

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

1989 CHARTER CRUISE PROGRAMME

REPORT: INA-K: CRUISE 1

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

STAFF: T J Hulme
A M Watson

DURATION: 0600 h, 21 November
1700 h, 28 November

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 20 November and joined INA-K at 0600 h the next day to start the survey.

For the duration of the survey, 21-28 November, INA-K worked out of Leigh-on-Sea and surveyed different areas of the Estuary from there, making use of the early morning high tides in the first half of the survey to steam to and fish at the most distant localities such as Margate Roads and the North end of Middle Deep. The Inner reaches of the Estuary were fished next, leaving the area around Leigh-on-Sea until the final day, but no echo survey or fishing was carried out in the outer channels. The scientific staff travelled back to Lowestoft on 29 November.

RESULTS:

Aim 1:

By and large the weather was good throughout the survey and so no time was lost and this allowed twenty hauls to be made with the 36' x 36' Larsen sprat trawl at the positions shown on the attached chart. The catch at each station, expressed as number per hour is list below, the highest catch coming from SW Reach where a number of the West Mersea drift-net fleet were working at the time.

| St No | Position | No per h | St No | Position | No per h |
|-------|-------------------|----------|-------|-------------------|----------|
| 1 | S end Middle Deep | 6 | 11 | Gt Nore Anchorage | 24 |
| 2 | N end Middle Deep | 328 | 12 | N Oaze Buoy | 67 |
| 3 | N E Middle | 428 | 13 | Knob Gap Buoy | 1581 |
| 4 | Barrow Swatchway | 651 | 14 | Shivering Sand | 210 |
| 5 | The Warp | 1538 | 15 | W end of the Warp | 968 |
| 6 | Maplin Spit Buoy | 1894 | 16 | Black Tail Spit | 1824 |
| 7 | S W Reach | 4712 | 17 | W Shoebury Buoy | 569 |
| 8 | Queens Channel | 388 | 18 | W Shoebury Buoy | 837 |
| 9 | Margate Roads | 638 | 19 | Blyth Sands | 174 |
| 10 | Oaze Deep | 460 | 20 | The Gulley | 1120 |

AIM 2:

A total of 412 fish were biologically examined and otolithed for stock analyses, and it would appear that the majority of these were fish of the Thames spring spawning stock as only 7 spent fish were found. The length distribution of all the herring caught in the Estuary during the survey is given in the attached figure and this indicates that the 1987 year class (19.5-21.5 cm) is average in comparison with the very strong 1986 year class (22.0-25.5 cm) and considerably smaller than the 1988 year class (15.0-19.0 cm).

In marked contrast to last November, when sprats were found at only one location in the Outer Estuary, this year they were present on 19 of the 20 hauls 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 sincere 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
5 December 1989

