THE CENTRE FOR ENVIRONMENT, FISHERIES AND AQUACULTURE SCIENCE LOWESTOFT LABORATORY, LOWESTOFT, SUFFOLK NR33 0HT

2004 CHARTER CRUISE PROGRAMME

REPORT: INA K 1/2004
(**PROVISIONAL:** not to be quoted without prior reference to the author)

STAFF: M P Parker-Humphreys
J L Smith

8 Environment Agency staff (part-time)

DURATION: 1 November – 8 November 2004

LOCATION: Thames, Medway, Swale and Essex Estuaries

AIMS:

1. To carry out the annual trawl survey for pre-recruit bass and other fish species in the middle and inner Thames estuary, Medway, Swale, Essex Blackwater, Crouch and Roach Estuaries over established grid stations.

2. To determine the relative abundance of bass and other species in the Thames and adjacent estuaries.

3. To obtain samples of flatfish and for environmental monitoring programmes.

4. To obtain bass samples for PhD student.

NARRATIVE:

Staff travelled to Leigh-on-Sea on 1st November and unloaded the gear that afternoon. The charter vessel left Leigh-on-Sea at 04.30 on 2nd November, and the survey commenced with 8 tows in the outer Thames using twin high-headline bass trawls fitted with 4 mm shrimp mesh cod-end liners, fished independently from the boat's two derricks. The following day 6 tows were fished in the Medway, and the charter vessel was moved to Wallasea that night. On the 3rd November the 6 tows in the River Crouch and the Roach were completed, and the following day was spent working on the tows in the River Blackwater. The stations in the Swale were fished on 5th and the last day was spent fishing 6 stations in the Inner Thames. The fishing gear was unloaded that evening and staff returned to Lowestoft on 8th November.

RESULTS:

36 valid tows were fished, consisting of 34 core stations (Figure 1). The additional tow that was fished in 2003 was repeated on this survey to extend the coverage in the river Blackwater. Due to consistent net damage station E was dropped from the survey, and the alternative station E1 was fished instead. Prime station G was repeated to give enough flounder to satisfy the additional aims, but no other data was collected from this repeated tow.

A total of 20,701 bass were caught in the survey compared with 17,110 in 2003.

Catch rates of bass were:

	2004	2003	2002	2001
Overall	30.4/minute	29.0/minute	55.6/minute	12.7/minute
Essex Rivers	11.4/minute	30.8/minute	23.4/minute	16.8/minute
Thames and Tributaries	39.6/minute	27.9/minute	71.1/minute	10.9/minute

Four tows yielded in excess of 1000 bass, three in the Medway, and one in the Blackwater. Nine bass caught were above the minimum landing size (36cm). Bass was the most abundant species of the survey.

A total of 314 bass were sampled for age during the survey, showing that 81% of bass caught were 0-groups (2004 year-class) and 16% 1-groups (2003 year-class). The 0-group year-class dominated catches and had a modal length of 7 cm, (Figure 2.)

A wide variety of other species were caught, notably bib (19,206 fish), flounder (2,359 fish), whiting (1,801 fish) and cod (109 fish). Length distributions of most fish species were compiled to provide the Environment Agency with data on abundance and distribution.

Two sample of flounders was retained, one for CEFAS environmental monitoring programmes, and one for the Environment Agency. Bass samples were successfully collected for PhD student Chris Leakey.

CEFAS would like to thank the skipper and crew of the Ina K and the Environment Agency staff for their help in the successful completion of this year's survey.

Matt Parker-Humphreys
12/11/2004

INITIALLED: R Millner

DISTRIBUTION:

Basic list +
M Parker-Humphreys
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Mr J Stroud, Kent and Essex SFC
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Mr S Douglas, DEFRA Fisheries Office, Harwich.

Figure 1.

Ina K 1/2004

Prime stations fished.

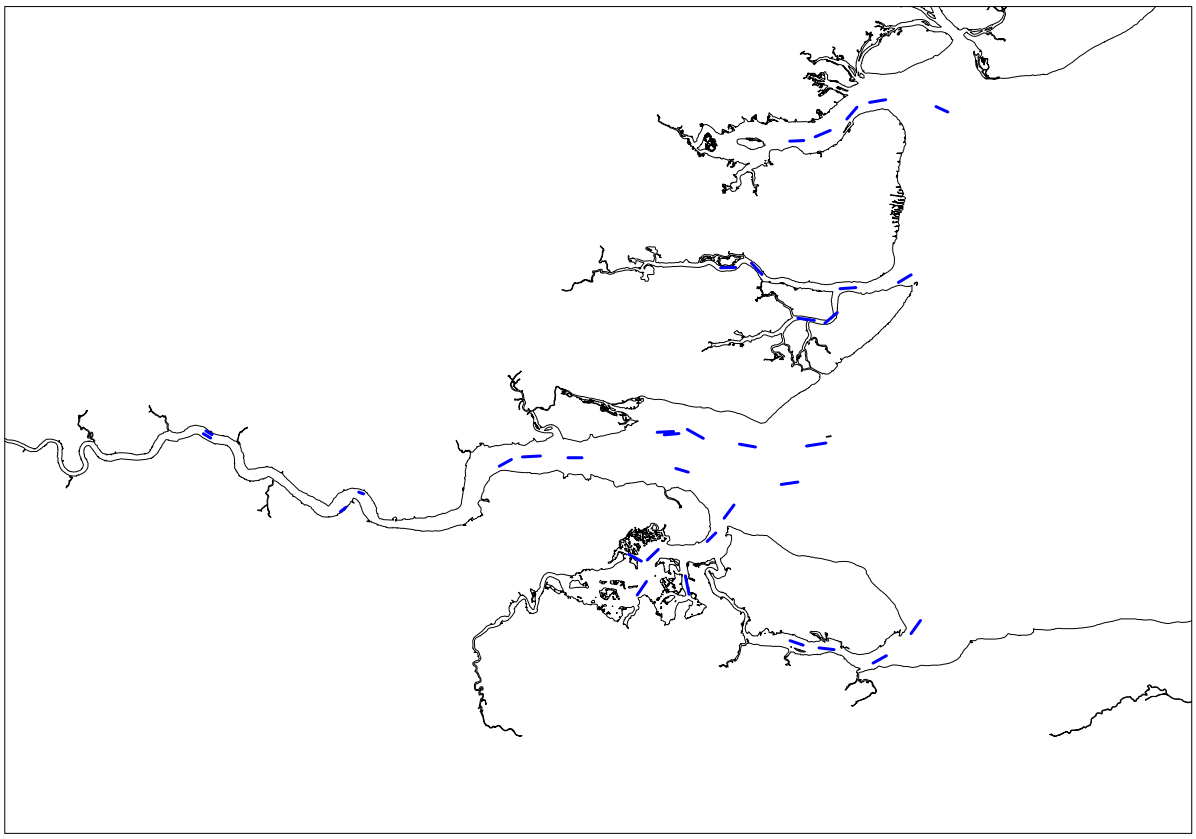

Figure 2.