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DEPARTMENT OF AGRICULTURE (NI)  
AQUATIC SCIENCES RESEARCH DIVISION

CRUISE REPORT - LF/03/94

BIOLOGICAL OCEANOGRAPHY: 31<sup>st</sup> JAN - 1<sup>st</sup> FEB 1994

PERSONNEL

R. HENSLEY (SIC)  
P. ELLIOTT  
S. BLOOMFIELD  
S. THOMSON

OBJECTIVES

1. To determine the depth profile of temperature and salinity at 16 sampling stations using the CTD and rosette bottle array.
2. To collect water samples from various depths at each station for determination of key compounds using the TRAACS analyser.
3. To measure chlorophyll concentration and collect samples of suspended particulates from the depth series at each station.
4. To collect corals core samples from stations 47 and 38 for the determination of benthic chlorophyll concentration and abundance of Foraminifera.
5. To collect day grab samples of the soft mud at station 38 for faunistic and granulometric analyses.

NARRATIVE

Scientific personnel boarded the Lough Foyle on the evening of the 30<sup>th</sup> of January.

DAY ONE 31/1/94

The vessel sailed at 0700. The weather was clear with a force 4-5 southwesterly wind. In view of the better than anticipated conditions, the vessel headed for station 4 (central North Channel) arriving at 0930. Upon completion of station 4, Lough Foyle set course for station 6 (arriving at 1046) followed by stations 16 (arrived 1300) and 26 (arrived 1550). Light profile measurements were taken at station 16. During the day the southwesterly wind had picked up to force 5-6 and continued to increase as the vessel proceeded to station 38. The deterioration in the weather led to the abandonment of station 38. The ship was anchored at a point north of the Skerries overnight.

The vessel was due to sail at 0800 but remained at the overnight anchor point until the southerly wind (gusting to 45 mph) moderated. At 0900 Lough Foyle headed for station 48 which was completed by 0945. At 1030 the ship arrived at station 47. The craib corer was deployed and four good cores obtained. No further cores were taken however as the wind had picked up to approximately force 8 making operating conditions on deck difficult. The vessel steamed to Station 36 which was completed at noon. Light measurements were taken at this station. With the strong wind and heavy swell precluding any attempt at sampling at station 38, Lough Foyle continued north to station 24. Station 24 was completed at 1340. In view of the BBC shipping forecast, which gave southeasterly winds of force 7, occasionally 8, the ship continued north to station 22 rather than turn south to station 38. Although the westerly blowing at station 22 was approximately force 8, sufficient protection was offered by the County Down coast to allow the CTD to be safely deployed. Upon completion of station 22 at 1530, Lough Foyle continued north, heading for stations 15 and 14. Whilst deploying the CTD at station 15, the hydrographic wire became entangled in the winch brake-drum and was damaged. No injury to any personnel resulted and no equipment was lost. However, the damage to the hydrographic wire prevented further use of the CTD/rosette. As the sea was still too rough to allow any attempt to take grab samples at station 38, the SIC terminated the cruise and requested that the Lough Foyle return to Belfast. The vessel docked in Belfast at 2030, Tuesday 1<sup>st</sup> February.