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FRV *Scotia*

Cruise 0511S

PROGRAMME

7-23 May 2011

Loading: Aberdeen, 3 May

Unloading: Aberdeen, 23 May

Port Call: Scrabster/Ullapool (TBC)

Personnel

G Slesser	(SIC)
M Geldart	
D Lichtman	
D Lee	
B Berx	
J Wright	
N Collie	(7-16 May)
K Cook	(7-16 May)
J Beaton	(Visitor - SAMS, 7-16 May)
B Rabe	(16-23 May)
R O'Hara Murray	(16-23 May)
D Major	(Visitor - Aberdeen University)

Out-turn days per project: 17 days: ST03P

Gear

Sea-Bird CTDs, ADCP and current meter instrumentation, mooring equipment, recovery trawl Ocean Sampler, water level recorder, temperature mini-loggers and multi-corer

Objectives

1. Deploy a current meter mooring off Stonehaven at the inner Long Term Monitoring position.
2. Perform hydrographic surveys along the JONSIS standard section in the northern North Sea.
3. Perform biological sampling along the JONSIS standard section and East Coast section using the Ocean Sampler.
4. Perform hydrographic surveys along the standard Faroe Shetland Channel sections.
5. Carry out deep sea coring at Nolso-Fugga station NOL-05.
6. Take samples for long term storage at Fair Isle – Munken stations FIM-01 and FIM-06.
7. Service four ADCP moorings in the Faroe Shetland Channel.

8. Deploy a SAMS ADCP mooring on the Wyville-Thomson Ridge.
9. Perform CTD surveys across the Fair Isle channel and along the Shelf Edge as time allows.

Procedure

On sailing from Aberdeen the *Scotia* will sail to a suitable position to carry out trial CTD/Ocean Sampler deployments before proceeding to the Stonehaven long term monitoring sampling position to deploy a current meter mooring. Once this mooring work has been completed passage will be made to the southern end of the East Coast section for sampling using the Ocean Sampler. On completion of this East Coast section passage will be made to the JONSIS section for sampling work using the CTD/carousel water sampler and Ocean Sampler. Following this work *Scotia* will make way to the Faroe-Shetland Channel to commence mooring operations. Four ADCP moorings (60° 16.50'N 004° 19.97'W, 60° 34.50'N 004° 33.99'W, 60° 26.99'N 004° 22.49'W, 60° 12.00'N 004° 00.05'W) will be recovered, data downloaded from the recovered instruments, moorings refurbished and the moorings redeployed. On completion of this mooring work passage will be made to deploy an ADCP mooring at the Wyville - Thomson Ridge (60° 15.00'N 008° 54.60'W) for SAMS. Depending on the available time prior to the half landing either the Nolso – Flugga, Fair Isle – Munken, Cape Wrath - Munken or other shelf edge CTD sections will be worked. A break will be made at station NOL-05 on the Nolso-Flugga section to allow coring work to be undertaken by Aberdeen University personnel.

Scotia will then make passage to Scrabster or Ullapool for a half landing. At the half landing there will be an exchange of personnel.

After the half landing *Scotia* will make directly for the Faroe-Shetland Channel to recommence sampling the long term monitoring sections and other shelf edge CTD work. Any time remaining will be used to sample the Fair Isle section and East of Shetland CTD sections before returning to Aberdeen.

The thermosalinograph will be run throughout the cruise.

(NOTE: The survey will take *Scotia* into the Foinaven Development Area. This is now standard practice, and normal on-site communications will be established with the Foinaven co-ordinating officer).

Normal contacts will be maintained with the laboratory.

