Baltic Earth

Earth System Science for the Baltic Sea Region

Baltic Earth Newsletter No. 6, April 2020

Welcome to the Baltic Earth Newsletter No. 6!

These are strange times. No, we don´t want to blame the Spanish brewery, nor the town where the beautiful Fender guitars are built, but that word is probably the most used term in the past two months. The virus has dragged the world into a state, in which (to say it with a song) nothing else matters. And it is difficult to argue otherwise.

There are some striking similarities between the current crisis and another "post-normal" situation which had dominated the public discussion until recently, and which many of us have a professional interest in.

In both cases, the situation is considered rather uncertain and dangerous, and while (almost) all experts agree on the urgency of the problem, they do not necessarily do so on the way how to cope with it, and politicians must make decisions on these uncertain grounds. In a time after this, it will be interesting to analyse the respective responses to the crises - by experts, the media, the public, and policy makers.

Until then, we scientists are in a comparably comfortable situation. For many of us, computers have been our best friend anyhow (provided they are not infected themselves), and "social distancing" has not significantly hampered our work. Working from home is perfectly feasible for most. We get used to remote meetings, and we learn that this can be a good alternative to many physical meetings.

Still, I firmly believe that nothing can substitute the personal contact between people, and good collaboration and friendships develop only when people meet face-to-face. In this sense, we are anticipating our next Baltic Earth events, and we hope to see you there - physically. Until then, stay healthy - and with us - remotely.

Marcus Reckermann
International Baltic Earth Secretariat

Featured Articles

Drift bottles in the southern Baltic Sea – an experiment-of-opportunity

by Hans von Storch, Ulrich Callies and Anders Omstedt

A remarkable story about children preparing drift bottles, seamen dropping several of them simultaneously into the Baltic Sea, and others finding them at beaches, far from each other. Thus, a formidable empirical data set, namely of the locations of findings spots, was the result of an "experiment-of-opportunity". Using a transport model, we suggest the mechanism, how this wide spreading happened...

Click here for the full story...

Baltic Sea Model Intercomparison Project (BMIP)

Realizing coordinated model simulations from international contributors from all over the Baltic Sea region

by Manja Placke and Markus Meier

Ocean circulation models are powerful tools for understanding processes in the water body and for making projections of physical and biogeochemical conditions into the future. Results of different models can often not be compared one-to-one due to the use of different forcing data and modeling approaches for the simulations, but also due to inconsistent data output parameters or formats.

Within the Baltic Sea Model Intercomparison Project (BMIP), coordinated model simulations will be performed for the Baltic Sea region, by using common forcing datasets and standardized model setups for equal simulation periods. Together with demands for common data handling and results' output format we aim for a best possible comparison of Baltic Sea circulation models at present.

BMIP has been initiated by the Leibniz Institute for Baltic Sea Research Warnemünde (IOW), Germany, and has been firstly announced on the 2nd Baltic Earth Conference in Helsingør, Denmark. On a first kick-off meeting scientists from research groups of international institutes agreed on the general conditions for this model assessment. Envisaged scientific topics for BMIP are the models' representation of hydrographic variables (i.e., temperature and salinity of sea water, ocean currents, age of water), the investigation of the mean and overturning circulation, saltwater inflows, sea level, sea ice coverage, the depths and strengths of the thermocline, halocline, and pycnocline, the transport of volume, heat and salt through transects as well as a thorough analysis of upwelling regions. Meanwhile, first model runs have been started or even finished. The realization of the project will substantiate and facilitate the comparison of simulation results. The assessment will also help the developers to improve their models.

The Baltic Sea Model Intercomparison Project (BMIP) is an international cooperation project, in which currently scientists from IOW (Leibniz Institute for Baltic Sea Research, Warnemünde, Germany), SMHI (Swedish Meteorological and Hydrological Institute, Norrköping, Sweden), HZG (Helmholtz-Zentrum Geesthacht, Germany), DMI (Danish Meteorological Institute, Copenhagen, Denmark), U-HH (University of Hamburg, Germany), BSH (Federal Maritime and Hydrographic Agency, Hamburg, Germany) and IO-PAN (Institute of Oceanology, Polish Academy of Sciences, Sopot, Poland) collaborate. BMIP is a bottom-up initiative and all groups working on Baltic Sea modeling are welcome to participate.

