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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA : CRUISE 2

STAFF:

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DURATION:

Left Lowestoft 0500 h, 1 February
 Arrived Wallsend 0630 h, 26 February
 (All times are Greenwich Mean Time)

AIMS:

1. To participate in the ICES International Young Fish Survey.
2. To sample post-larval herring and sprat using the Isaacs-Kidd midwater trawl.
3. To take surface and bottom temperature and salinity readings and collect nutrient samples on each trawl station.
4. To collect samples of post larval herring for determination of daily ring formation on the otoliths.
5. To collect and preserve stomachs of cod and whiting for the ICES North Sea Stomach Sampling Project.
6. To collect extra samples of herring from rectangles outside the English designated sampling area for meristic characters.
7. To return to the laboratory any specimens of live hagfish (*Myxine glutinosa*) for Mr Scholes.

NARRATIVE:

CIROLANA sailed from Lowestoft at 0500 h 1 February after a delay of 12 hours due to engine trouble. Bottom trawling with the standard GOV trawl commenced at 0810 h the same day in ICES rectangle 33F1 (see attached chart) and midwater trawling with the Isaacs-Kidd trawl at 1950 h in 33F2. The bottom trawling which was carried out in daylight hours was undertaken in those rectangles allocated to England by the ICES Survey coordinator, a pre-determined number of tows being made in each rectangle. The Isaacs-Kidd trawling was carried out after dark, two double oblique tows at least 10 miles apart being made in each of the rectangles fished with the bottom trawl. Fishing was uninterrupted by weather until 2140 h 8 February when a south-easterly gale forced the vessel to dodge until 1530 h 9 February.

Work on the western side of the North Sea was completed apart from 3 Isaacs-Kidd trawl stations by 14 February, with the only gear damage being a torn belly in the GOV trawl when fishing in 37E9 and a bent upper spreader bar and a tear in the Isaacs-Kidd trawl when fishing in marginal conditions early in the trip. The six rectangles off the Danish coast were fished in good weather before CIROLANA docked in Esbjerg at 0807 h, 18 February, sailing again at 0909 h the following day. Work in the remaining allocated rectangles was completed by 1138 h 22 February and the remainder of the trip was spent in fishing in rectangles outside the survey area in the German Bight to obtain samples of herring for the examination of meristic characters. The last GOV trawl was made in 38F6 at 1324 h, 24 February, and CIROLANA then steamed to the western North Sea to pick up the remaining 3 Isaacs-Kidd trawl stations. These were completed by 2153 h 25 February after which the vessel made for the Tyne where she dry-docked at Wallsend at 0630 h, 26 February.

RESULTS:

1. Fifty GOV trawl hauls (1 invalid because of gear damage) were made in 40 ICES rectangles as the English contribution to the International Young Fish Survey. At each station all species were weighed and measured. Otoliths were taken from cod, haddock, whiting, norway pout, herring and sprat at and above levels agreed at the Working Group. (Small herring and sprat were deep-frozen for otolith extraction later at the laboratory). The number of gadoid otoliths collected was

Roundfish Area	Cod	Haddock	Whiting	Norway pout
2	97	281	167	78
4	203	268	226	84
5	99	18	215	
6	103	93	171	
7	44	74	90	2
Total	546	734	869	164

2. Eighty-two double oblique hauls were made with the Isaacs-Kidd midwater trawl.

3. Nansen bottles were used to take surface and bottom temperature readings and collect salinity and nutrient samples in each trawl station.

4. Samples of post larval herring were preserved from the Isaacs-Kidd trawl catches for determination of daily ring formation on the otoliths.

5. A total of 360 full cod stomachs and 891 full whiting stomachs were preserved for the ICES North Sea stomach sampling project.

6. Seven GOV trawl hauls were made in rectangles outside the designated sampling area to obtain herring for the examination of meristic characters.

7. The request for specimens of live hagfish was withdrawn before the cruise.

8. 2092 herring < 20 cm from 32 rectangles were x-rayed using the Hewlett-Packard x-ray cabinet system. These will be used for meristic character analysis. X-ray plates of 'stumpy' cod and herring showed clearly, fusion of vertebrae.

9. All station data and GOV catch data were loaded to a computer data-base. The preliminary IYFS mag-tape file was produced on the last day of the cruise. Decca positions were logged at one minute intervals for most GOV stations and a program was written to produce distance run from the logging files. A temporary program to extract catch data was also written. (No insurmountable problems were experienced with the computer on this cruise).

