R1/10

In Confidence Not to be quoted without reference to the Laboratory 2GR79

FRV GOLDSEEKER

Cruise 2/79

REPORT

29 January - 7 February 1979

## Objectives

- 1 Echo sounding survey to assess sprat population in the Cromarty Firth supported by trawling for sprat.
- 2 Calibration of transmissometer.
- 3 Assessment of the movement of suspended materials associated with dredging operations at the mouth of the Cromarty Firth.
- 4 Assessment of suspended materials and measurement of bottom temperature at Cryalite dumping ground.

## Logistics

Staff travelled to Dingwall on Sunday 28 January and established base at HRPB laboratory where suspended solid samples were analysed. GOLDSEEKER was held up in Buckie by bad weather and arrived at Invergordon on Tuesday morning, returning to Buckie mid day Friday for the weekend. The GOLDSEEKER resumed work on Monday afternoon 5 February and departed for the Caledonian Canal noon 7 February. The opportunity was taken to travel with the Cryalite sludge boat and take suspended solid samples following dumping on Sunday 4 February.

## Results

- 1 No sprats were found in the Cromarty Firth and were reported to have been absent for a few weeks.
- 2 The transmissometer broke down and had to be returned to Aberdeen for repair. The few results suggested that it was recording inconsistently.
- 3 The dredging had not commenced but background samples were obtained that were of use when further samples were taken during the summer when dredging was in operation. The background samples showed consistently low levels of suspended matter.
- 4 A time series of surface samples of suspended matter following dumping was carried out aboard the Cryalite sludge boat and showed that there was a very rapid sinking of the Cryalite waste.

J H A Martin 21 March 1980