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

FRV *Scotia*

Cruise 1507S

Programme

Dates

19-24 October 2007

Ports

Loading: Aberdeen
Half-landing: None
Un-loading: Aberdeen

Personnel

D G Reid	In Charge
C D Hall	
P J Copland	
R Kynoch	
S E B Davis	
D J Bova	
I Penny	
G Jones	
M J Burns	
W E Leiper	

Gear

- 2 x New Jackson Rockhopper Monkfish trawls, plus ground gear bags;
- 1 set Morgere 1700 Kg trawl doors;
- Net instrumentation; door & wing spread, headline height, net depth, symmetry/speed, door tilt and bottom contact sensor;
- Towed underwater Video Multiplex Unit and camera units.

Objectives

The main objective will be to test the new monk trawl for escapes under the footrope. This will be done using bags fastened behind the ground gear. In addition the trawl will be monitored with full Scanmar gear.

A secondary objective will be to practice launching and recovery, and undertake hydrodynamic performance trials, of the towed underwater video multiplexer. The system will be towed on the starboard net-sonde cable in water depths to 200m. The platform attitude and stability at speeds from 1 to 5 knots will be monitored, initially in mid-water then close to the sea-bed. The aim is to achieve controlled and stable heights of between 2m and 5m above the sea-bed. The aim is also to assess the quality of sea-bed video images from the multiplexer under a range of towing speeds from 1 to 5 knots and a range of heights up to 5m above the sea-bed.

Procedure

Equipment will be loaded between Monday 16 and Wednesday 18 October in Aberdeen. Staff will join on Thursday 19 October and, depending on the prevailing weather conditions, Scotia will steam to suitable grounds, most likely in the Moray Firth or in the Orkney area to test all gears and monitoring systems. We will use an extended suite of Scanmar monitoring equipment throughout. The test runs will be used to check the deployment and operation of the ground gear nets. Tow speed will be from 2.8-3.2 knots. Once this is completed the vessel will steam to a suitable location to carry out the main trials. This will be in Shetland waters - dependent on weather. The remainder of the survey will comprise a series of tows using ground gear bags. Tows will also be carried out with tickler chains on and off the net to examine the impact of this on escapes under the ground gear. By its nature the survey requires flexible operation as the exact procedure may vary considerably tow to tow and throughout the survey. Working hours for this work will be between 0800 and 2400, with a maximum of 6 deployments per day, although in practice this will generally be less.

The trials of the video multiplexer will be carried out opportunistically during down time on the bagging work. The unit is a box (80x40x20cm approx), and connected via the armoured netsonde cable. Trials are indicated in the objectives section.

Scotia will return to Aberdeen on Wednesday 24 October where unloading will take place.

Usual contact will be maintained with the laboratory.

J A Morrison
13 September 2007