

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

1973 RESEARCH VESSEL PROGRAMME

REPORT: R V TELLINA: CRUISE 5

STAFF: P J Warren
C G Brown

DURATION: 2-19 April 1973

LOCALITY: N E Coast: Farn Deep

AIMS:

- 1 Survey of Pandalus borealis stock.
- 2 Nephrops: large samples for size frequency and sex composition of the stock to test validity of the current sampling programme.
- 3 Gear trials: comparative fishing with 16 fathom wing trawl, 40 ft Gulf trawl and 80 ft Gulf trawl, with and without sweeps.
- 4 Study of predation of Nephrops and Pandalus by whitefish species.
- 5 Preliminary trials on mesh selectivity as recommended by Pandalus Working Group.
- 6 Collection of water samples in connection with dinoflagellate toxicity work. (P A Ayres).

NARRATIVE

R V TELLINA was held up at Lowestoft by strong northerly winds from 2 April until 9 April and having sailed that morning, only reached Hartlepool before the wind increased once more and delayed the cruise a further four days.

Work began on the morning of the 14th. In the time that remained, a systematic survey of the stocks was not possible and one day was spent trawling along a south-north transect through the deep water off the River Tyne. Local commercial boats and two Dutch beam trawlers were found to be shrimp fishing in the area of best catch. The remaining three days were spent fishing with a wing trawl, 40 ft and 80 ft Gulf trawls. The cruise ended on the evening of the 17th and TELLINA sailed for Lowestoft.

Staff subsequently returned by rail to the Burnham Laboratory.

RESULTS

- 1 Pandalus survey; stock density was poor-moderate in the area examined, and 5-20 kg/h of shrimps were taken with a 16 fm wing trawl. It was noted that in four consecutive fishing days commercial vessels moved from north to south a distance of 10 or 12 miles to maintain their best catch rates. As more information becomes available from skippers, the positions of shrimp catches may usefully be related to time and tide.
- 2 Nephrops; numbers were very low and reflected the present level of commercial landings at NE ports. From 22 hauls only 235 Nephrops were length measured and sexed.

- 3 Gear trials; 5 hauls each were completed with a 16 fathom wing trawl, 40 ft and 80 ft Gulf trawls; shrimp volume and bycatch counts were recorded for each haul.
- 4 Predation of shrimps by whitefish; 50 haddock and cod were examined for stomach contents. It was noted that Calocaris occurred in fish stomachs but none were taken by trawling.
- 5 Mesh selectivity; small mesh covers were fitted to the wing trawl and 80 ft Gulf trawl. Paired samples of shrimps were taken from codend and cover for subsequent laboratory measurement.
- 6 Tow net samples were taken on passage from Lowestoft to North Shields and while trawling off the River Tyne. Dinoflagellates were present in the samples so far examined.

P Warren
8 May 1973

Seen in draft: W B

INITIALLED: A J L

DISTRIBUTION:

Basic List
Mr Warren
Mr Brown