

## Oversikt over tokt og stasjoner tatt i 2007 Report on oceanographic cruises and data stations, 2007

By Vigdis Rong

Maps made by Karen Gjertsen and Svein Erik Enersen ("G.M. Dannevig")





# PROSJEKTRAPPORT



Nordnesgaten 50, Postboks 1870 Nordnes, 5817 BERGEN  
Tlf. 55 23 85 00, Faks 55 23 85 31, [www.imr.no](http://www.imr.no)

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| <b>Rapport:</b><br>FISKEN OG HAVET   | <b>Nr. - År</b><br>4-2008 |
| <b>Tittel (norsk/engelsk):</b><br><b>Oversikt over tokt og stasjoner tatt i 2007</b><br><b>Report on oceanographic cruises and data stations, 2007</b> |                           |
| <b>Forfatter(e):</b><br>Vigdis Rong. Maps made by Karen Gjertsen and Svein Erik Enersen ("G.M. Dannevig")  |                           |

|                                  |
|----------------------------------|
| <b>Distribusjon:</b><br>Åpen     |
| <b>Havforskningsprosjektnr.:</b> |
| <b>Oppdragsgiver(e):</b>         |
| <b>Oppdragsgivers referanse:</b> |

|  |
|--|
| <b>Dato:</b><br>290408                       |
| <b>Program:</b>                              |
| <b>Faggruppe:</b><br>Norsk marint datasenter |
| <b>Antall sider totalt:</b><br>69            |

## Sammenheng (norsk):

Rapporten gir en oversikt over tokt i regi av Havforskningsinstituttet og Universitetet i Bergen med forskningsfartøyene "G.O. Sars", "Johan Hjort", "Håkon Mosby" og "G.M. Dannevig" i 2007. Kartene viser hovedsakelig CTD- og trålstasjoner, men også planktonstasjoner. For de fleste toktene vises kurs- og stasjonskart samt oversikt over når de faste snittene er tatt. Antall observasjoner pr. måned for de faste stasjonene langs kysten er vist i egen tabell. Oversiktene er innrapporterte til Det internasjonale råd for havforskning (ICES) i skjemaet "Cruise Summary Report". Data fra toktene er tilgjengelig fra Norsk marint datasenter ved Havforskningsinstituttet.

## Summary (English):

The report presents cruises carried out by the research vessels "G.O. Sars", "Johan Hjort", "Håkon Mosby" og "G.M. Dannevig" on behalf of the Institute of Marine Research and the University in Bergen during 2007. The charts mainly show CTD and trawl stations. Some charts also include plankton stations. Beside tracks and stations, standard sections observed are listed. A separate table lists the number of observations per month for the fixed stations along the Norwegian coast. The overviews are reported to the International Council for the Exploration of the Sea (ICES) in the "Cruise Summary Report". The data may be requested from the Norwegian Marine Datacentre at the Institute of Marine Research.

|  |  |
|--|--|
| <b>Emneord (norsk):</b><br>1. Kurskart<br>2. Stasjonskart<br>3. Toktmetadata | <b>Subject heading (English):</b><br>1. Cruise track charts<br>2. Station charts<br>3. Cruise metadata |
|--|--|

