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Report from SMHIs monitoring cruise with KBV 002 Triton

Survey period: 2013-10-25 - 2013-10-28
Survey area: The Baltic Proper.
Principal: SMHI and the Swedish Agency for Marine and Water Management

SUMMARY

The expedition was part of the Swedish regular marine monitoring programme and covered the Western and Eastern part of the Baltic Proper.

Data presented in this report have been subject to preliminary quality control procedures only.

Surface water temperatures were normal in the whole investigated area.
Salinity in the surface layer of the Eastern Gotland Basin was clearly below normal.
Surface nutrient concentrations were normal for the season.
Oxygen concentrations below 2 ml/l were present at depths exceeding 60-80 metres.
Hydrogen sulphide was found deeper than 80 metres in the Western Gotland Basin and deeper than 125 metres in the Eastern Gotland Basin.
Plankton activity was low.

The next expedition is planned to take place November 7 to 11, when the same area will be visited.

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PRELIMINARY RESULTS

The cruise began in Oskarshamn on October 25th and ended in Slite on Gotland the 28th.
Winds during the expedition were weak to moderate. Air temperature varied between 10 and 15°C.

Baltic Proper

Surface water temperatures were normal, for the season, and varied between 10 to 12°C.
The thermocline, which was very distinct, was found at 30 to 35 meters depth, where the temperature dropped from surface values to 4°C, over just a few meters. The halocline was found at depths between 60 and 80 meters. The surface salinity in the Eastern Gotland Basin was, as during the last cruise, clearly below normal.
All nutrients showed, for the season, typical values, surface phosphate concentrations varied between 0.13 and 0.24µmol/l. The sum of nitrite + nitrate varied from below detection limit (<0.10 µmol/l) to 0.26µmol/l, while surface silicate varied between 4.9 and 7.7µmol/l.
In the Western Gotland Basin oxygen concentrations below 2 ml/l were present at depths exceeding 60-70 metres and hydrogen sulphide was found deeper than 80 meters. At the station Segerstad II, just east of Öland, hydrogen sulphide was found as shallow as 60 meters.
In the Eastern Gotland Basin oxygen concentrations below 2 ml/l were found deeper than 80 meters and hydrogen sulphide at depths exceeding 125 metres.
Plankton activity, based on fluorescence measurements and oxygen saturation was low.

PARTICIPANTS

Name		From
Anna-Kerstin Thell	Cruise leader	SMHI Oceanographic laboratory
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Daniel Bergman-Sjöstrand		-"-
Martin Hansson		-”-
Mikael Krysell		-”-

APPENDICES

Plots

Click on the button to open appendices.
Note that this will only work when connected to Internet!

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