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

1978 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 1

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

## STAFF

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### DURATION

Left Lowestoft 1755 h 5 January Arrived Lowestoft 0815 h 24 January All times are Greenwich Mean Time

#### LOCALITY

North Irish sea and eastern English Channel

#### AIMS.

- 1. To investigate the distribution and abundance of autumn-spawned herring larvae in the north Irish Sea.
- 2. To investigate the distribution and abundance of 1- and 2-ring juvenile herring in the north Irish Sea.
- 3. To carry out a survey for herring larvae in the eastern English Channel.

#### NARRATIVE

RV CLIONE sailed from Lowestoft at 1755 h 5 January. A brief call was made at Boulogne next morning from 0732 h to 1018 h in order to collect O-seals, required for the ship's pumps, and the opportunity was taken to visit the ISTPM laboratory and discuss the English Channel larval survey with the Director M. Maucorps. It was also possible to confirm that permission had been given for CLIONE to work within French waters. M.Maucorps and some members of his staff were able to visit CLIONE and were shown over the vessel before the passage to the Irish Sea was continued. The 20 inch high-speed plankton sampler was calibrated in "free flow" the following morning 7 January and fishing commenced to the north of Anglesey at 1600 h the next afternoon. Hauls with both the Engel Midwater trawl and the Boothbay Net were made before the herring larval survey was started at 2052 h 8 January. The survey was continued in poor weather conditions for most of 9 January until 2030 h when CLIONE was forced to seek shelter in Ramsey Bay from a severe southwesterly gale. A slight improvement in the weather enabled the larval survey to be continued from 0040 h to 1040 h on 11 January, after which, with a severe gale then blowing from the north CLIONE went into Douglas for shelter, water and stores, docking at 1130 h. The gale gradually moderated next day, 12 January, and CLIONE sailed from Douglas at 1900 h restarting the larval survey to the south of the Isle of Man at 2052 h. 8 stations were completed during the night and 4 hauls with Engel Midwater trawl were made next day, 13 January, in Liverpool Bay between 0800 h - 1800 h. CLIONE then steamed to St Bees Head and larval sampling was

continued from 2310 h 13 January until 1415 h 14 January, mainly off the Scottish coast. Two hauls with the Engel trawl were made off St Bees Head during the afternoon of 14 January and next day a further 5 hauls were made southwards from St Bees Head, the final haul being completed by 1800 h 15 January. CLIONE then steamed westwards and restarted the larval survey at 2300 h off Peel (I.O.M.). During the following two days ten hauls were made with the Engel trawl in the vicinity of both Dundrum Bay and Dundalk Bay and the larval stations off the Irish coast were all completed, the last one by 0135 h 18 January. Course was then set for the survey area in the English Channel. The first station of the herring larval survey in the eastern Channel was started at 2117 h 19 January off Pointe de Barfleur, after the plankton sampler had been recalibrated in "free flow". 33 plankton stations and 1 haul with the Engel trawl were completed by 2315 h 21 January when a severe southerly gale caused CLIONE to seek shelter in Margate Roads. CLIONE anchored at  $0400\ \bar{h}$  22 January but following a marked improvement in the weather conditions weighed anchor at 1555 h and plankton sampling was restarted at 1740 h. After first working a few stations in the Straits of Dover the final stations in the eastern Channel were completed, the last one at 0630 h 23 January. Course was then set for Boulogne where CLIONE docked at 1000 h. Three new G.O.V. trawls together with four trawl doors were loaded before CLIONE sailed again at 1500 h. An overnight passage in a severe southerly gale was made to Lowestoft where CLIONE docked at 0815 h 24 January.

### RESULTS

- 1. The 75 plankton hauls made in the north Irish Sea produced only very small numbers of herring larvae and station densities are probably the lowest encountered so far during January surveys.
- 2. 22 pelagic trawls hauls in the north Irish Sea produced only some 6 baskets of herring. No sizeable echo traces were recorded and all pelagic fish appeared to be very widely and evenly dispersed. In the eastern sector catches of 1-ring herring (1976 year-class) were fairly good and this year-class in the manx stock is probably of about average strength. On the other hand 2-ring herring (1975 year-class) were not very well represented in the catches, in keeping with the comparatively small numbers caught as 1-ringers in the previous year. Recruitment by this year-class to the manx spawning stock this summer can be expected to be at below average strength.

  Catches of both 1- and 2-ring herring off the Irish coast were very small, as had been expected in view of the present very small size of the mourne spawning stock.
- 3. 42 plankton hauls for Downs herring larvae were made in the eastern English Channel and Straits of Dover. A small number of herring larvae were caught, but the marked increase in larval production which took place in both the northern and central North Sea during the 1977 spawning season was not in evidence in this area.
- 4. 1 pelagic trawl haul off Pointe de Ailly yielded a few newly spent herring and 3 baskets of sprats.
- 5. 1 haul with the Boothbay net in Redwharf Bay produced a few fish larvae and 3 small sprat.

# MISCELLANEOUS

- 1. 4 samples of juvenile cod were collected from the ISTPM Laboratory in Boulogne for Mr Houghton.
- 2. Samples of 1-ring herring were preserved in spirit for Mr MacKenzie (Aberdeen).

3. A number of samples of small clupeoids and gadoids were preserved for Mr Blacker.

R J Wood 1 February 1978

SEEN IN DRAFT: J R French - Master

G F Lee - Fishing Skipper

INITIALLED: AJL

# DISTRIBUTION:

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Basic List
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