

jh

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

1979 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 12
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

P O Johnson
W A Dawson
P A Large
P M Hudson
A L Lawrence

DURATION

Left Lowestoft 0815 h 4 October
Arrived Lowestoft 0600 h 17 October
All times are Greenwich Mean Time

LOCALITY

West Central North Sea

AIMS

1. To carry out a high speed townet survey for herring larvae over the western portion of the central North Sea between the Farne Islands and Humber entrance.
2. To carry out mid-water trawling to identify pelagic fish traces and preserve material for biological studies.

NARRATIVE

After leaving Lowestoft CORELLA proceeded to deeper water outside Smiths Knoll to carry out calibration runs with the high speed plankton sampler, and after completion of these, passage was made to commence the townet survey grid (see appended track chart) at 1630 h 4 October. This was successfully accomplished in generally favourable weather conditions by 2200 h 10 October. CORELLA then made for Sunderland, where she docked at 0730 h 11 October to take on fuel and water, sailing again at 0745 h the following day. An echo-survey was then commenced to investigate the distribution and species composition of pelagic fish shoals. This covered an area extending from the Farne Islands south to Whitby and offshore to the Outer Silver Pit, this work being completed by 1800 h 16 October, with again remarkably good weather for this time of year.

CORELLA then made an overnight passage to Lowestoft, docking at 0600 h 17 October.

RESULTS

1. A total of 107 townet stations were completed, with double oblique hauls made at each together with temperature profiles and surface salinity samples.

Surface temperatures ranged from about 12-14°C over the south eastern part of the survey area, but were generally in the range 10-11.5°C off the north east coast, with a tongue of cooler water extending from the Farne Islands to just south of Flamborough Head. A thermocline was still evident in the deeper water offshore from the north east coast giving temperature changes of 3-4°C on some stations.

2. Pelagic fish shoals were generally small and thinly distributed off the north east coast, although there were signs of concentrations beginning to develop off the Tyne and Tees within about 15 miles of the coast. A high proportion of small herring were found in hauls made north east of the Tyne, but sprats predominated further south off Tees Bay. One sample of large herring was obtained from a position 38 miles north east from the Tyne.

It was evident that a major build-up of sprat shoals was commencing in The Outer Silver Pit, where they extended over a wide area, with some large shoals already present. The by-catch of herring was low in this area.

3. Samples of sprat and herring were deep frozen for further biological examination at the laboratory, whilst additional samples mixed with small gadoids were taken for the fish identification courses (Mr R W Blacker).

GEAR DAMAGE

The 800 mesh Engel trawl used on this trip has now deteriorated through fair wear and tear, and needs to be written off.

P O Johnson
13 November 1979

SEEN IN DRAFT: G Sinclair (Master)
R C Newrick (Fishing Skipper)

INITIALLED: AJL

DISTRIBUTION:

Basic List
P O Johnson
W A Dawson
P A Large
P M Hudson
A L Lawrence

