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CRUISE REPORT

FRV 'GOLDSEEKER'

July 22 - August 14 1975

Objective

To undertake comparative fishing experiments with a standard 70 mm mesh Nephrops trawl and cod-end (A) and a 50 mm mesh Nephrops trawl and cod-end (B).

Narrative

'Goldseeker' sailed from Buckie on July 22. The scientific staff joined at Inverness the following day. On arrival at Troon stores and water were taken on board and fishing commenced on grounds south to south-east of Arran on 2nd July. The whole of the trip was spent in this area. A total of fifty-four one-hour hauls were made. 27 using each size of net which yielded a total of 20,695 Nephrops ~~8993~~ with net (A) and 11,802 with net (B). All Nephrops were measured and sexed. Mesh measurements were made periodically during the experiment. The trip ended at Troon on August 14.

Results

The catch composition, size ranges and mean carapace lengths of Nephrops stocks fished and catches by the different trawls are shown in the tables.

Saithe, Cod and Hake were the predominant species of fish taken. T. esmarkii and T. minutus were also present in most hauls.

Twenty-five Cod stomachs were examined of which six contained Nephrops remains. Of 35 Saithe examined two were found to contain Nephrops remains.

The mean mesh measurements of the cod-ends were, (A) 67.1 mm and (B) 48.1 mm.

Surface temperatures ranged from 13.6°C to 15.7°C.

J A Sinclair
March 1976

Seen in draft: W B Reid

T A B L E 1

The number, mean carapace length and percentage at each size group of Nephrops taken by

(A) 70 mm mesh Nephrops trawl

Carapace length in mm.	15/19	20/24	25/29	30/34	35/39	40/44	45/49	50/55	55/59	60/64	65/69	Total No.	Mean C/L (mm)
No.		23	748	3561	3160	1084	232	74	5	4	-	8893	35.2
%		0.3	8.4	40.0	35.5	12.2	2.6	0.8	0.1	+	-		

(B) 50 mm mesh Nephrops trawl

No.	1	51	1396	5201	3870	1032	179	55	16	1	-	11,802	33.7
%	+	0.4	11.8	44.1	32.8	8.7	1.5	0.5	0.1	+	-		

T A B L E 2

Catch composition from combined hauls in 5 mm carapace length groups

Total ♂		31	806	3644	2293	1136	377	129	19	5	-	8440
%		0.4	9.5	43.2	27.2	13.4	4.5	1.5	0.2	+	-	
Total ♀	1	43	1338	5118	4739	980	34	-	2	-	-	12,255
%	+	0.4	10.9	41.8	38.7	8.0	0.3	-	+	-	-	
No Berried			6	50	59	10	-	-	-	-	-	125
%			+	0.4	0.5	0.1	-	-	-	-	-	