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Charter Fishing Vessel *Keila* K121

## REPORT

Charter Cruise 0076H

13-27 February 1992

### Personnel

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### Objective

To use the twin trawl system to collect selection data (L50, selection factor and range) with a 45 mm small mesh cod-end rigged on one net. On the other net the test cod-ends were the new EC cod-end mesh sizes of 90 mm diamond mesh, 100 mm diamond mesh with 100 meshes round, 100 mm diamond mesh with a 90 mm square mesh window. Additionally it was planned to test possible UK tie-up derogation mesh sizes of 110 mm and 120 mm mesh with restricted meshes if time was available. Underwater observations were planned to check the symmetry of the twin trawling rig and to obtain film of fish reactions, with the RCTV system.

### Narrative

The cruise started at Wick on 13 February 1992. Fierce south, south-westerly and westerly airstreams dominated the trials period necessitating some periodic dodging and working in sheltered areas to the east of Orkney. Initial fishing areas were to the west and east of Orkney. The main working area however, was to the east of Fair Isle where consistent catches of haddock and whiting were taken. The RCTV was deployed on three hauls. The trip ended in Kirkwall on 27 February.

### Results

Twenty-three hauls were obtained of which the first three were used to check on gear symmetry, seven with 90 mm mesh, nine with 100 mm mesh and two with the 90 mm square mesh window cod-end. The remaining two hauls were used as TV observation tows in sheltered waters. There was insufficient time to use the 110 mm and 120 mm cod-ends.

The TV observations were hampered by poor underwater visibility and lack of fish. The few observations obtained indicated that both nets were similar in shape. All four cod-ends were observed with few fish retained.

The fishing trials produced six valid tows with the 90 mm mesh cod-end for haddock and whiting. Four valid tows with the 100 mm mesh cod-end were obtained for haddock and whiting. Two tows with the 100 mm diamond mesh with 90 mm square mesh window cod-end were also obtained for haddock and whiting. Average tow time was 4.2 hours.

The following table gives preliminary selection results with the combined valid tows:

Mesh size (mm)	Haddock			Whiting		
	50% length (cm)	Selection		50% length (cm)	Selection	
		factor	range		factor	range
90	34.4	3.8	7.4	34.1	3.8	4.0
100	39.1	3.9	11.7	40.5	4.1	9.4
90/100	37.2	4.1	8.7	38.7	4.3	5.3

Further analysis is being conducted to compare these twin trawl data with previous data derived using the covered cod-end technique.

J H B Robertson  
23 March 1992

Areas worked during MFV Keila cruise Feb 1992

