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

1981 RESEARCH VESSEL PROGRAMME

REPORT: RV CORELLA: CRUISE 13

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

STAFF:

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DURATION:

Left Lowestoft 1600 h 21 October
Arrived Lowestoft 0630 h 9 November (all times are GMT)

LOCALITY:

Irish Sea

AIMS:

1. Survey of Irish Sea Nephrops ground to:
 - a) determine abundance, length composition, sex ratio, reproductive and moult condition of Nephrops.
 - b) determine abundance and length composition of associated fish catch.
2. To examine stomach contents of fish predators, with particular reference to Nephrops prey.
3. Collect live berried Nephrops for Conwy's larval temperature/development time project.

NARRATIVE:

The ship started fishing at 0630 h 24 October in the survey area in the Western Irish Sea. A total of 28 stations was worked on the main Nephrops grounds (Figure 1), until the ship docked on 30 October in Douglas, Isle of Man. After refuelling and reprovisioning trawling recommenced on 1 November at 0633 h with a series of 7 hauls at one site to examine diurnal variation in catch rates. A further 20 stations were worked over the Nephrops grounds, with only part of one day lost to bad weather. The ship left the area at 1820 h on 6 November and returned to Lowestoft.

RESULTS:

1a. A total of 55 stations was completed using a Boris 600 mesh fish/prawn trawl with 70 mm codend and 16 mm liner. The catch rate (nos/1 h tow) varied from 0-2552 (Figure 2). As expected catch rates were lower than previous cruises during the months of April and May (CLIONE 5/80, CORELLA 6/81).

However, this is the most extensive survey so far undertaken. The limits of the main Nephrops grounds have been found and the areas of highest density identified. The proportion of females in the catch was low ($\approx 25\%$). The mean size varied from area to area. Although the data have yet to be fully analysed, it was noticeable that the Nephrops were larger at the fringes of the grounds, but there were also differences in the areas supporting higher densities. Only a very small proportion of the catch had recently moulted.

1b. The quantities of fish caught were recorded. The main species caught were (in approximate order of overall weight caught):- whiting, cod, spurdogs, Norway pout, poor cod, herring, sprats, saithe, mackerel, hake, squid, anglers, lesser spotted dogfish, conger and flatfish. Length composition samples were taken for the whiting, and those species preying upon Nephrops - cod, poor cod, pout whiting and lesser spotted dogfish.

2. Stomachs were collected and frozen for further analysis from 304 cod, 685 poor cod, 42 pout whiting, and 157 lesser spotted dogfish.

3. The few berried Nephrops caught were kept in a deck tank and will be transported via Burnham-on-Crouch to Conwy for larval temperature/development time studies.

Dr D B Bennett
(Scientist-in-Charge)

11 November 1981

SEEN IN DRAFT: G S

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INITIALED: D J G

DISTRIBUTION:

Basic List +

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S R Lovewell

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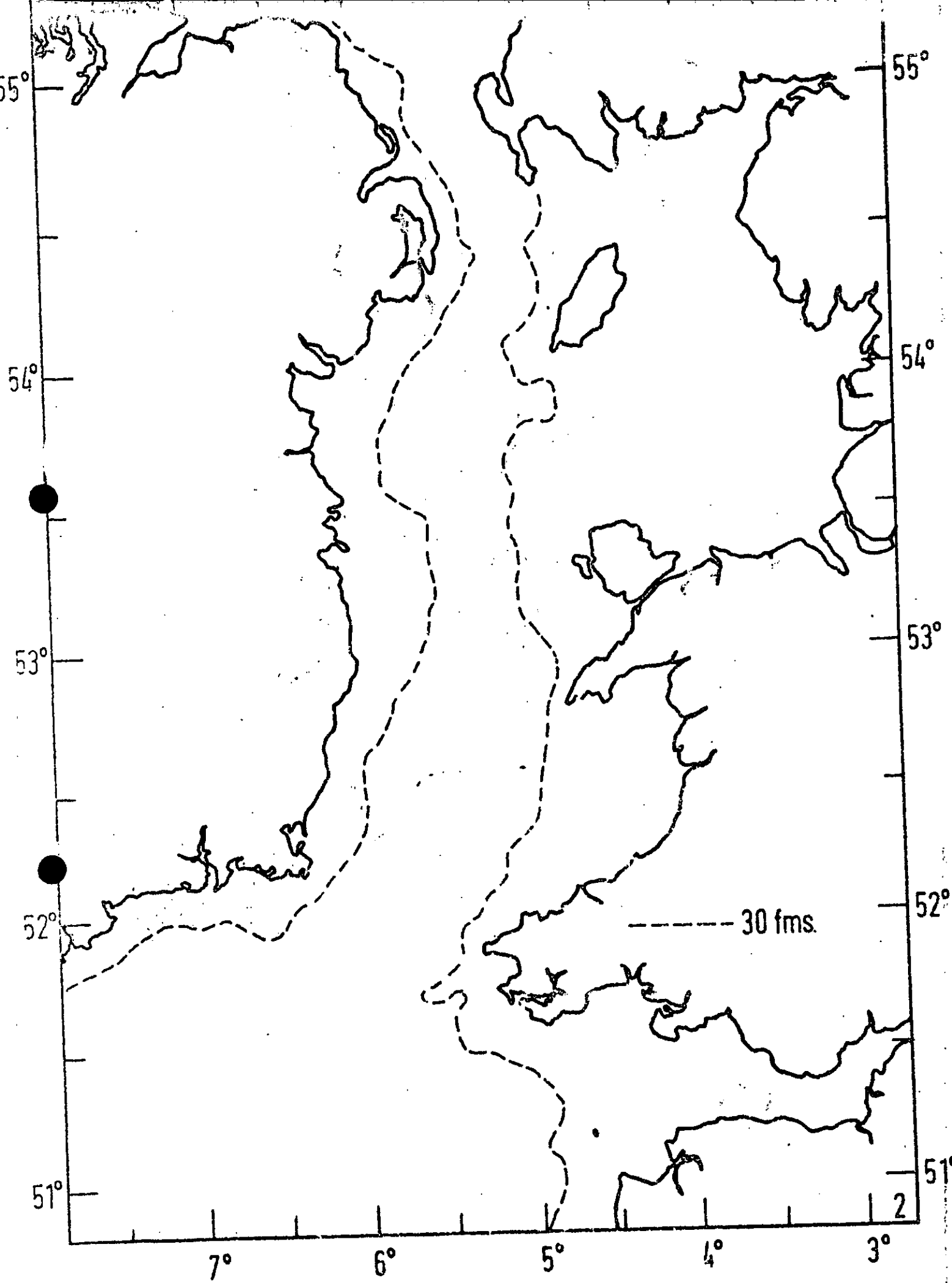
IOM Fisheries Dept

