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

1983 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE : CRUISE 14

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

STAFF:

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DURATION:

Left Lowestoft 1700 h 16 November
Arrived Lowestoft 0540 h 29 November

(All times are Greenwich Mean Time)

LOCALITY:

Southern North Sea and Eastern Channel

AIMS:

1. To make acoustic surveys of herring concentrations using a transducer mounted in a towed body in conjunction with the QM and QD echo integrators.
2. To obtain samples of adult herring for age analyses.

NARRATIVE:

CLIONE sailed from Lowestoft 1700 h 16 November. The towed body was launched at 1830 h and CLIONE anchored in sheltered waters near Orfordness 2150 h. Checks and calibrations of all acoustic systems were made during the night. CLIONE weighed anchor at 0830 h next morning, 17 November, and commenced an acoustic survey for herring in the Southern Bight at 0904 h. An area to the east of the Outer Gabbard and both east and west of the Galloper, North Falls and South Falls was surveyed by 0700 h 18 November. The survey was then extended eastwards covering the channels between the Hinder Banks. Next day a wider area towards the Dutch coast and also further northwards was covered. With some deterioration in the weather CLIONE steamed west and surveyed in the entrance to the Thames Estuary during daylight hours 20 November, proceeding in the evening through the Straits of Dover into the English Channel. The survey continued in this area until 0900 h 24 November and covered all the known herring spawning areas in the Channel eastwards of longitude 00°20' east, ie. around Bullock Bank, Bassurelle, Vergoyer, Bassure de Baas and off Le Treport, Dieppe and Pointe de Ailly. The inshore waters between Boulogne and Ailly, reported last year to have been of considerable importance, were also covered by the acoustic survey.

CLIONE returned to the Southern Bight 24 November and surveyed in the coastal areas off the Belgian and Dutch coasts in deteriorating weather. A call was made at Ijmuiden 0950 h 25 November in order to return a plankton sampler on loan from the Dutch Fisheries Research Institute and also obtain information on the localities being fished by the Dutch herring fleet. Useful discussions were held with Dutch scientists on mutual herring problems. With gale to storm force winds blowing from a westerly direction CLIONE remained weatherbound in Ijmuiden during 26 and 27 November finally sailing again at 1930 h 27 November when conditions improved. Passage was made overnight to the Suffolk coast, and next morning

28 November an echo survey was made between Southwold and the western side of the Galloper. A trawl haul was made on scattered fish traces and the echo integrators run between the North Falls and the Shipwash. CLIONE anchored to the north of Orfordness 2045 h and final equipment checks were carried out 2045-2300 h. The towed body was then recovered after which CLIONE returned to Lowestoft docking 0540 h 29 November.

RESULTS:

Aim 1. Unlike similar surveys in 1981 and 1982 this one was blessed with exceptionally good weather conditions during the first 9 days of the cruise and a very good coverage of all herring spawning areas in both the Southern Bight and eastern Channel was achieved.

While pelagic fish appeared to be widely distributed over most of the Southern Bight no heavy concentrations of herring were encountered. Dutch scientists confirmed that this situation was in agreement with reports from commercial vessels working in this area at the same time.

The results of the survey in the eastern Channel were however, very different. Sizeable shoals were located in a number of localities and spawning herring concentrations identified in the Bullock Bank/Bassurelle area (identified by Dutch commercial vessels), off Dieppe and off Pointe d'Ailly. Herring in these localities were ripe and running in maturity stage 6 during 21-24 November, moreover the fish echo traces were the best ones seen in the eastern Channel during English surveys for many years.

Aim 2. Good catches of spawning herring were obtained off Dieppe and Pointe d'Ailly. Dutch scientists provided details of spawning herring caught by commercial vessels in the Bullock Bank/Bassurelle area. A sample of spent herring was obtained near the North Falls during the last afternoon of the cruise. All herring catches contained a high proportion of 2-ring recruits of the 1980 year-class and suggest strong recruitment by this year-class to the Downs herring stock in 1983.

MISCELLANEOUS:

1. On this cruise the performance of the new QD integrator unit was monitored. Apart from some minor problems its performance appeared generally to be satisfactory.

2. Some data were obtained on stress encountered under various sea conditions, with the lightweight towed body deployed from the ship's crane.

R J Wood
1 December 1983

SEEN IN DRAFT:

G S
R C N

INITIALLED:

D J G

DISTRIBUTION:

Basic List +

R J Wood	C G Brown	S Warnes
W L Huggins	M W Easey	P Hudson

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LAT
53

CLIONE CR 14/83

MIDWATER TRAWL
POSITION

LOWCAST

ESTMUDEN

52

51

BOULOGNE

LE TRAPORT

50

BIERRE
ET VAILLY

