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CRUISE REPORT

F.R.S. "M A R A"

24th September - 9th October, 1964

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General

The scientific staff joined "Mara" in Stornoway on 25th September, the day after her arrival. The weather prevented any attempt at diving work until Tuesday 28th. Monday 27th was spent rendering assistance to the Fishery Cruiser "Norma". "Mara" returned to Buckie on Friday, 9th October.

Procedure

Three cages were set up in Broad Bay in c. 80 ft. of water. In these were released three groups of fish:

- (i) 36 Haddock transferred underwater from the codend as a control group. A few whiting were accidentally included.
- (ii) 50 Surface-tagged haddock taken down to the cage.
- (iii) 50 Haddock tagged on the bottom and placed in the cage.

Each of the tagged groups comprised half flag-tagged and half spaghetti-tagged fish.

Results

1. Control fish Two haddock had died at the end of the experiment but the remainder appeared to be in excellent condition. The whiting had sore snouts and were seen to nose at the netting walls. All fish were released after 6 days in the cage.
2. Surface tagged fish The fish were regarded as being in good condition when caught and tagged, but they had to be transported some distance on the surface in a net towed behind a small boat. This probably affected subsequent results.

When the fish were introduced into the cage, one was dead, 23 were resting on the bottom and the remainder were swimming. After two days it was estimated that 75% were dead and at the conclusion of the experiment after 6 days only 3 fish were alive.

3. Bottom tagged fish These were tagged in two sessions on the 1st and 2nd October. After 4 or 5 days, an estimated number of 48 fish survived.

Observations on Caged Fish

The fish in the experiment were all 2 and 3 year-olds of about the same size range, 30-40 cms. The tagged fish divided into 'swimmers' in the upper half of the cages and 'resters' on the bottom. These rapidly showed patches of sand adhering to them; this was possibly where mucus was removed or disturbed.

The general behaviour of fish in the tank was gregarious, the fish moving in a loose school.

Incidental Observations

Observation of a hard line-fishing ground showed a bouldery bottom with ophiuroids present. Solitary haddock were seen on two occasions. They were scared by the exhalent column of bubbles from the aqualung demand valve. Recordings of demand valve noise were made.

C. C. Hemmings
29th October, 1964