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2. Prof M. Murray

Biological Oceanography Cruise : LF 15 2001

Cruise Report
(April 11 - 12)

Personnel

- R. Gowen (SIC)
- B. Stewart
- C Smyth

This cruise, one of our regular oceanography cruises to service our moorings in the Irish Sea, was shortened due to the tragic death of Hugh Nelson, one of the longest serving & most respected members of the Lough Foyle crew.

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Cruise Objectives

- 1) To service the DARD offshore mooring
- 2) To map the surface distribution of temperature and salinity in the western Irish Sea.
- 3) To investigate water column structure and the vertical distribution of dissolved inorganic nutrients and microplankton biomass at the DARD fixed sampling stations in the Irish Sea.
- 4) To collect samples of suspended particulate material for estimation of particulate organic carbon and nitrogen, bulk biochemical constituents (protein, carbohydrate and lipid) and microplankton species composition and abundance.
- 5) To collect zooplankton samples from the DARD fixed sampling stations.

Cruise Narrative

Lough Foyle departed Belfast at 0800 on Wednesday April 11 and sailed for the DARD offshore mooring in the western Irish Sea. On arrival at the station a vertical profile of temperature and salinity was recorded and water samples collected for the determination of dissolved nutrients, estimation of phytoplankton chlorophyll and characterisation of the seston. Three zooplankton samples were collected by vertical haul with a 200 µm ring net. On completion of the sampling the DARD mooring was serviced. Owing to the sudden illness of one of the crew, scientific work was suspended and the crewman airlifted to hospital in Dublin. Sadly Hugh Nelson died later that day. Lough Foyle returned to Belfast and docked at 0800 h on Thursday April 12.

Preliminary results

There was some evidence of stratification at the mooring site on April 11. The temperature and salinity difference over the top 16 m was 0.3°C and 0.1 psu respectively and 16 m probably represented the bottom of the surface mixed layer. There was little evidence that the spring bloom

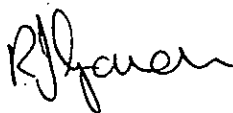
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had begun at the time of sampling. Near surface concentrations of nitrate (8.90 – 9.23 μM) and chlorophyll ($0.60 \mu\text{g l}^{-1}$) measured on April 11 were typical of winter values for these two variables.

Acknowledgements

I would like to thank the Captain, Officers and Crew for their assistance during the cruise.

R Gowen



May 14 2001