

2003 CHARTER CRUISE PROGRAMME

REPORT: INA K 1/2003

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

STAFF: M J Brown
M Parker-Humphreys
J L Smith

DURATION: 21 - 25 May 2003

LOCATION: Thames, Medway, Swale and Essex Estuaries

AIMS:

1. To carry a trawl survey for pre-recruit bass in the middle Thames estuary, Medway, Swale, Essex Blackwater, Crouch and Roach Estuaries over established grid stations.
2. To determine the relative abundance and population age structure of pre-recruit bass in the Thames and adjacent estuaries, as a basis for comparison with other areas e.g. Solent harbours.

NARRATIVE:

Staff travelled to Leigh-on-Sea on 20 May and joined the Ina K at 0500 the next day. The survey commenced on the 21 May with 7 tows in the outer Thames using twin high-headline bass trawls fitted with shrimp mesh cod-end liners, fished independently from the boat's two derricks. The following day 5 tows in the Swale were completed successfully and the Ina K steamed round to Wallasea that night to continue the survey in the Essex rivers. The next day the 6 tows in the River Crouch and the Roach were worked. May 24 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 25 November. The fishing gear was unloaded that evening and staff returned to Lowestoft on 26 May.

RESULTS:

28 valid tows were fished, consisting of 27 core stations (Figure 1). An additional tow was fished to extend the coverage in the river Blackwater.

A total of 1,482 bass were caught in the survey, 48 (9160 in Nov 2002) in the Thames, 1231 (10,434 in Nov 2002), in the Medway, 68 (10,276 in Nov 2002) in the Swale, 16 (540 in Nov 2002) in the Blackwater, 11 (520 in Nov 2002) in the Crouch, and 62 (3778 in Nov 2002) in the Roach. The tow near Kingsnorth power station, in the river Medway yielded 1000 bass, all other tows yielded less than 100 bass. Seven bass caught were over 36 cm, 5 of which were tagged and released. Bass were the most abundant species of the survey.

A total of 321 bass were sampled for age during the survey, showing that 50% of bass caught were 2-groups (2001 year-class) and 41% 1-groups (2002 year-class). These two year-classes dominated catches and had modal lengths of 19 and 11 cm, respectively. (Figure 2.)

Catch rates of bass were 0.63/minute in the Essex Rivers and 4.0/minute in the Thames and tributaries (2.69/minute overall). The largest concentrations of bass were in the Medway.

A wide variety of other species were caught, notably sole (1,212 fish) flounder (839 fish) and bib (532 fish). Of particular note, a lampern *Lampetra fluviatilis* was caught in the Outer Thames.

A mini CDT was deployed directly after each tow to measure salinity, temperature and depth.

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

Mary Brown
19 June 2003

INITIALLED:

DISTRIBUTION:

Basic list +
M Parker-Humphreys
G D Pickett
J S Smith
Mr K Knapp, Skipper FV INA K
Mr J Stroud, Kent and Essex SFC
Mr J Wiggins, Kent and Essex SFC
Mr S Douglas, DEFRA Fisheries
Office, Harwich.

Figure 1

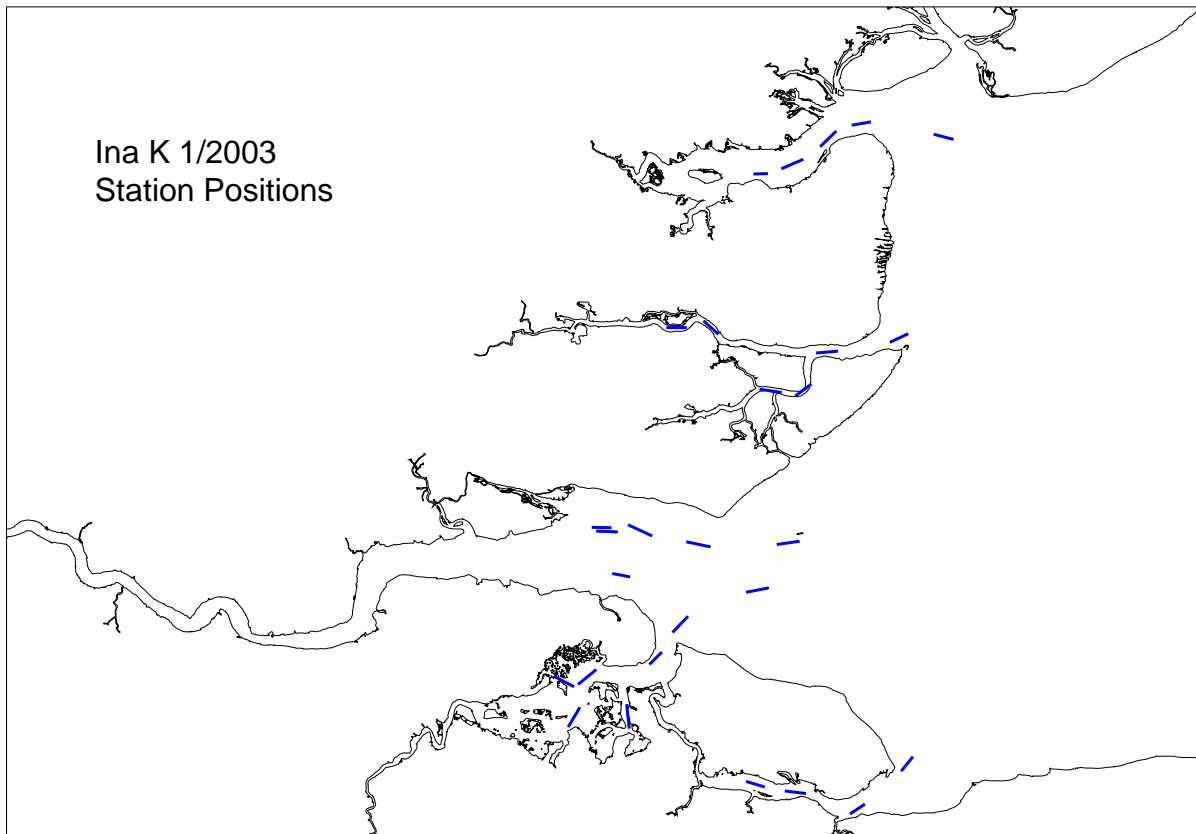


Figure 2