*Helge Sævi*  
prosjektleder

*Helge Sævi*  
faggrupeleder



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# 1 Cruises 2007

## 1.1 G.O. Sars (Ship no 10)

| CRUISE NO | PERIOD OF CRUISES |         | PURPOSE  | AREA   | CTD ST |     | TRAWL ST |     | PAGE OF CHART | COMMENT   |
|-----------|-------------------|---------|--|--|--------|-----|----------|-----|---------------|-----------|
|           | Start             | End     |  |  | Start  | End | Start    | End |               |           |
| 2007101   | 8 Jan             | 14 Jan  |  |  | -      | -   | -        | -   | -             | Cancelled |
| 2007102   | 20 Jan            | 26 Jan  | MUST and Messor final evaluation of equipment.   | Western Norway   | -      | -   | -        | -   | -             | Cancelled |
| 2007103   | 12 Feb            | 14 Mar  | Ecosystem survey Barents Sea, NIFES-project.   | Barents Sea  | 1      | 71  | 1        | 164 | 16–17         |           |
| 2007104   | 15 Mar            | 28 Mar  | Development of new trawl for testing. Trawl procedures for reduced bottom influence (DEGREE). Midwater trawling, cod/haddock.        | Barents Sea  | 72     | 72  | 165      | 192 | 18            |           |
| 2007105   | 30 Mar            | 21 Apr  | MAREANO-survey. Coral reef. Hydrographic standard sections. Plankton.  | Tromsøflaket - LoppHAVet, East of Finnmark, Vesterålen | 73     | 92  | -        | -   | 19            |           |
| 2007106   | 25 Apr            | 1 June  | Density measurements of Atlantic herring, NIFES-project. Testing PROMUS, MS 70. Density measurements of Red-fish. Radioactivity.     | Norwegian Sea  | 93     | 161 | 193      | 305 | 20–21         |           |
| 2007107   | 2 June            | 21 June | IPY-NESSAR, front studies. Plankton.   | Norwegian Sea  | 162    | 238 | 306      | 322 | 22–24         |           |
| 2007108   | 25 June           | 19 July | Seismic investigations Knipovich ridge.  | Norwegian Sea  | 239    | 310 | -        | -   | 24            |           |
| 2007109   | 22 July           | 13 Aug  | Sedimentary systems mid-Norwegian margin. RAPID.   | North Sea  | 311    | 321 | -        | -   | 25            |           |
| 2007110   | 14 Aug            | 30 Sep  | Ecosystem survey Barents Sea, NIFES-project. Plankton. Hydrographic standard sections. Surveillance contamination.                   | Barents Sea  | 322    | 439 | 323      | 528 | 26–28         |           |
| 2007111   | 1 Oct             | 23 Oct  | MAREANO-survey. Hydrographic standard sections. Distribution of sponge aggregates.   | Vesterålen   | 440    | 460 | -        | -   | 29–30         |           |
| 2007112   | 27 Oct            | 29 Oct  | GEOL 201. Field course in marine geology and geophysics.   | Western Norway   | 461    | 462 | -        | -   | 31            |           |
| 2007113   | 15 Nov            | 31 Dec  | RETRO (Response of Tropical Atlantic Surface and Intermediate Waters to Changes in the Atlantic Meridional Overturning Circulation). | South-Atlantic, Western Tropical Atlantic              | 463    | 470 | -        | -   | 32            |           |

## 1.2 Johan Hjort (Ship no 12)

| CRUISE NO | PERIOD OF CRUISES |         | PURPOSE   | AREA   | CTD ST |      | TRAWL ST |     | PAGE OF CHART | COMMENT   |
|-----------|-------------------|---------|---|--|--------|------|----------|-----|---------------|-----------|
|           | Start             | End     |   |  | Start  | End  | Start    | End |               |           |
| 2007201   | 8 Jan             | 9 Jan   |   |  | -      | -    | -        | -   | -             | Cancelled |
| 2007202   | 10 Jan            | 29 Jan  | Hydrography, nutrients, phytoplankton and zooplankton on the oceanographic sections.            | Norwegian Sea/<br>Barents Sea                            | 1      | 67   | -        | -   | 33            |           |
| 2007203   | 1 Feb             | 15 Mar  | Ecosystem survey Barents Sea, NIFES-project. Hydrography and plankton. Inter calibration trawl. | Barents Sea  | 68     | 189  | 1        | 192 | 34–35         |           |
| 2007204   | 17 Mar            | 7 Apr   | Spawning areas NA cod survey.   | Senja–Lofoten, Vestfjorden,<br>Foldafjordene             | 190    | 356  | 193      | 223 | 36–37         |           |
| 2007205   | 11 Apr            | 13 May  | Sandeel. Plankton. Radioactivity. Hydrography.  | North Sea / Skagerrak                                    | 357    | 456  | 224      | 252 | 38–40         |           |
| 2007206   | 14 May            | 9 June  | Egg survey west of Ireland.   | Atlantic Ocean near Ireland                              | 457    | 596  | 253      | 263 | 41–42         |           |
| 2007207   | 20 June           | 21 June | MUST and MESSOR, final evaluation.  |  | -      | -    | -        | -   | -             | Cancelled |
| 2007208   | 21 June           | 19 July | Ecosystem survey North Sea, NIFES-project. Hydrography.   | North Sea  | 597    | 762  | 264      | 367 | 43–44         |           |
| 2007209   | 23 July           | 31 July | Svinøy section and Gimsøy section. Plankton.  | Norwegian Sea  | 763    | 787  | 368      | 373 | 45–46         |           |
| 2007210   | 1 Aug             | 25 Sep  | Ecosystem survey Barents Sea. Hydrography.  | Barents Sea and the north/east part of the Norwegian Sea | 788    | 909  | 374      | 560 | 47–49         |           |
| 2007211   | 1 Oct             | 11 Oct  | Acoustic survey mackerel distribution.  | North Sea  | 910    | 951  | 561      | 580 | 50–51         |           |
| 2007212   | 15 Oct            | 11 Nov  | Ecosystem survey, the Norwegian coast.  | Norwegian coast  | 952    | 994  | 581      | 659 | 52–53         |           |
| 2007213   | 14 Nov            | 26 Nov  | Hydrography. Plankton.  |  | 995    | 1039 | 660      | 665 | 54–55         |           |
| 2007214   | 26 Nov            | 18 Dec  | Wintering Norwegian spring-spawning herring, Norwegian Sea. Investigation oil spill North Sea.  |  | 1040   | 1053 | 666      | 690 | 56–57         |           |

