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Charter vessel "Starcrest" PD232

REPORT

8-17 June, 22 June - 1 July 1987

Personnel

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Objectives

- 1 To carry out a programme of herring tagging in the northern North Sea and in the central North Sea north of 57°N - using purse-seine caught herring and tagging with Floy T tags.
- 2 To carry out a tagging mortality experiment using magnetic microtags on herring held in the ship's RSW tanks.
- 3 To transport live herring to Loch Ewe for use in sonar experiments at the Loch Duich site.

Narrative

"Starcrest" was loaded at Aberdeen on the morning of 8 June and sailed for Shetland in a heavy northerly swell. A minor repair to the sonar was carried out on reaching Lerwick, and on the evening of 9 June the purse-seine was shot without success on a small herring mark southeast of Bard Head. Because of the continuing northerly winds "Starcrest" steamed round Sumburgh Head and lay at Scalloway until the wind decreased a little, around midday on 10 June. Thereafter, "Starcrest" searched the more sheltered waters to the east of Foula, but without success. Searching was continued to the northwest of Foula and a small catch was made 15 miles northwest of the island. However, due to the heavy swell, all the fish were badly scaled and very little tagging was possible. Consequently, "Starcrest" steamed for Yell Sound in order to search the waters immediately in the lee of Fetlar. The net was shot at a position 7.5 miles northwest of Out Skerry on the evening of 11 June and a small catch of herring in good condition was captured. Over 3000 fish from this catch were tagged at anchor in Tresta Bay.

Operations were continued in the same area the following day and after two blank hauls, another catch of herring in good condition was made. Since by this time the weather had also improved, a decision was taken to transport herring to Loch Ewe. Accordingly, herring were brailled into four of the six RSW tanks aboard the vessel and "Starcrest" steamed to Loch Ewe, arriving there at 0100 on 14 June. "Starcrest" waited until daybreak before entering Loch Thurnaig and then approximately 1400 herring in good condition were selected out and brailled into the keep net anchored in the loch. "Starcrest" left Loch Ewe again at 0700 and headed for the area to the west of the Orkneys where searching was resumed the same night.

"Starcrest" encountered no significant marks on the way north but herring concentrations were reported northwest of Foula, and a good catch of herring was taken about 22 miles north of the island on the morning of 15 June. Because of the problems caused by numerous gannets in this area, fish were brailled into the RSW tanks, and the ship steamed to Ronas Voe where the tagging was carried out at anchor. Over 3000 herring were tagged on this occasion. Operations were continued in the same general area that evening and another catch was made 7 miles to the northwest of Muckle Ossa. Once again herring were brailled into the RSW tanks and tagged at anchor in Ronas Voe, and this time 1700 herring were tagged.

"Starcrest" then steamed through Yell Sound and searched the Fetlar, Skerries and Noss areas without success, before making for Peterhead for the mid-trip break, arriving there at 1615 on 17 June.

"Starcrest" left Peterhead again on the morning of 22 June and began searching in a northeasterly direction towards the Halibut Bank and then up to the Fladen grounds. No marks were encountered and "Starcrest" continued searching up the 0° longitude line as far as the Forty Mile Ground, then inshore to the Skerries and then north to Muckle Flugga.

The purse-seine was shot 4 miles northeast of Flugga on the evening of 23 June, but without success, and searching was then continued in the region of Ramna Stacks. Two unsuccessful hauls were made in the Ramna Stacks area and, in the second of these, the net was badly torn when it became caught in the bow-thruster. Mending of the net was not completed until 1700 on 24 June. Despite good marks in this area, the herring were lying too deep for them to be captured with the purse seine, by the time the net had been mended, and efforts had to be abandoned until the following day. On 25 June the net was shot again in the same area, but the herring once again dived after the net had been shot, and no catch was made.

Since the herring were so difficult to catch in this area a decision was made to change grounds. Accordingly, "Starcrest" proceeded through Yell Sound and began searching the east side of Shetland. No significant marks were encountered however, and after searching south to 20 miles southeast of Sumburgh, "Starcrest" turned west and returned to Ramna Stacks arriving there at 0130 on 27 June. The net was shot three times that day and once the following day, all without success before "Starcrest" put into Sullom Voe to take on water at midday on 28 June. Returning to the same grounds, another haul was carried out the same evening, but the herring dived again and no catch was taken. Overnight "Starcrest" proceeded north to Gloup Holm where some good herring marks were found. Two hauls were attempted, but in each case the fish dived and only a few baskets of herring were caught in the tail of the net. "Starcrest" lay overnight and on the morning of 30 June had two more blank hauls in the Ramna Stacks area, before heading south for Aberdeen. "Starcrest" arrived at Aberdeen at 1400 on 1 July, and unloaded at the termination of the charter.

