

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

2002 CHARTER CRUISE PROGRAMME

REPORT: INA K 2/2002

(PROVISIONAL: not to be quoted without prior reference to the author)

STAFF:	M J Brown M Parker-Humphreys 6 Environment Agency staff (part-time)
DURATION:	25 - 30 November 2001
LOCATION:	Thames, Medway, Swale and Essex Estuaries
AIMS:	<ol style="list-style-type: none">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 Estuary.3. To obtain samples of flatfish and for environmental monitoring programmes.

NARRATIVE:

Staff travelled to Leigh-on-Sea on 24th November and unloaded the gear that evening. The charter vessel left Leigh-on Sea at 04.00 on 25th November, and the survey commenced with 8 tows in the Inner Thames using twin high-headline bass trawls fitted with shrimp mesh cod-end liners, fished independently from the boat's two beams. On hauling the 4th tow of the day it was found that the port side net had not deployed correctly so this tow was repeated. The weather remained reasonable throughout the next two days and tows in the Medway and Inner Thames were completed successfully. Due to a bad weather forecast, it was decided to continue the survey in the Essex rivers, so the Ina K steamed round to Wallasea that night. The next day the 6 tows in the River Crouch and the Roach were worked. November 30th was spent working on the tows in the River Blackwater. The Ina K returned that evening to Leigh-on-Sea and the stations in the Swale were fished to complete the survey on 30th November. The fishing gear was unloaded that evening and staff returned to Lowestoft on 1st December.

RESULTS:

36 valid tows were fished, consisting of 35 core stations. Due to the large numbers of 0 group bass caught, an additional tow in the mouth of the Swale was fished to determine the limits of the 0 group distribution. (Figure 1).

A total of 34,821 bass were caught in the survey, 9160 (435 in 2001) in the Thames, 10,434 (3222 in 2001) in the Medway, 10276 (655 in 2001) in the Swale, 540 (150 in 2001) in the Blackwater, 520 (68 in 2001) in the Crouch, and 3778 (2758 in 2001) in the Roach. Seven tows yielded in excess of 1000 bass, two in the Outer Thames, three in the Medway, one in the Swale and the other in the River Roach. One bass (68 cm) was tagged and released in the River Medway. Bass were the most abundant species of the survey.

A total of 321 bass were sampled for age during the survey, showing that 95% of bass caught were 0-groups (2002 year-class) and 4% 1-groups (2001 year-class). The 0-group year-class dominated catches and had a modal length of 8 cm, (Figure 2.)

Catch rates of bass were:

	2002	2001	2000
Overall	55.6/minute	12.7/minute	1.99/minute
Essex Rivers	23.4/minute	16.8/minute	1.5/minute
Thames and Tributaries	71.1/minute	10.9/minute	2.2/minute

A wide variety of other species were caught, notably flounder (3,333 fish) herring (2290 fish) and whiting (1271 fish). Length distributions of most fish species were compiled to provide the Environment Agency with data on abundance and distribution.

Two samples of flounder were retained for CEFAS environmental monitoring programmes. A sample of flounder was retained for the Environment Agency's National Marine Monitoring Programme (NMMP).

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.

Mary Brown
12 December 2002

INITIALLED:

DISTRIBUTION:

Basic list +
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Figure 1

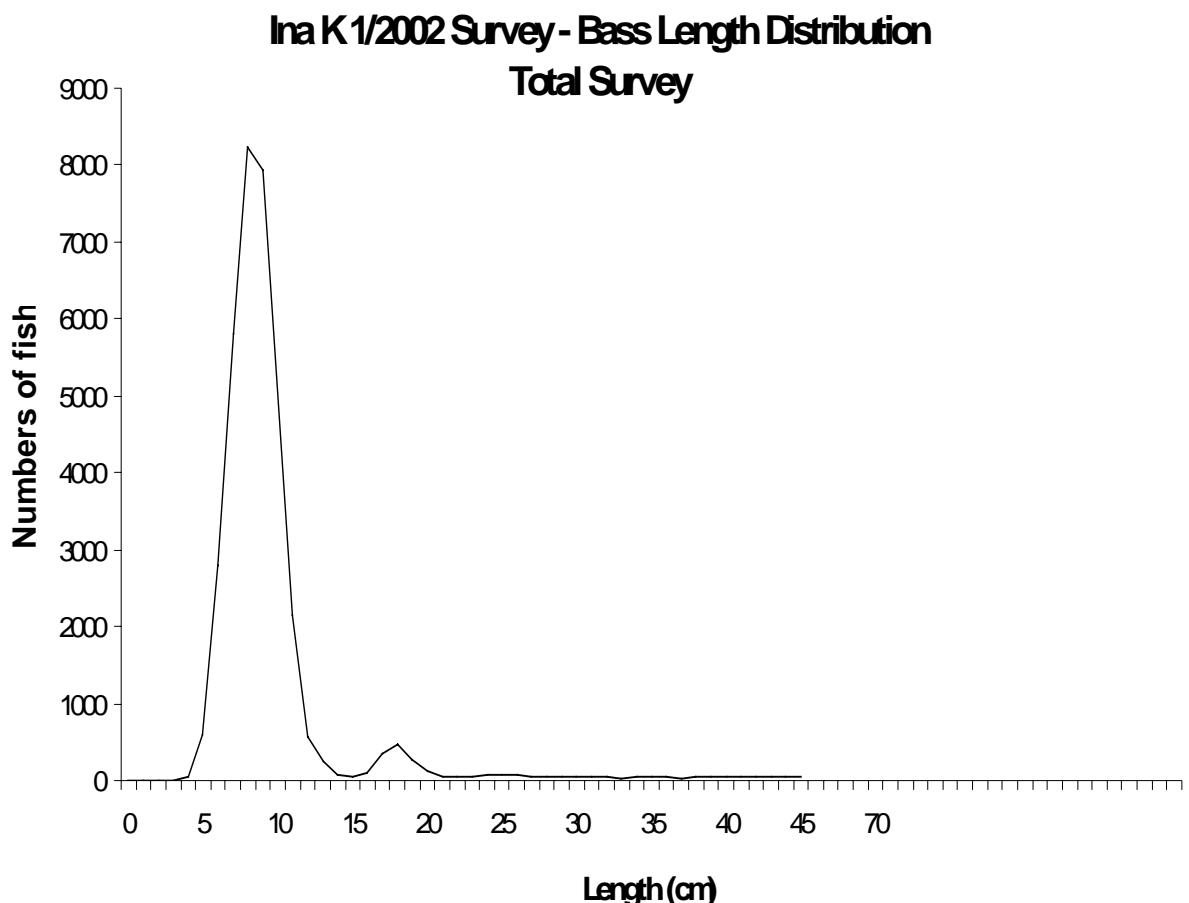


Figure 2

