

P17/15

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

FRV *Scotia*

Cruise 1307S

Programme

Dates

5-28 September 2007

Project Codes: **RV0712** 14 days **MF01TA** 10 days

Half-landing: Killybegs (flexible dates)

Rockall (Part 1)

K Peach

F Neat

E Jones

F Burns

J Drewery

C Shand

M Gault

A Jaworski

J Turner Bristol University

J Davies Plymouth University

N Golding JNCC

V. Khlivnoy PINRO, Russia (not confirmed yet)

FRS Objectives:

1. Routine daylight survey of the Rockall Plateau to assess the haddock stock within the 200metre contour.
2. Nephrops TV observation work along the East edge of the bank to depths of 500metres using the drop frame and the TV sledge.
3. Identify, quantify and record all benthic invertebrate species caught.
4. Obtain temperature and salinity data from the surface and seabed at each trawling station.
5. Collect additional biological data in connection with the EU Data Directive 1639/2001.

PU / JNCC Objectives:

1. Opportunistic use of the drop frame and TV sledge to contribute to mapping distribution of Annex I reef habitat as required under the EC Habitats Directive.
2. Collection of invertebrate fauna from trawl samples.

Bristol University Objectives:

1. Collect fish eyes from a range of depths (<200m to 1800m) for visual pigment studies; spectroscopy and molecular studies of pressure sensitivity of enzymes.

General

The trawling survey will be conducted at routine stations on the Rockall Plateau using the standard BT 137 Trawl fitted with groundgear C. Weather permitting fishing operations will be carried out for 13 hours each day in line with the WTD. All hauls to be carried out in daylight. CTD data for each haul will be collected via a net mounted unit attached to the trawl headline. Additionally a vertical CTD cast will also be completed prior to each haul to collect temperature and salinity data. Net performance data for each haul will be recorded/collected using scanmar sensors and a NOAA bottom contact sensor. In addition to the routine sampling, biological data will also be collected for certain key species in line with the EU data regulation. All fish will be processed in accordance with standing instructions.

During trawling downtime the *Nephrops* TV sledge will be deployed on the east edge of the plateau to assess *Nephrops* abundance. Weather and time permitting the drop frame will be deployed at various locations in order to map distribution of Annex I reef habitat as required under the EC Habitats Directive.

Having completed the 40 Rockall stations with the BT 137 *Scotia* will then commence deepwater fishing on the Anton Dohrn seamount with the BT 184. Weather and time permitting the drop frame will be deployed during periods of trawling downtime for habitat mapping.

When work is completed on the seamount, *Scotia* will continue deepwater fishing along the shelf edge targeting hauls in areas 2 and 4 as a priority, to compare catch rates and species assemblages with trawls done by the *Celtic Explorer* the previous week.

On or around the 15/16 September *Scotia* will carry out a port call to effect staff changes and take a 24 hour break in accordance with the WTD.

During the half landing the BT 137 will be stripped down and the spare BT 184 wound onto the top drum without groundgear.

Cruise Amendment

1. Kevin Peach, Emma Jones and Mandy Gault will leave the vessel on 19 September 2007 at Killybegs.
2. Robert Kynoch and Lynda Allan will now participate in this cruise, joining at Killybegs on 19 September 2007.

Deepwater (Part2)

K Peach
F Neat
E Jones
F Burns
J Drewery
AN Other FMP
A Weetman
C Shand
D Clark Dept of Fisheries Canada
J Partridge Bristol University
T Blasdale JNCC

FRS Objectives:

1. To map the composition, distribution and abundance of continental slope species including anglerfish (*Lophius spp.*) on the deepwater slope west of the Hebrides and the Anton Dohrn seamount.
2. Identify, quantify and record all benthic invertebrate species caught.
3. Collect temperature and salinity at depth during all hauls using a net mounted CTD. A data storage tag attached to the trawl headline will also be used to record temperature at depth.
4. Investigate the occurrence of *Nephrops* on the upper shelf slope using the TV sledge and drop frame systems.
5. Collect biological samples and morphometric digital images for key species from both slope and seamount to test the hypothesis that the fish assemblages of seamounts differ from the adjacent shelf edge.
6. Collect mid-water samples using the single methot net where time allows.
7. Collect additional biological data in connection with the EU Data Directive 1639/2001.