Results

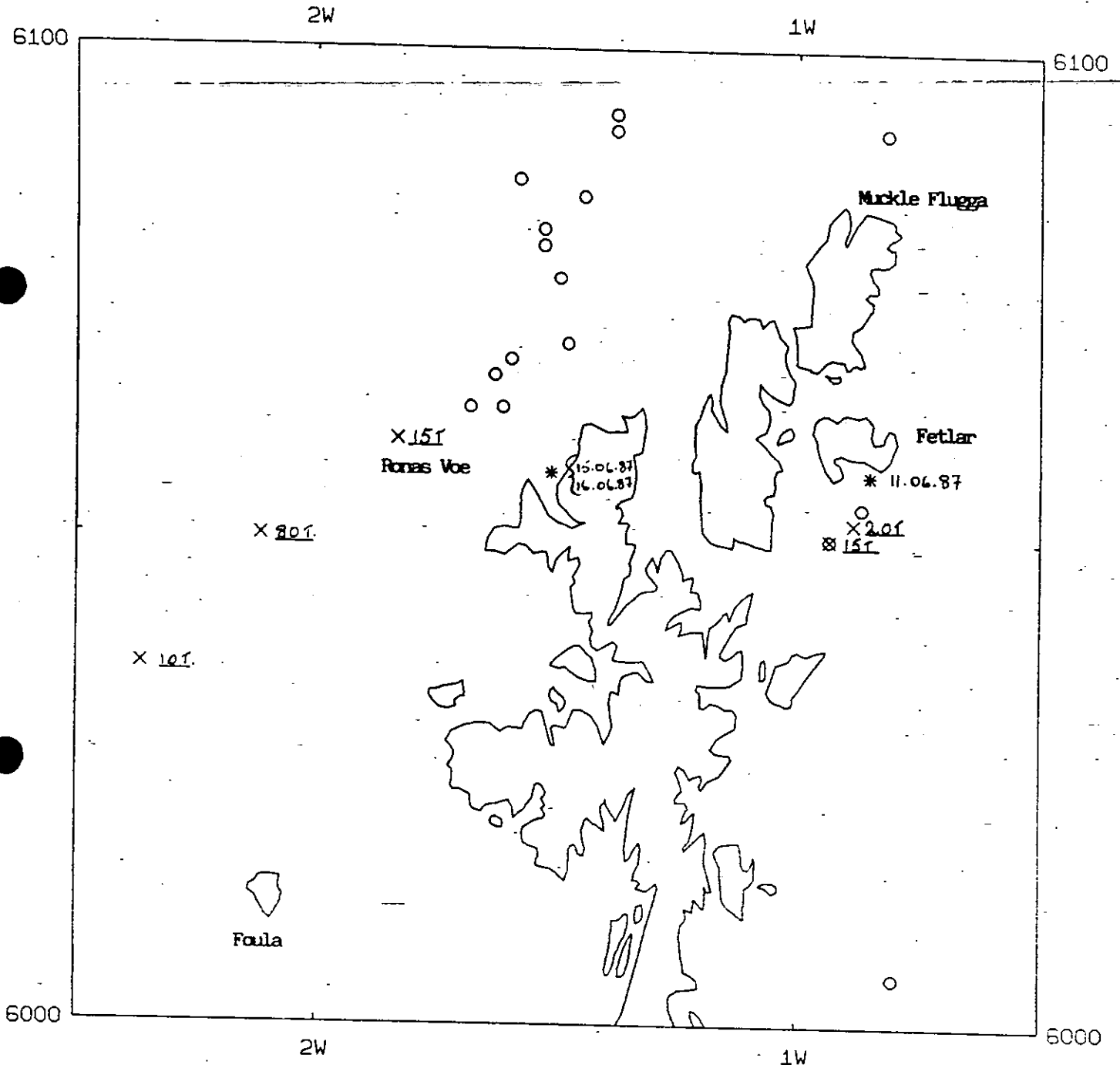
During this cruise 8082 herring were tagged with Floy T Tags, all at Shetland. All tagging was carried out in the first half of the cruise because during the second half, despite 13 hauls with the purse seine, no significant quantities of herring were caught. On occasions, this was because the herring remained at too great a depth for the efficient operation of the purse seine, but more frequently, it was because the herring were very "scary" and tended to dive when the net was shot. During this period the Scottish pelagic fleet was operating in much the same area as "Starcrest" with the majority of vessels suffering similar frustrations.

Approximately 1400 herring in good condition were delivered to the Laboratory site at Loch Thurnaig for use in sonar experiments in Loch Duich. To date there has been a very low mortality amongst these fish.

A batch of 102 herring were tagged with magnetic microtags on 14 June, and retained in the centre aft RSW tank aboard "Starcrest", until the vessel returned to Peterhead on 17 June. During this period, no fish died. This experiment could not be repeated during the second half of the trip because of the lack of fish, but the experiment reinforces other data suggesting a very low tagging mortality with this method.

J A Morrison
17 August 1987

STARCREST HERRING TAGGING CRUISE JUNE 1987.



- X SUCCESSFUL HAUL (APPROXIMATE CATCH IN TONNES)
- O UNSUCCESSFUL HAUL
- * RELEASE POSITION