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

1992 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:

0245 h, 14 November 1730 h, 22 November

#### LOCALITY:

Thames Estuary

#### AIMS:

- 1. To assess the distribution and abundance of herring in the Thames Estuary using a Larsen sprat 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 13 November and joined INA-K at 0245 h the next day.

For the duration of the survey, INA-K worked out of Leigh-on-Sea and surveyed different areas of the Estuary from there, making the best use of tides and prevailing weather conditions to cover as much of the Estuary as possible in the time available.

On the last haul on 14 November, the net was extensively damaged, so much so that a day was lost, and the survey was re-started on the 16 November and continued without a stop until the end on 22 November. During the first four days of the week, the weather was very unsettled and the fish were not shoaled up and difficult to locate, but a reasonably settled spell of weather followed, and the fish, consequently, were easier to find and fish on. The scientific staff travelled back to Lowestoft on 23 November.

# RESULTS:

Aim 1: A total of 25 hauls of varying length were made with the Larsen sprat trawl at the positions shown on the attached chart. Herring were present on every haul, and the length distribution of all the herring caught in the Estuary during the survey is given in the attached figure.

Aim 2: Because of a mixture of bad weather and poor markets prior to the survey, little was known about the distribution of the fish apart from the fact that a number of the larger fish were spents. These large, spent fish were

found all over the Estuary, and amounted to 14% of all the fish >25cm. The absence of fish between 14 and 20 cm was most noticeable, which tends to suggest that the 1991 year class is very poor. A total of 488 fish were biologically examined and otolithed for stock analysis.

Sprats were present on all but one of the 25 hauls, the biggest hauls coming from The Cant and the Leigh Channel. The length distribution of all the sprats caught in the Estuary during the survey is given in the attached figure.

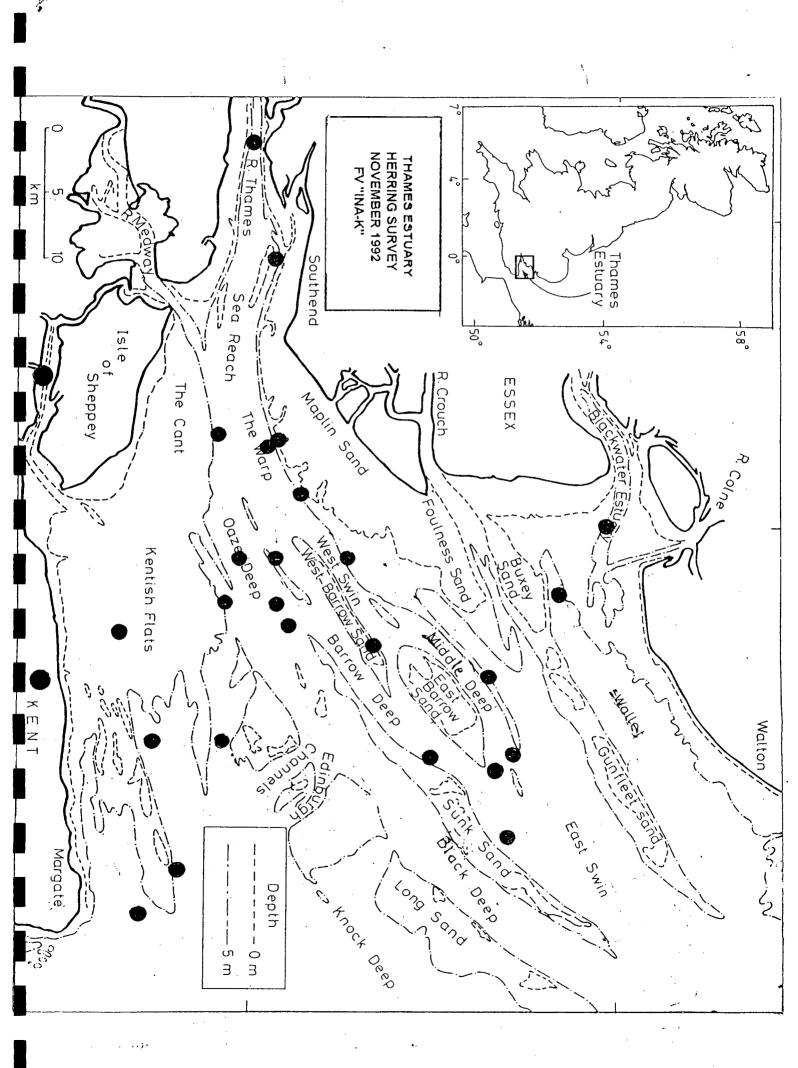
I would like to record my thanks to Messrs Colin and Ken Knapp, owners and crew of the INA-K, for their considerable contribution to the smooth running and success of the survey.

T J Hulme 27 November 1992

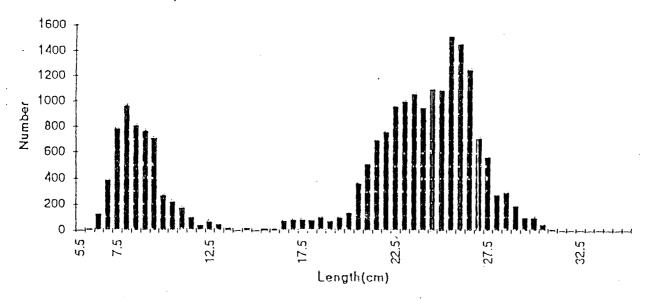
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T J Hulme
S Warnes
Mr Colin Knapp
Eastern Sea Fisheries Committee
Kent and Essex Sea Fisheries Committee



INA-K Survey, Nov. 1992:- Thames Estuary Herring



INA-K Survey, Nov. 1992: - Thames Estuary Sprats

