BALTEX/Baltic Earth Publications

Contents page

The database for the publications is the BALTEX/Baltic Earth electronic publication library, accessible via the Baltic Earth homepage at **http://baltic.earth**. A book, journal article or report is qualified as a BALTEX/Baltic Earth publication, if either it describes results of a BALTEX/Baltic Earth project and BALTEX/Baltic Earth is explicitly referred to in the title, abstract, introduction or the summary, or the publication makes explicitely reference to the programme, or if the publication contributes to at least one BALTEX Phase II/Baltic Earth objective or Grand Challenge, and the authors agree that their publication is listed on the Baltic Earth website and publication database.

At present there are: 21 books, 1061 peer-reviewed journal articles, 85 reports, 1404 conference presentations with reference to BALTEX/Baltic Earth, 301 presentations at BALTEX workshops and special conferences, 683 presentations at Baltic Earth workshops and special conferences, as well as 55 issues of the International BALTEX Secretariat Publication Series (IBSP; ISSN 1681-6471) and 24 issues of the International Baltic Earth Secretariat Publication Series (IBESP; ISSN 2198-4247).

Status as of 30 January 2025

Silke Köppen and Marcus Reckermann

International Baltic Earth Secretariat

01. Books

BACC II Author Team, 2015: Second Assessment of Climate Change for the Baltic Sea Basin. Springer Regional Climate Studies Open Access.

BACC Author Team, 2008: Assessment of Climate Change for the Baltic Sea Basin. Springer Verlag.

Feistel R, Nausch G, Wasmund N (Eds), 2008: State and Evolution of the Baltic Sea, 1952 – 2005 A Detailed 50-Year Survey of Meteorology and Climate, Physics, Chemistry, Biology, and Marine Environment, John Wiley & Sons, Inc., Hoboken

Håkanson L, 2009: Modeling nutrient fluxes to, within and from the Kattegat to find an optimal, cost-efficient Swedish remedial strategy. Uppsala Univ., Geotryckeriet.

Håkanson L, Bryhn AC, 2008a: Tools and criteria for sustainable coastal ecosystem management – with examples from the Baltic Sea and other aquatic systems. - Springer Verlag, Berlin, Heidelberg.

Håkanson L, Bryhn AC, 2008b: Eutrophication in the Baltic Sea – present situation, nutrient transport processes, remedial strategies. Springer Verlag, Berlin, Heidelberg.

Harff J, Furmańczyk K, von Storch H (eds) 2017: Coastline Changes of the Baltic Sea from South to East. Springer Verlag, Coastal Research Library, Vol 19, ISBN: 978-3-319-49892-8 (Print) 978-3-319-49894-2 (Online)

Harper D, Zalewski M, Pacini N, (Eds) 2008: Ecohydrology: Processes, Models and Case Studies. An approach to the sustainable management of water resources. CAB International. Cromwell Press, Trowbridge, UK.

Kulinski K, Pempkowiak J, 2012: Carbon Cycling in the Baltic Sea, Springer Verlag. ISBN: 978-3-642-19387-3

Leppäranta M, Myrberg K, 2009: Physical Oceanography of the Baltic Sea, Springer Verlag

Omstedt A, 2024: A Philosophic View of the Ocean and Humanity. Second Edition. Springer Nature, https://link.springer.com/book/10.1007/978-3-031-64326-2

Omstedt A, 2020: A Philosophical View of the Ocean and Humanity. Springer Earth and Environmental Science, Print ISBN 978-3-030-36679-7, Online ISBN 978-3-030-36680-3, February 2020

Omstedt A, 2016: Connecting Analytical Thinking and Intuition: And the Nights Abound with Inspiration. Springer-Briefs in Earth Sciences, ISBN 978-3-319-27534-5

Omstedt A, 2015: Guide to process based modelling of lakes and coastal seas. Second Edition. Springer-Praxis books in Geophysical Sciences, DOI 10.1007/978-3-319-17990-2

Omstedt A, 2011: Guide to Process Based Modeling of Lakes and Coastal Seas Series: Praxis Books, Geophysical Sciences. Springer Verlag, Heidelberg, 2011.

Reckermann M, Brander K, MacKenzie BR, Omstedt A (Eds) 2012: Climate Impacts on the Baltic Sea: From Science to Policy Series: Springer Earth System Sciences. Springer Verlag, Heidelberg , 2012.

Schmelzer N, Holfort J, Sztobryn M, Przygrodzki P (Eds) 2012: Climatological Ice Atlas for the western and southern Baltic Sea (1961 – 2010), *Digital supplement*: Comparison of ice

conditions in the 30-year periods 1961 – 1990, 1971 – 2000 and 1981 – 2010. ISBN 978-3-86987-278-0, BSH no. 2338

Schmidt-Thomé P, Klein J (Eds) 2013: Climate Change Adaptation in Practice - from strategy development to implementation. Wiley Blackwell Book Publication, ISBN 978-0-470-97700-2

Schneider B, Müller JD 2018: Biogeochemical Transformations in the Baltic Sea. Springer Oceanography, eBook ISBN: 978-3-319-61699-5, Hardcover ISBN: 978-3-319-61698-8

Snoeijs-Leijonmalm P, Schubert H, Radziejewska T (Eds) 2017: Biological Oceanography oft he Baltic Sea. Springer Netherlands, Springer Science+Business Media, Dordrecht, e-book: ISBN 978-94-007-0668-2; hardcover: ISBN 978-94-007-0667-5

von Storch H, 2022: From Decoding Turbulence to Unveiling the Fingerprint of Climate Change, Klaus Hasselmann-Nobel Prize Winner in Physics 2021 Hardcover ISBN978-3-030-91715-9 https://link.springer.com/book/10.1007/978-3-030-91716-6, 2022

02. Special Journal Issues dedicated to Baltic Earth

(Please note that the papers listed here are also part of the Peer-reviewed Journal Articles)

2.1 Earth System Dynamics, Vol. 8, 2017, an interactive open access journal of the European Geosciences Union
1st Baltic Earth Conference 2016, 18 papers

Bethere L, Sennikovs J, Bethers U: Climate indices for the Baltic states from principal component analysis. pp 951-962, https://doi.org/10.5194/esd-8-951-2017, 26 Oct 2017

Bierstedt S, Hünicke B, Zorita E, Ludwig J: A wind proxy based on migrating dunes at the Baltic coast: statistical analysis of the link between wind conditions and sand movement. pp 639-652, https://doi.org/10.5194/esd-8-639-2017, 17 Jul 2017

Česnulevičius A, Morkūnaitė R, Bautrėnas A, Bevainis L, Ovodas D: Intensity of geodynamic processes in the Lithuanian part of the Curonian Spit. pp 419-428, https://doi.org/10.5194/esd-8-419-2017, 28 Jun 2017

Claremar B, Haglund K, Rutgersson A: Ship emissions and the use of current air cleaning technology: contributions to air pollution and acidification in the Baltic Sea. pp 901-919, https://doi.org/10.5194/esd-8-901-2017, 13 Oct 2017

Daewel U, Schrum C: Low-frequency variability in North Sea and Baltic Sea identified through simulations with the 3-D coupled physical–biogeochemical model ECOSMO. pp 801-815, https://doi.org/10.5194/esd-8-801-2017, 07 Sep 2017

Dvornikov AY, Martyanov SD, Ryabchenko VA, Eremina TR, Isaev AV, Sein DV: Assessment of extreme hydrological conditions in the Bothnian Bay, Baltic Sea, and the impact of the nuclear power plant “Hanhikivi-1” on the local thermal regime. Pp 265-282, https://doi.org/10.5194/esd-8-265-2017, 12 Apr 2017

Jaagus J, Sepp M, Tamm T, Järvet A, Mõisja K: Trends and regime shifts in climatic conditions and river runoff in Estonia during 1951–2015. pp 963-976, https://doi.org/10.5194/esd-8-963-2017, 03 Nov 2017

Jakobson L, Jakobson E, Post P, Jaagus J: Atmospheric teleconnections between the Arctic and the eastern Baltic Sea regions. pp 1019-1030, https://doi.org/10.5194/esd-8-1019-2017, 14 Nov 2017

Jeworrek J, Wu L, Dieterich C, Rutgersson A: Characteristics of convective snow bands along the Swedish east coast. pp 163-175, https://doi.org/10.5194/esd-8-163-2017, 06 Mar 2017

Karabil S, Zorita E, Hünicke B: Mechanisms of variability in decadal sea-level trends in the Baltic Sea over the 20th century. pp 1031-1046, https://doi.org/10.5194/esd-8-1031-2017, 17 Nov 2017

Karabil S, Zorita E, Hünicke B: Contribution of atmospheric circulation to recent off-shore sea-level variations in the Baltic Sea and the North Sea. https://doi.org/10.5194/esd-2017-23, 27 Mar 2017

Kudryavtseva N, Soomere T: Satellite altimetry reveals spatial patterns of variations in the Baltic Sea wave climate. pp 697-706, https://doi.org/10.5194/esd-8-697-2017, 08 Aug 2017

Kuliński K, Schneider B, Szymczycha B, Stokowski M: Structure and functioning of the acid-base system in the Baltic Sea. Earth Syst. Dynam. Discuss., https://doi.org/10.5194/esd-2017-39, 2017

Myllykangas J-P, Jilbert T, Jakobs G, Rehder G, Werner J, Hietanen S: Effects of the 2014 major Baltic inflow on methane and nitrous oxide dynamics in the water column of the central Baltic Sea. pp 817-826, https://doi.org/10.5194/esd-8-817-2017, 14 Sep 2017

Parard G, Rutgersson A, Parampil SR, Charantonis AA: The Potential of using Remote Sensing data to estimate Air–Sea CO2 exchange in the Baltic Sea. Earth Syst. Dynam. Discuss., https://doi.org/10.5194/esd-2017-33, 02 May 2017

Rimkus E, Stonevicius E, Kilpys J, Maciulyte V, Valiukas D: Drought identification in the eastern Baltic region using NDVI. pp 627-637, https://doi.org/10.5194/esd-8-627-2017, 17 Jul 2017

Schade NH: Evaluating the atmospheric drivers leading to the December 2014 flood in Schleswig-Holstein, Germany. pp 405-418, https://doi.org/10.5194/esd-8-405-2017, 14 Jun 2017

Venäläinen A, Laapas M, Pirinen P, Horttanainen M, Hyvönen R, Lehtonen I, Junila P, Hou M, Peltola HM: Estimation of the high-spatial-resolution variability in extreme wind speeds for forestry applications. pp 529-545, https://doi.org/10.5194/esd-8-529-2017, 05 Jul 2017

2.2 Frontiers in Earth Science, Interdisciplinary Climate Studies, The Baltic Sea in Transition, 2019, an interactive open access journal
2nd Baltic Earth Conference 2018, 20 papers

Danilovich I, Zhuravlev S, Kurochkina L, Groisman P: The Past and Future Estimates of Climate and Streamflow Changes in the Western Dvina River Basin

Elken J, Zujev M, She J, Lagemaa P: Reconstruction of Large-Scale Sea Surface Temperature and Salinity Fields Using Sub-Regional EOF Patterns From Models

Gutiérrez-Loza L, Wallin MB, Sahlée E, Nilsson E, Bange HW, Kock A and Rutgersson A: Measurement of Air-Sea Methane Fluxes in the Baltic Sea Using the Eddy Covariance Method.

Hagemann S, Stacke T, Ho-Hagemann HTM: High Resolution Discharge Simulations Over Europe and the Baltic Sea Catchment

Hinrichs I, Jahnke-Bornemann A, Andersson A, Ganske A, Gouretski V, Jensen C, Klein B, Möller J, Sadikni R, Tinz B: The Baltic and North Seas Climatology (BNSC)—A Comprehensive, Observation-Based Data Product of Atmospheric and Hydrographic Parameters

Kurkin A, Rybin A, Soomere T, Kurkina O, Rouvinskaya E: Spatial distribution of energy of subinertial baroclinic motions in the Baltic Sea

Kuss J, Nausch G, Engelke C, von Weber M, Lutterbeck H, Naumann M, Waniek JJ, Schulz-Bull D: Changes of Nutrient Concentrations in the Western Baltic Sea in the Transition Between Inner Coastal Waters and the Central Basins: Time Series From 1995 to 2016 With Source Analysis

Lakson M, Post P and Sepp M: The Impact of Atmospheric Circulation on Air Temperature Rise in Estonia.

Liblik T, Lips U: Stratification Has Strengthened in the Baltic Sea – An Analysis of 35 Years of Observational Data

Madsen KS, Hoyer J, Suursaar Ü, She J, Knudsen P: Sea Level Trends and Variability of the Baltic Sea From 2D Statistical Reconstruction and Altimetry

Madsen KS, Murawski J, Blokhina M, Su J: Sea Level Change: Mapping Danish Municipality Needs for Climate Information

Medvedev I, Kulikov E: Low-frequency Baltic sea level spectrum

Norbäck Ivarsson L, Andrén T, Moros M, Andersen TJ, Lönn M and Andrén E: Baltic Sea Coastal Eutrophication in a Thousand Year Perspective

Paka V, Zhurbas V, Golenko M, Korzh A, Kondrashov A, Shchuka S: Innovative Closely Spaced Profiling and Current Velocity Measurements in the Southern Baltic Sea in 2016–2018 With Special Reference to the Bottom Layer.

Reckermann M, Meier HEM, Stendel M: Editorial: The Baltic Sea Region in Transition

Saraiva S, Meier HEM, Andersson H, Höglund A, Dieterich C, Gröger M, Hordoir R, Eilola K: Uncertainties in Projections of the Baltic Sea Ecosystem Driven by an Ensemble of Global Climate Models.

Semenova I, Slizhe M: Synoptic Conditions of Droughts and Dry Winds in the Black Sea Steppe Province Under Recent Decades

She J, Meier HEM, Darecki M, Gorringe P, Huess V, Kouts T, Reissmann JH, Tuomi L: Baltic Sea Operational Oceanography—A Stimulant for Regional Earth System Research

Terskii P, Kulesho A, Chalov S, Terskaia A, Belyakova P, Karthe D, Pluntke T: Assessment of Water Balance for Russian Subcatchment of Western Dvina River Using SWAT Model

Tuomi L, Kanarik H, Björkqvist J-V, Marjamaa R, Vaino J, Hordoir R, Höglung A, Kahma K: Impact of Ice Data Quality and Treatment on Wave Hindcast Statistics in Seasonally Ice-Covered Seas

2.3 Baltic Earth continuous contributions to the Oxford Research Encyclopedias (ORE)"Climate Science"

Collection of overview papers authored by international scholars on specific topics around climate science of the Baltic Sea Reagion. The articles are peer-reviewed and intended as reference material for scientists from other fields, scholars, students and the interested public.

Christensen OB, Kjellström E: Projections for Temperature, Precipitation, Wind, and Snow in the Baltic Sea Region until 2100

Danilovich I, Raisa A, Slonosky V, 2021: History of the Hydrometeorological Service of Belarus.

Deppisch S: Climate Change Impacts on Cities in the Baltic Sea Region

Harff J, Jöns H, Rosentau A: Geological, Paleoclimatological, and Archaeological History of the Baltic Sea Region since the last Glaciation

Kjellström E, Christensen OB: Regional Climate Modeling for the Baltic Sea Region

Lavento M: Regional History of Settlement and Human Impacts in the Baltic Sea Region Over the Last 2000 Years

Leppäranta M: History and Future of Snow and Sea Ice in the Baltic Sea unlocked

Lilja S: Climate, History, and Social Change in Sweden and the Baltic Sea Area From About 1700

Meier M, Saraiva S: Projected Oceanographical Changes in the Baltic Sea

Möllmann C: Effects of Climate Change and Fisheries on the Marine Ecosystem of the Baltic Sea

Omstedt A: The Development of Climate Science of the Baltic Sea Region

Osadczuk A, Borówka R, Dudzińska-Nowak J: Two Millennia of Natural and Anthropogenic Changes of the Polish Baltic Coast

Räisänen J: Future Climate Change in the Baltic Sea Region and Environmental Impacts

Soomere T: Climate Change and Coastal Processes in the Baltic Sea

Svedäng H: The Development of Fish Stocks and Fisheries in the Baltic Sea Since the Last Glaciation

Viitasalo M: Impacts of Climate Change on the Ecosystem of the Baltic Sea

Vuorinen I: Ecosystems of the Baltic Sea Since the Last Glaciation

Weisse R, Hünicke B: Baltic Sea Level: Past, Present, and Future

2.4 Earth System Dynamics, 2021
The BEAR Assessment Reports
10 papers

Christensen OB, Kjellström E, Dieterich C, Gröger M, Meier HEM: Atmospheric regional climate projections for the Baltic Sea Region until 2100.

