

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

1972 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 17

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

STAFF

J P Bridger  
B H Holford  
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Miss R Harrop

DURATION

Left Lowestoft 0800 h 20 November

Arrived Lowestoft 1600 h 30 November

All times are Greenwich Mean Time

LOCALITY

North Sea

AIMS

1. To determine the reactions of plaice to a Granton trawl, by extending the series of experiments carried out on Cruises CORELLA 13 and 18, 1971 and 15 and 16, 1972.
2. To examine any dabs caught for gonad development and hormonal activity.

NARRATIVE

Almost the entire cruise was carried out in strong to gale force SW-NW winds. These conditions gravely curtailed the main aim of the cruise, confining the ship to more sheltered, but often quite unsuitable, trawling grounds near the English coast.

CORELLA sailed at 0800 h 20 November and joined CLIONE off Southwold where she was tracking a cod fitted with an acoustic transponding tag. CORELLA anchored nearby in three different places and ran the DRCM more or less continuously until midnight of 21 November.

On the morning of 22 November with some moderation in the weather, CORELLA set course for Texel. Two trawl hauls were made between West Hole and Tea Kettle Hole that afternoon. These hauls provided 28 dabs and 16 live plaice in fair condition which were retained in deck tanks.

The whole of 23 and part of 24 November were spent dodging off Texel in company with CLIONE but no improvement in the weather occurred. CORELLA called at IJmuiden that afternoon, leaving again at 0300 h 25 November. CORELLA then steamed across to the Shipwash area, joining CLIONE there at 1300 h. The fish released by CLIONE however refused to settle and the bottom was quite unsuitable for trawling. Several 'dummy runs' were therefore made over the fish to give

practice in homing the ship on to a target. Two methods were used; that used on the previous cruise and a somewhat refined method known as Mk1 and Mk2 plotters respectively. Due to lack of practice the Mk2 method was somewhat less successful.

At the suggestion of CORELLA this fish was abandoned by CLIONE and both ships moved to a ground 15 m E X N of Smith's Knoll LV during the night 25/26 November. The first and only fine weather of the cruise occurred on 26 November when 7 attacks were made on the same fish using the Mk1 plotter. Later another fish was released but unfortunately CLIONE lost contact with it before an attack could be made. During these attacks the Mk2 plotter was also used to gain experience.

On 27 November the weather began to deteriorate again but 5 attacks were made before increasing wind and sea made further work impossible. The Mk2 plotter was used on this day and gave promising results.

CORELLA then ran for shelter off Southwold where, on 28 November, a single haul for dabs resulted in a badly torn net. No dabs were taken.

On 27 November a telegram from DDFR was received requesting CORELLA to lift Stations B and C of the JONSIS net work. After discussions with the laboratory and CLIONE, it was decided in view of yet more gales forecast to leave CLIONE and at least visit as many of the JONSIS stations as possible even if lifting them was out of the question. If time and weather allowed, CORELLA was then to trawl for live plaice and dabs on the way back. Accordingly after carrying out a short DROM station alongside CLIONE, who was tracking a cod off Pakefield, CORELLA set course for Flamborough Head at 1800 h 28 November in poor weather.

JONSIS A was located at 0750 h, 29 November and seen to be on station. The toroid and surface pellet being in good order. On arrival at JONSIS B a close search of the area failed to find the toroid, but on three occasions when passing within a few yards of the station midwater sonar echoes were obtained. It is therefore possible that the sub-surface float and some part of the rig remains on station. With winds of 40 knots and a heavy swell, no attempt could be made to salvage the station. With forecasts of more Force 9 gales to come CORELLA then set course for the English coast and after a very uncomfortable passage, reached Lowestoft at 1600 h 30 November.

## RESULTS

Due to continued heavy weather only 12 attacks were made on three fish. Using the Mark 1 Plotter the fish passed between the otter boards twice out of seven attacks, but was not caught. Using the Mark 2 Plotter, two fish were caught, the fish passing between the otter boards three times out of five. It is possible therefore, that the Mark 2 Plotter is an improvement, but with strong cross winds or tides, neither method is really adequate.

The ground used for joint fishing off Smith's Knoll looks entirely adequate and in winter would seem to be preferable to the Black Bank - Texel area since it is much nearer to home port and less exposed to Westerly gales.

Some 50 dabs were examined for age, length, gonad development and hormonal activity.

Many of the plaice kept for future cruises died of wounds or buffeting in the tanks on the way to JONSIS B and back, but 10 fish were brought alive to the Laboratory.

A sample of live plankton was obtained near JONSIS B and returned to the Laboratory.

J P Bridger  
5 December 1972

SEEN IN DRAFT      JEMB  
                            CNS

INITIALLED          AJL

DISTRIBUTION

Basic list  
J P Bridger  
B H Holford  
Mrs M Clark  
Miss R Harrop