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Charter Vessel MFV *Helenus* (FR 121)

Charter Cruise 3101H

REPORT

27 January - 1 February 2002

Gadoid Survey - North Sea No 2

Vessel's Tel: 07786 000154

Agent's Tel: 01779 474231

Personnel

M Breen (In charge)
K Summerbell
C Duff

Objective

To collect biological data on the gadoid populations (cod, haddock and whiting) at two geographically contrasting sites:

Inshore - Buchan Deep (57°30'N 01°02'W)

Offshore - Beryl Field (59°38'N 01°45'E)

This charter is one of a series of surveys in both the North Sea and off the west coast of Scotland. These surveys are to be performed bi-monthly and the collected data will allow:

- Comparison of inshore and offshore gadoid populations, with respect to size structure, growth, age composition and condition indices;
- Description of temporal variation in these condition indices; and
- Development of unbiased bi-monthly growth curves for the target gadoid species.

This project will be conducted as a preliminary exercise to assess the feasibility of using commercial vessels to supplement the collection of biological data on key commercial stocks.

Narrative

It was planned for staff and equipment to be transported to Peterhead on the afternoon of 27 January 2002, where the vessel (*Helenus*, FR121) was to be loaded. However, this was delayed until the following morning because of a forecast of very poor weather on 28 January 2002. The vessel was joined and loaded at 0930 hours on 28 January 2002, but did not leave harbour until 2215 hours, when the weather had sufficiently improved. Some equipment was transferred from MFV *Concorde* (BF 47), which had returned the previous day (Charter 0402H).

The *Helenus* then proceeded overnight to the "Offshore" sampling station (Beryl Field (59°38'N 01°45'E)) arriving at 1630 hours on 29 January 2002. This was the first of two sampling stations (inshore and offshore) to be visited in this survey. These stations corresponded to stations already sampled by the annual ground fish surveys. The programme was for each station to be

visited bi-monthly and sampled using a trawl fitted with a small mesh (35 mm) cod-end liner. The trawl was towed for ~1 hour at a relatively fast towing speed (~3.5 knots), to ensure the capture of large specimens. Data was collected for three target species cod, haddock and whiting. These data included: catch per haul, length, weight, age, sex, maturity, somatic weight and liver weight. In addition environmental data was recorded for each haul including: water temperature, fishing depth, light levels and sea-state. Finally, samples of ovarian tissue were collected from mature female cod for histological analysis.

Only three, parallel hauls were performed at this offshore station. It was decided because of deteriorating weather conditions and the time lost to weather on the first day of the cruise, steam south and begin sampling at the inshore station (Buchan Deep (57°30'N 01°02'W)). The *Helena* left the Beryl Field at 1500 hours on 30 January 2002 and arrived at the Buchan deeps the following day at 0800 hours. A further three hauls were completed at this site before the vessel returned to Fraserburgh on 1 February 2002 at 0030 hours, again finishing early due to poor weather.

The vessel was unloaded on the morning 1 February 2002, following which staff and equipment returned to Aberdeen.

Mike Breen
12 April 2002