

In Confidence: Not to be quoted without reference to the laboratory.

CRUISE REPORT

F.R.V. "Goldseeker"

4th-21st November, 1968.

Narrative

"Goldseeker" left Buckie on the morning of the 4th November and made a passage to Ardrishaig, where the scientific staff joined her on the evening of the 7th. Messrs. Main and Kinnear left the ship at Tarbert on the 15th, when Dr. Mason was replaced by Mr. Davidson. The cruise ended at Troon on the 21st. Staff of the Humber Laboratory were on board for one day to collect queens (Chlamys opercularis) for experiments in handling. Dredging and diving operations in the Clyde were seriously curtailed by persistent south to south-east gales and much of the time was spent in underwater observations and photography of the mussel ropes in Linne Mhuirich.

Scallop dredging

The stocks of scallops (Pecten maximus) were sampled off Claonaig Bay, Inchmarnock, Cock of Arran and Lady Isle. On the west side of the Clyde (Claonaig, Inchmarnock and Cock of Arran), the 1961 brood (7+) scallops still were predominant, constituting 47% of the catch. There is still no evidence of a recent successful spatfall, few (3%) of the scallops caught having less than six growth rings.

At Lady Isle, on the east side of the Clyde, five- and six-ring scallops were the most abundant age-groups, together constituting 54% of the catch.

The catches of dredges with four different tooth-spacings were to have been compared, but only eighteen hauls, at Lady Isle, were possible. The results were as follows:-

| Tooth spacing                | 5.7 in. | 4.9 in. | 3.3 in. | 2.4 in. |
|------------------------------|---------|---------|---------|---------|
| No. of 15 min. hauls         | 4       | 4       | 4       | 6       |
| No. of scallops per haul     | 12.2    | 9.8     | 17.0    | 10.0    |
| Mean length of scallops (mm) | 136     | 132     | 131     | 131     |

These results suggest that dredges with larger tooth-spaces catch larger scallops. Numbers caught per haul were very variable and many more hauls are required before the results may be regarded as significant.

Diving

The limited observations by divers on smooth sandy gravel bottom suggested that if a rope warp is used for towing the dredge, the shackle attachment is raised 6-9 inches off the bottom and only the tips of the teeth are buried in the sand. Using a wire warp, the shackle and warp touch the bottom, half (ca 1½ in) the length of the teeth is in the sea bed, and the mouth of the dredge tends to become blocked by building up of bottom deposit in front of the toothed bar.

Bottom deposits

A sample of the bottom deposit on Whiting Bank was collected for the Building Research Station.

JAMES MASON  
17th January, 1969