

MR BALE.

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1973 RESEARCH VESSEL PROGRAMME

REPORT: R V TELLINA: CRUISE 11

STAFF P J Warren
S R J Lovewell

DURATION: 17 October - 7 November 1973

LOCALITY: N E coast: Farne Deeps

AIMS:

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- 1 Distribution/abundance of Pandalus borealis stock.
 - 2 Distribution of Nephrops and length/sex frequency.
 - 3 Gear trials: Comparison of Gulf and wing trawls.
 - 4 Mesh selection of P borealis for ICES Pandalus Working Group.
 - 5 Predation of Nephrops/Pandalus by whitefish.
 - 6 Baseline samples for dinoflagellate programme (Dr Dodge, Birkbeck College, and Mr Ayres, Burnham).

NARRATIVE

TELLINA was held up at Lowestoft by strong winds until 22 October and arrived at N Shields on the 23rd. Scientific staff joined the ship and work began the following morning. During the period 24 October - 3 November TELLINA worked each day and the aims of the cruise were substantially completed before strong winds returned, terminating the work on 5 November and delaying the ship's return to Lowestoft.

RESULTS:

- 1 Pandalus survey: 29 half hour trawl stations were completed to provide data on shrimp distribution and abundance. Overall, shrimp abundance was fairly low, in spite of two catches of 103 kg/h and 113 kg/h at stations situated 25 miles offshore. 'Z' group shrimps were well represented in the population and 'O' group shrimps were noted at many stations. Samples were taken for subsequent laboratory examination.
- 2 Nephrops: At the time of the survey Nephrops were abundant and commercial fishing activity was vigorous. A total of 11,042 Nephrops was taken in 29 hauls and 4,403 were measured and sexed. Of these, only 1.3% were berried females. Data from these hauls demonstrated that the distribution of Nephrops by sex and numbers was not random throughout the fishery. Correlations with bathymetry and substrate type will be examined in the Laboratory.
- 3 Gear trials: a further 17 half hour hauls were completed to compare the catch rates of Nephrops and bycatch whitefish using a Gulf trawl and a standard Nephrops wing trawl. Preliminary conclusions suggest that the Gulf trawl took 11% more Nephrops and 4.7% fewer whitefish by numbers than the standard wing trawl. The modified 80 foot Gulf trawl was not tested.

4 Mesh selection: full codend covers on all trawls provided sufficient paired samples (codend and cover) for subsequent laboratory examination.

5 Predation of Nephrops/Pandalus by whitefish: No data were obtained under this heading.

6 Phytoplankton samples: six hours of tow netting provided ample preserved material for examination by Mr Ayres and Dr Dodge.

P J Warren
27 November 1973

SEEN IN DRAFT: A P

INITIALED: A J L

DISTRIBUTION

Basic List

Mr Warren
Mr Lovewell