

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

1988 RESEARCH VESSEL PROGRAMME

REPORT: FV HARMIL — *Prog. for 'Character Commercial Vessels'*
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF

| | |
|---------------------------|------------------------|
| S I Rogers (SIC) | |
| S J Lockwood | 13-14 July |
| B R Howell | 7-8 September |
| B E Spencer | 7 September |
| A R Child | 13-14 July, 10 October |
| Claire Galloway (student) | 17-18 May, 13-15 June |

DURATION

17 May-10 October

LOCATION

Rhyl, and Oulas Bay, Anglesey.

AIM

To conduct a detailed survey of the benthos of a sole nursery ground, and identify the distribution of specific macrobenthic prey species.

NARRATIVE

The routine monthly sampling of the juvenile flatfish population continued throughout the period, and after a continuous 12 months survey was completed on 10 October. Benthos samples were collected using a Day grab from stations in the Rhyl nursery area during May and July, and from Oulas Bay during June and September. All samples were returned to the Laboratory and processed in the wet laboratory. Samples of water from the sea bed were collected using Nansen bottles and sent to Lowestoft for determination of salinity.

RESULTS

Data showing the abundance of the 1987 year-class of soles indicated a decline between December and February, followed by an apparent increase in spring. Juveniles were still present on the nursery ground in appreciable numbers 12 months after hatching. Part of all grab samples taken was dried and the organic weights determined. Sub-samples were removed for grain size measurements using a series of Endecot sieves of mesh size ranging from 2 mm to 63 μ . The bulk of the benthos sample was wet sieved using a 0.5 mm sieve and the fauna collected and preserved. Results indicated that those fishing stations containing consistently high abundance of juvenile sole, support high densities of certain polychaete species, and have a high proportion of fine sand in the substrate. The content of organic material varies between 1-3%, and water salinity at the substrate/water interface tends to be consistently less than 33%.

INITIALED: DJG

S I Rogers
5 December 1988

DISTRIBUTION: Basic List + S I Rogers, S J Lockwood,
B R Howell, B E Spencer, A R Child, Claire Galloway, FVWV SFC