Further infos: baltic.earth/organisation/bewg_BMIP

A new new river runoff dataset for the Baltic Sea catchment area now publicly available

by Markus Meier

Within the Baltic Sea Model Intercomparison Project (BMIP, see above), a new river runoff dataset for the Baltic Sea catchment area for the period 1961-2018 is now publicly available. Originally based on the hydrological model E-HYPE, the dataset is compiled from available observations, a historical reconstruction and hydrological model simulations (hindcast and forecast simulations with the E-HYPE model). The final homogenized dataset has daily resolution and resolves 91 rivers in the Baltic Sea catchment and was shown to be in good agreement with previously available datasets.

For further details the reader is referred to
Germo Väli, H. E. Markus Meier, Manja Placke, Christian Dieterich: River runoff forcing for ocean modeling within the Baltic Sea Model Intercomparison Project. Meereswiss. Ber., Warnemünde, 113 (2019), doi:10.12754/msr-2019-0113

This dataset is open access and publicly available from:
thredds-iow.io-warnemuende.de/thredds/catalogs/projects/bmip/catalog_bmip_rivers.html

Special issues

Call for Papers:

Frontiers Research Topic on **Future Climate Scenarios: Regional Climate Modelling and Data Analysis**

Submission deadline: 9 May 2020

More...

Call for Papers:

Special Issue: Baltic Sea Remote Sensing

with *remote sensing*

Submission Deadline: 31 August 2020

More...

Frontiers Research Topic **The Baltic Sea Region in Transition** now published!

18 papers from the 2nd Baltic Earth Conference in Helsingör in 2018...

More...

Upcoming: Summer School 2020

6th Baltic Earth Summer School, 24 - 31 August 2020

Climate of the Baltic Sea region

Askö Laboratory, Trosa, Sweden

co-organized by Leibniz Institute for Baltic Sea Research Warnemünde and University of Rostock and the International Baltic Earth Secretariat at Helmholtz-Zentrum Geesthacht under the umbrella of Baltic Earth

The course will focus on past and future changes in climate of the Baltic Sea region. Students will be introduced into fundamental processes of the atmosphere, ocean, sea-ice and land surface with relevance for the climate system. The students will also be introduced into the functioning of the wind-driven and thermohaline circulations of the Baltic Sea. Furthermore, the course will deal with coupled atmosphere-ocean climate models, climate change, the greenhouse gas effect and other drivers of regional climate, dynamical downscaling, and the variability of circulation and regional climate. We will also study the possible impact of climate change on the marine ecosystem including biogeochemical cycles.
More infos on the website: baltic.earth/summerschool2020.

Application deadline: 1 May 2020

Submit your application at
www.io-warnemuende.de/bess-2020.html

Canceled or postoned events ...

Unfortunately, the 2nd Baltic Earth Winter School which was scheduled for 23-30 March 2020, had to be canceled! Accepted students will have the opportunity to come to the 6th Summer School on Askö in August 2020, or the 3rd Winter School in Warnemünde in later winter 2021. More...

CANCELED, but...

3rd Baltic Earth Conference, 1–5 June 2020

Earth system changes and Baltic Sea coasts

Jastarnia, Hel, Poland

The conference had to be canceled physically, i.e. nobody will travel to Poland for this conference, this time. Nevertheless, all submitted abstracts will be published in the Abstract Volume, and we will try to allow volunteering authors to present their submitted work online.

Please click here for more infos in the scope of the conference and the online options.

Please also note that, while we were not able to have the 2020 conference in Poland, the **4th Baltic Earth Conference will be held in in Jastarnia, Hel, Poland, 30 May - 3 June 2022!**

There will be a new announcement and call for papers this authumn.

More...

CANCELED! Will be postponed...

3rd Climateurope Festival, Riga, Latvia, 16–18 June 2020

Climate Information at your Service

It is with regret that we have taken the decision to postpone the event on June, 16 – June18 2020 in Riga. However, we plan to rearrange the Festival. We will keep you informed here...

