

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

1984 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 2  
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

P O Johnson  
L Cox  
C R Hood  
J Dann  
M W Easey  
S Warnes

DURATION:

Left Lowestoft 0930 h 1 February  
Arrived Lowestoft 0915 h 17 February  
(All times are Greenwich Mean Time)

LOCALITY:

Southern Bight of North Sea and Eastern English Channel

AIMS:

1. To carry out an acoustic survey for herring in the Southern Bight and eastern English Channel.
2. To obtain samples of herring by pelagic trawling for ageing and biological studies.
3. To survey the Thames Estuary area for sprat shoals if this can be conveniently keyed in with the main survey.

NARRATIVE

After leaving Lowestoft CLIONE proceeded southwards to anchor off Covehithe where the towed body was launched and calibrations carried out on the acoustic survey equipment. These were completed that afternoon and anchor was raised at 1600 h. The wind had by then increased to 25-30 knots from the SSE, and the vessel had to dodge overnight to the North Foreland area. The acoustic survey was able to commence at 0900 h the following morning but over the next few days the survey was frequently interrupted due to a succession of gales from the SW-NW sector. One of the trawl doors was damaged when shooting and the doors had to be changed at an anchorage off Deal. Attempts were made to enter the eastern Channel but the wind and swell proved too much. The first part of the survey was eventually terminated at 2000 h on 5 February, by which time only a very limited area extending between the South Falls and Smiths Knoll had been effectively covered. On 7 February it was decided to make an overnight run to IJmuiden from an anchorage off Southwold where shelter had been found. Winds gusted up to 80 knots during the crossing and CLIONE eventually docked there at 1030 h on 8 February and remained weatherbound until sailing at 0700 h on 10 February. Whilst in port I visited the Fisheries Institute and obtained useful information on the recent Dutch herring fishing areas and length/age data from samples taken by their pelagic pair trawlers. I also paid a visit to the research vessel TRIDENS which called in for their weekend break from the I.Y.F.S.

After leaving IJmuiden the weather improved following the development of a very stable high pressure area, and the remainder of the trip was worked in very calm sea conditions, the only problem being fog over the last few days.

In this period the major part of the Southern Bight between  $51^{\circ}$ - $53^{\circ}$ N was covered and also the eastern end of the English Channel as far as Beachy Head-Dieppe (to about  $00^{\circ}20'E$ ).

The acoustic survey was completed at 1820 h on 16 February following which a final trawl haul was made and calibration checks carried out. CLIONE then returned to Lowestoft, docking at 0915 h on 17 February.

## RESULTS

1. A total of 1351 nautical miles were acoustically integrated using the small Scottish towed body, with SIMRAD EK 400 sounder, QM11 and QD integrators operating at 38 KHz.
2. Thirteen trawl hauls were made with the 800 Engel pelagic trawl distributed throughout the survey area.
3. Trace levels were generally on the low side but showed dispersed fish spread over very wide areas at night. There was some evidence that the herring were very close to the bottom in daylight and largely inaccessible for acoustic integration as a result. Herring appeared to be more concentrated within the eastern half of the Southern Bight, particularly towards the Dutch coast and off the Schelde estuary. An area of trace in the Smiths Knoll region seemed to be mainly composed of sprat, whilst further south off the east coast of England whiting and sprat were the predominant species caught. In the eastern Channel the largest shoals were found in daylight about 10 miles northwest of Dieppe. Fishing on these yielded the largest herring encountered on the trip (modal length 28-28.5cm), some of which appeared to be still in spawning condition, and sprats which were also ripe running. An extensive area of dispersed traces located at night in the Vergoyer Bank region appeared to be mainly sprat. These possibly constituted the fairly numerous small mid-water 'plumes' encountered in daylight in the mid-Channel region extending up into the Straits of Dover. Further north the herring samples showed progressively smaller average lengths together with an increase in the proportions of immature herring less than 23cm. Some spring-spawning herring were also in evidence in catches off the Thames Estuary.
4. Samples of herring and sprat were deep frozen for biological examination at the laboratory, whilst samples of other fish were deep frozen for the fish identification courses.
5. Some unusual fish for the area were taken in some hauls, notably Blue whiting (*M. Poutassou*) on 1 and 9; Norway pout (*T. Esmarkii*) on 1, 4 and 9; a large Twaité Shad (*Alosa Fallax*) on 1; Sand smelts (*A. Presbyter*) on 1; and a Tadpole fish (*Raniceps Ranimus*) on 7. (See track charts for relevant positions of haul numbers).

## GEAR DAMAGE:

Shoe on Pelagic Trawl door sheared off.  
800 mesh Engel Trawl badly damaged on final haul and requires writing-off.  
This was an old net.

P O Johnson  
2 March 1984

SEEN IN DRAFT: G Sinclair (Master)  
R C Newrick (Fishing Skipper)

INITIALED: DJG

DISTRIBUTION:

- Basic List
- P O Johnson
- L Cox
- C R Hood
- J Dann
- M W Easey
- S Warnes



