

CRUISE REPORT

F.R.S. "CLUPEA"

June 17th-28th, 1963

Objectives:

- 1) To undertake mesh selectivity and relative fishing capacity experiments with a mixed fleet of cotton and synthetic drift nets.
- 2) To measure light intensities at various depths in the northern North Sea.
- 3) To collect blood samples from herring and analyse them by agar gel electrophoresis.

"Clupea" left Buckie at 1430 hr on June 17th and arrived in Lerwick at 1200 hr on the following day. Due to bad weather, the ship remained in port overnight. "Clupea" returned to Lerwick each day where the fish were measured and the blood samples were worked up. She remained in port over the weekend 22nd-23rd June, and returned to Buckie at 1600 hr on the 27th. The proposed underwater observations of the hanging of the Ulstron nets on the 28th were postponed owing to bad weather. The scientific staff left the ship at 0800 hours on the 28th June.

Fishing

In all, "Clupea" fished three nights of each week. Unfortunately catches were very small throughout the cruise, the largest being $\frac{1}{2}$ cran on the night of the 26th/27th. All fish caught were measured, and otoliths, sex and maturity data were collected from those used for the blood analysis. Additional meristic character data were taken from one sample.

Light Readings

Light intensities were measured at intervals of 10 metres from the surface to 100 meters every 2 hours while steaming, every hour while fishing, and whenever traces were recorded on the echosounder.

Blood Sampling

Blood was sampled from 180 adult herring, and electrophoresis analyses made on board. While berthed, conditions aboard were satisfactory for electrophoresis.

Plankton

Throughout the cruise, plankton indicator samples were collected for the S.M.B.A., between 6 p.m. and 6.00 a.m.

NCEL P. WILKINS

8th July, 1963.