

FRV CLUPEA

Cruise 5/78

REPORT

29 May - 9 June 1978

Objectives

1. To continue the survey, started in April, of Pandalus borealis stocks on the Fladen grounds.
2. To observe, by means of underwater photography, the density and behaviour of Pandalus.
3. To undertake a Pandalid larval survey.
4. To undertake trials of the Deck Recording Depth Flowmeter.

Narrative

The scientific staff joined and equipment was loaded at Buckie on 29 May. CLUPEA sailed from there at 1730 for the Fladen ground. Twenty-one 1-hour hauls were made using a Danish shrimp trawl, and a similar number of plankton hauls using a WP3 net.

On 30 May CLUPEA went to the assistance of the Buckie fishing vessel CONTENTER BCK 247 which had run out of diesel fuel. CLUPEA transferred emergency supplies of fuel oil. CLUPEA returned to Aberdeen for the weekend when staff changes took place. On the following week, work continued on Fladen, and the cruise ended on 9 June, CLUPEA docking in Aberdeen at 0830.

Results

Trawling Shrimp catches were good in the southern part of the area surveyed but negligible in the north. A total of 600 kg of Pandalus were caught. This constituted 12% by weight of the total catch, or 28% by weight of the catch in the area where shrimp were plentiful. The percentage catches by weight of retained fish and discarded fish were 21% and 67% of the total catch and 23% and 50% of the catch in the area where shrimp were plentiful.

The predominant retained fish were cod, monk and haddock, and the discarded species were mainly Norway pout, four bearded rockling and long rough dabs.

An examination of cod stomachs showed that the major food source was Pandalus, followed by fish, and Nephrops. Seventy-nine cod were examined and Pandalus was found in 57%, fish in 32% and Nephrops in 27%.

Nephrops were generally absent from trawl catches, and only one haul, made at dawn, yielded significant quantities (See Table 1).

Photographic work Television and stereo cameras were used to survey the sea bed. Some difficulty was experienced with the stereo system, but a series of stereo pictures was obtained.

Other work A plankton haul was made after each trawl haul. Large quantities of plankton, mainly Calanus were obtained. The trials of the Deck Recording Depth Flowmeter were carried out while the ship was steaming.

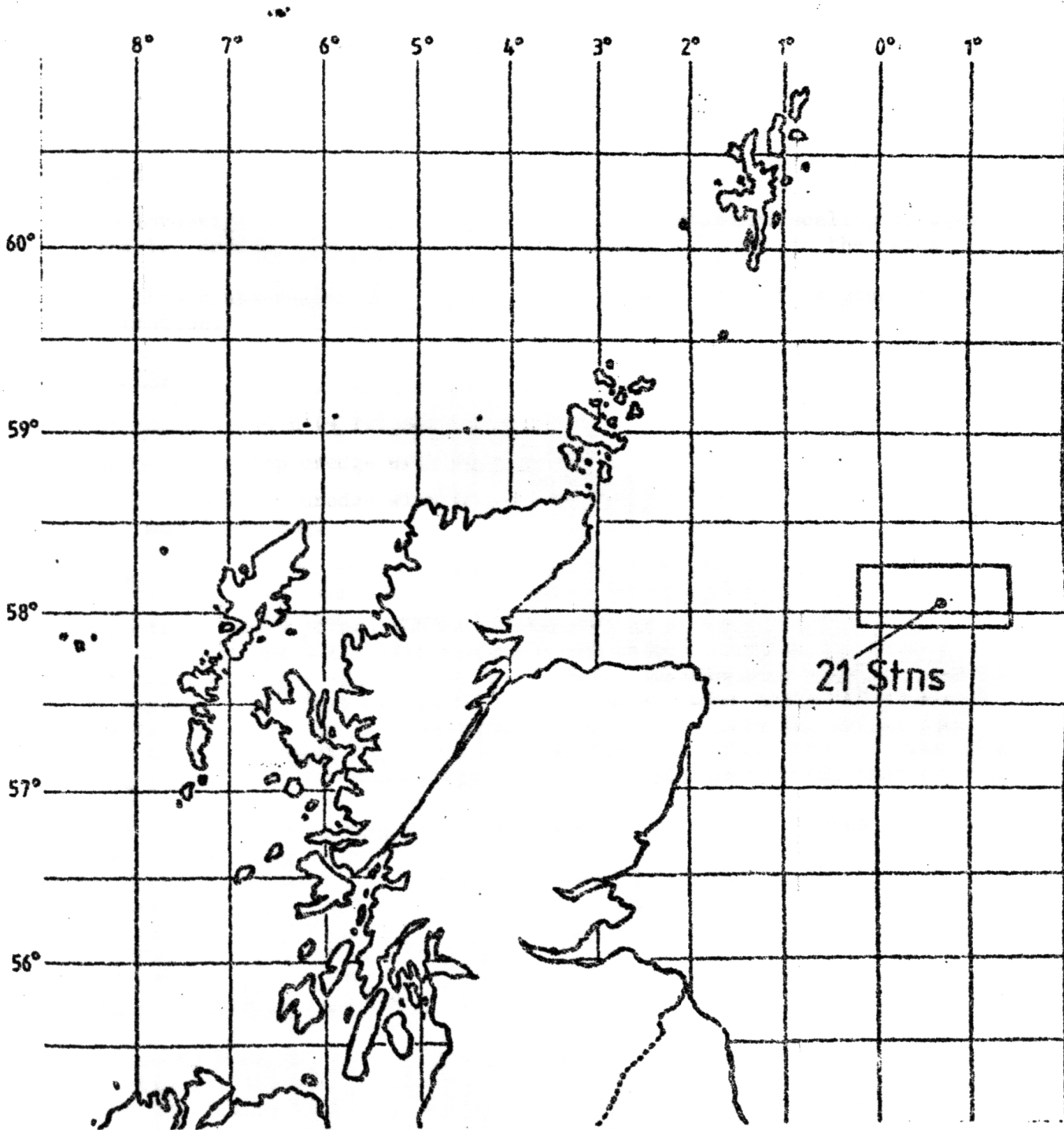
Seen in draft A Mair

F G HOWARD
2 August 1978

TABLE 1

Size distribution of *Nephrops* taken on Fladen

Carapace length (mm)	10-4	15-9	20-4	25-9	30-4	35-9	40-4	45-9	50-4	Total	Mean
Male		1	14	38	42	12	8	3		118	31.9
Female	1	2	21	54	23	6				107	27.8
Female berried				3		1				4	



CLUPEA 29/5—9/6/78

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