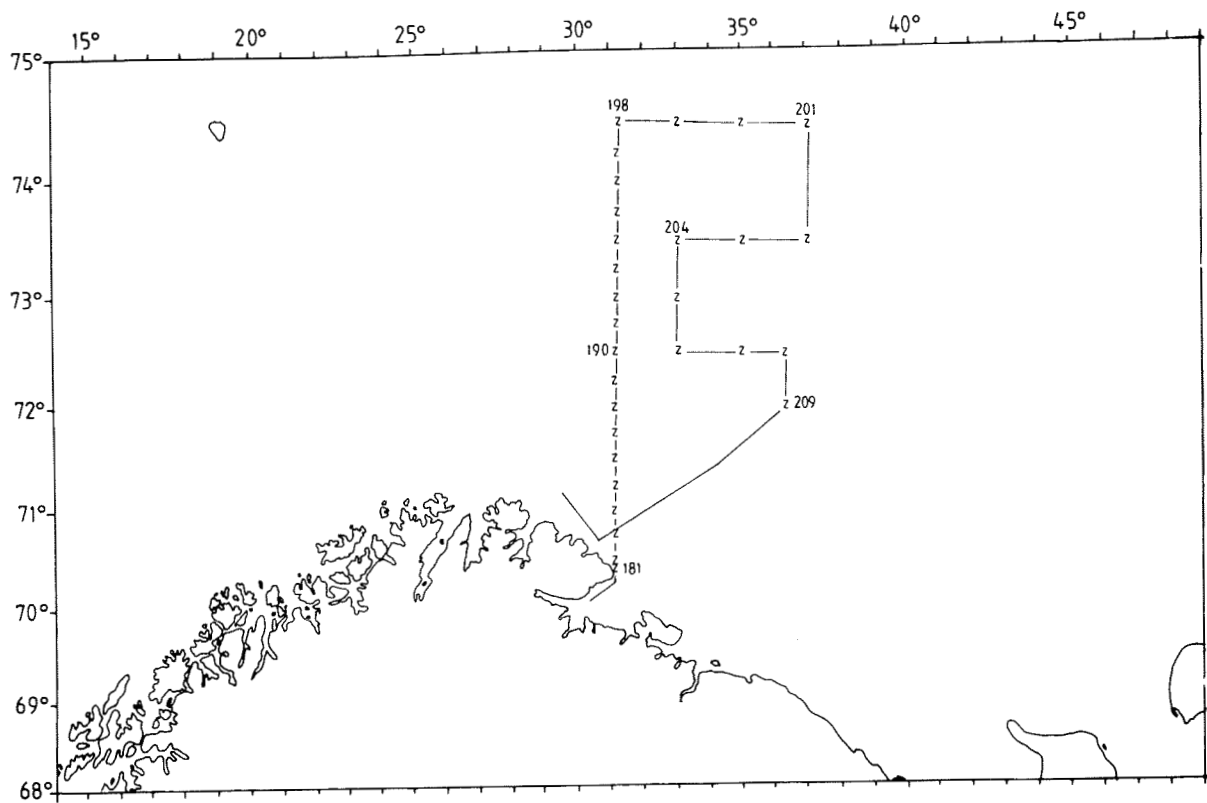
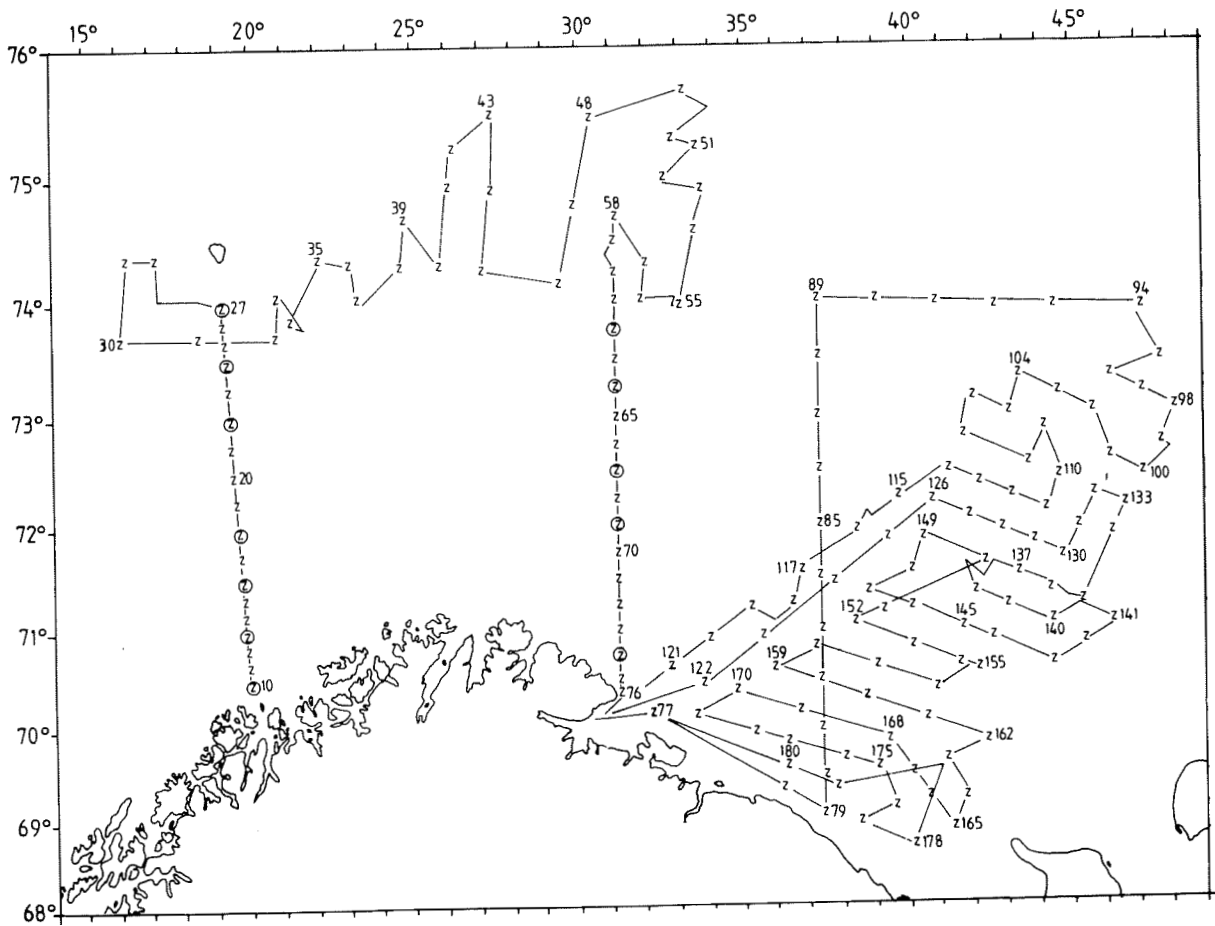


6 - 17 Jan 1994

z CTD st.no 1 - 9

Δ TRAWL st.no 1 - 13 (Pel. trawl) "Johan Hjort"



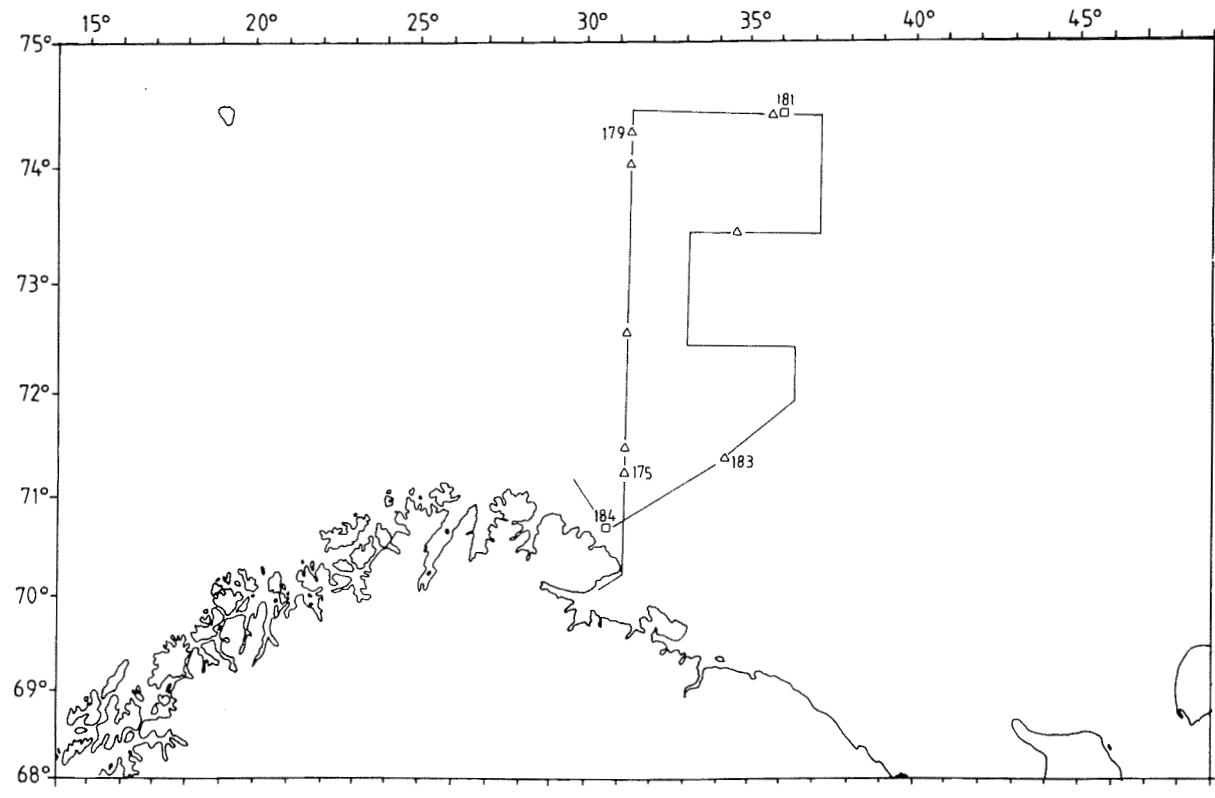
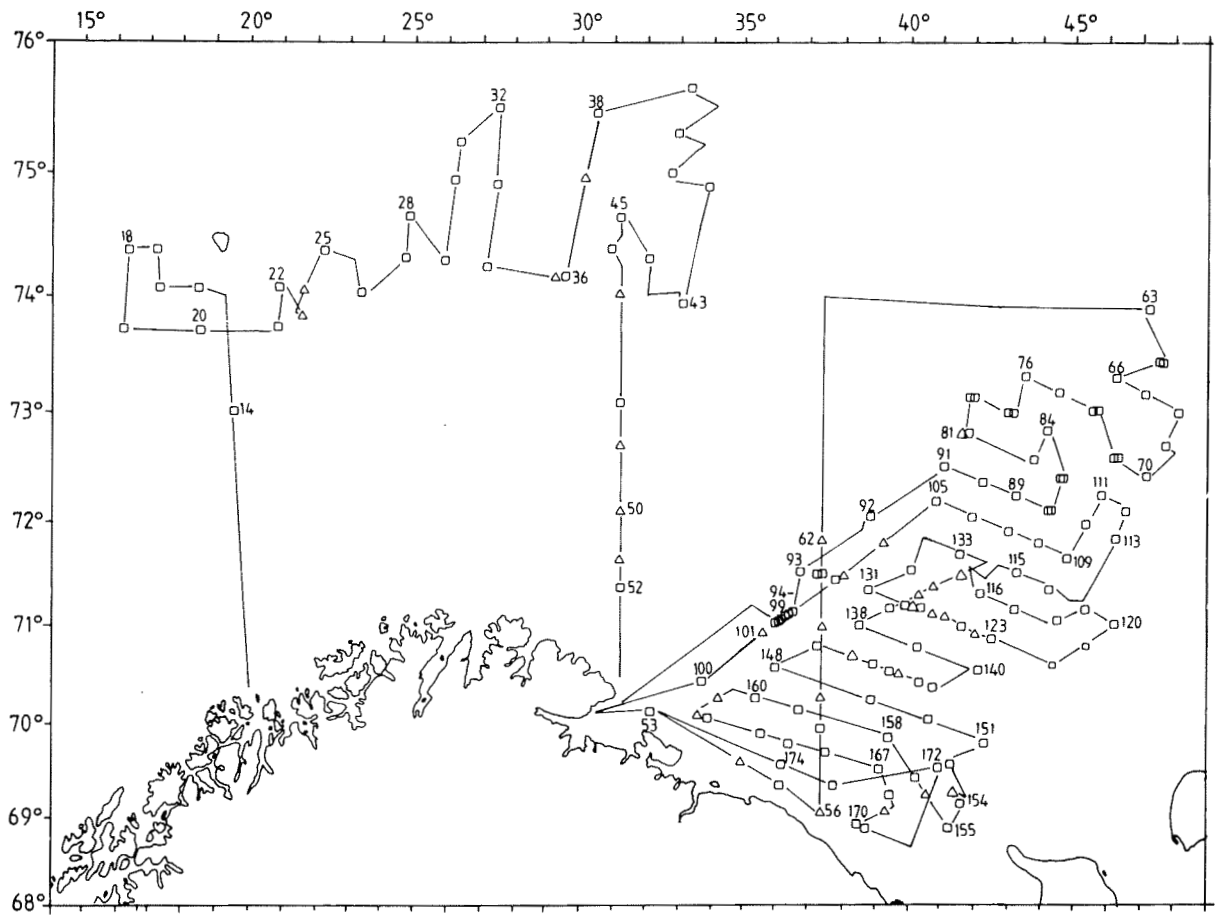


21 Jan - 6 mar 1994 z CTD st.no 10 - 209  
 (z) CTD and PLANKTON St.

"Johan Hjort"

Standard sections:

Fugløya-Bear Island: st.no 10-27  
 Vardø N: st.no 58-76 and 181-198  
 Sem.Island: st.no 79-89

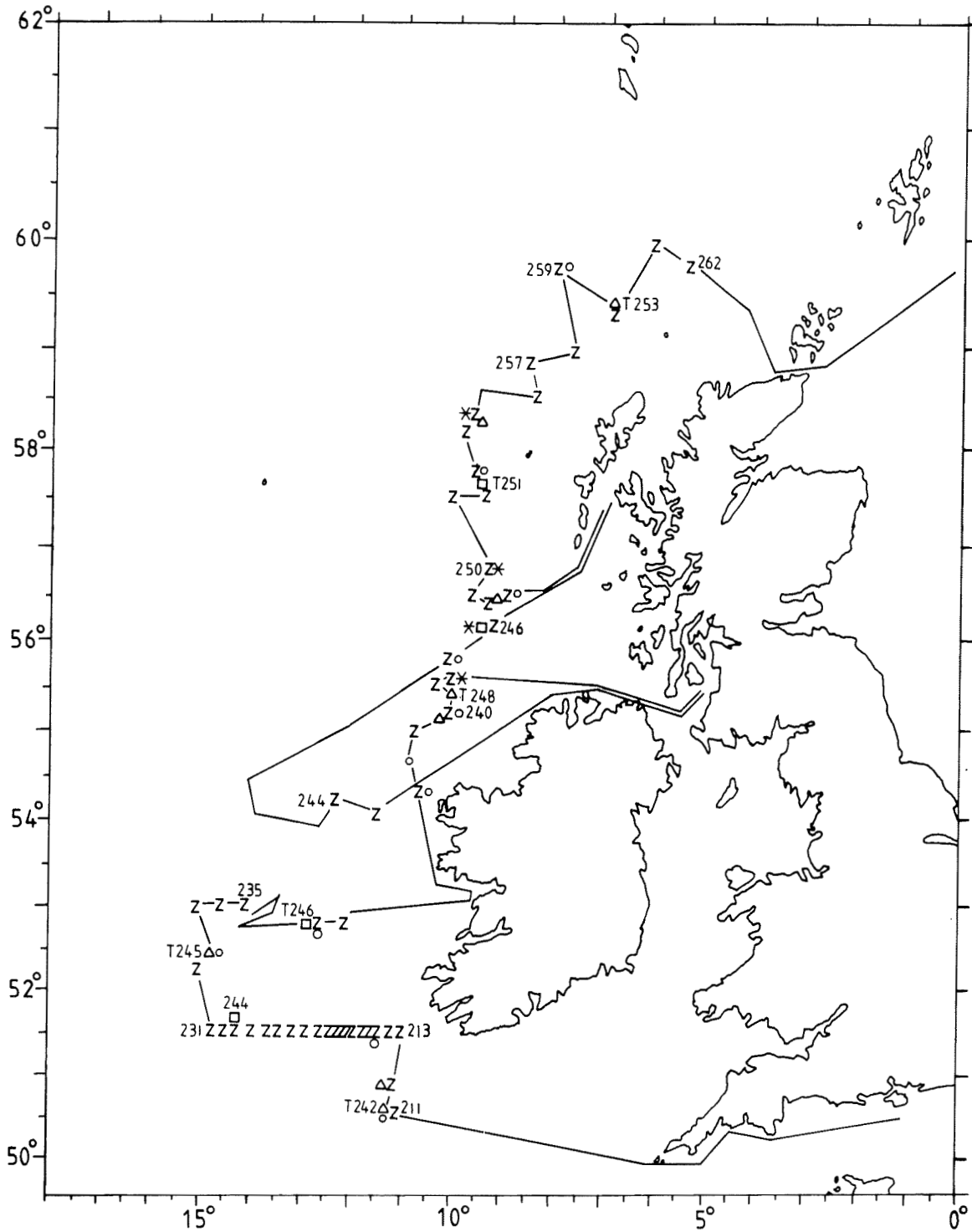


21 Jan - 6 mar 1994

TRAWL st.no 14 - 184

"Johan Hjort"

△ Pel. tr., □ bottom tr.



21 Mar - 16 Apr 1994

z CTD st. no 211 - 262

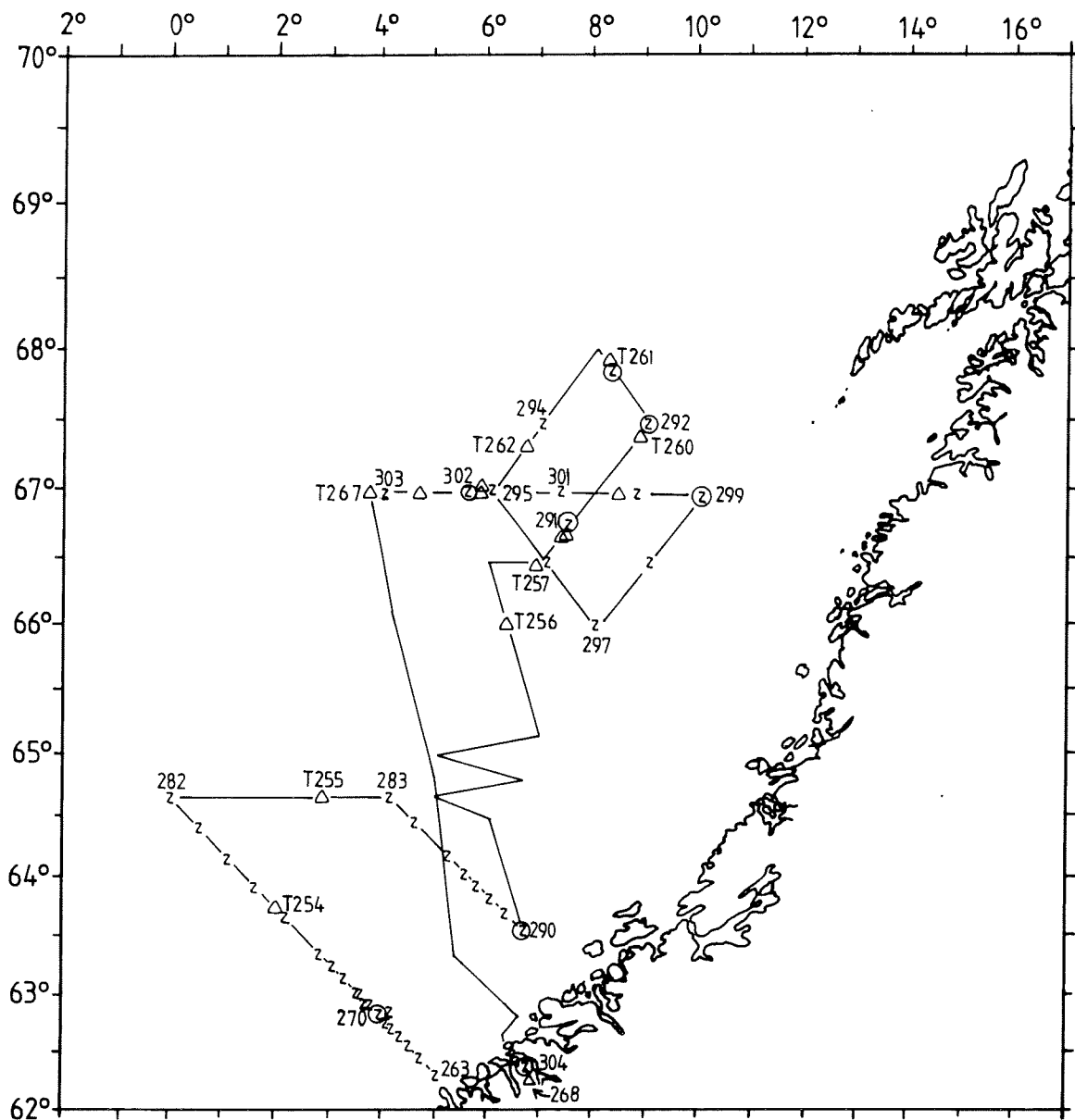
"Johan Hjort"

TRAWL st. no 242 - 253

Δ pel tr, ◻ bottom tr.

