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BIOLOGICAL OCEANOGRAPHY CRUISE REPORT  
LF 3299

9 - 10 August 1999

PERSONNEL

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OBJECTIVES

- i. To assess zooplankton populations at station 38A & 47.
- ii. To assess salinity, temperature and nutrient distributions throughout the depth profile at stations 38A & 47.
- iii. To service moored water samplers at station 38A.
- iv. To undertake a series of CTD profiles over tidal cycles at station 47 mooring site.
- v. To recover moored instrumentation from station 47.

CRUISE NARRATIVE

Monday 9 August 1999

In preparation for the cruise, all DANI scientific crew were onboard by 1930 hrs when moorings and instrumentation were prepared for deployment. Following a talk on ship's safety and a demonstration of personal life saving equipment, the RV Lough Foyle departed Belfast at 2150 hrs and sailed overnight in a moderate north easterly wind to the mooring site, station 38A.

Tuesday 20 July 1999

The vessel arrived on the mooring site at 0730 hrs. The weather was dry and bright with a light westerly breeze when work for the day commenced at 0800 hrs. The instrumentation mooring with two water samplers, was successfully recovered to shipdeck at 0830 hrs. The mooring components were inspected for corrosion and replaced where necessary; the water samplers were removed, serviced and reattached

to the mooring. The mooring was then successfully redeployed at 0920 hrs on position  $53^{\circ} 46' .893N$   $05^{\circ} 38' .000W$ .

The zooplankton net was then deployed and during this operation the ship developed an electrical fault causing the winches to fail. The zooplankton net was recovered manually to the ship deck and the vessel returned to Belfast for repair, docking at 1900 hrs.

### Wednesday 21 July 1999

Overnight a temporary repair had been carried out which allowed the winches to work but at reduced speed and power. With insufficient time remaining to achieve the initial cruise objectives and with a degree of uncertainty over the efficiency of the winches, a decision was taken to abandon the survey.

The outstanding work can be readily accommodated during the next oceanography survey cruise scheduled for 30 August 1999.

### **McLane moored water sampler**

In the continued effort to deter biofouling, the sampler was programmed to acid wash the sample intake line prior to sampling. In the normal course of events this would be followed by a lengthy flush of seawater to remove the acidic residue. Unfortunately the flush cycle on the sampler did not operate properly which meant that samples became contaminated with acid. The fault was traced to the controlling software, which seemed unable to align sampler valve correctly during the attempted flushing operation.

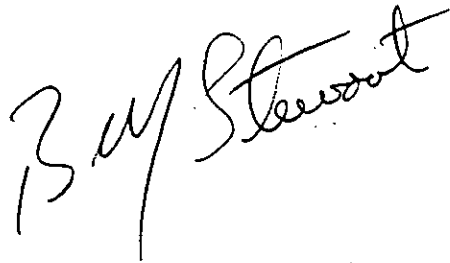
### **HOTEL REPORT & OPERATIONAL ASPECTS OF THE SHIP**

During the cruise the A-frame, main trawl winches, both hydrographic winches and the ship's clean seawater supply were used. A major problem was encountered when an electrical fault caused the winches to fail. The vessel returned to Belfast for repairs and as a result two days were lost from the cruise schedule. No problems were encountered with any of the scientific equipment.

The hotel and catering service was of the usual high standard and there was a good working relationship between the scientists and the ship's crew. Prior to the ship departing Belfast a comprehensive and detailed safety briefing was delivered to the scientific crew.

## ACKNOWLEDGEMENTS

I am indebted the deck crew of the RV Lough Foyle for their co-operation and assistance during the mooring recovery and deployment operation. The ship's master, officers, engineers and catering staff are also thanked for their co-operation during this cruise.

A handwritten signature in cursive script that reads "B M Stewart". The signature is written in dark ink and is positioned in the upper left quadrant of the page.

**B M STEWART**

25 August 1999