Submitted:
G Slesser
12 April 2011

Approved:
I Gibb
14 April 2011

JONSIS Line

	Name	Latitude	Longitude	Depth	Spacing
01	JO 1	59° 17.00' N	02° 14.00' W	75 m	
02	JO 1A	59° 17.00' N	02° 05.00' W	90 m	8.5 km
03	JO 2	59° 17.00' N	01° 56.00' W	100 m	8.5 km
04	JO 3	59° 17.00' N	01° 48.00' W	80 m	7.6 km
05	JO 4	59° 17.00' N	01° 40.00' W	90 m	7.6 km
06	JO 5	59° 17.00' N	01° 30.00' W	95 m	9.5 km
07	JO 6	59° 17.00' N	01° 20.00' W	110 m	9.5 km
08	JO 6A	59° 17.00' N	01° 10.00' W	120 m	9.5 km
09	JO 7	59° 17.00' N	01° 00.00' W	125 m	9.5 km
10	JO 8	59° 17.00' N	00° 40.00' W	120 m	18.9 km
11	JO 9	59° 17.00' N	00° 20.00' W	140 m	18.9 km
12	JO10	59° 17.00' N	00° 00.00' W	135 m	18.9 km
Totals				1180 m	126.9 km

Fair Isle - Munken (Ammended for presence of Foinaven oil platform)

	Name	Latitude	Longitude	Depth	Spacing
01	FIM-01	60° 10.00' N	03° 44.00' W	150 m	
02	SEFOS	60° 13.00' N	03° 51.50' W	170 m	8.9 km
03	FIM-02	60° 16.00' N	03° 59.00' W	200 m	8.9 km
04	SEFOS	60° 18.00' N	04° 04.50' W	330 m	6.3 km
05	<i>FIM-03</i>	<i>60° 20.25' N</i>	<i>04° 09.00' W</i>	<i>390 m</i>	<i>6.3 km</i>
06	FIM-04	60° 25.00' N	04° 19.00' W	655 m	12.4 km
07	FIM-05	60° 29.00' N	04° 26.00' W	995 m	9.8 km
08	FIM-06	60° 35.00' N	04° 45.00' W	1090 m	20.6 km
09	FIM-6a	60° 38.00' N	04° 54.00' W	1030 m	9.9 km
10	FIM-07	60° 43.00' N	05° 06.00' W	915 m	14.3 km
11	FIM-08	60° 47.00' N	05° 16.00' W	830 m	11.7 km
12	FIM-09	60° 51.00' N	05° 29.00' W	600 m	13.9 km
13	FIM-10	61° 02.00' N	05° 57.00' W	280 m	32.4 km
14	FIM-11	61° 12.00' N	06° 22.00' W	240 m	
Totals				7,585.0 0	155.40

Nolso-Flugga

	Name	Latitude	Longitude	Depth	Spacing
01	NOL-01	60° 56.00' N	01° 00.00' W	110 m	
02	SEFOS	60° 58.70' N	01° 17.70' W	125 m	16.7 km
03	SEFOS	61° 01.40' N	01° 35.40' W	155 m	16.7 km
04	NOL-02	61° 04.00' N	01° 53.00' W	270 m	16.7 km
05	SEFOS	61° 06.00' N	02° 01.50' W	440 m	8.5 km
06	NOL-03	61° 08.00' N	02° 10.00' W	550 m	8.5 km
07	SEFOS	61° 09.30' N	02° 17.50' W	630 m	7.1 km
08	NOL-3a	61° 11.00' N	02° 25.00' W	730 m	7.4 km
09	NOL-04	61° 14.00' N	02° 40.00' W	1080 m	14.5 km
10	NOL-05	61° 21.00' N	03° 10.00' W	1370 m	29.6 km
11	NOL-06	61° 28.00' N	03° 42.00' W	1235 m	31.2 km
12	NOL-07	61° 35.00' N	04° 15.00' W	990 m	31.9 km
13	NOL-08	61° 42.00' N	04° 51.00' W	235 m	34.2 km
14	NOL-09	61° 49.00' N	05° 21.00' W	180 m	29.3 km
15	NOL-10	61° 54.00' N	05° 45.00' W	290 m	22.9 km
16	NOL-11	62° 00.00' N	06° 12.00' W	125 m	26.0 km
Totals				8250 m	301.20 km