

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

CRUISE REPORT

F.R.S. "Scotia"

4th - 20th October, 1966

Narrative

"Scotia" sailed from Aberdeen at 16.00 hours on the 4th October. Strong south-easterly winds prevented work at Fladen, so "Scotia" made for the Moray Firth, and worked there until she returned to Aberdeen, arriving there at 11.00 hours on the 12th October. Dr. Mason and Mr. Walker replaced Messrs. Mowat and Leys, and "Scotia" sailed again at 13.00 hours on the 13th. Conditions were still unsuitable for work at Fladen, and remained so throughout the second part of the cruise. However, work was possible without interruption in the Moray Firth. "Scotia" returned to Aberdeen on the morning tide of the 20th October.

Nephrops Studies

The first part of the cruise was devoted to instrumentation tests on "Scotia's" Nephrops trawl and to raising the headline sufficiently to attach a camera to photograph the sea bed. A satisfactory headline height of 7 ft was attained by attaching floats and the spread of the net was then some 38 ft. During the second part the camera was used with every haul, and light measurements were made at various depths in conjunction with each haul. In addition a stationary camera was mounted on a number of occasions to photograph the sea bottom at intervals of time.

In all, 68 trawl hauls were made on known Nephrops ground. The early hauls were in the South Deep area (B14a), but catches were poor, the largest being 398 for an hour's fishing. Attention was, therefore, shifted to the Burghhead area (A14b), where better catches (up to 1961 in 1 hour and 1567 in $\frac{1}{2}$ hour) were taken. As on previous occasions the best catches were at dawn and dusk. The Nephrops caught were mainly small, the modal carapace length being from 27 to 30 mm.

Catches of fish were generally poor. Pandalus were taken in almost every haul in the South Deep, numbering up to about 350 in a $\frac{1}{2}$ hour haul.

Other Work

Tension measurements were made on the Gulf III sampler.

Standard, sedimentation and 1 m (26) oblique samples were taken at three places, one 10 miles from Aberdeen and two in the Moray Firth. Nitrogen samples were taken at ten depths at one station.

Current indicators were released at the usual positions off Wick and on Turbot Bank.

JAMES MASON
3rd February, 1967.