○ Bongo st.

✱ LHPR st. (Long-Hurst Plankton Recorder)



18 - 29 Apr 1994

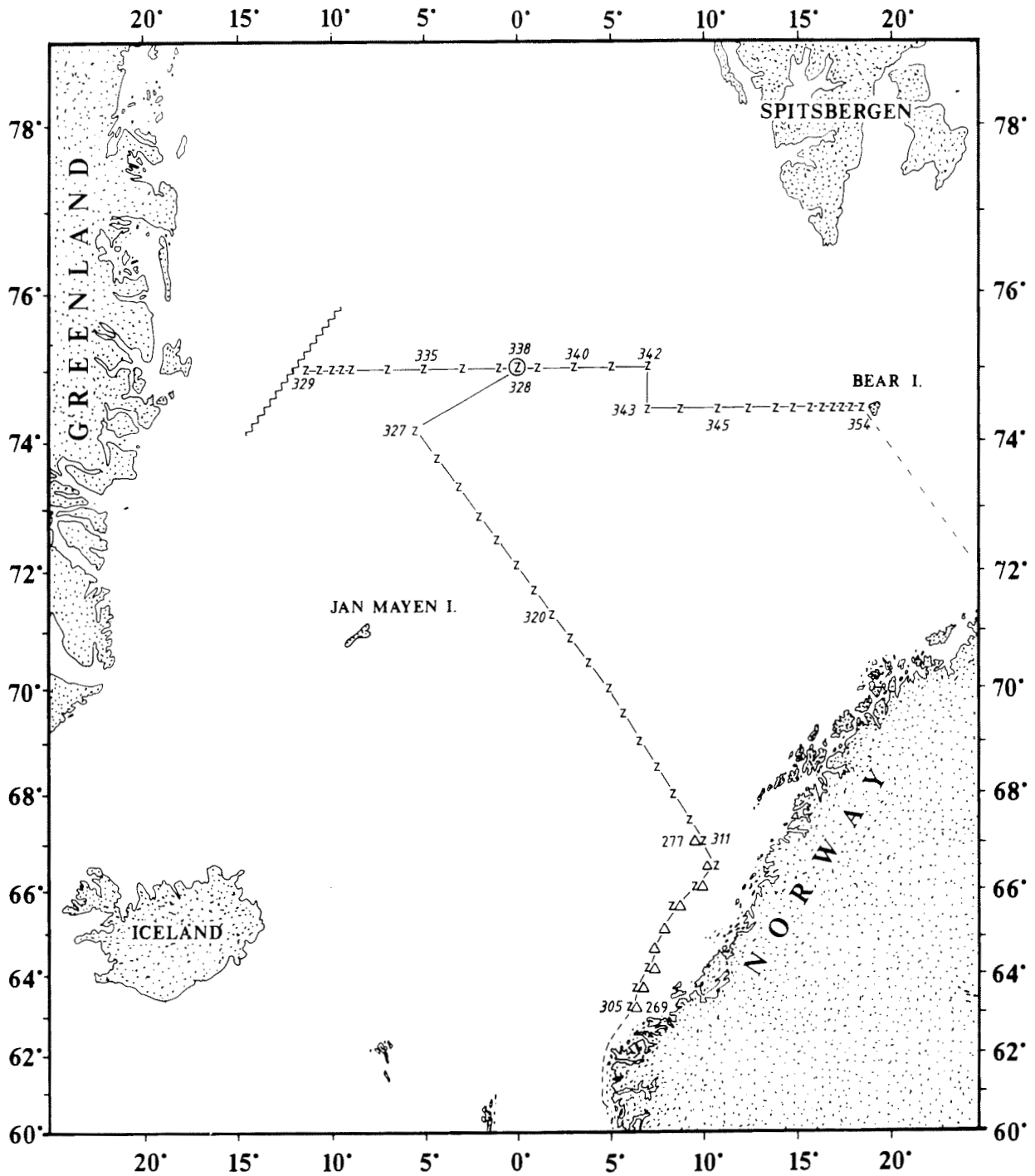
z CTD st.no 263 - 304

"Johan Hjort"

⊙ CTD and Plankton st. (Mocness)

△ Pel. TRAWL st.no 254 - 268

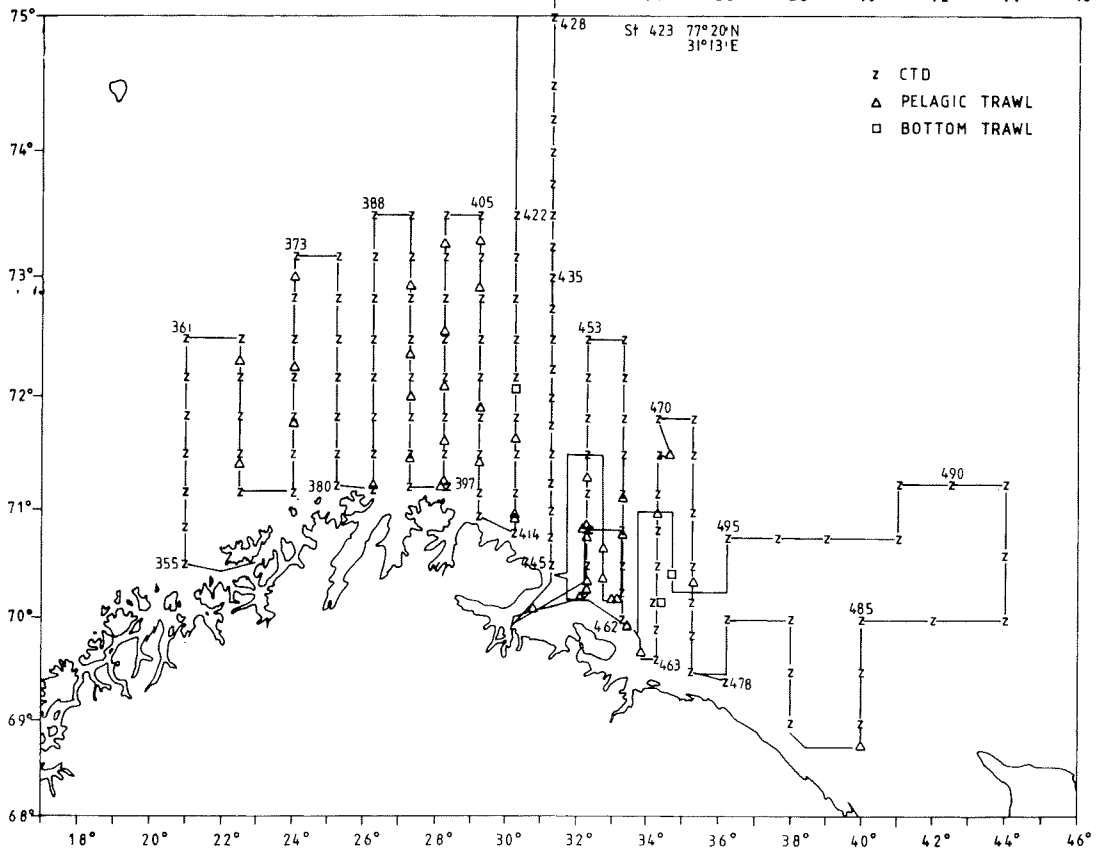
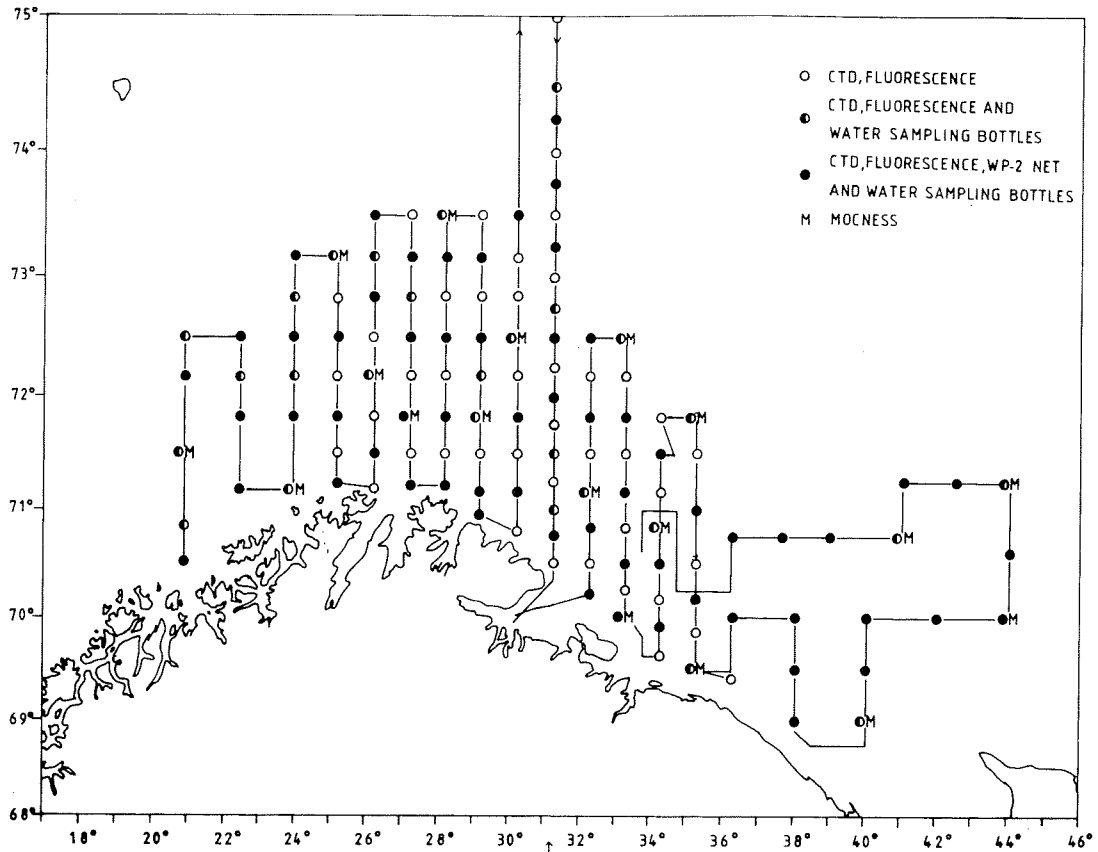
Standard section : Svinøy: st.no 263 - 282



24 MAY - 06 JUNE 1994

- Z CTD Stasjoner 305-354
- Δ Trålstasjoner 269 - 277
- Sediment fellerig

JOHAN HJORT.



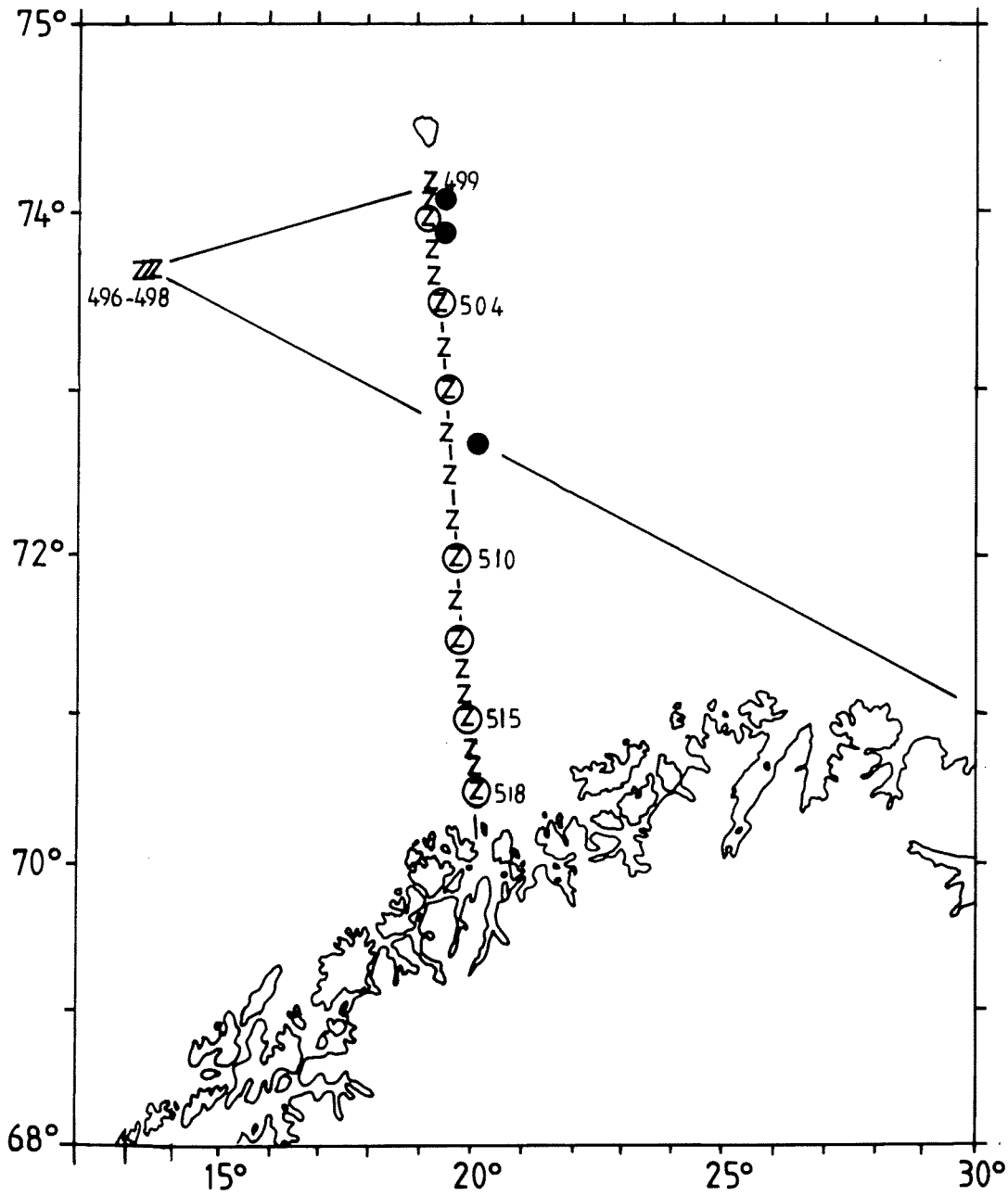
6 - 29 Jun 1994

z CTD st.no 355 - 495  
 Δ□ TRAWL st. no 278 - 326

"Johan Hjort"

Standard section:

Vardø N: st.no 423 - 445



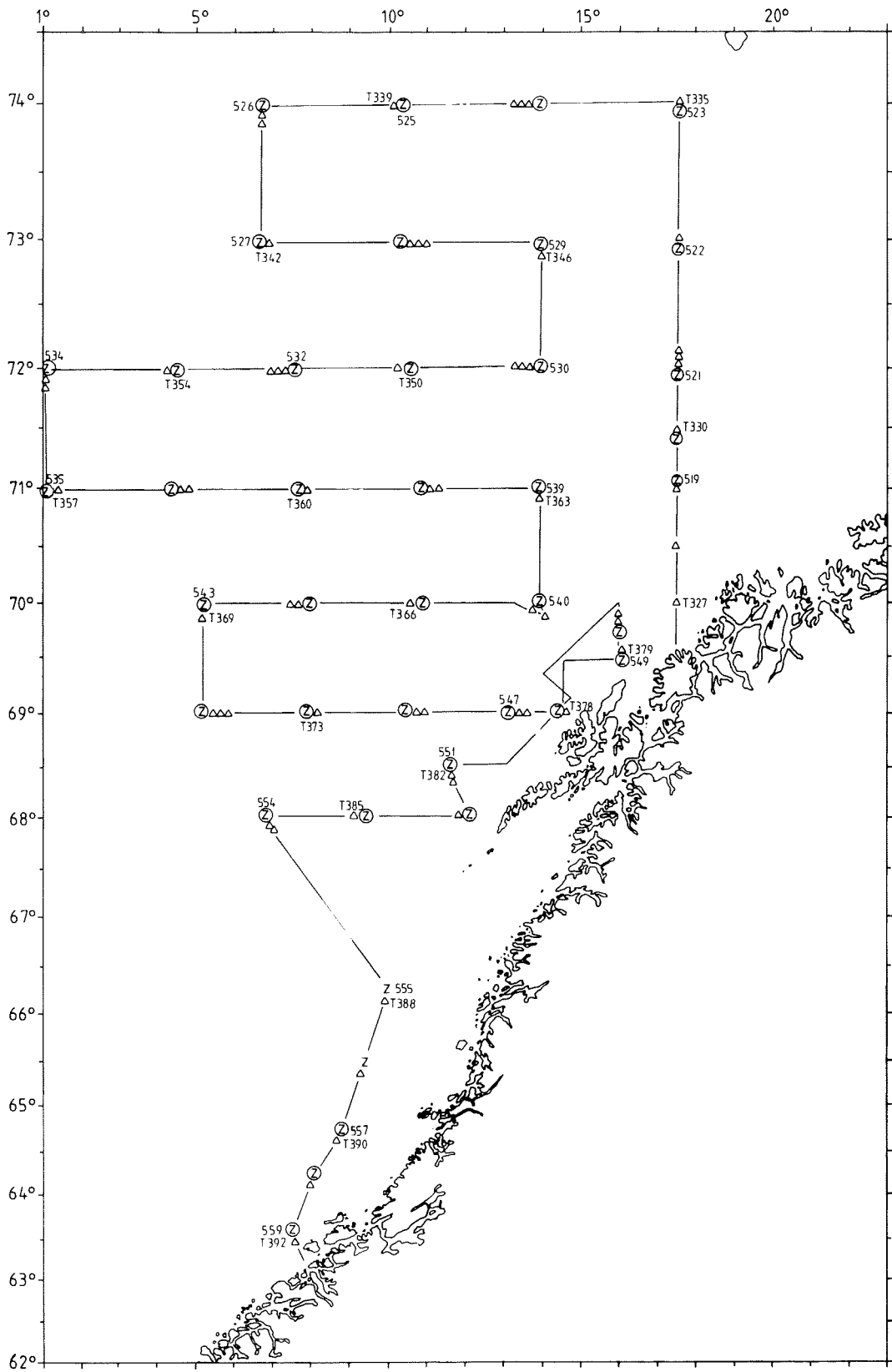
30 Jun - 4 Jul 1994

"Johan Hjort"

- z CTD st.no. 496 - 518
- ⊙ CTD and PLANKTON st
- Argos drifter deployed

Standard section:

Fugløya-Bear Island: st.no 499 - 518

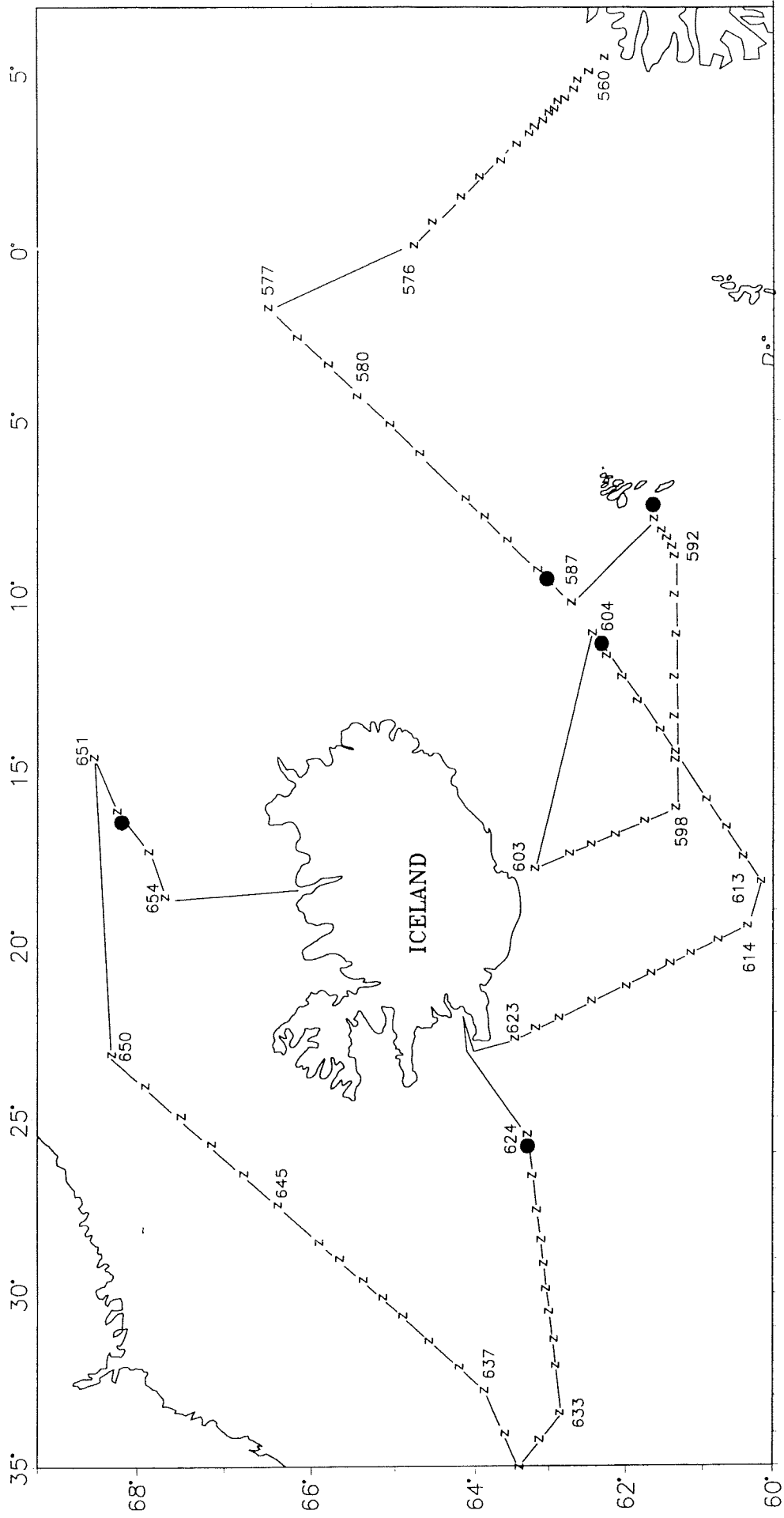


5 - 22 Jul 1994

z CTD st.no. 519 - 559  
 △ Pel. TRAWL st.no. 327 - 392  
 ⊙ CTD and PLANKTON st

"Johan Hjort"





