

Baltic Sea ecosystem models and their applications for management



International Workshop
Tvärminne Zoological Station, Finland
September 13-16, 2015



Workshop programme

Sunday

from 18.00 Welcome dinner and get together in the dormitory meeting room

Monday

9.00-9.10 Welcome from **Alf Norkko** (*Tvärminne Zoological Station*)

9.10-9.55 Keynote: **Bo Gustafsson** (*Baltic Nest Institute Sweden*)
"What is policy and what is natural science? An example from the calculation of HELCOM BSAP nutrient load reductions"

Session 1: Modelling coastal ecosystems

9.55-10.10 Session introduction: **Risto Lignell** (*Finnish Environment Institute*)
"Coastal ecosystem modeling"

10.10-10.50 Invited speaker: **Kari Eilola** (*Swedish Meteorological and Hydrological Institute*)
"Integration of existing Baltic Sea hydrodynamic and biogeochemical data and model outputs"

10.50-11.05 *Coffee break*

11.05-11.35 Contributed talk: **Letizia Tedesco** (*Finnish Environment Institute*)
"Capabilities of Baltic Sea models to assess Good Environmental Status for marine biodiversity"

11.35-12.05 Contributed talk: **Emil Vahtera** (*City of Helsinki, Environment Centre*)
"Integrating coastal ecosystem modelling in ongoing monitoring programs"

12.05-13.00 *Lunch*

Session 2: Modelling biological and technical interactions in the Baltic Sea

13.00-13.30 Contributed talk: **Asbjørn Christensen** (*Technical University of Denmark*)
"HBM-ERGOM Hydrodynamic modelling"

13.30-14.00 Contributed talk: **Rasmus J. Nielsen** (*Technical University of Denmark*)
"Experience from ATLANTIS and DISPLACE-SMS modelling of the Baltic Sea ecosystem"

14.15-14.45 *Coffee break*

14.45-15.30 Invited speaker: **Susa Niiranen** (*Stockholm Resilience Centre*)
"The uncertain future of the Baltic Sea – The challenge of using food web models for management"

15.30-16.00 Contributed talk: **Tobias Tamelander** (*Tvärminne Zoological Station*)
"Vertical fluxes and their representation in models"

16.00-16.30 Contributed talk: **Jonne Kotta** (*University of Tartu*)
"Modelling applications to help managing various threats to the Baltic Sea"

16.30-17.30 *Dinner*

from 18.30 *Sauna and snacks/drinks in the dormitory*

Tuesday

9.00-9.45 Keynote: **André de Roos** (*University of Amsterdam*)
"Changing growth curves due to relaxed resource competition: counterintuitive community consequences and its implications for fisheries"

Session 3: Temporal changes in species characteristics and adaptation

9.45-10.15 Session introduction: **Asta Audzijonyte** (*University of Helsinki*)
"Can ecosystem models evolve?"

10.15-10.45 Contributed talk: **Floor Soudijn** (*University of Amsterdam*)
"Harvesting forage fish can prevent collapses of piscivorous fish populations"

10.45-11.00 *Coffee break*

11.00-11.30 Invited speaker: **Anna Kuparinen** (*University of Helsinki*)
"Contrasting single versus multispecies predictions of recovery from exploitation"

11.30-12.00 Contributed talk: **Tommi Perälä** (*University of Helsinki*)
"Recruitment regime shifts in Atlantic cod"

12.00-13.00 *Lunch*

Session 4: Addressing uncertainty in complex models

13.00-13.45 Session introduction: **Jarno Vanhatalo** (*University of Helsinki*)
"Uncertainty in ecosystem model predictions: what, how and why?"

13.45-14.30 Invited speaker: **Marko Laine** (*Finnish Meteorological Institute*)
"Addressing uncertainty in weather and climate models"

14.30-15.00 *Coffee break*

15.00-15.30 Contributed talk: **Inari Helle** (*University of Helsinki*)
"Preliminary title: An overview of methods to evaluate uncertainty of deterministic models in decision support"

15.30-16.30 Short presentations on ongoing projects: Eva Ehrnsten, Asta Audzijonyte and others and final words.

18.00 *Workshop dinner*

Wednesday

8.30 - bus departing from Tvärminne Zoological Station

An open session in Helsinki open for everyone interested (new participants - please register!)

10.00-10.30 *Welcome coffee*

10.30-12.30 Short presentations:

Bo Gustafsson (*Baltic Nest Institute Sweden*) "What is policy and what is science? An example from addressing eutrophication in the Baltic Sea"

André de Roos (*University of Amsterdam*) "Care for cod? Catch some sprat!"

Letizia Tedesco (*Finnish Environment Institute*) "Linking science to policy with marine ecosystem models"

Susa Niiranen (*Stockholm Resilience Centre*) "What can today's models tell us about the future of Baltic Sea fish?"

Risto Lignell (*Finnish Environment Institute*) "Archipelago Sea nutrient load model"

Emil Vahtera (*City of Helsinki, Environment Centre*) "Coastal ecosystem modelling and monitoring the state of the sea"

Jarno Vanhatalo (*University of Helsinki*) "Computer science coming to the help of marine science"

Jonne Kotta (*University of Tartu*) "How can models help us manage threats to the Baltic Sea?"

Asta Audzijonyte (*University of Helsinki*) "Is fish getting smaller and does it matter?"