The Festival is organized in cooperation with the International Baltic Earth Secretariat (IBES), the Latvian Environment, Geology and Meteorology Centre and the Con-Ex Latvia Tours Group. The Festival is open for researchers, suppliers, users and funders all over Europe. Participation in the Festival is by invitation only. For general information about the Festival please contact us: festival@ climateurope.eu

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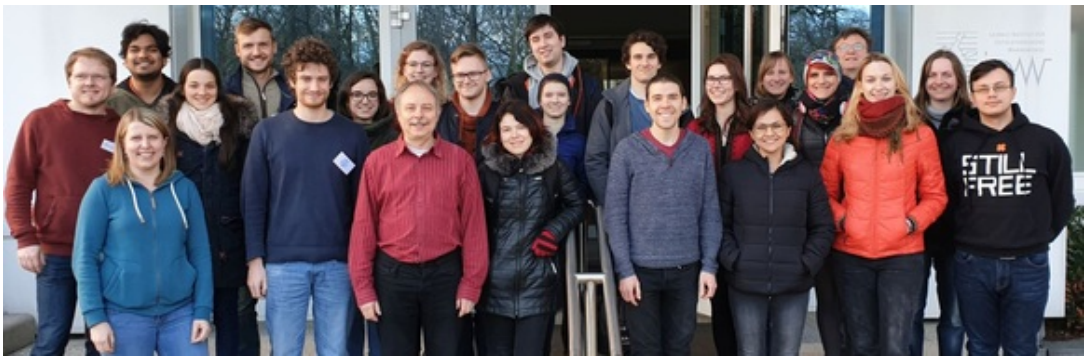
Past events

Recent Baltic Earth Educational Events



1st Baltic Earth Winter School: Analysis of Climate Variability

On 22 - 29 March 2019, this Winter School at Leibniz Institute for Baltic Sea Research Warnemünde, Germany, co-organized by University of Rostock and the International Baltic Earth Secretariat at Helmholtz-Zentrum Geesthacht under the umbrella of Baltic Earth, brought together 22 students from many Baltic Sea countries. Scope of the school was to share expertise in statistical analyses of climate change and variability, as this aspect cannot be treated to its full relevance at the Baltic Earth summer schools. It was a worthwhile experience for students, and it will be a regular educational Baltic Earth event, in late winter each year. More...

5th Baltic Earth Summer School: Climate of the Baltic Sea region

at Askö Laboratory, Baltic Sea Centre of Stockholm University, 26 August - 2 September 2019, co-organized by Leibniz Institute for Baltic Sea Research Warnemünde, University of Rostock and the International Baltic Earth Secretariat at Helmholtz-Zentrum Geesthacht under the umbrella of Baltic Earth.

With smiling faces, the summer school ended on 2 September, after 10 days of intensive learning, exercising, networking and writing proposals, but sometimes also swimming, snorkeling, and biking. 19 students from almost all Baltic Sea countries enjoyed the perfect learning atmosphere at the Research Laboratory of Stockholm University on the island of Askö in the Swedish archipelago. Always wonderful to see young engaged international students interact and making friends for life. If Corona allows, we will be back in late August 2020! More...

Advanced Training School: “Applications of remote sensing in the Baltic Sea region”

The training school took place from 15 to 20 September 2019 in Võru Kubija Spa, Estonia. It was organised by the University of Tartu together with Baltic Earth. Altogether, 33 students and 28 lecturers and experts joined this high-level educational event. The photo does not show all, as the lecturers did not stay the whole period. There were 22 h of lectures, 16 h of practical works, 6 h of seminars and 9 hours of independent work. A wide range of topics was covered, from how to use remote sensing in agriculture, fire detection, sea and land level detection, to water and air quality assessment. Thanks to the lecturers for outstanding lectures and the students for their high engagement and spirit! More...

Recent Baltic Earth Workshops

Workshop report

Hydrology of the Baltic Sea Basin: Observations, Modelling, Forecasting

St. Petersburg, Russia, 8- 9 October 2019, co-organized by State Hydrologic Institute, St. Petersburg, Russia and Helmholtz-Zentrum Geesthacht, Germany

43 interested scientists from Russia, Lithuania, Finland, Sweden and Germany presented and discussed current issued regarding hydrological research in the Baltic Sea region. The workshop was part of the celebrations for the 100th year´s birthday of the Russian State Hydrologic Institute. More...

Workshop report

Climate projections and uncertainties in the northern Baltic Sea region

Finnish Environment Institute, Helsinki, Finland, 19- 20 November 2019

It has been found that, in many cases, the uncertainties of climate change projections are larger in the northern Baltic Sea and Gulf of Finland than in the southern basins. To discuss the problems involved, a group of specialists met in Helsinki. Outcome of the enlighting presentations and fruitful discussions will be an opinion paper in an international scientific journal. A core group of workshop participants will prepare a first draft, and more modelers working in the region will be invited to participate. Keep updated here for further infos soon! More...

Publications

For new and recent Baltic Earth related publications, see here...

Please be invited to send us links to your new Baltic Earth related publications which will then be listed in our publication database.

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