

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD, FISHERIES
LABORATORY, CONWY, GWYNEDD, N.WALES

1992 RESEARCH VESSEL PROGRAMME

REPORT: MFV PATRICIA D

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DURATION: 18 May to 26 October 1992

LOCATION: Rhyl Flats and Constable Bank, North Wales coast.

AIMS:

1. To repeat the grid survey conducted during May 1989, May 1990 and May 1991 to establish a time-series of 1-group sole abundance on the North Wales coast.
2. To measure the biomass and production of 0-group sole and plaice, and of other selected epifauna, during a nine week period from early July.
3. To undertake studies of 0-group sole feeding ecology on the nursery ground.

NARRATIVE:

Sampling from the 91 stations which comprise the grid survey began on the 18 May in fine weather. Good progress was made through the grid for the next three days, until a northerly swell curtailed activity on the fourth day. A long period of settled weather ensued and all remaining stations were completed according to schedule. Samples of epifauna were collected by beam trawl on 8 July, 30 July and 18 August and returned to the Laboratory for further study. Good progress was made with the analysis and this enabled two more samples to be taken (24 September and 26 October), to extend the period of study to 14 weeks. Between 8 July and 26 October, approximately 800 0-group sole were taken from stations within and outside the nursery area for the analysis of stomach contents.

RESULTS:

Eighty beam trawl stations were completed during the grid survey on the North Wales coast. The abundance of 1-group sole was greater than the poor 1990 year-class, but was not the greatest that has been seen from this nursery. The population was concentrated to the south-east and south-west of the survey area, with few fish in deeper water close to Constable Bank.

The total cumulative production of all fish species on the nursery ground between early July and late October reached similar levels to 1991 (90 g AFDW/1000 m²). Only 5% of this total was generated by the production of the 1992 year-class of plaice and sole. Dab and weever fish showed highest rates of production. Samples of 0-group sole for stomach contents analysis have now been collated. This material will provide sufficient information for the preparation of an energy budget for the first growth season, to compliment similar data already collected from sole larvae.

S I Rogers
28 October 1992

INITIALLED: *SR*

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