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Charter Vessels *St Kilda* and *Cleveland Explorer*

Ref H12

Joint seine net experiments

CRUISE REPORT

29 April - 16 May 1990

Personnel

R D Galbraith	HSO (in charge - <i>St Kilda</i>)
J H B Robertson	HSO (in charge - <i>Cleveland Explorer</i>)
A K Naha	HSO (29 April - 4 May)
C W Shand	HSO
P J Barkel	PTO
J T M Hunter	PTO
N S Collie	PTO
I D Leaver	ASO (29 April - 11 May)
R J Kynoch	ASO
K Arkley	SFIA visitor (7-14 May)

Objectives

1. To observe seine net gear and associated fish behaviour using 2 underwater vehicles, *Seapup* and the Marine Laboratory RCTV.
2. To conduct full-scale instrumented seine net engineering performance trials.
3. To observe codends of 90 mm 120 meshes round, 110 mm 100 meshes round, and 80 and 90 mm square mesh "window".

Narrative

Decca Trisponder shore stations were set up on 30 April and trials commenced the following day. Due to various problems with both shore and shipboard units, Mr Naha did not return to Aberdeen until 4 May. Trials continued in the North Minch area until 10 May when *Cleveland Explorer* remained in Stornoway to fit an underwater pinger locator system (Trackpoint II) while *St Kilda* undertook gear instrumentation work. Both vessels then worked together until the trials finished on 15 May. As *Cleveland Explorer* found it necessary to return via the Caledonian Canal, all staff returned to Aberdeen by ferry on 16 May. *Cleveland Explorer* was finally decommissioned in Aberdeen on 19 May.

Results

A total of 37 seine net hauls were made, of which 11 were fully or partly instrumented. Fourteen hours total videotape was obtained using the RCTV. Mainly haddock, whiting and flatfish were encountered. Film was obtained of their reactions: to the ropes as far as 4 coils (480 fathoms) out from the danleno; to the twin sweeps; inside the mouth; and along the extension. Reactions were also observed in a selection of codends during most phases of the fishing operation. Time taken to close the gear ranged from 40 to 80 minutes and it was evident that both flat and round bodied fish were being captured in the codend 10 minutes after the start of the hauling process. Notable film obtained included: haddock and flatfish reactions to the ropes; reactions inside the mouth; and juvenile whiting and haddock escapes from a square mesh window in the codend. The film is being further analysed in the Laboratory.

R D Galbraith
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23 August 1990