

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

1991 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 5

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

STAFF C T Macer
 T J Hulme
 G J Howlett
 L T Kell (10-24 May)
 C G Brown (25 May-7 June)
 T Watson
 J Dann
 B D Rackham
 K Winpenny
 D J Brown
 N Earl

DURATION Left Lowestoft 1700 h 10 May
 Arrived Lowestoft 1600h 7 June
 All times are Greenwich Mean Time

LOCALITY North Sea

AIMS

1. To carry out a groundfish survey of the North Sea using the GOV trawl as part of the ICES coordinated programme.
2. To measure surface and bottom temperature and salinity.
3. To collect stomachs as part of the ICES stomach survey.

NARRATIVE

On leaving Lowestoft the ship proceeded to the southern end of the grid in the Thames estuary, where the first station was started at 0740h on 11 May. Working northwards, the survey continued until 24 May, when the ship proceeded to Esbjerg where she docked at 1700h. The ship left Esbjerg at 0600h on 26 May, and the survey was resumed off the Danish coast at 1630h the same day. Work continued northwards in the eastern sector of the grid to just north of 61 degrees, and finally the north-western sector was completed at 0800h on 5 June. The ship then made for Aberdeen, where the frozen stomach samples were off-loaded to the Marine Laboratory via the Searider on the morning of 6 June. The ship left for Lowestoft at 1030h on 6 June, where she berthed at 1600h on 7 June. The weather during the cruise was generally favourable, with only half a day being lost.

RESULTS

1. Of the 74 ICES rectangles targeted, a total of 73 were fished with valid 30-minute tows at 4 knots ground speed with the GOV trawl. A further 3 hauls were invalidated by gear damage. Rectangle 42F6 was the only rectangle in which a valid tow was not made due to gear damage, although stomach samples were collected. Damage which necessitated repeat tows was also sustained in rectangles 49E9 and 43E9. All rectangles except 9 were fished with the GOV standard rig (including 50 metre bridles). Rectangles 51E8-F2 were fished with the footrope chains removed and lower leg chain shortened by 30 cm.

Rectangles 49E9 and 47E7-E9 were also fished with this rig, but with the addition of 6 x 21-inch bobbins in the bosom.

Samples of all species were taken by Roundfish area, and in addition to the usual HP GFS database input, the data were also entered as SAS data sets, and for selected areas were input to the PC version of the GFS suite.

2. Surface and bottom temperature and salinity were collected by Nansen bottle in 72 of the rectangles fished. Surface temperatures ranged between 8 and 9 degrees, and bottom temperatures were around 7 degrees in the northern North Sea.
3. Stomachs were frozen from all targetted rectangles, and otoliths collected as scheduled. In all, a total of 8453 stomachs and 6200 otoliths were collected from 25 different species. On some stations, especially the deeper ones, a high proportion of the stomachs were regurgitated.
4. The following data were logged to an Apricot PC: time, position, Scanmar headline height, and Scanmar door spread. In addition, data from the Doppler log and the SAL log were recorded manually. During the cruise, a SAS program was developed to store, analyse and present these data, including swept areas and volumes.
5. Trials were made with the Scanmar height sensor mounted at different positions near the headline. The only satisfactory position was with the unit mounted on a base plate attached above the headline to the side of the kite. This rig gave very good results, as did the door-mounted spread sensor.
6. Morlog was trawled up on several stations and this was returned as requested (Mr Ramster).

C T Macer
20 June 1991

SEEN IN DRAFT: Master - Captain B Chapman
Senior Fishing Mate - J Harper

INITIALLED: JGS

DISTRIBUTION:

Basic List+
C T Macer
T J Hulme
G J Howlett
L T Kell
C G Brown
T Watson
J Dann
B D Rackham
K Winpenny
D J Brown
N Earl

CIROLANA 5/91 TRAWL STATIONS

SHOWING :
CRUISE TRACK
STATION POSITION
STATION NUMBER
COASTLINE

