

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

1973 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 3

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

STAFF

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DURATION

Left Lowestoft 1820 h, 31 January

Arrived Lowestoft 0509 h, 13 February

All times are Greenwich Mean Time

LOCALITY

Southern North Sea

AIMS

1. To determine the efficiency of CORELLA's Granton trawl for catching plaice fitted with acoustic transponding tags (continuation from CLIONE 16/1972).
2. To test a tagged cod release cage.
3. To investigate the detection of seine ropes on the sea bed.

NARRATIVE

CLIONE left Lowestoft at 1820 h, 31 January and after attaching the dome in IJmuiden at 0500-0700 h 1 February joined CORELLA on the Black Bank in the afternoon of 1 February. During the remainder of that day scanner operators were trained for trawl observation.

Between 2 and 8 February inclusive, in the Black Bank area, acoustically tagged plaice were released from CLIONE and observed by scanner as CORELLA fished for them with the Granton trawl rigged as in previous cruises on this project. On 4 February CORELLA laid a seine net rope on the sea bed and the detection of this by the scanner was tested. Work was prevented by bad weather and CLIONE dodged on 7 and part of 8 February.

On 9 February, with the weather still bad, a leak developed in the outer gland of CLIONE's stern tube and so passage was made to IJmuiden, arriving at 1500 h 9 February, to collect extra stern-tube oil. Suitable oil could not be obtained and so, with westerly gales in prospect, CLIONE left IJmuiden at 2400 h to work on the western side of the Southern Bight, arriving off Southwold at 1900 h, 10 February.

The cod release cage containing one acoustically tagged cod was set out at first light on 11 February and the trawl observation programme was continued. Bad weather terminated work on 12 February when we managed to recover the cod cage. The remaining stock of 9 cod were tagged and released together with 9 tagged plaice off Southwold in the area of previous fish-tracking experiments.

CLIONE de-domed at anchor off Parkeston Quay between 1700 and 2100 h 12 February and berthed at Lowestoft at 0509 h 13 February.

RESULTS

Aim 1.

Of the 32 trawling runs made by CORELLA 28 were valid attacks in 20 of which the fish lay between the trawl otter boards. In 16 attacks the fish was in the path of the net and in 7 attacks the fish was caught. Thus, in 71% of the valid attacks the fish was between the otter boards, and 44% of the fish in the path of the net were caught. On two attacks, movement of the fish in relation to the trawl was noticed.

Thirteen plaice were used and 9 acoustic tags were expended. Of the tags, one became detached at the time of capture, one was pulled out of the fish about 8 minutes after capture, one was pulled out of the fish as the trawl was hauled up the ramp, three were abandoned on fish swimming in midwater, one was abandoned on a fish that proved to be uncatchable, and two were on fish lost. Discerning details of the trawl was difficult or impossible when working off Southwold because of trawler and trawl generated noise.

Aim 2.

The bottom fish release cage was put out successfully and the tagged cod remained in it for 27 hours after which it was retrieved in good lively condition with air bladder adjusted to a depth well below the surface. Experience with retrieving and operating the cage in very bad weather indicated some modifications in design and rigging.

Aim 3.

The same coil of manila seine net rope that was just detectable by the scanner at 80 m range in midwater on CLIONE cruise 16/1972 was laid out on the sea bed at depth 30 m with an anchor and dan at each end. The anchors and dan tows were seen on the scanner but the rope on the bottom was not seen. Thus the prospects of studying the action of a Danish seine with standard ropes by use of the scanner are very poor. The special ropes considered by Marine Laboratory, Aberdeen will have to be developed and tested if this study is to be continued.

A R Margetts
16 February 1973

SEEN IN DRAFT: J E M B
A H B

INITIALLED: HAC

DISTRIBUTION

Basic list plus

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