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R. V. CLIONE

Report for Cruise 6/1967

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 L. F. Khalil (Helminthological Unit)

Duration: 13-27 July

Aims

1. To sample herring populations of central and northern North Sea for stock characteristics.
2. To collect material for genetic studies on herring and other species in the area.
3. To attempt starch gel and starch-agar gel electrophoresis of fresh material at sea.
4. To collect live specimens of flatfish species for Dr. Purdom and Mr. A. Jones.

Narrative

CLIONE departed at 1315 on 13th July and steamed to the Silver Pits where fishing with the Dutch Herring Trawl began on the 14th. The Silver Pits and Skate Hole area produced only very few herring - horse mackerel, whiting and cod making up most of the catch. The Dogger north ground, fished on the 15th, was also unproductive of herring and a haul of 67 fish at Bruceys Garden was the only catch of the day. At Farne Deep on the 16th, 2½ baskets of herring were caught together with the whiting and Gadus minutus, but over the Long Forties none were found. The 17th was spent in the Firth of Forth but again only individual or very few herring appeared in the catch. The Devil's Hole surveyed on the 18th produced 2½ baskets of herring in one haul, together with 5 baskets of Gadus minutus and a few cod - the latter two species making up most of the catch on the 19th July on the Witch Ground and the Fladen, although one haul on the Fladen produced 1½ baskets of herring.

CLIONE steamed overnight towards Stavanger, docking at on the 20th and leaving at 0600 on the 20th. While at Stavanger the Dutch herring trawl was fitted with wooden beads in order to increase the chances of catching flatfish - particularly turbot and brill, none of which had so far been recorded in the catch.

The Egersund Bank was reached soon after 1300 on the 21st, but two hauls produced only 4 herring although haddock was caught in some quantity. On the 22nd fishing was delayed by trouble with the steering gear which was soon fixed, but on the first haul of the day the trawl became fast after a half hour tow. The after door surfaced and on recovery it was found that all kite wires were parted, the aft kite lost and the net damaged beyond repair. A new trawl was bent on, with the beads, and fishing continued on the Coffee Soil where 5 baskets of small mackerel and a few scads were caught, but only very few herring. The 23rd was spent on the west side of Horn Reef and Clay Deep where catches were very light even though large plume trace was recorded on the echo sounder. Only one turbot had so far been caught and the kites were removed and 8" floats fitted. From the 24th onwards the Hospital Ground, Silver Pits, Middle Rough and Cleaver Bank were surveyed but although horse mackerel, whiting, haddock and small flatfish

were relatively abundant few herring and no turbot and brill were caught. Fishing the last haul was at 1925 on the 26th at Cleaver Bank, and CLIONE steamed overnight towards Lowestoft, docking at 1300.

### Results

1. Herring was scarce over much of the area surveyed but in some areas it was possible to sample for the usual racial characteristics. Otoliths and scale samples are available for these. In addition female ripe gonads from a number of fish were preserved for fecundity determination.
2. The small catches of herring included live fish in good condition. These gave large volume serum samples of good quality both with the 2 cc and the 5 cc Vacutainer Tubes which are now available as reference samples and for testing techniques in the laboratory.
3. The starch-gel method for analysis of serum samples was successfully carried out at sea, even though the present gimbal table is rather small for the purpose.
4. Male and female lemon sole were kept in the deck tank and are available for Dr. Purdom.
5. Only one small turbot was caught and returned to Lowestoft for Mr. A. Jones.
6. Anosahis nematode larvae from various localities and ages for both herring and other species of fish were collected and taken to the St. Albans laboratory by Dr. Khalil. Other helminth parasites were also collected. The collections from herring samples filled some of the gaps in the distribution of this parasite in the North Sea.

T. D. Iles  
4th August, 1967

Seen in draft: J. Postill  
A. J. Lee

### Distribution

Dr. Cole	General Lab.
Mr. Lee	Lab. Registry
Captain Aldiss	Library (2)
Dr. Cushing	Mr. Whiting
Mr. Burd	N.I.C. next cruise
Mr. Bolster	Mr. Simpson
Mr. Cattley	Dr. Reynolds
Mr. Corlett	Chief Inspector
Mr. Garrod	All District Inspectors
Dr. Harden Jones	Fisheries Registry
Mr. Iles	Captain Sutton
Dr. Jamieson	CLIONE file (Captain Sutton)
Mr. Margetts	Mr. Postill
Mr. Trout	Skipper Larner
Mr. Holden	Mr. Buchanan Wollaston
Dr. Purdom	Mr. W. Baird, D.A.F.S.
Mr. Bridger	Director, Dublin
Mr. Mitson	Mr. Glover
Mr. Tungate	Hydrographic Department
Mr. Williams	Dr. Lucas
Mr. Wood	Director, N.I.O.
Mr. Adams	Dr. Peachey
Mr. Mills	Mr. Shelbourne
Mr. Kay	W.F.A.
Miss Conolly	Director, Charlottenlund
	Director, IJmuiden
	Mr. Mumford
	Mr. Holford
	Mr. Howlett
	Mr. Boon
	Mr. Khalil