

In Confidence

10CP78

FRV "CLUPEA"  
CRUISE 10/78  
5 SEPTEMBER - 13 OCTOBER 1978  
AMENDMENT

Personnel

R.J. Hutcheon ASO will replace I. McLaren for the period 30 September to 13 October.

General

Radio contact will be established with East German and Dutch research vessels operating in the Shetland/Orkney area during the period 5-15 September. Calls will be made daily at 0700 and 1900 G.M.T. on 2182 Kcs.

Arrangements will be made to carry out a comparative fishing experiment with the Dutch research vessel "KW34 - Rose Marie" when the ships are operating in the same area. This comparative fishing experiment will last for approximately 24 hours.

A Saville  
23 August 1978

IN CONFIDENCE NOT TO BE QUOTED WITHOUT PRIOR REFERENCE TO THE  
LABORATORY

FRV CLUPEA  
CRUISE 10/78  
REPORT

5 September - 13 October 1978

#### Objectives

- 1 To carry out a survey of herring larval abundance off the north and east coasts of Scotland.
- 2 To carry out a comparative herring larval sampling experiment with the Dutch vessel ROSE MARIE.

#### Narrative

Scientific staff joined CLUPEA at Aberdeen on the morning of 5 September, when the scientific gear was loaded. After carrying out trials with the newly fitted log CLUPEA proceeded to the Fair Isle area. The survey was begun at 0500 hrs on 6 September. During the week sampling was carried out around Foula and to the west of Orkney. Sampling off the north of Orkney was curtailed by bad weather. During the week the plankton metering system ceased to function and sampling was only possible after the plankton warp had been measured and marked. CLUPEA docked in Kirkwall for the weekend.

Because of strong westerly winds on 11 September sampling was restricted to the inshore stations along the east coast of Orkney and in the Moray Firth. On the morning of 12 September R/T contact was made with the ROSE MARIE and arrangements were made to carry out a comparative herring larval sampling experiment to the east of Orkney during the night of 12 and 13 Sept. After completing the experiment the sampling of the stations north of Orkney was again attempted, but operations were again curtailed by bad weather. Stations were then sampled in the Moray Firth but further deterioration in the weather forced CLUPEA to seek shelter in Buckie. This severe weather prevented any further work during that week.

During the following week CLUPEA operated in the area east of Scotland and as the weather remained favourable during the whole week the survey was completed before CLUPEA docked in Aberdeen for the weekend.

CLUPEA sailed from Aberdeen at 1030 hrs on 25 September and headed for the Moray Firth area. Rough weather in the early part of the week restricted operations to inshore stations in the Moray Firth and east of Orkney. Improving weather in the latter part of the week allowed CLUPEA to sample the more offshore stations around Fair Isle. However a return to the strong westerly winds of earlier in the week prevented any work on Friday. The weekend was spent in Kirkwall.

CLUPEA sailed from Kirkwall at 1100 hrs on 2 October but forecasts of severe weather and strong westerly winds restricted operations to the inshore stations east of Orkney and in the Moray Firth. With continuing bad weather CLUPEA docked in Buckie at 1400 hrs on 5 October.

During the final week of the cruise an improvement in the weather allowed sampling in the area west of Orkney and west of Shetland. However during the week the heavy swell in the area north of Orkney and round Fair Isle prevented sampling in these areas. After completing all the stations that were possible with regard to the weather conditions CLUPEA docked in Aberdeen where the scientific gear was unloaded on 13 October.

