

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

1991 RESEARCH PROGRAMME

REPORT: RV CORYSTES: CRUISE 10a

STAFF:

D Bucke (SIC)  
S W Feist  
P D Dixon  
J Knowles  
B Wood  
Miss S Bifield

DURATION:

9-14 October 1991

LOCALITY:

North Sea

AIMS:

All for North Sea Task Force (NSTF) Quality Status Report.

1. To investigate diseases of dab.
2. To investigate diseases of other commercial fish.
3. To sample from dab livers for EROD activity, bile, metabolites and blood for lysozyme levels (extra sub aim).
4. To collect samples of fish for contaminant analysis.
5. To take sediment and water samples for analysis for organic contaminants.

NARRATIVE:

RV Corystes departed from Lowestoft at 0830 GMT on 9 October and commenced fishing on Smith's Knoll that afternoon, when a total of 4 x 1 hour tows with a Granton Trawl were completed. Two sediment samples were taken with a Day Grab and one water sample was taken. From each trawl catch the fish were basketed and, from these, all dab were sorted and weighed. A length size profile was made and otolith samples taken within the range at 1 cm lengths for each sex. Three separate length-size samples of dab were examined for diseases, and livers from the larger size groups preserved for histological examination. From the dab, samples of liver were taken for EROD activity, bile for metabolites and blood for lysozymes.

This pattern of work continued on NSTF stations, and in the Dogger/Flamborough/Humber areas over the next days of the cruise.

Having completed all scientific work, RV Corystes returned to Lowestoft where she arrived at 1230 GMT on 14 October.

RESULTS:

Aim 1: A total of 24 tows were made with the Granton Trawl, all of which were valid. Apart from stations at Smith's Knoll, catches of dab were abundant, providing sufficient sample sizes for disease examination and possible inter-haul variability, although large-sized dab (>25 cm length) were scarce at all stations. All dab were weighed and, by population (i.e.

area), were length measured and the otolith target of 2 dab per cm length group was achieved (apart from Smith's Knoll). Livers of dab sampled from the >25 cm length group were examined for tumours, and 25 livers and spleens were preserved for histological examination from each area. Photographs were taken of diseased dab. In total, 1,828 kg of dab were caught from which 4,000 fish were examined. Disease prevalences were similar to those recorded in the spring from the same area, with higher numbers on the inshore stations. All results were logged onto the computer.

Aim 2: All commercial species were visually examined for gross disease. Significant catches of cod (96 kg) and haddock (57 kg), caught at one station off Flamborough Head, showed almost no evidence of disease. A small cod sample from the Smith's Knoll area showed some evidence of visceral granulomas, a condition previously recorded in this area at this time of year; otherwise, commercial species looked to be in good condition.

Aim 3: All samples of livers, bile and serum from dab for EROD activity, PAH metabolites and lysozymes, respectively, were taken as planned from all areas. Additionally, samples of diseased dab were taken for virus evaluation.

Aim 4: Samples of fish were collected from selected areas for analysis for contaminants for the NSTF monitoring programme, and for comparison with samples collected on Cirolana 8a.91 (A. Franklin).

Aim 5: From each area worked, one water sample and 2 sediment samples were taken for analysis (J Thain).

Additional aims:

200 l of clean water was collected for B Lovatt.

A small sample of live plaice was retained for John Thain.

