

JOINT BALTIC SEA RESEARCH PROGRAMME

Annual Conference 2010



19-21 January 2010
Reval Hotel Lietuva, Vilnius, Lithuania
Meeting room Alfa

Programme

Tuesday 19.01.2010

- 11:00 Registration**
Coffee with sandwiches
- 13:00 Opening**
BONUS EEIG Steering Committee Chair, Dr Jüri Elken
Professor Eugenijus Butkus, Chairman, Research Council of Lithuania
- 13:20 Key-note lecture: regional climate projections**
Jens Hesselbjerg Christensen

Session 1 Assessing future development of the Baltic Sea and uncertainties of projections

Chair: Jüri Elken, Estonian Science Foundation

- 14:10 First results of recently performed scenario simulations for the Baltic Sea for 1961-2099**
H.E. Markus Meier and ECOSUPPORT co-workers
- 14:30 Uncertainty assessment of state-of-the-art coupled physical-biogeochemical models for the Baltic Sea**
Kari Eilola, E. Almroth, B.G. Gustafson *et al.*
- 14:50 Application of modelling techniques for mapping distribution of perennial red alga *Furcellaria lumbricalis***
Martynas Bučas and D. Daunys
- 15:10 Bayesian models as a collective learning tool**
Sakari Kuikka, I. Helle, S. Mäntyniemi and L. Uusitalo
- 15:30 An empirical method to determine a patterns of the risk of coastal pollution in the Gulf of Finland**
Bert Viikmäe, R. Isotamm and N. Delpeche
- 15:50 Coffee**

Session 2 Understanding processes and assessing status of the Baltic Sea

Chair: Dr. Janina Barsiene, Institute of Ecology of Vilnius University

- 16:20 Integrated fish monitoring**
Lars Förlin
- 16:40 Assessment of reproductive disorders of fish and invertebrates as part of monitoring biological effects of pollution**
Jens Gercken, L. Förlin, J. Strand and B. Sundelin
- 17:00 Integrated multidisciplinary assessment or the ecosystem health of the Gulf of Finland (BEAST Project): Scheme of the 2009 twin expedition and the first results**
Kari Lehtonen, T. Lang, J. Baršiene *et al.*
- 17:20 Increase in parasite infestation by PFOS or TBT exposure in the Baltic amphipod *Monoporeia affinis***
Therese Jacobson, K. Holmström and B. Sundelin
- 19:00 - BONUS Young Scientist Club**

Wednesday 20.01.2010



Session 2 continues

Chair: Prof. Sergey Golubkov, Zoological Institute Russian Academy of Sciences

- 09:00 Key-note lecture: Hypoxia in Shelf Seas: Global Perspective**
Nancy Rabalais
- 9:50 INFLOW: State of the art - high-resolution sediment cores covering the past 6000 years**
Aarno Kotilainen, L. Arppe, S. Dobosz *et al.*
- 10:10 Long-term changes in hypoxia in the Baltic Sea**
Daniel Conley, L. Zillén, C. Lenz *et al.*
- 10:30 Baltic Sea macrofauna, hypoxia and implications for ecosystem functioning - emerging results from HYPER**
Alf Norkko, E. Bonsdorff, A. Villnäs *et al.*
- 10:50 Phosphorus recycling and burial in Baltic Sea sediments with contrasting redox conditions**
Caroline P. Slomp, B.G. Gustafsson, H.P. Mort *et al.*
- 11:10 Coffee**

Session 2 continues

Chair:

- 11:40 Resuspension effects in the shallow freshwater eutrophic lagoon: experimental & modelling study**
Arturas Razinkovas, Ch. Ferrarin, D. Daunys *et al.*
- 12:00 Measuring nitrification in sediments: comparison of two ¹⁵N stable isotope techniques**
Helena Jäntti and S. Hietanen
- 12:20 BALTIC GAS: The dynamic methane fluxes in the seabed**
Bo Barker Joergensen, H. Fossing and the BALTIC GAS team
- 12:40 Nitrogen removal processes in the water column of the Baltic Sea**
Susanna Hietanen and J. Kuparinen
- 13:00 Lunch break**

Session 2 continues

Chair: Prof. Daniel Conley, Lund University, GeoBiosphere Science Centre

- 14:00 Factors influencing the acid-base (pH) balance in the Baltic Sea: A sensitivity analysis**
Moa Edman, A. Omstedt, L. Anderson and H. Laudon
- 14:20 Continuous surface water CO₂ measurements on a cargo ship: What can we learn about the biogeochemistry in the Baltic Sea?**
Bernd Schneider
- 14:40 Marine genetic biodiversity and ecosystem functioning - is this an issue?**
Kerstin Johannesson, L. Kautsky, H. Forslund *et al.*
- 15:00 Relationship between environmental factors and biological features of benthic habitats in the Baltic Sea - a review**
Martin Snickars, J. Mattila, M. Lindegarth and M. von Numers
- 15:20 Coffee**

