

IN CONFIDENCE: NOT TO BE QUOTED WITHOUT REFERENCE TO THE LABORATORY

CRUISE REPORT

FRV 'CLUPEA'

31 May - 19 June 1971

OBJECTIVES

1. Tagging of herring from commercial purse-seiners.
2. Measurement of underwater light intensity at night.
3. Day-time investigation of underwater visibility and light intensity.

NARRATIVE

The first week of the cruise was devoted entirely to the first objective. 'Clupea' returned to Buckie for the first weekend to exchange crew members and pick up additional scientific apparatus and staff for the additional objectives. During the following two weeks the tagging and photometric programmes were very successfully combined, although persistent strong northerly winds during the cruise somewhat curtailed the whole programme.

RESULTS - 1. Tagging

Herring were tagged as follows:

1/ 2 June: 60°48'N, 1°39'W = 200 internal and 171 Scottish combination  
2/ 3 June: 60°42'N, 1°47'W = 500 internal and 887 Scottish combination  
3/ 4 June: 60°39'N, 1°49'W = 878 internal and 1274 Scottish combination  
10/11 June: 60°24'N, 2°30'W = 750 internal and 933 Scottish combination  
16 June: 60°34'N, 0°35'W = 400 internal and 621 Scottish combination

RESULTS - 2. Underwater Photometry

Readings were taken in a number of areas of diffuse and beam attenuation by instruments. These results were checked by horizontal and vertical sightings of known reflectance targets.

Some readings of spectral attenuation were made but the extreme variability of surface illumination for much of the cruise made this difficult.

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17.8.71