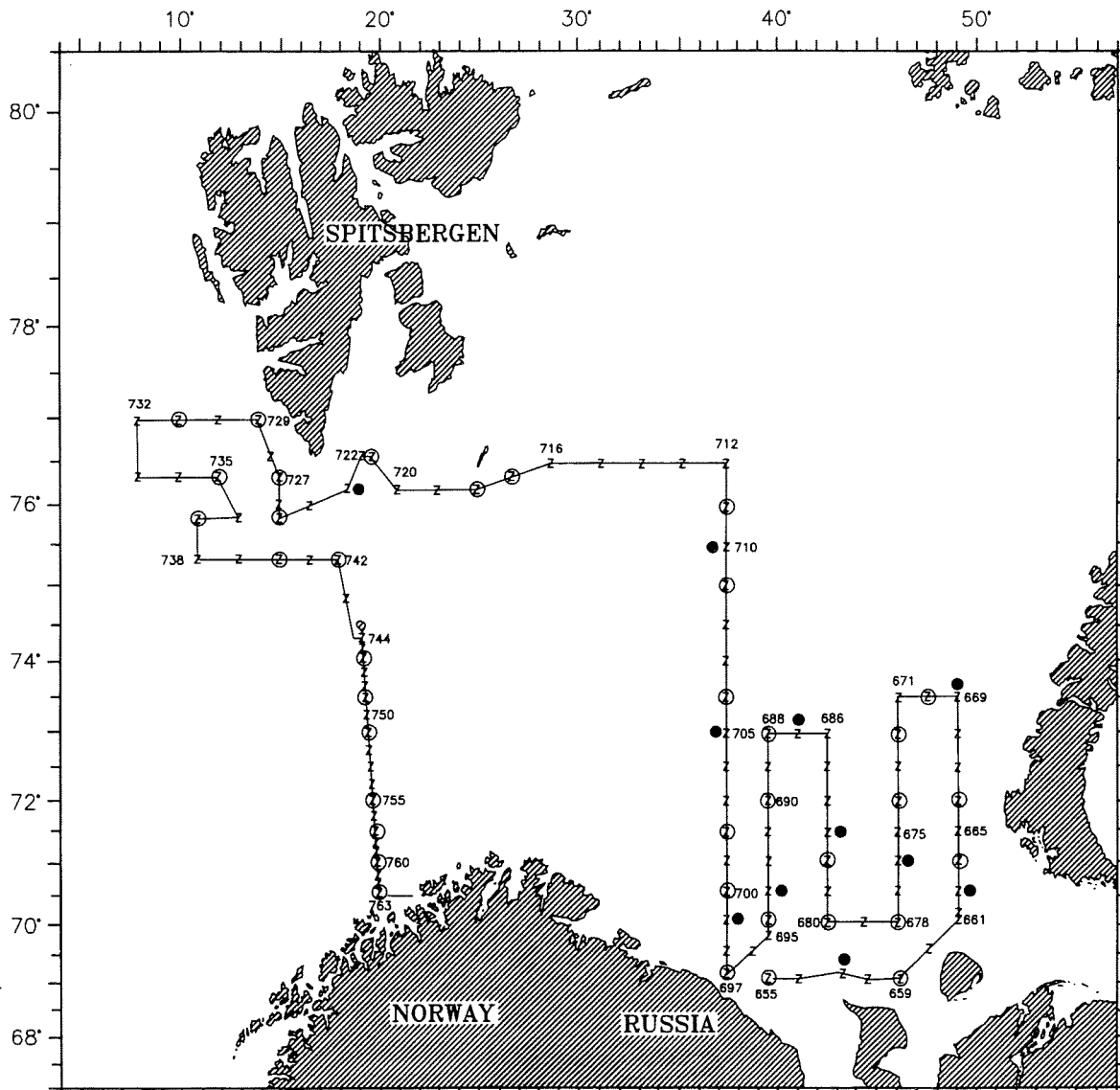
"Johan Hjort"

z CTD st.no 560 - 654

● Grab St. (5 st)

23 Jul - 16 Aug 1994

Standard section: Svinøy: St.no 560 - 576



17 Aug - 6 Sep 1994

z CTD st.no 655 - 763

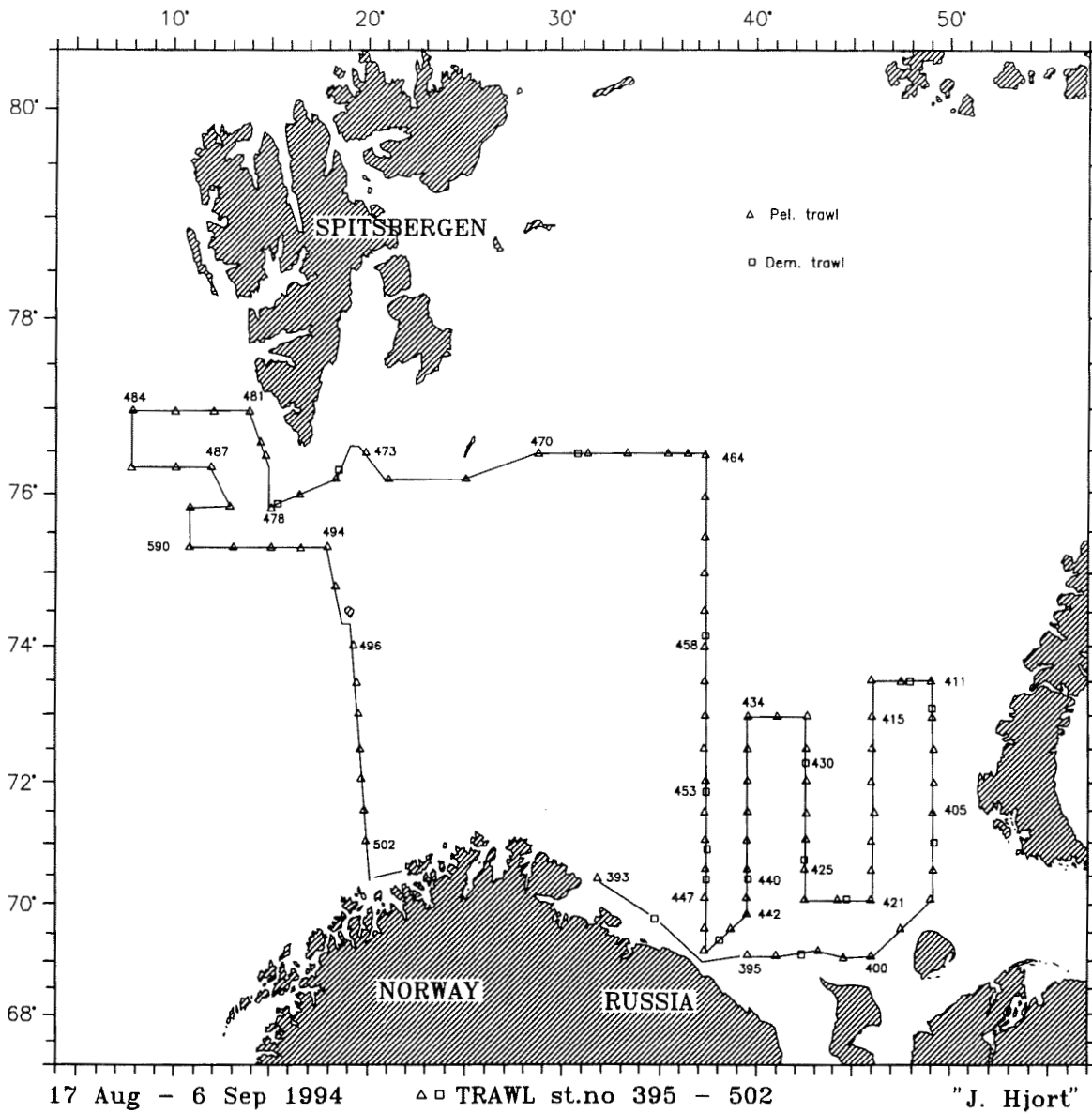
"J. Hjort"

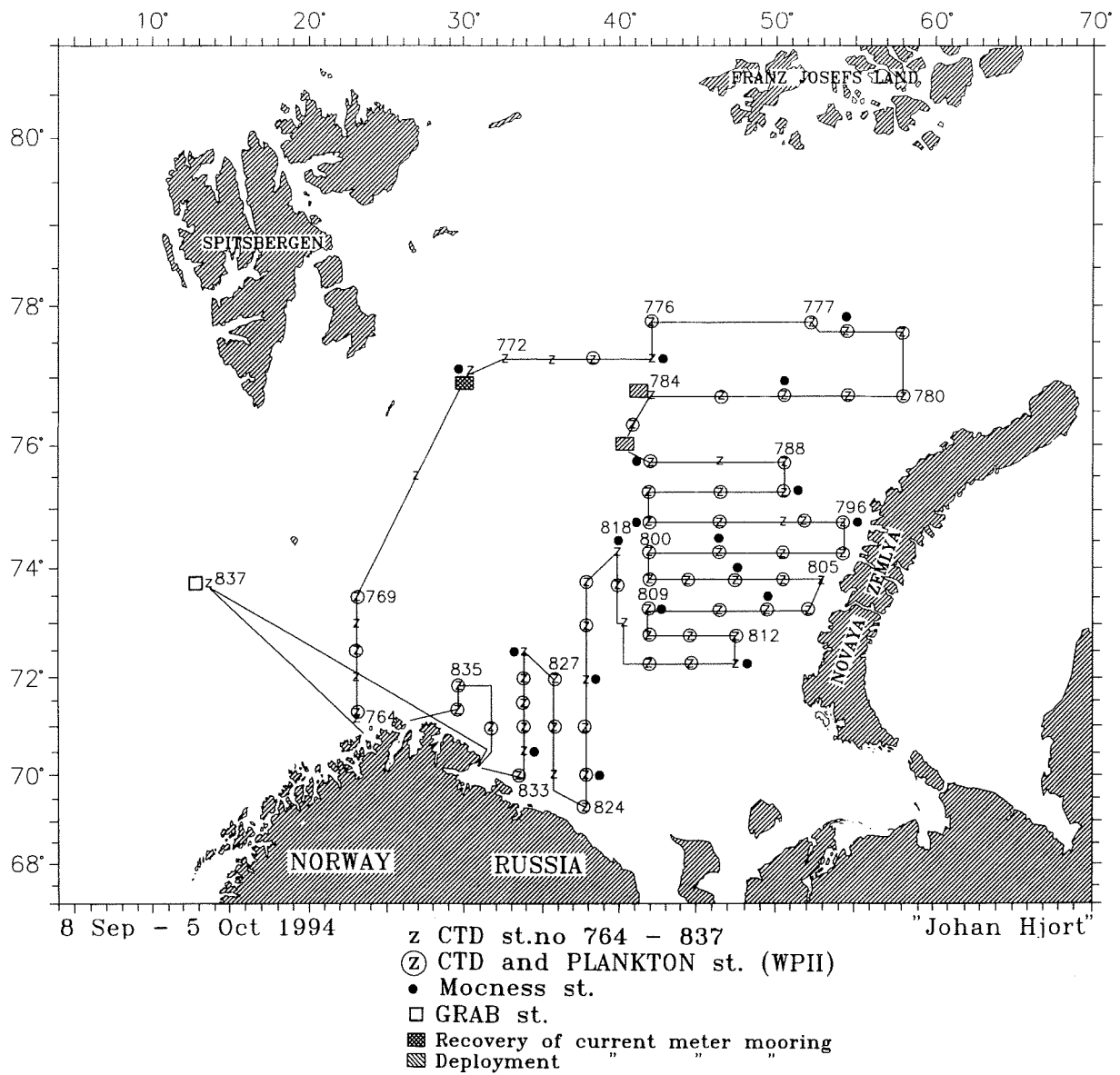
○ CTD and PLANKTON st.

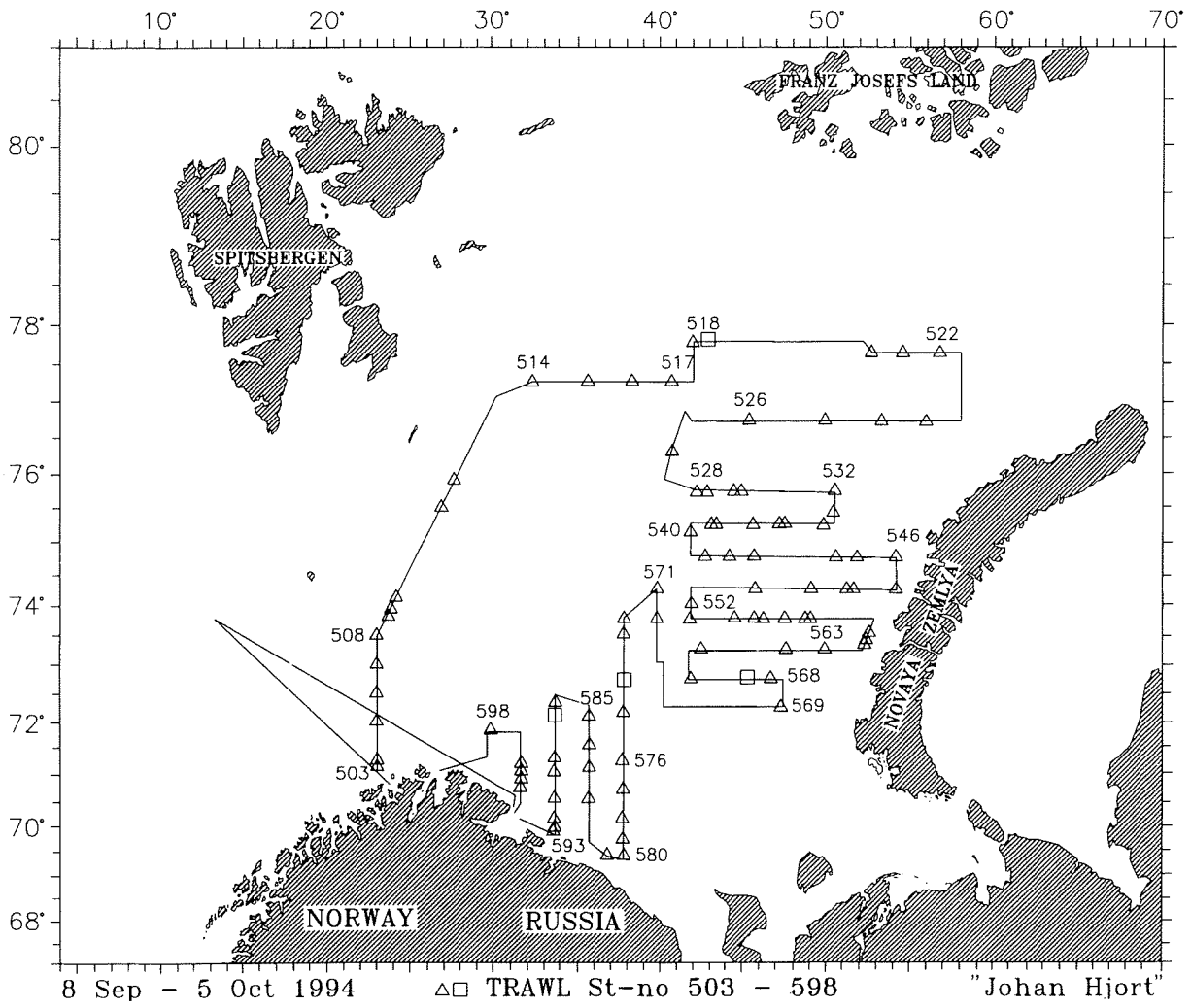
● MOCNESS st.

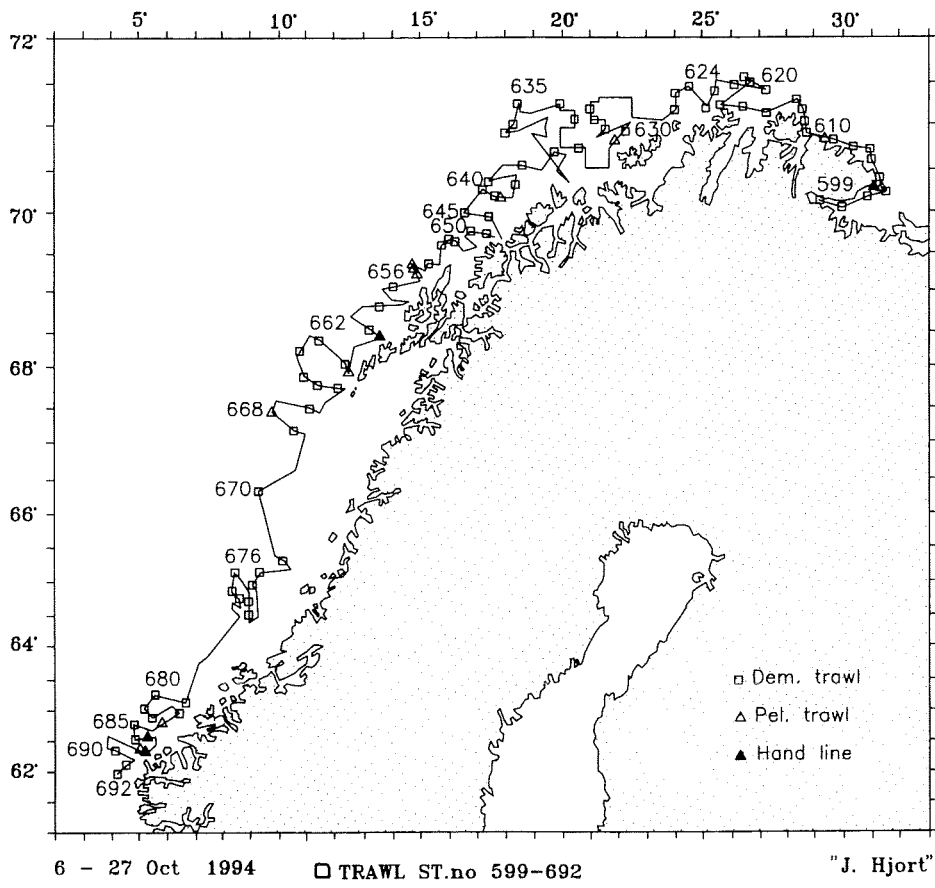
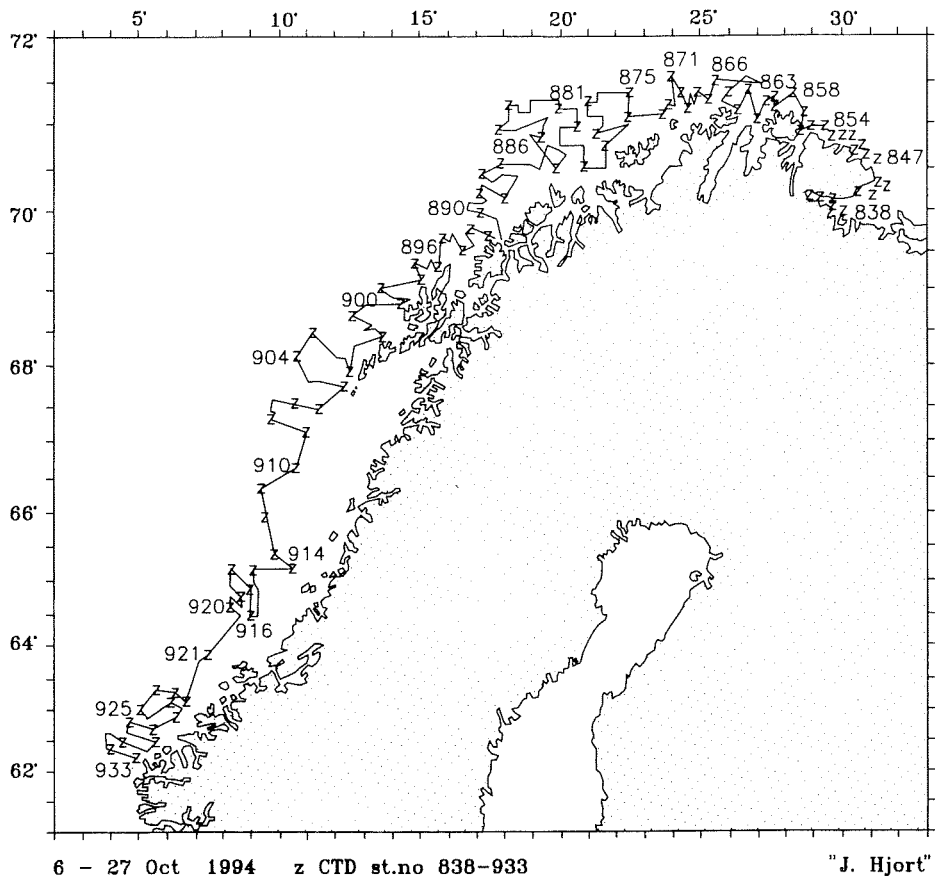
Standard section: Fugløya - Bear Island: st.no 744-763

