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Not to be cited without prior reference to Marine Scotland, Marine Laboratory, Aberdeen.

FRV *Alba na Mara*

Cruise 1709A

PROGRAMME

22 October– 4 November 2009

Loading: Fraserburgh, 16 October

Unloading: Greenock, 4 November

Summary of working areas:

Hydrographic work in (and offshore from) sea lochs of the West coast (Loch Eriboll to the Clyde) and the Western Isles.

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 Marine Scotland's 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 Cruise Report, to I Gibb and the Cruise Summary Report (old ROSCOP form) to D Lichtman, within four weeks of a cruise ending. In the case of the Cruise Summary Report a nil return is required, if appropriate.

Personnel

M Gubbins (In charge)

D Lichtman

M Harrald

Project codes: AE11s 14 days

Equipment

Proteus workboat and 100 L unleaded fuel

Seallogger CTD/Rosette

Passive sampling frames and moorings x 6

Objectives

- 1) To collect water column hydrographic data from approximately 20 sea lochs from the West Coast and Western Isles to provide validation / forcing data for models of fish farming carrying capacity.
- 2) To collect (2) and deploy (6) passive samplers for hydrophobic contaminants (silicone rubber) on moorings at key locations adjacent to shellfish farms in sea lochs of the West Coast.
- 3) Service Long Term Monitoring equipment in Loch Maddy (and possibly Ewe / Torridon) as required.
- 4) To continuously monitor T&S and chlorophyll a in surface waters and surface irradiance during the cruise.

Procedure

Final loading and boarding of scientific staff will take place on 22 October in Fraserburgh and passage made to Loch Eriboll to commence survey work. Hydrographic surveys will be limited to the West coast / Western Isles and will include surveys of lochs South of Mull. No work in Shetland is planned.

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. The parameters measured at each station will be:

- Nutrients
- CTD
- Chlorophyll a
- Dissolved oxygen
- Transmission and optical properties: PAR, CDOM and SPM

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

Silicone rubber-based passive samplers will be recovered from moorings in Lochs Eriboll and Greshornish. Six further samplers will be deployed during the cruise at locations in mainland sea lochs to be decided.

Long Term Monitoring Equipment in Loch Maddy will be replaced by scientific staff using the Proteus workboat to access the pier.

Following the completion of survey work on the West coast, the *Alba na Mara* will make for Greenock for unloading.

Normal contacts will be maintained with the laboratory.

Submitted:
M Gubbins
05/10/09

Approved:
I Gibb
09/10/09