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

1985 RESEARCH VESSEL PROGRAMME

REPORT: RV CLIONE: CRUISE 5a

STAFF:
J D Riley
D B Bennett
P D Wallace
M W Easey
C L Whiting
B F Riches

DURATION: (All times GMT) 10-20 April
Left Lowestoft 0930 10 April
Docked Fleetwood 1200 20 April

LOCALITY: Irish Sea

AIMS:

1. To sample the zooplankton of the northern Irish Sea, to estimate the distribution and abundance of Nephrops larvae, being the first of four surveys contributing to the estimation of spawning female biomass.

2. To study the vertical distribution of Nephrops larvae using the Longhurst-Hardy Plankton recorder (if time allows).

3. To survey the variation in the surface seawater of temperature, salinity, nitrate, phosphate and silicate.

4. To collect water samples for caesium estimation for AEPD.

5. Additional aim: to locate and recover a nearbed velocity rig off Southwold.

NARRATIVE:

CLIONE proceeded to the site of the rig off Southwold and with the aid of a second inflatable dingy and a diving team, the rig was eventually located and buoyed. There was however too much tide running for the planned seabed use of divers and the recovery of the rig. The divers returned to Southwold in their dingy.

The passage to the Irish Sea was interrupted by W-SW gale which forced CLIONE to shelter first in Sandown Bay and then in Start Bay.

The water sampling and plankton sampling grids were started on 15 April and completed late on 19 April. CLIONE docked at 1200 hrs on 20 April at Fleetwood to be met by a van bringing equipment for Cruise 5b. Two staff returned to Lowestoft with samples and equipment in the van, the remaining four by rail.

RESULTS:

1. Zooplankton was sampled at 77 positions on the track plot (attached). The intensity of sampling was determined by the variance formed in the 1982 study and was between 1 and 4 samples per 1/8 ICES area. Analysis at sea and in the laboratory showed that most Nephrops larvae were restricted to an area between 53°15' and 54°15'N west of 5°W. The small grid on the Cumbrian spawning area surprisingly showed that larval hatching had started there as well, with peak values at about 10% of those off the Irish coast.

   Dive profiles of the HSPS were improved following modification of the rig and increasing the weight but also by varying the speed of deployment of the towing warp with depth. Further improvement seems now to be limited by the relatively crude control system of the winch. In spite of problems of interfacing the townet data system to the shipboard HP computer and an intermittant fault in the computer which resulted in it tripping out many times each day, all the townet data was computer logged, edited, filed, security copies made the the H flow programmes run and printed, within an hour or so of the final station being sampled.

2. Due to the protracted passage out, there was no time to deploy the LHPR.

3. Salinity samples were collected at every plankton station, nitrate, phosphate and silicate samples in each 1/8 ICES rectangle. In addition the surface salinity and temperature was continuously logged from a shipboard Guildline system.

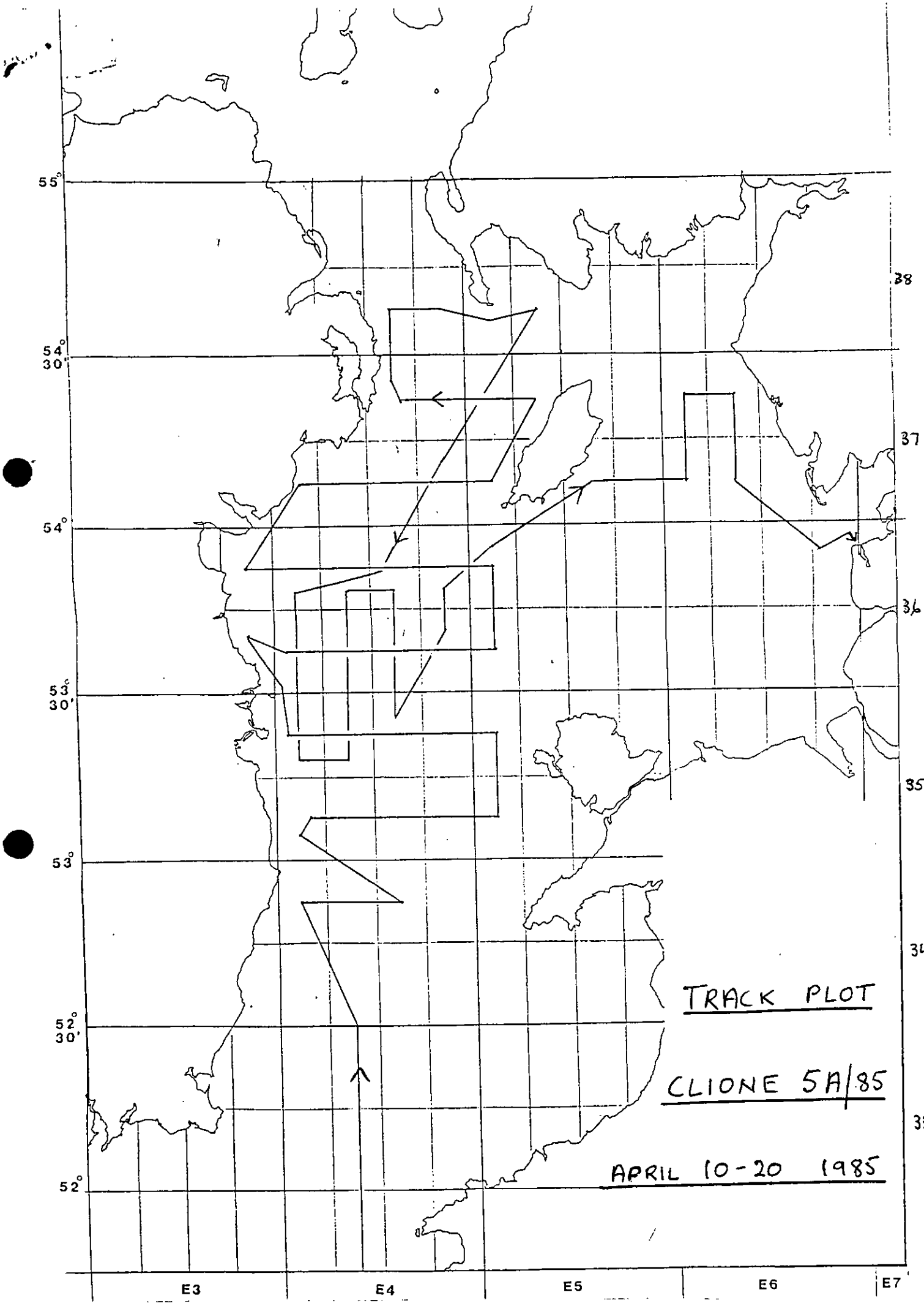
4. Water samples of about 25 l each were collected at an intensity of about 1 per ¼ ICES rectangle, 29 samples in all.

5. The rig off Southwold was located and buoyed and was subsequently recovered from CIROLANA.

John D Riley

Seen in draft: J R French (Master)
E W Pearson

Distribution:
Basic list +
J D Riley
D B Bennett
P D Wallace
M W Easey
C L Whiting
B F Riches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TRACK PLOT
CLIONE 5A/85
APRIL 10-20 1985