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J.A. AD/29/90

BIOLOGICAL OCEANOGRAPHY CRUISE REPORT LF/01/93 5-7 JANUARY 1993

PERSONNEL

B Stewart	SSO (SIC)
P Elliott	SO
S Bloomfield	ASO
M Charlesworth	Student

CRUISE OBJECTIVE

To map temperature, salinity and assess the winter nutrient distributions in the NW Irish Sea.

CRUISE NARRATIVE

Tuesday 5 January 1993

As a result of gale force winds the vessel's departure was delayed until 1830 hrs and arrived at station 4 (see attached sampling grid and work schedule) in the North Channel at 2030 hrs. The weather was dry and the wind had moderated to a light westerly breeze. Work finished at 2200 hrs and overnight the vessel proceeded slowly southwards to station 62.

Wednesday 6 & Thursday 7 January 1993

The survey continued from station 62 at 0800 hrs and followed a northerly track to station 38. The inshore grid of stations were then commenced with station 47 at 1600 hrs and followed a costal track to arrive at station 22 at 2100 hrs. Gale force winds were forecast for the following day and it was decided to complete the survey, sampling stations 21, 15 and 14 before docking in Belfast at 0500 hrs, Thursday.

PARAMETERS MONITORED

The entire cruise track was surface mapped for temperature and salinity while, at approximately one mile intervals, water samples were taken and stored for nutrient analysis. At each station on the sampling grid the CTD probe was deployed to acquire temperature and salinity data from the depth profile. Water samples were also taken and stored for nutrient analysis. As the ship's crane was unavailable, water samples from the depth profile were taken by bottles attached at intervals to the winch wire and when in position activated by a "messenger". Duplicate, vertical zooplankton hauls were also taken at each station and underwater light measurements were made at stations 57, 45 and 38.

SUMMARY OF RESULTS

The absence of TRAACS from this cruise has meant that nutrient data is not yet at hand. However from the acquired CTD data the survey area was shown to be mixed from surface to bottom. On the open sea the temperatures were consistently around 9.4°C with little change in salinity along the north-south transect. A freshwater influence was

detected in costal stations where both temperature and salinity increased with depth. The costal surface temperatures were consistently around 7.6°C

ACKNOWLEDGEMENTS

The ship's master, officers, engineers, catering staff and crew are thanked for their cooperation during this cruise.



B STEWART

10 January 1993

Station	Position	Activity
4	5441 0520	CTD; Light; secchi; Zooplankton;
21	5413 0516	CTD; Zooplankton; Secchi
38	5351 0534	CTD; Zooplankton; secchi
45	5343 0532	Light; CTD; Zooplankton; Secchi
62	5321 0530	Light; CTD; Zooplankton; Secchi
57	5328 0528	Light; CTD; Zooplankton; Secchi
36	5351 0611	CTD; ZOOPLANKTON; SECCHI
47	5343 0609	CTD; Zooplankton; Secchi
24	5406 0552	Light; CTD; Zooplankton; secchi
22	5413 0531	Light;
15	5421 0525	CTD; Zooplankton; secchi
14	5428 0523	CTD; Zooplankton; secchi

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