

MINISTRY OF AGRICULTURE, FISHERIES AND FOOD
FISHERIES LABORATORY, LOWESTOFT, SUFFOLK, ENGLAND

1994 CHARTER CRUISE PROGRAMME

REPORT: INA-K: CRUISE 1

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

STAFF: T J Hulme
S Warnes

DURATION: 0245h 7 November 1994
1700h 18 November 1994

LOCALITY: Thames Estuary

AIMS:

1. To assess the distribution and abundance of herring in the Thames Estuary using a mid-water trawl.
2. To obtain an independent estimate of the age structure of the Thames spring spawning herring stock.

NARRATIVE:

The scientific staff travelled to Leigh-on-Sea on 6 November and joined INA-K at 0300h the next day.

For the first 5 days of the survey INA-K worked out of Leigh-on-Sea and, from there, surveyed the Kentish Flats-Princes and Queens Channels-the Oaze and Barrow Deep and the West Swin before moving to Wallasea Marina on the R Crouch. Working from there, during the period 12 to 14 November, the Middle Deep-S W Reach-R Blackwater-the Wallet-Swire Hole and R Crouch and R Roach were surveyed. INA-K returned to Leigh-on-Sea for the last 3 days of the survey and worked in the inner Estuary, R Medway and R Thames.

During the first week of the survey, with the winds predominantly from the south-east, good fish traces were hard to find, but things did improve once the wind went round to the south-west. A noticeable feature of the survey was the consistently high water temperatures (10-12 C) found across the Estuary, which may have contributed to the lack of fish shoals.

The scientific staff travelled back to Lowestoft on 19 November.

RESULTS:

- AIM 1. A total of 33 valid hauls of varying length were made with the Larsen sprat trawl, two in the R Thames and the others at the positions shown on the attached chart.

Herring were present on every haul, and the length distribution of all the herring caught during the survey is given on the attached figure.

AIM 2. 547 fish were biologically examined and otolithed for stock analysis. As last year, the majority of fish of commercial size were of very high quality and more like North Sea herring than estuarine, spring spawning herring. Large, spent fish were again present in the catches but not so many as last year.

Sprats were present on 26 of the 33 hauls but no large catches were made although there were signs in the last 3 days of the survey, particularly in the Oaze Deep and on the edge of the Cant, that the sprats were beginning to shoal-up. The length distribution of all the sprats caught during the survey is given on the attached figure.

Unlike last year, bass were found in much fewer numbers(39), mostly as O-groups and mainly in the R Crouch, R Roach and R Blackwater.

I would like to record my thanks to Messrs Colin and Ken Knapp, owners and crew of the INA-K, for their considerable contribution to the smooth running and success of the survey.

T J Hulme
2 December 1994

INITIALLED: BWJ

DISTRIBUTION:

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