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

1979 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 7B
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

M G Pawson (NIC)
A Jamieson
B C Mumford
D Eaton
B Meggett (Grimsby)

DURATION

Left Lowestoft 1640 h 19 May
Arrived Lowestoft 0715 h 8 June

LOCALITY

Northern North Sea

AIMS

1. To assess CORELLA'S fishing capabilities with a semi-pelagic high headline trawl (35/42) and a GOV trawl (36/47).
2. To describe the distribution of gadoids within the "Norway pout" small-meshed fishery area, using a semi-pelagic high-headline trawl.
3. To obtain biological samples of all gadoids taken during the survey, and blood and muscle samples of a variety of species.

NARRATIVE

CORELLA left Lowestoft at 1640 h 19 May and steamed to the Farn Deep, where the semi-pelagic trawl was tested in the evening of 20 May. She then steamed to station 2 (see figure 1) and, using 1 hour long tows, sampled stations 2 to 16 before docking at 0945 h 26 May in Kirkwall for fuel and water. CORELLA left Kirkwall at 1500 h 27 May, a departure delayed for 6 h by gales, and steamed to the position of stations 17 to 20, where tows were made every 3 h between 2100 h and 0700 h the following morning. A similar night-long exercise was carried out at stations 36-40 on 2-3 June, and stations 21 to 43 were sampled before CORELLA docked in Aberdeen at 1500 h 4 June for water. At 0930 h 5 June she left Aberdeen and completed stations 44 to 49, before returning to Lowestoft and docking at 0715 h 8 June.

RESULTS

1. CORELLA had no difficulty in towing the semi-pelagic high-headline trawl (35/42) at speeds of up to 4 knots with power in hand, and it was decided that the GOV trawl (36/47) need not be tested, being similar in overall dimensions. Fortunately the weather remained good during the cruise and shooting and hauling difficulties, due to the doors' intrusion into the net ramp space, were not unduly restrictive, although CORELLA's short fishing deck did not allow for easy mending following a net tear at station 12.

2. Forty eight stations were sampled within the "Norway pout" small-meshed fishery area, including two overnight 5 tow series at one fishing position. A preliminary analysis of the species composition in the catch at each station is given in Table 1. Catch rates averaged 288 Kg/h for all species and 189 Kg/h for potential industrial species (ie Norway pout, sand eels, sprat, herring and mackerel, plus whiting, haddock and cod under approximately 30cm).
3. Otolith samples were taken from Norway pout (192, 8-22 cm), haddock (139, 10-74 cm), whiting (92, 9-54 cm) and cod (136, 9-110 cm) from the ICES North Sea roundfish sampling areas 1 and 3. The stomach contents of gadoids over 30 cm were examined at each station, and samples of stomachs (10 per 5 cm length group, 10 to 30 cm) of Norway pout, whiting and haddock (less than 30 cm), were preserved at each station during the overnight sampling exercises. Blood and otolith samples of mackerel (52 fish station 30 and 36 fish station 32) and haddock (25 fish station 33 and 24 fish station 34), and two whole fish population samples of herring (stations 7 and 20), were preserved for protein genotype analysis. RV EXPLORER was contacted and arrangements were made to transport a sample of Rockall haddock blood to Lowestoft. Samples of sandeels and large Norway pout were frozen for later analysis.
4. Additional material collected:
 - a) A length range of megrim (39-57 cm) and hake (35-60 cm) for whole weight/gutted weight relationship determination.
 - b) A length range of mackerel (10/cm) from station 30 for meristic determination.
 - c) 13 boxes of small fish for fish food.
 - d) 5 pycnogonid specimens for Dr Fry, Luton College.
 - e) Type specimens for York and East Anglia University use as follows: 3 bearded rockling, Norway pout, witch, lemon sole, starry ray, cuckoo ray, spotted ray, spurdog, lesser spotted dogfish, megrim, lumpsucker, torsk, viviparous redfish, dragonette, argentine and snake blenny.

