

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

1995 CHARTER PROGRAMME

REPORT: INA-K: CRUISE 1
(PROVISIONAL: Not to be quoted without prior reference to the author)

STAFF:
S Warnes
P J Welsby

DURATION:
0230h 11 November
1630h 22 November

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 10 November and joined INA-K at 0200h 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 Deeps and the West Swin before moving to Wallasea Marina on the R Crouch. Working from there, during the period 16-19 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. Favourable weather conditions were encountered during the entire cruise, with the wind direction generally being suitable for the area of the Estuary being surveyed. The water temperatures were generally high again this year (10-12°C), but these did start to fall by the end of the cruise. There was a noticeable absence of any fish traces in the Margate Roads, Kentish Flats and Black Deep areas in the Southern part of the Estuary and this was also true in the Blackwater, Wallet and East Swin in the North of the area. It should be noted that due to the lack of suitable fish marks and low demand that not one commercial drifter was working for the duration of the survey.

The scientific staff travelled back to Lowestoft on 23 November.

RESULTS:

AIM 1. A Total of 34 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. The length distribution of all the herring caught during the survey is given on the attached figure.

AIM 2. 541 fish were biologically examined and otolithed for stock analysis. The majority of fish of commercial size were of very high quality and more like North Sea herring than estuarine, spring spawning herring. Very few sprats, apart from whitebait, were taken during the survey.

Samples of 0 group herring were collected for growth studies (Dr C Fox).

114 bass were caught, these being predominantly 0 and 1 group fish, 31 scale samples were collected for age determination studies (G Pickett).

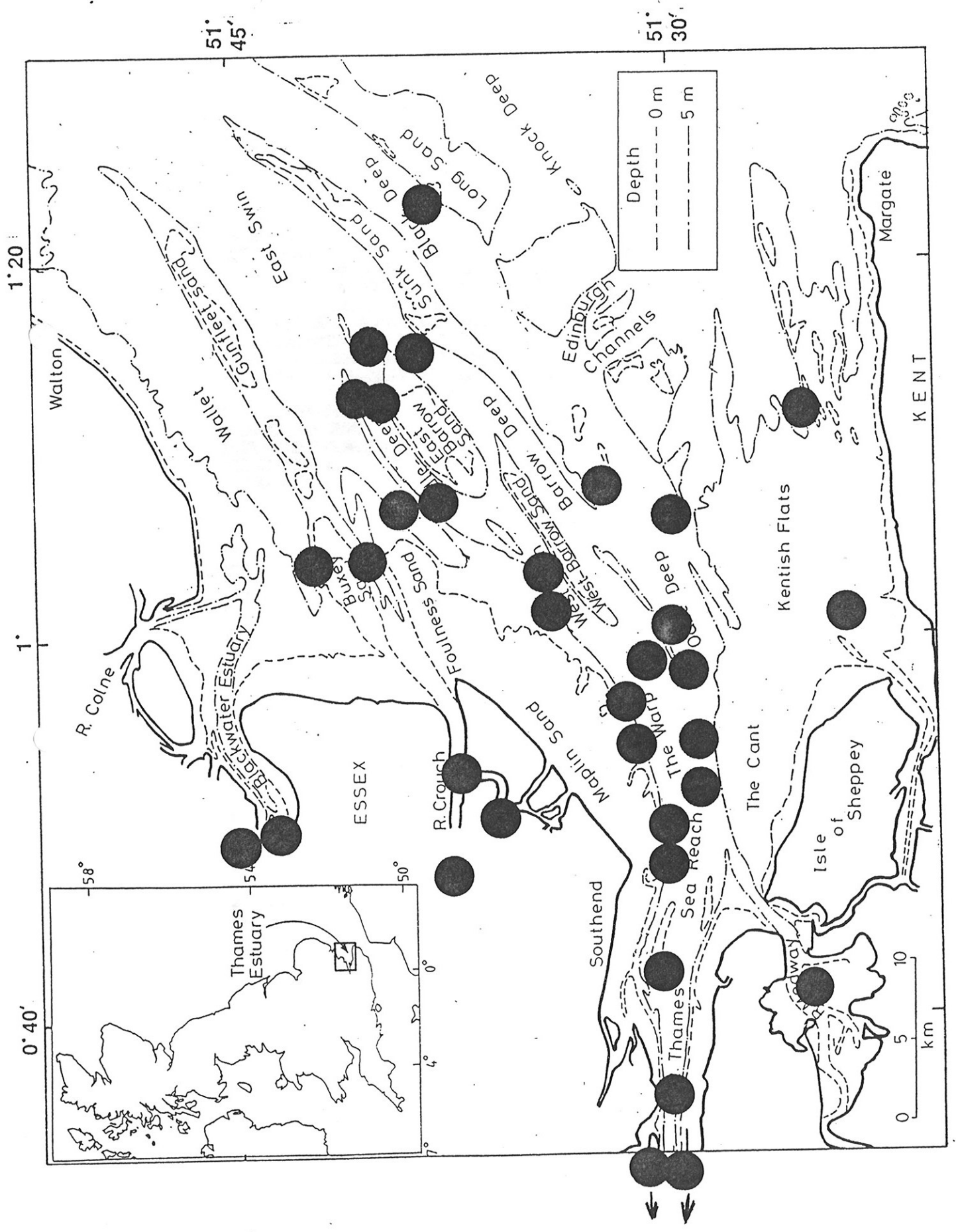
I would like to record my thanks to Messrs Colin and Ken Knapp, owners and crew of the INA-K, for their considerable contribution to the smooth running and success of the Survey.

S Warnes
28 November 1995

INITIALLED: S. G. P.

DISTRIBUTION:

Basic List+
S Warnes
P J Welsby
Mr Colin Knapp
Kent and Essex Sea Fisheries Committee



INA-K Survey, Nov 1995 :- Thames Estuary herring

