of Morrison

In A hfidence

FRV 'Clupea'

16CR81

Cruise Report 16/81 25 Nov - 1 Dec 1981

## Objectives

To investigate the distribution of young-herring in the North Minch with the echo-sounder, and to establish a series of bottom trawl stations so that annual herring catches at these stations can be used to calculate indices of year-class strength.

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'Clupea' left Troon at 0730 on 25 November and made for the Minch, arriving at Kyle of Lochalsh at 0330 on 26 Movember. An acoustic survey was begun to the south-east of Raasay later the same day but no suitable ground for bottom trawling was encountered, and 'Clupea' steamed to the west side of Raasay. Here 5 trawl stations were completed over a two day period before 'Clupea' returned to Kyle for the weekend. On 30 November the weather was very poor and prevented trawling and the following day 'Clupea' searched from Gairloch to the north coast of Skye and across to the Harris shore, looking for travilable areas in less than 60 fathoms of water. The ground over most of this track however was hard and "peaky" and no areas suitable for trawling were encountered. 'Clupea' eventually carried out a trawl station in Loch Seaforth before making for Stornoway for the night. On 2 and 3 December 'Clupea' carried out 4 trawl stations in the Broad Bay/Tolsta area and another 2 trawl stations between Stormoway and the Shiants en route for Kyle. 'Clupea' remained in port during 4 December for a contractors visit but left at 1700 and returned to Stornoway where she was due to spend the weekend. trawl hauls were completed in Loch Erisort on the morning of Saturday 5 December before 'Clupea' returned to Stornoway for the remainder of the weekend. On 7 and 8 December 'Clupea' searched the areas of Loch Claidh, Loch Shell, Loch Erisort and Loch Grimshader and carried out three trawl hauls in this area. On 9 December 'Clupea' crossed the Minch after completing one trawl station at Cellar Head. Subsequently a further station was also completed northwest of Loch Inchard on the mainland side of the Minch before 'Clupea' anchored for the night. Severe weather over the next two days restricted operations considerably and most of the time was spent conducting an acoustic survey between Loch Cairn Bhan and Gruinard Eay. Despite this however two trawl stations were completed in the Loch Broom area before 'Clupea' returned to Ullapool for the weekend. On Monday 14 December very severe weather prevented work but the following day 'Clupea' steamed south and completed trawl stations in Loch Ewe and at Rhu Re. 'Clupea' returned to Ullapool and on 16 December steamed north on passage to Aberdeen. One further trawl station was carried out northwest of Lochinver, but the net was badly torn and 'Clupea' continued north, made for the Pentland Firth and arrived in Aberdeen on 17 December.

## Results

Twenty-three "clear" trawl hauls were completed during this survey as well as several others that were "foul". The bottom trawl used (BT 116) proved to be extremely effective and hauls of up to 50 baskets of fish were taken. Herring were recorded at approximately half the trawl stations ranging in length from 10-31 cm but generally with modal length in the region 13-14.5 cm. These were clearly mainly 0-group fish and were taken in very large numbers in those stations in the east Lewis lochs and in the shallow water of Eroad Bay. Operations on the

mainland side of the Minch however were largely unsuccessful to some extent at least because the presence of large fleets of prawn creels made trawling impossible in many areas. It is therefore proposed that larger areas of the Hebrides should be included in this survey in winter 1982. Heavy by-catches of marketable haddock, whiting and dosfish were also recorded on this survey.

J A Morrison15 December 1982

