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FRV *CLUPEA*

Cruise 0697C

REPORT

4-21 April 1997

Ports

Loading: Fraserburgh, 4 April
 Unloading: Ullapool, 21 April

Personnel

P A Gillibrand	HSO	4-21 April
C D Hall	SSO	4-8 April
S J Hay	HSO	4-15 April
M Robertson	HSO	4-15 April
N S Collie	PTO	7-15 April
R Payne	HSO	15-21 April
R D Adams	SO	15-21 April

Objectives

1. To conduct a large scale hydrographic, chemistry, biology and sediment survey of the Minches area, from 56°20'N - 58°30' N between the mainland and the Outer Hebrides.
2. To deploy seven current meter moorings at various locations in the North, South and Little Minches.

Out-turn days per project: 18 days BKF1

Narrative

After loading during the morning, *Clupea* sailed from Fraserburgh at 1300 hours on 4 April and proceeded towards the Pentland Firth. During the afternoon, some trials of the new Ocean Sampler were undertaken in the Moray Firth, which revealed some performance problems. During the night, after passing through the Pentland Firth, *Clupea* took shelter from the weather in Thurso Bay. On the morning of 5 April, the vessel continued westwards as far as Loch Eriboll before again being forced to take shelter. During the afternoon and evening, further trials of the Ocean Sampler were undertaken, during which the instrument was modified until fully operational.

On 6 April, *Clupea* proceeded around Cape Wrath and the hydrobiological sampling commenced. During the day, seven hydrographic stations, consisting of a CTD cast with water bottle samples, were conducted, with plankton hauls being performed at three, and Day grabs for sediment samples also being carried out at three stations. At each plankton station, two hauls using a Dual Methot net and the Ocean Sampler were performed. At selected stations, a vertical net haul was also made for further plankton sampling. A continuous surface record of temperature and salinity was also obtained from the thermosalinograph. The survey continued on Monday 7 April, with a seven hydrographic, two plankton and four grab stations completed. In the evening, *Clupea* berthed at Ullapool and N Collie joined the vessel. On the following morning, C Hall departed for Aberdeen and *Clupea* sailed to continue the survey. Sampling continued for the next seven days, with *Clupea* working steadily southwards, until the evening of 14 April when the vessel entered Oban.

During the morning of 15 April, a changeover of equipment and staff took place. All plankton and grab sampling gear was unloaded; current meters and hardware for two moorings were loaded on board. At 1300 hours, *Clupea* sailed from Oban and proceeded along the Sound of Mull towards the mooring positions. On 16 April, both moorings (Numbers 6 and 7) were laid in fine weather in the South Minch, with *Clupea* proceeding to Mallaig in the evening. On the morning of 17 April, two more moorings were loaded on board and the vessel proceeded to position Number 5, with the mooring being laid during the afternoon. In this way, with two moorings being collected at a time from various locations ashore, all seven moorings were successfully deployed by 20 April, when *Clupea* proceeded to Lochinver for final unloading. This was carried out on the evening of 20 April, with staff disembarking and departing for Aberdeen on the morning of 21 April.

Results

1. The survey was completed satisfactorily given the constraints of time and weather. In all, 75 hydrographic stations, 106 plankton hauls (including vertical nets) and 21 grab stations were completed. All these data are currently being processed and analysed.
2. All seven moorings were successfully deployed.

P A Gillibrand
12 May 1997

Seen in draft: N Beedie (OIC)