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MRV *Scotia*

Survey 1712S

PROGRAMME

7-21 December 2012

Loading: Aberdeen, 4-6 December 2012

Unloading: Aberdeen, 21 December 2012

In setting the survey programme and specific objectives, etc the Scientist-in-Charge needs to be aware of the restrictions on working hours and the need to build in adequate rest days and rest breaks as set out in Marine Scotlands' Working Time Policy (Lab Notice 34/03). In addition, the Scientist-in-Charge must formally review the risk assessments for the cruise with staff on-board before work is commenced.

In the interest of efficient data management it is now mandatory to return the Survey Report, to I Gibb and the Survey Summary Report (old ROSCOP form) to M Geldart, within four weeks of a survey ending. In the case of the Survey Summary Report a nil return is required, if appropriate.

Personnel

J Dunn (SIC)
N Collie
J Rasmussen
M Geldart
J Hunter
B Rabe
S Robinson
A Taylor
S Wells (Visitor – Aberdeen University)

Project: ST03P - 15days

Sampling gear: Hydrographic CTD/Carousel; Plankton nets (ARIES)

Fishing gear: None

Area: Northwestern North Sea-Faroe Shetland Channel.

Objectives

- 1 To redeploy the Stonehaven mooring.
- 2 To conduct routine hydrographic sampling at stations along the standard JONSIS, Fair Isle-Munken and Nolso – Flugga survey lines.
- 3 To conduct plankton and hydrographic sampling with ARIES in the Faroe Shetland Channel

General Procedure

Loading of gear and mooring equipment will take place at the end of the previous survey. Loading of all other scientific equipment will take place on 5 December with all equipment being set up and tested. *Scotia* will then sail on 7 December and, after all safety drills, head for position 56° 57.11'N, 002° 08.42'W to lay the hydrographic mooring. The vessel will then conduct a trial deployment of the sampling equipment at a suitable location coordinated with the master before commencing operations. The vessel will then proceed to the eastern end of the JONSIS line and complete hydrographic stations in a westerly direction (Table 1, Fig. 1). The vessel will then proceed to the Faroe-Shetland Channel and commence hydrographic and plankton sampling at selected stations along the Fair Isle-Munken survey line (Table 2). On completion of the Fair Isle-Munken line the vessel will proceed to conduct hydrographic and towed ARIES sampling at selected stations on the Nolso Flugga survey line (Table 3).

Scientific Procedures

It is expected that deployments of hydrographic equipment will be carried out with the CTD crane whilst the vessel is on station. ARIES deployments from the trawl deck will use the plankton crane.

Three container laboratories will be required (one wet chemical analysis laboratory, two dry containers for electronics work and communications with sampling equipment). Plankton sample sorting and processing will be carried out in part of the fish laboratory.

Hydrophones for receiving data from the plankton samplers will be installed on the drop keel before the start of the survey.

All plankton samples will be preserved in formaldehyde solution. It is expected that a proportion of the samples will be sorted fresh, with specimens of *Calanus finmarchicus* being preserved in liquid nitrogen. All CTD, Optical Plankton Counter and ARIES data will be worked up at sea.

Hydroacoustic data will be recorded for later analysis, though some preliminary analysis will be undertaken at sea.

Normal contacts will be maintained with the Laboratory.

Submitted:
J Dunn / K Cook
23 November 2012

Approved:
I Gibb
29 November 2012

Table 1

JONSIS line stations

Name	Latitude		Longitude		Depth	Spacing
JO 1	59	□17.	02	□14.	75 m	
JO 1A	59	□17.	02	□5.00	90 m	8.5 km
JO 2	59	□7.00	01	□56.	100 m	8.5 km
JO 3	59	□17.	01	□48.	80 m	7.6 km
JO 4	59	□17.	01	□40.	90 m	7.6 km
JO 5	59	□17.	01	□30.	95 m	9.5 km
JO 6	59	□17.	01	□20.	110 m	9.5 km
JO 6A	59	□17.	01	□10.	120 m	9.5 km
JO 7	59	□17.	01	□00°W	125 m	9.5 km
JO 8	59	□17.	00	□40.	120 m	18.9 km
JO 9	59	□17.	00	□20.	140 m	18.9 km
JO10	59	□17.	00	□0.00	135 m	18.9 km

Table 2

Fair Isle - Munken line stations

Name	Latitude	Longitude	Depth	Spacing	
FIM-01	60° 10.00' N	03° 44.00' W	150 m		CTD
SEFOS-1	60° 13.00' N	03° 51.50' W	170 m	8.9 km	CTD
FIM-02	60° 16.00' N	03° 59.00' W	200 m	8.9 km	CTD
SEFOS-2	60° 18.00' N	04° 04.50' W	330 m	6.3 km	CTD, ARIES
FIM-03	60° 20.25' N	04° 09.00' W	390 m	6.3 km	CTD
FIM-04	60° 25.00' N	04° 19.00' W	655 m	12.4 km	CTD
FIM-05	60° 29.00' N	04° 26.00' W	995 m	9.8 km	CTD, ARIES
FIM-06	60° 35.00' N	04° 45.00' W	1090 m	20.6 km	CTD, ARIES, MIKT Priority station for ARIES
FIM-6a	60° 38.00' N	04° 54.00' W	1030 m	9.9 km	CTD
FIM-07	60° 43.00' N	05° 06.00' W	915 m	14.3 km	CTD, ARIES
FIM-08	60° 47.00' N	05° 16.00' W	830 m	11.7 km	CTD
FIM-09	60° 51.00' N	05° 29.00' W	600 m	13.9 km	CTD
FIM-10	61° 02.00' N	05° 57.00' W	280 m	32.4 km	CTD, ARIES
FIM-11	61° 12.00' N	06° 22.00' W	240 m	29.1 km	CTD

Table 3

Nolso - Flugga line stations

Name	Latitude	Longitude	Depth	Spacing	
NOL-11	62° 00.00' N	06° 12.00' W	125 m		CTD
NOL-10	61° 54.00' N	05° 45.00' W	290 m	26.0 km	CTD
NOL-09	61° 49.00' N	05° 21.00' W	180 m	22.9 km	CTD
NOL-08	61° 42.00' N	04° 51.00' W	235 m	29.3 km	CTD, ARIES
NOL-07	61° 35.00' N	04° 15.00' W	990 m	34.2 km	CTD, ARIES
NOL-06	61° 28.00' N	03° 42.00' W	1235 m	31.9 km	CTD, MIKT, ARIES Priority station for ARIES
NOL-05	61° 21.00' N	03° 10.00' W	1370 m	31.2 km	CTD, ARIES Priority station for ARIES
NOL-04	61° 14.00' N	02° 40.00' W	1080 m	29.6 km	CTD, ARIES
NOL-3a	61° 11.00' N	02° 25.00' W	730 m	14.5 km	CTD
SEFOS-6	61° 09.30' N	02° 17.50' W	630 m	7.4 km	CTD
NOL-03	61° 08.00' N	02° 10.00' W	550 m	7.1 km	CTD
SEFOS-5	61° 06.00' N	02° 01.50' W	440 m	8.5 km	CTD, ARIES
NOL-02	61° 04.00' N	01° 53.00' W	270 m	8.5 km	CTD
SEFOS-4	61° 01.40' N	01° 35.40' W	155 m	16.7 km	CTD
SEFOS-3	60° 58.70' N	01° 17.70' W	125 m	16.7 km	CTD, ARIES
NOL-01	60° 56.00' N	01° 00.00' W	110 m	16.7 km	CTD

Figure 1

North Sea and Faroe-Shetland Channel stations

