R1/3

Not to be cited without prior reference to FRS Marine Laboratory

**Scottish Industry / Science Partnership (SISP** 006/08**)**

Charter Fishing Vessel 1 Ocean Trust (OB 38)
Charter Fishing Vessel 2 Margaret Ann (OB 198)

Cruise 0908H
Cruise 1008H

**REPORT**

9 - 14 June 2008 Part1
23 - 28 June 2008 Part2

**Personnel**

D J Bova (In charge)
J Drewery
J Mair
K Summerbell

**Out-turn days by Project**

MF06R10 – 12 days

**Objectives**

Investigate the comparison in selectivity of a small horsepower single rigged Nephrops trawler and a larger horsepower twin rigged Nephrops trawler using 80mm and 100mm diamond mesh codends fitted with a 120 mm, 160mm, 200mm mesh panel (SMP).

**Narrative - Part 1**

Staff and equipment joined both vessels 1 & 2, *Ocean Trust* and *Margaret Ann*, on 9 June 2008 at Mallaig. Staff commenced rigging the 200mm SMP's into the tapered section of the trawl on both vessels. This was forward of the normal position of 15-18m from the codline. The *Ocean Trust* and *Margaret Ann* were both rigged with identical 80mm single 4mm mesh codends. Also set up for each vessel were fish and Nephrops measuring stations along with wheelhouse instrumentation.

Both vessels departed Mallaig at 04:00 10 June to inshore waters in order to trial operational procedures. The most important aspect was shooting and hauling at close quarters along parallel tracks, and at a safe working distance apart. This worked successfully. Full selectivity trials then commenced using the 80mm single 4mm mesh codends up to the 13 June. At this point there was very little difference detected between both vessels catches. The Ocean Trust codend was replaced with the 100mm 5mm double mesh for the remainder of part 1. The landing of both vessels catches took place on the 13 June prior to a final days fishing for part 1 on 14$^{th}$ June.

Some equipment was removed from both vessels and returned to Aberdeen prior to the restart for Part 2, notably the Scanmar Rx 400 unit from the *Margaret Ann* which needed repair. A total of 11 valid hauls were carried out yielding usable selectivity data for *Nephrops*

and Hake. There were insufficient numbers of other round fish (i.e. Haddock, Whiting and Cod) to provide any useable selectivity data.

**Narrative - Part 2**

Staff and equipment rejoined *Margaret Ann* and *Ocean Trust* on 23 June and proceeded to sea to continue selectivity trials with the same gear as before on both vessels. Preliminary analysis on data from the 80 mm and 100 mm codends from part 1 indicated that additional hauls were needed to provide statistically robust selectivity results for this configuration.

On the 25 June the cod ends were again changed to identical 100 mm codends for both vessels, in order to explore the possibility of a difference in selectivity due to horsepower alone. This configuration was retained for the balance of the work.

On the early morning (04:30) of 27 June the *Margaret Ann's* engine room was flooded, and she was no longer able to take any further part in the trial. Fortunately this incident took place while in harbour prior to departure for fishing, and no FRS personnel were affected. FRS staff and essential equipment were transferred to Ocean Trust which was able to collect further data on selectivity for the 100 mm mesh codend.

Staff and equipment disembarked on the 28 June from Ocean Trust and returned to Aberdeen.

A total of 13 hauls were completed 12 of which were valid. Parts 1 and 2 data are now being analyzed using smoother models, and the results will be reported on completion.

*David J Bova*
9 July 2008