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Chartered Vessels *Sunlight* (PD 187) and *Illustrious* (PD 243)

Charter Cruise 0600H (1 of 2)

REPORT

5-13 December 2000

Personnel

Sunlight: R D Galbraith (In charge)
G N Graham
C A Stewart

Illustrious: G I Sangster (In charge)
R J Kynoch
W E Leiper

Objectives

1. To carry out commercial gear handling trials with centrally hinged polyamide grids (**Eurogrids**).
2. To obtain selectivity estimates for whitefish grids with 30 mm bar spacing and 100 mm cod-ends.
3. To obtain videofilm of deck handling procedures.

Out-turn Days per Project: 9 days C630**Narrative**

Staff and equipment were transported to Peterhead on 5 December when *Sunlight's* gear was fitted with grid section and hooped cod-end cover (Case 2). *Illustrious'* cod-end was also fitted with a small mesh hooped cover (Case 1). Scanmar, GPS and data logging instrumentation were installed in both wheelhouses by Laboratory staff. The vessels sailed that evening for the Bressay grounds where work commenced the following day. From the outset large quantities of small haddock, whiting and pout on the grounds caused problems when accumulated in the small mesh covers. In order to reduce the slaughter and diminish handling problems caused by the considerable bulk taken in these fragile covers haul length was reduced from four hours to two hours towing. Rope lengths between 28 mm wire sweeps and chain bridles were also shortened from four coils of 40 mm seine net rope to only one coil a side. This arrangement substantially improved shooting and hauling times as all towing gear (wire warp, heavy sweep and rope) could be accommodated on one winch barrel. Problems in measuring grid angle were compounded by a malfunction of the Scanmar cabinet on *Sunlight*. Work continued until 8 December when weather conditions deteriorated and both vessels entered Lerwick to change gear.

Attempts were made to obtain a replacement board for the faulty Scanmar cabinet but without success so *Illustrious* was required to log grid angle data in addition to other gear performance parameters on all subsequent hauls. *Sunlight* changed to Case 1 (no grid, covered cod-end) while *Illustrious* fitted a grid section and retained cod-end covers (Case 2). Bad weather continued until 10 December when the vessels left Lerwick and returned to the fishing grounds. Work continued until 12 December when by mutual agreement it was decided to finish the cruise

a day early, as both Cases 1 and 2 had been completed and the weather showed further signs of deterioration. Extra time to carry out Case 3 would be added to the subsequent cruise, as the vessels were not able to change gear at sea but would require to stretch out sections of the trawl on the pier. The vessels entered Peterhead that evening. Experimental fishing gear and instrumentation were unloaded on 13 December when staff and equipment were returned to Aberdeen.

Results

A total of 21 hauls were carried out, 10 with Case 1 and 11 with Case 2. Five hauls were considered invalid, due to damage to small mesh netting, twists in gear, debris blocking grids, etc. A presentation of the results for both this and the subsequent cruise carried out on these same vessels is included in the report for cruise 0700H.

R D Galbraith
22 August 2001