Gröger M, Dieterich C, Haapala J, Ho-Hagemann HTM, Hagemann S, Jakacki J, May W, Meier HEM, Miller PA, Rutgersson A, Lichuan Wu: 2021 Coupled regional Earth system modelling in the Baltic Sea region

Kulinski K, Rehder G, Asmala E, Bartosova A, Castensen J, Gustafsson B, Hall POJ, Humborg C, Jilbert T, Jürgens K, Meier HEM, Müller-Karulis B, Naumann M, Olesen JE, Sacchuk O, Schramm A, Slomp CP, Sofiev M, Sobek A, Szymczycha B, Undemann E: Baltic Earth Assessment Report on the biogeochemistry of the Baltic Sea

Lehmann A, Myrberg K, Post P, Chubarenko I, Dailidiene I, Hinrichsen H-H, Hüssy K, Liblik T, Lips U, Meier HEM, Bukanova T: Salinity dynamics of the Baltic Sea

Meier HEM, Dieterich C, Gröger M, Dutheil C, Börgel F, Safonova K, Christensen OB, Kjellström E: Oceanographic regional climate projections for the Baltic Sea until 2100.

Meier HEM, Kniebusch M, Dieterich C, Gröger M, Zorita E, Elmgren R, Myrberg K, Ahola M, Bartosova A, Bonsdorff E, Börgel F, Capell R, Carlén I, Carlund T, Carstensen J, Christensen OB, Dierschke V, Frauen C, Frederiksen M, Gaget E, Galatius A, Haapala J, Halkka A, Hugelius G, Hünicke B, Jaagus J, Jüssi M, Käyhkö J, Kirchner N, Kjellström E, Kulinski K, Lehmann A, Lindström G, May W, Miller P, Mohrholz V, Müller-Karulis B, Pavón-Jordán D, Quante M, Reckermann M, Rutgersson A, Savchuk OP, Stendel M, Tuomi L, Viitasalo M, Weisse R, Zhang W: Climate Change in the Baltic Sea Region: A Summary.

Reckermann M, Omstedt A, Soomere T, Aigars J, Akhtar N, Bełdowska M, Bełdowski J, Cronin T, Czub M, Eero M, Hyytiäinen KP, Jalkanen J-P, Kiessling A, Kjellström E, Kuliński K, Guo

Larsén X, McCrackin M, Meier HEM, Oberbeckmann S, Parnell K, Pons-Seres de Brauwer C, Poska A, Saarinen J, Szymczycha B, Undeman E, Wörman A, Zorita E Human impacts and their interactions in the Baltic Sea region.

Rutgersson A, Kjellström E, Haapala J, Stendel M, Danilovich I, Drews M, Jylhä K, Kujala P, Guo Larsén X, Halsnæs K, Lehtonen I, Luomaranta A, Nilsson E, Olsson T, Särkkä J, Tuomi L, Wasmund N: Natural Hazards and Extreme Events in the Baltic Sea region

Viitasalo M, Bonsdorff E: Global climate change and the Baltic Sea ecosystem: direct and indirect effects on species, communities and ecosystem functioning.

Weisse R, Dailidiene I, Hünicke B, Kahma K, Madsen K, Omstedt A, Parnell K, Schöne T, Soomere T, Zhang W, Zorita E: 2021 Sea Level Dynamics and Coastal Erosion in the Baltic Sea Region

2.5 Oceanologia, 2023

Hybrid-Special Issue in Oceanologia: 3rd Baltic Earth Conference June 2020 and Marginal Seas Conference, January-March 2023

21 papers

Bailey G, Cawthra HC: The significance of sea-level change and ancient submerged landscapes in human dispersal and development: A geoarchaeological perspective

Boniewicz-Szmyt K, Grzegorczyk M, Pogorzelski S, Rochowski P: Photosynthetic signatures of microbial colonies covering submerged hard surfaces as novel trophic status indicators: Baltic Sea studies

Deich C, Kanwischer M, Zhang R, Waniek JJ: Natural and synthetic estrogenic compounds in the Pearl River Estuary and northern shelf of the South China Sea

Foglini F, Grande V: A Marine Spatial Data Infrastructure to manage multidisciplinary, inhomogeneous and fragmented geodata in a FAIR perspective ... the Adriatic Sea experience

Golenko M, Paka V, Zhurbas V, Korzh A, Kondrashov A: Intermediate plumes of low oxygen in the southeastern Baltic Sea

Greene G, Baker MR, Aschoff J, Pacunski R: Hazards evaluation of a valuable vulnerable sandwave field forage fish habitat in the marginal Central Salish Sea using a submersible

Groh A, Harff J: Relative sea-level changes induced by glacial isostatic adjustment and sediment loads in the Beibu Gulf, South China Sea

Hagemann S, Stacke T: Complementing ERA5 and E-OBS with high-resolution river discharge over Europe

Janušaitė R, Jarmalavičius D, Pupienis D, Žilinskas G, Jukna L: Nearshore sandbar switching episodes and their relationship with coastal erosion at the Curonian Spit, Baltic Sea

Klimavicius L, Rimkus E, Stonevicius E, Maciulyte V: Seasonality and long-term trends of NDVI values in different land use types in the eastern part of the Baltic Sea basin

Liu SM, Liang W, Guo X, Wu N, Zhang W, Shan X, Zhao H-D, Wang J, Huang J: Biogeochemistry-ecosystem-social interactions on the Chinese continental margins

Maciulyte V, Rimkus E, Valiukas D, Stonevicius E: Long-term precipitation events in the eastern part of the Baltic Sea region

Martyanov SD, Isaev AV, Ryabchenko VA: Model estimates of microplastic potential contamination pattern of the eastern Gulf of Finland in 2018

Omstedt A: How to develop an understanding of the marginal sea system by connecting natural and human sciences

Porz L, Zhang W, Schrum C: Natural and anthropogenic influences on the development of mud depocenters in the southwestern Baltic Sea

Reckermann M, Harff J, Meier HEM, Kulinski K, von Storch H: 2023: Earth system changes in marginal seas, Editorial

Soomere T: Numerical simulations of wave climate in the Baltic Sea: a review

Stattegger K, Leszczynska K: Rapid sea-level rise during the first phase of the Littorina transgression in the western Baltic Sea

von Storch H: Perceptions of an endangered Baltic Sea

Wolski T, Wisniewski B: Characteristics of seasonal changes of the Baltic Sea extreme sea levels

Zhang J, Tomczak M, Witkowski A, Zhen X, Li C: A fossil diatom-based reconstruction of sea-level changes for the Late Pleistocene and Holocene period in the NW South China Sea

2.6 Oceanologia, 2024

Special Issue in Oceanologia: 4th Baltic Earth Conference 30 May - 3 June 2022

10 papers

Ehlert von Ahn C, Dellwig O, Szymczycha B, Kotwicki L, Rooze J, Endler R, Escher P, Schmiedinger I, Sültenfuß J, Diak M, Gehre M, Struck U, Vogler S, Böttcher ME Submarine groundwater discharge into a semi-enclosed coastal bay of the southern Baltic Sea: A multi-method approach

Klimavičius L, Rimkus E Compound drought and heatwave events in the eastern part of the Baltic Sea region

Liblik T, Buschmann F, Siht E, Kuprijanov I, Väli G, Lipp M, Erm A, Laanemets J, Eschbaum R, Verliin A, Saks L, Zekker I Environmental impact of water exchange blocking in a strait – a multidisciplinary study in the Baltic Sea

Merchel M, Walczoowski W, Rak D, Wieczorek P The use of Argo floats as virtual moorings for monitoring the South Baltic Sea

Najafzadeh F, Jankowski M, Giudici, Männikus R, Suursaar Ü, Viška M, Soomere T Spatiotemporal variability of wave climate in the Gulf of Riga

Omstedt A, von Storch H The BALTEX/Baltic Earth program: Excursions and returns

Post P, Aun M Changes in cloudiness contribute to changing seasonality in the Baltic Sea region

Reckermann M, Meier HEM, Kulinski K, Dudzinska-Nowak J Baltic Earth: Assessing the Baltic Earth System

Stoicescu S-T, Hoikkala L, Fleming V, Lips U Continuing long-term expansion of low-oxygen conditions in the Eastern Gulf of Finland

Väli G, Meier HEM, Liblik T, Radtke H, Klingbeil K, Gräwe U, Lips U Submesoscale processes in the surface layer of the central Baltic Sea: A high-resolution modelling study

Zalewska T, Wilman, B, Łapeta B, Marosz M, Biernacik D, Wochna A, Saniewski M, Grajewska A, Iwaniak M Seawater temperature changes in the southern Baltic Sea (1959–2019) forced by climate change

2.7 Estuarine, Coastal and Shelf Science, 2023

Special Issue in Estuarine, Coastal and Shelf Science, 2023 River Mouth Systems and Marginal Seas – Natural Drivers and Human Impacts, Online Conference, held 5-7 December 2022, 15 papers

Shuyu Wu, Jun Liu, Hongxian Chu, Dapeng Bai, Yongcai Feng, Mengting Li , Kuanle Bao: Identification of three stages of paleochannels and main source analysis beginning in the middle Pleistocene in the western Bohai sea in north China

Hongxian Chu, Yongcai Feng, Dapeng Bai, Shuyu Wu, Jidong Yuan, Jialin Li, Binghui Feng, Wenqin Jiang, Study on the geomorphological changes of deep troughs under the influence of reclamation in the Caofeidian

Shiyu Wang, Rolf D. Vogt, Qiulian Wang, Pengyu Mei, Xueqiang Lu. How do major ions and fulvic acid affect dissolved inorganic phosphorus adsorption onto suspended particulate matter in estuarine environment?

Duy Nghia Pham, Anja Ruhl, Kathrin Fisch, Safia El Toum, Susanne Heise, Inna M. Sokolova: Effects of contamination and warming on ragworms *Hediste diversicolor*: A laboratory experiment with Oder estuary sediments

Natalija Suhareva, Juris Aigars, Rita Poikāne, Nicholas A. Heredia, Juris Tunēns, Anete Fedorovska, Ļubova Baraškova: Trophic magnification of Hg, PBDE and PCB in population of European perch with varying feeding ecology in the Baltic Sea

Jinpeng Zhang, , Pingyuan Li, Michal Tomczak, Yufeng Wang, Huayang Gan, Guanqiang Cai, Qiao Xue, Jianmei Hou, Na Yi, Bing Wang: Diatom record the holocene marine facies deposition history in inner bay of Pearl River Estuary, South China

Xiao Wang, Wenyan Zhang, Xinong Xie, Hui Chen, Beichen Chen: Holocene sedimentary distribution and morphological characteristics reworked by East Asian monsoon dynamics in the Mekong River shelf, South Vietnam

Anna Bogumiła Kowalska: Szczecin – A medieval town at the mouth of the river Odra on the southern coast of the Baltic

Junjie Deng, Congrui Chen, Jingyu Hu, Hongze Yu, Jiaxue Wu: On the extension and deflection of bayhead river-mouth shoal within a tide-dominated embayment, pearl river estuary

Shaoxin Chen, Haifei Yang, Mingliang Li, Fei Xing, Benwei Shi, Ya Ping Wang: Sediment dynamic on the tidal flat sheltered by artificial engineering: A case study on eddies

Rachel Collin, Anne E. Adelson, Andrew H. Altieri, Kasey E. Clark, Kristen Davis, Sarah N. Giddings, Samuel Kastner, Leon Mach, Geno Pawlak, Sofie Sjögersten, Mark Torres, Cinda P. Scott: Using forty years of research to view Bahía Almirante on the Caribbean Coast of Panama as an integrated social-ecological system

Natalia Bugajny, Konrad Furmańczyk, Kazimierz Furmańczyk: Statistics of significant storm events using one- and two-dimensional analyses of the natural and protected coasts of the Dziwnów Spit

Susanne Heise, Ivonne Stresius: Application of qualitative modelling to improve system understanding of the stressed elbe estuary

Kaizhe Fu, Zeheng Chen, Cheng Huang, Yuanyuan Chen, Dongming Wu, Xiwen Li, Yanwei Song, Weipin Ding, Xiujiu Yang, Junqiao Long: Distribution, sources, impact factors and ecological risks of sediment heavy metals from typical estuarine wetlands in tropical islands

Luiza Bielecka, Violetta Drozdowska, Ilona Złoch, Daniel Rak, Vadim Pelevin, Ekaterina Koltsova: Biological and optical properties of Baltic surface waters and sea-land interaction – searching for interdependencies

03. Special Journal Issues dedicated to BALTEX

(Please note that the papers listed here are also part of the Peer-reviewed Journal Articles)

3.1 Tellus, Series A, Vol. 48A, No. 5, 1996, 1st Study Conference on BALTEX 1995, 15 papers

Calanca P, Fortelius C: Representation of model data and evaluation of diagnostic equations in pressure coordinates. pp 756-766

Haapala J, Leppäranta M: Simulating the Baltic Sea ice season with a coupled ice-ocean model. pp 622-643

Heise E: An investigation of water and energy budgets for the BALTEX region based on short-range numerical weather predictions. pp 693-707

Holopainen E: Diagnostic studies on atmospheric budgets of water and energy based on aerological data. pp 750-755

Karlsson K-G: Validation of modelled cloudiness using satellite-estimated cloud climatologies. pp 767-785

Karstens U, Nolte-Holube R, Rockel B: Calculation of the water budget over the Baltic Sea catchment area using the regional forecast model REMO for June 1993. pp 684-692

Keevallik S, Tooming H: Relationships between surface albedo and spring heat accumulation. pp 727-732

Lass HU, Matthäus W: On temporal wind variations forcing salt water inflows into the Baltic Sea. pp 663-671

Ljungemyr P, Gustafsson N, Omstedt A: Parameterization of lake thermodynamics in a high-resolution weather forecasting model. pp 608-621

Lohmann D, Nolte-Holube R, Raschke E: A large-scale horizontal routing model to be coupled to land surface parametrization schemes. pp 708-721

Mölders N, Raabe A, Tetzlaff G: A comparison of two strategies on land surface heterogeneity used in a mesoscale β meteorological model. pp 733-749

Omstedt A: Preface. pp 607

Omstedt A, Nyberg L: Response of Baltic Sea ice to seasonal, interannual forcing and climate change. pp 644-662

Russak V: Atmospheric aerosol variability in Estonia calculated from solar radiation measurements. pp 786-792

Samuelsson M, Stigebrandt A: Main characteristics of the long-term sea level variability in the Baltic sea. pp 672-683

Tooming H: Changes in surface albedo and air temperature at Tartu, Estonia. pp. 722-726

3.2 Meteorologische Zeitschrift, Vol. 9, No. 1-2, 2000
2nd Study Conference on BALTEX 1998, 14 papers

Graham LP, Jacob D: Using large-scale hydrologic modelling to review runoff generation processes in GCM climate models. pp 49-58

Hagedorn R, Lehmann A, Jacob D: A coupled high resolution atmosphere-ocean model fort he BALTEX region. pp 7-20

Kerschgens M: Editorial. pp 3-4.

