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15MR63

CRUISE REPORT

F.R.S. "MARA"

16th September - 4th October 1963

Narrative

Gear was loaded at Buckie on Friday 13th September. Trawling started on the 16th. Strong winds predominated throughout the cruise and five days were lost owing to weather. A further two days were lost through damage to gear. The first two weeks fishing did not produce a satisfactory sample of Nephrops for stock composition data, so "Mara" remained on the Nephrops grounds for the last week of the cruise which finished on 4th October at Buckie.

Results

Nephrops - 7566 were measured (carapace length in m/ms) and sexed, comprising 4597 males and 3069 females; a sample of 835 females was examined for gonad maturity. Table I shows the numbers at various maturity stages. The percentage of berried females in the sample, 5.26, compares well with the overall figure of berried females which was 4.98. All berried females were carrying newly spawned 'green berries'. The smallest berried female measured was one of 21 m/m. The percentage size composition of the male stock, in 5 m/m groups, is shown in Table II. The escape data and relative efficiency of the various trawls are being worked up.

Squid - were scarce throughout the cruise; the total catch was composed of 25 Loligo forbesi (body size ranging from 6 to 32 cms) 1 Alloteuthis sp. at 5 cms and 1 Todarodes sagittatus at 27 cms.

Crabs - Forty Cancer pagurus were caught during the cruise; the majority of them were 'white'.

Cod - A sample of cod examined for nematode parasites showed almost a 50% infection in the flesh, the nematodes were probably Porrocaecum sp.

Hagfish - A number of dead Myxine glutinosa were caught during the first few days of the cruise at the western end of the South Deep, about 14 miles north of Buckie. Nine were observed in one haul. Most of the dead fish were in an advanced stage of decomposition, a few of the better ones were preserved and returned to the laboratory for examination. The other fish and invertebrates in the hauls containing dead M. glutinosa, appeared to be quite normal.

C. DAVIDSON
25th October, 1963

Table I

Maturity stages of *Nephrops norvegicus* ♀'s; Moray Firth Sept.-Oct. 1963.

Carapace Length mm	Immature & 0	1	2	3	4	5	Berried
17	1						
18	8						
19	17						
20	17	2	1				
21	19	18	1				
22	35	41	6				
23	30	55	20	1		1	
24	27	53	17	2			3
25	15	42	17	8		2	5
26	9	13	20	17		1	7
27	3	17	8	11	7	7	9
28	2	4	21	19	9	4	3
29		1	6	12	6	3	5
30		2	8	14	4	2	4
31		2	4	9	4	2	
32			10	9	3	3	3
33			3	15	2	1	
34			4	7			1
35			4	3	2		2
36			2	1			1
37			2	3			1
38			3	5			
39				5			
40			1	2			
41							
42			1				
43			1				
	174	251	160	143	37	26	44
%	21	30	19	17	4	3	5

Table II

The percentage size composition of *Nephrops norvegicus* ♂'s in 5 mm groups, with total number sampled and mean carapace length.

No.	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	Mean C.L.
4597	2.4	21.2	37.8	23.1	8.0	3.7	2.8	0.7	0.2	+	28.8