10. All GOV catch data for pre-recruit cod, haddock, whiting, norway pout, sprat and herring were reported to the survey co-ordinator in 'TRIDENS' three times a week.

W G Parnell
22 March 1985

INITIALLED:

D J G

SEEN IN DRAFT:

J F

J H

DISTRIBUTION:

Basic List +

W G Parnell

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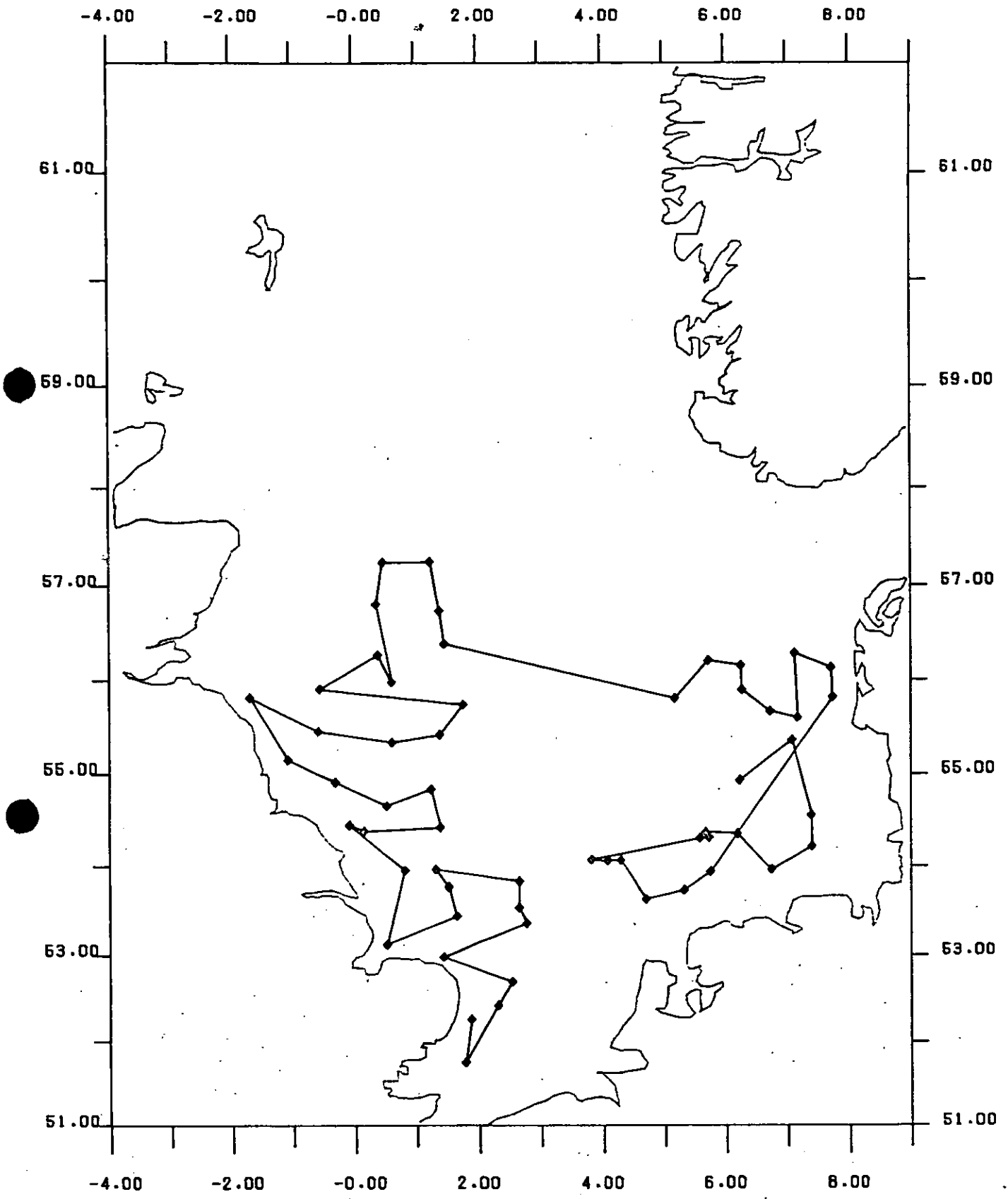
P A Large

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Eastern Sea Fisheries Joint Committee

North-eastern Sea Fisheries Committee

Kent and Essex Sea Fisheries Committee



IYF5 00V TRAWL STATIONS CIROLANA 2/85