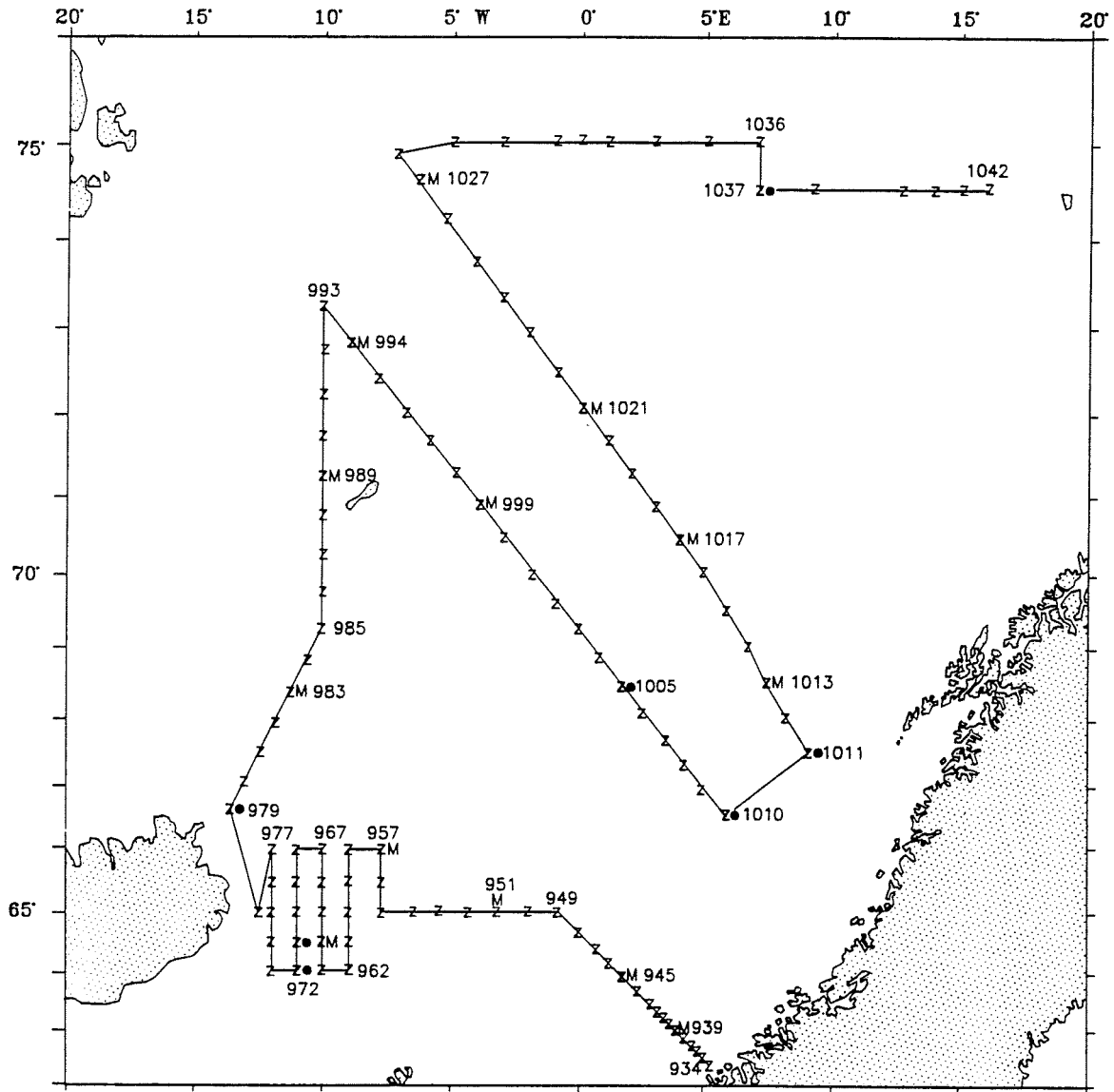
Sem. Island N: st.no 697-712











28 Oct - 26 Nov 1994

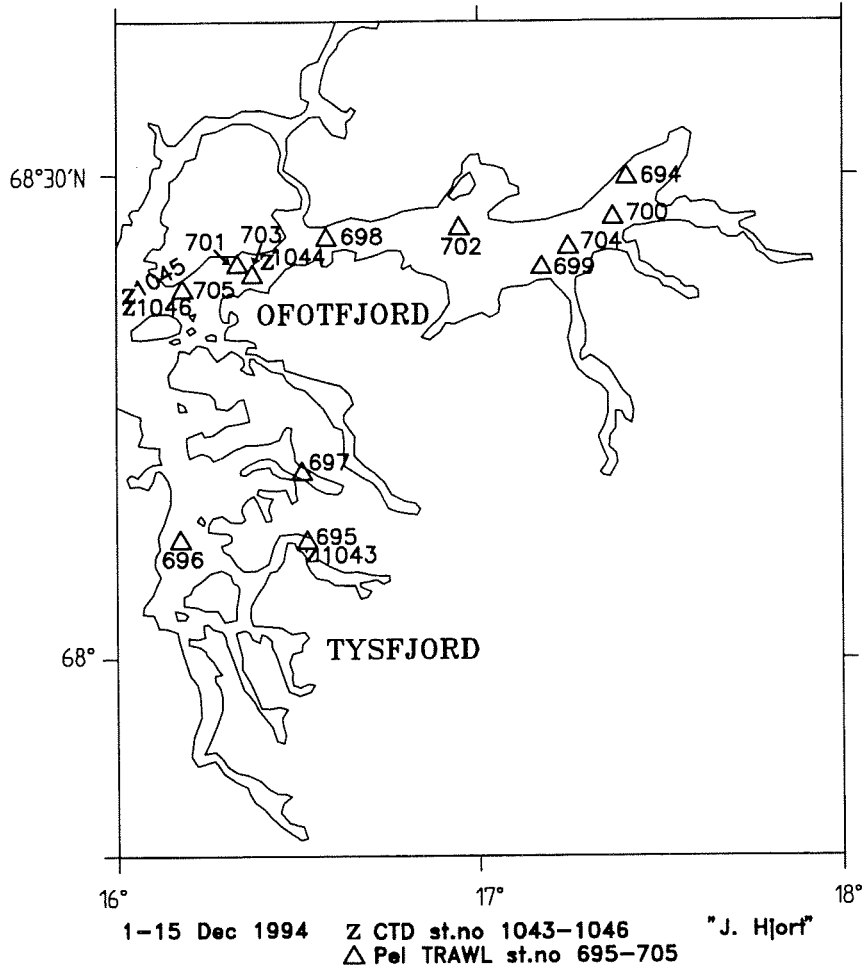
Z CTD st.no 934 - 1042

● WP-2 Net (plankton)

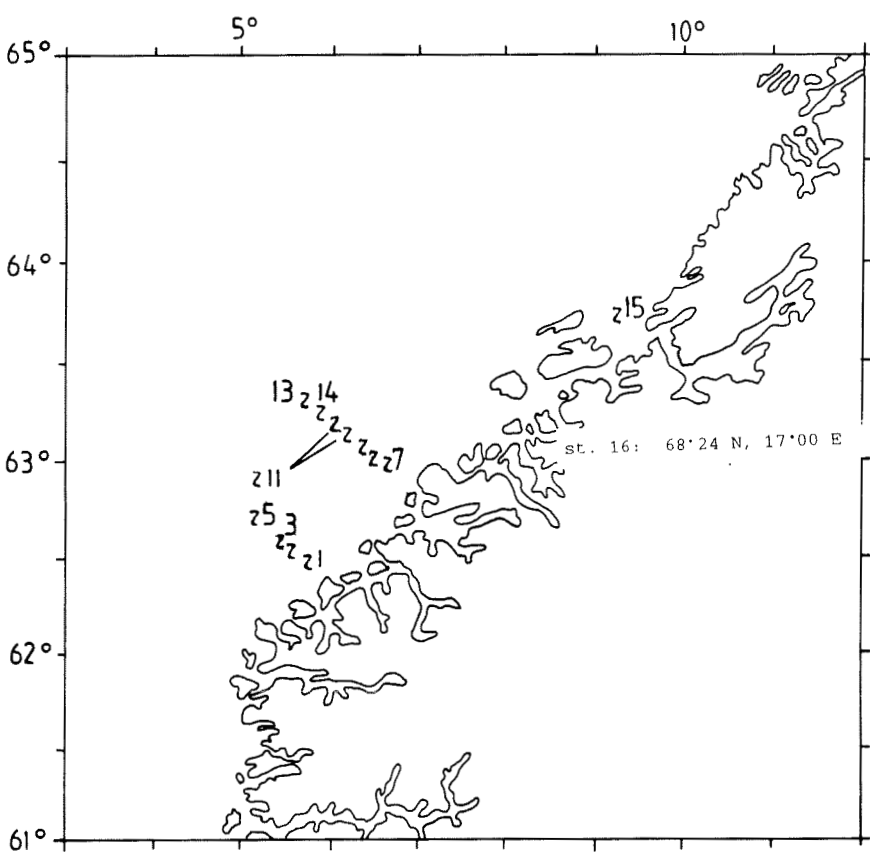
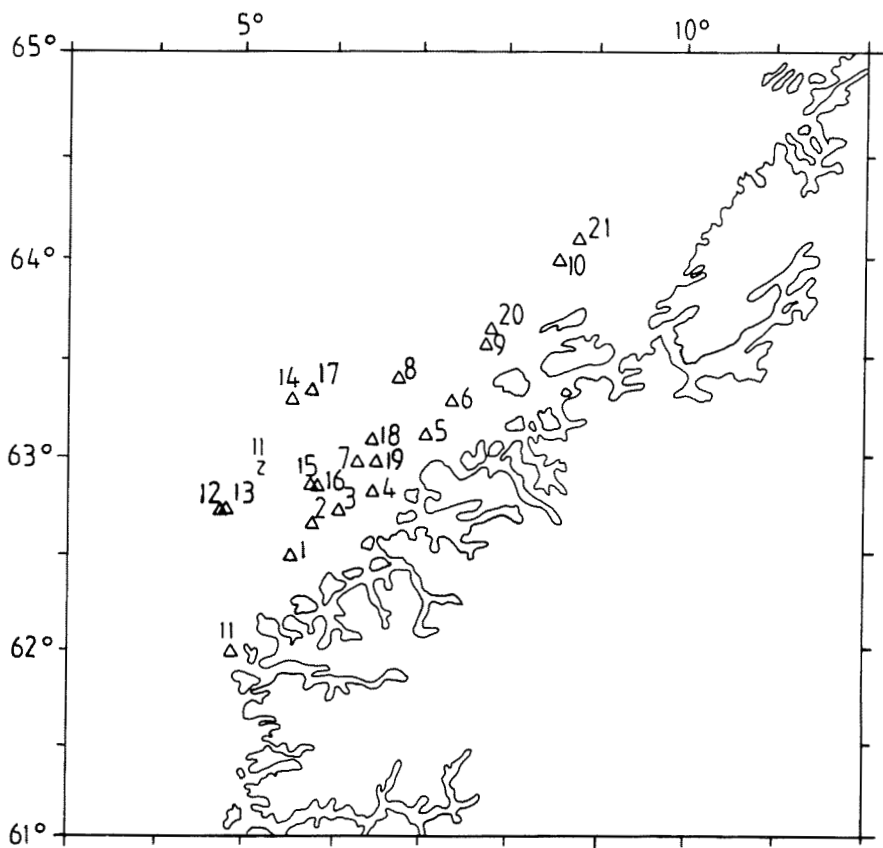
M Mocness

"Johan Hjort"

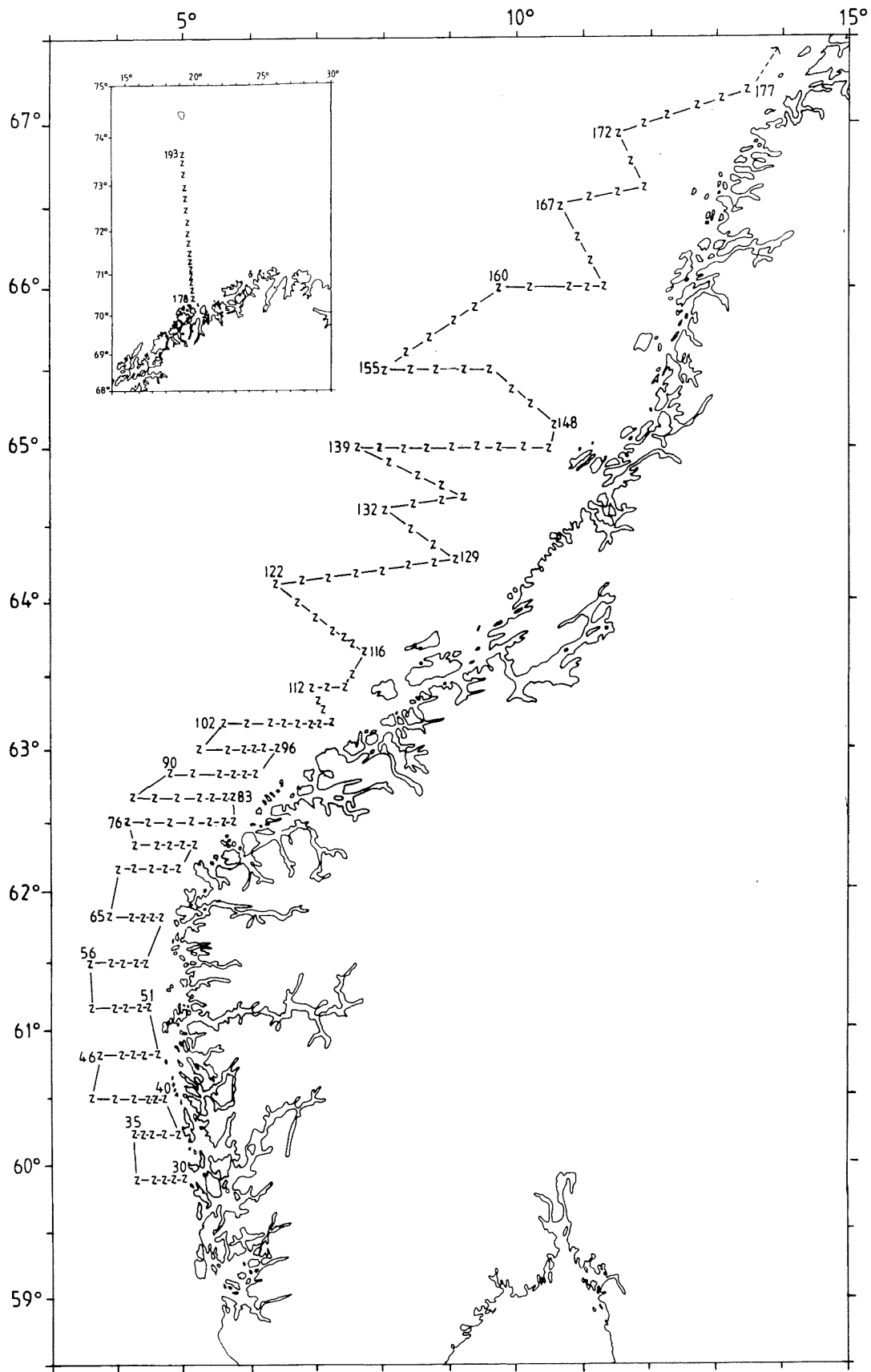
Standard section: Svinøy NW : st.no 934-949







15 Feb - 14 Mar 1994  $\Delta$  Pel. TRAWL St.no. 1 - 21 "Michael Sars"  
 Z CTD St.no. 1 - 16



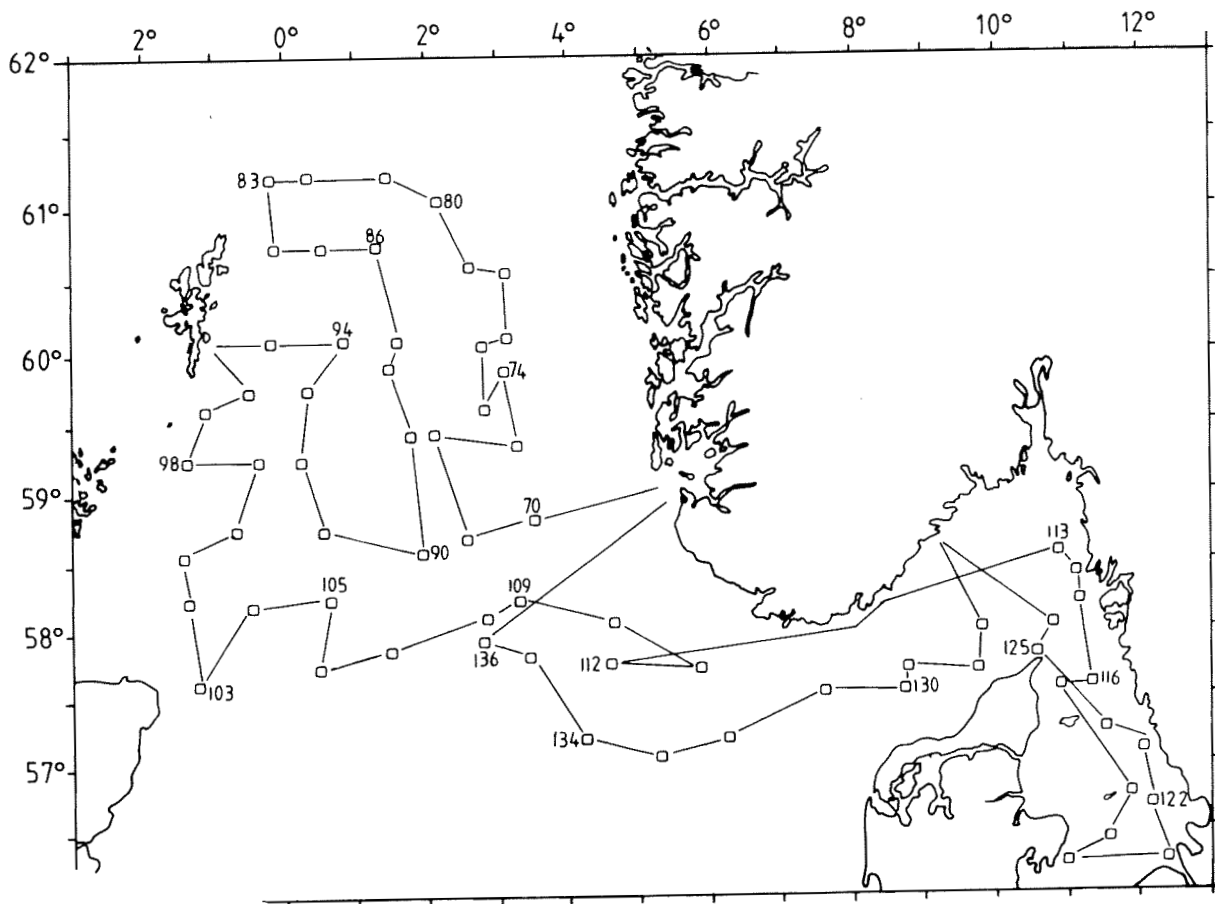
6 - 22 Apr 1994

z CTD and PLANKTON St.no 30 - 193

"Michael Sars"

