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In Confidence: Not to be quoted without prior reference to the Laboratory

FRV 'Clupea'

Cruise 3/84, part 2
16-19 March, 1984
Report

Objectives:

- 1 To sample the sludge dumping grounds in the region of Garroch Head with grab and cover for fauna and heavy metal content.
- 2 To collect fish for heavy metal analysis by means of BT116 bottom trawl.
- 3 To collect grab samples from the Birch Point explosives dumping ground for physical and chemical analysis. In addition, if there is sufficient time, a number of Agassiz trawls will be undertaken at the Birch Point dumping ground.

Narrative:

Laboratory staff joined 'Clupea' at Troon on 16 March where sampling gear was changed. After a short delay for repairs to the radar equipment, 'Clupea' left for the Birch Point explosives dumping ground. Sediments for nitroglycerine, heavy metal and dredge spoil analysis were collected by Smith-McIntyre grab at 28 stations. Sampling at Birch Point was completed on 17 March when two Agassiz trawl hauls were taken in order to assess the extent of dumping on the ground.

The remainder of the cruise was devoted to the Garroch Head Sewage sludge dumping ground work. 65 sediment samples were collected by S-M grab for experimental studies and analysis of heavy metal, particle size organic carbon and meiobenthos.

Two 1 hour hauls with the bottom trawl (BT 116) provided fish for analysis of heavy metal content. One haul was centred on and the other off the dumping ground so that heavy metal levels could be compared. Samples of cod, saithe, whiting, herring, flounder and plaice were deep-frozen and returned to the laboratory for analysis.

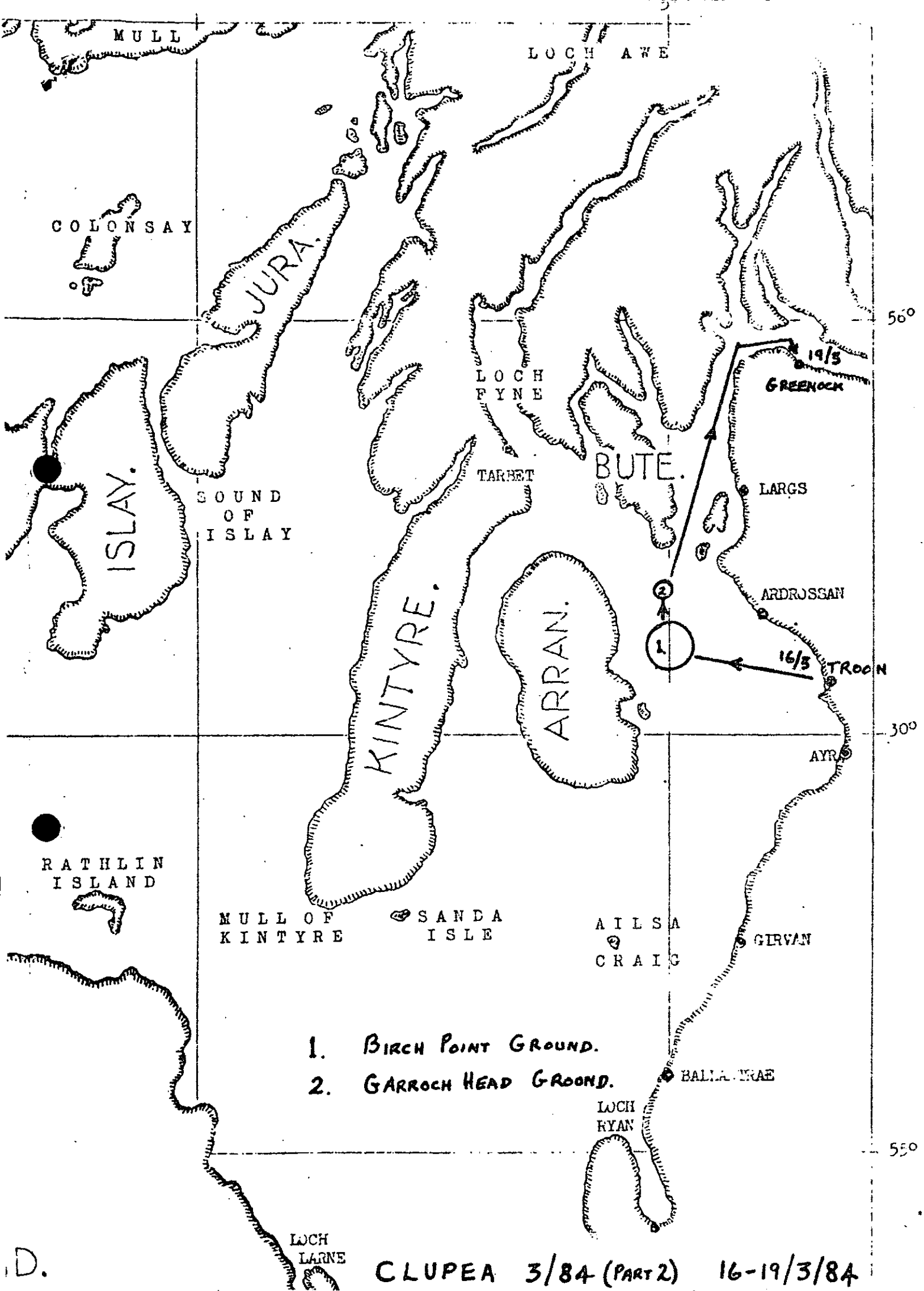
Work was completed at Garroch Head on the afternoon of 18 March and 'Clupea' proceeded to Greenock for off-loading of 'live' sediment samples and the cruise end break.

Results:

All scheduled sampling was completed during the cruise. Analysis of the chemical and biological samples collected will be carried out in the laboratory in Aberdeen and at ICI (Stevenston).

D J Murison
19/3/84

Seen in draft
A Mair



1. BIRCH POINT GROUND.

2. GARROCH HEAD GROUND.