

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

CRUISE REPORT

FRV "GOLDSEEKER"

13-30 June 1972

OBJECTIVES

1. To investigate the stocks of Nephrops in the Firth of Clyde.
2. To study Nephrops predators.
3. To beam trawl for small Nephrops.
4. To investigate the stocks of Pandalus.
5. To take daily surface temperature readings.

NARRATIVE

The scientific staff joined "Goldseeker" on 12 June at Traon. A programme of trawling, using beam and otter trawls, was carried out in the Firth of Clyde until 26 June, when the vessel proceeded through the Crinan Canal. Further trawling was carried out in the Lynn of Lorne and lower Loch Linnhe. The cruise ended on 29 June, and "Goldseeker" proceeded to Buckie.

RESULTS

Trawling

In 22 half-hour hauls using a standard 70 mm Nephrops trawl with small mesh whole cover, and 3 half hour hauls using a Universal Shrimp Trawl, a total of 2799 Nephrops were caught and examined. Of these 1366 were males and 1433 females. Four females were berried. The size ranges, sex composition and mean carapace lengths are given in the following table.

Size Range	15-9	20-4	25-9	30-4	35-9	40-4	45-9	50-4	55-9	60-4	65-9	Total	Mean carapace length (mm)
Firth of Clyde													
Total male	1	48	114	184	163	110	54	32	24	12	3	745	37.1
Total female	3	53	238	349	110	11	-	-	-	-	-	763	31.1
Berried female	-	-	1	1	-	-	-	-	-	-	-	2	
Loch Linnhe and Lynn of Lorne													
Total male	-	4	56	161	182	116	70	28	2	2	-	621	38.1
Total female	-	6	102	257	227	70	8	-	-	-	-	670	34.4
Berried female	-	-	-	-	1	1	-	-	-	-	-	2	

Twenty-one hauls were made with an 8 ft. fine mesh beam trawl. No small Nephrops (under 15 mm carapace length) were taken, but Pandalus and Calocaris were caught in most hauls.

In all trawl hauls a total of 784 Pandalus bonnierii were taken, mainly in the Clyde area. The mean carapace length of males was 15.5 mm and of females 15.9 mm.

Fish catches were fair in all areas, the total numbers of the main species caught are given below.

	Cod	Whiting	Hake	Saithe	<u>T. esmarkii</u>	Haddock	L.R.D.	Dogfish	Sprat	Mackerel
Small Mesh	-	93	162	-	305	-	168	5	133	-
Large Mesh	18	128	326	36	132	15	32	129	-	46

Munida was present in catches made in Lynn of Lorne, where a total of 25 specimens were taken.

Nephrops were found in the stomach contents of 13 fish out of a total of 97 examined. The fish containing Nephrops are given below.

Fish	Total examined	No. with <u>Nephrops</u>	No. of <u>Nephrops</u>
Cod	14	5	11
Haddock	9	1	1
Whiting	9	1	1
<u>Squalus acanthias</u>	8	1	1
<u>Scyliorhinus caniculus</u>	30	4	4
Angler	3	1	2

Two of the Nephrops were under 15 mm carapace length; the average carapace length was 23.7 mm.

DREDGING

Eleven quarter-hour dredge hauls were made in Kilbrannan Sound, and a total of 24 Pecten maximus taken.

Hydrography

The average surface temperature during the cruise was 11.4°C.

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