

**THE CENTRE FOR ENVIRONMENT, FISHERIES & AQUACULTURE
SCIENCE,
LOWESTOFT LABORATORY, LOWESTOFT, SUFFOLK, NR33 0HT.
2005 RESEARCH VESSEL PROGRAMME**

REPORT : RV CORYSTES: CRUISE 2

STAFF:

J Dann (SIC)
G Course (2IC)
S Warnes
A Tidd
T Dinmore
S Warne
J Pettigrew

DURATION:

22nd July – 6th August

LOCALITY:

North Sea (IVc), English Channel (VIId).

AIMS:

To undertake a beam trawl survey in the southern North Sea and eastern Channel as part of an ICES co-ordinated research programme and in support of the requirements of the EU data regulations.

- (i) To obtain fisheries independent data on the distribution and abundance of commercial flatfish species.
- (ii) To collect biological data, including maturity and weight at age, of commercial species.
- (iii) To derive age compositions of commercial flatfish, whilst at sea, for use in stock assessment.
- (iv) To identify the epibenthos by-catch taken in the 4-metre beam trawl and to quantify 12 species as agreed at the International Beam trawl Study Group.
- (v) To collect otoliths from "0" group plaice for micro milling experiments.

NARRATIVE:

The SIC joined the Corystes in Belfast and sailed on the morning tide of the 22nd July en-route to Weymouth. As problems had been encountered the previous year the EDC units and network were tested during the passage to ensure they were reliable. The remaining staff joined the vessel on the afternoon of the 24th July in Weymouth and the vessel prepared to sail on the evening tide. A malfunction of an engine component meant sailing had to be delayed until a repair could be carried out. The vessel eventually sailed at 12:30 hours on 25th and proceeded to the French sector

north of Boulogne where work commenced at 04:30 on the 26th July. A total of 9 stations were worked southwards in the Bay of Boulogne, which yielded large plaice catches before it was noticed that the liner had not been fitted. These stations were repeated the following day with a liner and a further 5 stations were worked southwards along the French coast. Problems with the EDC pens which resulted in 9 out of 10 malfunctioning necessitated a change in the cruise plan with the vessel returning to UK waters to complete the stations along the south coast in order to be in position to take on replacement equipment. In the event SIGs were unable to obtain new light pens.

A total of 31 stations in the English sector were completed by the evening of 30th July. Work was disrupted on 30th in order to land Alex Tidd at Poole for medical attention; however, stations west of the Isle of Wight were fished whilst he was ashore. The extensive area covered with fixed gear restricted the duration of tows. Two inshore stations had to be abandoned as it was impossible to find a clear area in which to trawl. Fishing recommenced in the French sector on 31st July. Fishing in the Bay de Seine was hampered by the trawl digging into the bottom resulting in catches of up to 1.5 tonnes of gravel which had to be sorted through for fish. On the last haul of the day the net was so full of broken shell and gravel the winch could not cope and the net had to be lifted using the 2 gilson. It was decided to abandon the last 2 stations in that area and proceed north of LeHavre to resume fishing on 1st August. The remaining stations were fished without incident. On the morning of the 2nd August 5 10 minute stations were fished at primary station 72 to collect live flounder for John Thain before the final survey station in the Channel was carried out.

The Corystes then steamed for the North Sea picking up a station off Dungeness en-route. On receiving news that the cruise was to be curtailed by two days to accommodate an MCA inspection of Corystes on 8th August in Belfast the work plan for the remainder of the cruise had to be adjusted to ensure the vessel docked in Weymouth on the 6th August. Three stations in the outer southern Thames Estuary were worked on the afternoon of 2nd August. Core stations in the southern North Sea were fished on the 3rd August after which Corystes returned to the Eastern Channel to carry out the Habitat survey stations. A total of 23 out of the 25 stations were carried out during the period 4th to 5th August, two stations could not be fished owing to heavy traffic in the separation zone and poor visibility. The vessel docked in Weymouth on the morning of the 6th August.

RESULTS:

1) The cruise stations completed during the survey are shown in Figure 1. A total of 85 valid trawl hauls were completed which comprised of 75 of a possible 78 core stations in the Channel and 10 of a possible 13 core stations in the Southern North Sea. The extra stations worked on the 2004 survey, mostly in deep water, were not completed this year owing to loss of time through the engine breakdown and MCA inspection.

2) The main concentrations of plaice in VIIId were off Boulogne; juvenile sole were only caught in any quantity at one station off the French coast south of Boulogne. Numbers of sole on the English coast were down compared with recent years. Sole

were present at all stations in the Thames with '0' groups occurring in some of the inshore stations.

3) Biological data was collected from commercial finfish; the details of the numbers taken are given in the following table. It was not possible to carry out age determination onboard and all samples were retained for ageing in the laboratory.

SPECIES	EASTERN CHANNEL	NORTH SEA
SOLE	404	584
PLAICE	1057	86
TURBOT	21	0
BRILL	8	0
FLOUNDER	26	4
DAB	281	87
LEMON SOLE	62	42
COD	5	3
WHITING	56	75
SEA BASS	1	0
ANGLERFISH	1	0

4) All the sites where a full benthic sort was required were worked. The 12 species identified by the Beam Trawl Study Group as requiring sampling at all sites were weighed and recorded at the sites they occurred.

Additional Aims.

- a) A sample of 50 juvenile plaice was collected from the French coast for Audrey Darnaude to carry out otolith micro-milling analysis.
- b) Live and frozen flounders were collected for John Thain:

J Dann
08 August 2005

SEEN IN DRAFT: JL (Fishing Skipper)
INITIALLED: R Millner

DISTRIBUTION:

Basic list +
Staff on cruise
Fishing skipper CORYSTES
W Vanhee, Belgian
Frans v Beek, Netherlands
A Tetard, France
Kent and Essex, Sussex, Southern, Devon and Cornwall SFC
DARD Belfast

Figure 1: Station positions Corystes cruise 2/05

