

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

1978 RESEARCH VESSEL PROGRAMME

REPORT: R V CLIONE: CRUISE 10

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

STAFF: F R Harden Jones
M Greer Walker
Brenda Thompson
Anne Dick
L Cox
C Dennis

DURATION: Left Lowestoft 1304 h 26 July
Arrived Lowestoft 1015 h 7 August
All times are Greenwith Mean Time

LOCALITY: Southern North Sea

AIMS: To continue, with R V CORELLA, the studies on the efficiency of the Granton trawl (rigged with a door-to-door tickler chain) using sector scanning sonar and plaice fitted with acoustic transponding tags.

NARRATIVE: R V CLIONE left Lowestoft at 1304 h on 26 July and steamed to Den Helder where the sonar dome was fitted the next morning. CLIONE left Den Helder at 1009 h to rendezvous with R V CORELLA on the Black Bank. Work began 1550 h on 27 July and was completed on the afternoon of 5 August. CLIONE then steamed to quiet waters off Southwold where the sonar dome was removed. After completing a survey of the wreck of the bow section of the tanker ELENI V and carrying out certain trials with acoustic tags, CLIONE returned to Lowestoft to tie up at 1015 h on 7 August.

RESULTS

Efficiency of the trawl: Twenty-seven live plaice were taken to sea: one of these fish died on board. The remaining 26 plaice were released; 25 were attacked and 19 recaptured. CORELLA made 43 attacks on these 25 fish, and in 34 of the attacks the plaice were positioned between the trawl doors. The success rate (34 in 43, 79%) was a marked improvement on that of 58% achieved in the earlier stages of this work. There were 27 valid attacks in which 19 plaice were caught, indicating an overall efficiency for the trawl of 70% (to be compared with an overall efficiency of 44% for the same trawl without a door-to-door tickler chain). The breakdown of the results according to the position of the fish in relation to the gear was as follows:

Boards - wing end			in path of net		
n	caught	%	n	caught	%
11	5	45.4	16	14	87.5

The proportion of the fish caught, 45% and 88%, are substantial improvements on those of 22% and 61% previously obtained for the positions 'boards - wing end' and 'in path of net' respectively when the trawl was fished without a door to door tickler chain.

Fish behaviour: Several reactions to the gear were recorded on film and video tape for analysis in the laboratory. Two plaice moved over the ground (one away from and the other into the path of the net) after CORELLA had passed overhead and while the otter boards were still 30-40 m away. One fish swam along with the door-to-door tickler chain for 65 s; another kept up with the groundrope for 15-20 s before falling back into the net.

Performance of equipment: Apart from a leak in the main control cable junction box - the cable was quickly changed - there were no problems and no working time was lost due to equipment failures. There were no tag failures. The sonar dome cover was torn after the dome was removed off Southwold: the cover was new and had lasted for only 191 nm under good conditions.

Other activities: The wreck of the bow section of the tanker ELENI V was surveyed with sector scanning sonar on 5 August. Inspection of polaroids taken during the survey showed that the wreck was lying upside down along the axis 308° - 128° true, the bow facing southeast: a cable attached to the keel behind the bow trailed across the southerly side of the hull (that is over the port side of the wreck). There were no immediate signs of scouring.

Mr Dennis carried out some special tests on acoustic tags relating to problems of sensitivity and triggering.

A kestrel took up residence on the focsle head for 2-3 days. This bird was one of three seen around the vessel on 30 July; one of the birds fell into the sea and could not be rescued.

F R Harden Jones
15 August 1978

SEEN IN DRAFT: J R F Master
R G Fishing Skipper

INTLLD: A J L

DISTRIBUTION:

Basic List

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