

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

1991 RESEARCH VESSEL PROGRAMME

REPORT: RV CORYSTES : CRUISE 4

STAFF:

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DURATION:

Left Lowestoft 0900 h, 12 April
Docked South Shields, 0600 h, 20 April
All times are Greenwich Mean Time

LOCALITY:

English Channel, mainly ICES area VIId.

AIMS:

1. To carry out a plankton survey using a 76 cm high speed tow net to determine:-
 - a) The distribution, abundance and production of sole (*Solea solea*) eggs as part of the ICES coordinated programme to estimate the female sole spawning stock biomass in divisions IVb and c and VIId and e.
 - b) The distribution and abundance of the planktonic stages of crab (*Cancer pagurus*), spider crab (*Maia squinado*), and bass (*Dicentrarchus labrax*), and other ichthyoplankton as time allows.
2. To take discrete sub-surface sea water samples for salinity determination at each plankton station and to monitor continuously the chlorophyll "a" fluorescence, salinity, and temperature of sub-surface sea water.
3. To study the vertical distribution of crab larvae using the LHPR sampler.

NARRATIVE:

RV CORYSTES sailed from Lowestoft on the morning tide of 12 April and proceeded to the first station of the survey grid in the Thames estuary where sampling began at 1649 h.

Apart from a brief detour to Dover to land a crew member, sampling continued until 1050 h on 18 April, when course was set for the Tyne.

Progress around the survey area was hampered by persistent 20-35 knot north to north-easterly winds.

RV CORYSTES docked at South Shields at 0600 h on 20 April.

RESULTS

1. A total of 69 stations was sampled using a 76 cm High Speed Tow Net fitted with a 40 cm diameter opening nose cone and a 270 μ m mesh net (Figure 1).

Depth profiles of salinity, temperature and light were obtained at each station using data logged from the Guildline CTD system mounted on the tow net.

All data were logged on the HP1000 computer.

A small number of plankton samples were examined during the cruise. Sole eggs were abundant in the Thames estuary.

No crab larvae were found.

2. Chlorophyll "a" fluorescence, salinity, temperature and light were monitored as specified in Aim 2. Two discrete sea water samples were taken at each plankton station for salinity determination and calibration purposes.

All data were logged on the HP1000 computer.

High levels of chlorophyll "a" occurred in the south eastern part of the survey area (Figure 1).

Surface temperatures varied between 8° and 10°C. The water column was not stratified at any of the sampled stations.

3. There was insufficient time to attempt Aim 3 of the cruise.

Brenda M Thompson
25 April 1991

SEEN IN DRAFT:

M J W
R G

INITIALLED:

G P A

DISTRIBUTION:

Basic List +

B Thompson
L Woolner
K Ramsay
R Harrop
A Lawler
P King
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R de Clerck, Belgium
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DIs, SE, SW, E
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Sussex
Southern
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Figure 1.

CORYSTES CRUISE 4/1991

SHOWING :

STATION NUMBER

⊙ High levels of
chlorophyll "a"
fluorescence.

