

Using modelling as a tool to ensure sustainable development of the Gulf of Finland-Baltic Sea ecosystem

A scientific workshop in support of the Gulf of Finland Declaration

Finnish Environment Institute (SYKE), Helsinki 24-25 November 2014

Scope

Registration, Posters and Venue

Programme

Preliminary Programme (subject to change)

Day 1: Monday 24 November

Overall introduction

11.00 **Opening and The Gulf of Finland Year Declaration**
Martti Poutanen, Finnish Ministry of Environment of Finland

11.20 **The scientific goals of the Gulf of Finland Year and linkages to Baltic Earth**
Kai Myrberg, SYKE, Finland

Scientific talks

11.50 **General physical forcing of the Gulf of Finland area, and how the forcing affects the ecosystems**
Urmas Lips, Tallinn University of Technology, Estonia

12.10 **Eutrophication and cost-effective nutrient load reductions (BSAP)**
Bo Gustafsson, Baltic Nest Institute, Sweden

12.30 **Biogeochemical modelling of the Baltic Sea and related challenges**
Markus Meier, SMHI, Sweden

12.50 Lunch

13.50 **Major natural hazards in the Gulf of Finland**
Tarmo Soomere, Tallinn University of Technology, Estonia

14.10 **Major human threats in the Gulf of Finland (oil spills, shipping accidents)**
Pentti Kujala, Aalto University, Finland

14.30 **The effects of climate change to the Gulf of Finland ecosystem**
Markku Viitasalo, SYKE, Finland

14.50 Coffee

15.20 Discussion and division to working groups

15.40 Workshops devoted to the Gulf of Finland Declaration

Thematic groups

1. Cost-effective nutrient load reductions, main findings
2. Preventive methods and forecasting of oils spills and other marine accidents, new methods

3. The impacts of climate change on physics and biogeochemistry, main effects

Questions to be answered:

1. What is our knowledge of the environmental state of the Gulf now? How vulnerable is the Gulf towards anthropogenic impacts?
2. Which fundamental research gaps are there and what kind of new scientific innovations/modelling tools do we need in Gulf of Finland studies in the future to learn more about the ecosystem functioning?
3. What is our message to decision makers? What should our common research and modelling efforts be directed to in order to support environmental protection activities?

Recommendations to the Declaration: How can the state of the Gulf be improved rapidly and cost-effectively? Which concrete actions do our modelling results indicate?

18.00 Poster Session

19.00 *Grand Evening Party (with Poster Session)*

21.00 *Helsinki by Night*

Day 2: Tuesday 25 November

09.00 Finalizing the work of the Thematic Groups

10.30 *Coffee*

11:00 Wrapping-up the main findings and discussion

12.00 *Closure*

Workshop Committee:

Kai Myrberg, Finnish Environment Institute, Helsinki, Finland
Markus Meier, Swedish Meteorological and Hydrological Institute, Norrköping, Sweden
Andreas Lehmann, GEOMAR, Kiel, Germany
Marcus Reckermann, International Baltic Earth Secretariat, Helmholtz-Zentrum Geesthacht, Germany
Vladimir Ryabchenko, P.P. Shirshov Institute of Oceanology, St. Petersburg, Russia
Tarmo Soomere, Tallinn University of Technology, Estonia
Urmas Lips, Tallinn University of Technology, Estonia
Jari Haapala, Finnish Meteorological Institute, Helsinki, Finland
Gregor Rehder, Baltic Sea Research Institute, Warnemünde, Germany
Karol Kulinski, Institute of Oceanology, Sopot, Poland