### 1.3 Håkon Mosby (Ship no 1)

| CRUISE NO | PERIOD OF CRUISES |        | PURPOSE  | AREA                                     | CTD ST |      | TRAWL ST |     | PAGE OF CHART | COMMENT     |
|-----------|-------------------|--------|--|--|--------|------|----------|-----|---------------|-------------|
|           | Start             | End    |  |  | Start  | End  | Start    | End |               |             |
| 2007601   | 6 Jan             | 7 Jan  | Calibrating EK60.  | Tysnes                                   | 1      | 1    | -        | -   | 58            |             |
| 2007602   | 8 Jan             | 6 Feb  | International Bottom Trawl Survey (IBTS) 1. quarter, NIFES-project. Hydrography. Investigation oil spill M/S "Server". | North Sea                                | 2      | 103  | 1        | 26  | 59–61         |             |
| 2007603   | 7 Feb             | 22 Feb | Shrimp survey, NIFES-project. Hydrography.   | Skagerrak                                | 104    | 186  | 27       | 92  | 62            |             |
| 2007604   | 27 Feb            | 8 Mar  | GEOF332, Oceanography.   | Western Norway, mainly Sognefjorden      | 187    | 326  | -        | -   | 63            |             |
| 2007605   | 9 Mar             | 11 Mar | Geotekn 2007.  | Western Norway                           | -      | -    | -        | -   | -             | No CTD data |
| 2007606   | 12 Mar            | 15 Mar | GEOF 231 Operational oceanography.   | Western Norway, mainly Sognefjorden      | 327    | 373  | -        | -   | 64            |             |
| 2007607   | 16 Mar            | 23 Mar | Damocles/IPY. Surveillance of the Gulf Stream in the Svinøy section.   | Norwegian Sea, Sognefjorden.             | 374    | 379  | -        | -   | 65            |             |
| 2007608   | 26 Mar            | 27 Mar | GEOF130 Oceanography, educational cruise.  | Western Norway, Sørfjorden near Osterøy  | 380    | 391  | -        | -   | 65            |             |
| 2007609   | 28 Mar            | 11 Apr | Herring larvae survey.   | Norwegian coast from Bergen to Bodø      | 392    | 482  | -        | -   | 66            |             |
| 2007610   | 21 Apr            | 5 May  | Hydrography Norwegian Sea, Bjørnøya-V, Fugløya–Bjørnøya included rig replacement.                                      | Norwegian Sea– Barents Sea               | 483    | 546  | 93       | 98  | 67–68         |             |
| 2007611   | 7 May             | 2 June | Mengdemåling av vassild, hydrography, plankton and rig work on the Svinøy section.                                     | Norwegian shelf from Tromsø to Skagerrak | 547    | 595  | 99       | 141 | 69–70         |             |
| 2007612   | 23 June           | 9 July | Current moorings in the Barents Sea. Oceanographic sections.   | Barents Sea                              | 596    | 644  | 142      | 150 | 71–73         |             |
| 2007613   | 10 July           | 4 Aug  | Svalbard coast. BASSEX, Yermak Plateau. DAMOCLES-BASSEX.   | Barents Sea, Svalbard                    | 645    | 829  | -        | -   | 74            |             |
| 2007614   | 5 Aug             | 18 Aug | Petrobar. Utlegging av OBS near Bjørnøya.  | Barents Sea                              | -      | -    | -        | -   | 75            | No CTD data |
| 2007615   | 20 Aug            | 1 Sep  | Svalex.  | Svalbard                                 | -      | -    | -        | -   | 76            |             |
| 2007616   | 2 Sep             | 4 Sep  | Search for lost CTD.   | Svalbard                                 | -      | -    | -        | -   | -             |             |
| 2007617   | 5 Sep             | 17 Sep | Educational cruise AGF214.   | Svalbard                                 | 830    | 1108 | -        | -   | 77            |             |
| 2007618   | 19 Sep            | 8 Oct  | IPY/CARE Greenland. Recovery of rig near Jan Mayen.  | Iceland/ Greenland Sea                   | 1109   | 1224 | -        | -   | 77            |             |

