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Charter Vessel "Aries"

## REPORT

6-20 October 1986 Part I

21-24 October 1986 Part II (Joint exercise with SFIA)

### Personnel

J Main	SSO
G Sangster	HSO
W Mojsiewicz	SO
E Coroon	Craftsman

### Objectives

#### Part I

- 1 To use the covered codend technique to measure size selectivity in both codends of a two-level Nephrops trawl (modified 640 Addison Fish/Prawn trawl), to confirm that the majority of haddock and whiting entering the net move into the top level.
- 2 To investigate the size selectivity of the same two-level net with codends of three different mesh sizes on the upper level.
- 3 To compare the marketable quality of the fish in the upper codend with that of any fish retained in the lower codend.
- 4 To assess the degree of scale damage and the potential for survival of the juvenile fish retained in the upper small mesh cover.
- 5 To observe the performance of 'Perfect' Vee boards and compare them with standard Vee boards.

#### Part II

To observe and modify where necessary, a new Fish/Prawn trawl with a separator, developed by the SFIA.

### Narrative

#### Part I

On 6 October the trawl and diving gear were loaded onboard the "Aries" and prepared for operation. The vessel then sailed to Cullen Bay where the net was towed and examined by diving to confirm that the net and separating panel were performing as required.

Fishing commenced on 7 October and was conducted on a number of grounds in the Moray Firth and around the Orkney Islands. Strong to gale force winds were experienced during most of the exercise but reasonable catches of both haddock and whiting were obtained including both small and large sizes.

The SFIA trawl for Part II was loaded and prepared in Buckie on 20 October. The TUVII was also loaded and prepared for operation. Observations on the separator trawl were conducted in Spey Bay during the next two days when measurements, still photographs and television pictures were obtained.

The trawl, TUVII and diving gear were returned to Aberdeen on 24 October.

## Results

### Part I

The catches from both top and lower codends contained both 0 group haddock and whiting as well as adult fish. Seventy eight percent of the haddock, using a 75 cm separation height of the panel above the footrope, were caught in the top and 21.9% in the lower codend (N=99,049). Whiting did not separate so well with 54% into the top and 46% into the lower (N=84,756). This poor separation of the whiting was possibly due to the juvenile fish being caught in the lower codend not able to rise above the separating panel which was set for marketable sized fish.

From the 54% of whiting passing into the top level, 40% was retained in the 80 mm codend, 28% being retained in the 90 mm codend. From the 46% of whiting passing into the lower level only 12% was retained in the 70 mm codend.

Almost all Nephrops entered the lower codend.

The data are now being analysed in detail.

### Part II

The new SFIA trawl and separating panel was satisfactory with the panel being tailored to the required shape whilst trawling at normal towing speed.

Good still photographs and video tapes of the trawl and panel are held by both SFIA and the Laboratory.

J Main  
21 January 1987