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**REPORT OF THE STEERING GROUP FOR
THE COORDINATION OF A BASELINE STUDY OF BALTIC SEA SEDIMENTS**

Kiel, 8 April 1991

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Meeting Report

**STEERING GROUP FOR THE COORDINATION OF A BASELINE STUDY OF
BALTIC SEA SEDIMENTS**

Kiel, 8 April 1991

The meeting of the Steering Group was held in Kiel, at the Institut für Meereskunde an der Universität Kiel on 8 April, 1991, in conjunction with the meeting of the WG on the Baltic Marine Environment. The task of the Steering Group is to plan and conduct the first coordinated Baseline Study of Contaminants in Baltic Sea Sediments in 1993.

The tentative agenda is given in Annex 1, list of participants in Annex 2.

The meeting discussed briefly the aims of the 1st Baseline Study of Contaminants in Baltic Sea Sediments. In accordance with the Terms of Reference we came to the following principal goals:

1. Description of the distribution of contaminating substances in the surface sediments
2. Obtain accurate and time-representative data to serve as the first point in a future trend evaluation

During the discussions, the practical tasks involved were identified. Responsible persons were also identified. The tasks necessary to continue the planning are the following:

1. Selection of regions and stations. The work is divided (by area of expertise) between Birger Larsen (Southern Baltic), Ingemar Cato (Baltic Proper) and Boris Winterhalter (Gulf of Finland and Gulf of Bothnia).
2. Selection of methods and parameters. Responsible person are Lutz Brüggmann (trace elements), Per Jonsson (organic pollutants) and Rolf Carman (nutrients).
3. Selection of sampling methods: Lauri Niemistö.
4. Ship logistics: Lauri Niemistö.
5. Sample archive: Elisabeth Fogelqvist.
6. Selection of the laboratories and general quality assurance: the whole group.
7. Financing the project: the whole group.

It was agreed that the responsible persons should send their proposals to the convener by September 1, 1991. The proposals will then be circulated among the coordination group for comments. The meeting of the Baltic Geologists (Rostock, November 1991) would allow a discussion between at least some of the coordination group members. The final draft plan will then be sent for comments by the end of the year 1991. The plan must be finalized at the 1992 ICES/BME meeting, because one year is needed for the application of the necessary permissions to visit the stations. Also the ICES WG-MS will be consulted.

All the important open-sea net sedimentation basins of the Baltic Sea will be covered. While the Review of Contaminant Studies in the Baltic Sea Sediments gives an account of the sedimentation basins of the Baltic Sea, as well as the most frequently visited stations, the number of stations must be restricted, and it must be carefully considered which areas and stations give the most representative data. In order to obtain both time- and area-representative data, a few deep-core samples should be taken at each sedimentation area, surrounded

by several sediment surface samples. For the deep-core samples, also age determination is necessary. Age determination can be done by means of laminated sediments in anoxic bottoms, but for other cores, radioactive dating must be carried out. This cannot be done for the total amount of the stations which are necessary to the description of the distribution of the pollutants. It was tentatively discussed the possibility of having only 1 - 3 stations per sedimentation basin for full scale analysis, and a network of several stations per basin, where only sediment surface would be studied.

The selection of trace elements to be studied will be straightforward, because the number of elements does not considerably increase the costs. The selection of the chlorinated hydrocarbons is critical, because the cost of the analyses can easily become impossibly high.

In order to obtain a coherent data set, only a few specialized laboratories will probably be asked to carry out the analyses. The analyses are expensive and time-consuming, and ICES and Helcom will be asked to support the requirements concerning the laboratory resources in 1993. The expenses must probably be covered by national authorities. Trace element and nutrient analyses can be carried out in competent governmental laboratories involved in marine research and monitoring, which is already expensive, but some of the organic analyses, especially the sum parameter EOC1, must probably be done in commercial laboratories, in which case the cost will be even higher. The total cost of the experiment will be estimated for the consideration of the next Helcom-EC meeting. It was recognized that the Finnish Institute of Marine Research has offered the research vessel Aranda for a period of one month for the field work of the Baseline Study in 1993.

Scientists with specific research projects will also be invited to take part in the experiment.

With the present rapid development of the chemical methodology, new substances will in future be found in the marine environment. Also new analysis techniques will be developed. It was recognized that the Baseline Study offers a unique opportunity to obtain representative samples also for future research, provided proper sample storing. Elisabeth Fogelqvist of Sweden was asked to investigate possibilities of developing a sample bank.

The coordination group will now continue its work through correspondence. The next meeting will take place in connection with the 1992 ICES WG-BME meeting.

Steering Group for the Coordination of
a Baseline Study of Baltic Sea Sediments

Kiel, 8.8.1991

Institut für Meereskunde
Düsternbrooker Weg 20

TENTATIVE AGENDA

1. Opening of the meeting
2. Accepting the agenda
3. Information
4. Review of the Critical Review of Baltic Sea
Sediments
5. Review of the Baltic Sediment Intercalibration of
1986
6. Participants of the Steering Group
7. Tasks of the Steering Group
8. Next meeting

Annex 2

Participants to the meeting of the Coordination Group of the
First Baseline Study of Contaminants in the Baltic Sea
Sediments

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