

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

1991 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:

0300 h, 11 November

1700 h, 20 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 10 November and joined INA-K at 0300 h the next day to start the survey.

For the duration of the survey, INA-K worked out of Leigh-on-Sea and surveyed different areas of the Estuary from there, making use of the early morning tides to steam to, and fish at, the most distant localities first.

Very few fish traces were found in the first three days of the survey, probably as a direct result of the very strong south-westerly winds experienced on 10 and 12 November. Catches were, consequently, small, even in areas such as Middle Deep, normally a high catch area, but as the weather became more settled, fish traces were found almost everywhere east of Southend pier, and the catches improved. This improvement in the weather allowed the Swire Hole-Middle Deep-Southwest Reach area, where the local drifter fleet was working, to be surveyed again, and larger catches were made. Severe north-easterly gales on 19 and 20 November quickly dispersed the fish and restricted fishing to west of Southend pier. The scientific staff travelled back to Lowestoft on 21 November.

RESULTS:

Aim 1:

A total of 32 hauls of varying length were made with the 36' x 36' 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:

Prior to the survey, the drift net fleet had reported large, full and filling herring in their catches, some of which were probably Downs stock fish. These were still present in varying proportions in most of the areas fished in, but more so in the deeper navigation channels. A total of 467 fish were biologically examined and otolithed for stock analysis, with a further 200 fish examined for maturity/length purposes.

Sprats were present on 23 out of the 32 hauls made, but only on one of them in any great number, and 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 Mr Colin Knapp, owner of the INA-K, and his crew for their considerable contribution to the smooth running and success of the survey.

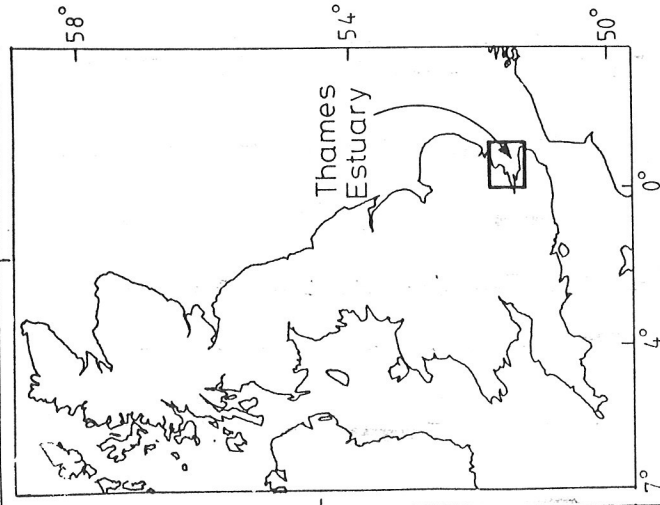
T J Hulme
29 November 1991

INITIALLED:

J W H

DISTRIBUTION:

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



**Thames Herring
Survey:-INA-K
November 1991**

