beinistry of Agriculture, Fisheries and Food Fisheries (Aboratory, Lowestoft, Suffolk, England Enlad the Colombia of Beilt Educum Lolde, 1980 (1980) gnied and colored to self transpillation, take and the self. A color of the self.

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

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DURATION:

Left Lowestoft 0905 h 25 January

Arrived Lowestoft 1516 h 1516 h Arrived Lowestoft 1516 h 4 February

(All times are Greenwich Mean Time)

LOCALITY:
Southern Bight and eastern Channel

AIMS:

- To carry out a survey for herring larvae in the Southern Bight and eastern Channel as part of an international survey of the abundance #800 1 107 and distribution of autumn spawned herring larvae in the North Sea and eaven adjacent waters 1 4 may 2 3 1、17、16代3、18、16、16、16 基础的 A
 - 2. To obtain samples of adult herring for age analysis.

CLIONE sailed from Lowestoft at 0905 h 25 January. The high-speed plankton sampler was calibrated in free flow from 1030-1130 h and the larval survey commenced off Dover at 1950 h. It was however, only possible to complete 4 stations before a SW gale forced CLIONE to dodge from 0230-0900 h 26 January. The larval survey was resumed at 1000 h and a further 8 stations completed before CLIONE was again forced to dodge by a severe NW gale from 0400-1600 h 27 January. The survey restarted at 1600 h. It was decided not to work 8 stations in the Bay of the Seine as those had just been sampled by the French research vessel THALASSA and found to be devoid of herring larvae. Three comparative plankton hauls were made with the German (GFR) research vessel ANTON DHORN during the afternoon 28 January and a number of common stations were sampled independently the same day by both CLIONE and ANTON DHORN. Stations in the eastern Channel were completed by 0527 h 29 January and sampling in the Southern Bight commenced at 0654 h. CLIONE had again to dodge in bad weather from 0100-0600 h 30 January but later that day was able to make 5 comparative hauls, in the main patch of herring larvae in the Southern Bight, with THALASSA, although in marginal working conditions. After completing a further 2 stations CLIONE again dodged from midnight to 0700 h 31 January. The remainder of the standard ICES sampling stations were then worked in improving weather conditions and completed by 1256 h 1 February. Eight additional stations further to the north, where ANTON DHORN had located herring larvae on 24 January, were then sampled before CLIONE docked in Ijmuiden 0840 h 2 February. A sampler which had been on loan to us was returned to the Netherlands

Fisheries Research Institute and a number of scientists from the institute visited CLIONE to inspect our sampler and electronic equipment. This was followed by a visit to Ijmuiden fish market, where substantial quantities of herring were being landed by pair-trawlers. Discussions were then held at the institute on the results of recent herring larval and acoustic surveys in the North Sea, which proved most valuable.

CLIONE sailed from Ijmuiden at 1000 h 3 February and commenced sampling the remaining stations to the north of the standard area at 1550 h. Offshore samples of seawater and live plankton were collected during the evening. A few additional sampling stations for herring larvae were worked during the morning 4 February off the East Anglian coast before returning to Lowestoft, where CLIONE docked at 1516 h.

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RESULTS:

Aim 1. 93 plankton stations were completed with the high-speed sampler covering the complete area of herring larval distribution in both the eastern channel and Southern Bight. Two patches of herring larvae were located, one in the extreme eastern end of the Channel and the other in the centre of the Southern Bight. Densities did not appear to be very high, probably not more than 100 larvae at any one station.

Aim 2. No fishing was carried during the cruise. There was a complete absence of suitable echo traces in the eastern Channel while the herring being fished by the Dutch fleet had already been sampled by CORELLA during January in the Southern Bight.

MISCELLANEOUS:

Three comparative plankton hauls were made side by side with ANTON DHORN and five with THALASSA. In addition both ships sampled a number of common stations on the same day as CLIONE. Preliminary estimates of the numbers of herring larvae caught suggest no major differences between the three research vessels.

Samples of offshore seawater were collected for Mr Milligan. Samples of live plankton were collected and returned to Lowestoft for Dr Thompson.

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