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IN CONFIDEN FRV CLUPEA CRUISE 9/79 REPORT 17 - 27 July 1979

Objectives

- 1. To compare the selecitvely of two Danish shrimp trawls, one with a 25 mm mesh cod end, the other with a 35 mm mesh cod end.
- 2. To study the distribution and abundance of <u>Pandalis</u> borealis and <u>Nephrops</u> at Fladen.
- 3. To make photographic observations on the density and behaviour of <u>Pandalus</u> on the Farm Deeps.

Narrative

CLUPEA sailed from Aberdeen on 17 July. Owing to the re-arrangement of other research vessel programmes, the necessary photographic equipment was not available for the entire cruise. Accordingly CLUPEA proceeded directly to the Farn Deeps, and Objective 2 was abandoned.

While on passage to the Farn Deeps, four transects were made using the cameras on the sewage sludge dumping grounds at Bell Rock and St Abbs Head. On the Farn Deep grounds a series of transects using the sledge mounted television and still camera were made, and a limited programme of trawling undertaken.

R Priestley left the ship at Blyth on 21 July and P J Warren (MAFF) joined for the period 22 - 26 July.

CLUPEA returned to Aberdeen on 27 July. A sample of Myxine was collected for the Royal Scottish Museum, Edinburgh.

Results

Photography: From the transects carried out over the shrimp grounds of the Farn Deeps, a number of video tape recordings were made of the mud dwelling community. Still photographs were also taken.

Trawling: Six one hour trawl hauls were made, the distribution of shrimp and Nephrops was patchy and catches varied accordingly. In all, 180 kg of Pandalus and 21 kg of Nephrops were caught. The catch composition of the Nephrops is given below:

Carapace length (mm)		15-9	20-4	25-9	30-4	35-9	40-4	45-9	50-4	55 - 9	60-4	Total	Mean C.L.
Males	1	7	75	146	165	103	62	33	13	8	4	617	33.5
Females	1	5	99	144	78	12	5	-	-		-	344	27.6
Females berried		***		_	3		-	•	_	~	-	3	-
Total %	2.0	12 1.2	174 18.1	290 30.2	243 25•3	115 12.0	67 7 . 0	33 3.4	13 1.4	8	4	961 -	31.4

A total of 180 baskets of small fish were caught, of which whiting constituted approximately 80%. The whiting were of the size range 10 - 27 cm. Herring were present in most hauls and one haul yielded 330 herring size range 9 - 30 cm. Cod too was present in most hauls and the stomach contents of 48 individuals examined.

General: Five plankton tows using a metre net were made. The average surface temperature during the cruise was 13.8°C.

Seen in draft A Mair

F G HOWARD 9 August 1979

