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Not to be cited without prior reference to the Laboratory

FRV "Clupea"  
Cruise 6/87

6CR87

REPORT

18 May-2 June 1987

Personnel

F G Howard	HSO
K A Ballantyne	SO
C W Shand	SO

Objectives

1. To determine Nephrops trawl catch rates, sex and size composition, and growth and maturity on the Farn Deeps.
2. To determine Pandalus catch rates and sex and size composition on the same grounds.
3. To study Nephrops distribution in relation to sediment characteristics.
4. To obtain sediment samples for particle size, organic carbon and faunal analysis.
5. To obtain underwater television and photographic records of Nephrops and Pandalus on the Farn Deeps.

Narrative

The scientific staff joined, and equipment was loaded at Buckie on 18 May. "Clupea" sailed at 1730 the same day, and after obtaining water samples for radio caesium analysis at a station off Buckie proceeded southwards to the Farn Deeps where trawling operations commenced on 19 May. Northerly gales on 20 May prevented further work, and "Clupea" was confined to Blyth until 23 May when the gales diminished.

The work programme then proceeded with trawl, television and gale sampling at stations from the Coquet to Hartlepool. Six trawl hauls were made at standard MAFF stations.

"Clupea" proceeded to Newcastle on 25 May for the half landing on 26 May.

G Howard left the ship on 26 May to return to Aberdeen, re-joining on 27 May. C W Shand left "Clupea" on 29 May, together with the television equipment, in order to join FRS "Scotia". "Clupea" left the Farn Deeps on 1 June and steamed for Aberdeen, where she docked at 1930. Equipment was off loaded on 2 June.

## Results

Trawling: Thirteen, one hour hauls were made using the small mesh Prawn trawl BT118A, and three one hour hauls with the 35 mm Shrimp trawl BT145.

Catches of Nephrops were poor, catch rates ranged from 0 to 6.5 kg per hour. Details of these catches are shown in Table 1. Samples were analysed for ovary maturity and pre-moult frequency.

Catches of pink shrimp, Pandalus borealis were generally good, particularly at stations in the north of the area.

Catch rates, with the 22 mm prawn trawl ranged from 0 to 71.0 kg per hour, and with the 35 mm shrimp trawl from 12.0 to 85.0 kg/hour.

Samples of shrimp were retained for later analysis.

Cod were taken in most hauls at a rate of 1.5 baskets per haul. Herring and sprat were caught in the south of the area. The hag fish, Myline glutinosa was caught in large numbers in some hauls.

Grab sampling: Two grab samples were taken along the track of each trawl station. Samples of the sediment were sent for particle size and organic carbon analysis, and preserved for faunal analysis.

Camera survey: A sledge carrying television and still cameras was towed over selected trawl stations. Video film and still photographs were taken for later analysis.

F G Howard

29 July 1987

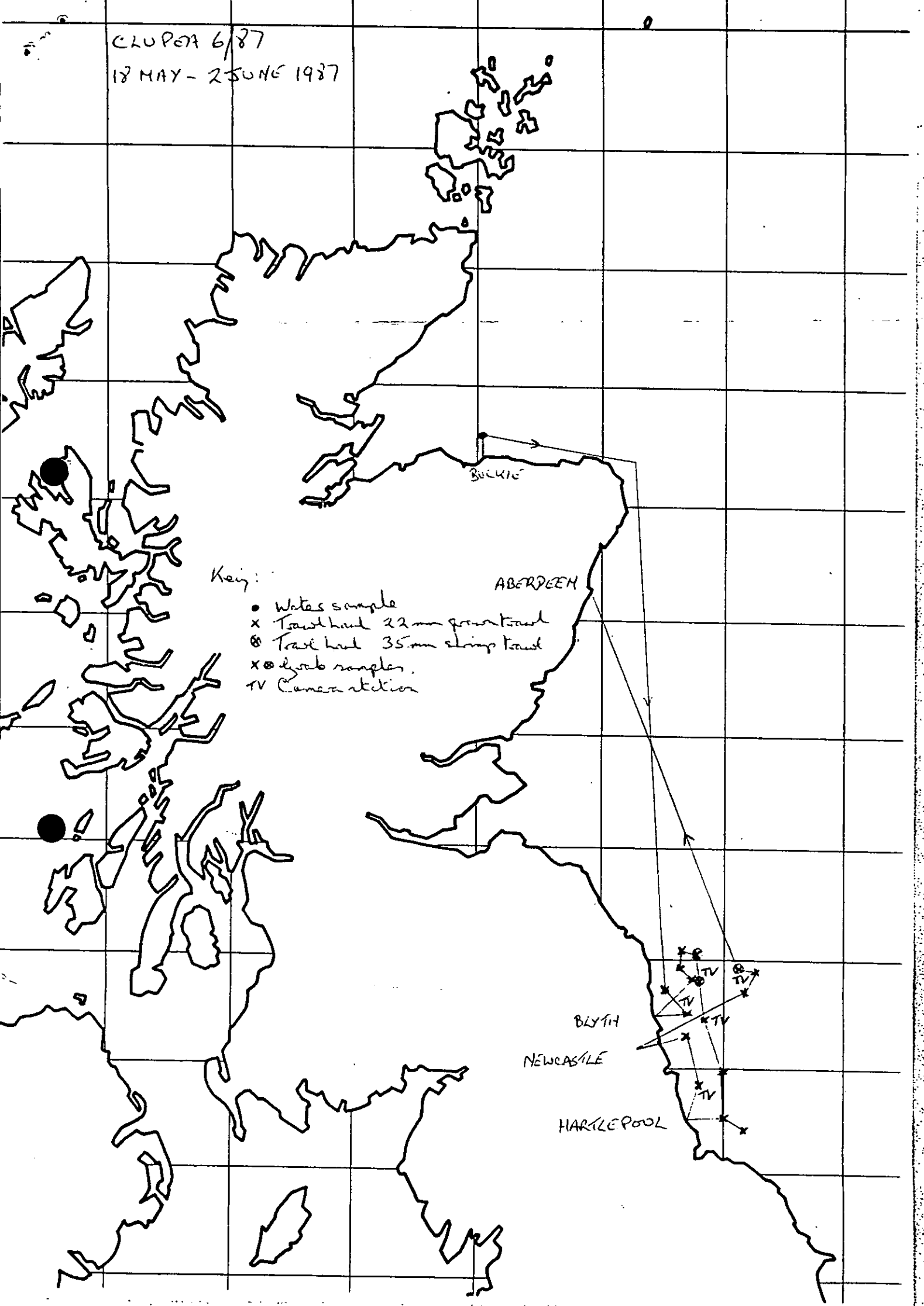
Seen in Draft : W Smith

Table 1

Carapace length and sex composition of Nephrops catches on the Farn Deeps

CL	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Total
22 mm Prawn trawl												
Male	5	37	112	128	113	62	26	6	3	1	1	494
Female		5	43	122	156	134	36	13	1	1		511
35 mm Shrimp trawl												
Male		3	6	8	13	5	4	1	1			41
Female	1	5	15	15	6	2						44

CLUPETA 6/87  
18 MAY - 25 JUNE 1987



Key:

- Water sample
- x Trawl haul 22mm grommet haul
- ⊙ Trawl haul 35mm shrimp trawl
- x⊙ Lycob samples
- TV Concentration station

BULKIE

ABERDEEN

BLYTH

NEWCASTLE

HARLEPOOL