Lancs and Western Sea Fisheries Committee

Irish Dept Fisheries

Dr E Edwards

Dr K Brander



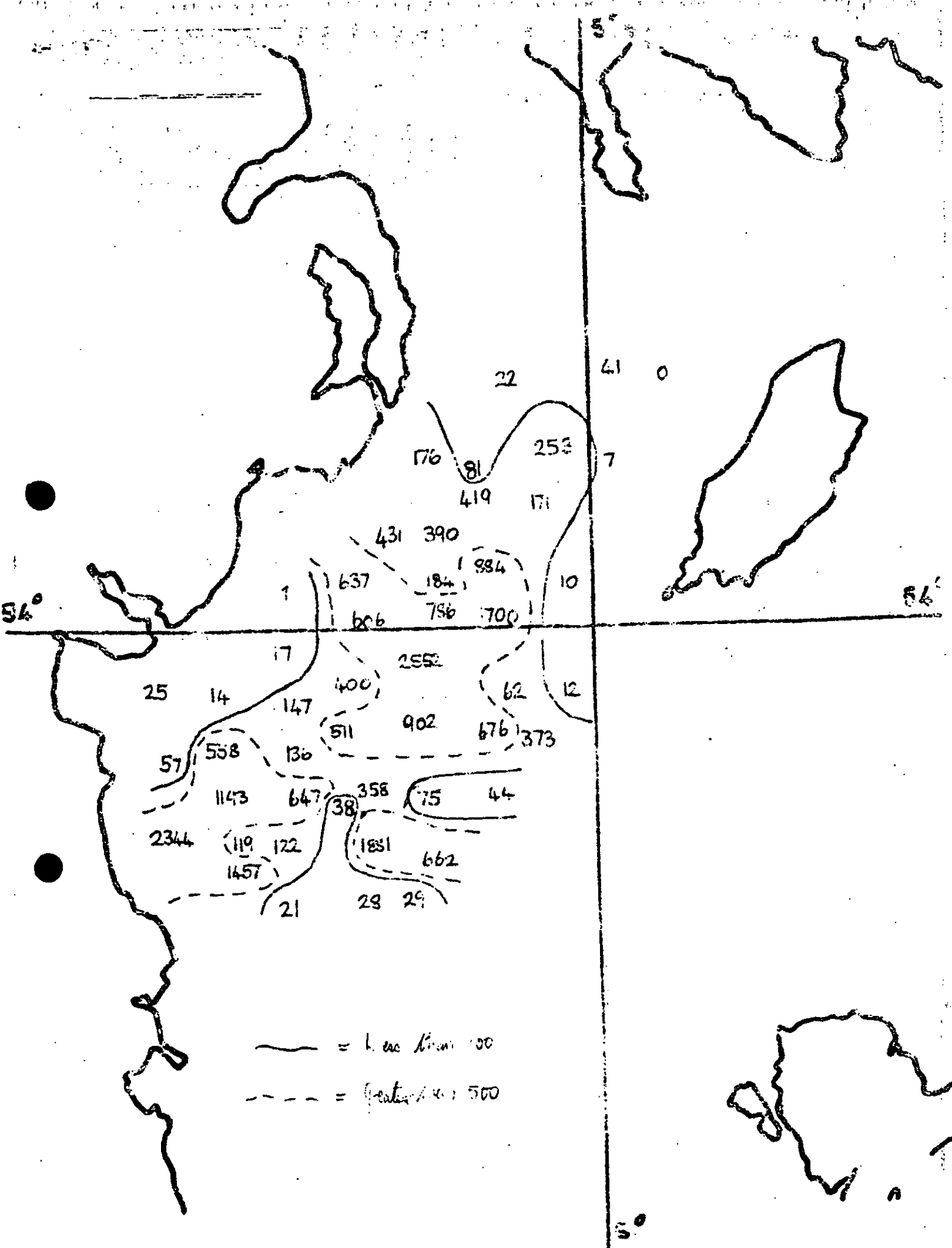


FIGURE 2. Nephrons captures (numbers per net haul, two).