## Results

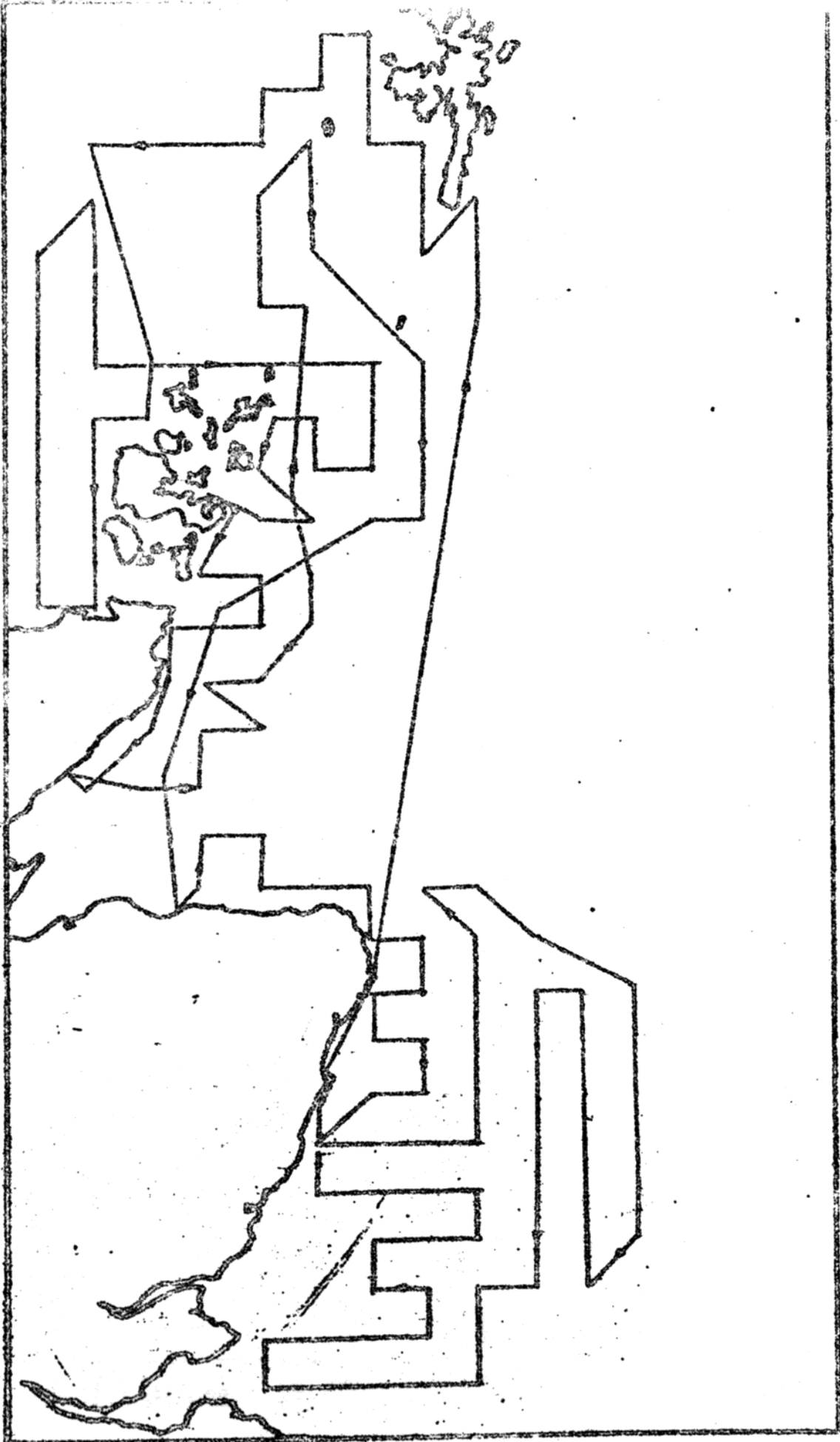
During the cruise the Buchan area was sampled once and two attempts were made to sample the Orkney/Shetland area. Both the areas north of Orkney and around Fair Isle were poorly sampled because of long periods of bad weather.

Those parts of the surveys that were completed twice indicated that larvae were more abundant in the earlier survey. The main centres of larval abundance appeared from visual examination of the samples as they were taken, to be Foula, Noup Head and Clyth Ness.

During the comparative sampling experiment it was evident that the handling techniques of the CLUPEA and ROSE MARIE were very different. CLUPEA took only half the time to complete a haul that the ROSE MARIE did. Larvae in the area where the experiment was carried out were rather scarce and as yet no detailed figures are available for comparison. Visual examinations carried out on board the vessels indicated that the ships were catching similar numbers of larvae from hauls of such widely different durations.

