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Not to be cited without prior reference to the Laboratory.

Charter cruise MV "Helene"

Report

3 May - 20 June 1987

Personnel

Diving Work

J Main	SSO
G Sangster	HSO
K Coull	HSO
J Robertson	HSO
K Ballantyne	SO

Mesh Selection Work

A Newton	SSO
K Coull	HSO
C Whitworth	SO
K Peach	ASO
P Clark	ASO

Objective

1. To obtain information on the selectivity of a commercial (Jackson) 400-500 hp seine net in relation to changes in codend mesh size, codend diameter and length of extension.
2. To investigate the behaviour of a commercial (Duthie) 700 high headline seine net when alterations are made to codend diameter and extension length.
3. To carry out observations on the Jackson 400-500 hp seine net.

Narrative

"Helene" sailed from Aberdeen on the evening of 3 May. Laboratory staff joined the vessel at Buckie on the morning of 4 May. Diving operations were carried out in Spey Bay and the Dornoch Firth area before the vessel returned to Aberdeen on 8 May.

"Helene" sailed on 10 May to start work on the mesh selection experiments. Four fishing trips were completed in order to carry out the 27 working days required.

On two occasions the Jackson 400-500 hp seine nets had to be taken to the laboratory between trips for repair as they were badly damaged.

Results

A total of 166 hauls were completed with 156 being used for analysis. As fishing time was lost due to gear damage no hauls were made with the 100 mm wide diameter codend with long extension. All other variations in gear were sampled.

Fish from the small mesh cover and the codend were measured from each haul in order to obtain length compositions for the main species. Each codend was measured on several occasions.

Codend Measurements:

No	Nominal Size (mm)	Diameter	Actual Size (mm)
1	80	Narrow	81.5
2	80	Normal	82.0
3	80	Wide	81.5
4	90	Narrow	90.5
5	90	Normal	87.0
6	90	Wide	90.1
7	100	Narrow	99.8
8	100	Normal	100.7
9	100	Wide	99.1

Each codend was tested with an extension length of 13.65 m (except No 9), 9.1 m and with no extension.

Photographs, video and various measurements were taken on the Jackson 400-500 hp seine net with several variations on extension length, codend diameter and also with and without small mesh cover.

K A Coull
3 July 1987