D Bucke (SIC)  
19 November, 1991

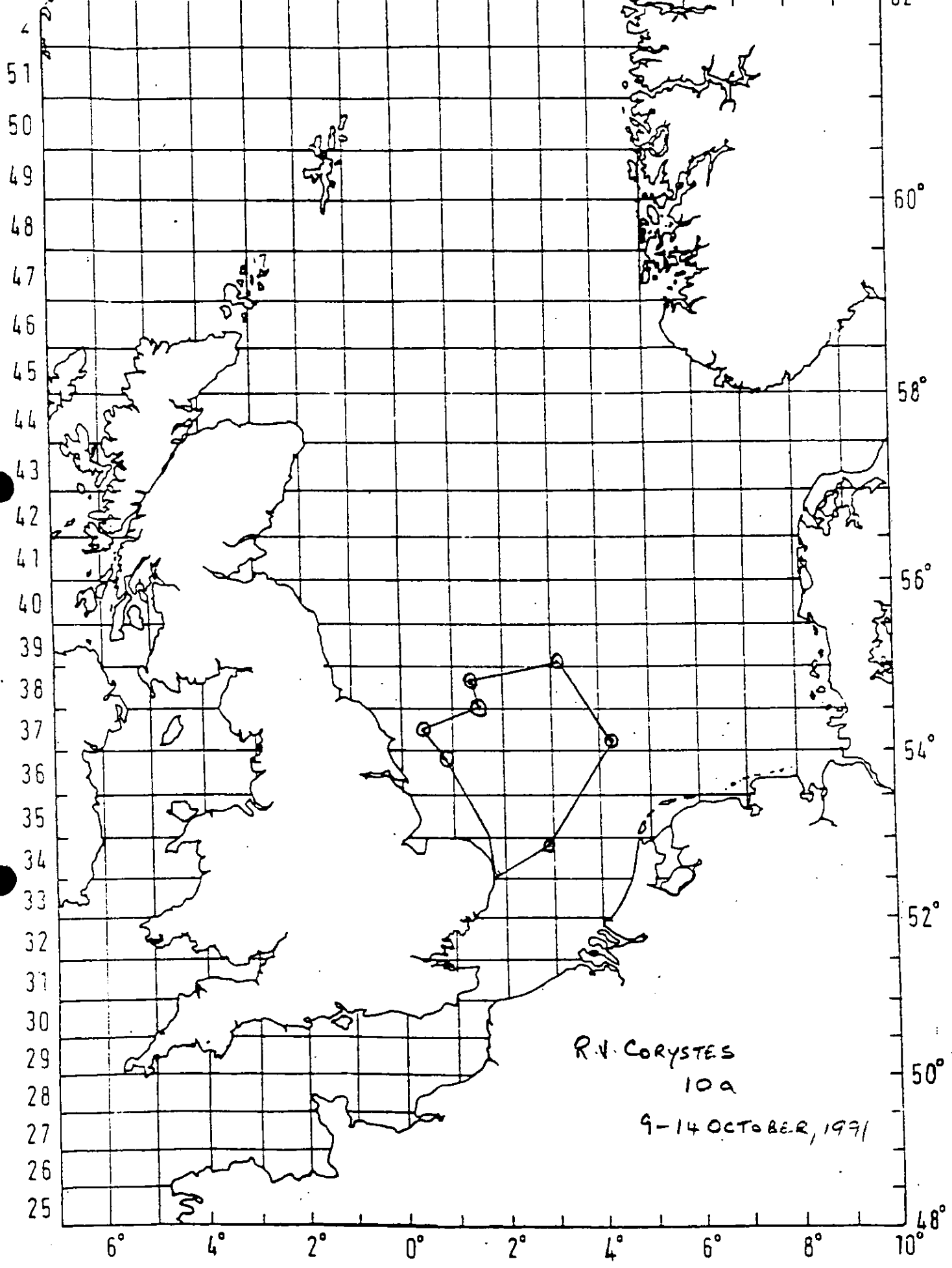
SEEN IN DRAFT: J R French, Master  
P Mackay, Skipper

INITIALLED: CEP

DISTRIBUTION:

Basic List +  
D Bucke  
P F Dixon  
S W Feist  
J Knowles  
B Wood  
Miss S Bifield  
J Thain  
A Franklin  
M Waldock  
D Woodhead

E4 E5 E6 E7 E8 E9 F0 F1 E2 F3 F4 F5 F6 F7 F8 F9



R.V. CORYSTES  
10a  
9-14 OCTOBER, 1971