

Mr BAP:z

1973 RESEARCH VESSEL PROGRAMME

REPORT: RV CIROLANA: CRUISE 7/1973
(PROVISIONAL): Not to be quoted without prior reference to the author)
STAFF

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DURATION

Left Grimsby 1900 h, 17 August

Arrived Grimsby 1715 h, 12 September

LOCALITY

Barents Sea-West Spitsbergen

AIMS

1. To take part in the International 0-group survey of the Barents Sea.
2. To sample benthos north and west of Spitsbergen.
3. To make nanoplankton studies.

NARRATIVE

The ship left Grimsby on the evening tide of 17 August and sailed direct to the starting point of the UK part of the survey grid. On 21 August trial hauls were made with the capelin trawl fitted with the acoustic link. The survey was started at 0930 h next day and work continued until 7 September with no interruptions for bad weather. In spite of predictions of a clear ice season, some ice was met at 79°35'N 06°30'E on the route to the western end of the northernmost hydrographic section, and decaying pack ice prevented work beyond 80°14'N and 12°18'E. The capelin trawl was used for sampling 0-group fish until Sjubre Bank off West Spitsbergen was reached on the return part of the survey. The Granton trawl was then rigged for sampling fish on the sea bed and the Boothbay net was used to sample 0-group fish at selected places to supplement the data obtained during the northward survey. The fine weather allowed CIROLANA to work an additional survey line from Hope Island to 77°30'N and a grid of eight capelin trawl hauls was worked between 74°00'N and 72°00'N at the request of the G.O. SARS. Work was completed at 2300 h, 7 September when a fault in the cable winch resulted in extensive damage to the trawl. The ship then sailed for Hammerfest where Mr Blacker stayed to await the arrival of the scientists from the Norwegian and Russian research vessels for analysis of the results. CIROLANA entered Hammerfest at 1200 h, 8 September and left at 1500 h the same day. After a good passage the ship docked at Grimsby at 1715 h, 12 September.

RESULTS

1. The international survey was completed successfully. 61 hauls were made

with the capelin trawl and a further 34 Boothbay hauls were made. The Simrad integrator was run throughout the survey and echo-levels were recorded every 2 miles.

Comparison of the results with those of previous years cannot be made until the other research vessels complete their surveys which started 8 or 9 days later than CIROLANA's.

Five hydrographic sections were worked and an additional section was started at 80°14'N and 12°18'E but ice prevented the extension of this section over the edge of the shelf.

2. Ice prevented the sampling of benthos in the area north of Spitsbergen, but observations were made at all bottom trawl stations and an underwater camera was used on the trawl at a number of stations.

3. Nannoplankton. A continuous record of fluorometer readings was made throughout the cruise. On each day in the Arctic three stations were worked. At the first a sample was preserved for spectrophotometry. The second was used for differential algal counts, and the third for more detailed microscopic analysis, photography, and the preparations of cultures.

4. Miscellaneous. (a) The acoustic link worked successfully for about a week, but the hydraulic system of the ship-borne receiver failed because of corrosion, and eventually the acoustic transmitter on the net leaked.

b. Test runs were made successfully with the 100 kHz sounder on a variety of scattering layers.

c. The hydrographic pinger was tested successfully near the end of the working period, but the fine weather experienced throughout the cruise made its use unnecessary at the hydrographic stations.

d. A quantity of capelin was frozen for fish food.

e. Meteorological observations were made at synoptic hours throughout the cruise, but XBT observations could only be made on a few occasions before a fault developed in the launcher.

R W Blacker
21 September 1973

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Basic List

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