## P15/17

Not to be cited without prior reference to the FRS Marine Laboratory, Aberdeen

FRV Scotia

Cruise 0108S

#### **PROGRAMME**

7 - 22 January 2008

Loading: Aberdeen Unloading: Aberdeen

\*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**

\*Alistair McIntosh George Slesser Marie Russell Malcolm Rose Margaret McKenzie Ines Hussy Eric Dalgarno Gill Packer David Watson

Fishing gear: BT 101 with tickler chains; Day grab

# **Objectives**

- 1. To undertake water, sediment and biological sampling for the Clean Seas Environmental Monitoring Programme (CSEMP).
- 2. To collect water samples for nutrient studies as part of the Scottish Coastal Eutrophication Assessment Survey.
- 3. Undertake CTDF profiles, phytoplankton and water samples for chlorophyll a and nutrients in support of coastal phytoplankton monitoring programme, AE11t.

- 4. Sediments will be collected for phytoplankton cyst studies.
- 5. Collection of low nutrient sea water for RGU.

Estimated Days Per Project: 14 days AE11p; 2 day AE11t

# **Procedure**

At the 4 existing CSEMP (old NMMP) sites, water, sediment, for chemistry only, and fish will be sampled.

Stratified random samples of sediment (five samples per stratum) will be taken from one stratum on the East coast, four strata in the Fladen Ground (three samples per stratum), two strata in the Moray Firth, one stratum each in the North and South Minches and one stratum in the Sea of Hebrides (Figure 1). Fish sampling will be carried within these strata. Positions for sediment and fish sampling will be provided prior to the cruise.

Water and sediments will be sampled for chemical analyses at all locations. Sediment will be sieved for macrobenthos analysis only at the stratified random sampling locations. Fish will be sampled for biological effects measurements and chemical analyses. Some biological effects measurements will be carried out during the cruise. Nutrient samples will be analysed throughout the cruise.

Sampling in support of the coastal phytoplankton monitoring programme will be undertaken at 15 sites as indicated on the attached map.

Surface water will be collected for hydrographic nutrient studies from coastal regions around the east and west coast mainland and around Orkney and Shetland at fixed time intervals. Completion of this objective will be time and weather dependent.

## **General Arrangements**

Liquid nitrogen and formaldehyde will be carried aboard for the preservation and storage of biological material.

Normal contacts will be maintained with the laboratory.

J A Morrison 14 December 2007