### 1.3 Håkon Mosby (cont.)

| CRUISE NO | PERIOD OF CRUISES |        | PURPOSE  | AREA            | CTD ST |      | TRAWL ST |     | PAGE OF CHART | COMMENT |
|-----------|-------------------|--------|--|-----------------|--------|------|----------|-----|---------------|---------|
|           | Start             | End    |  |                 | Start  | End  | Start    | End |               |         |
| 2007619   | 9 Oct             | 15 Oct | MAR2 230 Fishery ecology.  | North Sea       | 1225   | 1249 | 151      | 157 | 78            |         |
| 2007620   | 17 Oct            | 22 Oct | Damocles/IPY, Surveillance of the Gulf Stream in the Svinøy section. | Norwegian Sea   | 1250   | 1251 | -        | -   | 79            |         |
| 2007621   | 27 Oct            | 29 Oct | Geotekn 2007   | Western Norway  | -      | -    | -        | -   | 80            |         |
| 2007622   | 1 Nov             | 4 Nov  | MAR310 Marine biological felt methods.                               | Western Norway  | 1252   | 1260 | 158      | 200 | 80–81         |         |
| 2007623   | 7 Nov             | 16 Dec | Ecosystem survey.  | Norwegian coast | 1261   | 1410 | 201      | 304 | 82–84         |         |
| 2007624   | 10 Dec            | 16 Dec | Swathseis.   | Western Norway  | -      | -    | -        | -   | -             |         |

### 1.4 Jan Mayen (Ship no 19)

| CRUISE NO | PERIOD OF CRUISES |        | PURPOSE                                | AREA  | CTD ST |     | TRAWL ST |     | PAGE OF CHART | COMMENT                              |
|-----------|-------------------|--------|--|---|--------|-----|----------|-----|---------------|--------------------------------------|
|           | Start             | End    |  |   | Start  | End | Start    | End |               |                                      |
| 2007701   | 31 July           | 18 Aug | IPY-NESSAR.                            | Barents Sea   | 190    | 329 | 11       | 39  | 85–87         | Stations no 243 and 253 are missing. |
| 2007702   | 10 Sep            | 27 Sep | Ecosystem survey Barents Sea.          | The sea around Svalbard, Greenland Sea, Barents Sea, Arctic Ocean | 330    | 359 | 40       | 167 | 88–89         |                                      |
| 2007703   | 23 Oct            | 24 Nov | Ecosystem survey, the Norwegian coast. |   | 360    | 444 | 168      | 314 | 90–91         |                                      |

