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Not to be cited without prior reference to the Laboratory

FRV *Clupea*

Cruse 0394C

REPORT

14-21 February 1994

Ports

Loading: Fraserburgh

Unloading: Fraserburgh

Personnel

R Payne	HSO (in charge)
J Rees	SSO (MAFF Lowestoft, 17-19 February)
N Pearson	SSO (MAFF Lowestoft, 17-19 February)
P Murray (Ms)	(Univ of Cambridge, 17-19 February)
M Mason	(Univ of Cambridge, 17-19 February)
M Moyne-Picard (Miss)	(Visitor)

Objectives

In Clift Sound, Shetland:-

1. Deploy the Cohesive Sediment Dynamics (COSEDS) group Tetrapod and Quadrapod and two guard buoys.
2. Deploy a current meter and a water level recorder in association with a third guard buoy.
3. Deploy a transmissometer and data logger on the Tetrapod.
4. Carry out a survey using a Craib corer to ascertain the level of hydrocarbons in the sediment of Clift Sound.
5. Carry out a local survey around the Tetrapod using a Day grab.

Out-turn Days per Project

8 days BRAE

Narrative

Marine Laboratory scientific staff joined *Clupea* at 1015 on Monday 14 February. Severe weather prevented *Clupea* sailing until 1400 on 16 February. *Clupea* then made passage

to Scalloway arriving there at 0800 on the 17th. MAFF and Cambridge University staff joined the vessel at 0900 and the Tetrapod and one guard buoy were loaded aboard the vessel. *Clupea* then proceeded to Clift Sound where an echo sounding and Day grab survey of the intended Tetrapod site was made and the Tetrapod and one guard buoy were successfully deployed. A CTD station was worked and bulk samples of mud were taken for calibration purposes before *Clupea* returned to Scalloway where the Quadrapod and one guard buoy were loaded aboard in the evening. On the 18th, the vessel returned to Clift Sound where despite the high winds now prevailing, the Quadrapod and a further guard buoy were successfully deployed and a CTD dip was taken near to the instruments.

Clupea returned to Scalloway where the final guard buoy was brought aboard, the instrumented mooring placed on the winch and the WLR and CM prepared. The instrumented moorings were deployed beside the Tetrapod and Quadrapod on the morning of 19 February and a coring survey commenced. High winds blowing up the Sound hampered operations and it was decided to use the grab instead of the corer because the primary stations were immediately adjacent to the BT cable, preventing the *Clupea* from anchoring in this area. The vessel returned to Scalloway to land the MAFF and Cambridge University staff at 1730. The sediment survey in Clift Sound was continued on the morning of 20 February using the Day grab and Craib corer for hydrocarbon and particle size samples. On the conclusion of the survey, the vessel made a passage in rough conditions to Fraserburgh arriving there at 0640 hrs on 21 February.

Objectives

All the objectives were successfully carried out with the exception of the deployment of a transmissometer on the tetrapod. The transmissometer equipment suffered a malfunction and was not deployed.

Bad weather forced half the hydrocarbon survey to be carried out using the Day grab instead of the Craib corer. Sediment samples have been taken back to the Laboratory for analysis.

R Payne

14 March 1994

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