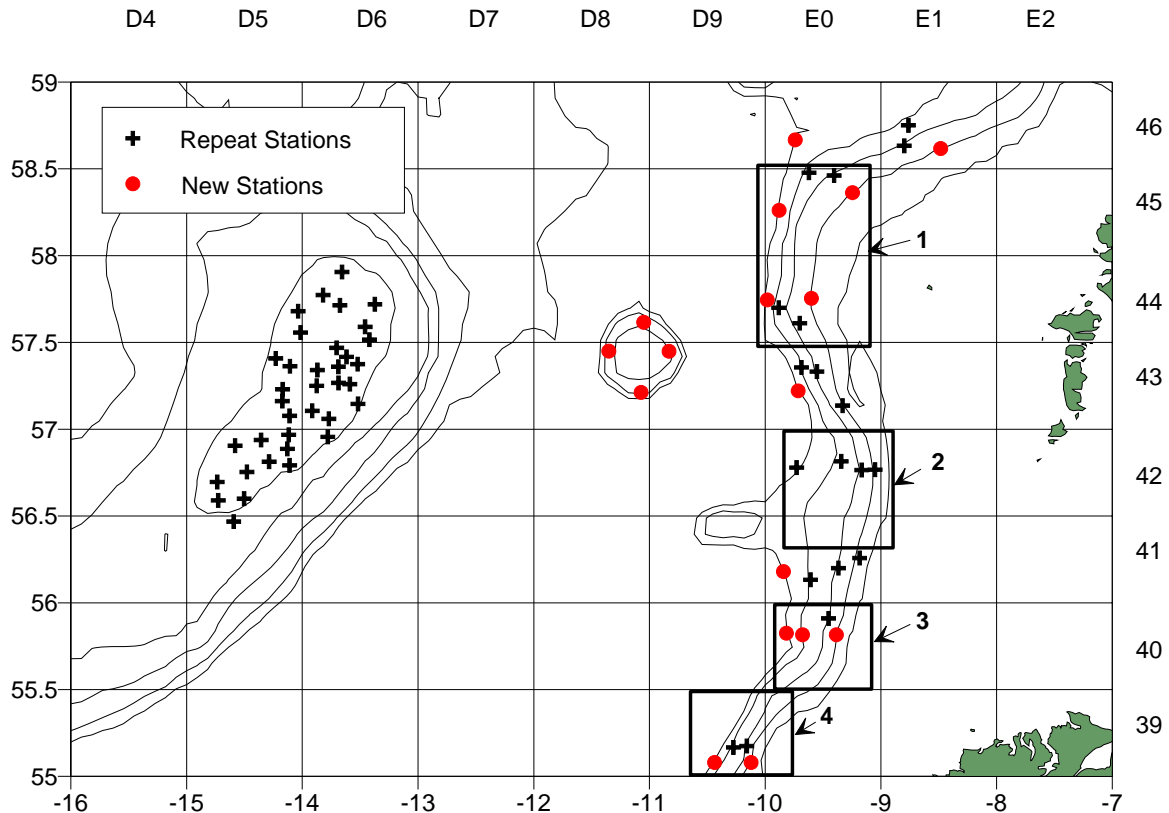
Bristol University Objectives

1. Same as part 1 above.

General

Scotia will continue to fishing grounds to the west of Scotland, trawling will be carried out at key trawl stations along discrete depth contours between the 500 and 1,800 isobaths, to investigate changes in abundance and species assemblage. During the hours of darkness, the vessel will operate over shallower depths (200-900 metres), deploy the TV sledge, and drop frame systems to investigate the abundance of *Nephrops* on the upper slope. If weather curtails *Nephrops* observation work the opportunity may be taken to undertake additional trawl stations during the hours of darkness.

Rockall, Anton Dohrn Seamount, Shelf Edge Provisional Trawling Positions 2006



Gear Rigging

BT 137 with Groundgear C to be rigged on the bottom netdrum with a bottom contact bar in the bosom section.

BT 184 to be rigged on the top netdrum and covered if possible to avoid damage from the Gilson hooks.

1100 kg doors on the working blocks and 2000kg doors above.

1800metre TV cable on the TV winch with the spare 600m cable and winder stowed in the hanger area.

2 spare BT 137 nets to be stowed above deck beside the hydro winches.

Spare BT 184 can this be stowed above deck?

2 sets of spare trawl doors to be stowed

2 sets of spare groundgear to be stowed

Normal contact will be maintained with the Laboratory.

J A Morrison
8 August 2007