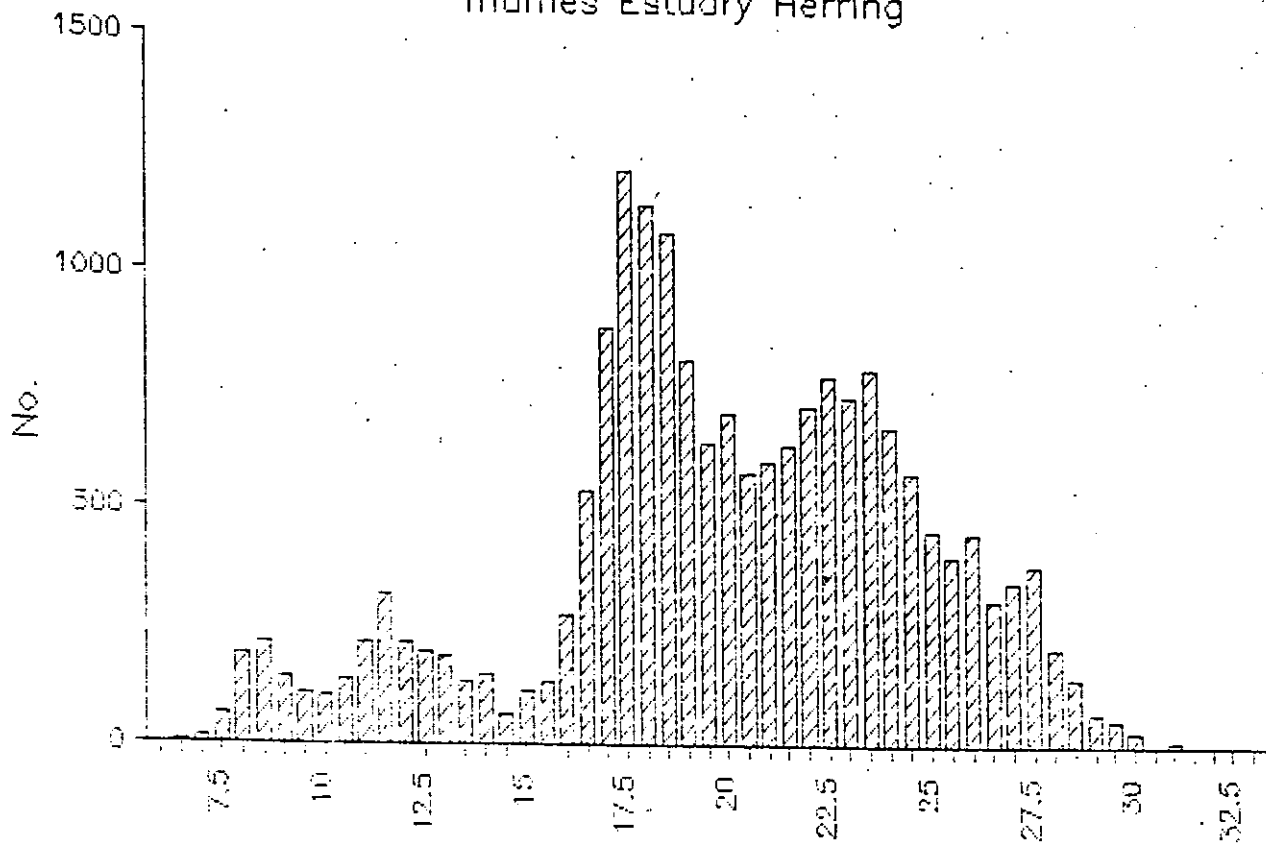
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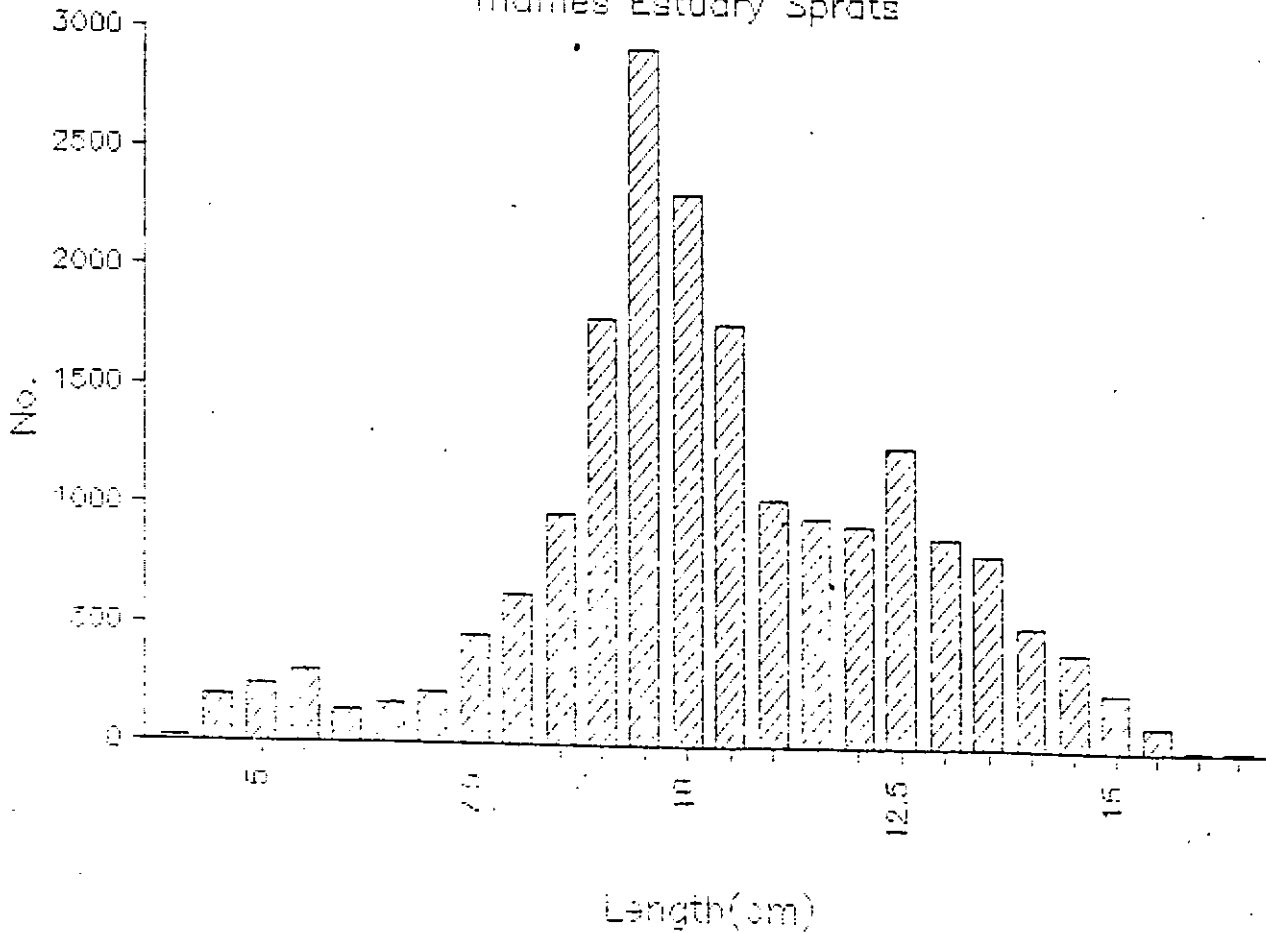
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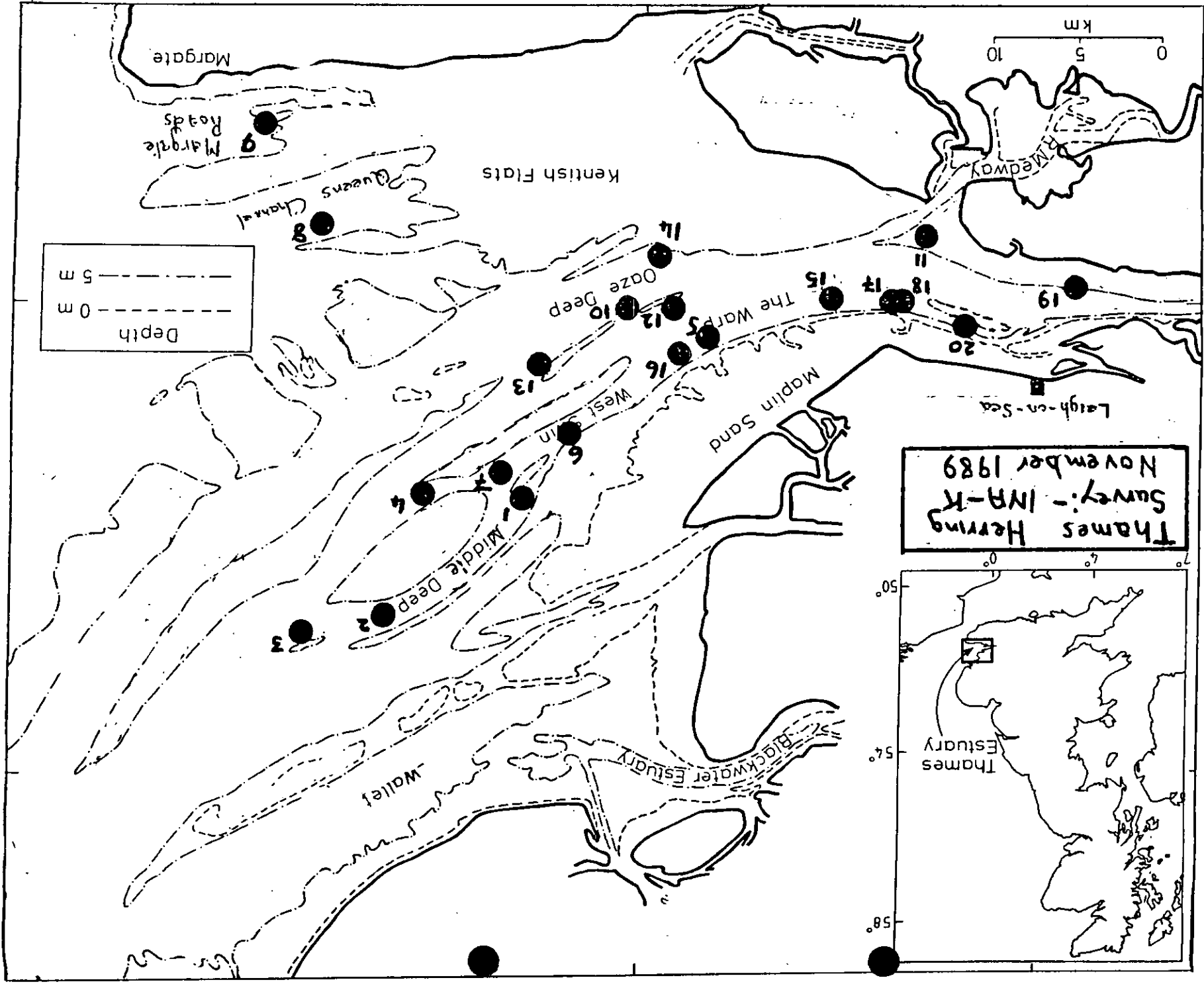
Basic list +
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A M Watson
Mr Colin Knapp
Eastern Sea Fisheries Committee
Kent and Essex Sea Fisheries Committee

INA K Survey, Nov. 1989
Thames Estuary Herring



INA K Survey, Nov. 1989
Thames Estuary Sprats





Thames Herring Survey: -INA-K November 1989