Lenderink G, van Meijgaard E, Holtslag A: Evaluation of the ECHAM4 cloud-turbulence scheme for Stratocumulus. pp 41-48

Omstedt A, Rutersson A: Closing the water and heat cycles of the Baltic Sea. pp 59-66

Paplinska B: Case study of wave dependent drag coefficient in the Baltic Sea. pp 67-72

Raschke E: BALTEX: Baltic Sea Experiment pp. 5-6

Rutgersson A: A comparison between long term measured and modelled sensible heat and momentum fluxes using a High Resolution Limited Area Model (HIRLAM). pp 31-40

Van Meijgaared E, Konings JA, Feijt A, van Lammeren A: Comparison of model predicted cloud cover profiles with observations from ground and satellite. pp 21-30

The following 7 papers appear in **Meteorologische Zeitschrift, Vol. 9, No. 2, 2000**

Hantel M, Hamelbeck F: Convection in PIDCAP – A descriptive approach. pp 77-84

Karlsson K-G: Satellite sensing techniques and applications for the purpose of BALTEX. pp 111-116

Lindau R, Ruprecht E: SSM 1-derived total water vapour content over the Baltic Sea compared to independent data. pp 117-124

Michelson DB, Foltescu V, Häggmark L, Lindgren B: MESAN Mesoscale analysis of precipitation. pp 85-96

Raschke E: Editorial: BALTEX: Baltic Sea Experiment. pp 75-76

Stewart RE, Burford J, Crawford R: On the characteristics of the water cycle of the Mackenzie River Basin. pp 103-110

Tooming H, Kadaja J: Snow cover and surface albedo in Estonia. pp 97-102

Van Lammeren A, Feijt A, Konings J, van Meijgaard E, van Ulden A: Combination of ground-based and satellite cloud observations on a routine basis. pp 125-134

3.3 Meteorology and Atmospheric Physics, Vol. 77, No. 1-4, 2001 The European NEWBALTIC project, 14 papers

Bengtsson L: Numerical modelling of the energy and water cycle of the Baltic Sea. pp 9-18

Graham LP, Bergström S: Water balance modelling in the Baltic Sea drainage basin - analysis of meteorological and hydrological approaches. pp 45-60

Haimberger L, Ahrens B, Hamelbeck F, Hantel M: Impact of time sampling on atmospheric energy budget residuals. pp 167-185

Hamelbeck F, Haimberger L, Hantel M: Convection in PIDCAP Part I: Evaluating LAM convection. pp 85-98

Hantel M, Haimberger L, Hamelbeck F: Convection in PIDCAP Part II: DIAMOD - A standard for diagnosing convective quantities. pp 185-203

Hantel M: Editorial: Scientific results of the European NEWBALTIC project. pp 1-8

Hess R: Assimilation of screen-level observations by variational soil moisture analysis. pp 145-154

Jacob D, Van den Hurk BJJM, Andræ U, Elgered G, Fortelius C, Graham LP, Jackson SD, Karstens U, Köpken C, Lindau R, Podzun R, Rockel B, Rubel F, Sass BH, Smith RNB, Yang X: A comprehensive model inter-comparison study investigating the water budget during the BALTEX-PIDCAP period. pp 19-44

Jacob D: A note to the simulation of the annual and inter-annual variability of the water budget over the Baltic Sea drainage basin. pp 61-74

Lenderink G, van Meijgaard E: Impacts of cloud and turbulence schemes on integrated water vapor: Comparison between model predictions and GPS measurements. pp 131-144

Rockel B, Karstens U: Development of the water budget for three extra-tropicalcyclones with intense rainfall over Europe. pp 75-84

Rubel F, Hantel M: BALTEX 1/6-degree daily precipitation climatology 1996-1998. pp 155-166

Stoew B, Elgered G, Johansson JM: An assessment of estimates of integrated water vapor from ground-based GPS data. pp 99-108

Van Meijgaard E, Andræ U, Rockel B: Comparison of model predicted cloud parameters and surface radiative fluxes with observations on the 100 km scale. pp 109-130

3.4 Boreal Environment Research, Vol. 7, No. 3-4, 2002
3rd Study Conference on BALTEX 2001, 34 papers

Alestalo M: Preface. pp 173

Crewell S, Drusch M, van Meijgard E, van Lammeren A: Cloud observations and modelling within the European BALTEX Cloud Liquid Water Network. pp 235-246

Döscher R, Willén U, Jones C, Rutgersson A, Meier HEM, Hansson U, Graham LP: The development of the regional coupled ocean-atmosphere model RCAO. pp 183-192

Etling D, Harbusch G, Brümmer B: Large-Eddy-Simulation of an off-ice airflow during BASIS. pp 225-228

Feijt A, Jolivet D, van Meijgaard E: Retrieval of the spatial distribution of liquid water path from combined ground-based and satellite observations for atmospheric model evaluation. pp 265-272

Fortelius C, Andræ U, Forsblom M: The BALTEX regional reanalysis project. pp 193-202

Gryning S-E, Batchvarova E: Marine boundary-layer height estimated from the HIRLAM model. pp 229-235

Hollmann R, Gratzki A: The satellite derived surface radiation budget for BALTEX. pp 247-252

Koistinen J, Michelson DB: BALTEX weather radar-based precipitation products and their accuracies. pp 253-264

Kücken M, Gerstengarbe F-W, Werner PC: Cluster analysis results of regional climate model simulations in the PIDCAP period. pp 219-224

Lorant V, MacFarlane N, Laprise R: A numerical study using the Canadian Regional Climate Model for the PIDCAP period. pp 203-210

Oesterle H.: Selection of representative stations by means of a cluster analysis for the BAMAR region in the PIDCAP period. pp 301-304.

Okulov O, Ohvril H, Kivi R: Atmospheric precipitable water in Estonia, 1990 – 2001. pp. 291-200

Pirazzini R, Vihma T, Launiainen J, Tisler P: Validation of HIRLAM boundary-layer structures over the Baltic Sea. pp 211-218

Post P, Truija V, Tuulik J: Circulation weather types and their influence on temperature and precipitation in Estonia. pp 281-290

Raschke E, Meywerk J, Rockel B: Has the project BALTEX so far met its original objectives? pp 175-182

Sepp M, Jaagus J: Frequency of circulation patterns and air temperature variations in Europe. pp 273-280

The following 18 papers appear in **Boreal Environment Research Vol.7, No 4, 2002**

Alestalo M: Preface. pp 305

3.5 Atmospheric Research, Vol. 75, No. 3, 2005
The European CLIWA-NET project, 6 papers

Güldner J, Leps J-P: Analysis of CLIWA-NET intensive operation period data as part of the monitoring activities at the German Meteorological Service site Lindenberg. pp 151-166

Illingworth A, Crewell S: CLIWA-NET: Observation and modelling of liquid water clouds. pp 149-150

Meywerk J, Quante M, Sievers O: Radar based remote sensing of cloud liquid water—application of various techniques—a case study. pp 167-182

Rose T, Crewell S, Löhnert U, Simmer C: A network suitable microwave radiometer for operational monitoring of the cloudy atmosphere. pp 183-200

Van Meijgaard E, Crewell S: Comparison of model predicted liquid water path with ground-based measurements during CLIWA-NET. pp 201-226

Willen U, Crewell S, Baltink HK, Sievers O: Assessing model predicted vertical cloud structure and cloud overlap withradar and lidar ceilometer observations for the Baltex Bridge Campaign of CLIWA-NET. pp 227-255

3.6 Nordic Hydrology, Vol. 36, No. 4-5, 2005
4th Study Conference on BALTEX 2004, 10 papers

Arpe K, Hagemann S, Jacob D, Roeckner E: The realism of the ECHAM5 models to simulate the hydrological cycle in the Arctic and North European area. pp 349-368

Isemer H-J, Gryning S-E, Rosbjerg D: Preface - Special issue of Nordic Hydrology – 4 Study Conference on BALTEX. pp 295-296

Jakobson E, Ohvril H, Okulov O, Laulainen N: Variability of radiosonde-observed precipitable water in the Baltic region. pp 423-433

Kitaev L, Førland E, Razuvaev V, Tveito OE, Krueger O: Distribution of snow cover over Northern Eurasia. pp 311- 320

Kjellström E, Döscher R, Meier HEM: Atmospheric response to different sea surface temperatures in the Baltic Sea: coupled versus uncoupled regional climate model experiments. pp 397-410

Kowalewska-Kalkowska H, Kowalewski M: Operational hydrodynamic model for forecasting extreme hydrographic events in the Oder Estuary. pp 411-422

Krysanova V, Hattermann F, Habeck A: Expected changes in water resources availability and water quality with respect to climate change in the Elbe River basin (Germany). pp 321-334

Lindau R, Simmer C: Derivation of a root zone soil moisture algorithm and its application to validate model data. pp 335-348

Omstedt A, Chen Y, Wesslander K: A comparison between the ERA40 and the SMHI gridded meteorological databases as applied to Baltic Sea modelling. pp 369-380

Rutgersson A, Omstedt A, Chen Y: Evaluation of the heat balance components over the Baltic Sea using four gridded meteorological databases and direct observations. pp 381-396

Sepp M, Post P, Jaagus J: Long-term changes in the frequency of cyclones and their trajectories in Central and Northern Europe. pp 297

3.7 Boundary-Layer Meteorology, Vol. 121, No. 1, 2006
The LITFASS-2003 experiment, 10 papers

Ament F, Simmer C: Improved Representation of Land-surface Heterogeneity in a Non-hydrostatic Numerical Weather Prediction Model. pp 153-174

Bange J, Spieß T, Herold M, Beyrich F, Hennemuth B: Turbulent fluxes from Helipod flights above quasi-homogeneous patches within the LITFASS area. pp 127-151

Beyrich F, De Bruin HAR, Etling D, Foken T: Preface: The LITFASS-2003 experiment. pp 1-4

Beyrich F, Mengelkamp H-T: Evaporation over a Heterogeneous Land Surface: EVA_GRIPS and the LITFASS-2003 Experiment—An Overview. pp 5-32

Beyrich F, Leps J-P, Mauder M, Bange J, Foken T, Huneke S, Lohse H, Lüdi A, Meijninger WML, Mironov D, Weissensee U, Zittel P: Area-Averaged Surface Fluxes Over the Litfass Region Based on Eddy-Covariance Measurements. pp 33-65

Heinemann G, Kerschgens M: Comparison of methods for area-averaging surface energy fluxes over heterogeneous land surfaces using high-resolution non-hydrostatic simulations. pp 195-220

Heret C, Tittebrand A, Berger FH: Latent heat fluxes simulated with a non-hydrostatic weather forecast model using actual surface properties from measurements and remote sensing. pp 175-194

Kohsiek W, Meijninger WML., Debruin HAR, Beyrich F: Saturation of the Large Aperture Scintillometer. pp 111-126

Mauder M, Liebethal C, Göckede M, Leps J-P, Beyrich F, Foken T: Processing and quality control of flux data during LITFASS-2003. pp. 67-88

Meijninger WML, Beyrich F, Lüdi A, Kohsiek W, De Bruin HAR: Scintillometer-Based Turbulent Fluxes of Sensible and Latent Heat Over a Heterogeneous Land Surface – A Contribution to Litfass-2003. pp 89-110

3.8 Boreal Environment Research, Vol. 14, No. 1, February 2009
5th Study Conference on BALTEX 2007, 23 papers

Carlsson B, Rutgersson A, Smedman A-S: Investigating the effect of a wave-dependent momentum flux in a process oriented ocean model**.** pp 3–17

Gustafsson EO, Omstedt A: Sensitivity of Baltic Sea deep water salinity and oxygen concentration to variations in physical forcing**.** pp 18–30

Jaagus J: Regionalisation of the precipitation pattern in the Baltic Sea drainage basin and its dependence on large-scale atmospheric circulation. pp 31–44

Jakobson E, Ohvril H, Elgered G: Diurnal variability of precipitable water in the Baltic region, impact on transmittance of the direct solar radiation**.** pp 45–55

Lind P, Kjellström E.: Water budget in the Baltic Sea drainage basin: Evaluation of simulated fluxes in a regional climate model. pp 56–67

Tedesco L, Vichi M, Haapala J, Stipa T: An enhanced sea-ice thermodynamic model applied to the Baltic Sea. pp 68–80

Bhend J, von Storch H: Is greenhouse gas forcing a plausible explanation for the observed warming in the Baltic Sea catchment area? pp 81–88

Draveniece A: Detecting changes in winter seasons in Latvia: the role of arctic air masses. pp 89–99

Jacob D, Lorenz P: Future trends and variability of the hydrological cycle in different IPCC SRES emission scenarios — a case study for the Baltic Sea region. pp 100–113

Kjellström E, Lind P: Changes in the water budget in the Baltic Sea drainage basin in future warmer climates as simulated by the regional climate model RCA3**.** pp114–124

Madsen KS, Højerslev NK**:** Long-term temperature and salinity records from the Baltic Sea transition zone. pp 125–131

Saue T, Kadaja J: Simulated crop yield — an indicator of climate variability**.** pp 132–142

Sepp M: Changes in frequency of Baltic Sea cyclones and their relationships with NAO and climate in Estonia. pp 143–151

Soomere T, Leppäranta M, Myrberg K: Highlights of the physical oceanography of the Gulf of Finland reflecting potential climate changes. pp 152–165

Venäläinen A, Jylhä K, Kilpeläinen T, Saku S, Tuomenvirta H, Vajda A, Ruosteenoja K: Recurrence of heavy precipitation, dry spells and deep snow cover in Finland based on observations. pp 166–172

Graham LP, Olsson J, Kjellström E, Rosberg J, Hellström S-S, Berndtsson R: Simulating river flow to the Baltic Sea from climate simulations over the past millennium. pp 173–182

Kowalewska-Kalkowska H, Wisniewski B: Storm surges in the Odra mouth area during the 1997–2006 decade. pp 183–192

Kundzewicz ZW: Adaptation to floods and droughts in the Baltic Sea basin under climate change. pp 193–203

Gryning SE, Soegaard H, Batchvarova E: Comparison of regional and ecosystem CO_2 fluxes. pp 204–212

Laanemets J, Zhurbas V, Elken J, Vahtera E: Dependence of upwelling-mediated nutrient transport on wind forcing, bottom topography and stratification in the Gulf of Finland: Model experiments**.** pp 213–225

Langner J, Andersson C, Engardt M: Atmospheric input of nitrogen to the Baltic Sea basin: present situation, variability due to meteorology and impact of climate change. pp 226–237

Rutgersson A, Norman M, Åström G: Atmospheric CO_2 variation over the Baltic Sea and the impact on air–sea exchange. pp 238–249

Leal Filho W, Mannke F: Towards policies and adaptation strategies to climate change in the Baltic Sea region — outputs of the ASTRA project. pp 250–254

3.9 Oceanologia, Vol. 53, (I-TI)/11, June 2011
6th Study Conference on BALTEX 2010, 16 papers

Pempkowiak J: Changing water, energy and biogeochemical cycles in the Baltic Sea basin. Preface

Meier HEM, Höglund A, Döscher R, Andersson H, Löptien U, Kjellström E: Quality assessment of atmospheric surface fields over the Baltic Sea from an ensemble of regional climate model simulations with respect to ocean dynamics. pp 193-227

Služenikina J, Männik A: A comparison of ASCAT wind measurements and the HIRLAM model over the Baltic Sea. pp 229-244

Päädam K, Post P: Temporal variability of precipitation extremes in Estonia 1961-2008. pp 245-257

Rimkus E, Kažys J, Bukantis A, Krotovas A: Temporal variation of extreme precipitation events in Lithuania. pp 259-277

Speranskaya NA: Changes in some elements of the water cycle in the easternmost part of the Baltic Sea Drainage Basin between 1945 and 2010. pp 279-292

Dailidienė I, Baudler H, Chubarenko B, Navrotskaya S: Long term water level and surface temperature changes in the lagoons of the southern and eastern Baltic. pp 293-308

Andrejev O, Soomere T, Sokolov A, Myrberg K: The role of the spatial resolution of a three-dimensional hydrodynamic model for marine transport risk assessment. pp 309-334

Soomere T, Räämet A: Spatial patterns of the wave climate in the Baltic Proper and the Gulf of Finland. pp 335-371

Wiśniewski B, Wolski T: Physical aspects of extreme storm surges and falls on the Polish coast. pp 373-390

Hongisto M: Variability of the marine boundary layer parameters over Baltic Sea sub-basins and their impact on nitrogen deposition. pp 391-413

