

R1/4

In Confidence - Not to be quoted without reference to the Laboratory

Report

FRV 'Explorer'

Cruise 5/83

5ER83

20 May - 9 June 1983

Objectives

1. To carry out a bottom trawling survey in the northern North Sea and to the north of Scotland to determine the prevalence of various pathological conditions and parasites in gadoids and flatfish.
2. To sample gadoids close to and remote from oil fields for oil degrading enzyme analysis.
3. To take bottom grab samples at one position on the Fladen ground.

Narrative

'Explorer' left Aberdeen at 1600 on 20 May and after compass adjustments off Aberdeen proceeded to the area off the Firth of Forth where 8 trawls were made. As it was necessary to pick up a scientific member of staff off Aberdeen on 23 May 4 stations off the north-east coast were trawled on that day before working north and east (including the grab station on 24 May) until bad weather in the vicinity of the Beryl oil field prevented further work during the morning of 26 May. 'Explorer' arrived in Bergen for half-landing at 0900 on 27 May but due to administrative problems had to leave by 1400 on the same day. Trawling resumed on 28 May but increasingly bad weather prevented further work until 29 May. Engine problems required docking at Lerwick from 1400 on 30 May until 0900 on 1 June and although trawling resumed south-east of Shetland further engine problems resulted in 'Explorer' docking in Kirkwall from 1500 on 2 June until 1000 on 4 June. Eleven stations were worked east and west of Orkney on 4-6 June and 6 between the Fladen grounds (with repeat grab sampling) and the Moray Firth before 'Explorer' docked in Aberdeen at 2130 on 8 June.

During the cruise, in spite of the engine problems experienced, 47 trawl positions were worked, a total made possible by the excellent co-operation of the officers and crew of 'Explorer'.

Results

1. Haddock

- (a) 1929 were examined for Ichthyophonous with samples of kidney being removed for microscopic examination. The flesh of a total of 3104 was examined for gross signs of the disease.
- (b) 2685 were examined for Lernaecocera infection.
- (c) 9891 were examined for pseudobranch anomalies.
- (d) 11749 were examined for vertebral anomalies including a total of 3048 by filleting.

2. Cod

(a) 521 were examined for pseudobranch tumours, papules and ulcers.

3. Whiting

The level of Diceldophera infection was determined in a total of 3066 fish.

4. Flatfish

(a) All plaice (total 180) were examined for skin conditions and the kidney sampled for Ichthyophonus

(b) Totals of 1351 common dabs, 811 long rough dabs, and 518 lemon sole were examined for skin pathological conditions.

5. 124 cod, 119 whiting, 179 haddock, 25 plaice, 18 saithe and 27 lemon sole livers were sampled for oil degrading enzyme analysis.

6. A total of 5 grab samples were obtained from the sampling position on the Fladen ground for a visiting scientist from the University of Hamburg.

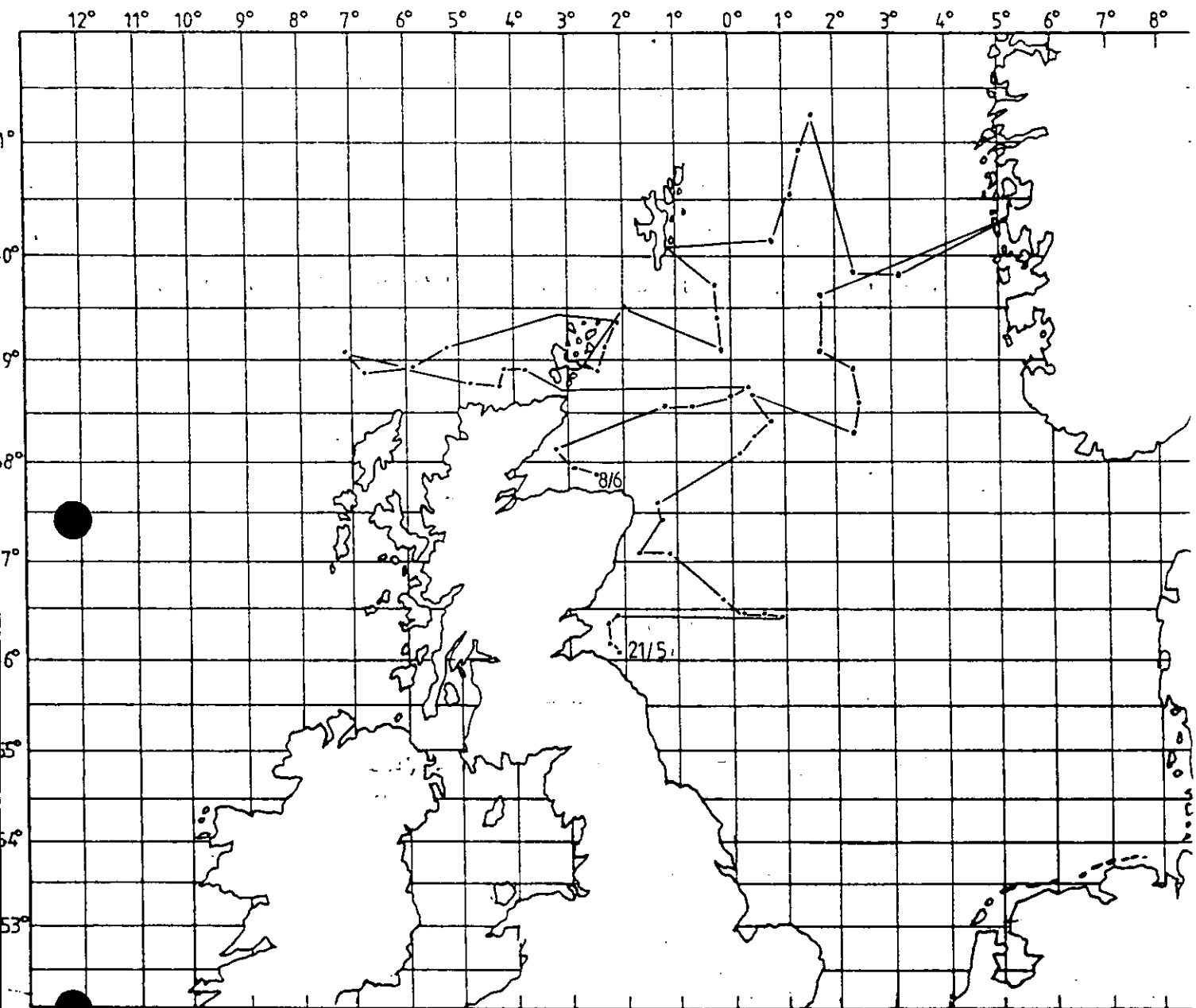
7. Visiting scientists from the British Museum (Natural History) and the National Museum of Wales obtained parasite samples from various species of fish for ecological and taxonomic studies.

