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IN CONFIDENCE: NOT TO BE QUOTED WITHOUT REFERENCE TO THE LABORATORY

CRUISE REPORT

FRV "GOLDSEEKER"

7 OCTOBER - 31 OCTOBER 1974

OJBECTIVES:

- 1. To investigate the distribution, abundance and biology of Pandalus borealis in the Farn Deeps.
- 2. To undertake mesh selectivity experiments using a 45 mm mesh shrimp trawl and cod ends of 45 mm, 35 mm and 25 mm mesh.

NARRATIVE:

"Goldseeker" left Aberdeen on 9 October and arrived in Blyth on 12 October.

A series of half hour hauls with each of the three different cod ends was carried out at six trawl stations off Blyth and North Shields.

Deteriorating weather conditions towards the end of the cruise prevented the area of operations from being extendel.

The scientific staff left "Goldseeker" at Blyth on 30 October. The ship later proceeded to Leith.

Results

A total of 26 half hour hauls were made: six with the 45 mm cod end, six with the 45 mm cod end and small mesh whole cover; six with the 25 mm cod end and six with the 25 mm cod end and small mesh whole cover; and two with the 35 mm cod end,

Mesh measurements of the individual cod ends showed the mean mesh size of each to be 47.8 mm (45 mm), 34.8 mm (35 mm) and 29.7 mm (25 mm).

Shrimp catches with the three cod ends were average to good. The weight of pandalids caught per haul ranged from 0.8 kg to 6.6 kg. The total weight caught was 64.6 kg.

The total weight taken by each cod end was:-

45 mm cod end (no cover):	8.5 kg	(6 hauls)
(45 mm cod end (with S.M	•		
(cover)	:	10.6 kg	(6 hauls)
(Small mesh cover	:	9.8 kg	
35 mm cod end (no cover		2.5 kg	(2 hauls)
25 mm cod end (no cover)):	13.5 kg	(6 hauls)
(25 mm cod end (with S.M			(
cover)	:	19.2 kg	(6 hauls)
(Small mesh corter)	:	0.5 kg	

Both Pandalus bottoalis and P. montagui were taken in quantity, the latter being taken predominantly by the 25 mm cod end and the small mesh cover.

Further results of the shrimp catches are in the process of being analysed.

Nophrops catches were also average to good, a total of 2557 individuals being examined. The mean carapace length of all Nephrops caught was 29.5 mm of males 30.28 mm and females 28.67 mm.

The catch composition and mean carapace lengths of catches in the different cod ends are given in Table I.

Fish catches were generally good, the predominant species saught being whiting, with smaller amounts of cod and haddock.

Large numbers of undersized whiting, Trisopterus esmarki and Rhinonemus cimbrius were also present.

F G HOWARD 2 December 1974

Table I

Nephrops catch composition

Carapace length mm	10-14	15-9	20-4	25-9	30-4	35-9	40-4	45-9	50-4	55-9	60 - 4	Total	M.C.L. (mm)
45 mm codend (no cover) Total male Total female Berried female	1	4 5	25 26 1	45 28 7	24 31 6	16 14	10 4	9	5 2	2		140 112 14	32.13 29.6 29.64
45 mm codend (with S.M. cover) Total male Total female Berried female		6 9	28 30 1	62 44 15	31 34 2	13 18 2	4 8	4. -	1	3 1		152 145 20	29.86 29.38 29.20
35 mm codend (no cover) Total male Total female Berried female		4 3	19 17	33 21 2	16 13	9 7	4 2	2	5	2	1	95 63 2	31.07 28.28
25 mm codend (no cover) Total male Total female Berried female		10 5	41 60	107 64 10	83 45 1	22 47 2	17 7	15 4	8 2	2		305 234 13	31.23 29.82 29.19
25 mm codend (with S.M. cover) Total male Total female Berried female	1	44 59	173 168 1	231 151 13	149 98 9	69 67 1	21 20 2	24 6	10 3	<i>1</i> ₁ .	3	729 572 26	29.51 27.88 30.62
Small mesh cover (45 and 25 mm ccd ends) Male Female		2	2 2		1	2						7 2	THE PROPERTY OF THE PROPERTY O