

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

1973 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 2

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

STAFF

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A M Watson
T W Boon
R B Doyle

DURATION

Left Grimsby 0910 h 9 February

Arrived Grimsby 0030 h 27 February

All times are Greenwich Mean Time

LOCALITY

North Sea

AIMS

1. To take part in the ICES Young Herring Survey.
2. To make surface and bottom temperature and salinity observations.
3. To investigate the distribution of sprat shoals off the north east coast of England.
4. To carry out a continuous echo-survey over the survey region.

NARRATIVE

After leaving Grimsby, CIROLANA proceeded to the sampling rectangle adjacent to the coast between Humber and Flamborough Head, where the Dutch Herring Trawl was shot, but badly damaged due to working over rough ground. After repairs had been completed it was too late to shoot again that day and a move was made into the neighboring rectangle where a successful haul was achieved on the following day after further trawl damage. The weather then deteriorated and the vessel had to dodge until the following day, 11 February. A further haul was then made in the same rectangle at a different position, but again with net damage.

CIROLANA then steamed to the Southern Bight where four more rectangles were successfully completed over the following four days (12-15 February), despite severe gales.

An overnight passage was made between 15-16 February to an area off the west Danish coast where three more rectangles were covered on the 16th. CIRQLANA then proceeded to Esbjerg, docking at 0830 h on 17 February and sailing again the following morning at 0820 h.

The 18 February was spent steaming to the northern North Sea where a further block of four rectangles were successfully completed in better weather conditions on 19 and 20 February. An overnight passage was then made to the Whitty Fine Ground area where two more rectangles were completed on 21 and 22 February in rapidly worsening weather. A severe gale developed later on the 22 and forced the vessel to seek shelter in Bridlington Bay where she remained until conditions improved the following day, when a passage was made to the final working area off the Tees-Tyne coast. Here the final rectangles were completed on the 23-24 February and the remainder of the trip was spent carrying out an echo-survey of the distribution of sprat shoals in the same general area. This survey extended south to cover the Flamborough area on 26 February and finished just off the Humber. CIRQLANA then returned to Grimsby docking at 0030 h on 27 February. Planned DRCM measurements off the Tyne, were abandoned after a fault developed in the gear.

RESULTS

1. A total of 25, one hour duration tows using the Dutch Herring Trawl were successfully completed, those covering the 16 sampling rectangles allocated to CIRQLANA in the International Young Herring Survey.
2. Radio contact was made with other participant vessels; DANA, (Denmark), ANTON DOHRN (Germany) and TRIDENS (Netherlands), for circulation of preliminary results.
3. Surface and bottom temperature and salinity observations were made in each sampling rectangle, and the thermograph was run continuously throughout the survey.
4. The Humber 30 kHz and Marconi Fishgraph 48 kHz echo-sounders were run over the whole survey region. Pelagic traces were generally very sparse except towards the north east coast of England and in some parts of the Southern Bight.
5. Extremely large sprat shoals were present in the usual locality off North Shields and did not appear to have been much dispersed by the very severe prevailing weather conditions.
6. A continuous dense layer of small shoals was also recorded in the coastal water between about Scarborough, north of Flamborough Head, to Withersea to the south, extending up to 7-8 miles offshore in places. Towing the trawl in this area indicated that this layer was most probably whitebait sprat about 4-6 cm in length (1972 year class), and overall this echo-patch must have represented a colossal quantity of these fish since it covered many square miles.
7. A full biological sampling programme was carried out on herring, sprat, cod, whiting and haddock. The most notable catches made were one in the northern North Sea consisting of 46 baskets of haddock and 26 baskets of red and grey gurnards, and another off Sunderland which produced 90 baskets of herring.

8. On the final day a request was received from Lowestoft to check the JONSIS A moored current meter station about 7 miles off Flamborough Head. It was found that the toroidal buoy was missing, but the meter rig was still in position as shown by the surface floats and sub-surface buoy. This information was radioed back to Lowestoft.
9. About 40 Kg of small gadoids were deep frozen for use as fish food at the laboratory.

P O Johnson
1 March 1973

SEEN IN DRAFT THF (Master)
 GWH (Fishing Skipper)

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DISTRIBUTION

Basic List
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