R1/10

IN CONFIDENCE: Not to be quoted without reference to the Laboratory

CRUISE REPORT

FRV "GOLDSEEKER"

15 February - 4 March 1971

#### **OBJECTIVES**

- 1. To investigate the distribution, abundance and biology of <u>Pandalus</u> spp. in the Firth of Clyde and the Sound of Jura.
- 2. To obtain data on the stock composition of Nephrops and associated white fish species.
- 3. To take temperature readings and plankton hauls.

#### NARRATIVE

"Goldseeker" left Buckie on 16 February for the Clyde, and the scientific staff joined her on 21 February at Ardrishaig.

Work was conducted in three areas, Cock of Arran, Kilbrannan Sound, and Ailsa Craig. Both otter trawling, using a 70 mm prawn trawl and small mesh whole cover, and mid-water trawling with a Universal mid-water shrimp trawl with 30 mm codend were undertaken.

The cruise ended at Troon on 4 March.

Live Nephrops were sent back to the laboratory.

#### RESULTS

## a. Otter trawling

Hauls were made in all areas given above. <u>Pandalus bonnieri</u> were taken in all hauls from the Kilbrannan Sound area, but only in small quantities.

Nephrops were scarce in all areas, only being taken in quantity in the southern part of Kilbrannan Sound. Here a total of 297 were caught; of these 187 were males with a mean carapace length of 32.0 mm, and 110 females with a mean carapace length of 29.0 mm. Of the females 3 were berried.

Fish too were more plentiful in this area. The dominant white fish was whiting, but saithe, hake and herring were common. In the small mesh, whiting, <u>Trysopterus esmarkii</u>, and long rough dabs predominated.

# b. Mid-water trawling

Hauls were made in daylight and in darkness. Netzonde equipment was not used, net depth being calculated from the relationship between warp length and warp angle of declination. The depth of the net was altered during towing to cut across echo traces as seen on the echosounder.

No traces were seen, or fish caught during the daylight tow. At night many traces were observed, but most were too close to the bottom for the net to be used effectively. However, small numbers of whiting and herring were caught together with fairly large numbers of Meganyctiphanes norvegics.

## HYDROGRAPHY

Surface temperature readings were made daily.

F G HOWARD 15 April, 1971