Schneider B: PO4 release at the sediment surface under anoxic conditions: a contribution to the eutrophication of the Baltic Sea? pp 415-429

Väli G, Zhurbas V, Laanemets J, Elken J: Simulation of nutrient transport from different depths during an upwelling event in the Gulf of Finland. pp 431-448

Dzierzbicka-Głowacka l, Jakacki J, Janecki M, Nowicki A: Variability in the distribution of phyto-plankton as affected by changes to the main physical parameters in the Baltic Sea. pp 449-470

Kostecki R, Janczak-Kostecka B: Holocene evolution of the Pomeranian Bay environment, southern Baltic Sea. pp 471-487

Zhang W, Harff J, Schneider R: Analysis of 50-year wind data of the southern Baltic Sea for modelling coastal morphological evolution - a case study from the Darss-Zingst Peninsula. pp 489-518

3.10 AMBIO, Vol. 41, Issue 6, September 2012
Special Issue ECOSUPPORT – Different Ecosystem Drivers under Future Climate Scenarios in the Baltic Sea, 11 papers

Meier HEM, Andersson HC: ECOSUPPORT: A Pilot Study on Decision Support for Baltic Sea Environmental Management. pp 529-533

Gustafsson B, Schenk F, Blenckner T, Eilola K, Meier HEM, Müller-Karulis B, Neumann T, Ruoho-Airola T, Savchuk OP, Zorita E.: Reconstructing the Development of Baltic Sea Eutrophication 1850–2006. pp 534-548

Ruoho-Airola T, Eilola K, Savchuk OP, Parviainen M, Tarvainen V: Atmospheric Nutrient Input to the Baltic Sea from 1850 to 2006: A Reconstruction from Modeling Results and Historical Data. pp 549-557

Meier HEM, Müller-Karulis B, Andersson HC, Dieterich C, Eilola K, Gustafsson BG, Höglund A, Hordoir R, Kuznetsov I, Neumann T, Ranjbar Z, Savchuk OP, Schimanke S: Impact of Climate Change on Ecological Quality Indicators and Biogeochemical Fluxes in the Baltic Sea: A Multi-Model Ensemble Study. pp 558-573

Neumann T, Eilola K, Gustafsson B, Müller-Karulis B, Kuznetsov I, Meier HEM, Savchuk OP: Extremes of Temperature, Oxygen and Blooms in the Baltic Sea in a Changing Climate. pp 574-585

Eilola K, Almroth Rosell E, Dieterich C, Fransner F, Höglund A, Meier HEM: Modeling Nutrient Transports and Exchanges of Nutrients Between Shallow Regions and the Open Baltic Sea in Present and Future Climate. pp 586-599

Arheimer B, Dahné J, Donnelly C: Climate Change Impact on Riverine Nutrient Load and Land-Based Remedial Measures of the Baltic Sea Action Plan. pp 600-612

Niiranen S, Blenckner T, Hjerne O, Tomczak MT: Uncertainties in a Baltic Sea Food-Web Model Reveal Challenges for Future Projections. pp 613-625

MacKenzie B, Meier HEM, Lindegren M, Neuenfeldt S, Eero M, Blenckner T, Tomczak MT, Niiranen S: Impact of Climate Change on Fish Population Dynamics in the Baltic Sea: A Dynamical Downscaling Investigation. pp 626-636

Havenhand JN: How will Ocean Acidification Affect Baltic Sea Ecosystems? An Assessment of Plausible Impacts on Key Functional Groups. pp 637-644

Piwowarczyk J, Hansson A, Hjerpe M, Chubarenko B, Karmanov K: Climate Change in the Baltic Sea Region: A Cross-Country Analysis of Institutional Stakeholder Perceptions. pp 645-655

3.11 AMBIO, Vol. 43, Issue 1, February 2014
Special Issue: BONUS+ in Support of the Ecosystem Approach to Management in the Baltic Sea, 11 papers

Kononen K, Andrusaitis A, Sirola M: Scientific Support by the BONUS+ Projects for the Sustainability of the Baltic Sea Region: The Case of the HELCOM Baltic Sea Action Plan. pp 1-10

Wulff F, Humborg C, Andersen HE, Blicher-Mathiesen G, Czajkowski M, Elofsson K, Fonnesbech-Wulff A, Hasler B, Hong B, Jansons V, Mörth C-M, Smart J, Smedberg E, Stålnacke P, Swaney DP, Thodsen H, Was A, Zylicz T: Reduction of Baltic Sea Nutrient Inputs and Allocation of Abatement Costs Within the Baltic Sea Catchment. pp 11-25

Carstensen J, Conley DJ, Bonsdorff E, Gustafsson BG, Hietanen S, Janas U, Jilbert T, Maximov A, Norkko A, Norkko J, Reed DC, Slomp CP, Timmermann K, Voss M: Hypoxia in the Baltic Sea: Biogeochemical Cycles, Benthic Fauna, and Management. pp 26-36

Meier HEM, Andersson HC, Arheimer B, Donnelly C, Eilola K, Gustafsson BG, Kotwicki L, Neset T-S, Niiranen S, Piwowarczyk J, Savchuk OP, Schenk F, Węsławski JM, Zorita E: Ensemble Modeling of the Baltic Sea Ecosystem to Provide Scenarios for Management. pp 37-48

Omstedt A, Humborg C, Pempkowiak J, Perttilä M, Rutgersson A, Schneider B, Smith B: Biogeochemical Control of the Coupled CO2–O2 System of the Baltic Sea: A Review of the Results of Baltic-C. pp 49-59

Kotilainen AT, Arppe L, Dobosz S, Jansen E, Kabel K, Karhu J, Kotilainen MM, Kuijpers A, Lougheed BC, Meier HEM, Moros M, Neumann T, Porsche C, Poulsen N, Rasmussen P, Ribeiro S, Risebrobakken B, Ryabchuk D, Schimanke S, Snowball I, Spiridonov M, Virtasalo JJ, Weckström K, Witkowski A, Zhamoida V: Modeling Nutrient Transports and Exchanges of Nutrients Between Shallow Regions and the Open Baltic Sea in Present and Future Climate. pp 60-68

Lehtonen K, Sundelin B, Lang T, Strand J: Development of Tools for Integrated Monitoring and Assessment of Hazardous Substances and Their Biological Effects in the Baltic Sea. pp 69-81

Lindegarth M, Bergström U, Mattila J, Olenin S, Ollikainen M, Downie A-L, Sundblad G, Bučas M, Gullström M, Snickars M, von Numers M, Svensson JR, Kosenius A-K: Testing the Potential for Predictive Modeling and Mapping and Extending Its Use as a Tool for Evaluating Management Scenarios and Economic Valuation in the Baltic Sea (PREHAB). pp 82-93

Soomere T, Döös K, Lehmann A, Meier HEM, Murawski J, Myrberg K, Stanev E: The Potential of Current- and Wind-Driven Transport for Environmental Management of the Baltic Sea. pp 94-104

Tynkkynen N, Schönach P, Pihlajamäki M, Nechiporuk D: The Governance of the Mitigation of the Baltic Sea Eutrophication: Exploring the Challenges of the Formal Governing System. pp 105-114

Rahikainen M, Helle I, Haapasaari P, Oinonen S, Kuikka S, Vanhatalo J, Mäntyniemi S, Hoviniemi K-M: Toward Integrative Management Advice of Water Quality, Oil Spills, and Fishery in the Gulf of Finland: A Bayesian Approach. pp 115-123

3.12 Oceanologia, Vol. 56, (2), May 2014
7th Study Conference on BALTEX 2013, 12 papers

Pham TV, Brauch J, Dieterich C, Frueh B, Ahrens B: New coupled atmosphere-ocean-ice system COSMO-CLM/NEMO: assessing air temperature sensitivity over the North and Baltic Seas. pp 167-189

Jakobson E, Keernik H, Luhamaa A, Ohvril H: Diurnal variability of water vapour in the Baltic Sea region according to NCEP-CFSR and BaltAn65+ reanalyses. pp 191-204

Krüger O: Observational evidence for human impact on aerosol cloud-mediated processes in the Baltic region. pp 205-222

Rimkus E, Kažys J, Valiukas D, Stankūnavičius G: The atmospheric circulation patterns during dry periods in Lithuania. pp 223-239

Post P, Kõuts T: Characteristics of cyclones causing extreme sea levels in the northern Baltic Sea. pp 241-258

Wolski T, Wiśniewski B, Giza A, Kowalewska-Kalkowska H, Boman H, Grabbi-Kaiv S, Hammarklint T, Holfort J, Lydeikaitė Ž: Extreme sea levels at selected stations on the Baltic Sea coast. pp 259-290

Sharov AN, Berezina NA, Nazarova LE, Poliakova TN, Chekryzheva TA: Links between biota and climate-related variables in the Baltic region using Lake Onega as an example. pp 291-306

Łabuz TA: Erosion reasons and rate on accumulative Polish dune coast caused by the January 2012 storm surge. pp 307-326

Szymczycha B, Maciejewska A, Winogradow A, Pempkowiak J: Could submarine groundwater discharge be a significant carbon source to the southern Baltic Sea? pp 327-347

Hongisto M: Impact of the emissions of international sea traffic on airborne deposition to the Baltic Sea and concentrations at the coastline. pp 349-372

Bulskaya I, Volchek A: Inorganic constituents in surface runoff from urbanised areas in winter: the case study of the city of Brest, Belarus. pp 373-383

Kundzewicz ZW: Adapting flood preparedness tools to changing flood risk conditions: the situation in Poland. pp 385-407

04. Peer-reviewed Journal Articles

This list represents the continuum of BALTEX and Baltic Earth (since 2014) publications, sorted alphabetically.

Achberger C, Box JE, Chen D 2007: Nordic Region, in State of the Climate in 2006. Arguez, A., ed., Bulletin of the American Meteorological Society 88:104-106

Achberger C, Chen D, Alexandersson H, 2006: The surface winds of Sweden during 1999-2000, Int. J. Climatology 26(2):159-178

Achberger C, Linderson ML, Chen D, 2003: Performance of the Rossby Centre regional Atmospheric model in Southern Sweden: comparison of simulated and observed. Theoretical and applied Climatology 76:219-234

Ahlgren J, Grimvall A, Omstedt A, Rolff C, Wikner J, 2017: Temperature, DOC level and basin interactions explain the declining oxygen concentrations in the Bothnian Sea. Journal of Marine Systems 170:22-30

Ahrens B, Karstens U, Rockel B, Stuhlmann R, 1998: On the validation of the atmospheric model REMO with ISCCP data and precipitation measurements using simple statistics. Meterorology and Atmospheric Physics 68:127-142

Aigars J, Müller-Karulis B, Martin G, Jermakovs V, 2008: Ecological quality boundary-setting procedures: the Gulf of Riga case study. Environmental Monitoring and Assessment, 138(1-3):313-326

Alkan Olsson J, Andersson L, 2007: Possibilities and problems with the use of models as a communication tool in water resource management. Special Issue WARM / Advances in Global Change Research, Water Resources Management, 21:97-110

Almroth-Rosell E, Edman M, Eilola K, Meier HEM, Sahlberg J, 2016: Modelling nutrient retention in the coastal zone of an eutrophic sea. Biogeosciences 13:5753-5769

Almroth-Rosell E, Eilola K, Kuznetsov I, Hall POJ, Meier HEM, 2015: The Baltic Sea sediment oxygen conditions and phosphorus dynamics - a 3D model study. Journal of Marine Systems 144:127-141

Almroth-Rosell E, Eilola K, Kuznetsov I, Hall POJ, Meier HEM, 2015: A new approach to model oxygen dependent benthic phosphate fluxes in the Baltic Sea. Journal of Marine Systems, 144:127-141

Almroth-Rosell E, Eilola K, Hordoir R, Meier HEM, Hall POJ, 2011: Transport of fresh and resuspended particulate organic material in the Baltic Sea - a model study. J Mar Syst 87:1-12, doi:10.1016/j.jmarsys.2011.02.005

Almroth E, Tengberg A, Andersson JH, Pakhomova S, Hall POJ, 2009: Effects of resuspension on benthic fluxes of oxygen, nutrients, dissolved inorganic carbon, iron and manganese in the Gulf of Finland, Baltic Sea. Continental Shelf Research 29:807-818

Altinakar M, Kiedrzynska E, Magnuszewski A, 2006: Modelling of inundation pattern at Pilica river floodplain, Poland. In: Demuth S, Gustard A, Planos E, Scatena F, Servat E (Eds) Climate Variability and Change—Hydrological Impacts. IAHS Publ. 308:579-585

Ament F, Simmer C, 2006: Improved Representation of Land-surface Heterogeneity in a Non-hydrostatic Numerical Weather Prediction Model. Boundary-Layer Meteorology 121(1): 153-174

Andersson A, Meier HEM, Ripszam M, Rowe, O, Wikner J, Haglund P, Eilola K, Legrand C, Figueroa D, Paczkowska J, Lindehoff E, Tysklind M, Elmgren R, 2015: Prediction of ecosystem effects on the Baltic Sea at future climate change projections – implications for ecosystem management. Ambio 44(S3):S335-S344

Andersson C, Langner J, 2007: "Inter-annual variations of ozone and nitrogen dioxide over Europe during 1958-2003 simulated with a regional CTM", Water Soil and Air Pollution: Focus 7:15-23

Andersson C, Langner J, Bergström R, 2007: Inter-annual variation and trends in air pollution over Europe due to climate variability during 1958-2001 simulated with a regional CTM coupled to the ERA40 reanalysis. Tellus B 59:77-98

Andersson L, Alkan Olsson J, Arheimer B, Jonsson A, 2008: Use of participatory scenario modelling as a platform in stakeholder dialogues. Water SA 34 (4) HELP Special Edition.

Arheimer B, Andersson L, Alkan-Olsson J, Jonsson A, 2007: Using catchment models to establish measure plans according to the Water Framework Directive. Water Science and Technology 56:21-28

Arpe K, Hagemann S, Jacob D, Roeckner E, 2005: The realism of the ECHAM5 models to simulate the hydrological cycle in the Arctic and North European area. Nordic Hydrology 36(4-5):349-369

Arst H, Erm A, Herlevi A, Kutser T, Leppäranta M, Reinart A, Virta J, 2008: Optical properties of boreal lake waters in Finland and Estonia. Boreal Environment Research 13(2):133-158

Arst H, Erm A, Leppäranta M, Reinart A, 2006: Radiative characteristics of ice-covered freshwater and brackish water bodies. Proc. Estonian Acad. Sci., Geology 55(1):3-23

Atamanchuk D, Kononets M, Thomas PJ, Hovdenes J, Tengberg A, Hall POJ, 2015: Continuous long-term observations of the carbonate system dynamics in the water column of a temperate fjord. J Mar Syst 148:272-284

Axell LB, 2002: Wind-driven internal waves and Langmuir circulations in a numerical ocean model of the southern Baltic Sea. Journal of Geophysical Research 107(C11):3204

Backer H, Leppänen J-M, Brusendorff A-C, Forsius K, Stankiewicz M, Mehtonen J, Pyhälä M, Laamanen M, Paulomäki H, Vlasov N, Haaranen T, 2010: HELCOM Baltic Sea Action Plan – A regional programme of measures for the marine environment based on the Ecosystem Approach. Marine Pollution Bulletin 60(5):642-649

Bailey G, Cawthra HC, 2023: The significance of sea-level change and ancient submerged landscapes in human dispersal and development: A geoarchaeological perspective. Oceanologia, 65 (1):50-70, January-March 2023

Bange J, Spieß T, Herold M, Beyrich F, Hennemuth B, 2006: Turbulent fluxes from Helipod flights above quasi-homogeneous patches within the LITFASS area. Boundary-Layer Meteorology 121(1):127-151

Barghorn L, Meier HEM, Radtke H, Neumann T, Naumov L, 2025: Warm saltwater inflows strengthen oxygen depletion in the western Baltic Sea Clim Dyn 63, 29 (2025). https://doi.org/10.1007/s00382-024-07501-x

Barghorn L, Meier HEM, Radtke H, Neumann T, 2024: Warm saltwater inflows strengthen oxygen depletion in the western Baltic Sea EGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-38, https://doi.org/10.5194/egusphere-egu24-38, April2024

