

jh

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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 15  
(PROVISIONAL: Not to be quoted without prior reference to the author)

#### STAFF

P D Johnson  
C R Hood  
J Casey  
S Warnes  
A M Watson  
M W Easey

#### DURATION

Left Lowestoft 1450 h 6 December  
Arrived Lowestoft 0030 h 20 December

#### LOCALITY

Southern Bight of the North Sea and Eastern English Channel

#### AIMS

1. To carry out an acoustic survey for spawning 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 obtain material for herring fecundity analysis.

#### NARRATIVE

After sailing, passage commenced to the eastern English Channel, but whilst off the Thames Estuary a severe SW'ly gale developed and overnight shelter was sought in Margate Roads, anchorage made there at 2300 h. Anchor was raised at 0630 h the following morning and passage resumed in moderating weather. The survey commenced at 1900 h on 7 December in mid-Channel south of Beachy Head, where a large fleet of Dutch herring trawlers were operating. The next two days were spent surveying the general offshore area between  $0^{\circ}$ - $1^{\circ}$ E off the Dieppe-Cap d'Antifer coast. Around lunchtime on 9 December a crew member suffered a fatal heart attack in spite of continuous and vigorous resuscitation attempts by the Captain for some 2 hours. A naval helicopter from Leigh-on-Solent landed a medical team on board but nothing further could be done and the body was flown ashore that afternoon. A brief memorial service was held by the Captain that evening. The survey later resumed at 1900 h and covered other areas of the eastern Channel in very fine weather conditions over the next few days. These included the Bullock Bank-Ridens-Bassurelie-Vergoyer region and an area off the Bay of the Seine. CLIONE then docked at Boulogne around 1030 h on 13 December. Here water supplies were topped up and staff from the IFREMER laboratory visited the ship, followed by a visit by our staff to their laboratory in the afternoon.

CLIONE sailed from Boulogne at 0900 h the following morning and resumed the survey covering the inshore area between Vergoyer and Dieppe, then proceeding overnight through the Straits to the Southern Bight on the 14/15 December. From 15-19 December

the survey covered most of the area south of 52° between the offshore reaches of the Thames Estuary and continental coast from the Scheldt Estuary south. The weather was now generally more unsettled with prevailing fresh or strong SW'ly winds and a few short interruptions occurred for bad weather. The survey was completed at 1640 h on 19 December, when CLIONE set course for Corton Roads where anchorage was made at 2030 h to await the tide at Lowestoft, docking there at 0030 h on 20 December.

## RESULTS

1. A total of 1746 nautical miles were acoustically integrated (1088 in the eastern Channel and 658 in the Southern Bight), using the SIMRAD EK 400 sounder, QMII and QD systems. All data were stored on APRICOT disc files, and the BAS microprocessor used with the QD system.
2. Spawning herring were caught at a number of locations in the eastern Channel, but trace levels were generally very low, even in the areas where a large Dutch fleet was working. The only major concentration of spawning herring located (peak density around 5,000 tonnes per Km<sup>2</sup>) were found 16½' NW of Cap d'Antifer and no commercial vessels were fishing in this area. French herring fishing activity was low due to depressed markets.

The general impression was that spawning herring were widely but thinly dispersed over a fairly large area up to 30 miles off the Dieppe-Fecamp coast.

3. The fish caught were generally small, with modal lengths typically 24.5-25.0 cm.
4. In the Southern Bight all the herring caught were spent fish which were in a dispersed state towards the Belgian and Dutch coastal waters, but off the Thames Estuary in the deeper water either side of the Galloper-South Falls region they formed quite dense shoals during daylight, and a number of these shoal patches were located.
5. 44 herring blood samples and gonad material for biochemical studies were taken for Dr Scott.
6. Two batches of herring eggs were successfully artificially fertilized and brought back to the laboratory in two small tanks for larval daily growth ring studies.
7. It was not possible to obtain any fecundity samples since most of the herring caught were either ripe running or spent fish.
8. A general working area chart is appended with trawl station positions.

P O Johnson  
7 January 1986

SEEN IN DRAFT: Captain French (Master)  
E W Pearson (Fishing Skipper)

INITIALLED: DJG

## DISTRIBUTION

Basic List	
P O Johnson	A M Watson
CR Hood	M W Easey
J Casey	
S Warnes	

