

CRUISE REPORT FROM R/V ARGOS

Survey period: 001106-001111

Survey area: The Skagerrak, the Kattegat,
the Sound, and the Baltic Proper

Principal: SMHI

SUMMARY

The expedition was performed within SMHI's regular marine monitoring program and covered the Skagerrak, the Kattegat, the Sound, and Baltic Proper.

The temperatures varied between 9.3°C in the northern Baltic proper and 12.5°C in the Skagerrak. Nutrient concentrations were generally normal for the season with a few exceptions.

The bottom water oxygen deficiency in the southeastern Kattegatt was restored to normal oxygen concentrations. In the Baltic Sea the oxygen concentrations still were very low and hydrogen sulphide was present in the whole area except in the Arkona Basin and at station BCSIII-10.

PRELIMINARY RESULTS

The expedition, which was a part of the SMHI regular monitoring program, began in Göteborg on the 6th of November and ended in Karlskrona on the 11th of November. Additional sampling in the southeastern Kattegatt was conducted due to earlier detected oxygen deficiency.

The weather was dominated by moderate winds with the exception for the first two days when strong winds prevailed.

The Skagerrak

The sea surface temperature varied between 10.7°C and 12.5°C, coldest in the Baltic current detected at station Å13. The nutrient concentrations were normal for the season.

The Kattegat and the Sound

The sea surface temperature varied between 10.1°C and 10.7°C, coldest in the Laholm Bay, and warmest in the southern part of the Sound. The sea surface temperature in the Kattegat was about 10.5°C. In the Kattegat the concentrations of nitrogen were lower than normal and close to the detection limit. Also phosphorous and silica concentrations were lower than normal. In the Sound, however, the nutrient concentrations were normal.

The bottom oxygen concentration in the Laholm Bay was restored from earlier deficiency. At station W Landskrona the lowest oxygen concentration measured was 2.61 ml/l (42% oxygen saturation).

The Baltic Sea

The sea surface temperature varied from 9.3°C in the northern Baltic Proper to 11.4°C in the Hanö Bight. The nutrient concentrations were lower than normal in the southeastern Baltic, while it was normal in the rest of the area, except silica that showed higher concentrations than normal at some stations.

The oxygen concentration in bottom water was generally very low and hydrogen sulphide was present in the whole area except in Arkona Basin and at station BCSIII-10. Concentrations below 2 ml/l was present at depths greater than 70 m in the Bornholm Basin, 80-90 m in the both Gotland Basins as well as in the northern Baltic. In the Bornholm Basin hydrogen sulphide was measured at depths greater than 80 m. In the eastern and northern Baltic hydrogen sulphide was present on depths greater than 125 m and in the western Gotland basin on depth greater than 100 m.

PARTICIPANTS

Name	From
Nils Kajrup, Chief scientist	SMHI Oceanographical lab.
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APPENDICES

- Track chart
- Table over stations, parameters and sampling depths
- Map showing bottom oxygen concentrations
- Monthly average plots for selected stations
- Profiles for selected stations