Barghorn L, Meier HEM, Radtke H, 2023: Changes in seasonality of saltwater inflows caused exceptional warming trends in the western Baltic Sea Geophysical Research Letters Volume 50, Issue 12 e2023GL103853

Barkhordarian A, von Storch H, Zorita E, Gómez-Navarro J, 2016: An attempt to deconstruct recent climate change in the Baltic Sea Basin. Journal of Geophysical Research - Atmospheres 121(22):13207-13217

Bartolino V, Tian H, Bergström U, Jounela P, Aro E, Dieterich C, Meier HEM, Cardinale M, Bland B, Casini M, 2017: Spatiotemporal dynamics of a fish predator: density-dependent and hydrographic effects on Baltic Sea cod population. PLOS ONE http://dx.doi.org/10.1371/journal.pone.0172004

Batchvarova E, Gryning S-E, 2003: Use of Richardson number methods in regional models to calculate the mixed-layer height. Air pollution processes in regional scale. NATOScience Series. Series IV: Earth and Environmental Sciences 30:21-29

Bauer B, Gustafsson BG, Hyytiäinen K, Meier HEM, Müller-Karulis B, Saraiva S, Tomczak MT, 2019: Food web and fisheries in the future Baltic Sea. Ambio 48: 1337-1349, doi: 10.1007/s13280-019-01229-3

Bauer B, Meier HEM, Casini M, Hoff A, Margoński P, Orio A, Saraiva S, Stenbeek J, Tomczak MT, 2018: Reducing eutrophication increases spatial extent of communities supporting commercial fisheries: a model case study. ERRATUM. ICES J Mar Sci 75(3):1155

Bauer B, Meier HEM, Casini M, Hoff A, Margoński P, Orio A, Saraiva S, Stenbeek J, Tomczak MT, 2018: Reducing eutrophication increases spatial extent of communities supporting commercial fisheries: a model case study. ICES J Mar Sci 75(4):1306-1317

Bech J, Gjertsen U, Haase G, 2007: Modelling weather radar beam propagation and topographical blockage at northern high latitudes. Quart J Roy Meteorol Soc 133(626): 1191-1204

Bednarek A, Zalewski M, 2007: Potential effects of enhancement denitrification rates in sediments of the Sulejów Reservoir. Environment Protection Engineering. 33(2):35-43

Benestad R, Chen D, 2006: The use of a Calculus-based Cyclone Identification method for generating storm statistics, Tellus A 58(4):473-486

Bengtsson L, Robinson G, Anthes R, Aonashi K, Dodson A, Elgered G, Gendt G, Gurney R, Jietai N, Mitchell C, Mlaki M, Rhodin A, Silvestrin P, Ware R, Watson R, Wergen W, 2003: The Use of GPS measurements for water vapor determination. Bulletin of the American Meteorological Society 84(9):1249–1258

Bengtsson L, 2001: Numerical modelling of the energy and water cycle of the Baltic Sea, Meterorology and Atmospheric Physics 77:9-17

Beniston M, Stephenson DB, Christensen OB, Ferro CAT, Frei C, Goyette S, Halsnaes K, Holt T, Jylhä K, Koffi B, Palutikof J, Schöll R, Semmler T, Woth K, 2007: Future extreme events in European climate: an exploration of regional climate model projections. Clim Change 81(S1):71-95

Bennartz R, Michelson DB, 2003: Correlation of precipitation estimates from spaceborn passive microwave sensors and weather radar imagery for BALTEX PIDCAP. Int J Remote Sens 24(4):723-739

Bennartz R, Thoss A, Dybbroe A, Michelson DB, 2002: Precipitation analysis using the Advanced Microwave Sounding Unit in support of nowcasting applications. Meteorological Applications 9:177-189

Bennartz R, 2001: The sensivity of microwave remote sensing observations of precipitation to ice particle size distributions. J Appl Meteorol 40(3):345-365

Bennartz R, 1999: Optimal convolution of AMSU-B to AMSU-A. J Atmos Ocean Tech 47:1215-1225

Bennartz R, 1998: On the use of SSM/I measurements in coastal regions. J Atmos Ocean Tech 16:417-431

Berezina N, Gubelit Y, Polyak Y, Sharov A, Kudryavtseva V, Lubimtsev V, Petukhov V, Shigaeva T, 2017: An integrated approach to the assessment of the eastern Gulf of Finland health: A case study of coastal habitats. J Mar Syst 171:159-171

Berger FH, 2002: Surface radiant and energy flux densities inferred from satellite data for the BALTEX watershed. Boreal Environmental Research 7(4):343-351

Bergström S, Alexandersson H, Carlsson B, Josefsson W, Karlsson K-G, Westring G, 2001: Climate and hydrology of the Baltic Basin. Ecological Studies 148:75-112

Bergström S, Graham LP, 1998: On the scale problem in Hydrological Modelling. J Hydrol 211:253-265

Bergström S, Carlsson B, 1994: River runoff to the Baltic Sea: 1950-1990, Ambio 23(4-5)

Bethere L, Sennikovs J, Bethers U, 2017: Climate indices for the Baltic states from principal component analysis. Earth Syst Dynam 8:951-962, https://doi.org/10.5194/esd-8-951-2017

Beyrich F, Leps J-P, Mauder M , Bange J , Foken T, Huneke S, Lohse H, Lüdi A, Meijninger WML, Mironov D, Weissensee UU, Zittel P, 2006: Area-Averaged Surface Fluxes Over the Litfass Region Based on Eddy-Covariance Measurements. Boundary-Layer Meteorology 121(1):33-65

Beyrich F, Mengelkamp H-T, 2006: Evaporation over a Heterogeneous Land Surface: EVA_GRIPS and the LITFASS-2003 Experiment—An Overview, Boundary-Layer Meteorology 121(1):5-32

Beyrich F, De Bruin HAR, Etling D, Foken T, 2006: Preface: The LITFASS-2003 experiment, Boundary-Layer Meteorology 121(1:1-4)

Beyrich F, de Bruin HAR, Meijninger WML, Schipper JW, Lohse H, 2002: Results from one-year continuous operation of a large aperture scintillometer over a heterogeneous land surface. Boundary-Layer Meteorol 105:85-97

Beyrich F, Herzog H-J, Neisser J, 2002: The LITFASS project of DWD and the LITFASS-98 experiment: The project strategy and the experimental setup. Theor Appl Climatol 73:3-18

Beyrich F, Richter SH, Weisensee U, Kohsiek W, Lohse H, de Bruin HAR, Foken T, Göckede M, Berger F, Vogt R, Batchvarova E, 2002: Experimental determination of turbulent fluxes over the heterogeneous LITFASS area: Selected results from The LITFASS-98 experiment. Theor Appl Climatol 73:19-34

Bhend J, von Storch H, 2007: Consistency of observed winter precipitation trends in northern Europe with regional climate change projections. Clim Dyn DOI 10.1007/s00382-007-0335-9.

Bielecka L, Drozdowska V, Złoch I, Rak D, Pelevin V, Koltsova E, 2024: Biological and optical properties of Baltic surface waters and sea-land interaction – searching for interdependencies. Estuarine Coast Shelf Sci 296, 108970

Bierstedt S, Hünicke B, Zorita E, Ludwig J, 2017: A wind proxy based on migrating dunes at the Baltic coast: statistical analysis of the link between wind conditions and sand movement. Earth Syst Dynam 8:639-652

Bierstedt S, Hünicke B, Zorita E, Wagner S, Gómez-Navarro J, 2016: Variability of daily winter wind speed distribution over Northern Europe during the past millennium in regional and global climate simulations. Clim Past 12:317-338

Bierstedt S, Hünicke B, Zorita E, 2015: Variability of wind direction statistics of mean and extreme wind events over the Baltic Sea region. Tellus A 67(1)

Bieser J, Schrum C, 2018: Evaluation of the Impact of Air-Sea Exchange on Atmospheric Mercury Concentrations. In: Mensink C., Kallos G. (eds) Air Pollution Modeling and its Application XXV. ITM 2016. Springer Proceedings in Complexity

Bieser J, Schrum C, 2016: Impact of Marine Mercury Cycling on Coastal Atmospheric Mercury Concentrations in the North- and Baltic Sea region, Elementa, Science of the Anthropocene, 4:000111, DOI 10.12952/journal.elementa.000111.

Björkqvist J-V, Tuomi L, Fortelius C, Pettersson H, Tikka K, Kahma K, 2017: Improved estimates of nearshore wave conditions in the Gulf of Finland. J Mar Syst 171: 43-53

Blenckner T, Österblom H, Larsson P, Andersson A, Elmgren R, 2015: Baltic Sea Ecosystem-based management under climate change: Synthesis and future challenges. Ambio 44 (S3):S506-S514

Blenckner T, Chen D, 2003: Comparison of the impact of regional and north-atlantic atmospheric circulation on an aquatic ecosystem, Climate Res 23:131-136

Blomqvist S, Ekeroth N, Elmgren R, Hall POJ, 2015: Long over-due improvement of box corer sampling. – Mar Ecol Progr Series 538:13-21

Borenäs K, Hietala R, Laanearu J, Lundberg P, 2007: Some estimates of the Baltic deep-water transport through the Stolpe trench. Tellus A 59(2):238-248

Börgel F, Neumann T, Rooze J, Radtke H, Barghorn L, Meier HEM, 2023: Deoxygenation of the Baltic Sea during the last millennium Front. Mar. Sci., Sec. Physical Oceanography 10, July 2023

Börgel F, Gröger M, Meier HEM, Dutheil C, Radtke H, Borchert L, 2023: The impact of Atlantic Multidecadal Variability on Baltic Sea temperatures limited to winter Climate and Atmospheric Science 6: 64

Börgel F, Meier HEM, Gröger M, Rhein M, Dutheil, Kaiser JM, 2022: Atlantic multidecadal variability and the implications for North European precipitation. Environmental Research Letters 17:4, 044040

Börgel F, Frauen C, Neumann T, Meier HEM, 2020: The Atlantic Multidecadal Oscillation controls the impact of the North Atlantic Oscillation on North European climate. Environ Res Lett 15:104025, doi: 10.1088/1748-9326/aba925

Börgel F, Frauen C, Neumann T, Schimanke S, Meier HEM, 2018: Impact of the Atlantic Multidecadal Oscillation on Baltic Sea variability. Geophys Res Lett 45

Bogumiła Kowalska A, 2024: Szczecin – A medieval town at the mouth of the river Odra on the southern coast of the Baltic. Estuarine Coast Shelf Sci 296, 108785

Boniewicz-Szmyt K, Grzegorczyk M, Pogorzelski S, Rochowski P, 2023: Photosynthetic signatures of microbial colonies covering submerged hard surfaces as novel trophic status indicators: Baltic Sea studies. Oceanologia, 65 (1):194-201, January-March 2023

Bowling LC, Lettenmaier D, Nijssen B, Polcher J, Koster R, Lohmann D, 2003: Simulation of high latitude hydrological processes in the Torne-Kalix basin: PILPS Phase 2(e) - 3: Equivalent model representation and sensitivity experiments. Glob Planet Change 38:55-71

Bowling LC, Lettenmaier D, Nijssen B, Graham LP, Clark D, Maayar M, Essery R, Goers S, Habets F, van den Hurk B, Jin J, Kahan D, Lohmann D, Mahanama S, Mocko D, Nasonova O, Samuelsson P, Shmakin A, Takata K, Verseghy D, Viterbo P, Xia Y, Ma X, Xue Y, Yang ZL, 2003: Simulation of high latitude hydrological processes in the Torne-Kalix basin: PILPS Phase 2(e) - 1: Experiment description and summary intercomparisons. Glob Planet Change 38:1-30

Breznikar A, Pönisch DL, Lorenz M, Jurasinski G, Rehder G, Voss M, 2024: Rewetting effects on nitrogen cycling and nutrient export from coastal peatlands to the Baltic Sea, Biogeochemistry 167: 967-987, doi: 10.1007/s10533-024-01149-9

Brümmer B, Kirchgäßner A, Müller G, 2005: The atmospheric boundary layer over the Baltic Sea ice. Boundary Layer Meteorology 117(1):91-109

Brümmer B, Kirchgäßner A, Müller G, Schröder D, Launiainen J, Vihma T, 2002: The BALTIMOS (BALTEX Integrated Model System) field experiments: A comprehensive atmospheric boundary layer data set for model validation over the open and ice-covered Baltic Sea. Boreal Environmental Research 7(4):371-378

Brümmer B, Schröder D, Launiainen J, Vihma T, Smedman A-S, Magnusson M, 2002: Temporal and spatial variability of surface fluxes over the ice edge zone in the northern Baltic Sea. J Geophys Res 107(C8):3096

Bryhn AC, Håkanson L, 2009: Eutrophication: Model Before Acting**.** Science 324(5928):723

Bugajny N, Furmańczyk K, Furmańczyk K, 2024: Statistics of significant storm events using one- and two-dimensional analyses of the natural and protected coasts of the Dziwnów Spit. Estuarine Coast Shelf Sci 296, 108881

Bumke K, Karger U, Hasse L, Niekamp K, 1998: Evaporation over the Baltic Sea as an example of a semi-enclosed sea. Contr Atmos Phys 71(2):249-261

Burchard H, Craig PD, Gemmrich JR, van Haren H, Mathieu P-P, Meier HEM, Smith WAMN, Prandke H, Rippeth TP, Skyllingstad ED, Smyth WD, Welsh DJS, Wijesekera HW, 2008: Observational and numerical modeling methods for quantifying coastal ocean turbulence and mixing. Prog Oceanog 76:399-442

Busuioc A, Chen D, Hellström, 2001: Performance of statistical downscaling models in GCM validation and regional climate change estimates: Application for Swedish precipitation Int J Climatology 21:557-578

Busuioc A, Chen D, Hellström C, 2001: Temporal and spatial variability of precipitation in Sweden and its link with the large scale atmospheric circulation Tellus 53A(3):348-367

Calanca P, Fortelius C, 1997: Representation of model data and evaluation of diagnostic equations in pressure coordinates. Tellus 48A(5):756-766

Camenisch C, Keller K, Salvisberg M, Amann B, Bauch M, Blumer S, Bradzil R, Brönnimann S, Büntgen U, Campbell BMS, Fernandez-Donado L, Fleitmann D, Glaser R, Golzalez-Rouco F, Grosjean M, Hoffamnn R, Huhtamaa H, Joos F, Kiss A, Kotyza O, Lehner F, Luterbacher J, Maughan N, Neukom R, Novy T, Pribyl K, Raible C, Riemann D, Schuh M, Slavin P, Werner JP, Wetter O, 2016: The 1430s: A cold period of extraordinary internal climate variability during the early Spörer Minimum with social and economic impacts in north-western and central Europe. Clim Past 12:2107-2126

Castro M, Gallardo C, Jylhä K, Tuomenvirta H, 2007: The use of a climate-type classification for assessing climate change effects in Europe from an ensemble of regional climate models. Clim Change 81(1):329-341

Česnulevičius A, Morkūnaitė R, Bautrėnas A, Bevainis L, Ovodas D, 2017: Intensity of geodynamic processes in the Lithuanian part of the Curonian Spit. Earth Syst Dynam 8:419-428, https://doi.org/10.5194/esd-8-419-2017

Chen D, Gong L, Xu C, Halldin S, 2007: A high-resolution, gridded dataset for monthly temperature normals (1971-2000) in Sweden. Geografiska Annaler Series 89A(4):249-261

Chen D, Achberger C, Räisänen J, Hellström C, 2006: Using statistical downscaling to quantify the GCM-related uncertainty in regional climate change scenarios: A case study of Swedish precipitation. Adv Atmos Sci 23(1):54-60

Chen D, Omstedt A, 2005: Climate-induced variability of sea level in Stockholm: Influence of air temperature and atmospheric circulation, Adv Atmos Sci 20(5):655-664

Chen D, Li X, 2004: Scale dependent relationship between maximum ice extent in the Baltic Sea and atmospheric circulation. Global and Planetary Change 41:275-283

