

CR LF/23/89

Not to be cited without prior reference to the laboratory

R V Lough foyle Cruise LF/23/89

30/5 - 2/6/89

Personnel

R S Rosell (SIC)

D J Agnew

R P Briggs

P Harding (Duncan & Associates)

F Dusterhoff

A Kohl (Hydro-Bios, Kiel)

F Haushahn

D Burns (Roxanne, Cork)

Objectives

1. To install and Carry Out trials of Hydro-Bios water and sampling equipment and associated computer software:

- a. Conductivity (salinity), temperature depth and dissolved oxygen monitor
- b. Rosette Water Sampler
- c. Multi - plankton sampler
- d. To test the Datasonics transponder/receiver location system in conjunction with this equipment

2 To test the Roxanne sea-bed profiling system over deep water and correct faults noted on previous cruises.

Narrative

The Hydro-bios engineers and P Harding boarded the vessel on 30/5/89 and installation completed the installation of the CTD and water/plankton samplers by the evening of 31/5. The remaining personnel embarked at 2100 on wed 31/5. Lough Foyle sailed from belfast at 0600 on 1/6/89 and headed NW to the 200m depth contour. 11mm trawl wire was installed on the starboard trawl winch while steaming for later towing of the plankton sampler.

Equipment trials proceeded as follows:

1 The water sampler with CTD mounted was lowered on the hydrographic winch to 250m and pairs of sample bottles were successfully triggered from the computer laboratory at 50m intervals on ascent. DO, salinity and temperature

profiles were recorded simultaneously to the water sampling trial.

2 The Plankton sampler was successfully deployed to a depth of 150m using the 11mm wire loaded on the trawl winch, towing from the main gantry.. The sampler tended to spin on launching, but this problem was gradually overcome with practice and careful attention to ship speed.

3 Further tows of the plankton sampler were undertaken with the CTD unit fixed to the sampler body. Electrical connections to the CTD and sampler unit were made via the hydrographic wire routed along the port gunwhale to the stern, and towed slack behind the sampler unit. An acoustic net monitoring system was attached to the plankton sampler and provided the bridge with accurate information on the closeness of the sampler to the sea bed.

4 The Roxanne seabed profiling system was in operation throughout the cruise and faults previously noted in deep water operation were successfully corrected.

Lough Foyle docked at Belfast at 1800 hrs on 1/6/89. The Hyro-Bios staff and D. Burns remained on board until the following morning, other personel returning to Coleraine on the evening of 1/6/89.

R.S. Rosell 22-6-89