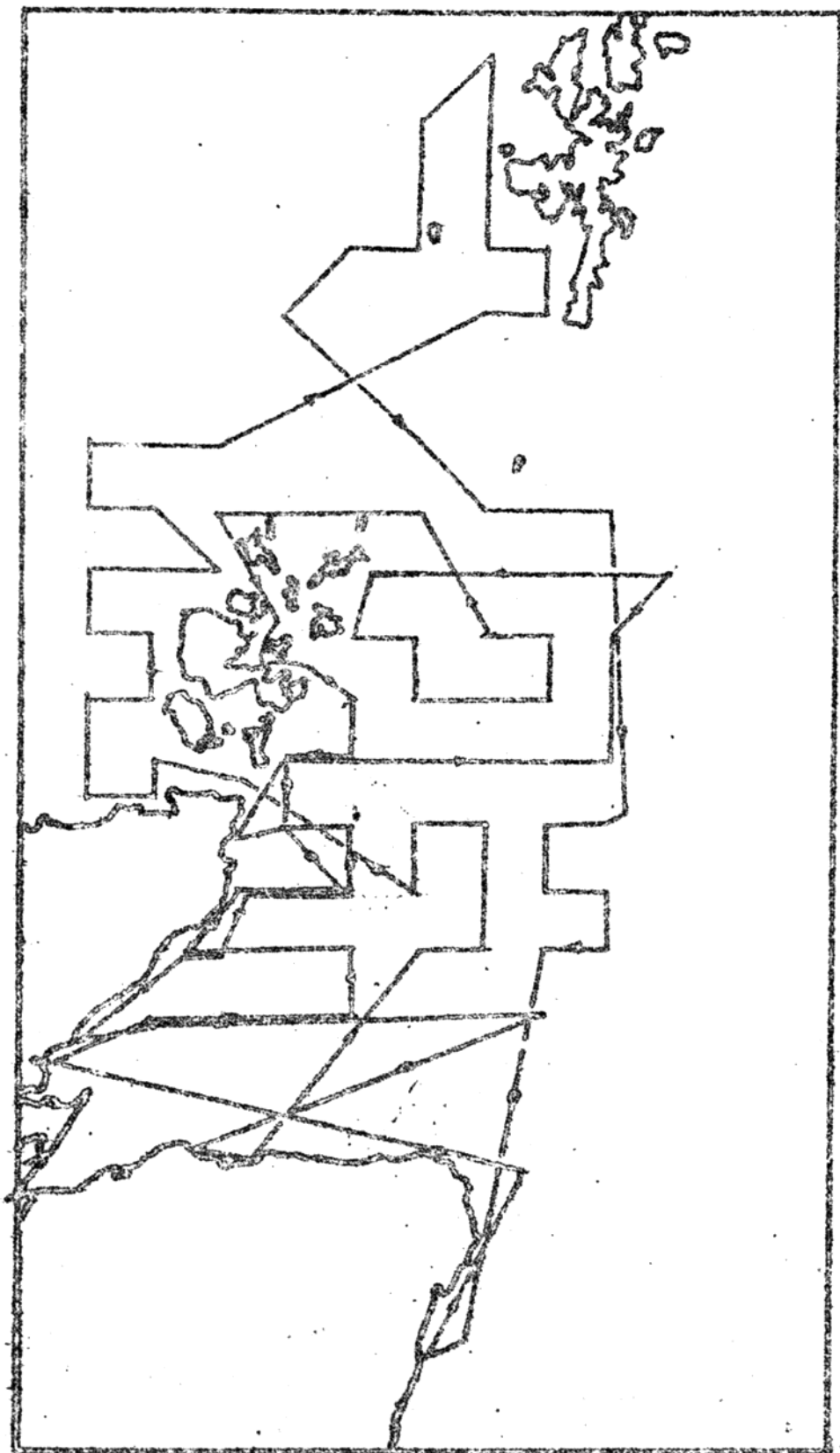
David W McKay  
27 November 1978

Seen in draft: G Geddes



F.R.V. Clupea 8/9 - 21/9/78

10 CR78



ER.V Clupea 26/9 - 12/10/78 10CR78