

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

1971 RESEARCH VESSEL PROGRAMME

REPORT: RV TELLINA: CRUISE 5

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

STAFF

J D Riley
W A Karp (Student)

DURATION

Left Lowestoft 0930 hours 14 April

Arrived Lowestoft 1700 hours 24 April

LOCALITY

English South Coast

AIMS

1. Highspeed townet sampling of inshore grounds from Kent to Cornwall for pelagic fish eggs and larvae. Repeat sampling of some east coast stations done in 1970.
2. 4m or 2m beam trawl hauls in selected areas in preparation for a beam trawl survey for 0 group fish in the autumn (TELLINA 9).
3. Beam trawl sampling of proposed gravel dredging area off Hastings and of china clay residue sediments off the Cornish coast.
4. Collection of adult sole and possibly other flatfish for laboratory use in the River Blackwater (Essex) at the end of the cruise.

NARRATIVE

TELLINA left Lowestoft at 0930 hours 14 April and arrived at Newlyn at 0500 hours 16 April. From 0700 hours 17 April until 23 April plankton samples were collected from the sea surface and by high speed tow net at 41 stations between Lands End and the North Foreland. Overnight stops were made at Falmouth, Plymouth, Weymouth, Portsmouth, Newhaven, Dover, Felixstowe.

On the last day, sole were caught in the River Blackwater and brought back alive to the Laboratory. TELLINA docked at 1700 hours 24 April.

The weather was calm throughout the cruise with some coastal fog. No time was lost due to the weather.

RESULTS

All the aims listed were satisfactorily completed.

- The south coast from Lands End to the North Foreland was surveyed for pelagic fish eggs and larvae by 41 stations approximately 10 miles apart over the 400 miles of coast. The longest distance between stations was off the Dorset coast where we were unable to sample because of Army Gunnery exercises.

At most stations a surface collection of floating eggs was also made. This was not possible off parts of the Kent Coast due to floating oil. Several dead oiled seabirds were seen between Hastings and Ramsgate.

- Beam trawl sampling in the bays between Dodman Point and St Austell on both china clay dumping grounds and a comparative area to the South West caught the following, from one tow at each site (2m beam for 10 minutes approximately).

Tow Length m	Locality	Gobies (3 sp)	Dragonets	Lemon Sole	Dab	Solenette	Pipe Fish (2sp)
97	Veryan Bay	No China	5	4	0	0	0
154	Nr Dodman Pt.	Clay	17	22	4	1	0
233	Mevagissy Bay	Dumping	9	0	0	0	7
394	St Austell Bay	Grounds	2	0	0	9	4

The nature of the seabed was much easier to tow over on the dumping grounds and the trawl picked up virtually no stones or dead shells in those areas contrasting sharply with the first two areas which were rough and rocky. The fish from the Kaolin sites were very pale in colour as camouflage against the white seabed and very milky water.

A similar survey in the Shingle Bank area south of Hastings, a proposed gravel dredging site, caught the following fish (1 group).

Tow length m	Tow length min	Depth m	Gobies	Solenette	2sp Sandeel	Pogge	Pout Whiting	Dragonette	Megrim
401	16	22	7	2	2	1	1	0	0
526	17	24	2	1	0	0	0	0	2
151	10	24	0	0	0	0	0	0	0
63	3	26	0	0	0	0	0	1	0
463	15	28-30	6	0	0	0	0	1	1

In addition one plaice, sole and lemon sole of overall length greater than 25 cms were also taken. All stations included quantities of Ophiuroids, Asteroids, Decapods, Gastropods and Echinoids together with stones with encrusting Bryozoa sponges and worms.

These results indicate a very small population of commercial fish at this time of the year.

- Twenty-seven sole from two otter trawl tows of half an hour's duration were selected from about 100 caught and brought back to the laboratory. These included at least 8 spawning females and 8 ripe males. Fertile eggs were being produced by natural spawning within 48 hours of arrival at the laboratory.

John D Riley

11 May 1971

SEEN IN DRAFT WB

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DISTRIBUTION

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