

## CRUISE REPORT

F. R. S. "CLUPEA"

13th November - 2nd December, 1967

Personnel: J. Hislop  
J. Main  
W. Duncan  
Miss V. Moodie

Objective: Underwater tagging of roundfish

Narrative: "Clupea" left Buckie on the morning of Monday, November 13th and proceeded via the Caledonian Canal to Stornoway, where she was met by the scientific staff on the evening of November 15th.

On November, 17th the cages in Broad Bay were visited and the trawl was shot, no taggable fish being caught. On November, 20th and 21st more trawl hauls were made in the Broad Bay area, the ship working from Portnaguran to Cellar Head. As these hauls caught no fish except for O+ haddock and a few plaice it was decided to change grounds and for the rest of the trip the ship worked south of Stornoway, trawling between the mouths of Lochs Erisort and Grimshader. Fish were obtained in this area although not in such large amounts as would have been really desirable. As "Clupea" had to be in Buckie on the evening of November 30th in readiness for a visit by the refish contractors on December 1st she left Stornoway in the late afternoon of November 27th, the scientists returning to Aberdeen on the following day.

Results: a) Cage work

When the cages left in Broad Bay by "Mara" at the end of the previous trip were visited no fish were found in them and one of the cages had collapsed due to the results of almost a month of stormy weather.

b) Underwater tagging

Many improvements were made to the techniques needed for detaching the codend, mating it with the tagging bench and catching and handling the fish prior to tagging them. During the trip 50 fish were tagged with orange flag tags. The tagged fish comprised 36 haddock, 12 whiting and two 1+ hake. The fish were trawl-caught in 45m of water and were tagged at 20 m.

Discussion: As this was the first time that an attempt had been made to tag fish from a codend in midwater, the technique was usually modified a little after each haul had shown where improvements could usefully be made. By the end of the trip all the major snags had been overcome and the divers were working well together as a team.

Weather conditions for the most part good. On one occasion tagging was carried out in a Force 4-5 wind and this proved to be very uncomfortable as the codend and the tagging bench moved up and down quite violently with the swell. This problem can be overcome quite easily by changing the flotation system slightly. It was unfortunate that this 'rough' haul was the only one when a fairly large number of fish was caught; in all the other

hauls all the taggable fish in the codend were tagged and it was the unavailability of fish rather than any clumsiness of technique that accounts for the small number of fish tagged during the trip.

The fish were in excellent condition at the time of tagging but three fish were observed at the surface after tagging which suggests that the pressure change to which they had been subjected (a reduction of about 45%) is about the limit that the fish can tolerate.

John Hislop,  
4th December, 1967