

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, FISH DISEASES
LABORATORY, WEYMOUTH, DORSET, DT4 8UB, ENGLAND

1995 RESEARCH VESSEL PROGRAMME
REPORT : RV CORYSTES : CRUISE 2b

STAFF

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DURATION :

CORYSTES left Barrow-in-Furness at 1900h on 10 February
Arrived at Lowestoft at 0010 on 20 February

LOCALITY

Irish Sea, Cardigan Bay, North Sea

AIMS :

- 1 To examine and sample dab and other fish species for diseases.
- 2 To collect samples of dab and plaice livers for histochemistry and electron microscopy.
- 3 To collect samples of gall bladders from selected fish species to evaluate the use of their protistan parasites as pollution biomarkers.
- 4 To examine herring for Ichthyophoniosis
- 5 To examine *Lophius* sp. for anomalies
- 6 To examine *Nephrops* for evidence of *Haematodinium* sp.
- 7 To collect samples of frozen dab and whiting for the NMMP (A.Franklin)
- 8 To collect samples of gadoids for VHSV testing (P.Dixon)
- 9 To collect live plaice for FSM3

ADDITIONAL AIM:

- 10 To collect biological data and samples from Thornback rays (*R. clavata*) (FSM3)

NARRATIVE (all times are GMT) :

RV CORYSTES sailed from Barrow-in-Furness on the evening of the 10th and proceeded to Morcambe Bay (ICES rectangle 37E6). At this location two tows were completed on the morning of the 11th and samples and data were collected to meet the requirements of the various aims. Deteriorating weather forced our departure for

shelter off the NE coast of the Isle of Man. As conditions improved CORYSTES steamed to Dundrum Bay (ICES rectangle 37E4) where on the 12th only inshore stations could be trawled because of gale force winds. Four tows were successfully completed with large numbers of small dab and plaice being caught.

The programme then continued south to Liverpool Bay / Great Orme (ICES rectangle 35E6) where on the 16th a total of four tows were completed. Sufficient samples were obtained to meet the various aims. Because of deteriorating weather conditions CORYSTES steamed west to Red Wharf Bay (ICES rectangle 35F5) to undertake a further tow. This station which had not been previously visited for fish disease investigations, provided a good catch of dab.

The following day (17th) a total of four tows were made in Tremadog Bay (ICES rectangle 34E5). Good catches of *R. clavata* fulfilled requirements for aim 10. Rapidly worsening weather curtailed work in this area and during the 15th February CORYSTES steamed south through atrocious conditions which continued throughout the day and the following night. A small window of opportunity for fishing at Rye Bay (ICES rectangle 30FO) was insufficient to meet the requirements for the various aims and CORYSTES continued to Flamborough Off Ground (ICES rectangle 37F0) where on arrival two tows were completed during the evening of 17th February. Sampling from this area was concluded on the following morning after a further three successful tows were completed fulfilling the various aims for this area.

CORYSTES steamed south during the afternoon to Sole Pit (ICES rectangle 35F1) and two tows were completed during the evening of the 18th. Two further hour tows and a final half hour tow were made at Sole Pit on the 19th in fulfilment of aims 1 and 3. On completion of work at this area CORYSTES steamed to Smiths Knoll (ICES rectangle 34F2) and a series of short tows were made to collect live plaice (aim 9).

RESULTS :

A total of 6 main sample areas were investigated using a Granton trawl (mostly fitted with a tickler chain) There were no invalid tows and no net damage occurred.

Aim 1 All dab (2908), cod (86) and flounder(102) were weighed, length measured, examined for disease and recorded according to ICES recommendations for standardised disease monitoring. All suspect liver neoplasias were preserved for confirmatory diagnosis. Other commercial species were examined macroscopically for disease and photographs were taken as appropriate. All the results were entered onto a spreadsheet for subsequent statistical analysis.

Aim 2 Samples of liver and spleen were collected from the various areas for in depth investigations at FDL.

Aim 3 Whiting gallbladders were collected from all areas.

- Aim 4 Up to 50 herring from each Irish Sea location, were examined for *Ichthyophonus* infection. None was found to be infected. Very few herring were caught in the North Sea.
- Aim 5 Surprisingly only one small angler fish (*Lophius piscatorius*) was caught, this was found to be free of the microsporean parasite *Spraguea lophii*
- Aim 6 Samples of *Nephrops* sp. were examined macroscopically for infection with *Haematodinium* sp. Suspect animals were preserved for confirmatory laboratory diagnosis.
- Aim 7 Samples of frozen dab and whiting were collected for the NMMP (Dr Franklin)
- Aim 8 Samples of viscera predominantly from whiting were collected from each area for VHS virus testing at FDL (Dr Dixon)
- Aim 9 Approx 50 running male plaice were collected for return to the Lowestoft laboratory for pheromone studies. A further 58 plaice greater than 40 cm were caught at Smiths Knoll (ICES rectangle 34F2) and returned for use in the Data Storage Tag project.
- Aim 10 A further 27 *R. clavata* were sampled to supplement the biological data collected from the first part of the cruise. In addition 8 live adult female *R. clavata* were returned to the laboratory (for fecundity / hatching time experiments)

SEEN IN DRAFT :

S.W. Feist (SIC)
19th February 1995

INITIALLED : JEP

DISTRIBUTION :

Basic list +
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