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Charter Fishing Vessel Zenith (BF106)

Cruise 0907H

## **REPORT**

3-17 December 2007

### **Personnel**

R J Kynoch (In charge)  
D Bova  
E Armstrong

### **Objectives**

1. To measure during day and night fishing the selectivity of a 95mm diamond mesh codend with a 120mm square mesh panel (SMP) positioned at 4-9m from the codline.
2. To measure during day fishing the selectivity of a 95mm diamond mesh codend with a 120mm SMP positioned at 9-14m from the codline.
3. To measure the selectivity of a 80mm diamond mesh codend with a 120mm SMP positioned at 13-18m from the codline.
4. To observe fish behaviour when encountering the SMP's using self-recording CCD cameras with/without infrared lights.

### **Narrative**

Staff and equipment joined Zenith at Fraserburgh on 3 December 2007. Staff commenced rigging the fishing gear, wheelhouse instrumentation and fish measuring station aboard the vessel alongside Fraserburgh harbour. Due to a SW gale the vessel sailed to commercial Nephrops grounds in the Moray Firth approximately 15nmiles NW of Fraserburgh and commenced selectivity trials. Fishing continued in the Moray Firth until the evening of 5 December but due to a NW gale the vessel moved to fishing ground off Peterhead called the Buchan Deeps. Because of the limited number of large haddock and whiting (>35cm) encountered in the Moray Firth and Buchan Deeps the decision was made to concentrate efforts testing the cases outlined in objectives 2 and 4 for the remainder of the cruise. After the half landing the weather conditions allowed for the vessel to move to the Fladen grounds approximately 90nmiles NE of Fraserburgh. Thereafter selectivity hauls were made in this area for the remainder of the cruise. During the last two hauls the mini TV system and infrared light were inserted into the extension and attached to the leading edge of the 120mm SMP (9-14m) to obtain information on fish reactions to the panel. The cruise ended at Fraserburgh on 17 December with all staff and equipment returning to Aberdeen.

## Results

A total of 24 hauls were completed of which 23 were considered valid selectivity hauls 1 haul was discounted due to fouling of the gear (Table 1). For the hauls completed in the Moray Firth and Buchan Deeps plenty of small haddock and whiting (<30cm) were encountered but cod were in limited numbers. However for the hauls completed in the Fladen area good quantities of haddock, whiting and cod were obtained. A full statistical analysis will be carried out in the Laboratory to determine the selective properties for each test case.

**Table 1:** Summary of hauls completed for each test case

	80mm codend/120mm SMP @13-18m	95mm codend/120mm SMP @ 9-14m
Day	7	8
Night	4	4

*R Kynoch*  
24 November 2008