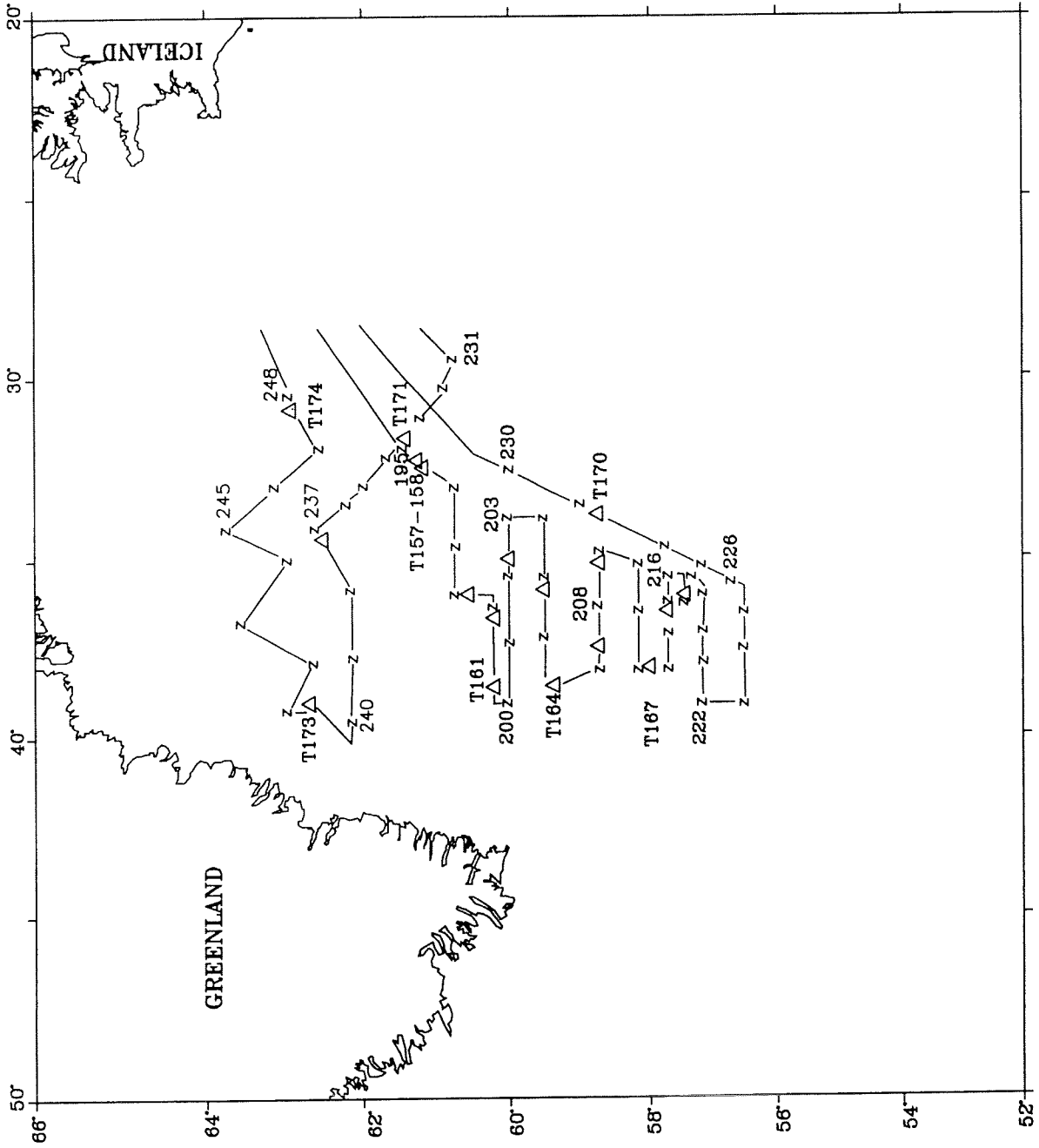
(Plankton obs. at every CTD st. except from 8 st at F - B section)

Standard section: Fugløya-Bear Island: st.no 178 - 193



16 May - 3 Jun.

"Michael Sars"

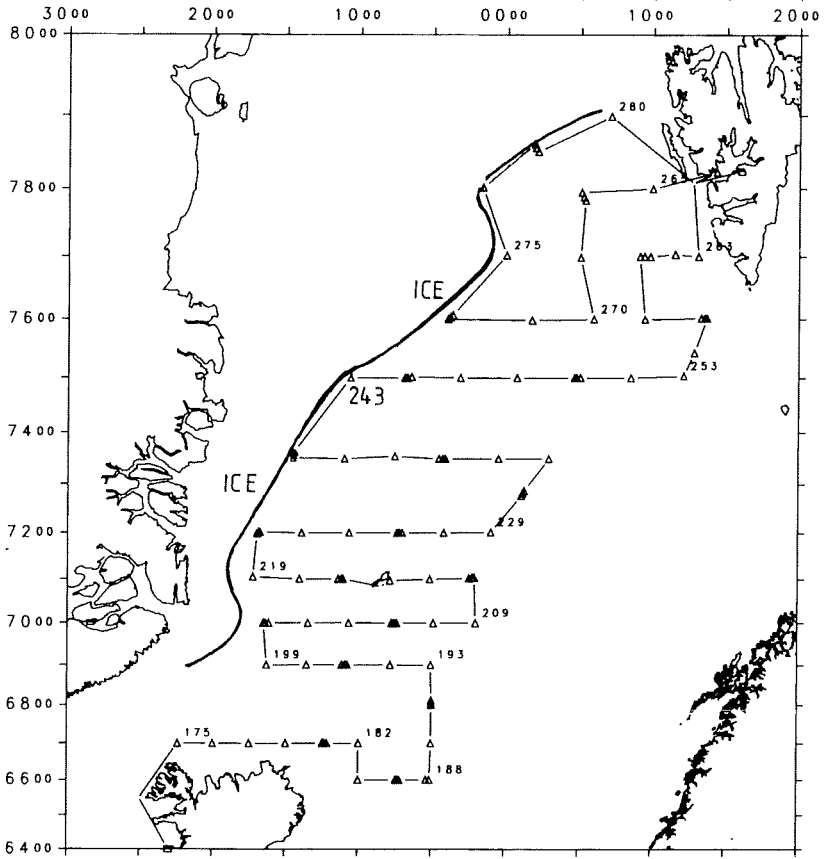
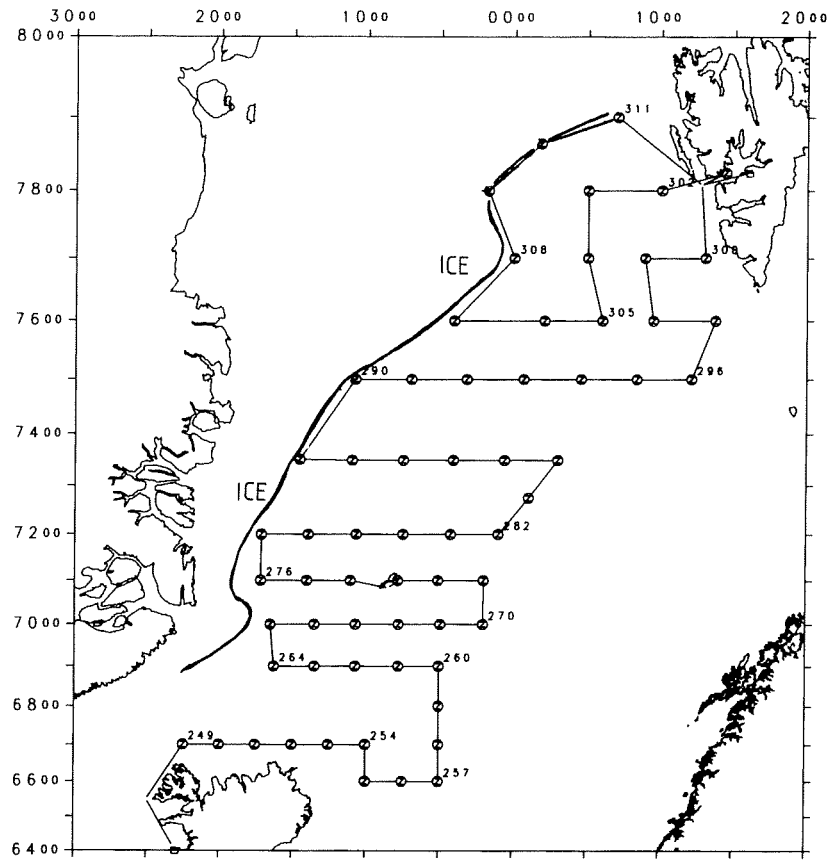


"Michael Sars"

z CTD st.no 195 - 248

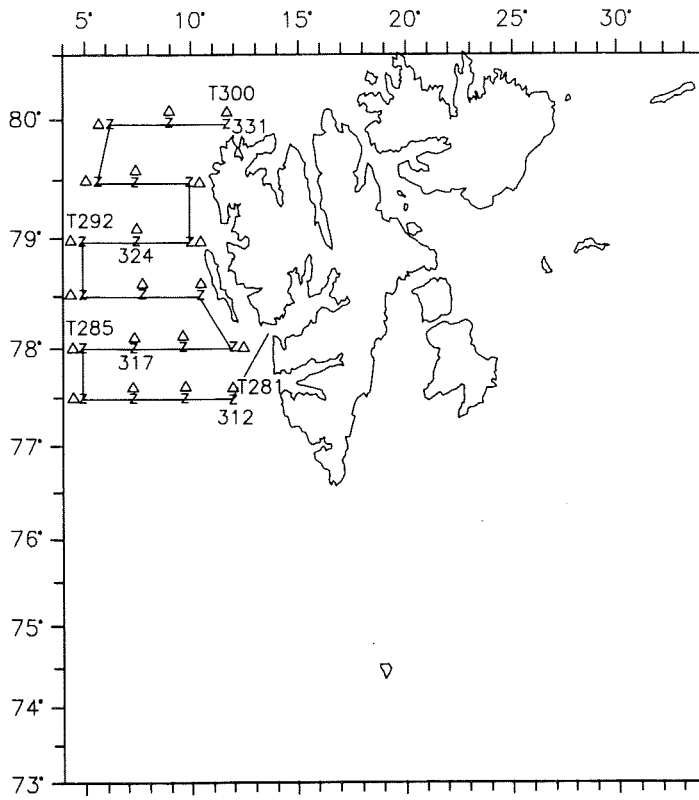
△ TRAWL st.no 157 - 174

22 Jun - 16 Jul 1994

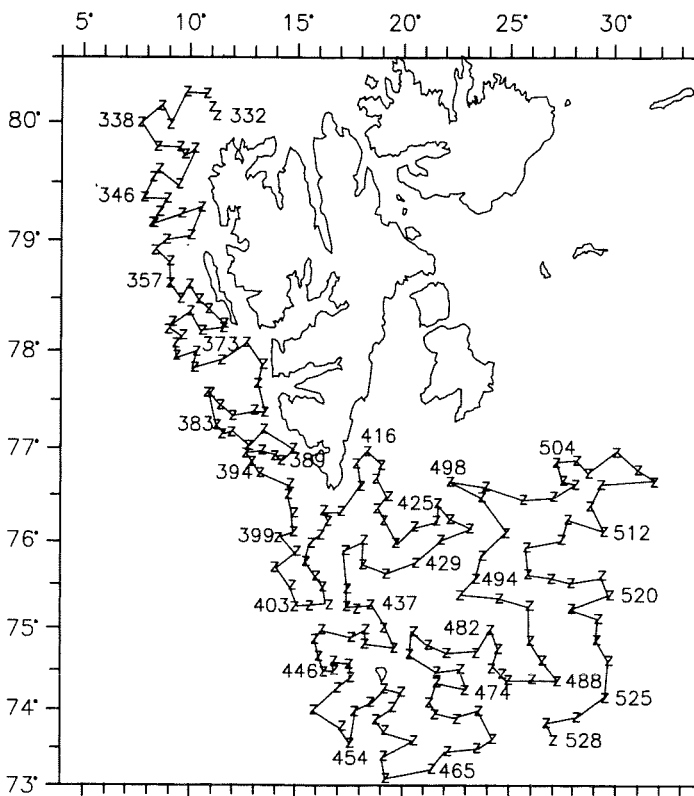


16 Jul - 15 Aug 1994

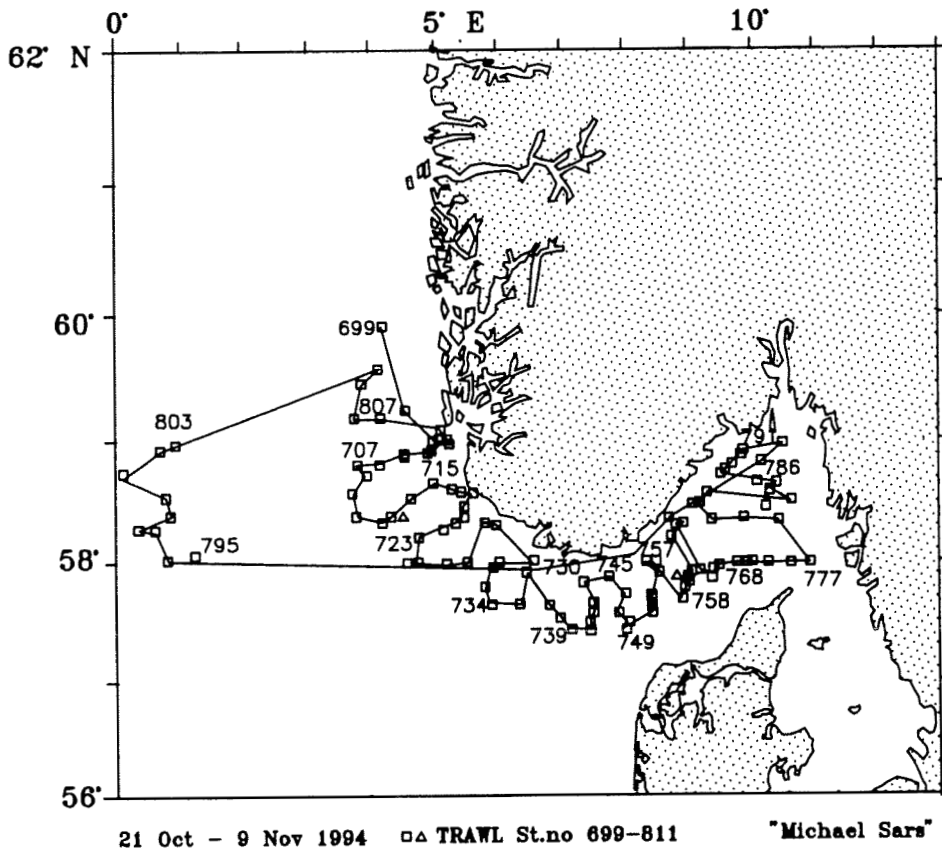
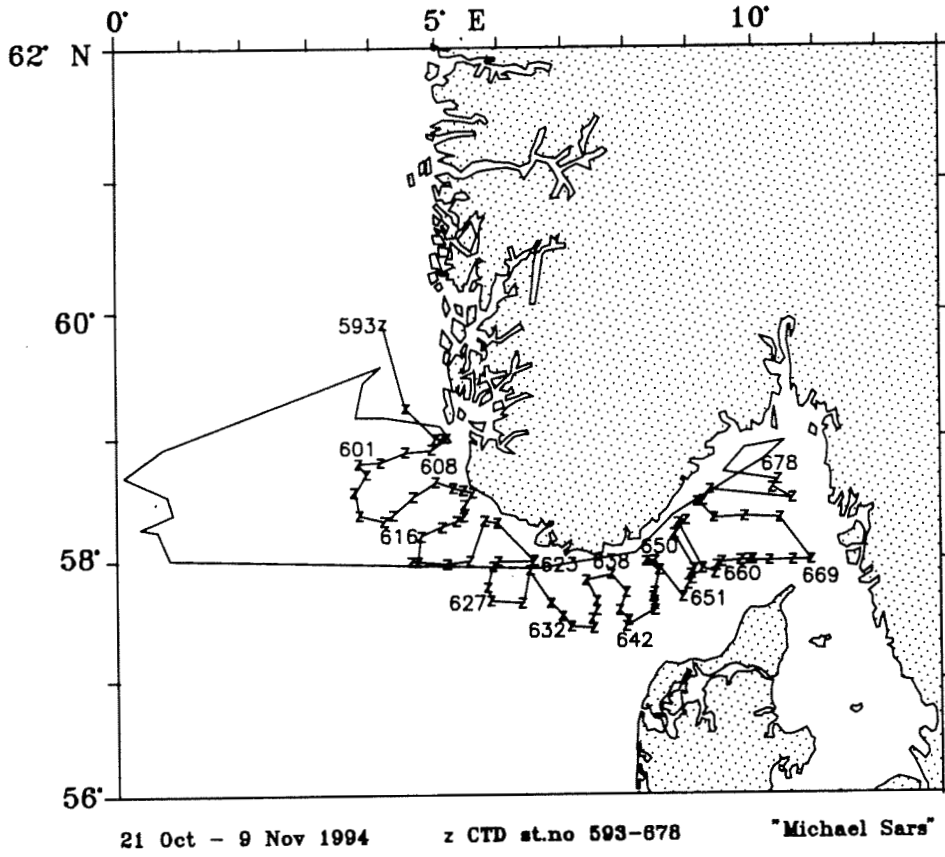
⊙ CTD and PLANKTON st.no 249 - 311 "Michael Sars"  
 △ Pel. TRAWL St.no 175 - 280

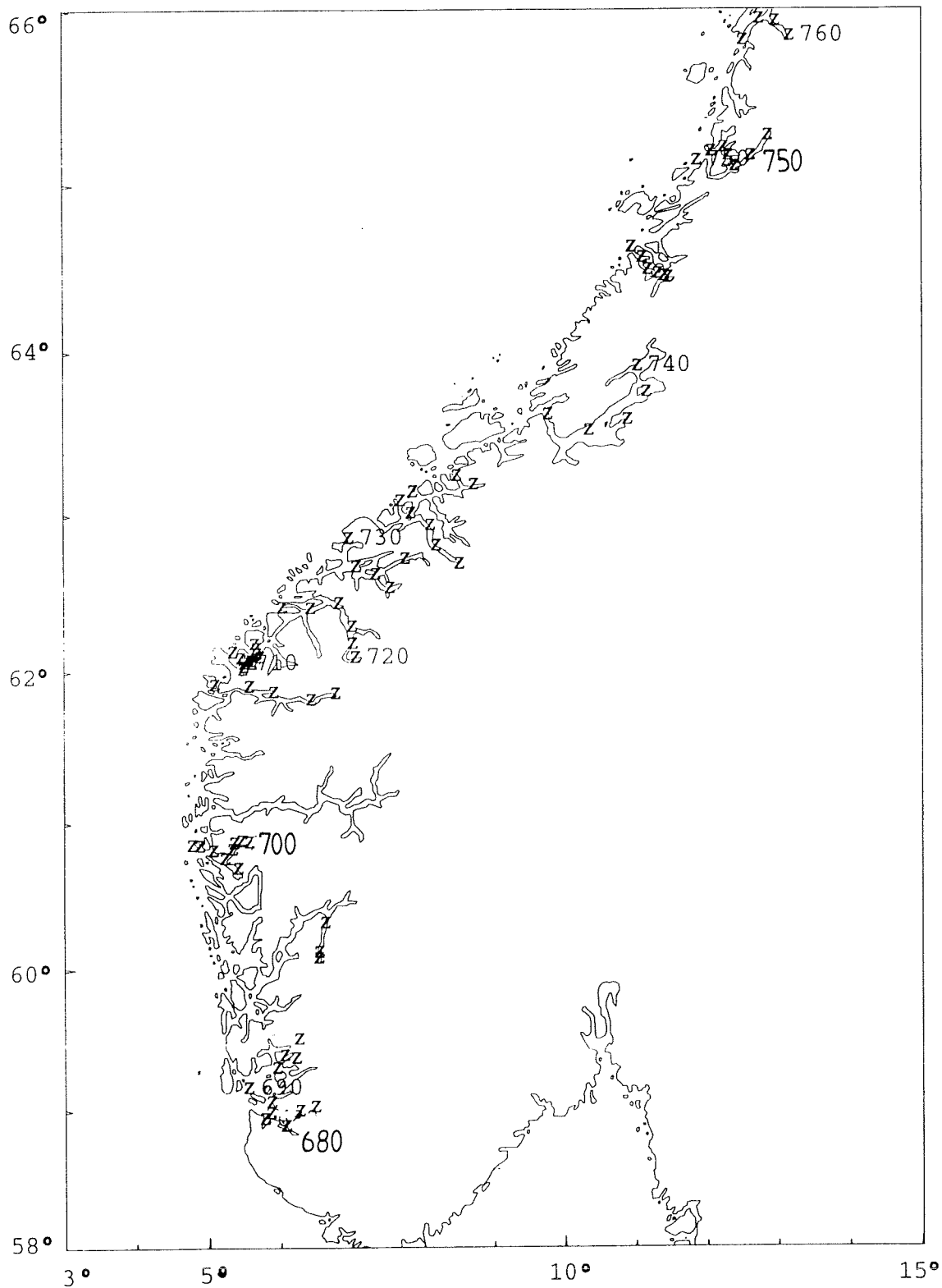


"M. Sars"  
 15 - 20 Aug 1994 z CTD st.no 312 - 331  
 Δ Pel.TRAWL st.no 281 - 300



