

CRUISE REPORT

FRS MARA

29 March - 2 April 1976

Firth of Forth Hydrobiological Survey

OBJECTIVES

- a) The collection of water and plankton samples at stations on the standard Firth of Forth sampling grid.
- b) Collection of water samples for mercury analysis.
- c) Collection of live zooplankton.
- d) Collection of large volume water samples for organo-chlorine compound analysis.
- e) The provision of the Forth R P B with water samples.

PROCEDURE

'Mara' sailed from Buckie at 1100 on 29 March and survey work began in poor weather conditions at 0545 on 30 March at the northern end of line E. The two easternmost lines were completed on 30 March except for line D, stations 6 - 8. 'Mara' spent the night in Methil, where D. Wells (Pitlochry F F L) and A Griffiths (Forth R P B) joined the ship.

The weather had deteriorated by 31 March, and continued to do so, so that line C was abandoned after 5 stations, and the ship moved to the more westerly stations. Lines A and B were completed. Large volume water samples were collected for D. Wells at line C, station 4. D. Wells left, and D. D. Seaton joined the ship at Methil during the evening of 31 March.

On 1 April the three missing stations on lines D and C were sampled, and hauls made for live collection of zooplankton. A. Griffiths was supplied with water from all stations occupied on 31 March and 1 April. All scientific staff left the ship at 1500 on 1 April at Methil. The very poor weather condition prevented the collection of the water samples for mercury analysis.

RESULTS

The nutrient results largely confirm those obtained in March 1975. Broadly, the enhanced phosphate and nitrate concentrations in the presumed outflowing water on the north side of the Firth were easily detectable out to the easternmost line of stations. The enhancement was confirmed to a belt of water approx. 3 km wide. The hydrographic data has yet to be examined in detail.

Ian M Davies  
6 July 1976

Seen in draft: W T Mair OIC FRV 'MARA'