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3 CR 80

In confidence - Not to be quoted without reference to Laboratory

FRV CLUPEA

Cruise 3/80

REPORT

1-25 April 1980

Objectives:

1. To investigate the engineering performance of an experimental three bridle trawl.
2. To conduct comparative trials with two GOV trawls of similar design, one constructed in nylon, the other in polythene.
3. To obtain underwater videotape recordings of the above gears using the RCTV (Remote Controlled Towed TV Vehicle)

Narrative

With fishing gear and scientific equipment having been loaded on 1 April Clupea left Aberdeen that evening and steamed north to the Clyth Ness area overnight. Five partly instrumented hauls were carried out in this area on 2 and 3 April.

Instrumentation problems particularly with the net mounted speed log, indicated that further development work on this instrument was necessary and that R Mitchell would be required to remain on board beyond the first week if these problems were to be overcome. Clupea entered Buckie on the night of 3 April and the RCTV equipment was transferred from Mara on 4 April.

Bad weather delayed sailing from Buckie until the afternoon of 8 April when Clupea steamed north to the Orkney Islands. Two instrumented hauls were carried out off Copinsay on 9 April with television work in the shallower waters of Sanday Sound on 10 and 11 April before Clupea entered Kirkwall for the weekend.

Two instrumented hauls were made off Copinsay on 14 April then Clupea steamed to North Sound for television work on 15 and 16 April. Another instrumented haul was made off Copinsay on 17 April but deteriorating weather conditions prevented any further work and Clupea remained in Kirkwall over the weekend.

Television work was again carried out in Sanday Sound on 21 April then Clupea steamed south overnight to the Clyth Ness area. One instrumented haul was carried out here and a television haul on the Bellans ground before Clupea entered Buckie on the evening of 22 April. A further four instrumented hauls were made in the West South Deeps area on 23 and 24 April and Clupea docked in Aberdeen on the morning of 25 April.

Results

Performance data for the three nets over a range of speeds was obtained and these results are meantime being analysed. Preliminary investigation suggests no significant difference in performance between the nylon and polythene GOV trawls although the nylon net suffered more damage due to the softer, less rigid webbing catching on shackles, groundgear etc.

All three nets took fish in commercial quantities and good bottom contact was maintained throughout even when headline kites were used.

A total of some nine hours underwater videotape recordings of the three nets were made and apart from one occasion when mains power to the rotors was lost due to the failure of underwater connectors the RCTV operation worked well. The limited cable length restricted television work to areas of less than 25 fms but visibility at these depths was good, particularly in Sanday Sound

Decca Plotter charts of all areas worked were made for future reference.

R D Galbraith
20 May 1980

Seen in draft A Mair