

dk

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1981 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA : CRUISE 4

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:

A K Steele

I A Huggins

D J Allington

D J Coles

J F Smith

DURATION:

Left Lowestoft 1120 h 7 March

Arrived Lowestoft 1915 h 20 March

(All times are GMT)

LOCALITY:

Irish Sea

AIMS:

1. To trawl for fish for radiocaesium analysis in eleven of the ICES sub rectangles of the Irish Sea.
2. To collect and process surface and near bottom sea water from a grid of stations in the Irish Sea, based on the above rectangles for radiocaesium analysis.
3. To carry out an in situ gamma probe survey along the ships track and a grid survey in the vicinity of the BNFL Windscale discharge outlet.
4. To collect seawater samples in the Eastern Irish Sea for Technician analysis.
5. To collect sea water samples on passage to and from the Irish Sea for radiocaesium analysis.

NARRATIVE:

Once the compass had been swung and the Adjuster put ashore by Pilot Boat, CORELLA sailed southabout to the Irish Sea at 1235 h, 7 March. Adverse winds which persisted throughout the cruise delayed the start of Aims 1 and 2 until 1030 h, 10 March. By taking advantage of the wind shifts it was possible to work all the trawl stations and most of the water stations by 0710 h, 14 March. CORELLA bunkered in Douglas IOM on 14 March and left on 15 March at 0750 h to carry out Aims 3 and 4 which were completed by 1745 h. Water sampling stations in the North Irish Sea were completed by 0425 h, 16 March.

On the northabout return passage the weather moderated sufficiently in the North Minch to attempt the line of surface and near bottom water stations between Cape Wrath and Muc na Flugga. Half the line had been worked by 1600 h, 17 March when CORELLA had to seek shelter to the east of the Orkneys in westerly winds gusting to 70 knots. Surface water stations were worked down the east of the Orkneys and at 0030 h, 19 March off Wick passage resumed and the ship berthed in Lowestoft at 1915 h, 20 March.

RESULTS:

Samples of minced fish fillet were retained and frozen from separate species at twelve trawl stations in the Irish Sea, for ^{134}Cs / ^{137}Cs caesium analysis.

80 surface seawater stations were worked, 34 of which included near bottom samples. A total of 6.3 tonnes of water were processed by filtration and caesium extraction from discrete samplers on to either AMP or KCFC for laboratory analysis of ^{134}Cs and ^{137}Cs .

Samples of seawater from six stations in the Irish Sea were returned to the laboratory for ^{99}Tc analysis.

Continuous recording of ^{137}Cs concentrations in surface seawater, measured by means of an immersed sodium iodide crystal, together with temperature, flowrate and Decca position were logged by a Micro-Data M 200 m data logger. Hard copy of these data was printed during the return leg of the cruise for subsequent interpretation.

A K Steele
30 March 1981

SEEN IN DRAFT:

G S

J H

INITIALLED:

to HAW H

DISTRIBUTION:

Basic List +

A K Steele

I A Huggins

D J Allington

D J Coles

J F Smith

F.C. Office

Mr G Stott SDD

Dr S Jones BNFL

Mr J D Cunningham NEB Dublin