### 1.5 G.M. Dannevig (Ship no 16)

| CRUISE NO | PERIOD OF CRUISES |        | PURPOSE   | AREA   | CTD NO |     | PAGE OF CHART | COMMENT   |
|-----------|-------------------|--------|---|--|--------|-----|---------------|-----------|
|           | Start             | End    |   |  | Start  | End |               |           |
| 2007301   | 9 Jan             | 11 Jan | Collection of cod.  | Eastern coast of Norway                                  | -      | -   | -             | Cancelled |
| 2007302   | 12 Jan            | 15 Jan | Long-term environmental monitoring in the fjords along the Norwegian Skagerrak coast.   | Norwegian coast of Skagerrak                             | 1      | 13  | 93            |           |
| 2007303   | 16 Jan            | 17 Jan | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak  | 14     | 25  | 92            |           |
| 2007304   | 5 Feb             | 6 Feb  | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak  | 26     | 37  | 92            |           |
| 2007305   | 7 Feb             | 9 Feb  | Long-term environmental monitoring in the fjords along the Norwegian Skagerrak coast.   | Norwegian coast of Skagerrak                             | 38     | 50  | 94            |           |
| 2007306   | 11 Feb            | 12 Feb | Deployment of acoustic Doppler meters.  | Tvedestrandsfjorden                                      | 51     | 62  | 95            |           |
| 2007307   | 13 Feb            | 14 Feb | Shrimptrawl calibration (G.M.Dannevig and Håkon Mosby). Long-term environmental monitoring on a nearshore station outside Arendal.  | Skagerrak  | 63     | 63  | 96            |           |
| 2007308   | 15 Feb            | 4 Mar  | Cod BioBank, collection of parent cod/genetic samples. Long-term environmental monitoring on a nearshore station outside Arendal.   | Norwegian coast of Skagerrak and coast of Western Norway | 64     | 68  | 97            |           |
| 2007309   | 19 Mar            | 24 Mar | Habitate mapping (spawning grounds). Long-term environmental monitoring on a nearshore station outside Arendal.   | Norwegian coast of Skagerrak, Grimstad–Kristiansand      | 69     | 84  | 98            |           |
| 2007310   | 25 Mar            | 26 Mar | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak  | 85     | 96  | 92            |           |
| 2007311   | 27 Mar            | 29 Mar | Long-term environmental monitoring in the fjords along the Norwegian Skagerrak coast.   | Norwegian coast of Skagerrak                             | 97     | 109 | 99            |           |
| 2007312   | 14 Apr            | 3 May  | Long-term environmental monitoring on a nearshore station outside Arendal and environmental investigation in the eastern North Sea, the Skagerrak and Cattegat after the spring bloom. Retrieving of acoustic Doppler meters. | Eastern North Sea/ Skagerrak/ Cattegat                   | 110    | 237 | 100           |           |

