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

1971 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 10

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

STAFF

D Harding
P G W Jones
S J Lockwood
C Garrod
F Morris (student)

DURATION

Left Lowestoft 1415 hours, 1 June

Arrived Lowestoft 1000 hours, 10 June

All times British Standard Time

LOCALITY

Southern North Sea

AIMS

1. To carry out a survey of the distributions of fish eggs and larvae and other planktonic organisms in the Flamborough and Southern Bight spawning grounds in the southern North Sea.

2. To collect a series of samples with the changing net sampler to study vertical distribution of fish larvae.

3. To monitor transparency, chlorophyll A and temperature continuously in the sea surface water.

4. To collect salinity samples on each station occupied.

5. To record fish traces using a MS29 echo sounder.

6. To collect samples of water for trace element analysis by atomic absorption spectrophotometry.

7. To collect cores of bottom sediments for heavy metal analysis.

8. To measure temperature/depth profiles at selected stations.

9. To release sea bed drifters at nine stations in the Flamborough area.

10. To collect samples of suspended material, including algae from selected stations to calibrate the Turner fluorometer.

11. To collect samples for examination by Dr J D Dodge for Dinoflagellates.

NARRATIVE

CORELLA sailed from Lowestoft at 1315 hours, 1 June. Sampling commenced at 2330 hours using the changing net sampler and a series of stations workedalong a line between 53°37'N 00°46'E and 55°07'N 00°45'W. At 0900 hours 2 June the survey sampler was rigged and calibrated, and work started on the standard grid of stations at 1600 hours. At predetermined intervals the ship stopped to collect water samples for trace element analysis and attempts were also made at various stations to collect cores of the bottom sediments using a gravity coring device. Unfortunately this core sampler did not work on sand and gravel bottoms and after many abortive attempts this aim was finally abandoned. Having completed the grid CORELLA sailed for IJmuiden docking at 1530 hours on 9 June. Water samples for intercalibration at the Dutch laboratories were landed at IJmuiden and discussions held with Dr Daan and Dr Bodeke about the material collected jointly during the 1971 spawning season. CORELLA sailed from IJmuiden at 2300 hours the same evening and docked at Lowestoft at 1030 hours, 10 June.

RESULTS

All objectives except aim no 7 were successfully achieved, and all instruments worked well throughout the cruise except the transparency meter which blew its only bulb on Station 98.

A series of seven samples was collected to study the vertical distribution of larval fish in the Flamborough area and 122 stations sampled on the standard grids in the Flamborough and Southern Bight spawning areas. Continuous traces of chlorophyll A and temperature were collected throughout the cruise and similar records were obtained with the transparency meter until it broke down. Temperature/depth profiles were obtained from a thermistor mounted on the plankton sampler, the results being plotted on a chart recorder linked to the deck unit. The new instrumentation has now been used on the last three cruises and has given excellent results.

Three lines of water sampling stations were occupied and samples for intercalibration landed at IJmuiden.

Sea bed drifters were released at nine stations on this cruise and the positions are marked on the chart attached to this report.

Finally samples of water and plankton were collected for Dr J D Dodge of Birkbeck College for analysis for Dinoflagellates and a sample of filtered sea water from the middle of the Southern Bight for Dr Chester of Liverpool University.

D Harding

15 June 1971

SEEN IN DRAFT: W Craig (Master)

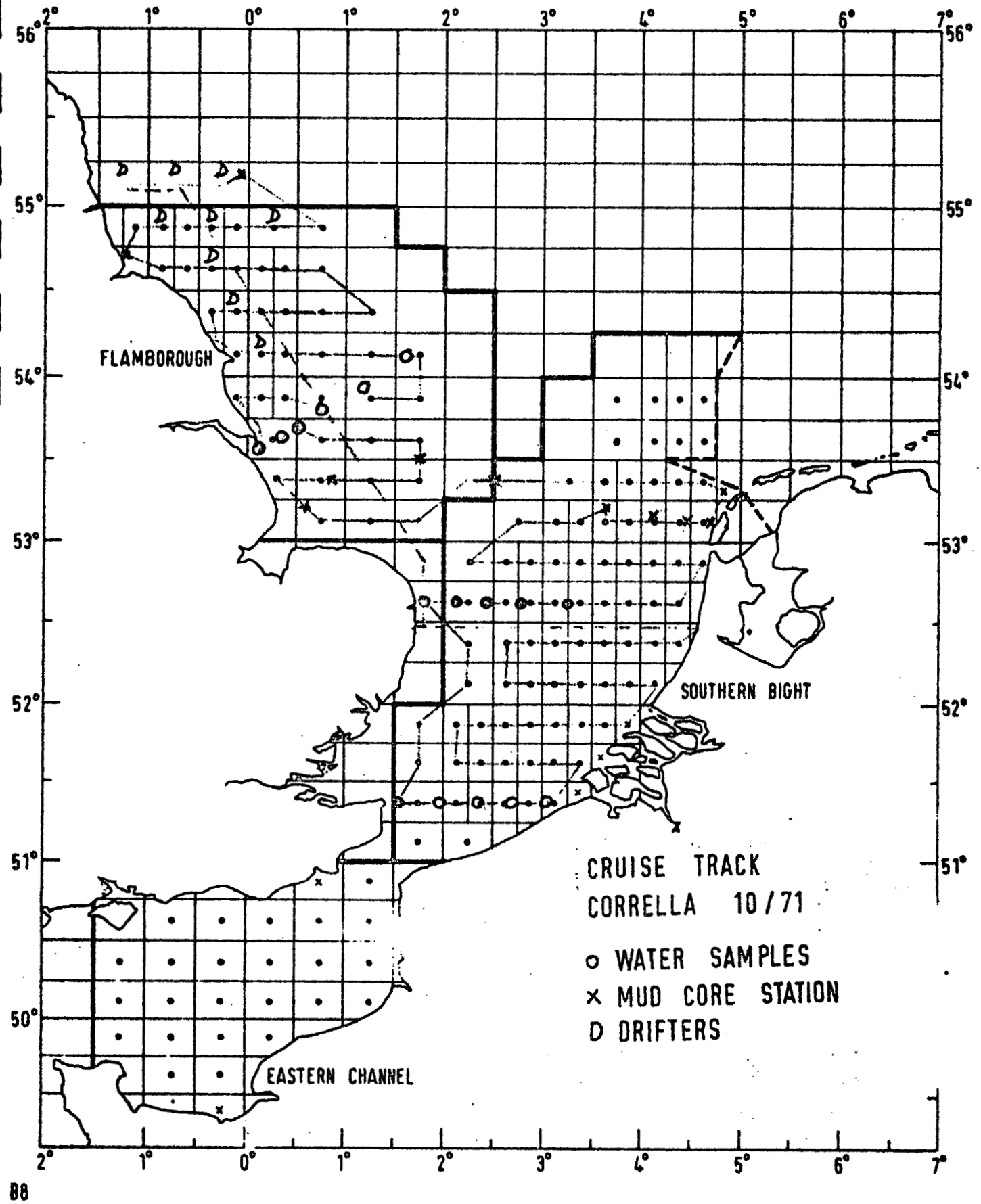
C Snowling (Fishing Skipper)

INITIALLED: AJL

DISTRIBUTION

Basic list

Mr Harding
Dr P G W Jones
Mr Lockwood
Mr Garrod
Mr Morris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FLAMBOROUGH
SOUTHERN BIGHT
EASTERN CHANNEL
CRUISE TRACK
CORRELLA 10/71
o WATER SAMPLES
× MUD CORE STATION
D DRIFTERS