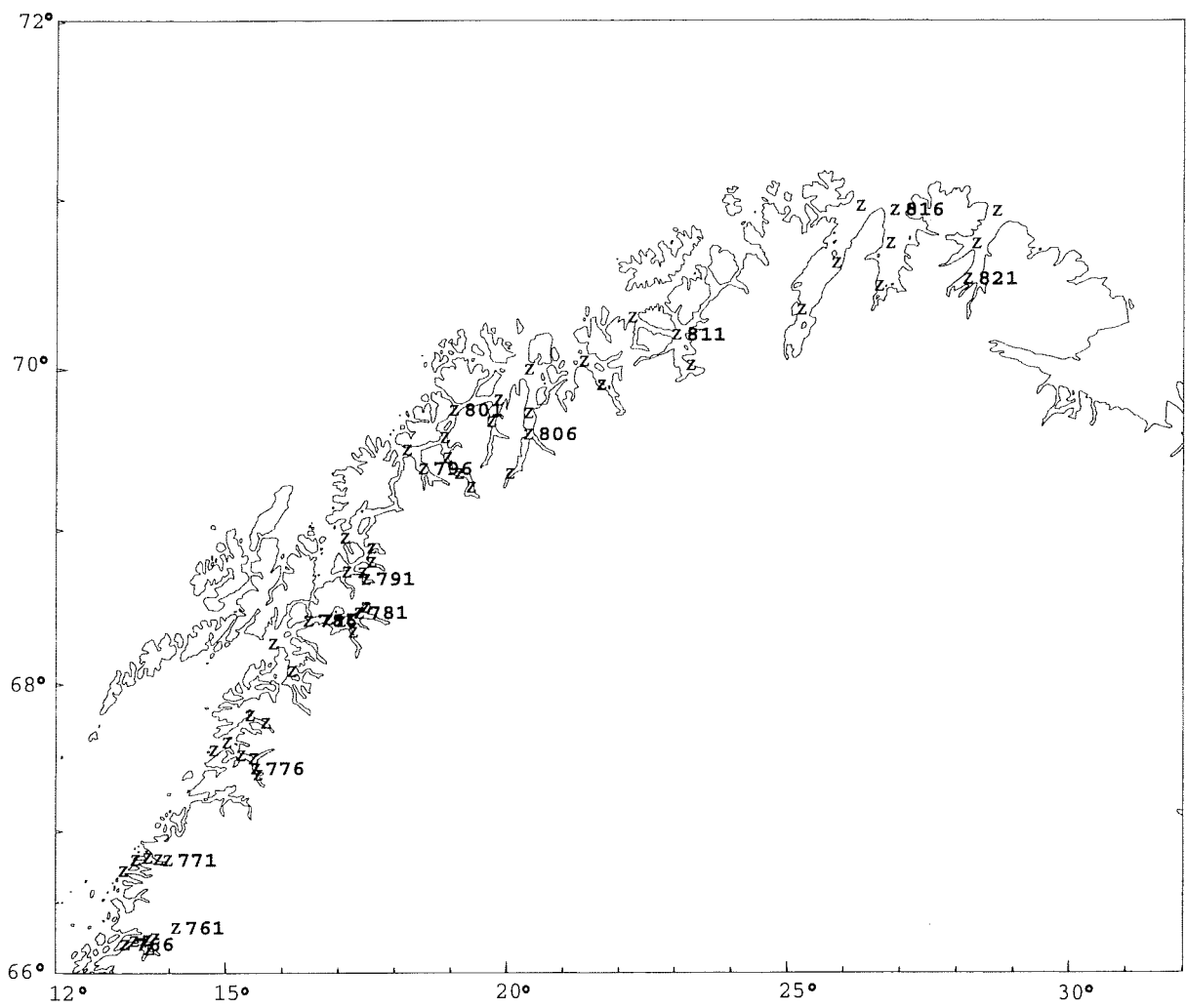
"M. Sars"  
 20 Aug-19 Sep 1994 z CTD st.no 332- 528  
 DEM.TRAWL at every ctd st. (TRAWL no 301 - 498)





10 Nov - 13 Dec 1994  
PART I: z CTD st.no 680-760 (10.11.-28.11)

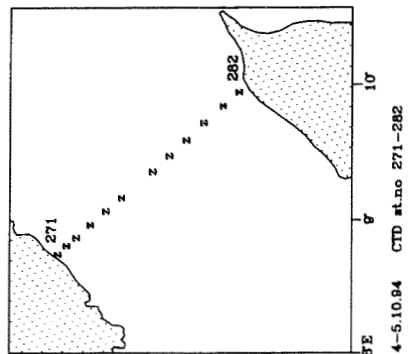
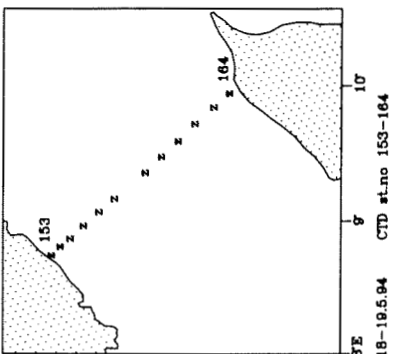
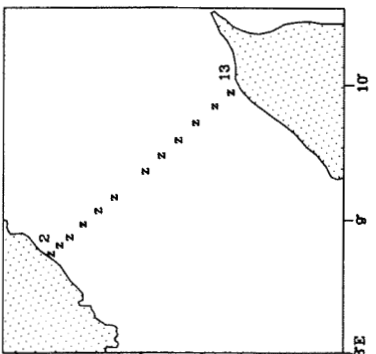
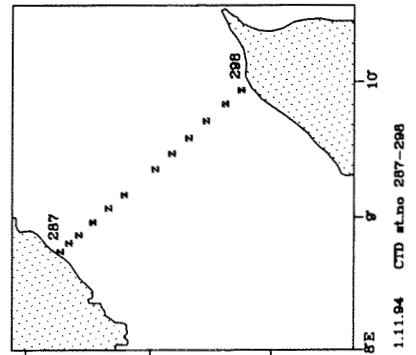
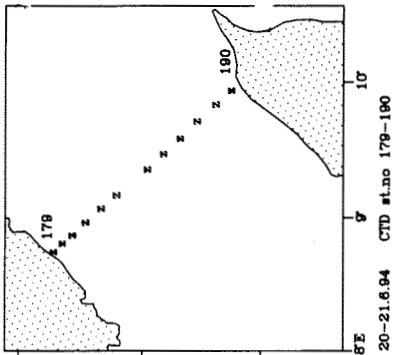
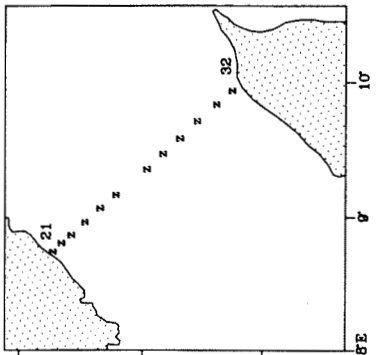
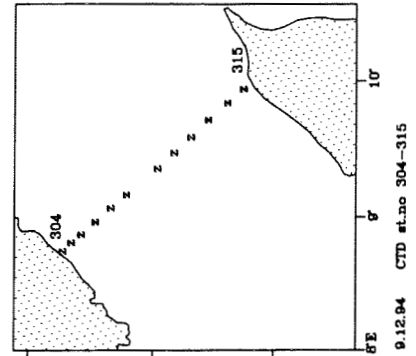
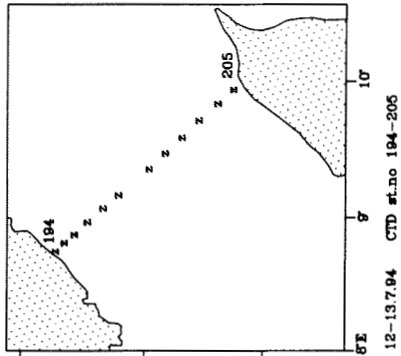
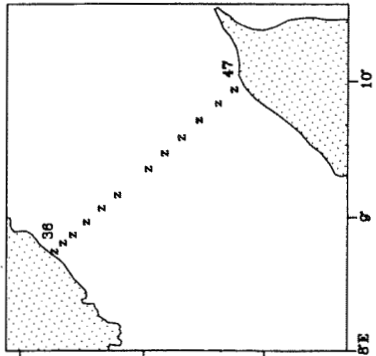
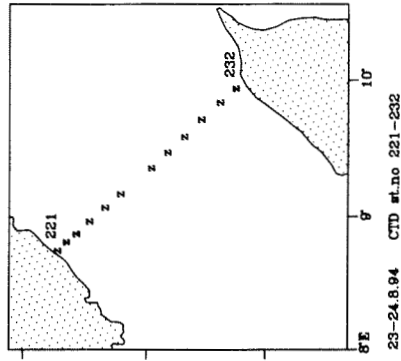
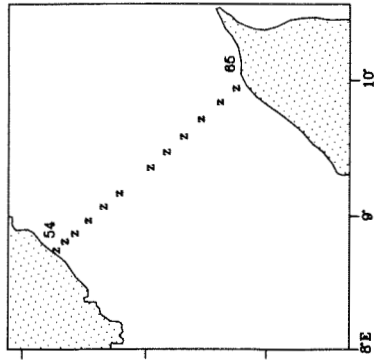




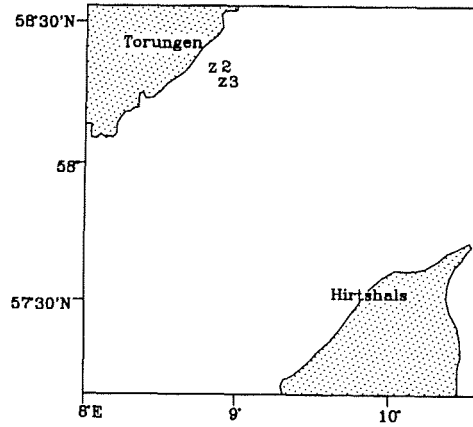
PART II: z CTD st.no 761-821 (28.11.-13.12)

"Michael Sars"

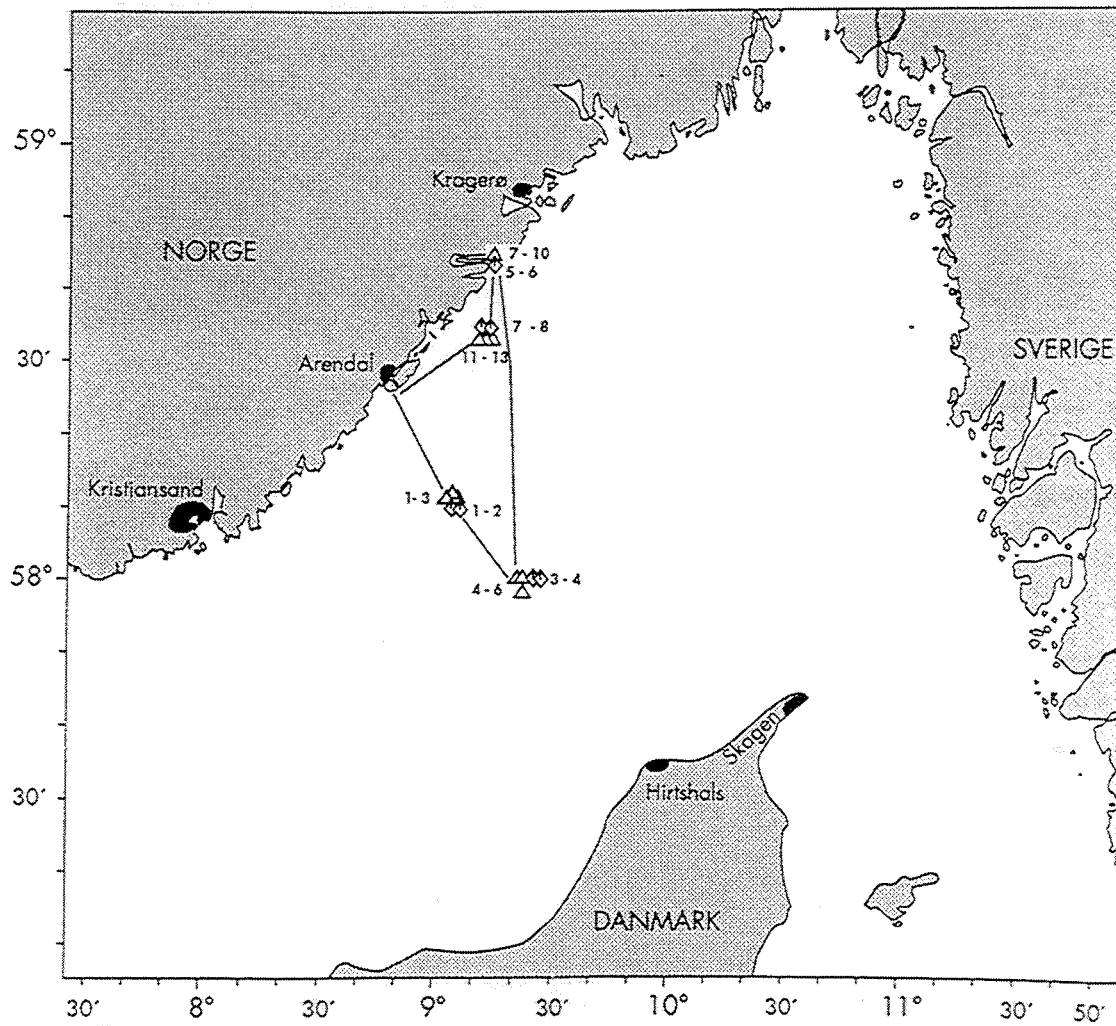
TORUNGEN - HIRTSHALS "G. M. Dannevig"



St. Arendal 2 and 3 (SFT)



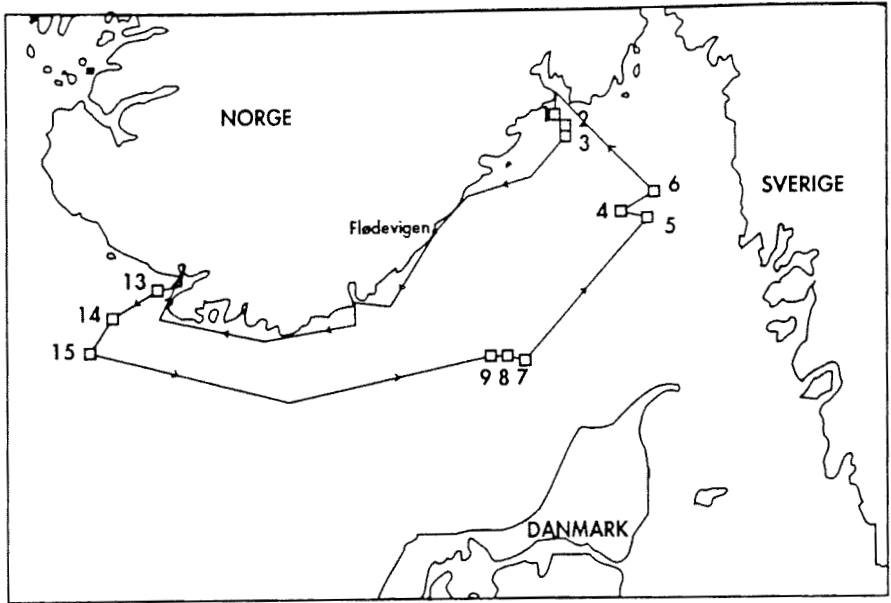
	ARENDAL 2	ARENDAL 3
DATE	Ctd stno	Ctd stno
7.01.94	1	
20.01.94	14	15
3.02.94	20	
15.02.94	22	23
7.03.94	34	
21.03.94	48	49
8.04.94	53	
29.04.94	152	151
18.05.94	154	
6.06.94	171	172
27.06.94	191	
11.07.94	192	193
1.08.94	206	
8.08.94	207	208
5.09.94	233	234
3.10.94	269	270
17.10.94	283	
2.11.94	299	300
14.11.94	301	
1.12.94	302	303
19.12.94	316	



25 - 26 Jan 1994  $\Delta$ TRAWL st (MIK)

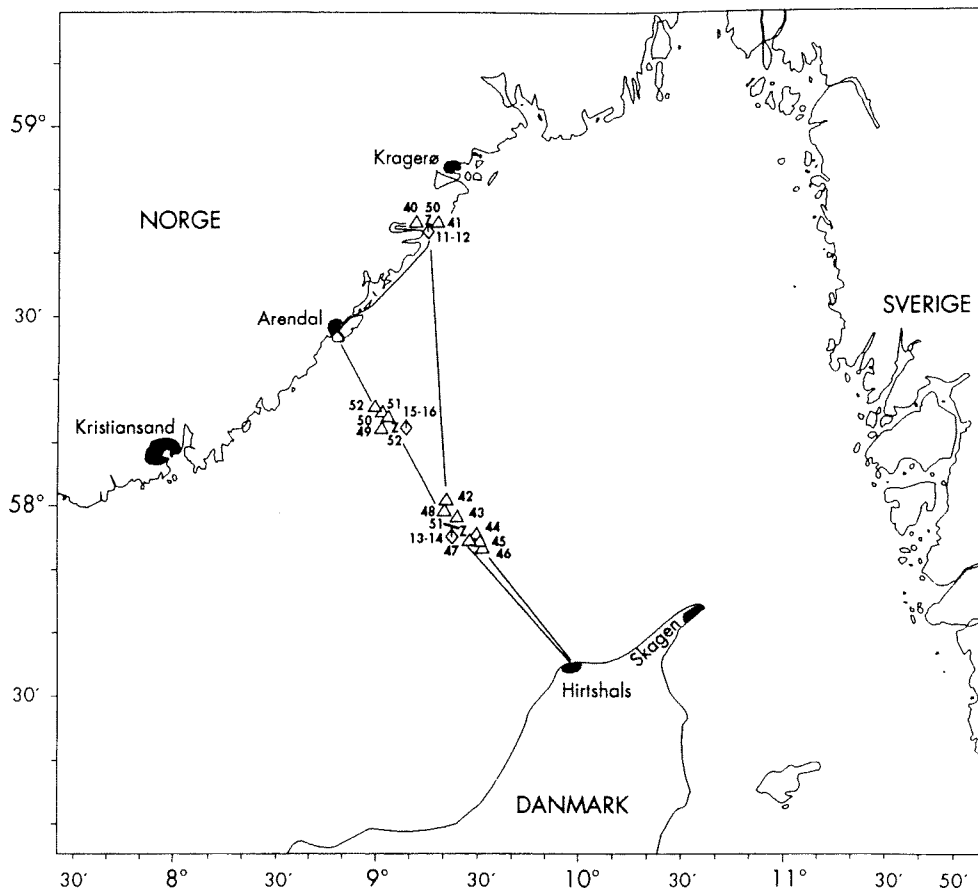
$\diamond$ WP 2 net (PLANKTON)

"G.M. Dannevig"



22 - 28 Mar 1994

"G.M. Dannevig"



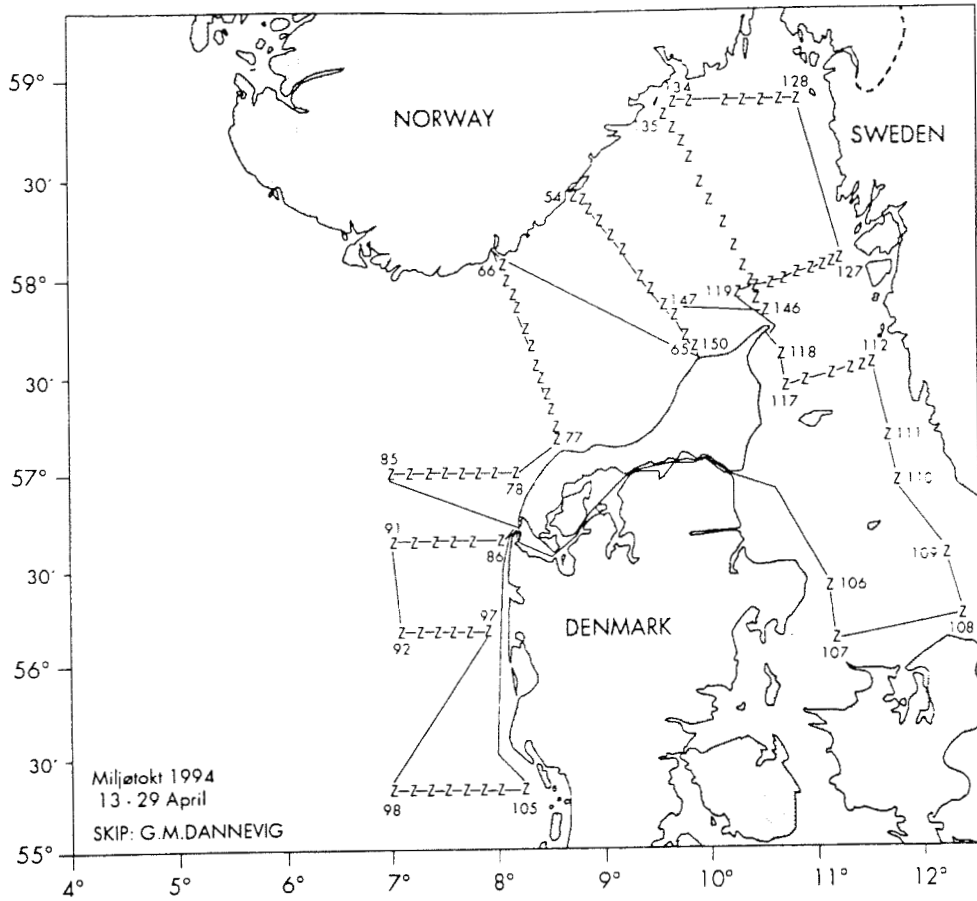
5 - 7 Apr 1994

z CTD st.

