

2003 CHARTER CRUISE PROGRAMME

REPORT: INA K 3/2003

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

STAFF: M J Brown
J L Smith

5 Environment Agency staff (part-time)

DURATION: 28 November – 3 December 2003

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.

NARRATIVE:

Staff travelled to Leigh-on-Sea on 27th November and unloaded the gear that afternoon. The charter vessel left Leigh-on Sea at 04.30 on 28th November, and the survey commenced 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 3 tows in the Medway were completed successfully but with strong winds and forecast of worsening conditions, fishing was abandoned for the day. Due to the bad weather forecast, it was decided to continue the survey in the Essex rivers, so the charter vessel was moved to Wallasea that night. On the 30 November the 6 tows in the River Crouch and the Roach were worked. December 1st was spent working on the tows in the River Blackwater, and the Ina K returned that evening to Leigh-on-Sea. The stations in the Swale and two tows in the Medway that were missed on the 29 November, were fished on 2 December. The last day was spent fishing 7 stations in the Inner Thames. The fishing gear was unloaded that evening and staff returned to Lowestoft on 4 December.

RESULTS:

34 valid tows were fished, consisting of 33 core stations (Figure 1). The additional tow that was fished in May was repeated on this survey to extend the coverage in the river Blackwater. Two core stations, Blyth Sands (Inner Thames) and Grain spit (Medway) were missed due to bad weather.

A total of 17,110 bass were caught in the survey compared with 34,821 in 2002.

Catch rates of bass were:

	2003	2002	2001	2000
Overall	29.0/minute	55.6/minute	12.7/minute	1.99/minute
Essex Rivers	30.8/minute	23.4/minute	16.8/minute	1.5/minute
Thames and Tributaries	27.9/minute	71.1/minute	10.9/minute	2.2/minute

Six tows yielded in excess of 1000 bass, three in the Medway, one in the Blackwater, one in the Swale and the other in the River Roach. Three bass caught were above the minimum landing size (36cm). Bass were the most abundant species of the survey.

A total of 321 bass were sampled for age during the survey, showing that 85% of bass caught were 0-groups (2003 year-class) and 14% 1-groups (2002 year-class). The 0-group year-class dominated catches and had a modal length of 9 cm, (Figure 2.)

A wide variety of other species were caught, notably whiting (3,374 fish) flounder (2,576 fish), o-group cod (271 fish), red mullet (5 fish) golden grey mullet (2 fish) and corkwing wrasse (8 fish). Length distributions of most fish species were compiled to provide the Environment Agency with data on abundance and distribution.

Two samples of flounders were retained for CEFAS environmental monitoring programmes.

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
15 December 2003

INITIALED:

DISTRIBUTION:

Basic list +
M Parker-Humphreys
G D Pickett
S. Coates EA
S Colclough EA
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

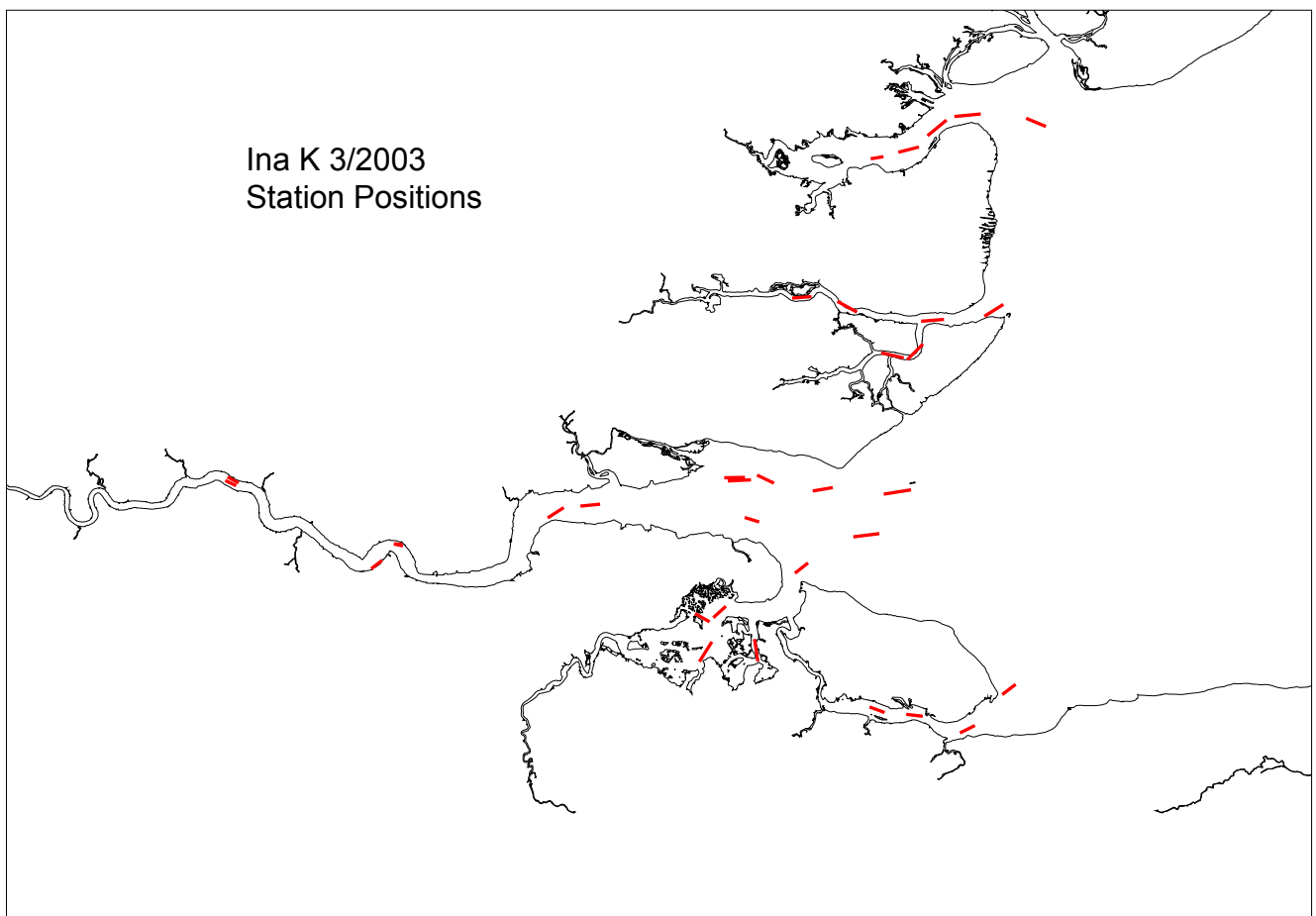


Figure 2

