

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

1972 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 10

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

STAFF

R W Blacker
C L Whiting
S Flatman
P R Witthames
J R Corbin (Hull)
M Htun Han

DURATION

Left Lowestoft 1400 h, 4 July

Arrived Lowestoft 1415 h, 14 July

All times are GMT

LOCALITY

North Sea

AIMS

1. To determine the abundance of the benthos of the plaice grounds around the Dogger Bank using the Van Veen grab and underwater cameras.
2. To complete the collection of stomach contents of plaice from the same areas.
3. To collect samples of plaice for the analysis of body constituents as part of a study of the seasonal cycle in condition (Mr Birkett).
4. To collect live small plaice (15-20 cm) and/or dabs for the fish disease unit of the Zoological Society, London.
5. To collect live plaice for future acoustic tag experiments.
6. To collect live plankton for Mrs Thompson.
7. To collect material for studies of the histology of the pineal and pituitary glands of the dab (M. Htun Han).

NARRATIVE

CORELLA left Lowestoft at 1400 h, 4 July, and made several runs over the measured mile off Lowestoft to calibrate the Sal log. These were completed by 1900 h and the Sal engineer was put ashore via the Gorleston pilot at 1910 h. Course was then set for the Outer Silver

Pit to start the benthos and plaice sampling. Work started there at 0830 h, 5 July and the next 9 days were spent fishing and grab sampling twelve grounds around the Dogger Bank. The weather was excellent and the programme was carried on without a hitch until halfway through the sampling on the twelfth ground (Cleaver Bank) when a fault developed in the steering. This could not be repaired, and the ship had to return to Lowestoft using the emergency steering gear. The ship arrived off Lowestoft about 1300 h and berthed at 1415 h with the assistance of a tug.

RESULTS

Aims 1 & 2: At each of the twelve selected areas the aim was to make two trawl hauls and complete a grid of 22 grab stations. This programme was completed in almost ideal weather conditions except that only one trawl haul was made on the Coffee Soil, and only half the grab grid was done on Cleaver Bank. On the Coffee Soil 2-3 tons of heart urchins (Echinocardium) filled the first trawl haul and were brought on board with difficulty, so the second haul was not attempted. The last eleven grab stations on the Cleaver Bank had to be abandoned because of the steering fault. At some stations several attempts to obtain grab samples had to be made because the grab failed to close properly when the lowering chain fouled the grab levers. (It may be possible to modify the grabs to overcome this frustrating snag.) All plaice caught were measured, and samples of guts were preserved from each ground. An underwater camera was used on the trawl headline at all trawl stations. Good results were obtained at all areas except the southernmost grounds where the bottom water appeared to be slightly turbid. The underwater television was used at 7 stations usually with the ship at anchor. Excellent pictures were obtained except at one station, after which it was discovered that the light filter was stuck halfway across the lane. Results were recorded on vidco-tape.

3. Samples from plaice of both sexes over the size range 28 to 53 cm were obtained for analysis of body constituents.

4 & 6. Owing to the steering fault no attempt was made at these aims. Small plaice were not obtained anywhere on the grounds sampled and few lively dabs were caught.

5. About 30 plaice over 35 cm were brought back. Most of them were caught in extra hauls on the Outer Rough.

7. Material for the study of dab pineal and pituitary glands was obtained from most areas, and a few live dabs were brought back to the laboratory.

Incidental aims. Heads and stomachs of all turbot were preserved.

Several baskets of small gadoids were frozen for fish food.

R W Blacker

27 July 1972

SEEN IN DRAFT: E M Balfour (Master)
C Snowling (Skipper)

INITIALLED: AJL

DISTRIBUTION

Basic list

Mr Blacker
Mr Whiting
Mr Flatman
Mr Witthames
Mr Corbin (Hull)
M Htun Han
Dr Bannister