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Charter Fishing Vessel *Bountiful* (BF79)

Cruise 1208H

REPORT

4-16 August 2008

Personnel

R J Kynoch (In charge)
J Drewery

Objectives

1. To measure the selectivity of an 80mm diamond mesh codend with a 110mm square mesh panel rigged into the trawls tapered section and positioned 15-18m from the codline.
2. To measure the selectivity of an 80mm diamond mesh codend with a 120mm square mesh panel rigged into the trawls tapered section and positioned 15-18m from the codline.
3. To measure the selectivity of an 80mm diamond mesh codend with a 110mm square mesh panel rigged into the leading edge of the trawls straight extension and positioned 15-18m from the codline.
4. If time allows as Objective 3 but with a 120mm square mesh panel.
5. To assess the total populations entering both the test and control trawls by using 40mm diamond mesh codends rigged to both gears.

Out –turn Days per Project: MF06R11 – 12 days

Narrative

Staff and fishing gear joined *Bountiful* at Fraserburgh on 4 August 2008. Staff commenced rigging the fishing gear and fish measuring station aboard the vessel alongside Fraserburgh harbour. The vessel sailed at 0300 hours on the 5 August to commercial Nephrops fishing grounds approximately 35 nmiles east of Fraserburgh. Thereafter selectivity hauls were made in this area using the test cases detailed in Objectives 1 and 2 for the remainder of the first week. The vessel returned to Fraserburgh on the morning of 9 August to land the marketable Nephrops and fish catches with staff returning to Aberdeen until the morning of 11 August.

During the first week of the trials it became apparent that for Nephrops the test trawl appeared to slightly out fish the control trawl. Therefore in an effort to assess the populations of Nephrops entering both sides of the twin trawl system the decision was made to carry out comparative hauls using 40mm diamond mesh codends (Objective 5) attached to both trawls. The vessel sailed on the morning of 11 August to commercial Nephrops

ground in the Moray Firth approximately 8 niles from Fraserburgh and completed three comparative hauls. The test trawl was re-rigged with the SMP test configuration outlined in Objective 2 and sailed back to the ground targeted during the first week of the trials. Thereafter selectivity hauls were made for the remainder of the cruise using the test cases outlined in Objectives 2 to 4. During the evening of 15 August the vessel sailed to the Moray Firth and made one final haul on 16 August before landing into Fraserburgh. The cruise ended on 16 August with all staff and fishing gear returning to Aberdeen.

Results

Throughout the trials sufficient numbers of haddock, whiting and Nephrops were encountered but very few cod. The vessels normal commercial towing speed was adhered to and ranged between 1.9 and 2.6 knots. Towing duration for the selectivity hauls ranged from 2.5 to 3 hours (Objectives 1-4) but only 1 hour hauls were made for the catch comparison trials (Objective 5).

During the cruise a total of 32 hauls were completed of which 31 were considered valid. The numbers of hauls made for each test case are given in Table 1.

Table 1: Number of hauls completed for each test case

Test case	Number of Hauls
110mm SMP in Taper @ 15-18m (110T)	7
120mm SMP in Taper @ 15-18m (120T)	9
110mm SMP in Extension @ 15-18m (110E)	7
120mm SMP in Extension @ 15-18m (120E)	5
Catch comparison with 40mm codends	3

A preliminary analysis of the results suggested that the 110E and 120E cases caught fewer haddock and whiting than the 110T and 120T cases. None of the SMP configurations showed any loss of Nephrops. These results are similar to those obtained from a previous experiment on a larger powered vessel during April 2008 (Cruise 0808H). A full statistical analysis will be carried out in the Laboratory to determine the selective properties for each test case.

R J Kynoch
27 October 2008