Chen D, 2000: a monthly circulation climatology for Sweden and its application to a winter temperature case study. Int J Climatol 20:1067-1076

Chen D, Hellström C, 1999: The influence of the North Atlantic Oscillation on the regional temperature variability in Sweden: spatial and temporal variations, Tellus 51A(4):505-516

Chen D, Kling J, 1996: Apparent thermal diffusivity in soil: Estimation from thermal records and suggestions for numerical modeling, Phys Geogr 17(5):419-430

Cheng B, Vihma T, Pirazzini R, Granskog MA, 2006: Modelling of superimposed ice formation during the spring snow melt period in the Baltic Sea. Ann Glaciol 44:139-146

Cheng B, Launiainen J, Vihma T, 2003: Modelling of superimposed ice formation and sub-surface melting in the Baltic Sea. Geophysica 39:31-50

Cheng B, Vihma T, 2002: Idealized study of a 2-D coupled sea-ice/atmosphere model during warm-air advection. J Glaciol 48:425-438

Cheng B, Launiainen J, Vihma T, Uotila J, 2001: Modelling sea ice thermodynamics in BALTEX BASIS, Ann Glaciol 33:243-247

Christensen OB, Kjellström E, Dieterich C, Gröger M, Meier HEM, 2022: Atmospheric regional climate projections for the Baltic Sea Region until 2100. Earth Syst. Dynam., 13, 133–157, https://doi.org/10.5194/esd-13-133-2022, 2022

Christensen OB, Kjellström E, 2018: Projections for Temperature, Precipitation, Wind, and Snow in the Baltic Sea Region until 2100. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Christensen JH, Carter TR, Rummukainen M, Amanatidis G, 2007: Evaluating the performance and utility of regional climate models: the PRUDENCE project. Climatic Change 81 (S1):1-6

Chubarenko I, Stepanova N, 2017: Microplastics in sea coastal zone: Lessons learned from the Baltic amber. Environ Pollut 224:243-254

Chubarenko I, Bagaev A, Zobkov M, Esiukova E, 2016: On some physical and dynamical properties of microplastic particles in marine environment. Mar Pollut Bull 108(1-2):105-112

Chust G, Allen J, Bopp L, Schrum C, Holt, J Tsiaras K, Zavatarelli M, Chifflet M, Cannaby H, Dadou I, Daewel U, Wakelin S, Machu E, Pushpadas D, Butenschön M, Artoli Y, Petihakis G, Smith C, Garçon V, Goubanova K, Le Vu B, Fach B, Salihoglu B, Clementi E, Irigoien X, 2014: Biomass changes and trophic amplification of plankton in a warmer ocean. Global Change Biol 20(7):2124-2139

Claremar B, Haglund K, Rutgersson A, 2017: Ship emissions and the use of current air cleaning technology: contributions to air pollution and acidification in the Baltic Sea. Earth Syst Dynam 8:901-919, https://doi.org/10.5194/esd-8-901-2017

Claremar B, Wällstedt T, Rutgersson A, Omstedt A, 2013: Deposition of acidifying and neutralising compounds over the Baltic Sea drainage basin between 1960 and 2006. Boreal Environ Res 18:425-445

Clemens M, Bumke K, 2002: Precipitation fields over the Baltic Sea derived from ship rain gauge measurements on merchant ships. Boreal Environmental Research 7(4):425-436

Clemens M, Bumke K, 2001: Comparison of precipitation in-situ measurements and model predictions over the Baltic Sea area. Physics, Chemistry and Earth Sciences (B) 26(5-6): 437-442

Cloern J, Abreu P, Carstensen J, Chauvaud L, Elmgren R, Grall J, Greening H, Johansson J, Kahru M, Sherwood E, Xie J, Yin K, 2016: Human Activities and climate variability drive fast-paced change across the world's estuarine-coastal ecosystems. Global Change Biology 22(2):513-529

Collin R, Adelson AE, Altieri AH, Clark KE, Davis K, Giddings SN, Kastner S, Mach L, Pawlak G, Sjögersten S, Torres M, Scott CP, 2024: Using forty years of research to view Bahía Almirante on the Caribbean Coast of Panama as an integrated social-ecological system. Estuarine Coast Shelf Sci 296, 108878

Conley DJ, Björk S, Bonsdorff E, Carstensen J, Destouni G, Gustafsson BG, Hietanen S, Kortekaas M, Kuosa H, Meier HEM, Müuller-Karulis B, Nordberg K, Nürnberg G, Norkko A, Pitkänen H, Rabalais N, Rosenberg R, Savchuk O, Slomp C, Voss P, Wulff F, Zillén L, 2009: Critical Review: Hypoxia in the Baltic Sea. Environ Sci Tech 43(10):3412-3420

Crewell S, Bloemink H, Feijt A, Garcia SG, Jolivet D, Krasnov OA, van Lammeren A, Lohnert U, van Meijgaard E, Meywerk J, Quante M, Pfeilsticker K, Schmidt S, Scholl T, Simmer C, Schröder M, Trautmann T, Venema V, Wendisch M, Willén U, 2004: THE BALTEX BRIDGE CAMPAIGN An integrated approach for a better understanding of clouds. Bulletin of the American Meteorological Society 85-10-1565

Crewell S, Drusch M, v Meijgaard E, v Lammeren A, 2002: Cloud observations and modeling within the European BALTEX Cloud Liquid Water Network. Boreal Environment Research 7:235-245

Crewell S, Löhnert U, v Lammeren A, Quante M, 2000: Cloud remote sensing by combining synergetic sensor information. Phys Chem Earth Sci (B) 25(10-12):1043-1048

Dabuleviciene T, Kozlov IE, Vaiciute D, Dailidiene I, 2018: Remote Sensing of Coastal Upwelling in the South-Eastern Baltic Sea: Statistical Properties and Implications for the Coastal Environment. Remote Sens 10(11):1752

Daewel U, Schrum C, 2017: Low frequency variability in North Sea and Baltic Sea identified through simulations with the 3-d coupled physical-biogeochemical model ECOSMO, Earth Syst Dynam 8:801-815, https://doi.org/10.5194/esd-8-801-2017

Daewel U, Schrum C, 2013: Simulating long-term dynamics of the coupled North and Baltic Sea ecosystem with ECOSMO II: model description and validation. Journal of Marine Systems 119-120:30-49

Danielsson Å, Jönsson A, Rahm L, 2007: Resuspension patterns in the Baltic Proper. J Sea Res 57:257-269

Danilovich I, Raisa A, Slonosky V, 2021: History of the Hydrometeorological Service of Belarus. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE". https://doi.org/10.1093/acrefore/9780190228620.013.702

Danilovich I, Zhuravlev S, Kurochkina L, Groisman P, 2019: The Past and Future Estimates of Climate and Streamflow Changes in the Western Dvina River Basin. Front. Earth Sci. doi: 10.3389/feart.2019.00204

De Brabandere L, Bonaglia S, Kononets MY, Viktorsson L, Stigebrandt A, Thamrup B, Hall POJ, 2015: Oxygenation of an anoxic fjord basin strongly stimulates benthic denitrification and DNRA. Biogeochemistry 126(1):131-152

Deelstra J, Iital A, 2008: The use of the flashiness index as a possible indicator for nutrient loss prediction in agricultural catchments. Boreal Environment Research 3:209-221

Deich C, Kanwischer M, Zhang R, Waniek JJ, 2023: Natural and synthetic estrogenic compounds in the Pearl River Estuary and northern shelf of the South China Sea. Oceanologia, 65 (1):30-43, January-March 2023

Delpeche-Ellmann N, Mingelaitè, Soomere T, 2017: Examining Lagrangian surface transport during a coastal upwelling in the Gulf of Finland, Baltic Sea. J Mar Syst, 171:21-30

Deng J, Wu J, Zhang W, Dudzinska-Nowak J, Harff J, 2019: Characterising the relaxation distance of nearshore submarine morphology: A southern Baltic Sea case study. Geomorphology 327:365-376

Deng J, Harff J, Schimanke S, Meier HEM, 2015: A method for estimating coastline recession due to sea level rise by assuming stationary wind-wave climate. J Oceanological and Hydrobiological Studies, 44(3), 362-380

Deppisch S, 2023: Climate Change Impacts on Cities in the Baltic Sea Region. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , 'CLIMATE SCIENCE'

Déqué M, Rowell DP, Luthi D, Giorgi F, Christensen JH, Rockel B, Jacob D, Kjellström E, de Castro M, van den Hurk B, 2007: An intercomparison of regional climate simulations for Europe: Assessing uncertainties in model projections. Climatic Change 81:53-70

Dieterich C, Wang S, Schimanke S, Gröger M, Klein B, Hordoir R, Samuelsson P, Liu Y, Axell L, Höglund A, Meier HEM, 2019: Surface Heat Budget over the North Sea in Climate Change Simulations. Atmosphere, 10:272; doi:10.3390/atmos10050272

Döös K, Meier HEM, Döscher R, 2004: The Baltic Haline Conveyor Belt or the overturning circulation and mixing in the Baltic. Ambio 33(4):261-266

Döscher R, Wyser K, Meier HEM, Qian M, Redler R, 2009: Quantifying Arctic contributions to climate predictability in a regional coupled ocean-ice-atmosphere model. Clim Dyn 34:1157-1176, doi: 10.1007/s00382-009-0567-y

Döscher R, Meier HEM, 2004: Simulated sea surface temperature and heat fluxes in different climates of the Baltic Sea. Ambio 33(4):242–248

Döscher R, Willén U, Jones C, Rutgersson A, Meier HEM, Hansson U, Graham LP, 2002: The development of the regional coupled ocean-atmosphere model RCAO. Boreal Environment Research 7:183-192

Drusch M, 2006: Sea ice concentration analyses for the Baltic Sea and their impact on numerical weather prediction. J Appl Met Clim 45(7):982-994

Dutheil C, Lal S, Lengaigne M, Cravatte S, Menkès C, Receveur A, Börgel F, Gröger M, Houlbreque F, Le Gendre R, Mangolte I, Peltier A, Meier HEM, 2024: The massive 2016 marine heatwave in the Southwest Pacific: An “El Niño–Madden-Julian Oscillation” compound event. Science Advances 10(41)

Dutheil C, Meier HEM, Gröger M, Börgel F, 2023: Warming of Baltic Sea water masses since 1850 Clim Dynam 61, 1311–1331

Dutheil C, Meier HEM, Gröger M, Börgel F, 2022: Understanding past and future sea surface temperature trends in the Baltic Sea. Clim Dynam 58:3021–3039

Duy Nghia Pham, Anja Ruhl, Kathrin Fisch, Safia El Toum, Susanne Heise, Inna M. Sokolova: Effects of contamination and warming on ragworms *Hediste diversicolor*: A laboratory experiment with Oder estuary sediments. Estuarine Coast Shelf Sci 296, 108702

Dvornikov AY, Martyanov SD, Ryabchenko VA, Eremina TR, Isaev AV, Sein DV, 2017: Assessment of extreme hydrological conditions in the Bothnian Bay, Baltic Sea, and the impact of the nuclear power plant “Hanhikivi-1” on the local thermal regime. Earth Syst Dynam 8:265-282, https://doi.org/10.5194/esd-8-265-2017

Edman M, Eilola K, Almroth-Rosell E, Meier HEM, Wåhlström I, Arneborg L, 2018: Nutrient retention in the Swedish coastal zone. Front Mar Sci 5:415, doi: 10.3389/fmars.2018.00415

Eero M, MacKenzie BR, Karlsdottir HM, Gaumiga R, 2007: Development of international fisheries for cod (Gadus morhua) in the eastern Baltic Sea during 1860-1938. Fish Res 87:155-166

Ehlert von Ahn C, Dellwig O, Szymczycha B, Kotwicki L, Rooze J, Endler R, Escher P, Schmiedinger I, Sültenfuß J, Diak M, Gehre M, Struck U, Vogler S, Böttcher ME, 2024: Submarine groundwater discharge into a semi-enclosed coastal bay of the southern Baltic Sea: A multi-method approach. Oceanologia 66(1):111-138

Eilola K, Almroth-Rosell E, Meier HEM, 2014: Impact of saltwater inflows on phosphorus cycling and eutrophication in the Baltic Sea. A 3D model study. Tellus A 66:23985

Eilola K, Mårtensson S, Meier HEM, 2013: Modeling the impact of reduced sea ice cover in future climate on the Baltic Sea biogeochemistry. Geophys Res Lett, 40:149-154, doi:10.1029/2012GL054275

Eilola K, Gustafson BG, Kuznetsov I, Meier HEM, Neumann T, Savchuk OP, 2011: Evaluation of biogeochemical cycles in an ensemble of three state-of-the-art numerical models of the Baltic Sea during 1970-2005. J Mar Syst 88, 267-284

Eilola K, Meier HEM, Almroth E, 2009: On the dynamics of oxygen, phosphorus and cyanobacteria in the Baltic Sea; a model study. J Mar Syst 75:163-184

Ekeroth N, Blomqvist S, Hall P, 2016: Nutrient fluxes from reduced Baltic Sea sediment: effects of oxygenation and macrobenthos. Mar Ecol Progr Ser 544:77-92

Ekeroth N, Kononets M, Walve J, Blomqvist S, Hall P, 2016: Effects of oxygen on recycling of biogenic elements from sediments of a stratified coastal Baltic Sea basin. J Mar Syst 154:206-219

Ekman M, Omstedt A, 2013: Modeling the dissolved CO2 system in the redox environment of the Baltic Sea. Limnol. Oceanogr 58(1):74-92

Elken J, Zujev M, She J, Lagemaa P, 2019: Reconstruction of Large-Scale Sea Surface Temperature and Salinity Fields Using Sub-Regional EOF Patterns From Models. Front. Earth Sci. doi: 10.3389/feart.2019.00232

Elken J, Raudsepp U, Laanemets J, Passenko J, Maljutenko I, Pärn O, Keevallik S, 2014: Increased frequency of wintertime stratification collapse events in the Gulf of Finland since the 1990s. Journal of Marine Systems 129:47-55

Elmgren R, Blenckner T, Andersson A, 2015: Baltic Sea Management – Successes and Failures. – Ambio 44(S3):S335-S344

Emardson TR, Derks HJP, 2000: On the relation between the wet delay and the integrated precipitable water vapour in the European atmosphere. Meteorological Applications 7: 61-68

Emardson TR, Johansson J, Elgered G, 2000: The systematic behavior of water vapor estimates using four years of GPS observations. IEEE IEEE Trans Geosci Rem Sens 38:1

Emardson TR, Elgered G, Johansson J, 1998: Three months of continuous monitoring of atmospheric water vapor with a network of Global Positioning System receivers. J Geophys Res 103(D2):1807-1820

Ennet P, Pachel K, Viies V, Jürimägi L, Elken R, (2008). Estimating water quality in river basins using linked models and database . Estonian J Ecol 57(2):83-99

Eriksson C, Omstedt A, Overland JE, Percival DB, Mofjeld HO, 2007: Characterizing the European Sub-Arctic Winter Climate since 1500 Using Ice, Temperature, and Atmospheric Circulation Time Series. J Clim 20(21):5316-5334

Esiukova E, 2016: Plastic pollution on the Baltic beaches of Kaliningrad region, Russia. Mar Pollut Bull 114(2):1072-1080

Etling D, Harbusch G, Brümmer B, 2002: Large-Eddy-Simulation of an off-ice airflow during BASIS. Boreal Environment Research 7:225-228

Feddersen H, 2003: Predictability of seasonal precipitation in the Nordic region. Tellus 55A: 385-400

Feijt AJ, Jolivet D, van Meijgaard E, 2002: Retrieval of the spatial distribution of liquid water path from combined ground-based and satellite observations for atmospheric model evaluation. Boreal Environment Research 7:265-271

Foglini F, Grande V, 2023: A Marine Spatial Data Infrastructure to manage multidisciplinary, inhomogeneous and fragmented geodata in a FAIR perspective ... the Adriatic Sea experience. Oceanologia, 65 (1):260-277, January-March 2023

Fortelius C, Andrae U, Forsblom M, 2002: The BALTEX regional reanalysis project. Boreal Environment Research 7:193-201

