

CRUISE REPORT

FRV "GOLDSEEKER"

10 October - 2 November 1972

OBJECTIVES

1. To study the age and size composition of scallop and queen catches off the Ayrshire coast and off the north of Arran.
2. To study the selection of scallops by the standard 4 ft dredge with 12 tooth bar.
3. To investigate stocks of Nephrops and Pandalus in the Clyde.
4. To search for small Nephrops.
5. To take daily surface temperature readings.

NARRATIVE

"Goldseeker" left Buckie on 10 October and work started on grounds off the Ayrshire coast on 16 October. Work on dredge selectivity was carried out in the Girvan area, but on some days more sheltered grounds had to be fished. Bad weather precluded trawling and objectives (3) and (4) were abandoned. The cruise ended in Troon on 2 November.

RESULTS

A total of 112 dredge hauls were made off the Ayrshire coast between Bennane Head and Lady Isle. Most of the work was done in a small area 2 miles off Lendalfoot, and stretching northwards for 2 miles. The depth range was from 7 to 12 fathoms. In addition to the standard 4 ft dredge with 12 teeth and 1½" (bar) mesh in the bag, a toothed bar with 24 teeth and an inner lining of ¾" (bar) mesh were also used. The catches obtained with various gears are shown in Table I. The effect of the smaller mesh in retaining smaller animals can readily be seen, but the effect of tooth spacing is not clear. A few hauls were made using a very fine lining, but this retained too much sand and mud, and filled up too quickly. Four hauls using ¾" mesh and a toothless bar gave quite good catches of queens.

The age composition of scallop catches is shown in Table II. A large number of 2 ring scallops were retained by the smaller mesh, and a fairly large number of 1 ring scallops when the tooth spacing was also reduced.

These results corroborate earlier observations, and suggest that there is a fairly close relationship between mesh size and selectivity. Fine mesh catches suggest that in the area of ground on which this work was done, recruitment over the next few years should be good.

J DRINKWATER
26.12.72

TABLE I

Catches with 4 ft dredge using different numbers of teeth and different mesh sizes

Gear		No of Hauls	Total fishing time (min)	Scallops		Queens	
No of teeth	Mesh size			No/ft/hr	Mean Length (mm)	No/ft/hr	Mean Length (mm)
12	1½"	60	731	13.0	112.4	6.1	55.9
12	¾"	15	75	23.6	104.4	18.8	54.6
24	¾"	21	105	18.7	97.6	25.5	52.7

TABLE II

Percentage age composition of scallops caught by 4 ft dredge

Gear		Number of Rings										
No of teeth	Mesh size	0	1	2	3	4	5	6	7	8	9	over 9
12	1½"		0.9	10.6	25.1	10.0	17.4	17.1	5.5	4.6	2.4	6.3
12	¾"		3.4	23.7	23.7	11.9	9.3	13.6	6.8	3.4	1.7	2.5
24	¾"	1.5	12.2	26.0	22.9	6.1	8.4	10.7	3.1	2.3	2.3	4.6