

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

1981 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA : CRUISE 6

(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:

Part 1

P J Warren (SIC)

E Edwards

S Lovewell

M Slater

C Allchin

Part 2

D B Bennett (SIC)

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DURATION:

23 April-2 May

3 May-12 May

LOCALITY:

Irish Sea

AIMS:

1. To fish 600 mesh fish/prawn trawls with 60 mm and 70 mm codend mesh sizes at stations off the Cumbrian and N Irish coasts. Trawls will be fitted with full codend covers.
2. To conduct survival experiments over 24 h periods with trawl caught Nephrops.
3. To hold and return live Nephrops to Burnham and Conwy laboratories.
4. To determine seabed water and sediment temperatures.

NARRATIVE:

(Part 1) CORELLA left Lowestoft in fine weather but winds rose to gale force along the south coast and it was not until 1700 h 27 April that it was possible to turn Lands End. Trawling was begun at dusk the following day and continued without interruption in an area off Kilkeel until late evening 30 April. Overnight, the ship crossed to the Cumbrian coast and trawled until late evening (1 May) off Selker Rocks. At 1030 h 2 May CORELLA docked at Fleetwood to change scientific crews.

(Part 2) CORELLA left Fleetwood at 1200 h 3 May, but with NW winds force 7-9 forecast, shelter was sought to the E of the Isle of Man. Fishing commenced with 5 hauls off the Cumbrian coast on 4 May. Catches of Nephrops were poor and the ship steamed overnight to the ground off Kilkeel. Six hauls per day were made 5-7 May. On 8 May it was necessary to take on water at Douglas, IOM. After a 2 h stay CORELLA steamed back to the Kilkeel grounds. Engine trouble delayed fishing and two hauls were made. On 9 May a further 6 hauls were made.

RESULTS:

(i) (Part 1) Fifteen 1.5 h trawl hauls were completed with 60 mm and 70 mm codends and small mesh covers.

(ii) Several hundred live Nephrops were held in deck tanks and transferred to Burnham. Conwy staff came to Fleetwood by road to take live berried Nephrops to the Conwy lab.

(iii) Water temperature profiles were completed off the N. Irish and Cumbrian coasts. Temperatures were around 8°C; there was no evidence of temperature stratification.

(i) (Part 2) Thirty-one 1.5 h trawl hauls were completed with 60 mm and 70 mm codends and small mesh covers. Preliminary analysis of some hauls indicated an  $L_{50}$  of 20.5 mm CL for 60 mm mesh and 24.0 mm CL for 70 mm, with an SF of 0.34 in both cases.

(ii) Nephrops were sorted into undamaged, 1 chela lost, 2 chelae lost, body damage and dead. Survival rates were estimated holding the various categories in deck tanks.

(iii) Live Nephrops were held and transported back to Burnham for growth studies.

(iv) Cod stomachs were examined to determine their food composition. Comparison of the size composition in cod stomachs with that in the trawl suggested selection by cod of smaller Nephrops. Larger cod ate proportionately more Nephrops than smaller cod.

P. J. Warren/D. B. Bennett  
(Scientists-in-Charge)  
20 May 1981

SEEN IN DRAFT:

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INITIALLED:

D J G

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