*Alan H. McVicar*

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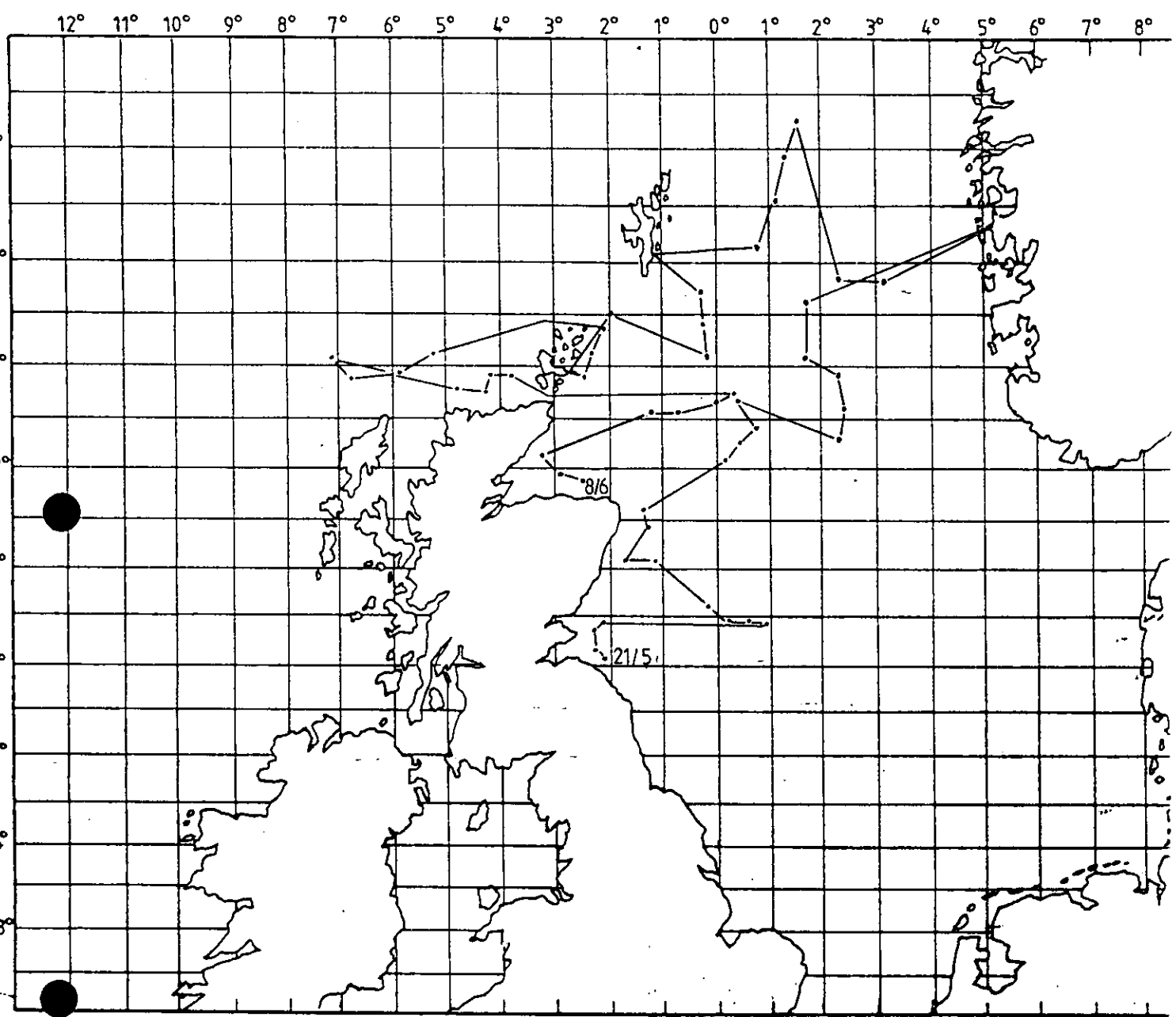
A H McVicar  
29 June 1983

