

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

1974 RESEARCH VESSEL PROGRAMME

REPORT: R V. TELLINA 4/1974

STAFF: P J Warren
S R J Lovewell

DURATION: Left Lowestoft 0830 h 17 April
Arrived Lowestoft 2200 h 6 May

All times are Greenwich Mean Time

LOCALITY: Northeast coast, Farn Deep

AIMS:

- 1 Distribution and abundance of Pandalus borealis.
- 2 Distribution and length/sex frequency of Nephrops.
- 3 Gear trials with experimental trawls.
- 4 Mesh selection (P borealis) as recommended by ICES Pandalus Working Group
- 5 Predation of Nephrops/Pandalus by whitefish.
- 6 Collection of phytoplankton samples.

NARRATIVE

In good weather, TELLINA arrived at North Shields at midday 18 April and staff joined the ship at 1700 h. Trawling was begun early on the following morning and continued without a break until 24 April when heavy swell and wind halted progress. Water, fuel and provisions were replenished and work began again on the 25th, but heavy swell and a problem with the galley fuel supply necessitated an overnight call at Hartlepool. By 27 April the survey of Nephrops/Pandalus stocks was satisfactorily concluded. A day was lost to strong easterly winds on the 28th. The following two days were devoted to trials of the 80 foot Gulf trawl and the final day of the cruise (1 May) was spent shrimp trawling at Decca coordinates suggested by commercial crews from North Shields. One 16 fathom prawn trawl was put ashore at the MAFF area office (N Shields) for use in GOLDSEEKER's planned cruise beginning 20 May. Staff returned to Burnham on 2 May when TELLINA sailed for Lowestoft.

RESULTS

- 1 Distribution and abundance of Pandalus: 30 half hour trawl stations were completed to provide information on Pandalid stocks. Catches of P borealis were small (max 15 kg/h) and were composed mainly of recently spawned '2' group individuals. There were very few '0' and '1' group shrimps. Samples were taken for laboratory examination.
- 2 Distribution and length/sex frequency of Nephrops: The sampling area was extended south to the grounds off Seaham where commercial catches have been good in recent weeks. However, Nephrops catches were uniformly low over the whole survey area and the total catch for the cruise numbered only 788 individuals. These were measured and sexed. It was notable that while Nephrops and Pandalus were present at low density, cod and codling were abundant and at most stations cod stomachs contained Pandalus, Crangon and Nephrops.

3 Gear Trials: Given the poor availability of crustacean species it was decided not to continue with the comparison of the 40 foot Gulf trawl and the 16 fathom prawn trawl, begun on previous cruises. Instead, the 80 foot Gulf trawl was used to catch whitefish for stomach examination (see Result 5).

4 Mesh selection trials (P borealis): Cover samples were taken from 35 mm and 70 mm mesh codends for subsequent laboratory examination and comparison with previous data.

5 Predation of Nephrops/Pandalus by whitefish: Stomach contents of cod and haddock were examined, and where possible the Nephrops were measured and sexed. The size frequency distribution of Nephrops in cod stomachs will be compared with that of recent Nephrops samples from this area. It was evident that some berried female Nephrops occurred in cod stomachs, but none were found among trawled samples.

6 Phytoplankton samples for dinoflagellate programme: Replicate 30 minutes tow net samples were taken for Birkbeck College and the Burnham laboratory. Tows were made 10 miles east of the River Tees and 5, 10 and 15 miles east of the River Tyne. The townet was lost near the Tyne entrance in heavy swell.

P Warren
21 May 1974

SEEN IN DRAFT: A P

INITIALLED: A J L

DISTRIBUTION:

Basic list

Mr Warren

Mr Lovewell