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MV Resolution

CHARTER CRUISE

REPORT

1-28 September 1989

Personnel

Part 1: 1-14 September

Part 2: 15-28 September

P W Rankine	HSO (in charge)	P W Rankine	HSO (in charge)
D Baird	SO	L Cargill	ASO
J Turriff	ASO	J Turriff	ASO
J McWilliam (Miss)	ASO	E Watt (Miss)	ASO

Objectives

1. To take part in the ICES Coordinated International Herring Larval Surveys in the Buchan, Orkney-Shetland and West of Scotland areas.
2. To collect surface temperature and salinity data in the 3 survey areas.
3. To remove and count all herring and other fish larvae from the plankton samples collected during the surveys.

Narrative

The Gardline charter vessel *Resolution* left Aberdeen Bay at 2100 on 1 September and steamed to Station 101 of the Buchan survey grid where sampling commenced at 0900 on the 2nd. Sampling continued as in Figure 1 and the survey was completed, ahead of schedule, on the 7th. *Resolution* then proceeded northwards to the Pentland Firth, 8 stations of the Orkney-Shetland grid being sampled on the way. Sampling of the VIa(N) grid then commenced at Station 36 and continued as depicted in Figure 1. *Resolution* docked in Ullapool at 1600 on the 14th.

Scientific and ship's staff were changed on the 15th. Sailing was delayed by storm force winds until 1430 on the 17th. *Resolution* then recommenced sampling in the North Minch in very heavy weather and continued working as in Figure 1 before storm force 10 winds forced the abandonment of the VIa grid on the 18th. Sampling of the Orkney-Shetland grid was carried out in very rough conditions with intermittent stoppages due to the severity of the weather. The survey track is depicted in Figure 1. *Resolution* completed the grid at 0130 on the 28th and docked in Aberdeen at 0900 that morning.

Results

A total of 372 stations were sampled; 114 stations were completed in the Buchan area, 123 in the West of Scotland area and 125 in the Orkney-Shetland area. A total of 41,423 clupeid larvae were removed from the samples during the trip.

Preliminary results depicting the distribution of herring larvae found during each survey area are given in Figure 2. Many large larvae were evident in the samples strongly indicating that early hatching had taken place. Larval numbers were significantly lower than in last year's surveys.

In addition, 330 larvae were preserved in liquid nitrogen for RNA-DNA analysis by Aberdeen University. Surface temperature and salinity data were collected continuously during the surveys.

General

Close contact was maintained with the German research vessel *Poseidon* during the VIa(N) surveys in order to ensure an efficient coverage of the area.

Paul Rankine
13 October 1989

Fig. 1

"RESOLUTION" 1-28 September 1989 Survey tracks



