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10/11/72

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In Confidence: Not to be quoted without reference to the laboratory

CRUISE REPORT

FRS EXPLORER

17 NOVEMBER - 22 DECEMBER 1972

The 'Explorer' sailed at 1000 hours on 19 December when she headed north followed by strong southerly winds. Since the Moray Firth stations had been given priority they were completed before the ship proceeded to the north coast.

The northerly stations were worked until bad weather intervened forcing the ship to shelter in the Minch. Although work continued to be dictated by the weather, the Minch and Outer Hebridean stations were steadily worked through until 27 November, when bad weather stopped trawling and other sampling. On 28 November the 'Explorer' steamed south in unworkable 9-10 force winds, and entering the Clyde early on 29 November she made for shelter in Broadick Bay. Next day the Clyde stations were occupied before the ship put in to Greenock for change in ship's personnel, water and engine repairs.

Sailing from Greenock at 0830 hours on 1 December (into continuing bad weather) extra plankton sampling was done off Irvine Bay. 'Explorer' then, despite strong winds, proceeded to work the stations between Northorn Ireland and the Hebrides. The remaining stations in the west were completed in addition to all but one in the North.

Some spare time allowed extra pollution sampling to be carried out in Scapa Flow on 10 December.

Steaming south, more pollution sampling was carried out in the Moray Firth. 'Explorer' then sailed for Aberdeen, docking at 1200 hours on 11 December.

The large amount of work achieved in this survey was in no small part due to the excellent cooperation and expertise on the part of the ship's personnel under very trying conditions.

Trawling

Trawling was carried out at 35 stations. 0+ whiting were found mainly in the Moray Firth, Orkney and Clyde regions, while older fish were evenly distributed over most areas. Station 17, south of St Kilda gave a catch of 36 baskets of whiting, mainly 26-50 cm in length.

Haddock and dogfish were caught in all areas except the Clyde and these two species usually formed the greater part of the catches.

Samples of squid, herring, cod, P esmarkii, M poutassou and several other gadoids were frozen and taken back to the laboratory for examination.

Approximately 250 hake otoliths were collected in tubes of sea water.

Plankton

Duplicate Dutch Gulf III samples were taken at all stations worked. One sample from each pair was preserved in formalin for herring larval studies and the other was deep frozen for dry weight estimation.

Standard net hauls were taken at 20 stations.

Pollution

Of the six areas sampled for Pleurobrachia, only two, the Moray Firth and near the Outer Hebrides produced even the minimum number of animals required for metal analyses.

Samples were collected in Scapa Flow for mercury analyses.

N T NICOLL
10 January 1973