

R1/12

Not to be cited without prior reference to the Marine Laboratory, Aberdeen

FRV *Scotia*

Cruise 0101S

## REPORT

5-14 January 2001

### Ports

Loading: Aberdeen

Unloading: Aberdeen

### Personnel

Pam Simpson (In charge)  
Mike Robertson  
Lesley Campbell  
Colin Megginson  
Gill Packer

### Fishing Gear

BT 101

### Objectives

1. To undertake water, sediment and biological sampling for the National Marine Monitoring Programme (NMMP). AE10n.
2. To sample plaice for biological effect studies.
3. To collect plaice for transfer to Aultbea.
4. To collect and undertake storage experiments on haddock for sensory assessment.
5. To collect water samples for hydrographic studies.

**Days per project:** 8 x AE10n, 1 x AEO2a, 1 x AEO8o, 1 x AEO8n

### Narrative

*Scotia* sailed 5 January at 1000 hours to Aberdeen Bay where the Ulstein engineer undertook winch calibrations. On completion and following the engineers disembarkation, passage was made south to the NMMP Tay/Forth site where sampling commenced at 1600 hours. The NMMP sites in the Moray Firth and the Minches were sampled on 6 and 7 January. *Scotia* then made passage to the Clyde NMMP site. Between 8th and 10th January, sampling was undertaken at the NMMP sites at the Clyde and Solway Firth, with additional sampling taking place at Garroch Head for biological effect studies.

Water samples were collected during the passage to Cape Wrath on 11 January. Samples of haddock were collected in the vicinity of Cape Wrath for sensory assessment. *Scotia* made

passage to the 110 mile hole, collecting water samples on route as part of the Scottish Coastal Eutrophication Assessment Survey. Trawling, water and sediment sampling was undertaken at the 110 mile hole on 12 January. Sediment sampling was then undertaken along a transect from the 110 mile hole into the Intermediate Moray Firth NMMP site. Further trawls were undertaken at the intermediate Moray Firth NMMP site prior to passage to Aberdeen docking at 0600 hours on 14 January.

## Results

All the Scottish NMMP sites were occupied. At all sites full water, sediment and benthos samples were obtained. There were insufficient fishing returns of the target species (Plaice) at three of the NMMP sites, namely Tay/Forth, Intermediate Moray Firth and the Firth of Clyde.

### NMMP Sampling Sites

Sampling site	Latitude	Longitude
NMMP 165 Forth/Tay (Montrose Bank)	56°30.00'N	01°30.00'W
NMMP 105 Offshore Moray Firth	58°03.00'N	03°00.00'W
NMMP 95 Intermediate Moray Firth	57°40.00'N	03°49.00'W
NMMP 85 Minches	58°00.00'N	05°40.00'W
NMMP 35 Firth of Clyde (Ailsa Craig)	55°20.00'N	05°05.00'W
NMMP 25 Solway	54°45.00'N	04°00.00'W

The biological effects study of plaice in the vicinity of Garroch Head was abandoned due to insufficient fish. Samples, for biological effect measurements, of plaice brain and gonads were collected at Garroch Head and the NMMP sites at the Firth of Clyde and the Solway Firth as part of the collaborative genomics work with Glasgow Caledonian University.

Fifty-seven sediment samples were collected, for Ecosystem Protection and Analytical Investigations, between the 110 mile hole and the Intermediate NMMP Moray Firth site.

Eighty-seven water samples were collected between Mull and Wick as part of the Scottish Coastal Eutrophication Assessment Survey.

Fifty haddock were collected for sensory assessment.