"G.M. Dannevig"

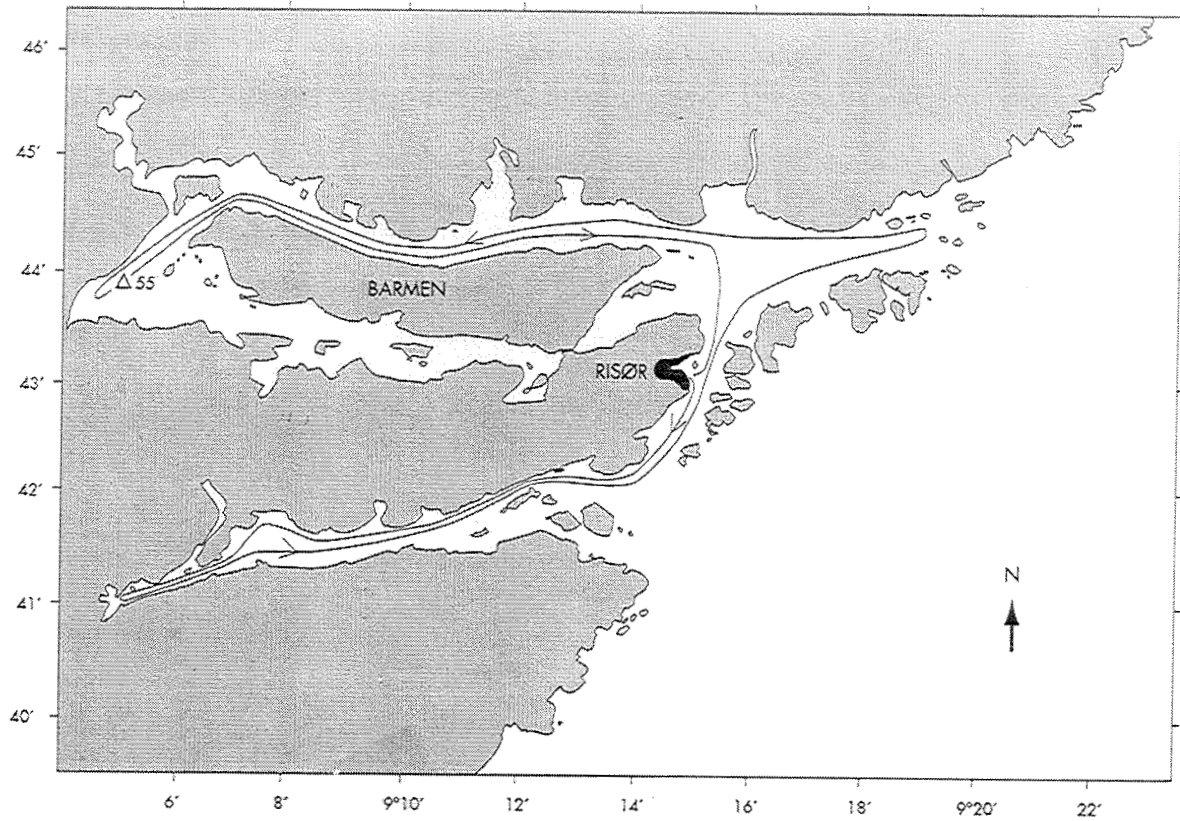
△TRAWL st (MIK)

◇WP 2 net (PLANKTON)



13 - 29 Apr 1994 Z CTD st.no 54-150

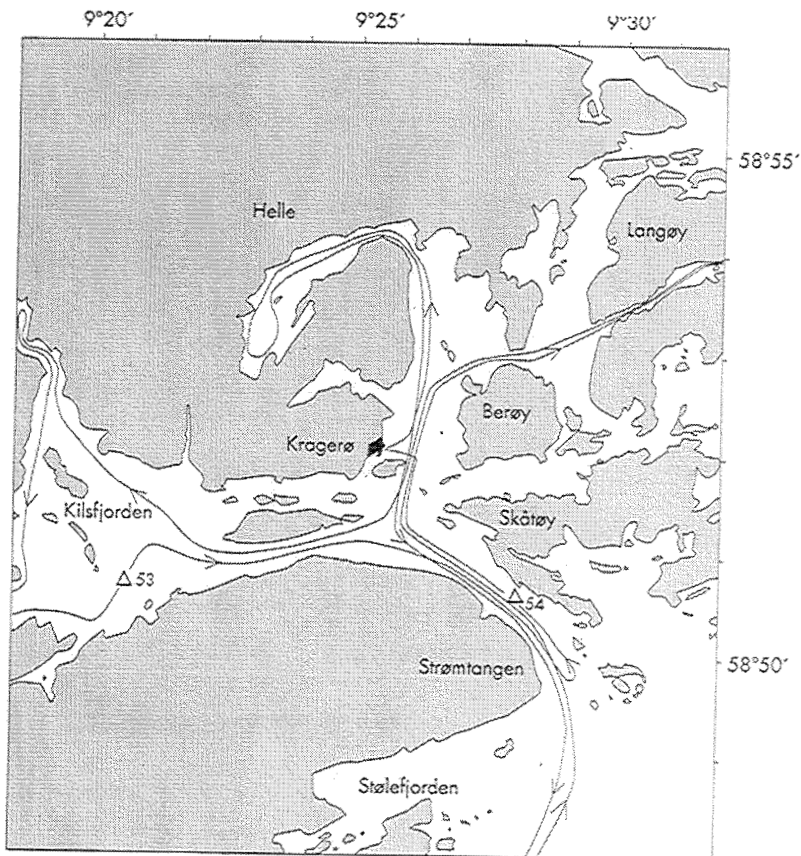
"G.M. Dannevig"



3 - 5 May 1994

△ Pel trawl st.

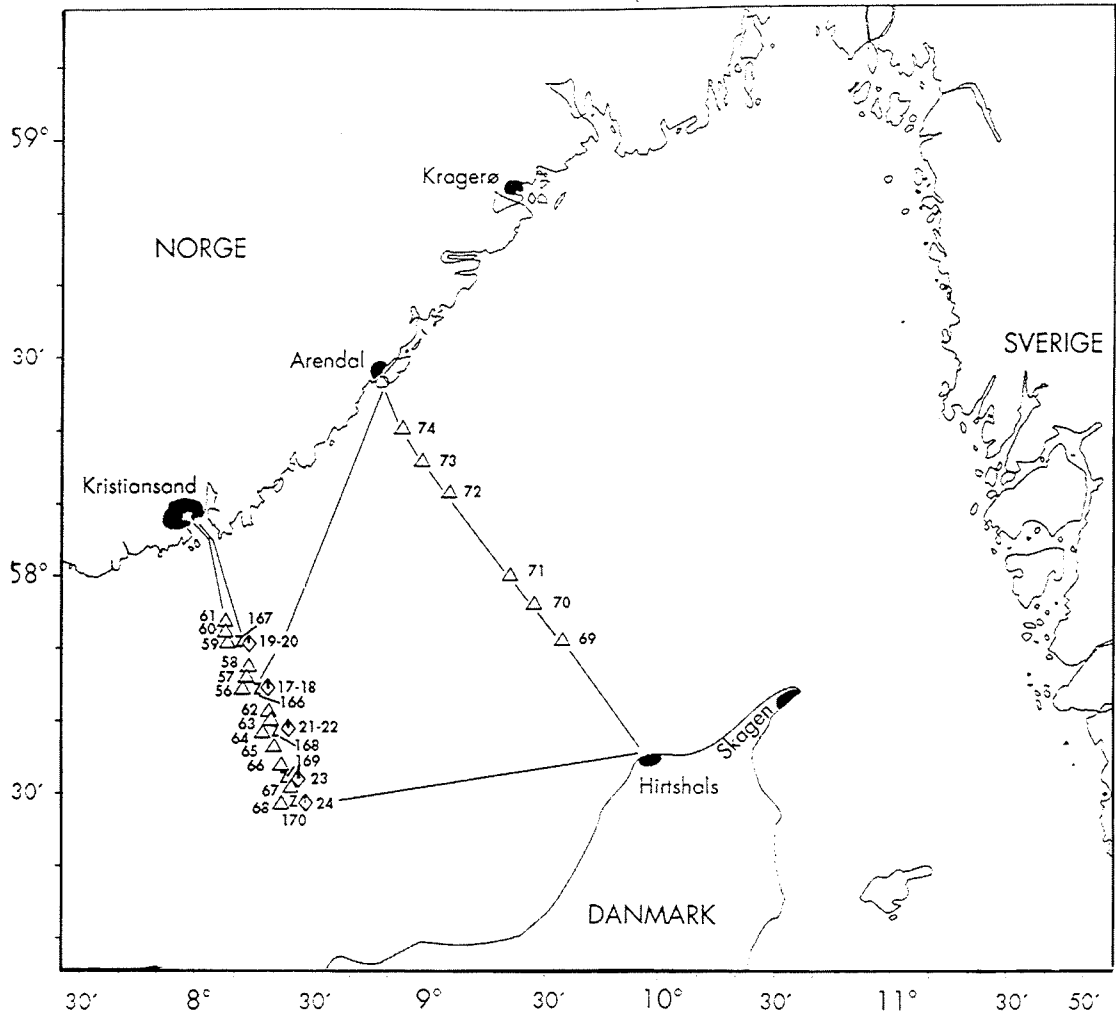
"G.M. Dannevig"



2 - 7 May 1994 △ Pel trawl st.

"G.M. Dannevig"





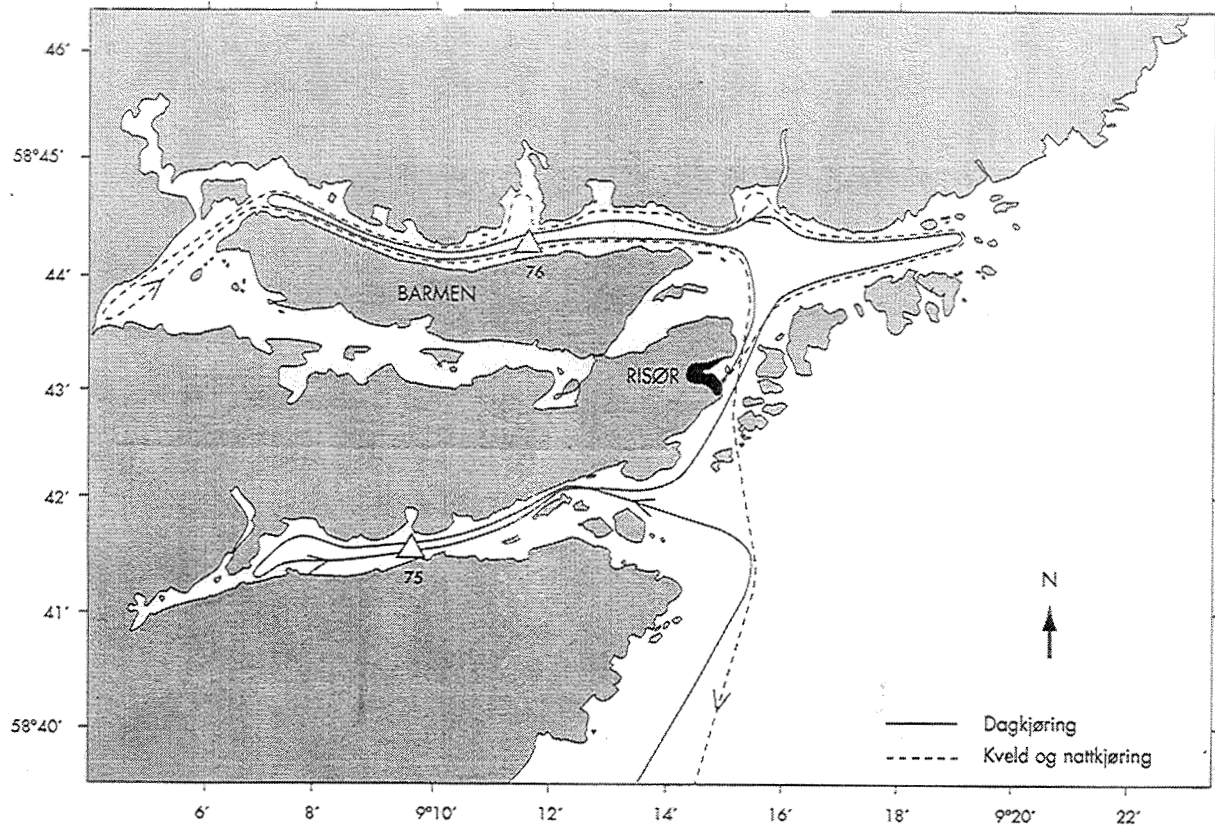
24 - 26 May 1994

z CTD st.

"G.M. Dannevig"

△ TRAWL st (MIK)

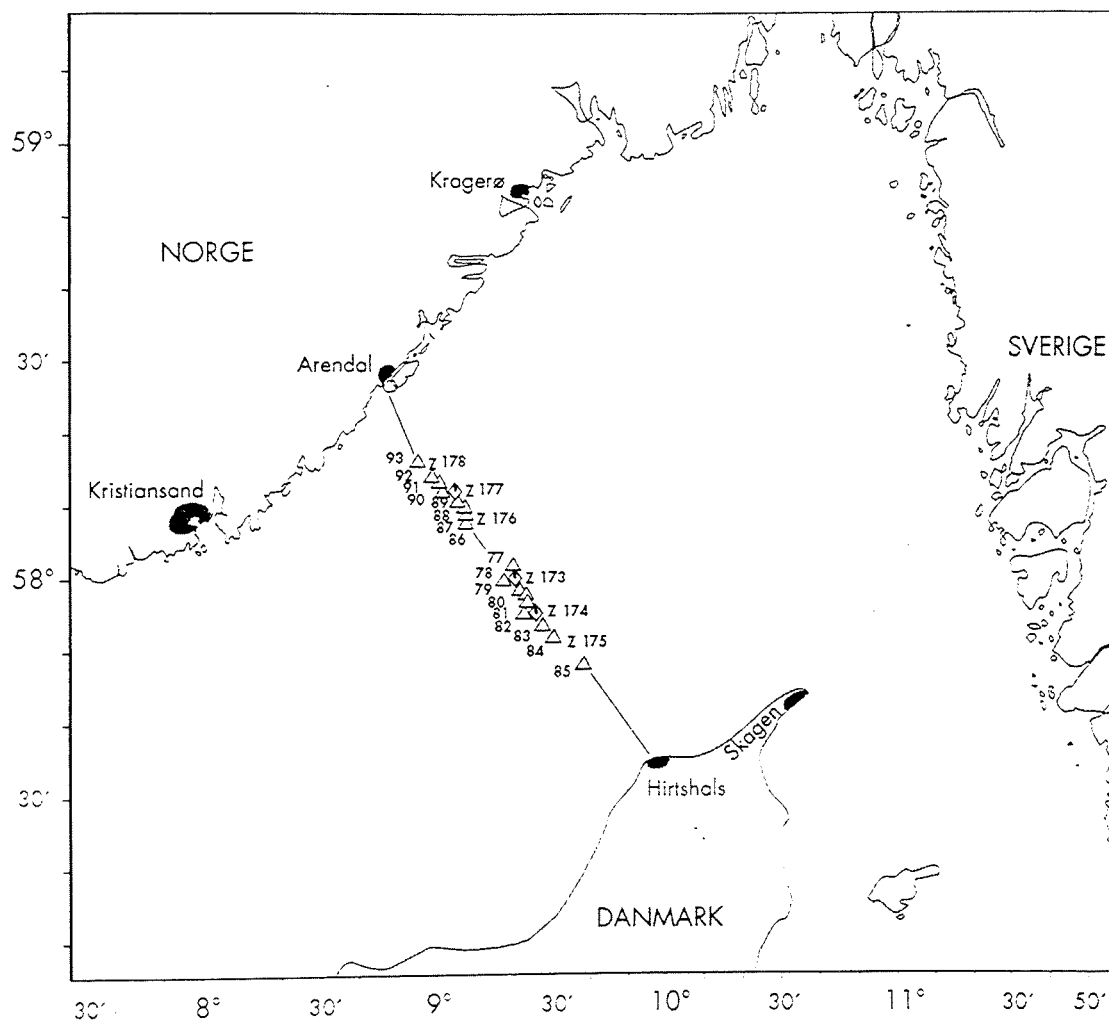
◇ WP 2 net (PLANKTON)



13 -14 Jun 1994

△ Pel trawl st.

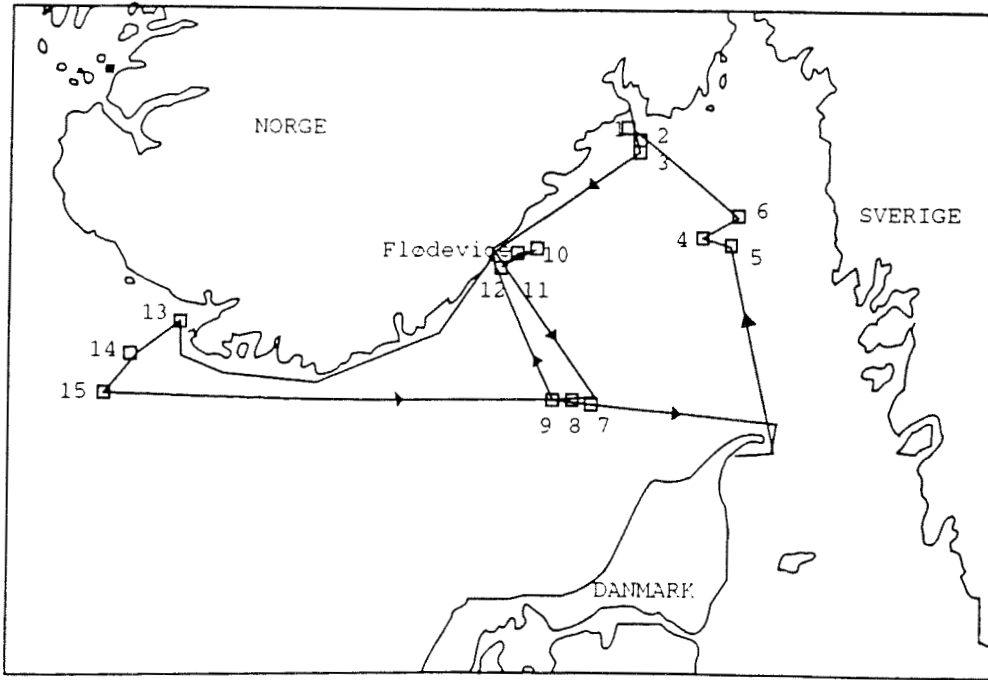
"G.M. Dannevig"



