

Provisional. Not to be quoted without reference to the writer

R. V. CLIONE

Report for Cruise 13/1967

<u>Staff</u>	<u>Duration</u>
P. O. Johnson	1000 hours, 5 December-
P. D. Wallace	1015 hours, 19 December
T. J. Hulme	
T. J. Storeton-West	(All times are GMT)
R. Buzeta	
R. Villanueva	

Aims

1. To carry out an echo and fishing survey for sprat in the Bristol Channel region.

This will involve the use of 30 kHz and 100 kHz echo sounders, the latter with counting equipment; fishing will be carried out with the Engels midwater trawl and headline transducer.

2. Surface temperature and salinity observations will be made.
3. Two anchored stations will be laid in the vicinity of the Corton Lightvessel at the beginning of the trip and taken up on return. Staff for this operation (J. Ramster, G. C. Baxter and A. Jefferies - Plessey U.K.) will sail with the vessel and be taken off by Gorleston pilot.

Narrative

CLIONE left Lowestoft at 1000 hours on 5 December and proceeded to Corton Lightvessel, where two current meter stations were moored. After completing this job by early afternoon the hydrographic staff were taken off by Gorleston pilot vessel and CLIONE then continued to the English Channel where a westerly gale hindered progress and forced the ship to seek shelter off Torbay late on 6 December. On the following day the wind was still at gale force, having now veered to the northwest, and it was decided to carry out a survey in the Torbay-Lyme Bay region until conditions moderated. The next day (8 December) showed no improvement, the wind now increasing to a severe northerly gale, so a further limited survey was made in the Eddystone Bay area between the Fal Estuary and Start Point. Later on the same day the wind moderated to Force 6 and it was then decided to make passage around Land's End to the Bristol Channel that night. After clearing Land's End and when well across to the southwest of Lundy a sudden severe storm arose from the west and a very difficult time ensued for the next three hours, with gusts up to 90 knots and very confused heavy seas. The shelter of the Welsh coast was reached on the morning of 9 December and the Bristol Channel echo survey commenced. This continued over the next few days to cover the region within a line between the Smalls and Land's End and was completed late on 12 December, overnight return then being made to the English Channel and the survey continuing on 13 December in the Weymouth-Poole Bay area. Weather conditions had improved at this time and on 14 December very calm foggy conditions prevailed when the Beachy Head-Dungeness-Dover Straits area was surveyed. Overnight anchorage was then made in the outer harbour of Boulogne. On 15 December the Straits and some of the Southern Bight herring grounds were covered and the search was then extended northwards to the East Anglian coast, the Wash being reached late that night. A

strong northwesterly wind had now arisen and a heavy ground swell made working conditions difficult for the next two days when a survey of the Inner and Outer Wash region was carried out. Return passage to an anchorage off Gorleston was made late on 17 December. The following day three hydrographic staff were picked up from the Gorleston pilot vessel and the moored current meter stations laid at the beginning of the voyage were successfully retrieved, the hydrographers returning by Gorleston pilot early in the afternoon. CLIONE then re-anchored in Gorleston Roads to await the tide and eventually docked at Lowestoft at 1015 hours on 19 December after covering a total distance of 2,140 miles during the voyage.

Results

The area covered by the Bristol Channel survey proved almost entirely blank except for very light scattered fleck traces in the innermost region and a few small shoals inshore along the north coast of Devon and Cornwall.

In the Eddystone Bay region a limited area of small and some large "plume" traces was found off Plymouth, in the Torbay-Lyme Bay area scattered small shoals were evident in the western half of the region but they were mainly concentrated just off Torbay where vessels were fishing on them.

More encouraging signs first began to appear in Weymouth Bay, and in the Poole-Isle of Wight region larger numbers of medium and some larger shoals were located. Here a number of pair-boat units were working and catching sprats. These shoals continued in a narrow coastal band along the south coast, becoming more numerous in the Beachy Head-Dungeness area. Fishing with the Engels midwater trawl identified them as sprat shoals. These shoals thinned out about 5 miles off the coast and reappeared towards the French coast off Boulogne.

In the Dover Straits area a number of small "plume" traces were recorded along the Ridge and between the Fairy and West Hinder Banks, but the Sandettie area proved almost entirely barren, as did the Galloper Deep water. Traces again thickened up towards the Suffolk coast and were fairly extensive along this region as far north as Lowestoft where they thinned out again, little being recorded between there and the Wash.

In the Wash area two very high density patches of fish were located, each about 3 square miles in extent and 20-30 feet thick. One lay on the west side of the Roaring Middle at slack low water and was being fished by small pair-boats. The other was in the vicinity of Burnham Ridges-Lynn Knock at about half-tide and Grimsby vessels were working here. Very good catches of sprat were being made in both localities.

The relative densities of pelagic fish traces in the various areas surveyed may be judged from the attached summary table of counter results.

P. O. Johnson

20 December 1967

Seen in draft: TAS

Initialled: AJL

100 kHz counter survey results

Region	Mean count-rate (cycles/minute)	Maximum 10-minute period count-rate*
Bristol Channel (inner region)	430	1,600
Bristol Channel (outer region)	190	800
Eddystone Bay	456	4,400
Torbay-Lyme Bay	800	5,400
Weymouth-Poole	1,700	10,200
Beachy Head-Dungeness	3,581	14,600
Straits-Boulogne	800	3,800
The Ridge	2,011	3,600
Sandettie	400	1,000
Fairy Bank-Hinder	1,533	6,400
Galloper Deep	226	600
Suffolk coast	3,284	10,600
Inner Wash	17,918	110,800
Outer Wash	2,998	24,200

* \approx 1.7 nautical miles at 10 knots

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. Ramster (N.I.C. next cruise)
Mr. Simpson
Dr. Reynolds
Chief Inspector
All D.Is
Fisheries Registry
Captain Sutton
CLIONE file (Captain Sutton)
Mr. Sutcliffe
Skipper Button
The British Trawlers' Federation Ltd.
Mr. Buchanan Wollaston
Mr. Baird, D.A.F.S.
Director, Dublin
Mr. Glover
Hydrographic Department
Dr. Lucas
Director, N.I.O.
Dr. Peachey
Mr. Shelbourne
W.F.A.
Director, Charlottenlund
Director, IJmuiden

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Mr. Wallace
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Mr. Storeton-West
Mr. Buzeta
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