Session 3 A system of catchment – coast – sea continuum

Chair: Dr. Hans-Jörg Isemer, GKSS Research Centre, BALTIX Secretariat

- 15:50 Holocene and modern climate changes in the coastal zone of the Eastern Gulf of Finland - problems and first results of the INFLOW project**
Daria Ryabchyk, V. Zhmolda, M. Spiridonov *et al.*
- 16:10 Nutrient load reduction measures in a river basin and efficiency for coastal lagoon management**
Inga Krämer, G. Schernewski, H. Behrendt *et al.*
- 16:30 Nitrogen balance in the Curonian lagoon of the Baltic Sea revisited**
Arturas Razinkovas, M. Žilius, R. Paškauskas and R. Pilkaitytė

- 16:50** **Updating the 3D Baltic Sea biogeochemical model for better estimates of future management actions**
Heikki Pitkänen and P. Korpinen
- 17:10** **Evaluating the combined effects of nutrient load reduction and climate scenarios for the Baltic Sea catchment**
Joel Dahné, C. Donnelly, J. Strömqvist *et al.*
- 17:30** **Models and budgets addressing nutrient fluxes from the Baltic Sea catchment**
Christoph Humborg, C.-M. Mörth, D.P. Swaney *et al.*
- 18:00** **Poster session**
- 19:30-** **Conference Dinner at meeting room Beta**

Thursday 21.01.2010

Session 4 Building the knowledge-based governance and management of the Baltic

Chair: Dr. Berit Hasler, NERI, Aarhus University

- 09:00** **Progress of BAZOOCA**
Peter Tiselius and K. Tönnesson
- 9:20** **Identifying high risk areas of pollution in the western Baltic Sea**
Andreas Lehmann, H.-H. Hindrichsen and K. Getzlaff
- 9:40** **Semi-persistent patterns of transport in surface layers of the Gulf of Finland**
Tarmo Soomere, N.Delpeche and B. Viikmäe
- 10:00** **Managing systems of uncertain states - the case of fisheries**
Noél Holmgren, N. Norrström, R. Aps and S. Kuikka
- 10:20** **Regional cost-effective nutrient abatement - integrated modelling results supporting management in the Baltic Sea region**
Berit Hasler, S.L. Brodersten, M. Czajkowski *et al.*
- 10:40** **The implications of the nature of scientific knowledge to linking science and policy in the case of the Baltic Sea eutrophication**
Mia Pihlajamäki and N. Tynkkynen
- 11:00** **Coffee**

Session 4 continues

Chair: Dr. Wojciech Wawrzynski, International Council for the Exploration of the Sea

- 11:30** **Comparing the governance of environmental risks in the Baltic Sea**
Michael Gilek and the RISKGOV consortium
- 11:50** **Media framing of environmental risks in the Baltic Sea**
Anna Maria Jönsson
- 12:10** **Societal conditions for the Baltic Sea protection: Russian case**
Dmitry Nechiporuk
- 12:30** **The capacity of the European Union to solve the problem of Baltic Sea eutrophication**
Tom Schumacher
- 12:50** **Conference closing**
Kaisa Kononen/Andris Andrusaitis

Forum of Project Coordinators

Thursday 21.01.2010 at 14:00-18:00

Meeting room Tau

- 14:00** **FPC**
- 15:30** **Coffee**
- 16:00** **FPC continues**

POSTER SESSION

20.01.2009 at 18:00-19:30

Meeting room Alfa

Posters may be put up from 19.01.2009 11:00 and must be removed before 21.01.2009 13:00



- 1. Selected highlights from the ECOSUPPORT project**
The ECOSUPPORT consortium
- 2. Filling Gaps in Environmental Time Series - a Model Inter-Comparison**
Joachim W. Dippner, J. Hänninen, K. Junker *et al.*
- 3. New data on development of the Gdansk Basin in the Late Pleistocene - Holocene according the result of investigations of the core-section #303700-7 (r/v Poseidon cruise)**
Andrey Grigoriev, V. Zhamoida, M. Spiridonov *et al.*
- 4. Identification of the regional distribution of gassy sediments in the Baltic Sea by application of Geo-Information-Systems (BalticGas)**
Torben Gentz, R. Martinez and M. Schlüter
- 5. Biogeochemistry of methane and its potential oxidants in Himmerfjärden estuary sediment, Sweden**
Nguyen M. Thang, T.G. Ferdelman, V. Brüchert *et al.*
- 6. Hypoxia events in the Gulf of Gdańsk and chemical and biological responses – historical data from 1989 to 2008**
Katarzyna Łukawska-Matuszewska, U. Janas and D. Burska
- 7. Dead or only almost dead: the importance of increasing stress for benthic ecosystem functioning**
Anna Villnäs, A. Norkko, J. Norkko
- 8. Formation of sediment fine structure in the Baltic Sea deep areas**
Joonas J. Virtasalo, T. Leipe, M. Moros and A. Kotilainen
- 9. Dynamics of oxygen deficiency conditions in the Eastern Gulf of Finland in the last decade**
Tatjana Eremina
- 10. Processes of the Nitrogen Cycle in the Redoxcline of the Baltic Sea from an isotopic perspective**
Sven Meyer and M. Voß
- 11. Adaptation and application of the Baltic Sea Ecosystem Model to a coastal ecosystem**
Frank Schäffer, T. Neumann and G. Schernewski
- 12. Nitrate uptake during spring outflow in the nitrate-rich Curonian and Oder lagoon**
Frederike Korth, I. Liskow and Maren Voß
- 13. Benthic oxygen uptake in the eutrophicated boreal lagoon (SE Baltic Sea)**
Mindaugas Zilius, M. Bartoli and A. Razinkovas
- 14. Transfer-function Modelling from Climate and Runoff to Nutrient Loading and Concentrations in the Baltic Sea**
Jari Hänninen and I. Vuorinen
- 15. Monthly nutrient emissions and loads to the Odra River Basin**
Jens Hürdler and M. Venohr
- 16. The impact of submarine ground water discharge (SGD) on a coastal ecosystem of the southern Baltic Sea: Results from the AMBER project**
Susann Vogler, B. Szymczycha, T. Gentz *et al.*
- 17. Impact of groundwater discharge on fauna**
Lech Kotwicki, O. Dellwig, K. Grzelak *et al.*
- 18. BAZOOCA - Baltic Zooplankton Cascades**
Kajsa Tönnesson and P. Tiselius
- 19. Climate-related long-term trends and spatial variability in the zooplankton community of the Central Baltic Sea**
Rabea Diekmann, S. Otto, G. Kornilovs *et al.*
- 20. The large scale spatial distribution of plankton communities in a transitional coastal lagoon**
Evelina Grinienė, Z. Gasiunaitė, R. Pilkaitytė and S. Šulčius
- 21. The role of abiotic factors in the distribution of macrophytes in the shallow eutrophic SE Baltic Sea lagoon**
Renata Pilkaitytė, A. Razinkovas, R. Kybranciene and A. Zonyte