16 - 18 Jun 1994

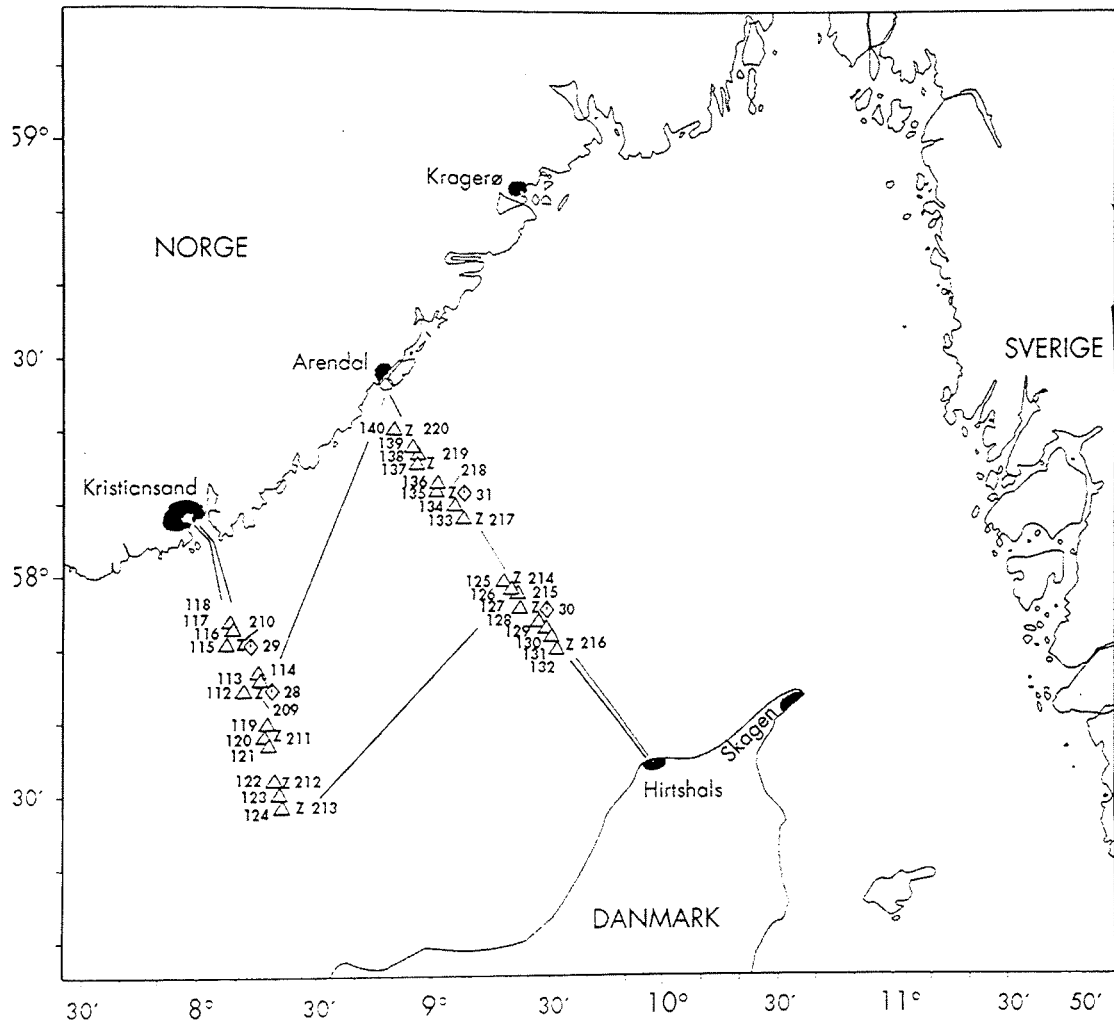
z CTD st.  
 Δ TRAWL st (MIK)  
 ◇ WP 2 net (PLANKTON)

"G.M. Dannevig"



28 Jun - 5 Jul 1994

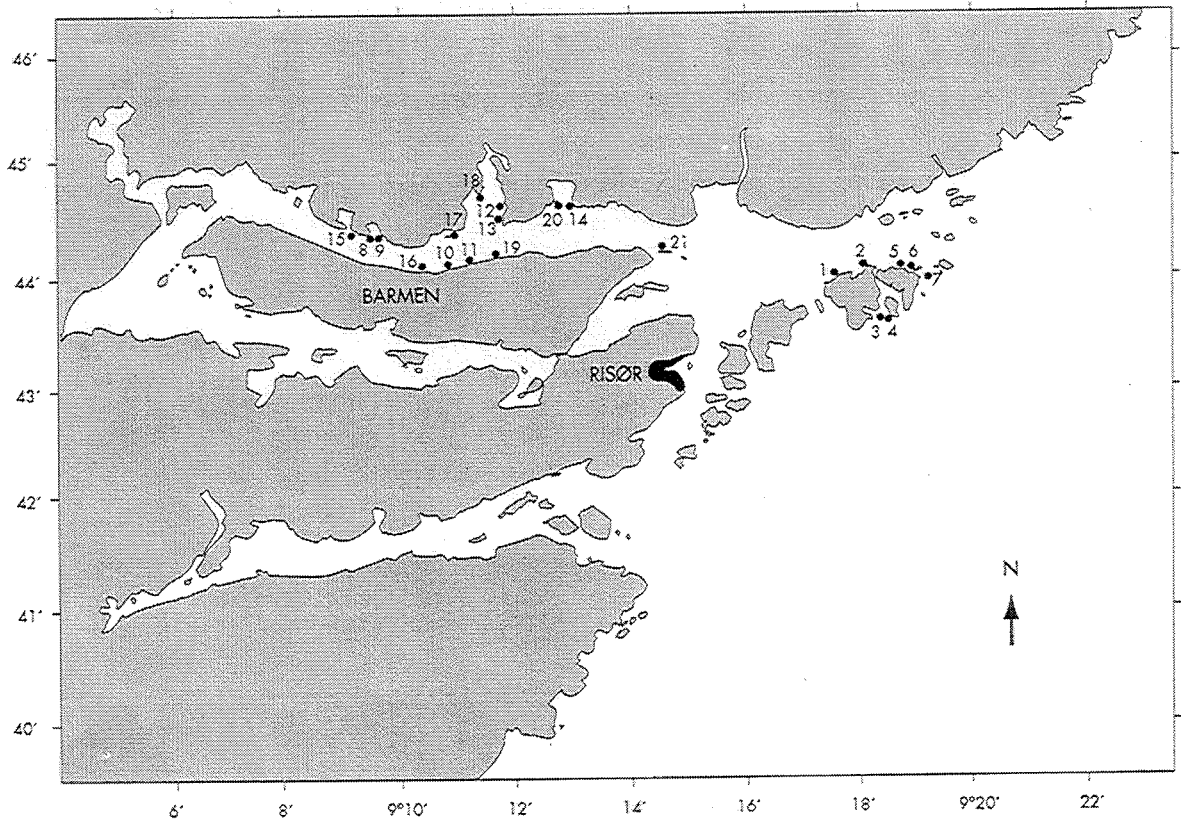
"G.M. Dannevig"



9 - 12 Aug 1994

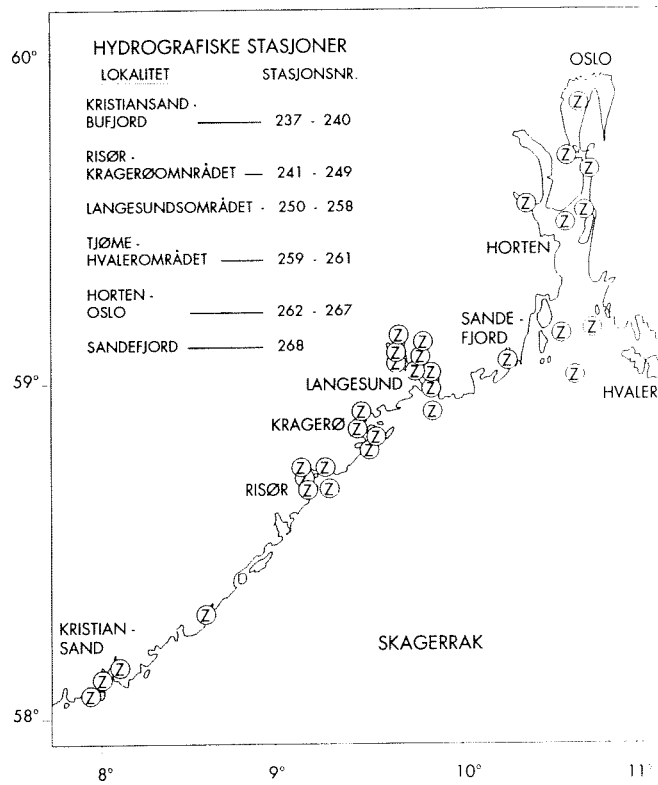
z CTD st.  
 Δ TRAWL st (MIK)  
 ◇ WP 2 net (PLANKTON)

"G.M. Dannevig"

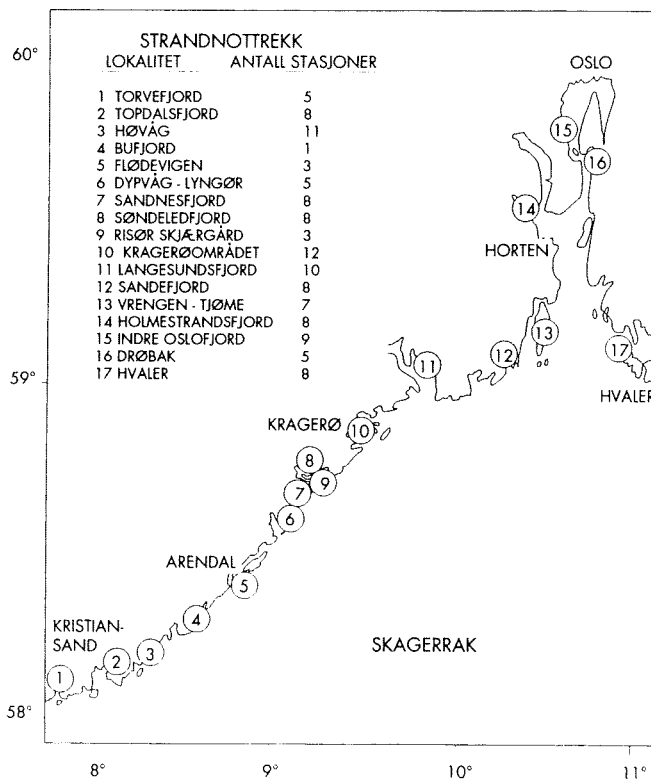


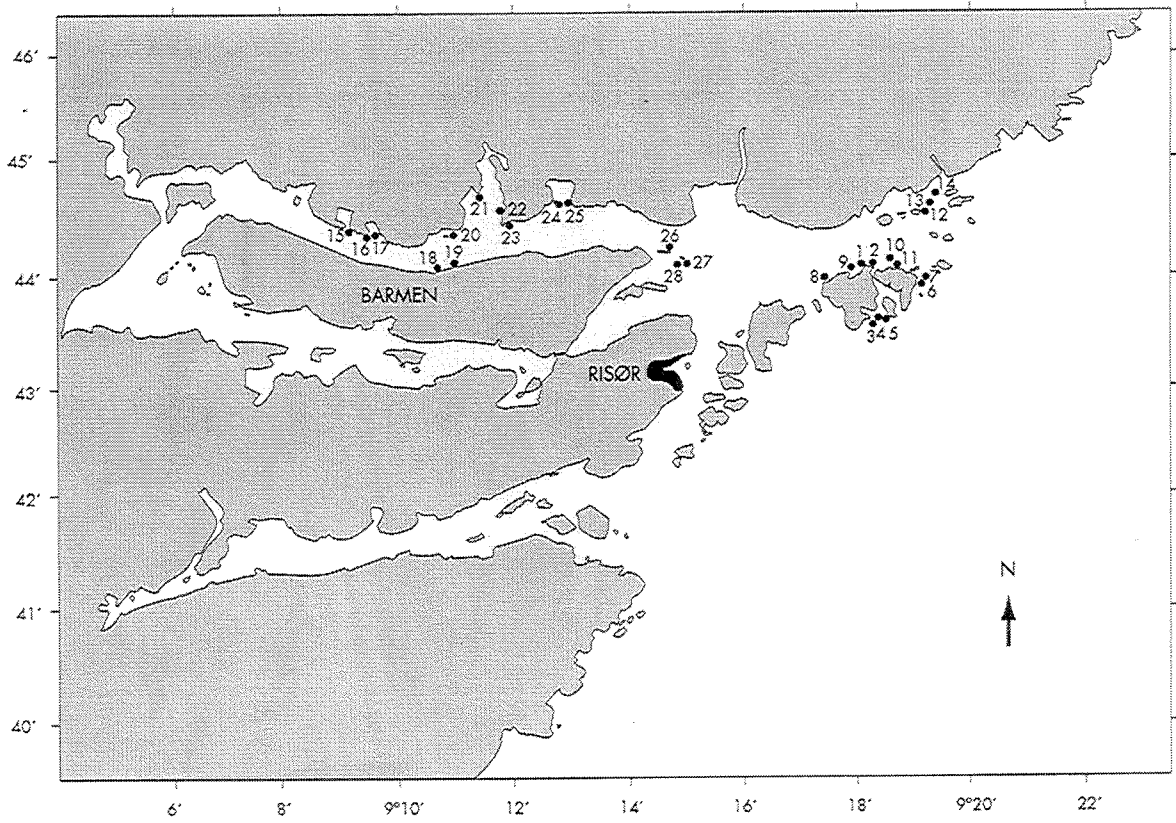
31 Aug - 3 Sep 1994    ● Net st.

"G.M. Dannevig"



14 Sep - 1 Oct 1994    z CTD st.    "G. M. Dannevig"



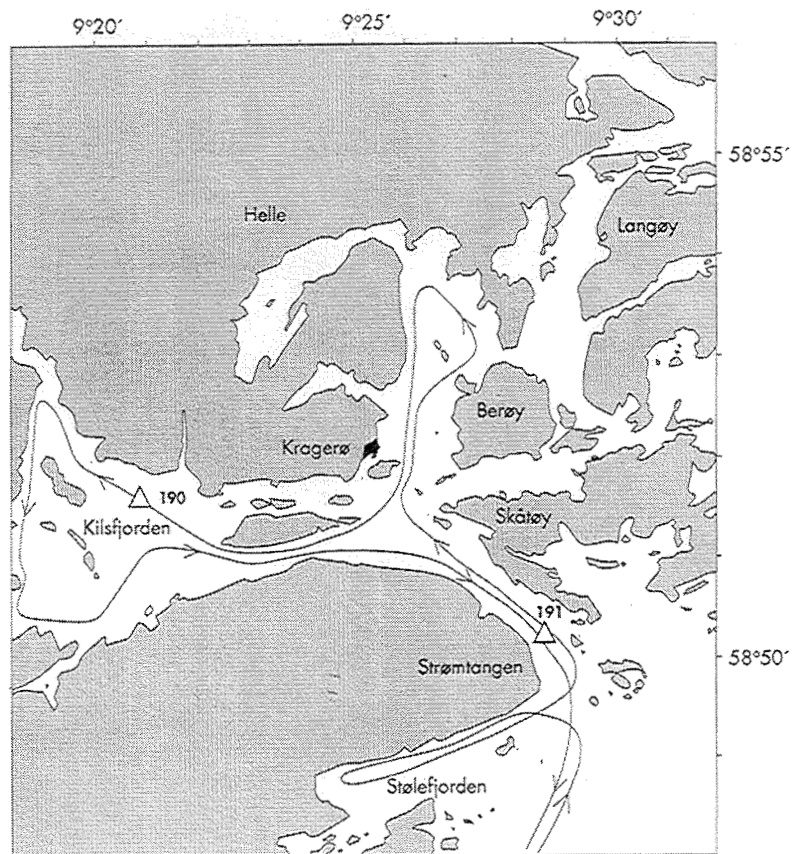


10 - 14 Oct 1994

● Net st.

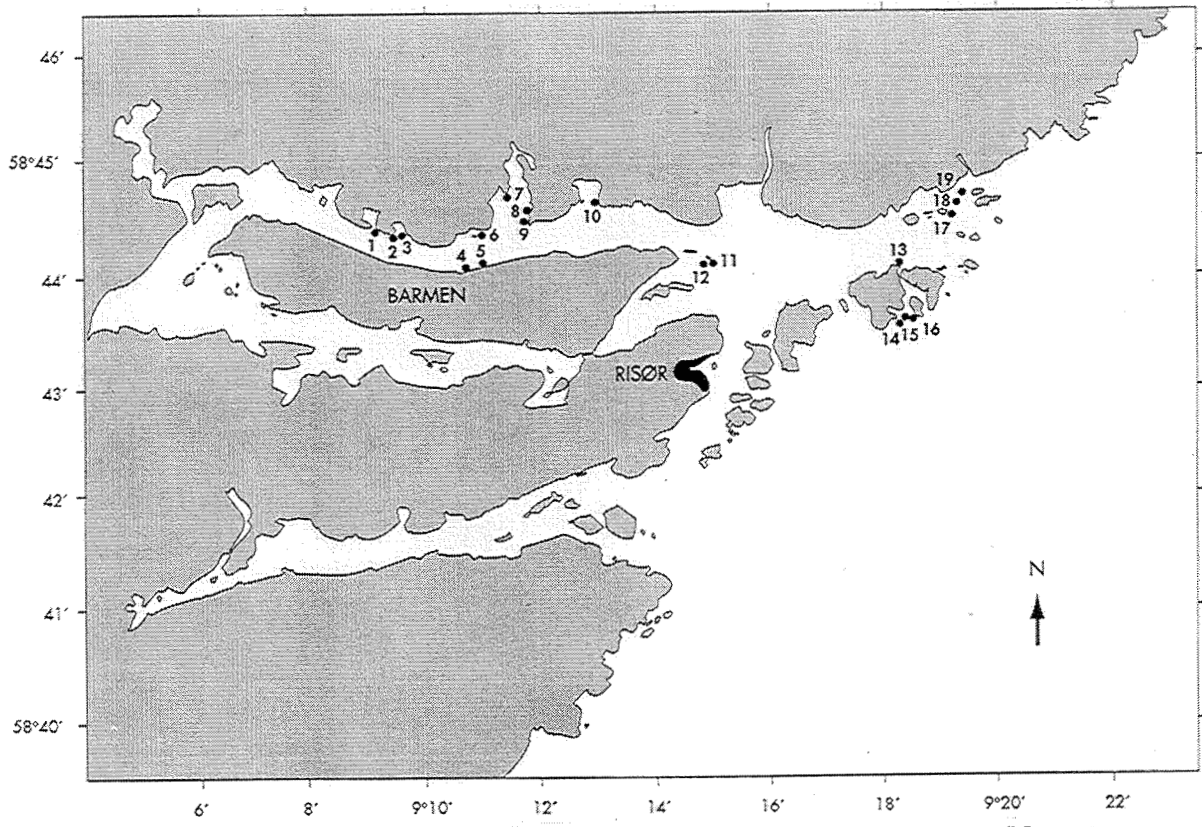
"G.M. Dannevig"





22-nov-94 Δ Pel trawl st.

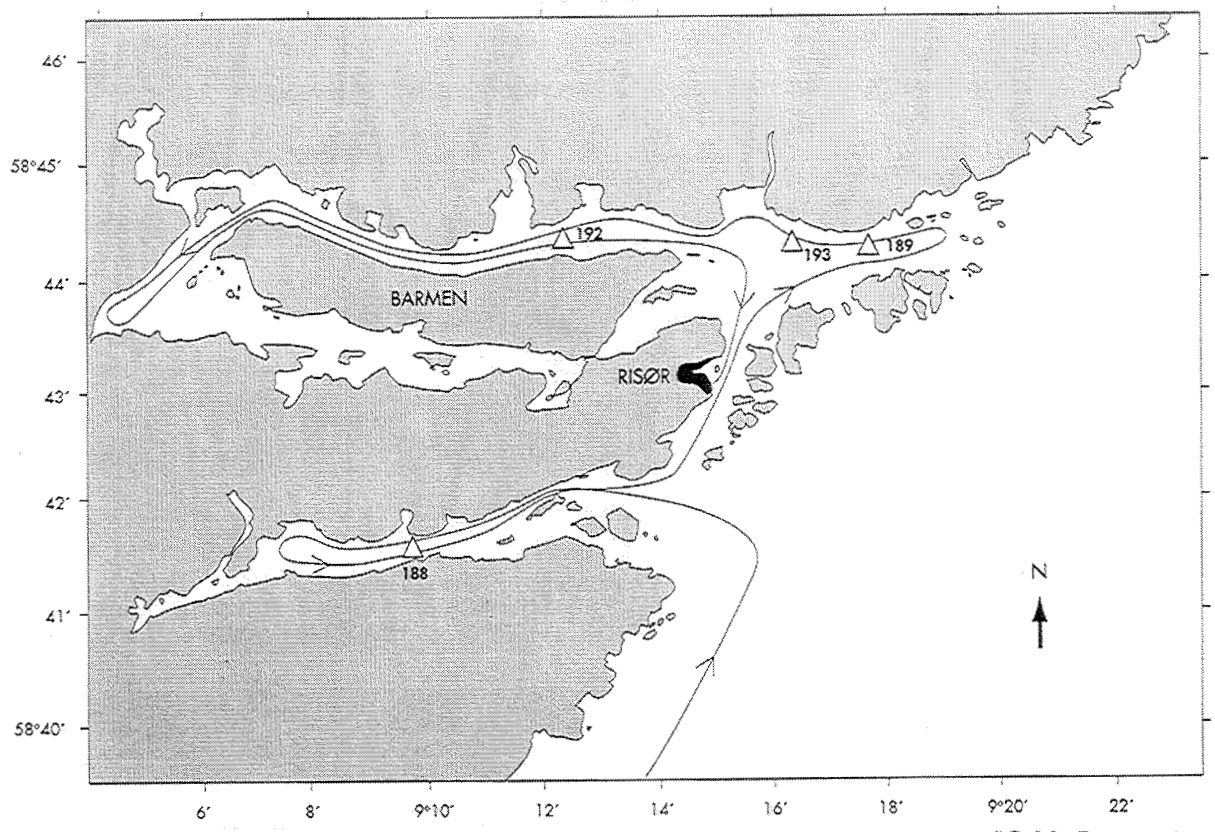
"G.M. Dannevig"



23 - 26 Nov 1994

● Net st.

"G.M. Dannevig"



21 - 26 Nov 1994

△ Pel trawl st.

"G.M. Dannevig"