

IN CONFIDENCE: NOT TO BE QUOTED WITHOUT REFERENCE TO THE LABORATORY
CRUISE REPORT

FRS "CLUPEA"

15-25 April 1974

OBJECTIVES:

To carry out a hydrographic, chemical, productivity, plankton and larval fish survey for the Larval Ecology Project.

NARRATIVE:

"Clupea" sailed from Aberdeen for the Shetland area at 1000 hours on Monday 15 April and established radio contact with "Explorer" at 1500 hours on the same day. As a result of the "Explorer" operations during the previous week it was decided that the survey should be carried out in the form of a repetitive grid in an area east of Shetland between latitudes $60^{\circ}25'N$ and $61^{\circ}05'N$ and longitudes $00^{\circ}10'W$ and $01^{\circ}10'E$. On the approach to the grid a line of stations from $59^{\circ}00'N$ to $60^{\circ}25'N$ was worked. The survey was completed twice before "Clupea" proceeded to Kirkwall for the weekend arriving at 1100 hours on 20 April. The survey was then extended eastwards to $01^{\circ}30'E$ and completed for a third time before the termination of the cruise at Buckie on 25 April.

Throughout the surveys the High Speed Loch Ewe net was shot and hauled every hour. At corresponding times water samples were taken from the non-toxic pump for temperature, salinity, nitrate and chlorophyll analysis. During the third survey full hydrography was carried out at two stations on each of the $60^{\circ}25'N$ and $61^{\circ}05'N$ lines. Assistance was also given to "Explorer" in tracking parachute drogues.

RESULTS:

Full analysis of the chemical and plankton samples is still under way but during each survey a visual estimate was made of the fish larvae in each High Speed Loch Ewe sample. This indicated that during the cruise the greatest concentration of larvae lay along the $60^{\circ}45'N$ line increasing in numbers towards the eastern end in the first survey. In the second and third surveys the numbers had greatly diminished.

R J Grierson
7/5/74