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

1991 RESEARCH VESSEL PROGRAMME

REPORT: RV CORYSTES 6a

STAFF: J D Riley
Mrs B M Thompson
L E Woolner
R P Flatt
S P Milligan
Miss R Harrop

DURATION: Left Lowestoft 1045 h, 31 May
Arrived Falmouth 0800 h, 7 June
All times are GMT

LOCALITY: North Sea and English Channel

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 division 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 study the vertical distribution of crab larvae using the LHPR system.

NARRATIVE:

On leaving Lowestoft, sampling started at once, on a set of plankton stations west of 2°E, to assist RIVO Netherlands to complete the coverage of sole spawning areas in ICES divisions IVb and c. Sampling the eastern English Channel VIId, a standard grid of 58 stations was completed between 0800 h 1 June and 0800 h 5 June. As no concentrations of crab larvae had been found to use in Aim 2, a search was carried out in Lyme Bay where adequate numbers had been found in June 1989. Inshore stations were sampled during the passage to Falmouth where the cruise was formally handed over to Dr Greer Walker at 1700 h 7 June [see attached track plot].

RESULTS

1. The HSTN survey of ichthyoplankton was completed satisfactorily with only minor failures in some sensors on the Guildline systems. Clogging of the 60 mpi net necessitated the use of 40 mpi nets on 34 station in the eastern Channel due to *Phaeocystis*, abundant off the English south-east coast and the Baie de Seine. Clogging was also found, to a lesser degree, in the western Channel stations, except those closest inshore. This was due to an abundance of *Oikopleura dioica*.

2. A rough sort of selected samples at sea revealed no crab larvae. The LHPR deployment would have been ineffectual in areas which had clogging of the 60 mpi net. The vertical distribution experiment was therefore not possible. The crab larval distribution which was used as a guide was that of June 1989 when the January-March sea temperatures were 3°C above those of 1991. During the cruise the Channel sea temperatures ranged from 10-12°C, slightly below long-term averages, compared with 15-16°C in 1989. It is probable that these differences were responsible, at least in part, for the absence of crab larvae, and the planning of cruises in the future with this aim should be timed accordingly.

J D Riley
10 June 1991

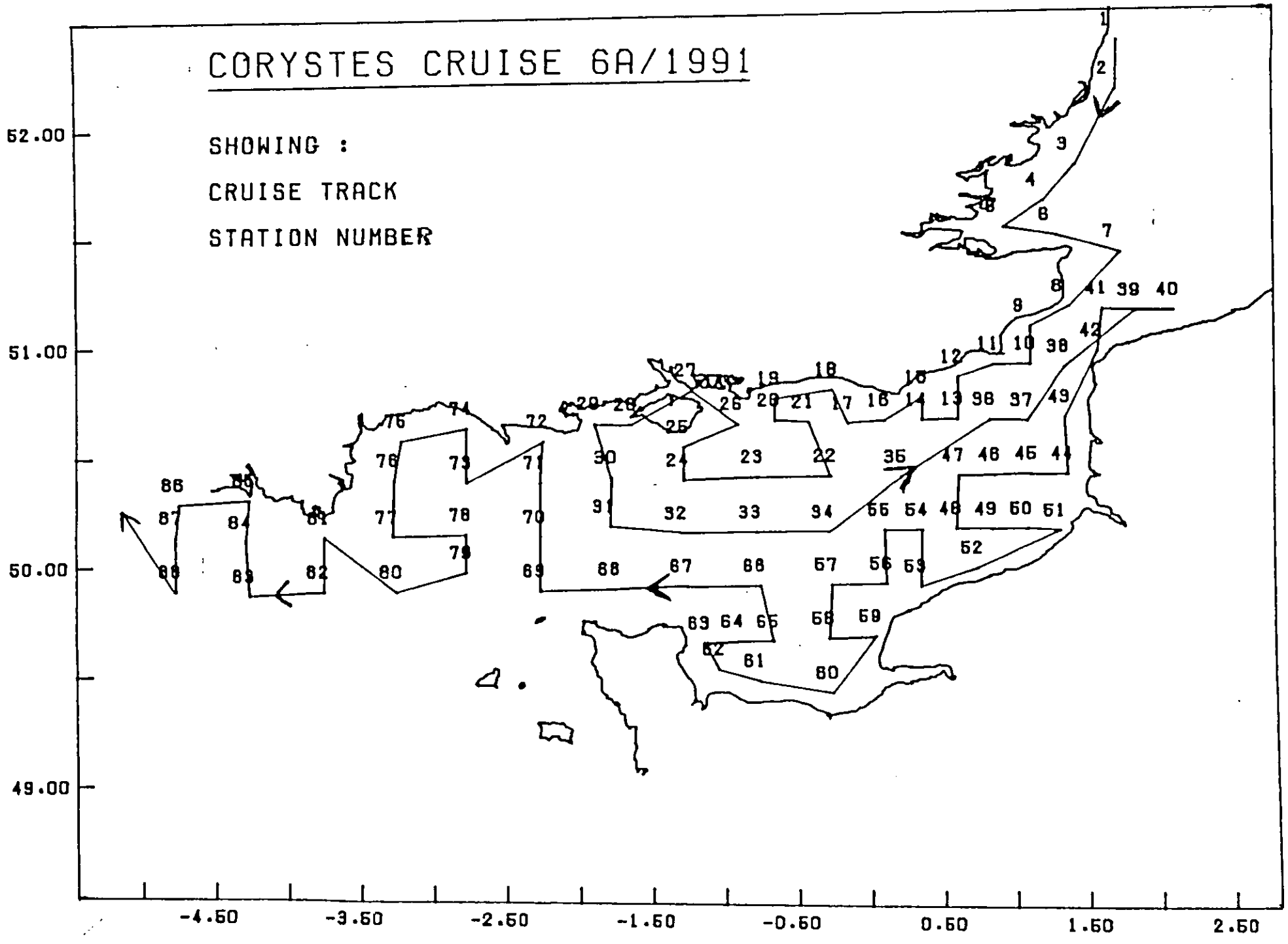
SEEN IN DRAFT: JF
PM

INITIALLED: GFA

DISTRIBUTION:

Basic list +
J D Riley
Mrs B M Thompson
L E Woolner
R P Flatt
S P Milligan
Miss R Harrop

R D Clerck, Belgium
M Giret, IFREMER, France
A Rijnsdorp, RIVO, Netherlands
DIs, E, SE, SW and W
SFCs, Kent and Essex, Sussex, Southern Devon
States of Guernsey Fishery Office
States of Jersey Fishery Office


CORYSTES CRUISE 6A/1991
SHOWING :
CRUISE TRACK
STATION NUMBER
52.00
51.00
50.00
49.00
-4.50
-3.50
-2.50
-1.50
-0.50
0.50
1.50
2.50