

2nd Baltic Earth Workshop on Multiple Drivers for Earth system changes in the Baltic Sea region

4-5 December 2024, Helsinki, Finland



Draft Programme

(details and presentation titles may change)

Day 1 (Afternoon, 4 December 2024)

12:00-12:05 **Introduction**
Markus Meier and Marcus Reckermann

Invited Presentations (15+5)

First Block: Assessment of Drivers and Impacts
Chair: Kari Hyttiäinen

12:05-12:25 **Land-based food production: Land use, eutrophication and impacts**
Bärbel Müller Karulis

12:25-12:45 **Non-indigenous species and biodiversity in the Baltic Sea**
Maiju Lehtiniemi

12:45-13:05 **Coastal management options in the Baltic Sea, with particular reference to coastal infrastructure**
Kevin Parnell

13:05-13:25 **Maritime transport and safety**
Jukka-Pekka Jalkanen

13:25-13:45 **Renewable energy production: Wind power generation**
Xiaoli Guo Larsén

13:45-14:05 **The HELCOM Holistic Assessments (HOLAS)**
Owen Rowe

Second Block: Assessment of Management options (7+3)
Chair: Kai Myrberg

14:05-14:25 **Environmental management options and policy instruments**
Kari Hyttiäinen

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- 14:25-14:45 Break
- 14:45-15:05 **Ecosystem-Based Management and Baltic Health Index**
Thorsten Blenckner
- 15:05-15:25 **ICES Integrated Environmental Assessment of the Baltic Sea**
Riikka Puntila
- 15:25-15:45 **Combining numbers with expert knowledge: piecing together a holistic understanding of marine social-ecological systems**
Susa Niiranen
- 15:45-16:05 Panel discussion of presentations
- Third Block: Short presentations (7+3)**
Chair: Susa Niiranen
- 16:05-16:15 **Control of pathogenic vibrios via reduction of algal blooms in the Baltic Sea**
David Riedinger and Matthias Labrenz
- 16:15-16:25 **Comparison of Baltic Sea mesozooplankton and terrestrial mountain birch moth biomasses in relation to climatic factors**
Heta E.J. Rousi, Julia J.J. Fält-Nardmann, Betty Marjamäki, Ilmari Juutilainen, Tommi Andersson, Juhani Itämies, Pekka Niemelä and Jari Hänninen
- 16:25-16:35 **Baltic Sea coastline change under climate and human impacts – classification and quantification**
Wenyan Zhang, Peter Arlinghaus and David Pogorzelski
- 16:35-16:45 **Impact of bottom trawling on benthic ecosystem and sedimentary carbon storage**
Wenyan Zhang and Lucas Porz
- 16:45-16:55 **Impacts of Offshore Wind Farms on the Baltic Sea**
Andrew Twelves, Aleksi Nummelin and Pedro Bourdin
- 16:55-17:05 **Investigating the Impact of Offshore Wind Farms on Ocean Circulation and Turbulence in the North Sea and Baltic Sea**
Sonaljit Mukherjee, Vilnis Frisfelds, Jens Murawski and Jun She
- 17:05-17:15 **Marine heatwaves in the Gulf of Bothnia from historical measurements to future projections**
V. Haapaniemi, S-M. Siiriä, A. Nummelin and J. Haapala
- 17:15-17:25 **The combined impact of eutrophication, climate warming and marine structures on the water properties in the Baltic Sea**
Taavi Liblik

17:25-17:35 **Understanding the Complex Interplay of Climate and Oceanographic Drivers Shaping Long-Period Waves and Coastal Resilience in the Baltic Sea Region**
Loreta Kelpšaitė-Rimkienė

17:35-17:45 **Interaction of climate change with other drivers**
Markus Meier

17:45-17:55 **Socially optimal agriculture and forestry for improved water quality in the Baltic Sea**
Jenni Miettinen and Sanna Lötjönen

17:55-18:15 Panel discussion of presentations

18:15 Open Discussion and Wrap-up of Day 1
Outlook on Day 2

18:30 End of Day 1

Day 2 (Morning, 5 December 2024)

9:00 Recap Day 1 and Open Discussion

10:00 Establishment of Breakout Groups
Discussions within Breakout Groups

11:00 – 11:30 Break

12:00 Reporting by Group Rapporteurs and the way forward

12:45 Wrap-Up and Farewell

13:00 End of Workshop