

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

1993 RESEARCH PROGRAMME

REPORT: RV Corystes, Cruise 2b

STAFF: D Bucke (SIC)
S W Feist
R Turner (FSM-3)
Mrs L Richens
G Jones
Miss R Comben (7-9 Feb)

DURATION: Left Lowestoft 1930 hr, 7 February
Arrived Lowestoft 0830 hr, 18 February
All times Greenwich Mean Time

LOCALITY: Eastern Channel and North Sea

AIMS:

1. To sample and examine dab and other demersal fish for diseases in support of the NMP programme.
2. To sample dab livers for analytical chemistry, histology and other biomarkers. (FDL, BoC and PML).
3. To collect herring hearts for *Ichthyophonus* examination.
4. To collect frozen samples of dab for chemical analysis (BoC).
5. To make photographic records of fish diseases.
6. To collect live plaice (FSM-3) and dab (FDL).

ADDITIONAL AIMS:

1. To collect a frozen sample of 50 whiting for B Gavin (QMC).
2. To sample gadoids and other species for myxosporean parasites.
3. To examine and sample *Nephrops* for *Haematodinium* infection.

NARRATIVE:

Corystes sailed on the evening tide of 7 February and proceeded to Rye Bay to commence fishing at 0730 hr on 8 February. During the day, a series of 4 x 1 hr and 3 x 1/2 hr tows with the Granton trawl were completed. Dab and cod were examined for diseases following ICES guidelines. Other commercial fish were examined for diseases as and when time allowed. Dab livers were sampled. Live dabs were collected for experimental purposes.

This programme was the routine for most sampling areas. Additional aims were met where possible, according to the area and the availability of samples.

On 9 February, Corystes worked 5 x 1 hr tows on NMP station 9 (Outer Thames). She then proceeded to Lowestoft Roads where a sick member of scientific crew was taken off by sea-rider. The ship then made way to NMP station 7 (Smiths Knoll) for 10 February where 6 x 1 hr tows were worked. On 11 February, Corystes made 2 x 1 hr tows in Sole Pit, and further attempts were made to procure live dab with 4 x 1/2 hr tows.

On 12 February, as the weather remained fine, Corystes proceeded to NSTF station 47 (Dogger Bank) where 5 x 1 hr tows were made. She then proceeded to NMP station 3 (Western Dogger) for 13 February and 5 x 1 hr tows were completed.

On Sunday 14 February, Corystes worked 6 x 1 hr tows off Amble (55 15.80-01 15.24 W), and on Monday, 15 February, 5 x 1 hr tows at Baymans Hole (54 52 N 0013 W).

On 16 February, 4 x 1 hr tows at Flambrough Off Ground (54 17 N 00 33 E) were completed and on the following day, 3 x 1 hr tows on the Humber Off Ground (55 03 N - 00 57 E) were made. At 1300 hr, Corystes proceeded to Sole Pit for a further attempt to collect live dab. 2 x 1/2 hr tows were made with tickler chains removed. From Sole Pit, the ship returned to Lowestoft at 0830 hr on 18 February. The weather remained fine throughout the cruise and no gear damage was incurred.

RESULTS:

A total number of 54 stations from 10 sea areas were successfully worked.

Aim 1

4,526 dab were examined for diseases from 9 of the 10 areas worked. There were insufficient dab for examination on NMP station 9 (Outer Thames). Gross diseases in dab, including lymphocystis, epidermal hyperplasia/papilloma, acute skin ulcers and liver nodules, were recorded. Samples of dab livers exhibiting lesions were preserved for confirmatory diagnosis.

Good catches of cod were made at NSTF 47, and off Amble. A total number of 356 were examined for diseases. Microbiological samples were taken from the only 2 fish exhibiting internal disease lesions.

Haddock were examined, and from a small number, microbiological samples were taken.

Aim 2

Samples of 25 livers from female dab (20-25 cm length) were preserved from NMP station 3 (Western Dogger) and Humber Off Ground (54 52 N 00 13 W) for a study to link histology (FDL) and heavy metal analysis (BoC).

Aim 3

Samples of herring were examined for the fungal pathogen *Ichthyophonus*. Although no evidence of the disease was seen macroscopically, samples were preserved for histological examination.

Aim 4

Samples of female dab > 23 cm length from all areas were preserved, frozen for analysis of contaminate uptake (BoC).

Aim 5

Photographic records of diseases were taken for the ICES Training Guide on Fish Disease Recognition.

Aim 6

It was not possible to collect live plaice for FSM-3, because a second sea water tank could not be taken on board through lack of deck space. An attempt to collect 800 male (approximately 15 cm length) dab from Rye Bay was unsuccessful as insufficient numbers were caught. On the outward journey a further attempt to collect live dab was made at Sole Pit. A succession of ½ hr trawl tows produced 800. However, the trauma of trawling, plus the presence of starfish and rays in the catch meant that ¾ of the sample died. On the steam home, a further 600 live dab were collected in Sole Pit in the afternoon of 17 February.

ADDITIONAL AIMS:

1. 50 whiting (<35 cm length) were sampled from the Dogger Bank area (NSTF 17) and frozen for B Gavin (QMC).
2. Samples of gadoids and other species were sampled for the myxosporean parasites.
3. Samples of *Nephrops* were examined and found negative for *Haematodinium* sp. infection.

Samples of moorlog were collected from the Dogger Bank Stations.



D Bucke
SCIENTIST IN CHARGE

18 February 1993

SEEN IN DRAFT BC (Master)
 JBWH (Fishing Skipper)

INITIALED



Distribution:

Basic list: S W Feist
 R Turner
 L Richens
 G Jones
 R Comben
 A Franklin, BoC
 P Matthiessen, BoC
 M Waldock, BoC
 M Moore, PML

