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FRV *Clupea*

Cruise 1996C

REPORT

5-16 December 1996

Ports

Loading: Kyle of Lochalsh
Unloading: Fraserburgh

Personnel

R Payne HSO (in charge)
S J Hay HSO
E Macdonald HSO
N S Collie PTO

Objective

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.

The cruise will form Part II of a two-part survey of the whole Minch area. The previous cruise, 1896C, will form Part I of the survey.

Out turn costs per Project

12 days BKF1

Narrative

The scientific staff joined *Clupea* in Kyle of Lochalsh at 1430 hours on Thursday 5 December 1996. The vessel sailed immediately to the south to be in a position to commence lines of stations in the South Minch which, due to poor weather conditions, had not been worked in the first part of the Minches survey. The survey started the following morning, using at each station, a STD12 CTD, and the ROSIE water sampler for hydrographic and chemical samples, a Day grab for sediment samples, and Dual Methot net and Ocean Sampler to collect zooplankton and macroplankton. The first line was almost completed when bad weather forced an end to the work. *Clupea* anchored in Lochboisdale overnight, and remained there the following day due to a severe force nine southerly gale. On Sunday 8 December, the survey was recommenced and continued, working northerly, and anchoring nightly, until Thursday 12 December when gale force northerly winds kept the vessel confined in Stornoway for 24 hours. The following morning the survey recommenced, and was completed by 1700 hours on Sunday 15 December, completing the cruise objective. *Clupea* then made passage to Fraserburgh, arriving at 1400 hours Monday

16 December. The vessel was immediately unloaded and equipment, data, samples and scientific staff were transported to Aberdeen.

Results

The total number of stations occupied was 50. The Day grab was attempted at each. Thirty-nine dips were made with the STD12 CTD and ROSIE water sampler and 11 dips were made with the STD12 CTD alone. Thirty-one hauls were made with the instrumented Ocean Sampler and 29 hauls were made with the Dual Methot Sampler.

Sampling with fine and coarse mesh plankton nets has confirmed the expected scarcity of mesozooplankton. However, particularly from night hauls (reduced avoidance), Euphausiids and gobiid fish larvae were present. Considerable numbers were also found of the ctenophore *Pleurobrachia* and the oceanic scyphomedusan *pelagic*. Some deep water decapods, notably *Parsiphaea* and *Pandalus* occurred in deep samples.

The great majority of stations sampled showed largely homogeneous profiles of temperature and salinity. Some slight surface structure was visible at the extreme west and east ends of lines and some deep water structures could be seen in the South Minch, particularly at the most southerly stations.

R Payne
29 January 1997

Seen in draft: A Simpson, OIC *Clupea*

