

Indexed 13th Sept.

MBA

RRS FREDERICK RUSSELL - CRUISE 4C/83 - 19-20 MARCH, 1983

CRUISE REPORT

1. Scientific Party:
P.M. Holligan, MBA
R.P. Harris "
R.N. Head "
R. Young "

2. Itinerary and Results

The high capacity Flygt pump was tested in Millbay Dock on the morning of 19th March before proceeding to Cawsand Bay for sea trials during the afternoon. Methods for deploying and recovering the 6" hose and pump were tried and, under calm conditions, no real difficulties were found.

Comparative zooplankton sampling tests with the pump and vertical nets were carried out at Station A1 (50°10'N; 04°40'W) on 20th March. The delivery rate ranged between $\sim 2.7 \text{ m}^3 \text{ min}^{-1}$ with 60 m of hose below the pump to $\sim 3.6 \text{ m}^3 \text{ min}^{-1}$ with 1 m of hose on the inlet side, both against a head of 4-5 m. The water was filtered over the side of the ship and the material collected from the pump system appeared to be in good condition. Microscope examination of the samples will provide a quantitative comparison between the two systems.

Once the hose connections are replaced with quick-release clips, fixed strops are attached to the hose, and a convenient filtering method is designed, the whole system should be easy to operate under good to moderate conditions. The exact restraints of weather, in terms of deck operation and drag on the hose in the water, have yet to be evaluated.

P.M. Holligan
20 March 1983