

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

1975 RESEARCH VESSEL PROGRAMME

REPORT: R V CLIONE: CRUISE 8

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

STAFF: F R Harden Jones
G P Arnold
J Last
P Griffiths
B Knights
T Boon

DURATION: Left Lowestoft 1523 h 20 May
Arrived Lowestoft 0830 h 27 May

All times are Greenwich Mean Time

LOCALITY: Southern North Sea

AIM:

To determine, with R V CORELLA, the efficiency of the Granton trawl, rigged with a door to door tickler chain, for plaice.

NARRATIVE:

R V CLIONE left Lowestoft at 1523 h 20 May and steamed to IJmuiden (arrival 0234 h, departure 0430 h, 21 May) where the sonar dome was fitted. R V CLIONE met R V CORELLA in the working area later in the morning, the first plaice being released at 1006 h. Work continued during daylight, and recommenced at 0430 h 22 May. An increasing swell and freshening breeze prevented CORELLA from fishing and faced with deteriorating weather conditions both ships steamed to Den Helder for shelter, anchoring in the Mars Diep at 1255 h. CLIONE left the anchorage at 0535 h 24 May and a fish was released in the working area at 1057 h. Before CORELLA could attack this fish, the sector scanner stabilisation system broke down and no further work was possible. CLIONE steamed at 6-7 knots to Dover with the transducer in the lowered position and entered harbour at 1430 h 25 May. With the assistance of divers from the Chamel Diving Company the package and transducer were safely raised at 1910 h 26 May. CLIONE left Dover at 2051 h and returned to Lowestoft on 27 May, docking at 0830 h.

24

RESULTS

Seven attacks were made on one plaice. During one of these attacks the plaice (40 cm) was disturbed by the door to door tickler chain and swam ahead of the chain for 62 s before falling back into the mouth of the net. During this tow CORELLA's speed through the water was 3.75 knots and the fish would have therefore been swimming at the same speed, 1.91 m s^{-1} , at 4.8 fish lengths per second for 1 minute. During this period it swam at 116 m through the water before falling back. This is the first occasion on which an acoustically tagged plaice has been observed to swim ahead of the gear. The plaice kept station 1-2 m ahead of the door to door tickler, which suggests that the chain could be seen.

Failure of the stabilisation equipment

The hydraulic failure led to the so called 'B' condition in which the transducer was at rest in horizontal mode, with sufficient resistance in the system to prevent the divers from moving it into the 'raising' position: the mode and tilt jacks had to be disengaged under water. While this operation was relatively simple, it was very difficult to secure the transducer in vertical mode under conditions of virtually zero visibility and further thought should be given to this problem.

F R Harden Jones
Naturalist in Charge

2 June 1975

SEEN IN DRAFT: J R F (master)
G F L (Fishing Skipper)

INITIALED: A J L

DISTRIBUTION:

Basic list

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