**G.M. Dannevig (cont.)**

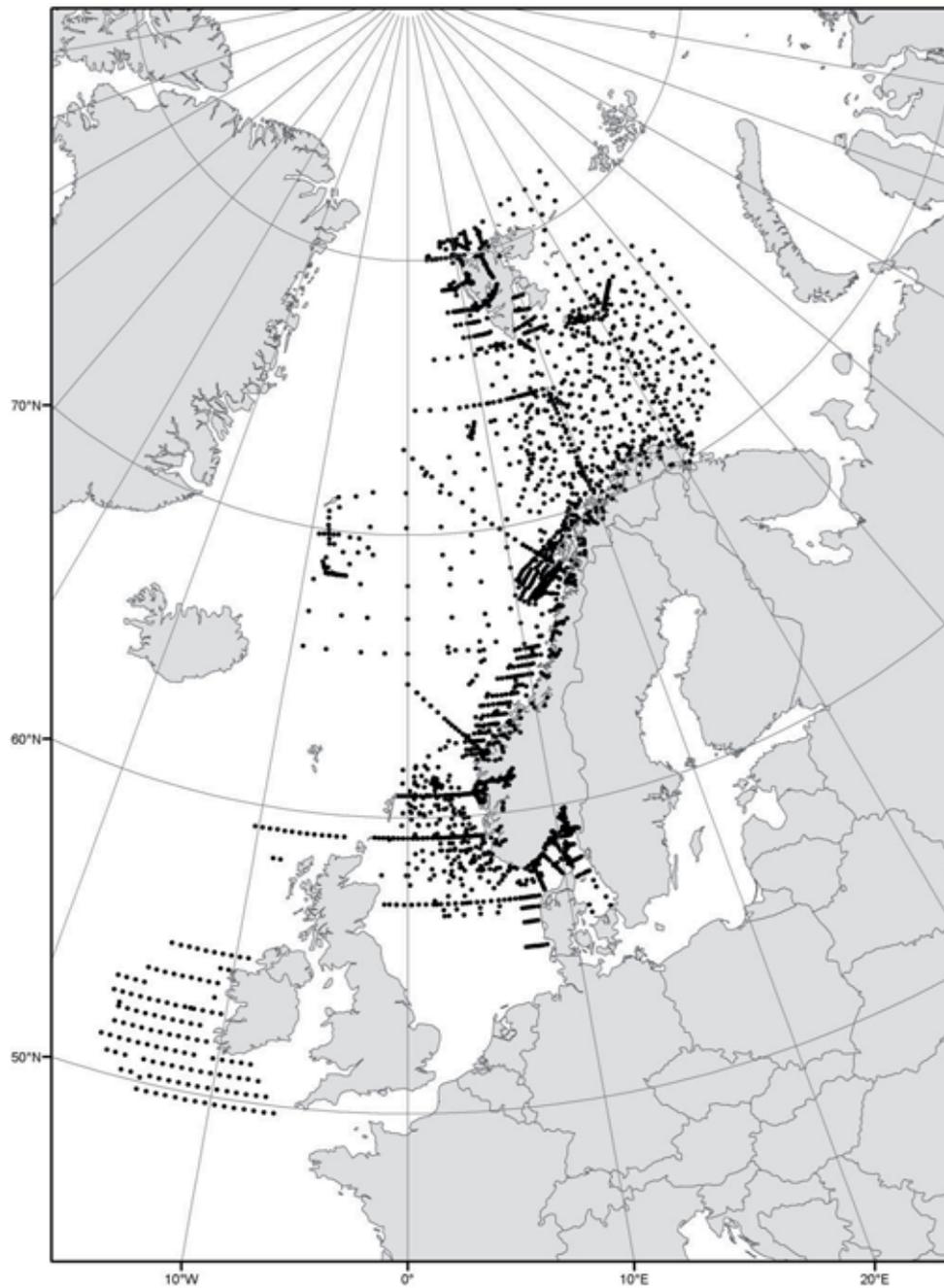
| CRUISE NO | PERIOD OF CRUISES |         | PURPOSE   | AREA                                    | CTD NO |     | PAGE OF CHART | COMMENT   |
|-----------|-------------------|---------|---|---|--------|-----|---------------|---|
|           | Start             | End     |   |   | Start  | End |               |   |
| 2007313   | 4 May             | 4 May   | Retrieving of acoustic Doppler meters.  | Tvedestrandsfjorden                     | -      | -   | -             | Cancelled   |
| 2007314   | 5 May             | 9 May   | Studies of distribution of salmon lice in Hardangerfjorden.   | Hardangerfjorden                        |        |     | 101           | STD, no standard CTD                                  |
| 2007315   | 8 May             | 14 June | Studies of distribution of salmon lice in Hardangerfjorden.   | Hardangerfjorden                        |        |     | 102           | STD, no standard CTD                                  |
| 2007316   | 18 June           | 19 June | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal. | Skagerrak                               | 238    | 249 | 92            |   |
| 2007317   | 20 June           | 22 June | Beach seine studies.  | Norwegian coast of Skagerrak            | 250    | 250 | 103           |   |
| 2007318   | 23 June           | 30 June | Long-term environmental monitoring in the fjords along the Norwegian Skagerrak coast. Lobster data tags.  | Norwegian coast of Skagerrak            | 251    | 264 | 104           |   |
| 2007319   | 1 July            | 2 July  | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal. | Skagerrak                               | 265    | 276 | 92            |   |
| 2007329   | 8 Aug             | 17 Aug  | Dock. Long-term environmental monitoring on a nearshore station outside Arendal.  | Hirtshals                               | 277    | 277 |               | One CTD-station occupied during transfer for docking. |
| 2007320   | 18 Aug            | 19 Aug  | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal. | Skagerrak                               | 278    | 289 | 92            |   |
| 2007321   | 20 Aug            | 30 Aug  | Monitoring lobster/MPA. Habitate mapping. Long-term environmental monitoring in the fjords along the Norwegian coast.                                       | Norwegian coast of Skagerrak            | 290    | 304 | 105           |   |
| 2007322   | 13 Sep            | 14 Sep  | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal. | Skagerrak                               | 305    | 316 | 92            |   |
| 2007323   | 15 Sep            | 04 Sep  | Beach seine studies. Long-term environmental monitoring on a nearshore station outside Arendal and in the fjords along the Norwegian Skagerrak coast.       | Skagerrak, Norwegian coast of Skagerrak | 317    | 374 | 106           |   |

