

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
DIRECTORATE OF FISHERIES RESEARCH
PAKEFIELD ROAD, LOWESTOFT, SUFFOLK, NR33 OHT ENGLAND

1990 CHARTER VESSEL PROGRAMME

REPORT : ANGELLE MARIE 2/90

STAFF : D Eaton
S Warnes

DURATION : 18-23 September 1990

LOCATION : Southampton Water, Solent and adjacent harbours

AIMS:

1. To carry out a trawl survey of pre-recruit bass.
2. To investigate the distribution and abundance of 0-group bass in the area.
3. To tag juvenile bass (<MLS - 36cm) in nursery areas.

NARRATIVE :

Despite poor weather conditions in the area during the period of the charter, the availability of three mooring sites and the unstinting cooperation of the crew of the ANGELLE MARIE enabled all the aims to be completed without interruption.

Chichester Harbour was fished on 18 September (pre-recruit survey) and the 19th (0-group survey). The sandeel trawl was severely damaged on the last tow on the 19th and so was changed for the pre-recruit survey gear (high-headline small bass trawl) for fishing Langstone harbour on 20 September. A slight easing of the weather allowed the boat to be moved to a mooring at Warsash that evening and pre-recruit stations in Southampton Water and the Solent were completed on the 21 and 22 September. The vessel was then moved back to a mooring in Camber Dock, Portsmouth and the final part of the 0-group survey was completed on the 23 September in Langstone Harbour using the charter vessel's sandeel trawl (which was very similar in design to the damaged MAFF sandeel trawl).

RESULTS

Aim 1. Thirty-five stations were completed covering all the normal survey areas and a total of 1985 bass were caught. The strength of the 1989 year class and success of their overwintering was verified, 1-group fish comprising 78.7% of the bass caught in Solent/Southampton Water tows and 97.9% of those caught in Langstone and Chichester Harbours. The catch rates for all bass caught were 3 bass/minute and 8 bass/minute in the two areas respectively (overall 4.9 bass/minute, compared with 1.4 bass/minute during the same survey in 1989). The size range of bass caught was 12.5 - 58.0cm but included only 9 fish of legal landing size.

Aim 2. 14 valid stations were completed using sandeel trawls in Chichester and Langstone Harbours, replicating tows from the pre-recruit survey. Only one 0-group fish was caught out of a total of 1307 bass. Of the rest 98.7% were 1989 year class fish with only 6 fish older. All fish caught were <30cm total length. The catch rate was 10.2 bass/minute.

Anecdotal evidence suggested that 0-group bass were present in reasonable numbers but were still high up in the marshes and headwaters of the estuaries and rivers. The sea temperature at the beginning of the survey was 18°C falling to 15°C at the end. This being the case it is quite possible that the 0-group bass had not yet been forced back into deeper water where they would have been accessible to the charter vessel.

Aim 3. A total of 331 bass were tagged and released in three nursery areas (Southampton Water, Chichester and Langstone Harbours). 274 fish (size range 19-29 cm) were tagged using Hallprint 'T'-bar internal/external tags. 57 fish (size range 27-36 cm) were tagged using mini-Howitt rigid flat tags. A mini-Howitt tagged bass released 20.9.89 in Langstone Harbour was recaptured exactly one year later in the same location. The fish was returned to the sea, tag intact.

D Eaton
18 October 1990

INITIALLED : GPA

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