

In Confidence. Not to be quoted without
reference to the Laboratory.

CRUISE REPORT

F.R.V. "Goldseeker"

20th May - 12th June, 1969

Narrative

"Goldseeker" sailed from Buckie on 20th May and arrived in Kirkwall on 21st after an overnight stop at Wick.

The programme commenced on 22nd May and continued until 11th June. "Goldseeker" left Orkney on the evening of 11th and docked at Buckie on the morning of 12th.

A standard 4 ft scallop dredge - 12 teeth to the bar - was used throughout. Hauls were of 15 minutes duration. Two fleets, each of eight Scottish-type creels baited with fresh fish, were shot and hauled daily on potential crab grounds; in all 208 creel hauls were made. A trawl was lost whilst working off Copinsay.

A broken guide bar on the winch was repaired in Kirkwall. That, and some fog during the last week of the cruise, resulted in the loss of a few part-days.

Results

Scallop dredging:- The survey covered four fairly distinct areas: (1) North Sound and south-west of Vestray, (2) The Kirkwall area comprising The String, Wide Firth, Egilsay, Gairsay, Wyre, Shapinsay and Day Sound, (3) From Copinsay down the east side of Burray and South Ronaldsay and (4) Scapa Flow.

In area (1) 43 hauls were made and 122 scallops caught, the best hauls being in the Bay of Tuquoy where four consecutive hauls gave totals of 15, 17, 12 and 13 scallops, and in North Sound off Stanger Head where one haul produced 14.

In (2) 136 hauls produced 139 scallops, the best hauls being 9 between Gairsay and Egilsay and 8 off Yinstay Head in The String. Between Kirkwall Harbour and Scargun Duoy 17 scallops were taken, the best haul containing 6. This area, just outside Kirkwall harbour, probably contains a fair population of scallops but dense weed at present hampers dredging.

(3) In this area the scallop catch was taken just south of Copinsay. 18 hauls yielded 25 scallops, the best haul containing 14. The scallops in this area were younger than those from areas (1), (2) and (4) [see Table II].

(4) In Scapa Flow 31 hauls were made, two being taken on the grounds where "Queens" are fished commercially. A total of 97 scallops were caught, the best haul containing 14.

The percentages of the scallops at various gonad stages are shown in the following table - all areas.

TABLE I

No. scallops	Gonad stages						
	Imm.	3	4	5	6 (full)	7 (spent)	Aged
383	0.5%	1.3%	0.8%	14.6%	59.5%	21.7%	1.3%

Table II shows the percentages of scallops of an age greater than 7 and those of 7 and under together with the mean length in mm from each area surveyed.

TABLE II

Area	(1)	(2)	(3)	(4)
Age > 7	76.2	62.6	20.0	90.7
" ≤ 7	23.8	37.4	80.0	9.3
Mean length mm	131	135	121	127

The two hauls for "Queens" produced 120 and 122 respectively with mean lengths of 75.5 and 79.6 mm. The largest "Queen" measured 106 mm.

Crabs

Less than half the total number caught were of commercial size. The breakdown of the catch as to sex, size and area is given in Table III.

Area	No. creels	Under sized		Commercial size	
		♂	♀	♂	♀
1	16	5	9	20	14
2	160	43	57	66	32
3	-	-	-	-	-
4	32	28	28	7	4

Trawling

Four hauls were made in the Copinsay area. Common dab and lemon sole were the predominant species with a few plaice and haddock present.

Hydrography and Plankton

Surface temperatures ranged from 8.5°C to 10.2°C. Plankton samples were taken with a 1 m (26) net in the programmed positions.

Seals

Seals were only observed at Swarf Skerry west of Stronsay in any number. It was estimated that ca 100 were on the Skerry.

G. DAVIDSON
30th June, 1969