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CRUISE REPORT FROM R/V ARGOS

Survey period: 990125-990211

Survey area: The Skagerrak and the Kattegat

Principal: SMHI and the National Board of Fisheries

SUMMARY

The expedition was performed in co-operation with the National Board of Fisheries and covered the Skagerrak and the Kattegatt. Nutrient concentrations in the surface water of the Skagerrak were mapped.
High concentrations of nitrogen associated with continental river water was found in the south eastern and eastern Skagerrak surface water and at intermediate water in the Kattegatt.

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PRELIMINARY RESULTS

The expedition, which was a part of the International Bottom Trawl Survey (IBTS), performed by the National Board of Fisheries, started in Göteborg the 25th of January and ended in the same place the 11th of February. The nutrient concentrations of surface water in the Skagerrak were mapped.
Moderate to strong winds dominated the weather the first week, while in the beginning of the second week the winds were mainly weak. Strong and very strong winds ended the second week while the winds of the third and last week were weak.

The Skagerrak

The sea surface temperature was about 6°C in the western and central part and decreased towards the Swedish West Coats where it was below 2°C.
High concentrations of nitrate (15-30 µmol/l) were found in the surface water in the eastern part of the Skagerrak. This water was evidently influenced by the continental rivers. The phosphate and silicate concentrations were also slightly elevated in this area. Highest concentrations were measured at station HS7 outside Skagen. Other parts of the Skagerrak showed nutrient concentrations that were normal for the season.

The Kattegatt and the Sound

The sea surface temperature was between 2.7°C in the northern part and 1.4°C in the southern part, somewhat colder near the coast. In the Sound the temperature was about 2°C.
At station Fladen silicate and nitrogen had slightly higher concentrations than normal, indicating the influence of continental river water. The phosphate concentrations were normal for the season in the whole area, while high silicate values were found at station Anholt E due to influence of low salinity water. The lowest bottom oxygen concentration was found at W Landskrona, 5.44 ml/l (saturation 77%).

PARTICIPANTS

Name	From
Jan Szaron, chief scientist (w 4)	SMHI Oceanographical lab.
Nils Kajrup, chief scientist (w 5)	- ″ -
Bengt Yhlen, chief scientist (w 6)	- ″ -
Jorge Valderrama (w 5-4)	- ″ -

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