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FRV *Alba na Mara*

Cruise 0708A

PROGRAMME

23 July – 5 August, 2008

Loading: Fraserburgh, 23 July

Unloading: Fraserburgh, 5 August

Crew change: Lochinver, 29 July

Summary of Working Areas:

Hydrographic work in (and offshore from) sea lochs bordering the Minch and Shetland Voes.

***In setting the cruise 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 FRS' Working Time Policy (which is published on the Intranet). 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 Cruise Report, to John Morrison and the Cruise Summary Report (old ROSCOP form) to Dougal Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.

Personnel

Matt Gubbins	(In charge)
Dougal Lichtman	
Malcolm Rose	
Jennifer Graham	23–29 July
Matt Geldart	29 July – 5 August

Project Codes: AE11s 14 days

Equipment

Proteus workboat and 100 L unleaded fuel
Seallogger CTD/Rosette
Nutrient analyser
Day grab / wooden table
Zooplankton 'bongo' net
Phytoplankton sampling 'hose' and net

Objectives

- 1) To collect water column hydrographic data from approximately 20 sea lochs in the North Minch and Voes in Shetland to provide validation / forcing data for models of fish farming carrying capacity.
- 2) To sample Shetland Voes for water and plankton for algal toxin analysis
- 3) To continuously monitor T&S and chlorophyll a in surface waters and surface irradiance during the cruise.
- 4) To sample zooplankton from a range of sea lochs to provide further information on sea loch community types.
- 5) To validate the use of the nutrient analyser on the Alba na Mara for UKAS accreditation purposes.

Procedure

Grab and workboat will be loading prior to the sailing date and scientific staff will attend the vessel in advance to install the nutrient analyser and agree workboat launching protocol with the crew. Loading and boarding of scientific staff will take place on 23 July and survey work will commence in Shetland before travelling to Lochinver for the 29 July to change scientific staff and continue the survey in sea lochs on the West coast and Western Isles. The survey will aim to cover approximately 20 sea lochs and voes – details to be provided at the start of the cruise.

Within each loch, hydrographic sampling by CTD/Rosette will be undertaken at 2 stations and a further station will be sampled in the open sea outside each loch / voe. The parameters measured at each station will be:

Nutrients

CTD

Chlorophyll a

Dissolved oxygen

Transmission and optical properties: PAR, CDOM and SPM

Zooplankton (two stations per loch only)

For stations in sea lochs / voes that Alba na Mara cannot access, the workboat Proteus will be launched to undertake the required survey work.

Following the completion of survey work in west coast sea lochs, Alba na Mara will return to Fraserburgh for unloading on the 5 August.

J W Hepburn

30 June 2008