

Provisional: Not to be quoted without prior reference to author

RV CORELLA

Report for Cruise 18c/1969

Staff

Duration

A C Simpson	Left Liverpool 1900 hours 7.12.69
M Helm	Arrived Lowestoft 1700 hours 17.12.69
P M Connor	
J C Rigg (Fleetwood)	
G D Ferris (Belfast)	

BOTTOM SAMPLING IN LIVERPOOL BAY IN RELATION TO SLUDGE DUMPING

41 stations were worked in a rectangle some 10 miles x 10 miles centred on a point about $2\frac{1}{2}$ miles north east of the North-west light vessel. At each station hauls were made with a Van veen grab to sample the bottom sediments and the bottom fauna. There was little evidence of gross contamination from sludge or other dumping. One sludge barge was seen dumping in the area, another passed to the east of the area and a gravel dredger was working in the south west part of the area.

TRIAL OF NEPHROPS DREDGE

Three days were spent under excellent weather conditions testing the selection characteristics of a 2-codend trawl designed to release undersized whiting, and separate saleable whiting from Nephrops. The trawl had a mesh of approximately 70 mm throughout the upper part of the net and the upper side of the upper codend. The whole of the lower half of the net and lower codend had a mesh of approximately 50 mm. The 2 codends were joined together so that the 50 mm meshed upper surface of the lower codend was also the lower surface of the upper codend. A net of 35 mm mesh covered the upper codend to retain any small fish and Nephrops that escaped through the meshes of the upper codend. A metal oval hoop with a bar across the long diameter was set into the net to keep the entrances to the 2 codends open, the net separating the 2 codends being attached to the cross-bar. The following table sets out the mean percentages of Nephrops, saleable whiting and undersized whiting in the 2 codends and the cover for each of the 3 days fishing.

		<u>Day 1</u>	<u>Day 2</u>	<u>Day 3</u>
NEPHROPS (all sizes)	(Cover	1%	3%	3%
	(70 mm codend	6%	17%	17%
	(50 mm codend	93%	80%	80%
SALEABLE WHITING	(Cover	4%	3%	5%
	(70 mm codend	65%	64%	64%
	(50 mm codend	31%	33%	31%
UNDERSIZED WHITING	(Cover	58%	56%	63%
	(70 mm codend	15%	14%	15%
	(50 mm codend	27%	30%	22%

The separation of Nephrops from saleable whiting was quite good and over 50% of the undersized whiting escaped. It is probable that an improved design of hoop in the net would further improve the separation. The cover to the upper codend may also have reduced the escape of small whiting.

A number of living Nephrops were landed at Holyhead for Dr Naylor (Swansea) for behaviour studies.

SEARCH FOR CURRENT METERS

Two days (December 12 and 13) were spent in unsuccessful search for current meters lost to the south west of the Isle of Man and in the North Channel under the direction of the ERNEST HOLT.

The weather deteriorated rapidly during the 13th and the return journey to Lowestoft was made with strong south west winds most of the way.

A C Simpson
17.12.69

Seen in draft: Captain Craig
Skipper

Initialled: AJL

Distribution:

Basic list plus the following:
Dr F A Gibson, Dublin
Mr K Vickers, Belfast
A C Simpson (3 additional copies)
M Helm
P M Connor
J C Rigg (Fleetwood)
G D Ferris (Belfast)