MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK NR33 0HT, ENGLAND

1990 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 2

STAFF:

W G Parnell
P J Bromley
T J Hulme
G J Howlett
T W Boon
A M Watson
T Watson
B D Rackham — N Pearson (17 February)
J Dann — J Rees (17 February)
D J Brown — M Green (17 February)

DURATION: Left Lowestoft 1003 h, 27 January
Arrived Lowestoft 1243 h, 20 February
All times are Greenwich Mean Time

LOCALITY: North Sea

AIMS:

1. To participate in the ICES International Young Fish Survey.
2. To sample post-larvae herring, sprat and eel, and make volumetric assessments of krill using the Isaacs Kidd midwater trawl (IKMT).
3. To take temperature readings and collect salinity and nutrient samples at the surface and near bottom at each bottom trawling location.
4. To make one bottom trawl haul in each rectangle of sub-areas 61, 62, 65 and 66.
5. To compare catch rates made with a 1.4 m sq Methot IKMT with those of a standard IKMT.
6. To sample stomach contents of principal predators, especially cod and whiting, to investigate feeding and prey selection (P Bromley)
7. To provide fish samples for contaminant analysis for inclusion in the North Sea Task Force Quality Status Report (A Franklin).
8. To replenish stocks of specimens for fish identification courses (A Watson).
9. To recover, and relay a tetrapod off the Tyne (Dr R Dickson).
10. To collect herring for a parasite tagging project (Dr K McKenzie, DAFS)

NARRATIVE:

CIROLANA sailed from Lowestoft at 1003 h, 27 January, a day later than planned because of industrial action by the crew, and proceeded to ICES rectangle 33F1 off Southwold (see attached chart) where the English participation in the 1990 International Young Fish Survey (IYFS) commenced at 1246 h that afternoon. The survey was to consist of a prescribed number of bottom trawl hauls mainly during the hours of daylight using a standard GOV trawl in specific ICES rectangles allocated to England by the Dutch IYFS coordinator. On each station surface and bottom salinity and nutrient samples were taken and temperatures recorded. Scanmar sensors were fitted on the trawl doors and headline to record door spread and headline height. During the hours of darkness the intention was to fish the IKMT twice within each of the prescribed rectangles but this aim was severely affected by adverse weather conditions which were encountered during virtually the whole cruise. The first part of the survey was carried out in a general northerly direction in the western North Sea but the order in which rectangles were fished was very much governed by the poor weather. By the evening of 3 February, all except three of the allocated rectangles in the western North Sea had been fished and course was set to work the rectangles in the eastern North Sea. Fishing commenced again in rectangle 36F4 but was again hampered by bad weather until 7 February when CIROLANA dodged to Esbjerg in high winds and heavy seas to arrive at 1407 h. The vessel sailed again at 0725 h, 9 February and had completed working the allocated rectangles on the eastern side of the North Sea by 15 February in spite of continuing bad weather.

In view of a forecast of more settled weather it was decided to proceed to the north-east coast to service the tetrapod and course was set for the Tyne at 1700 h, 15 February. The following day the tetrapod and guard buoys were lifted to await the arrival on 17 February of staff from Lowestoft. Unfortunately, problems were encountered with data transfer, and it was decided not to redeploy the tetrapod but to stow it on board for return to Lowestoft. After the Lowestoft staff had been put ashore at 1745 h that same evening, CIROLANA proceeded to the central North Sea to continue fishing but then developed engine trouble. A decision was made at 0700 h, 19 February to return to Lowestoft when CIROLANA docked at 1243 h, 20 February after a slow journey in bad weather which characterised virtually the whole cruise.

RESULTS:

1. Fifty-seven 30-minute tows, two of which were invalid, were made with the standard GOV trawl. Three rectangles allocated to England were not worked - the intention was to pick these up at the end of the cruise but engine trouble intervened. Six rectangles outside the allocated area were fished. All species taken in the catches were weighed and measured, and otoliths were taken from cod, haddock, whiting, Norway pout, herring and sprat to targets laid down in the ICES survey manual. As the normal survey coordinating vessel was not available this year, Mr Boon on CIROLANA was designated survey coordinator.

2. Because of the adverse weather conditions only 56 tows were made with the IKMT. Within the allocated area very few herring larvae were taken anywhere.

3. Salinity and nutrient samples and temperature readings were taken at 54 bottom trawl stations by means of Nansen bottles.

4. No bottom trawl hauls were made in sub-areas 61, 62, 65 and 66. On the advice of the survey coordinator the effort was diverted to six rectangles in sub-area 23.

5. Five paired tows were made to compare catch rates with a 1.4 m sq Methot IKMT with those of a standard IKMT. There were however too few larvae in either net for a meaningful comparison to be made.

