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R. V. TELLINA

Report for Cruise 10/1967

PART A: Locality: Filey and Bridlington Bay

<u>Staff</u>	<u>Duration</u>
S. J. Lockwood	0930 hours, 30 November-
C. T. Macer)	2200 hours, 6 December
P. Walker) part-time	(All times are G.M.T.)

Aims

1. To sample the 0-group plaice population of Filey Bay using a 4-metre beam trawl.
2. To sample the benthos of Filey Bay using a van Veen grab and the bottom plankton using a bottom plankton sampler.

Narrative

The staff joined TELLINA at 0930 hours on 30 November and sailed to Filey Bay. The ship reached Filey Bay at 0100 hours on 1 December when she lay at anchor until 0800 hours. Nine stations were sampled on the first day with a 4-metre beam trawl, four using a small mesh belly and five a large mesh belly. Both nets had three tickler chains and a liner in the codend. On 2 December, and for the rest of the cruise, only the small mesh belly trawl was used: three more stations were sampled and three transects of six stations were sampled with the van Veen grab. At 0700 hours on 3 December Mr. Walker joined TELLINA at Scarborough and Mr. Macer returned to Lowestoft. A final three stations were sampled with the beam trawl, and the bottom plankton sampler was towed along the same three transects on which the grab had been used. In the afternoon of 3 December the rate of flow through the plankton sampler was measured. The work was hampered by a freshening northwesterly wind which caused us to seek shelter in Bridlington Bay. On 4 December four parallel tows were made with the beam trawl in Bridlington Bay between the town and Smithic Bank. Three more tows were made further south off Barmston. A northwesterly gale prevented work outside the Smithic Bank and prevented our return to Lowestoft on 5 December. TELLINA sailed at 0630 hours on 6 December and reached Lowestoft at 2200 hours.

Results

The decision to use a trawl with large mesh belly was originally made as Lanice tubes had clogged a normal net on a previous trip. As Lanice did not appear so abundant on this trip the net was not used after the first day. During the first day a great deal of damage was done to the trawls when fishing close to Filey Brigg and along the ten-fathom line. A total of twenty-three stations were made with the 4-metre beam trawl. The most numerous fish caught were 0-group dabs, lesser weavers, young pollack and whiting. Only sixty-nine 0-group plaice were caught.

Good samples of benthos were taken, but the bottom plankton samples included some surface plankton as the closing mechanism of the sampler malfunctioned.

The large fish caught were mainly plaice, dabs, sole, whiting and cod; they were measured at sea and their stomach contents examined. Most had empty stomachs. The few that contained food had mainly eaten polychaetes.

S. J. Lockwood
18 December 1967

PART B: Locality: Sizewell Bank

Staff

Duration

J. D. Riley) G. T. Thacker) P. Walker)	part-time	8-13 December
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Aims

1. To make a complete routine survey of the bank for 0- and 1-group sole using the standard 2-metre beam trawl.
2. To carry out comparative fishing efficiency trials using the 2-metre, 4-metre and modified beam trawls.
3. To collect live sole, plaice and flounders for laboratory use.
4. To release seabed and surface drifters.

Narrative

Work was not possible from 8-10 December because of bad weather. On 11-13 December two complete surveys of the ten standard tows were made with two pieces of gear used simultaneously. The first survey was made with the standard 2-metre trawl and a similar piece of gear, but which had been lined throughout to retain the smallest metamorphosed flatfish. The second was made with the standard 2-metre trawl and the standard 4-metre trawl which has been used extensively for 0-group plaice in the Irish Sea. On 11 December twenty-five seabed drifters and five surface drifters were released at each of a series of three positions at right-angles to the bank; to the east in 10 fm, to the west in 6 fm and on the bank. One series was released near high water and another near low water.

Results

The fully lined 2-metre trawl caught a significantly larger number of 0-group dabs than the standard 2-metre trawl, but catches of sole (mean length 6.0 cm) were not significantly better. The 4-metre standard trawl caught, as expected, about twice the number of 0-group sole as the 2-metre standard trawl.

The catches of flatfish were unexpectedly devoid of 0-group plaice, but large numbers of 0-group dabs were usual and remarkable in the small size of the fish, 2.7-7.0 cm total length.

No live fish were brought back to the laboratory.

J. D. Riley
20 December 1967

Seen in draft: WB

Initialled: AJL

Distribution

Dr. Cole
Mr. Lee
Captain Aldiss
Dr. Cushing
Mr. Burd
Mr. Garrod
Mr. Hill
Mr. Bolster
Mr. Cattley
Dr. Harden Jones
Mr. Margetts
Mr. Trout
Mr. Iles
Mr. Holden
Dr. Jamieson
Dr. Purdom
Mr. Bridger
Mr. Mitson
Mr. Tungate
Mr. Williams
Mr. Wood
Mr. Adams
Mr. Mills
Mr. Kay
General Lab.
Lab. Registry
✓Library (2)
Mr. Whiting
Mr. Simpson
Dr. Reynolds
Chief Inspector
All D.Is
Fisheries Registry
Skipper Burroughs
The British Trawlers' Federation Ltd.
Mr. Buchanan Wollaston
Mr. Baird, D.A.F.S.
Mr. Glover
Hydrographic Department
Dr. Lucas
Director, N.I.O.
Dr. Peachey
Mr. Shelbourne
W.F.A.

Mr. Riley
Mr. Macer
Mr. Thacker
Mr. Lockwood
Mr. Walker