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Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Clupea*

Cruise 0695C

REPORT

12-21 April 1995

Ports

Loading: Fraserburgh

Unloading: Mallaig

Personnel

P A Gillibrand	HSO (in charge)
R D Adams	SO
K Horsburgh	UCNW
A E Hill	UCNW (18-21 April)
A Hammerstein	UCNW (18-21 April)
S Honeybun	UNCW (18-21 April)

Objectives

1. To deploy five Argos tracked, drifting buoys in the South Minches.
2. To conduct a hydrographic and chemistry survey of the area using a CTD and ROSIE.

Out-turn days per project: 10 days BGC1

Narrative

Clupea sailed from Fraserburgh on the morning of 12 April and arrived in Mallaig on the afternoon of 13 April. Personnel due to participate in the full cruise travelled to Mallaig separately and joined the vessel that afternoon. *Clupea* immediately sailed towards the first, and most southerly, of the CTD lines. Work commenced along the CTD lines at 0930 on 14 April. A line between Tiree and Barra Head was completed and a second line from Barra Head to Ardnamurchan started that day. Between 14 - 17 April, seven lines covering the area of the drifter deployment were conducted. CTD casts and water samples were taken at each station and the thermosalinograph provided continuous coverage of the surface temperature and salinity. On the morning of 15 April, *Clupea* docked briefly at Tobermory where the steward was landed after being taken ill.

At 0900 on 18 April, *Clupea* docked at Mallaig. The remaining visiting scientists joined the vessel in the morning and a replacement steward arrived at lunch time. At 1400, *Clupea* sailed from Mallaig southward towards the positions where the drifter buoys were to be

deployed. Four drifters were deployed at different positions in the South Minches west of Tiree and Coll on the morning of 19 April. In deteriorating weather conditions, a fifth buoy was deployed further to the north-west at 1400. *Clupea* then proceeded north towards the remaining CTD lines and eventually took shelter in Loch Skipport, South Uist for the evening of 19 April.

On 20 April, two further lines of CTD and bottle stations were worked in the Little Minches. On completion of the lines, *Clupea* proceeded towards Mallaig and docked at 2030. Visiting scientists and MLA staff left the vessel the following day.

Objectives

1. The drifting buoys were successfully deployed at five different locations in the Minches. These will be recovered during cruise 0895C.
2. In all, 57 profiles of temperature, salinity and density were obtained using the CTD. Water samples were obtained at 52 of these stations with sub-samples being taken for nutrient analysis. Chlorophyll samples were also taken at selected stations during the cruise. Salinity samples were taken regularly to allow calibration of the CTD and thermosalinograph.

P A Gillibrand
19 May 1995

Seen in draft: G Geddes, OIC FRV *Clupea*