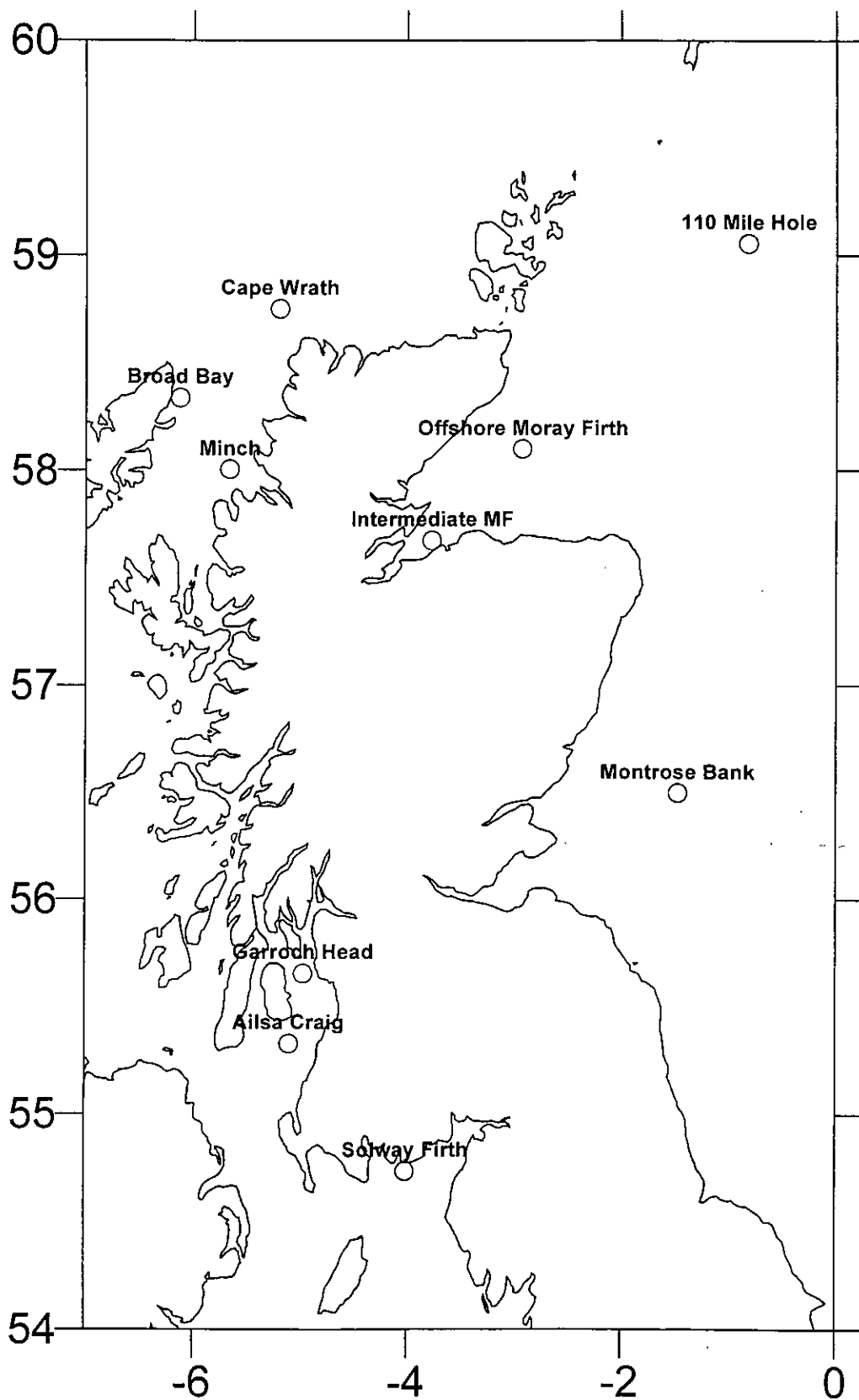
Additional samples of dab, haddock, mackerel, lemon sole, megrim, cod, horse mackerel and gurnards were collected, throughout the cruise, for lipid analysis by a PhD student investigating foodweb interactions.

Fifty-eight small fish were collected for D Ferro.

All samples were preserved and returned to Aberdeen for subsequent analysis.

Pam Simpson  
1 February 2001

Seen in draft: R Walton (OIC *Scotia*)



Scotia Cruise 0101S