**G.M. Dannevig (cont.)**

| CRUISE NO       | PERIOD OF CRUISES |        | PURPOSE   | AREA  | CTD NO |     | PAGE OF CHART | COMMENT   |
|-----------------|-------------------|--------|---|---|--------|-----|---------------|-----------|
|                 | Start             | End    |   |   | Start  | End |               |           |
| 2007324         | 04 Sep            | 05 Sep | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak                                     | 375    | 386 | 92            |           |
| 2007325         | 03 Nov            | 04 Nov | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak                                     | -      | -   | -             | Cancelled |
| 2007326/<br>327 | 03 Nov            | 03 Dec | Contaminants in seafood – Grenland. Fish community studies in marine protected area and resource studies in coastel cod. Long-term environmental monitoring on a nearshore station outside Arendal and in the fjords along the Norwegian Skagerrak coast. | Skagerrak,<br>Norwegian coast<br>of Skagerrak | 387    | 413 | 106           |           |
| 2007328         | 04 Dec            | 05 Dec | Hydrographic standard section "Torungen-Hirtshals", environmental investigation. Long-term environmental monitoring on a nearshore station outside Arendal.   | Skagerrak                                     | 414    | 425 | 92            |           |

## 2 Charts – overview

### 2.1 CTD stations 2007

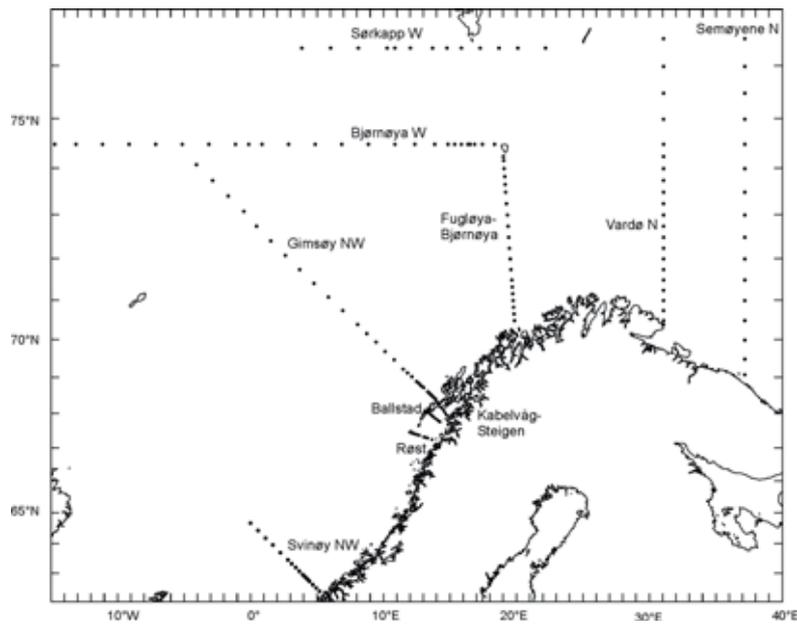


#### • CTD stations

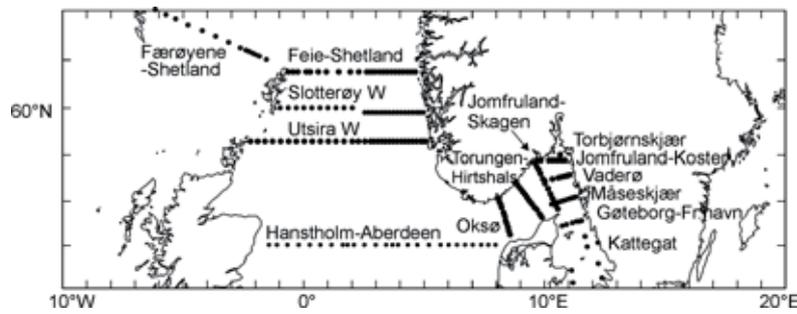
| Ship:         | Stations     |
|---------------|--------------|
| Johan Hjort   | 1.053        |
| Håkon Mosby   | 1.410        |
| G.O. Sars     | 470          |
| Jan Mayen     | 253          |
| G.M. Dannevig | 425          |
|               | <b>3.611</b> |

Including 8 st. from cruise no. 2007113, not shown on this chart (see page. 32)

## 2.2 Oceanographic sections



Norwegian Sea and Barents Sea



North Sea, Skagerrak and Kattegat

## 2.3 Fixed oceanographic stations

