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FRV *Alba na Mara*

**Cruise 0209A**

**PROGRAMME**

30 January – 10 February 2008

**Loading:** Fraserburgh, 28 January

**Unloading:** Fraserburgh, 10 February

**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 (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 Iain Gibb 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**

M Gubbins (In charge)

M Geldart

1 x AEP staff member TBC

**Project codes:** AE11s 12 days

**Equipment**

Proteus workboat and 100 L unleaded fuel

Sealogger CTD/Rosette

Nutrient analyser

Day grab / wooden table

Zooplankton 'bongo' 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 continuously monitor T&S and chlorophyll a in surface waters and surface irradiance during the cruise.
3. To sample surface sediments from sea lochs for phytoplankton resting cyst identification.

## Procedure

Loading will take place on 28 January. Scientific staff will join the vessel on 30 January. Survey work will commence on the West coast before travelling to Shetland to continue the survey in Shetland voes if weather permits. The survey will aim to cover approximately 20 sea lochs and voes that were not surveyed during cruise 1308A

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
- Sediments – Day grab samples at 1 station 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 Shetland, Alba na Mara will return to Fraserburgh for unloading on 10 February.

Submitted  
Matt Gubbins  
18/12/08

Approved  
I Gibb  
15/01/09