

Provisional: Not to be quoted without reference to the writer

R. V. CLIONE

Report for Cruise 4A/1967

Staff:	J. Corlett	Duration:	29th May -
	D. Harding		7th June
	I. J. Lloyd		(All times G.M.T.)
	J. H. Nichols		
	E. Shreeve (to 1st June)		
	T. C. Doddington		

Aims

1. Gear trials with the 30" tin tow-net, including tests of the new flow-meter and depth gauges and the net changing mechanism. Trials of a 50" net for fish larvae.
2. To study the vertical distribution of the larvae of plaice and other fish in the Great Orme spawning area, using the changing net.
3. To study the distribution of newly metamorphosed plaice and dab post-larvae between the Great Orme spawning area and Red Wharf Bay, using the sledge net and possibly a 4 metre beam trawl.
4. To compare the catches of newly metamorphosed plaice and dab post-larvae in the sledge net and 4 metre beam trawl in Red Wharf Bay.
5. To study predation on plaice post-larvae by catching larger fish for stomach content analysis.
6. To release sea-bed drifters between the larval patch and Red Wharf Bay.
7. To carry out a temperature and salinity grid between Point Lynas, the Great Orme and Penmaenmawr.
8. To service the Plessey current meters moored off Red Wharf Bay.
9. If time permits to take samples for phosphate analysis off the Cumberland coast.

Narrative

The ship sailed from Lowestoft on the afternoon tide and had a good passage to the Irish Sea, arriving in Holyhead harbour at 2200 on the 31st to pick up a cook who had travelled overland from Lowestoft. We sailed at 2330 and started work two hours later on a short survey with the tin tow net to find the centre of the larvae patch in the Great Orme spawning area. This survey was completed during the afternoon. We were about to start a 24-hour station to study the vertical distribution of larvae and Shreeve was preparing the electrical mechanism of the closing net when a piece of wire caught him in the eye. After telephone calls to three hospitals we decided to go to Liverpool with him. We were alongside at 2030 and Shreeve was taken to St. Pauls Eye Hospital where the injury was said to be not serious, but he was kept for observation. The ship sailed at 2300 and the vertical distribution work was started at 0300 and finished at 0500 on the 3rd. Between 0745 and 1030 we worked with TELLINA in Red Wharf Bay comparing the catching power for 0-group flatfish of the sledge net towed by CLIONE and the 4 metre beam trawl towed by TELLINA by making four runs together between buoys. The wind freshened during the morning and by midday it was too rough to start the sledge survey further offshore, so we spent the rest of the day trawling between Red Wharf Bay and the larval patch.

Between 0600 on the 4th and 0530 on the 5th we worked a grid of 15 sledge stations between Red Wharf Bay and the patch. The next job was to recover the Plessey current meters off Red Wharf Bay at slack water about 0830. By midday the wind was near gale force from the west and we spent the rest of the day

working a close grid of temperature and salinity stations in comparatively sheltered waters east of Anglesey. By this time we had been able to fit in most of the work planned for the North Wales area, so in the early morning of the 6th we started on the phosphate grid off the Cumberland coast; during the working of this grid we were able to fit in a series of tin tow net trials between stations. This work was finished on the morning of the 7th and the ship docked in Fleetwood on the midday tide. The scientific staff returned to Lowestoft on the 8th.

We were very fortunate that the weather allowed us to complete all the aims of the cruise in the minimum of time.

Results

Aim 1. The new electric flowmeters and depth gauges and the net closing mechanism all worked well. A series of trials of a 30-inch tin tow net was carried out with different mesh nets, and clogging of the nets was observed on several occasions.

Aim 2. Hauls with the closing nets were made every four hours over twenty-four hours, and light measurements were made after each tow.

Aims 3 and 4. The sledge net was fished alongside the 4 metre beam trawl towed by TELLINA in 4 fathoms. The sledge net caught between 220 and 450 newly metamorphosed dab and plaice post-larvae per tow against similar numbers in the beam trawl. Since the sledge net was thus proved an efficient instrument for catching the small 0-group fish on the bottom, a grid of stations was worked out to 25 miles north-east of Red Wharf Bay. Some 0-group flatfish were caught in each haul, the numbers ranging from hundreds inshore to tens offshore.

Aim 5. The stomachs of large numbers of whiting and other fish were examined and many more fish of eight species were preserved for later analysis. Only one dab post-larva was found and that was in the stomach of a red gurnard.

Aim 6. 248 sea-bed drifters were released at ten stations on the sledge net survey.

Aim 7. Eighteen stations, three miles apart, were worked on this survey from Beaumaris Bay to twelve miles offshore.

Aim 8. Since PLATESSA was returning to Lowestoft the Plessey current meters were recovered instead of being serviced. The operation was successful apart from the loss of one of the bunches of mooring chain with its anchor. (Their position has been notified to F.O., Conway). The meters were all in good condition and working.

Aim 9. The phosphate grid comprised 33 stations on a four mile grid; eleven stations were series from surface to bottom and the rest were surface samples. One sample was taken a mile off the end of the discharge pipelines south of Whitehaven.

J. Corlett
7.6.67.

Seen in Draft: T. A. S.

Initialled: A. J. L.

/Distribution over...

Distribution:

Dr. Cole	Fishery officer, Conway
Mr. Lee	Dr. Crisp } Menai Bridge
Captain Aldiss	Mr. Harvey } Menai Bridge
Dr. Cushing	Mr. Hepper } Conway
Mr. Bolster	Mr. Colman } Port Erin
Mr. Burd	Mr. Bowers } Port Erin
Mr. Cattley	Mr. Craven (2)
Mr. Corlett	
Mr. Garrod	
Dr. Harden Jones	
Mr. Iles	
Dr. Jamieson	
Mr. Margetts	
Mr. Trout	
Mr. Holden	
Dr. Purdom	
Mr. Bridger	
Mr. Mitson	
Mr. Tungate	
Mr. Williams	
Mr. Wood	
Mr. Adams	
Mr. Mills	
Mr. Kay	
Miss Conolly	
General Lab.	
Lab. Registry	
Library (2)	
Mr. Whiting	
Mr. Margetts (NIC next cruise)	
Mr. Simpson	
Dr. Reynolds	
Chief Inspector	
All District Inspectors	
Fisheries Registry	
Captain Sutton	
CLIONE file	
Mr. Postill	
Skipper Lerner	
Mr. Wollaston	
Mr. W. Baird, DAFS	
Director, Dublin	
Mr. Glover	
Hydrographic Dept.	
Dr. Lucas	
Director, N.I.O.	
Dr. Peachey	
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