

Indexed JAR.

PD

Not to be cited without prior reference to the Laboratory

FRV "Clupea"

1pt1CR88

Cruise 1/88 Part 1 14-18 March 1988

REPORT

Personnel

J A Morrison SSO in charge
P Simpson ASO

Objectives

1. To obtain samples of spawning herring at Ballantrae in order to establish the age structure of the spawning stock and to obtain gonads for fecundity investigations.
2. To obtain samples of ripe herring for egg fertilisation to provide material for larval experiments at Loch Ewe.
3. To carry out a limited grab survey of Ballantrae Bank.

Narrative

"Clupea" sailed from Aberdeen at 1830 on 14 March, rounded the Mull of Kintyre at 1000 on 16 March and reached Ballantrae at 1300 the same day. One trawl haul was completed on the edge of Ballantrae Bank and "Clupea" then went into Cairnryan for the night. The following morning a grab survey was carried out in the area within which the herring egg patch had been discovered in 1987 and in the afternoon a further trawl haul was carried out along the outer edge of Ballantrae Bank. "Clupea" again spent the night in Cairnryan, and on the morning of 18 March proceeded to Troon at the end of part 1 of this cruise, arriving there in the afternoon. Gear was unloaded that night and the scientists travelled back to Aberdeen the following day.

D Seaton and C Fox did not in the event join "Clupea" for this cruise as they had obtained samples of ripe herring from a cruise carried out on board FRV "Calanus".

Results

1. Trawling

Two trawl hauls were carried out on Ballantrae Bank. In the first of these, 8 baskets of herring were taken, nearly all in newly spent condition. In the second haul 12 baskets of fish nearly all in maturity stages 5 and 6 were taken. The herring in the first haul were almost all in the length range 25 to 33.5 cm, with a mode occurring at 30.5 cm. In the second haul the length range was 26 to 35.5 cm with the mode occurring at 30.5 cm.

These data suggest a difference in spawning date of up to several weeks between different groups of herring at Ballantrae.

Otoliths were taken to allow the age structure of the spawning population to be assessed and samples of herring eggs were taken from approximately 100 fish to allow a comparison of mean egg weight to be made for fish of two different otolith types which appear to spawn at Ballantrae.

2. Grab sampling

73 grab stations were carried out with a "Day" grab in the area of Ballantrae Bank in which an area of egg deposition was discovered in 1987. However, no eggs were discovered.

J A Morrison
21 June 1988

CRUISE 1/88 PART I - REPORT 14-18 March 1988