M G Pawson
14 June 1979

SEEN IN DRAFT: G Sinclair
R C Newrick

INITIALED: AJL

DISTRIBUTION:

Basic List
M G Pawson
A Jamieson
B C Mumford
D Eaton
B Meggett (Grimsby)

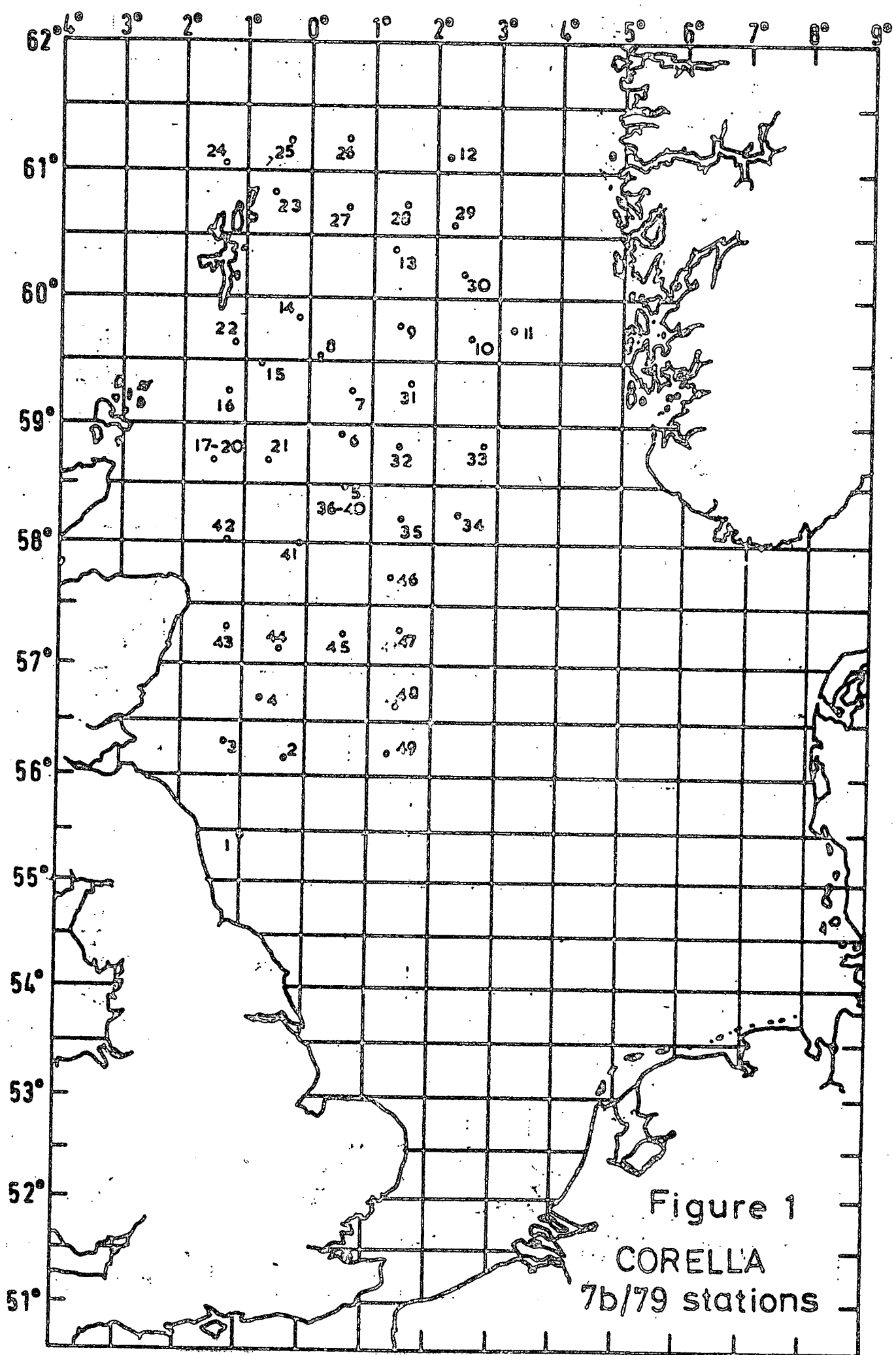


Figure 1
 CORELLA
 7b/79 stations