

Indexed
A12

PC

R1/6

Not to be cited without prior reference to the Laboratory

FRV "Clupea"

LD

Cruise 11/86

11CR86

Report

3-23 September 1986

Personnel

J A Morrison	SSO (in charge)
W S MacDonald	SO
I Gibb	ASO

Objectives

1. To take part in the ICES coordinated surveys of herring larvae in the Buchan area.
2. To collect water for radio-caesium analysis at 57°49'N 02°58'W.

Narrative

"Clupea" was loaded on the morning of 3 September at Buckie, but a defect in the netsonde system caused a considerable delay and she did not get under way until 2130 that night. "Clupea" thereafter carried out the grid of Gulf III stations shown in Figure I by the half landing on 10 September, having spent the nights of 5 and 7 September in Aberdeen and Dundee respectively.

"Clupea" left Aberdeen again on 11 September after the half landing and proceeded to work the offshore Buchan stations in rather poor weather. A decision was taken to work in this area in order to monitor the rate of expansion and movement of a larval patch discovered during the first survey. The stations shown in Figure II had been completed when the survey had to be broken off due to a leaking seal in the variable pitch propellor, and "Clupea" returned to Aberdeen on 15 September. It was decided that "Clupea" would need to go into dry-dock for repairs and accordingly scientific staff left the vessel on the afternoon of 15 September. Repairs completed, scientific staff rejoined "Clupea" on 18 September and "Clupea" left Aberdeen at 1445 hours. Gulf III stations were resumed south of Aberdeen, but in the early hours of the following morning a plankton winch bearing collapsed and "Clupea" had to return to Aberdeen.

The winch was repaired by the late evening, however, and "Clupea" resumed the survey at 0600 the following morning. Poor weather caused "Clupea" to anchor in Lunan Bay on the night of 20 September, but by morning the weather had moderated sufficiently to allow sampling to be resumed and "Clupea" then worked continuously until 1700 on 22 September when she docked in Buckie. The stations covered between 18 and 22 September are shown in Figure III. "Clupea" was unloaded on the morning of 23 September at the end of the cruise.

Results

One hundred and seventy three larval stations were completed during this cruise and larvae were picked out wherever possible. A radio-caesium sample was also taken off Buckie.

On 4th September over 4000 larvae were taken in a sample at station 29 in the vicinity of Turbot Bank. A supplementary grid of four further stations covering a rectangle of side 5 nautical miles was carried out around this station and also at station 29 (which was situated 10 miles further south). This routine was carried out each time a station was completed in which it was judged that more than 1000 larvae had been taken. No further stations with over 1000 larvae were observed in the first part of the survey up to 9 September.

During the second part of the survey beginning on 11 September supplementary grids were carried out at stations 27, 32, 33, 41, 46, 47 and 55. This demonstrated an increase in size of the larval patch with a generally southwesterly movement.

No supplementary stations were carried out in the last part of the cruise partly because of lack of time and also because the former larval concentrations were now reasonably well dispersed.

JA Morrison

7 October 1986

Seen in draft: W Smith

Legend
 ⊙ = Gulf III Station
 ☆ = Extra station grid for > 1000 larvae

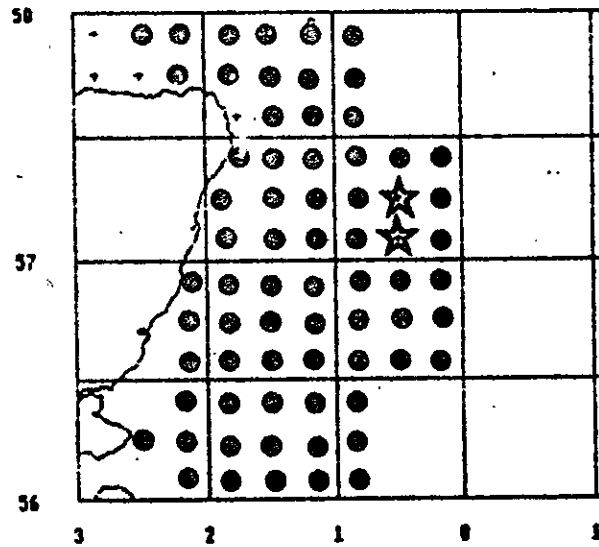


FIGURE I
 3 - 10 September

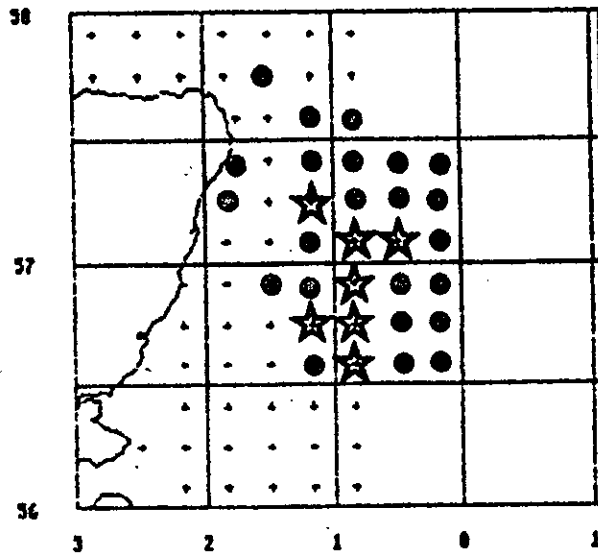


FIGURE II
 11 - 15 September

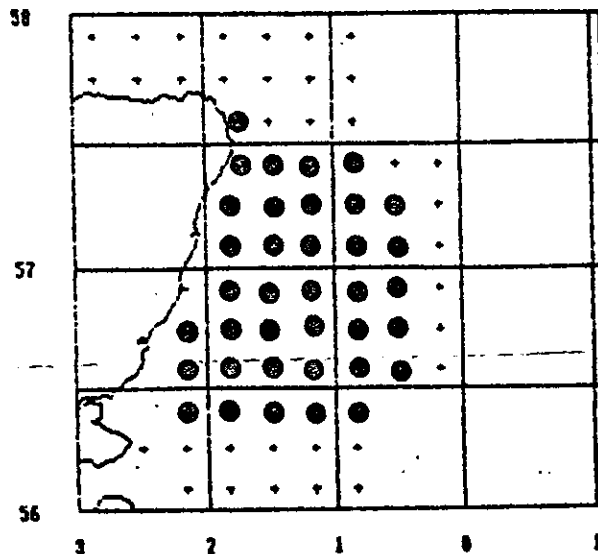


FIGURE III
 18 - 23 September