

In Confidence - Not to be quoted without reference to the Laboratory

FRV "Clupea"

5CR81

Cruise 5/81

REPORT

13-23 April 1981

Objectives

- 1 To compare selectivity of 25 and 35 mm mesh shrimp trawls
- 2 To determine the quantity of the by-catch of the two nets and the proportion discarded
- 3 To make photographic observations of mud communities and to determine density of shrimps

Narrative

"Clupea" left Buckie on 13 April and proceeded to the Fladen area where trawling was carried out using 25 mm and 35 mm shrimp trawls. Underwater television and photographic work was also undertaken in good weather conditions "Clupea" proceeded to Blyth for the week-end in preparation for a similar programme of work in the Farn Deep area.

A shortened programme of trawling was completed but deteriorating weather conditions and the resulting poor underwater visibility limited the use of camera coverage of the grounds. The cruise ended at Aberdeen on 23 April.

Results

Trawling: At Fladen four one hour hauls and one three hour hauls with the 25 mm net, and a similar number with the 35 mm net were made. Catches of Pandalus ranged from 33 to 2 kg/hr (25 mm) and from 29 to 4 kg/hr (35 mm). The average catch/hour was 15 kg (25 mm) and 16 kg (35 mm). On the Farn Deep, two one hour and one three hour hauls were made with each net. Shrimp catches were poorer than at Fladen, ranging from 27 to 6 kg/hr (25 mm) and from 16 to 17 kg/hr (35 mm). The mean hourly catch was 11 kg (25 mm) and 10 kg (35 mm).

Commercial sized fish were scarce on both grounds, cod, haddock, and whiting being the predominant species caught. Undersized fish were fairly plentiful with the catch rate ranging from 75 to 190 kg/hour. Norway pout, four bearded rockling and long rough dab being the commonest species.

The catch rates of shrimp and fish are given in Table I.

Photography: Transects with TV and still cameras mounted on a sledge were made in both areas. Results were variable because of water turbidity.

Seen in draft: A Mair

J A Sinclair
F G Howard

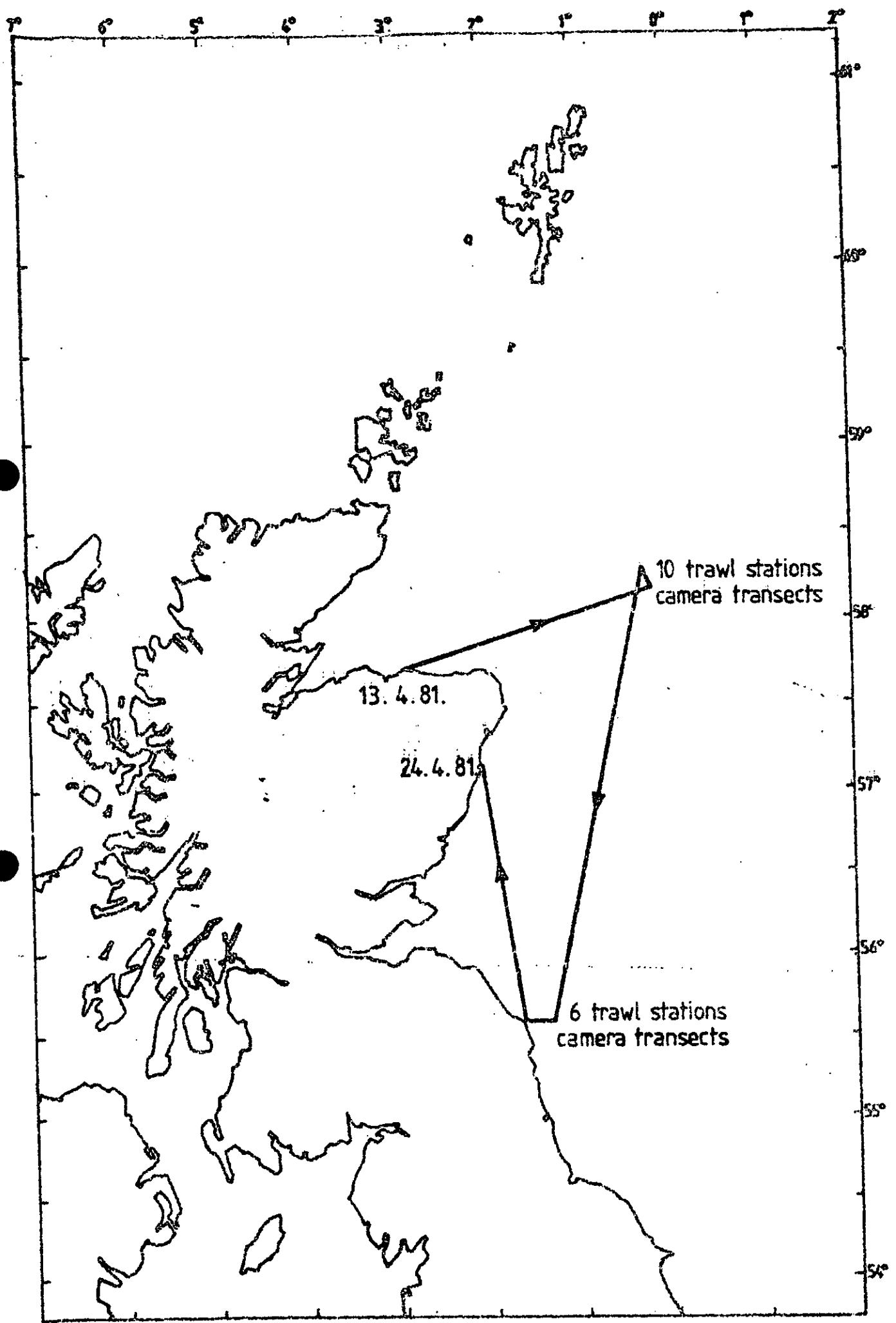
21 January 1982

TABLE I Catch rates of 25 mm and 35 mm shrimp trawls

Area Haul No	Fladen									
	1	2	3	4	5	6	7	8	9	10
Mesh size (mm)	25	25	25	25	25	35	35	35	35	35
Duration (hr)	1	1	1	1	3	1	1	1	1	3
Shrimp (kg/hr)	19	22	33	24	2.3	4	18	16	29	12
<u>Nephrops</u> (kg/hr)	11	10	16	8	2.8	8	12	22	6	9.8
Commercial sized fish (kg/hr)	75	60	60	60	60	30	60	45	75	30
Discarded fish (kg/hr)	105	135	120	120	190	105	90	75	120	100

Area Haul No	Farn Deep					
	1	2	3	4	5	6
Mesh size (mm)	25	25	25	35	35	35
Duration (hr)	1	1	3	1	1	3
Shrimp (kg/hr)	12	27	6	10	16	7.3
<u>Nephrops</u> (kg/hr)	12	3	0.8	1	0.5	2.3
Commercial sized fish (kg/hr)	30	45	50	30	30	40
Discarded fish (kg/hr)	105	105	150	150	180	140

at 0.9



FRV Clupea

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