- 22. Spatiotemporal modeling of the common reed on the Finnish coast**
Ari Jolma, A. Altartouri, X. Chen and P. Korpinen
- 23. Recovery of bottom communities after recent hypoxic events in the eastern Gulf of Finland**
Alexey A. Maximov, S.M. Golubkov and V. Petukhov
- 24. Towards a diatom-based transfer function for the Baltic Sea: I. Analysis of sediment-surface diatom assemblages**
Andrzej Witkowski and S. Dobasz
- 25. Preliminary note on dinoflagellate cysts from the Bornholm Basin in the Baltic Sea**
Niels E. Poulsen
- 26. Single Nucleotide Polymorphism (SNP) in baltic populations of mussels *Mytilus***
Małgorzata Zbawicka, T. Saňko, R. Wenne
- 27. Multi-endpoint studies on *Zoarces viviparus*, using gene expression oligonucleotide microarray**
Noomi Asker, E. Kristiansson, D.G.J. Larsson and L. Förlin
- 28. Eelpout – a fish indicator of biological effects in Danish coastal waters**
Jakob Strand, I. Dahllöf and Z. Tairova
- 29. Integrated assessment of TBT pollution in the Baltic Sea – integrating environmental quality criteria for chemical and biological effects measurements**
Jakob Strand, M. Bassompierre, D. Schedek *et al.*
- 30. Effects of environmental contamination on immune functions of the blue mussel *Mytilus* spp. considering abiotic variations in brackish water systems of the Baltic Sea**
Nicole Höher, K. Broeg and A. Köhler
- 31. Laboratory exposure experiment with *Mytilus edulis* from the western Gulf of Finland - effects of varied salinity on biomarkers with added PAH exposure**
Anna Weckman and K. Lehtonen
- 32. Ecosystem state assessment of different sub-regions of the Baltic Sea based on cardiac activity biomarkers of bivalves**
Sergey Kholodkevich, T. Kuznetsova, A. Kurakin *et al.*
- 33. Experience of bioassay with the amphipod *Gmelinoides fasciatus* to assess sediment quality in the Gulf of Finland: the approach and first results**
Nadezda Berezina, S. Golubkov
- 34. A brown algae *Fucus vesiculosus* as potential biomarker of the coastal zone of the Baltic Sea (BEAST project)**
Elmira Boikova, Z. Değere, I. Kujikova *et al.*
- 35. Phytoplankton biomass versus chlorophyll a: do they show the same water quality?**
Diana Vaičiūtė, I. Olenina, R. Kovolytė and R. Pilkaitytė
- 36. Assessment of the ecosystem health of the Eastern Gulf of Finland by means of histopathology of zooplankton species**
Sergey Golubkov and A. Makrushin
- 37. Interactions between ecosystem and human environment in Baltic coastal waters under Climate Change and the need for adaptation measures**
Oda Störmer, M. Mossbauer, G. Schernewski and T. Neumann
- 38. Consensus building as an element of science-policy co-production**
Robert Aps, S. Kuikka, I. Liiv and M. Fetisov
- 39. Policy-Making and Implementation in the Baltic Sea Protection in Russia**
Elena Belokurova, M. Nozhenko and PROBALT project
- 40. Accidental versus operational oil spills from shipping in the Baltic Sea – Institutional Responses and Risk Governance**
Björn Hassler
- 41. Environmental sensitivity mapping in Lithuanian marine areas**
Nerijus Blažauskas and D. Depellegrin