Forth M, Liljebladh B, Stigebrandt A, Hall POJ, Treusch AH, 2015: Effects of ecological engineered oxygenation on the bacterial community structure in an anoxic fjord in western Sweden. The ISME Journal 9:656–669

Fransner F, Nycander J, Mörth C-M, Humborg C, Meier HEM, Hordoir R, Gustafsson E, Deutsch B, 2016: Tracing terrestrial DOC in the Baltic Sea- A 3-D model study. Glob. Biogeochem. Cycles 30: 134-148, doi: 10.1002/2014GB005078

Friedland R, Vock C, Piehl S, 2023: Estimation of hypoxic areas in the western Baltic Sea with geostatistical models Water 2023, 15(18), 3235; https://doi.org/10.3390/w15183235

Giesse C, Meier HEM, Neumann T, Moros M, 2020: Revisiting the Role of Convective Deep Water Formation in Northern Baltic Sea Bottom Water Renewal. J Geophys Res: Oceans 125 (10) e2020JC016114

Golenko M, Paka V, Zhurbas V, Korzh A, Kondrashov A, 2023: Intermediate plumes of low oxygen in the southeastern Baltic Sea. Oceanologia, 65 (1):100-116, January-March 2023

Golubkov S, Golubkov M, Tiurnov A, Nikulina V, 2017: Long-term changes in primary production and mineralization of organic matter in the Neva Estuary (Baltic Sea). J Mar Syst 171:73-80

Gradinarsky LP, Johansson JM, Bouma HR, Scherneck HG, Elgered G, 2002: Climate monitoring using GPS. Phys Chem Earth 27:335-340

Graham LP, Hagemann S, Jaun S, Beniston M, 2007: On interpreting hydrological change from regional climate models. Climatic Change 81:97-122

Graham LP, Andréasson J, Carlsson B, 2007: Assessing climate change impacts on hydrology from an ensemble of regional climate models, model scales and linking methods - a case study on the Lule River Basin. Climatic Change 81:293-307

Graham LP, 2004: Climate change effects on river flow to the Baltic Sea, Ambio 33(4-5):235-241

Graham LP, Bergström S, 2001: Water balance modelling in the Baltic Sea drainage basin - analysis of meteorological and hydrological approaches. Meteorological Atmospheric Physics 77:45-60

Graham LP, Bergström S, 2000: Land surface modelling in hydrology and meteorology - lessons learned from the Baltic Basin. Hydrology and Earth System Sciences 4(1):13-22

Graham LP, 1999: Modeling runoff to the Baltic Sea, Ambio 28(4):328-334

Graham LP, Jacob D, 1999: Using large-scale hydrologic modeling to review runoff generation processes in GCM climate models. Meteorologische Zeitschrift 9(1):49-57

Granskog MA, Vihma T, Pirazzini R, Cheng B, 2006: Superimposed ice formation and surface energy fluxes on sea ice during the spring melt–freeze period in the Baltic Sea. J Glaciol 52(176):119-127

Green JAM, Liljebladh B, Omstedt A, 2006: Physical oceanography and water exchange in the Northern Kvark Strait. Cont Shelf Res 26(6):721-732

Greene G, Baker MR, Aschoff J, Pacunski R, 2023: Hazards evaluation of a valuable vulnerable sand-wave field forage fish habitat in the marginal Central Salish Sea using a submersible. Oceanologia, 65 (1):1-19, January-March 2023

Gröger M, Börgel F, Karsten S, Meier HEM, Safonova K, Dutheil C, Receveur A, Polte P Future climate change and marine heatwaves - Projected impact on key habitats for herring reproduction Science of The Total Environment 951, 175756, August 2024

Gröger M, Dutheil C, Börgel F, Meier HEM, 2024: Drivers of marine heatwaves in a stratified marginal sea. Clim Dynam https://doi.org/10.1007/s00382-023-07062-5

Gröger M, Dieterich C, Dutheil C, Meier HEM, Sein DV, 2022: Atmospheric rivers in CMIP5 climate ensembles downscaled with a high-resolution regional climate model. ESD, 13, 613–631

Gröger M, Placke M, Meier HEM, Börgel F, Brunnabend S-E, Dutheil C, Gräwe U, Hieronymus M, Neumann T, Radtke H, Schimanke S, Su J, Väli G, 2022: The Baltic Sea Model Intercomparison Project (BMIP) – a platform for model development, evaluation, and uncertainty assessment. Geosci Model Dev 15:8613–8638, https://doi.org/10.5194/gmd-15-8613-2022

Gröger M, Dieterich C, Haapala J, Ho-Hagemann HTM, Hagemann S, Jakacki J, May W, Meier HEM, Miller PA, Rutgersson A, Wu L, 2021: Coupled regional Earth system modelling in the Baltic Sea region. Earth Syst Dynam 12:939-973, https://doi.org/10.5194/esd-2021-14

Gröger M, Dieterich C, Meier HEM, 2021: Is interactive air sea coupling relevant for simulating the future climate of Europe? Clim Dynam 56:491–514

Gröger M, Arneborg L, Dieterich C, Höglund A, Meier HEM, 2019: Summer hydrographic changes in the Baltic Sea, Kattegat and Skagerrak projected in an ensemble of climate scenarios downscaled with a coupled regional ocean-sea ice-atmosphere model. Clim Dynam 53:5945-5966, doi: 10.1007/s00382-019-04908-9

Gröger M, Dieterich C, Meier HEM, Schimanke S, 2015: Thermal Air-Sea Coupling in Hindcast Simulations for the North Sea and Baltic Sea on the NW European Shelf. Tellus A 67:26911

Groh A, Harff J, 2023: Relative sea-level changes induced by glacial isostatic adjustment and sediment loads in the Beibu Gulf, South China Sea. Oceanologia, 65 (1):249-259, January-March 2023

Großklaus M, Uhlig K, Hasse L, 1998: An optical disdrometer for use in high wind speeds. J Atmos Ocean Tech 15:1051-1059

Gryning S-E, Batchvarova E, 2003: Marine atmospheric boundary-layer height estimated from NWP model output. Int J Environ Poll 20:147-153

Gryning S-E, Batchvarova E, 2002: Marine boundary-layer height estimated from the HIRLAM model. Boreal Environment Research 7:229-233

Gryning S-E, Halldin S, Lindroth A, 2002: Area averaging of land surface-atmosphere fluxes in NOPEX: Challenges, results and perspectives. Boreal Environmental Research 7(4):379-387

Güldner J, Leps J-P, 2005: Analysis of CLIWA-NET intensive operation period data as part of the monitoring activities at the German Meteorological Service site. Atmos Res 75(3):151-166

Gustafsson E, Omstedt A, Gustafsson BG, 2015: The air-water CO2 exchange of a coastal sea—A sensitivity study on factors that influence the absorption and outgassing of CO2 in the Baltic Sea. J Geophys Res Oceans 120(8):5342-5357

Gustafsson E, Omstedt A, Gustafsson BG, 2015: Supporting information for: The air-water CO2 exchange of a coastal sea—A sensitivity study on factors that influence the absorption and outgassing of CO2 in the Baltic Sea. J Geophys Res Oceans 120(8):5342-5357

Gustafsson E, 2011: Modelled long-term development of hypoxic area and nutrient pools in the Baltic Proper. J Mar Syst 94:120-134

Gustafsson EO, Omstedt A, 2009: Sensitivity of Baltic Sea deep water salinity and oxygen concentrations to variations in physical forcing. Boreal Environmental Research 14:18-30

Gustafsson N, Nyberg L, Omstedt A, 1997: Coupling of a high-resolution atmospheric model and an ocean model for the Baltic Sea. Monthly Weather Review 126:2822–2846

Gutiérrez-Loza L, Wallin MB, Sahlée E, Nilsson E, Bange HW, Kock A, Rutgersson A, 2019: Measurement of Air-Sea Methane Fluxes in the Baltic Sea Using the Eddy Covariance Method. Front. Earth Sci. doi: 10.3389/feart.2019.00093

Gyllenhammar A, Håkanson L, Lehtinen K-J, 2008: A mesocosm fish farming experiment and its implications for reducing environmental effects on a regional scale. – Aquacultural Engineering 38:117-126

Haapala J, Juottonen A, Marnela M, Lepparanta M, Tuomenvirta H, 2001: Modelling the variabilty of the sea-ice conditions in the Baltic Sea under different climate conditions. Annals of Glaciology 33:555-559

Haapala J, Meier HEM, Rinne J, 2001: Numerical investigations of future ice conditions in the Baltic Sea. Ambio 30(4-5):237–244

Haapala J, 2000: On the modelling of ice-thickness redistribution. J Glaciol 46(154):427-437

Haapala J, Leppäranta M, 1997: The Baltic Sea ice season in changing climate. Boreal Environment Research 2:93-108

Haapala J, Leppäranta M, 1996: Simulating the Baltic Sea ice season with a coupled ice-ocean model. Tellus 48A(5):622-643

Hagedorn R, Lehmann A, Jacob D, 1999: A coupled high resolution atmosphere-ocean model for the BALTEX region. Meteorologische Zeitschrift 9(1):7-20

Hagemann S, Stacke T, 2023: Complementing ERA5 and E-OBS with high-resolution river discharge over Europe. Oceanologia, 65 (1):230-248, January-March 2023

Hagemann S, Stacke T, Ho-Hagemann HTM, 2000: High Resolution Discharge Simulations Over Europe and the Baltic Sea Catchment. Front. Earth Sci. doi: 10.3389/feart.2020.00012

Hagemann S, Machenhauer B, Jones R, Christensen OB, Déqué M, Jacob D, Vidale PL, 2004: Evaluation of water and energy budgets in regional climate models applied over Europe. Clim Dynam 23:547-567

Hägg HE, Lyon SW, Wällstedt T, Mörth CM, Claremar B, Humborg C, 2013. Future Nutrient Load Scenarios for the Baltic Sea Due to Climate and Lifestyle Changes. AMBIO 43(3)337-351

Haimberger L, Ahrens B, Hamelbeck F, Hantel M, 2001: Impact of time sampling on atmospheric energy budget residuals. Meteorol Atmos Phys 77:167-184

Hariri S, Meier HEM, Väli G, 2024: Investigating the influence of sub-mesoscale current structures on Baltic Sea connectivity through a Lagrangian analysis Front. Mar. Sci.,11, April 2024

Håkanson L, 2009: Modeling of lake ecosystems. In: Linkens, G.E. (ed.), Encyclopedia of Inland Waters. 1:441-447

Håkanson L, 2009: Factors and Criteria to Quantify the Bioproduction Potential of Coastal Areas and Presentation of a Simple Operational Index of Biological Value (IBV) for Coastal Management. Open Marine Biology Journal 3:6-15

Håkanson L, 2009: A general process-based mass-balance model for phosphorus/eutrophication as a tool to estimate historical reference values for key bioindicators, as exemplified using data for the Gulf of Riga. Ecological Modelling 220:226-244

Håkanson L, Bryhn AC, 2009: A New General Approach to Quantify Nitrogen Fixation Exemplified for the Baltic Proper. Open Marine Biology Journal 3:36-48

Håkanson L, Bryhn AC, 2009: Coastal eutrophication: Whether N and/or P should be abated depends on the dynamic mass balance. Proc Natl Acad Sci 106:3-3

Håkanson L, Lindgren D, 2009: Test and application of a general process-based dynamic coastal mass-balance model for contaminants using data for radionuclides in the Dnieper-Bug estuary. The Sci Total Environ 407:899-916

Håkanson L, Stenström-Khalili MI, 2009: Uncertainties in Data and Spurious Correlations Related to the Redfield Ratio. Int Rev Hydrobiol 94:338-351

Håkanson L, Duarte CM, 2008: Data variability and uncertainty limits the capacity to identify and predict critical changes in coastal systems – A review of key concepts. Ocean Coast Manag 51:671-688

Håkanson L, 2008. A general process-based mass balance model for phosphorus/eutrophication as a tool to estimate historical values. Ecological Modelling 220:226-244

Håkanson L, 2008: Factors and criteria to quantify coastal area sensitivity/vulnerability to eutrophication. Presentation of a sensitivity index based on morphometrical parameters. Int Rev Hydrobiol 3:372-388

Håkanson L, 2008: Factors and criteria to quantify the bioproduction potential of coastal areas and presentation of a simple operational Index of Biological Value (IBV) for coastal management. Open Marine Biology Journal 2:64-73

Håkanson L, Bryhn AC, 2008: Modeling the foodweb in coastal areas – a case study of Ringkobing Fjord, Denmark. Ecol Res 23:421-444

Håkanson L, Lindgren D, 2008: On regime shifts and budgets for nutrients in the open Baltic Proper – evaluations based on extensive data between 1974 and 2005. J Coast Res 24: 246-260

Håkanson L, 2007: A data reduction exercise to detect threshold samples for regression models to predict key water variables. – Int Rev Hydrobiol 92:84-97

Håkanson L, Blenckner T, 2007: A review on operational bioindicators for sustainable coastal management – criteria, motives and relationships. - Ocean Coast Manag 51: 43-72

Håkanson L, Bryhn AC, Hytteborn JA, 2007: On the issue of limiting nutrient and predictions of bluegreen algae in aquatic systems. The Sci Total Environ 379:89-108

Håkanson L, Bryhn AC, Blenckner T, 2007: Operational effect variables and functional coastal ecosystem classifications – a review on empirical models for aquatic systems along a salinity gradient. Int Rev Hydrobiol 92:326-357

Håkanson L, Eklund JM, 2006: A dynamic mass balance model for phosphorus fluxes and concentrations in coastal areas. Ecol Res 22:296-320

Hamelbeck F, Haimberger L, Hantel M, 2001: Convection in PIDCAP Part I: Evaluating LAM convection. Meteorol Atmos Phys 77:85-98

Hammer K, Schneider B, Kuliński K, Schulz-Bull DE, 2017: Acid-base properties of Baltic Sea dissolved organic matter. J Mar Syst 173:114-121

Hänninen J, Vuorinen I, Hjelt P, 2000: Climatic factors in the Atlantic control the oceanographic and ecological changes in the Baltic Sea. Limnol Oceanogr (3):703-710

Hanssen-Bauer I, Achberger C, Benestad R, Chen D, Førland E, 2005: Empirical-statistical downscaling of climate scenarios over Scandinavia: A review. Clim Res 29:255-268

Hansson D, Eriksson C, Omstedt A, Chen D, 2010: Reconstruction of river runoff to the Baltic Sea, AD 1500-1995. Int J Climatol 31(5):696-703

Hansson D, Omstedt A, 2008: Modelling the Baltic Sea ocean climate on centennial time scale: temperature and sea ice. Clim Dynam 30:763-778

Hansson M, Håkansson B, 2007: The Baltic algae watch system - a remote sensing application for monitoring cyanobacterial blooms in the Baltic Sea. J Appl Remote Sens 1:011507

Hantel M, 2001: Editorial: Scientific results for the European NEWBALTIC project. Meteorol Atmos Phys 77:1-8

Hantel M, Haimberger L, Hamelbeck F, 2001: Convection in PIDCAP Part II: DIAMOND - A standard for diagnosing convective quantities. Meteorol Atmos Phys 77:185-204

Hantel M, Hamelbeck F, 1999: Convection in PIDCAP - A Descriptive approach. Meteorologische Zeitschrift 9(2):77-84

Hannus J-J, von Numers M, 2008: The vascular plant richness in two archipelago-areas in SW Finland in relation to habitat diversity and island area. J Biogeogr 35:1077-1086

Harff J, Jöns H, Rosentau A, 2020: Geological, Paleoclimatological, and Archaeological History of the Baltic Sea Region since the last Glaciation. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Hasse L, Grossklaus M, Uhlig K, Timm P, 1998: A ship rain gauge for the use in high wind speeds. J Atmos Ocean Tech 15:380-386

Heinänen S, von Numers M, 2008: Modelling species distribution in complex environments: an evaluation of predictive ability and reliability in five shorebird species. Diversity and Distributions 15(2):266-279