Seen in draft Capt W Findlay



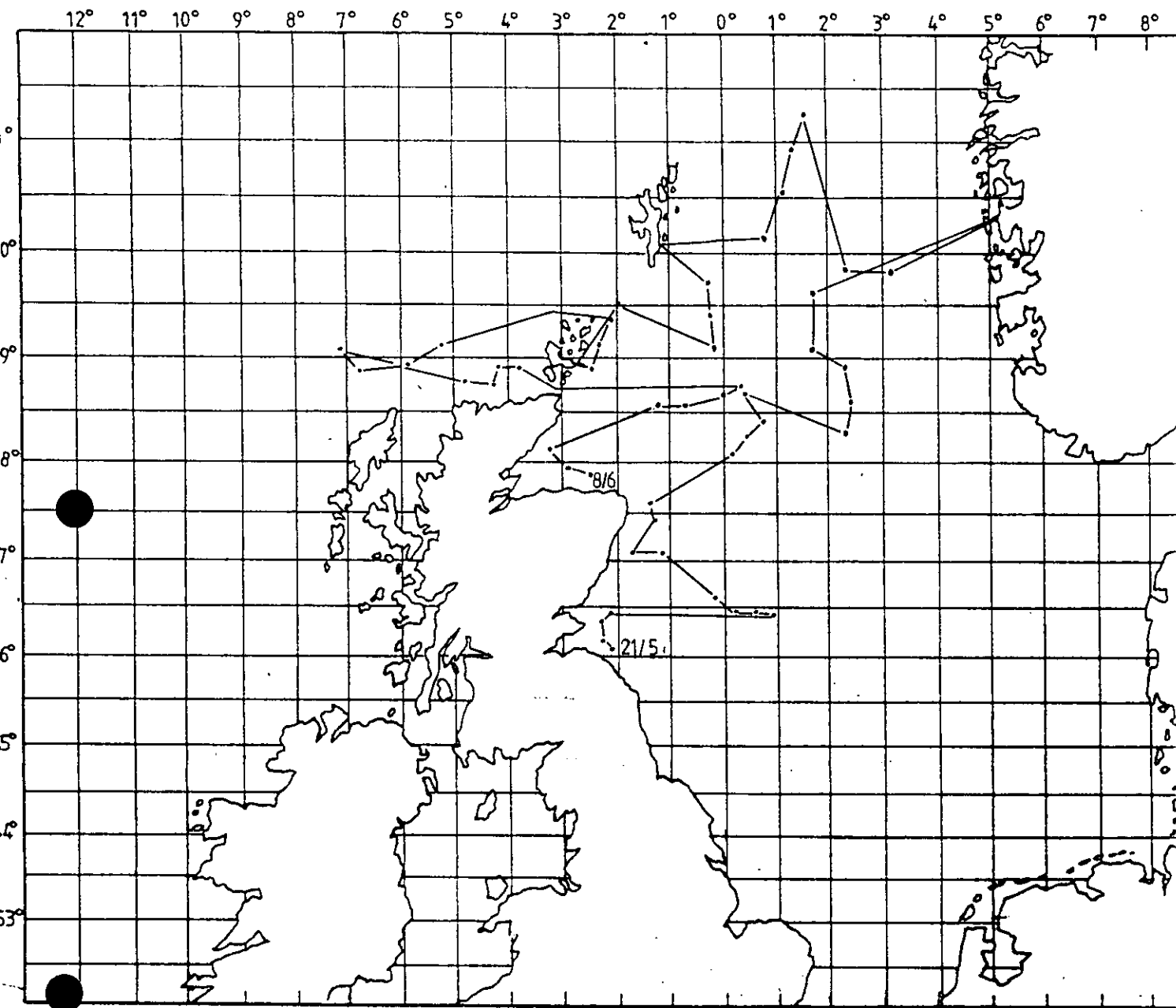
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