6. Samples of cod, whiting and dogfish stomachs were deep-frozen for feeding and prey selection studies.

7. Samples of whiting, dabs and plaice were deep-frozen for contaminant studies.

8. Various specimens were deep-frozen for fish identification course.

9. The tetrapod off the Tyne was successfully recovered but because of data transfer problems was not relaid but returned to Lowestoft.

10. One hundred herring were deep-frozen for a parasite tagging project.

W G Parnell
22 February 1990

Seen in draft: GS, JH, JGP

Initialled:

DISTRIBUTION:

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W G Parnell	B D Rackham
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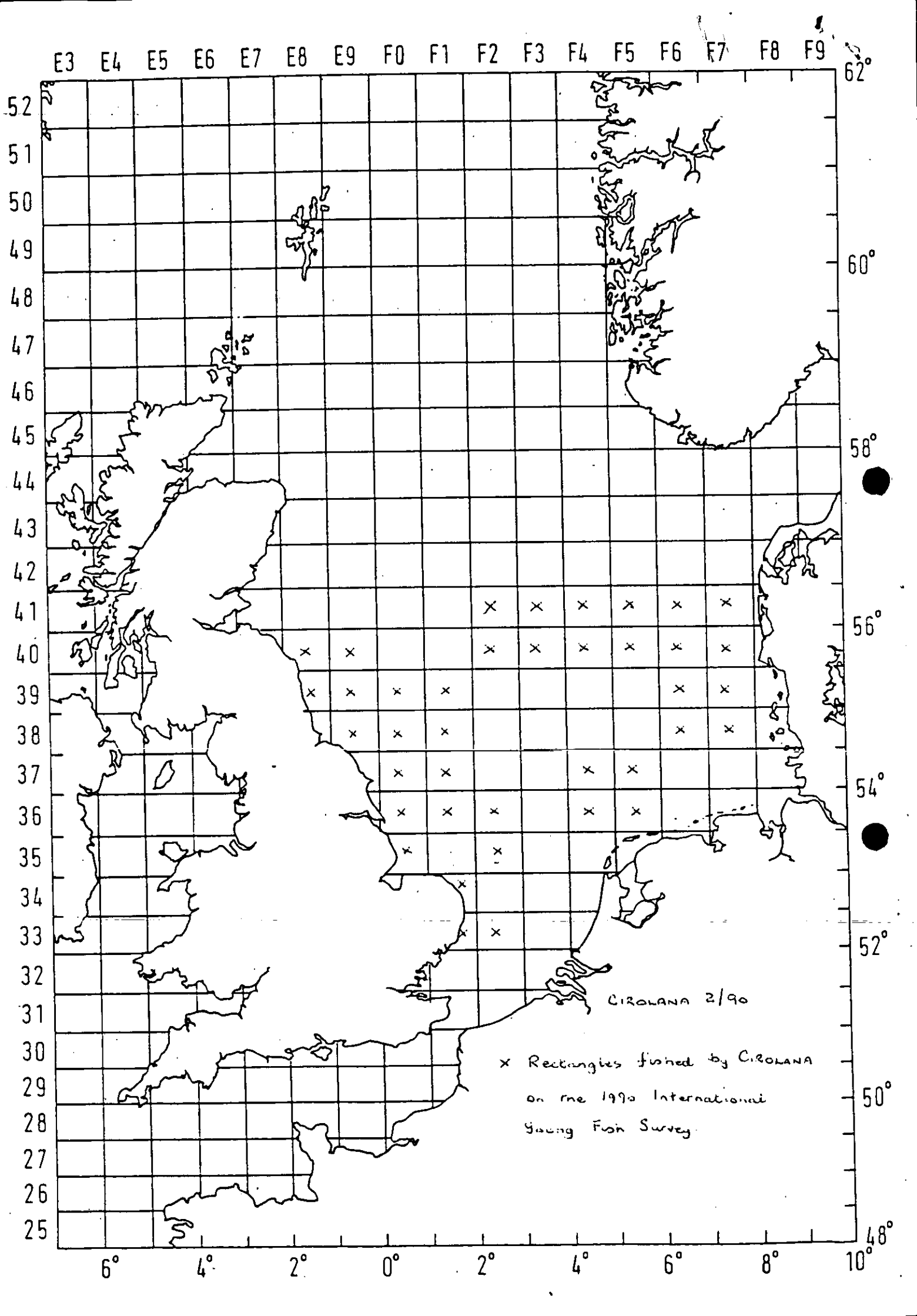
E3 E4 E5 E6 E7 E8 E9 F0 F1 F2 F3 F4 F5 F6 F7 F8 F9
52 51 50 49 48 47 46 45 44 43 42 41 40 39 38 37 36 35 34 33 32 31 30 29 28 27 26 25
62° 60° 58° 56° 54° 52° 50° 48°
6° 4° 2° 0° 2° 4° 6° 8° 10°
CIROLANA 2/90
× Rectangles fished by CIROLANA on the 1990 International Young Fish Survey