

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

1975 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 12

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

STAFF

I L Davies (1-11 August)
P Scholes
Miss R Harrop
Miss L Emerson

DURATION

Left Lowestoft 1430 h, 1 August

Arrived Lowestoft 1130 h, 13 August

(All times are Greenwich Mean Time)

LOCALITY

Southern North Sea

AIMS

1. To evaluate with CLIONE the efficiency of the Granton Trawl rigged with a door-to-door tickler chain, for plaice.
2. To tow an acoustic target (caterpillar) for sector scanner resolution and detection calibrations.
3. Trials of a 30" TTN fitted with a new nose cone and towing arrangement.
4. To collect fish samples from various grounds for metal analysis (Dr Portmann).
5. Collection of dab tissue for light and electron microscopy (Mr Bye).
6. To collect a dinoflagellate sample for Dr Dodge and a copepod sample for Mrs Thompson.

NARRATIVE

RV CORELLA sailed at 1430 h after the live fish had been transferred from RV CLIONE, whose sailing was delayed, and proceeded to a position off Southwold where she anchored fore and aft. A rig comprising an Aanderaa and a Plessey current meter was suspended from the ship from 1755 h to 0111 h, 2 August. CORELLA then set course for the Black Bank, rendezvousing with CLIONE at 1000 h, and the live fish were transferred by rubber boat. Trawling, bathythermograph and phytoplankton stations were worked that afternoon at Black Bank.

The joint trawl efficiency exercise with CLIONE commenced at 0528 h,

3 August and continued during daylight hours until 1921 h, 6 August. The 30" TTN and "caterpillar" were towed for scanner observation by CLIONE during the morning and afternoon of 7 August and trawling recommenced at 1648 h. Both ships steamed overnight to the Texel Ground where fishing was carried out on 8 August. CORELLA called at Den Helder that night for fresh water and trawling continued from 9 to 11 August on the Black Bank. Mr Davies transferred to CLIONE on the evening of 11 August and CORELLA steamed overnight to the Silver Pits where trawling was carried out before moving on to the Smith's Knoll for further trawling and collection of plankton samples. CORELLA anchored overnight off Corton and docked at Lowestoft 1130 h, 13 August.

RESULTS

1. 80 attacks were made on 26 plaice. 45 were classed as valid attacks (ie fish between the trawl doors) resulting in 17 captures. A sole was attacked 5 times, 3 of which were valid, but without capture. The high number of attacks made on this cruise was due to the exceptionally fine weather conditions coupled with the long hours of daylight.
2. The caterpillar was towed for tests of sector scanner resolution and detection calibrations and was located and observed by CLIONE.
3. The 30" TTN fitted with either standard or conical nose cone on single and double bridles was towed at 5 knots. It towed steadily although the double bridle rig required more cable out, 62 metres to reach a depth of 15 m as compared with 39 m for the single bridles.
4. Selected species of fish were deep frozen from Black Bank, Silver Pits and Smith's Knoll for Dr Portmann.
5. Tissue samples from 28 dabs were collected and histologically processed for Mr Bye.
6. Dinoflagellate and copepod samples were collected at Smith's Knoll for Dr Dodge and Mrs Thompson.
7. Phytoplankton samples were collected at widely spaced intervals across the Southern North Sea for Dr Reynolds.
8. 15 Kg of small gadoids were deep frozen as fish food for F.C.U.
9. Bathythermograph and water bottle samplings were made on the trawling grounds. Sea surface temperatures were 16.9°C to 17.4°C. Results of the current meter station off Southwold await processing of the magnetic tapes.

I L Davies
3 September 1975

INITIALLED: AJL

SEEN IN DRAFT: JEWB

DISTRIBUTION:

Basic List
I L Davies
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