R1/12

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

FRV *Scotia*

Cruise 0707S

Report

Dates

19-26 May 2007

Personnel

K J Peach
R Kynoch
I Penny
D Bova
O Goudie
J Mills
N Collie
B Leiper
A Lincoln Visitor CEFAS
S Kupschus Visitor CEFAS

Out-turn days: 8 MFO354

Fishing Gear

1. GOV Trawl (BT 137) fitted with ground gear B, plus three additional ground gear collection bags attached to the trawls fishing line.

2. Net instrumentation; door & wing spread, headline height, net depth, symmetry/speed, bottom contact sensor and load cells.

Objectives

1. The main objective is to test the BT137 standard survey trawl rigged with ground gear B for possible fish escapes under the bobbin sections of the ground gear using 3 colleting bags attached to the trawls fishing line. As a comparison a standard GOV trawl without collecting bags will be fished as a control.

2. The secondary objective is to measure the load on the fishing line and headline with the adjuster chains set at 1.70, 1.95 and 2.2 metres.

Narrative

Scotia sailed from Aberdeen at 0600 Saturday the 19 of May and headed for the Montrose Bank, on arrival both trawls were deployed as a shake down exercise. With winds gusting to 45kts and a decent swell getting up fishing operations were cancelled and *Scotia* made passage overnight to the more sheltered waters of the Moray Firth. Fishing commenced at 0700 20 May with 5 collection bag hauls and 1 load cell haul being completed, as the catches of target species were disappointing the decision was taken to head further north. *Scotia* made

passage overnight to the west side of Shetland (Scalloway Deeps) where fishing recommenced at 0715 21 May. Fishing continued for the next 4 days with a maximum of 7 hauls a day being completed prior to Scotia setting sail for Aberdeen at 1300 25 May and docking at 0630 26 May.

Results

1. The trawls were deployed on 36 occasions see summary table for details.

30 minute hauls with GOV + collecting bags	23 valid hauls	2 foul hauls
15 minute hauls with GOV + collecting bags	3 valid hauls	
30 minute hauls with standard (Control) GOV	8 valid hauls	
Mini camera deployments	14 valid runs	3 failed runs

The Moray Firth hauls yielded sufficient catches of some of the target species (haddock & flatfish) but very little cod and no monkfish. After moving to Scalloway Deeps good catches of all target species were encountered, in particular cod averaging 28 individuals per haul. The mini camera was attached on 17 occasions at various locations on both nets, to observe the shape and bottom contact of the bobbin section of the ground gear from different angles. Gear damage was minimal with 2 foul hauls the first due to fish escaping through the cod line meshes and the second when a large boulder burst through the centre collecting bag. All catches were worked up in accordance with standing instructions with each collection bag/codend being treated separately. Sex, maturity and otoliths were collected from cod (2 per cm) to construct a maturity age length key to apply to the catches. All catch data was recorded on standard fish sheets and will be entered into a spreadsheet for future statistical analysis, film footage was backed up onto DVD for in depth analysis at a later date.

2. The load cells were deployed on 3 hauls to measure the headline and footrope loads; 2 hauls on the standard GOV with the adjuster chains set at 1.70, 1.95 & 2.20 metres at the 2 test sites depths (Macduff 85m & Scalloway 113m) and 1 haul on the GOV rigged with the collection bags and adjuster chains set at 1.85 & 2.20 metres on the Scalloway site. Reciprocal 15 minute hauls as recommended by ICES were carried out at each adjuster length with a flow metre attached to the headline to measure net speed through the water.

All objectives for the cruise were met despite at times some unseasonably poor weather, many thanks to the officers and crew of Scotia for their hard work and attention to detail.

Kevin Peach
26-May-2007

Seen in draft Captain M. Hegarty.