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Not to be cited without prior reference to the Laboratory.

FRV "CLUPEA" Cruise 4/87

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Report.

30 March-17 April 1987

Personnel

J H B Robertson HSO
S L Greenless ASO
P J Barkel PTO
J T M Hunter PTO (April 9-17)
N S Collie PTO (April 9-17)

Objectives

- 1. To film, using the RCTV, two commercial codends having features which may interfere with their selection characteristics.
- To film a selection of diamond and square mesh codends and extension pieces with features designed to improve their selection characteristics.
- 3. To film engineering instruments in place on a trawl gear.
- 4. To film and compare the engineering performance of two trawls, one having 30% more meshes round its mouth.

Narrative

Staff joined ship at 1300 hrs on 30 March. The TV and trawl gear were set up during 30 and 31 March. The experiments commenced on 1 April and continued through 2 April. During the first tow on 3 April mechanical problems developed with the RCTV deck cable roller sheave. Work stopped until a replacement sheave was delivered to Ullapool from Aberdeen. Bad weather halted work on 4 April. Work commenced on 5 April and continued to 8-April-when Mr Hunter and Mr Collie were picked up in Ullapool. The half landing was taken in Stornoway on 9 April. Work continued from 10 to 15 April when "Clupea" arrived in Scrabster at 2400 hrs. Bad weather had stopped work on 14 April. Two further tows were made in the Moray Firth before the cruise terminated in Buckie at 1300 hrs on 17 April.

Results

1. Negatively tapered codends are shaped to be narrow at the front and wide at the codline. The underwater film obtained of two such codends confirmed that the mesh opening is reduced compared to conventional codends which have parallel sides.

- 2. A longitudinally roped codend and a narrow codend with 60 meshes around were filmed. In both cases the meshes opened more than the meshes in a conventional codend with 120 meshes on its circumference. There was not enough time to film all of the codends. Demonstration video tapes are being edited.
- 3. Under the direction of the instrument personnel on board, film was successfully recorded of instruments on a trawl gear. The engineering section have edited the film and a demonstration video tape is available for lectures and seminars etc.
- 4. The mesh opening in the trawl having 30% more meshes round its mouth was generally reduced along the full length of the trawl. The film and engineering performance data are being analysed in the Laboratory.

J H B Robertson

17 November 1987

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Seen in Draft: W Smith

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