

The Baltic Sea Geology–10

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The 10th International Marine Geological Conference “The Baltic Sea Geology–10” was held in St. Petersburg from August 24 to 28, 2010, hosted by the A.P. Karpinsky Russian Geological Research Institute (VSEGEI) and organized in collaboration with the Federal Agency on Mineral Resources of Russian Federation, Department on Mineral Resources of the Northwest Federal District, the Baltic Sea Geologists, and *Tector AS* (Stavanger, Norway) with financial support from the Russian Foundation for Basic Research and Committee on Science and Higher Education of St. Petersburg Government.

The conference continued a tradition of collaboration and scientific links between the Baltic Sea marine geologists aiming to present and to discuss research results, to broaden the knowl-

edge, and to initiate international future research. Scientific topics included different aspects of the marine geology such as geological structure of the Baltic Sea region, marine sedimentology and geochemistry, environmental geology, sea floor mapping, marine resources, and marine habitat studies. Special attention was paid to geological hazards, coastal processes, and modelling of the geological marine environment.

130 specialists in marine geosciences from eleven countries (Denmark, Germany, Estonia, Finland, Ireland, Latvia, Lithuania, Norway, Poland, Russia and the Ukraine) participated in the conference work. The scientific presentations and discussions showed the following developments in marine geosciences triggered through international and national research projects (among others: BONUS–INFLOW, BONUS–BALTIC GAS, TOPCONs, etc.):



The Conference participants after closing ceremony at VSEGEI staircase.

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- Interdisciplinary integration of geosciences, biological sciences and mathematical modeling technologies for the analysis of geological and hydrographical processes. This development is in particular driven by the need of:

- planned activities for the conservation and protection of the natural marine environment;
- high resolution quantitative reconstruction of the environmental history of the Baltic Sea;
- prediction of hazards and management of catastrophic scenarios.

- Increasing adherence of coastal processes and protection of the Baltic coasts against erosion within the frame of integrated coastal zone management.

- Creation and compilation of databases and construction of geological and ecological maps on regional and sub-regional scales. This trend is due to the increasing utilization of the sea floor for the technical transfer of energy (cables, pipelines), establishment of wind farms etc., and the need of parameters for numerical modelling of future scenarios of sediment and coastal dynamics.

The last topic requires special planning efforts of international activities in order to integrate data and the compilation of geo-scientific maps for the Baltic Sea. During the last decades Baltic Sea geologists have compiled numerous geological maps within the frame of national and international projects, whereby a new trend is visible to interdisciplinary submarine

landscape and habitat mapping. Following an initiative of VSEGEI, a working group was established during the conference to network different national activities in data management and to elaborate a work program for an international Baltic Sea mapping project.

Due to increasing use of the Baltic Sea bottom and its coasts (oil-fields, cables, pipelines, wind farms, flood protection constructions, new ports, including oil-terminals), and changes of the natural environment (sea level rise, global warming, increasing coastal erosion, eutrophication) geological hazardous processes become more and more a problem across national boundaries. Solutions of this problem requires the setup of international programs to mitigate the effects of geological hazards.

The participants of “The Baltic-10” have shown through their contributions to the conference that a new generation of young scientists has been grown up. This generation trained in interdisciplinary approaches of marine sciences will be able to answer the complex questions of the society about the Baltic Sea environment in current and future days.

During the closing ceremony representatives of the Geological Survey of Finland launched the invitation for the “The Baltic-11” to be held in 2012 at Espoo, Finland.

Presentations of “The Baltic-10” are available at the conference web-site <http://www.vsegei.com/ru/conf/summary/baltica10/presentations.php>.