Heinänen S, Rönkä M, von Numers M, 2008: Modelling the occurrence and abundance of a colonial species, the arctic tern Sterna paradisaea in the archipelago of SW Finland. Ecography 31:601-611

Heinemann G, 2006: On the consideration of mesoscale transports in climate modelling. Theor. Appl Climatol 83(1-4):35-50

Heinemann G, Kerschgens M, 2006: Comparison of methods for area-averaging surface energy fluxes over heterogeneous land surfaces using high-resolution non-hydrostatic simulations. Boundary-Layer Meteorology 121(1):195-220

Heinemann G, Kerschgens M, 2005: Comparison of methods for area-averaging surface energy fluxes over heterogeneous land surfaces using high-resolution non-hydrostatic simulations. Int J Climatol 25:379-403

Heinsalu A, Luup H, Alliksaar T, Nõges P, Nõges T, 2008: Water level changes in a large shallow lake as reflected by the plankton: periphyton-ratio of sedimentary diatoms. Hydrobiologia 599:23-30

Heise H, 1996: An investigation of water and energy budgets for the BALTEX region based on short-range numerial weather predictions. Tellus 48A(5):693-707

Heise S, Stresius I, 2024: Application of qualitative modelling to improve system understanding of the stressed elbe estuary. Estuarine Coast Shelf Sci 296, 108908

Hellström C, Chen D, 2003: Statistical downscaling based on dynamically downscaled predictors: Application to monthly precipitation in Sweden, Adv Atmos Sci 20:951-958

Hellström C, Chen D, Achberger C, Räisänen J, 2001: A comparison of climate change scenarios for Sweden based on statistical and dynamical downscaling of monthly precipitation, Clim Res 19:45-55

Hennemuth B, Rutgersson A, Bumke K, Clemens M, Omstedt A, Jacob D, Smedman A, 2003: Net precipitation over the Baltic Sea one year using models and data-based methods. Tellus 55A:352-367

Hense I, Meier HEM, Sonntag S, 2013: Projected climate change impact on Baltic Sea cyanobacteria. Climatic Change 119:391–406

Heret C, Tittebrand A, Berger FH, 2006: Latent heat fluxes simulated with a non-hydrostatic weather forecast model using actual surface properties from measurements and remote sensing. Boundary-Layer Meteorology 121(1):175-194

Hess R, 2001: Assimilation of screen-level observations by variotional soil moisture analysis. Meteorol Atmos Phys 77:145-154

Hieronymus J, Eilola K, Olofsson M, Hense I, Meier HEM, Almroth-Rosell E, 2021: Modeling cyanobacteria life cycle dynamics and historical nitrogen fixation in the Baltic Proper. Biogeosciences, 18, 6213–6227

Hieronymus J, Eilola K, Hieronymus M, Meier HEM, Saraiva S, Karlson B, 2018: Causes of simulated, longterm changes in chlorophyll concentrations in the Baltic Sea. Biogeosciences 15:5113-5129

Hinrichs I, Jahnke-Bornemann A, Andersson A, Ganske A, Gouretski V, Jensen C, Klein B, Möller J, Sadikni R, Tinz B, 2019: The Baltic and North Seas Climatology (BNSC)—A Comprehensive, Observation-Based Data Product of Atmospheric and Hydrographic Parameters. Front. Earth Sci. doi: 10.3389/feart.2019.00158

Hinrichsen H-H, Lehmann A, Petereit C, Schmidt J, 2007: Correlation analyses of Baltic Sea winter water mass formation and its impact on secondary and tertiary production. OCEANOLOGIA 49(3):381-395

Hinrichsen H-H, St. John MA, Lehmann A, MacKenzie BR, Köster FW, 2002: The impact of physical forcing variations on eastern Baltic cod spawning conditions. J Mar Syst 32:281-294

Hjalmarssona S, Wesslander K, Anderson LG, Omstedt A, Perttila M, Mintrop L, 2008: Distribution, long-term development and mass balance calculation of total alkalinity in the Baltic Sea. Cont Shelf Res 28(4-5):593–601

Ho-Hagemann HTM, Hagemann S, Grayek S, Petrik R, Rockel B, Staneva J, Feser F, Schrum C, 2020: Internal model variability in the regional coupled system model GCOAST-AHOI, Atmosphere 2020, 11, 227; doi:10.3390/atmos11030227

Ho-Hagemann HTM, Gröger M, Rockel B, Zahn M, Geyer B, Meier HEM, 2017: Effects of air-sea coupling over the North Sea and the Baltic Sea on simulated summer precipitation over Central Europe. Clim Dynam 48:1-26

Höglund A, Meier HEM, 2012: Environmentally safe areas and routes in the Baltic proper. Mar Pollut Bull 64:1375-1385, http://dx.doi.org/10.1016/j.marpolbul.2012.04.02

Högström U, Rutgersson A, Sahlée E, Smedman A, Hristov TS, Drennan WM, Kahma KK, 2012: Air-sea interaction features in the Baltic Sea and at a Pacific trade-wind site-an intercomparison study. Bound Layer Met 147:139-163

Hollmann R, Gratzki A, 2002: The satellite derived surface radiation budget for BALTEX. Boreal Environment Research 7:247-251

Holmer M, Håkanson L, 2008: Aquaculture and eutrophication. – The BACC Author Team, Assessment of climate change for the Baltic Sea basin, Springer, Heidelberg, pp 420-423

Holopainen E, 1996: Diagnostic studies on atmospheric budgets of water and energy based on aerological data. Tellus 48A(5):750-755

Holopainen R, Lehtiniemi M, Meier HEM, Albertsson J, Gorokhova E, Kotta J, Viitasalo M, 2016: Impacts of changing climate on the non-indigenous invertebrates in the northern Baltic Sea by end of the twenty-first century. Biol Invasions 18:3015-3032, doi: 10.1007/s10530-016-1197-z

Holt J, Schrum C, Cannaby H, Daewel U, Allen I, Artioli Y, Bopp L, Butenschon M, Fach B, Harle J, Pushpadas D, Salihoglu B, Wakelin S, 2016: Potential impacts of climate change on the primary production of regional seas: a comparative analysis of five European seas. Progr Ocean 140:91-115

Hongxian Chu, Yongcai Feng, Dapeng Bai, Shuyu Wu, Jidong Yuan, Jialin Li, Binghui Feng, Wenqin Jiang, Study on the geomorphological changes of deep troughs under the influence of reclamation in the Caofeidian, Estuarine Coast Shelf Sci 296, 108624

Hordoir R, Dieterich C, Basu C, Dietze H, Meier HEM, 2013: Freshwater outflow of the Baltic Sea and transport in the Norwegian current. Cont Shelf Res 64:1-9

Hordoir R, Meier HEM, 2012: Effect of climate change on the thermal stratification of the Baltic Sea - a sensitivity experiment. Clim Dyn, 38:1703-1713, doi: 10.1007/s00382-011-1036-y

Hordoir R, Meier HEM, 2010: Freshwater fluxes in the Baltic Sea: A model study. J. Geophys Res, 115, Issue C8, doi:10.1029/2009JC005604

Huenicke B, Zorita E 2016: Statistical Analysis of the Accerleration of Baltic Mean Sea Level Rise, 1900-2012. Front Mar Sci 22

Huenicke B, 2010: Contribution of regional climate drivers to future winter sea-level changes in the Baltic Sea estimated by statistical methods and simulations of climate models. Int J Earth Sci 99(8):1721-1730

Huenicke B, Zorita E, 2008: Trends in the amplitude of Baltic Sea level annual cycle. Tellus A 60(1):154-164

Huenicke B, Luterbacher J, Pauling A, Zorita E, 2008: Regional differences in winter sea level variations in the Baltic Sea for the past 200 years, Tellus A 60(2):384-393

Huenicke B, Zorita E, 2007: Estimation of the influence of regional climate on recent past and future sea-level changes in the Baltic Sea with statistical methods and simulations of climate models. Berichte der Römisch-Germanischen Kommission RGK, Bd 88

Hyytiäinen K, Bauer B, Joyce KB, Ehrnsten E, Eilola K, Gustafsson B, Meier HEM, Norkko A, Saraiva S, Tomczak M, Zandersen M, 2019: Provision of aquatic ecosystem services as a consequence of societal changes: The case of the Baltic Sea. Popul Ecol 63 (1): 61-74

Iital A, Pachel K, Deelstra J, 2008: Monitoring of diffuse pollution from agriculture to support implementation of the WFD and the Nitrate Directive in Estonia. Environ Sci Policy 11(2):185-193

Ikauniece A, Meier HEM, Kalniņa L, 2017: Introduction for the SI “Understanding the Baltic Sea”. Estuar Coast Shelf Sci 195:1-3, doi: 10.1016/j.ecss.2017.07.021

Illingworth A, Crewell S, 2005: CLIWA-NET: Observation and modelling of liquid water clouds. Atmos Res 75(3):149-150

Isaev A, Eremina T, Ryabchenko V, Savchuk, 2017: Model estimates of the impact of bioirrigation activity of Marenzelleria spp. on the Gulf of Finland ecosystem in a changing climate. J Mar Syst 171:81-88

Isemer H-J, Rozwadowska A, 1999: Solar radiation fluxes at the surface of the Baltic Proper. Part 2. Uncertainties and comparison with simple bulk parameterisations. Oceanologia 41(2):147-185

Izydorczyk K, Skowron A, Wojtal A, Jurczak T, 2008: The Stream Inlet to a Shallow Bay of a Drinking Water Reservoir, a ‘Hot-Spot’ for Microcystis Blooms Initiation. Int Rev Hydrobiol 93(3):257-268

Jaagus J, Sepp M, Tamm T, Järvet A, Mõisja K, 2017: Trends and regime shifts in climatic conditions and river runoff in Estonia during 1951–2015. Earth Syst Dynam 8:963-976, https://doi.org/10.5194/esd-8-963-2017

Jaagus J, Post P, Tomingas O, 2008: Changes in storminess on the western coast of Estonia in relation to large-scale atmospheric circulation. Clim Res 36(1):29-40

Jaanus A, Kuprijanov I, Kaljurand K, Lehtinen S, Enke A, 2017: Optimization of phytoplankton monitoring in the Baltic Sea. J Mar Syst 171:65-72

Jacob D, Bärring L, Christensen OB, Christensen JH, de Castro M, Déque M, Giorgi F, Hagemann S, Hirschi M, Jones R, Kjellström E, Lenderink G, Rockel B, Sánchez E, Schär C, Senviratne SL, Somot S, van Ulden A, van den Hurk B, 2007: An inter-comparison of regional climate models for Europe: model performance in present-day climate. Climatic Change 81:31-52

Jacob D, 2001: A note to the simulation of the annual and inter-annual variability of the water budget over the Baltic Sea drainage basin. Meteorol Atmos Phys 77:61-74

Jacob D, van den Hurk B, Andrae U, Elgered G, Fortelius C, Graham LP, Jackson S, Karstens U, Käpken C, Lindau R, Podzun R, Rockel B, Rubel F, Sass BH, Smith RNB, Yang X, 2001: A comprehensive model inter-comparison study investigating the water budget during the BALTEX-PIDCAP period. Meteorol Atmos Phys 77:19-44

Järv L, Kiviranta H, Koponen J, Rantakokko P, Ruokojärvi P, Radin M, Raid T, Roots O, Simm M, 2017: Persistent organic pollutants in selected fishes of the Gulf of Finland. J Mar Syst 171:129-133

Jakobson E, Ohvril H, Okulov O, Laulainen N, 2005: Variability of radiosonde-observed precipitable water in the Baltic region. Nordic Hydrology, 36(4-5):423

Jakobson L, Jakobson E, Post P, Jaagus J, 2017: Atmospheric teleconnections between the Arctic and the eastern Baltic Sea regions. Earth Syst Dynam 8:1019-1030, https://doi.org/10.5194/esd-8-1019-2017

Janušaitė R, Jarmalavičius D, Pupienis D, Žilinskas G, Jukna L, 2023: Nearshore sandbar switching episodes and their relationship with coastal erosion at the Curonian Spit, Baltic Sea. Oceanologia, 65 (1):71-85, January-March 2023

Jarre-Teichman A, Wieland K, MacKenzie BR, Hinrichsen H-H, Aro E, Plikshs M, 2000: Stock-recruitment relationships for cod (Gadus morhua callarias L.) in the central Baltic Sea incorporating environmental variability. Archive of Fishery and Marine Research 48:97-123

Jeworrek J, Wu L, Dieterich C, Rutgersson A, 2017: Characteristics of convective snow bands along the Swedish east coast. Earth Syst Dynam 8:163-175, https://doi.org/10.5194/esd-8-163-2017

Jiménez JA, Bonaduce A, Depuydt M, Galluccio G, Van Den Hirk B, Meier HEM, Pinardi N, Pomarico LG, Vazquez Riveiros N, Winter G, 2023: Sea Level Rise in Europe: Knowledge gaps identified through a participatory approach. State of the Planet Discussions 2023, 1-22

Johansson B, Chen D, 2005: Estimation of areal precipitation for runoff modelling using wind data: A case study in Sweden. Clim Res 29:53-61

Johansson B, Chen D, 2003: The influence of wind and topography on precipitation distribution. A case study in Sweden. Int J Climatol 23:1523-1535

Johansson C, Hennemuth B, Bösenberg J, Linné H, Smedman A-S, 2005: Double-layer structure in the boundary layer over the Baltic Sea. Boundary-Layer Meteorol 114(2):389-412

Johnell A, Lindström G, Olsson J, 2007: Deterministic evaluation of ensemble streamflow predictions in Sweden. Nordic Hydrology 38:441-450

Johnsen K-P, Kidder SQ, 2002: Water vapor over Europe obtained from remote sensors and compared with a hydrostatic NWP model. Phys Chem Earth 27:371-375

Johnsen K-P, Rockel B, 2001: Validation of the NWP model HRM with groundbased GPS data. Phys Chem Earth (A) 26(6-8):463-466

Johnsen K-P, Rockel B, 2000: Validation of a regional weather forecast model with GPS data. Phys Chem Earth (B) 26(5-6):415-419

Jonsson A, Andersson L, Alkan Olsson J, Arheimer B, 2007: How participatory can participatory modeling be? Degrees of influence of stakeholder and expert perspectives in six dimensions of participatory modeling. Water Sci Tech 56:207-214

Junjie Deng, Congrui Chen, Jingyu Hu, Hongze Yu, Jiaxue Wu, 2024: On the extension and deflection of bayhead river-mouth shoal within a tide-dominated embayment, pearl river estuary. Estuarine Coast Shelf Sci 296, 108831

Jutterström S, Andersson HC, Omstedt A, Malmaeus JM, 2014: Multiple stressors threatening the future of the Baltic Sea-Kattegat marine ecosystem: Implications for policy and management actions. Mar Poll Bull 86:468-480

Jylhä K, Fronzek S, Tuomenvirta H, Carter TR, Ruosteenoja K, 2008: Changes in frost, snow and Baltic Sea ice by the end of the twenty-first century based on climate model projections for Europe. Clim Change 86:441-462

Kaczmarek S, Dera J, 1998: Radiation flux balance of the sea-atmosphere system over the southern Baltic Sea. Oceanologia 40(4):277-306

Kahru M, Elmgren R, Savchuck OP, 2016: Changing seasonality of the Baltic Sea. Biogeosciences 13:1009-1018

Kaizhe Fu, Zeheng Chen, Cheng Huang, Yuanyuan Chen, Dongming Wu, Xiwen Li, Yanwei Song, Weipin Ding, Xiujiu Yang, Junqiao Long, 2024: Distribution, sources, impact factors and ecological risks of sediment heavy metals from typical estuarine wetlands in tropical islands. Estuarine Coast Shelf Sci 296, 108922

Karabil S, 2017: Influence of Atmospheric Circulation on the Baltic Sea Level Rise under the RCP8.5 Scenario over the 21st Century. Climate 5(3):71; doi:10.3390/cli5030071

Karabil S, Zorita E, Hünicke B, 2017: Contribution of atmospheric circulation to recent offshore sea-level variations in the Baltic Sea and the North Sea. Earth Syst Dynam 8 https://doi.org/10.5194/esd-2017-23

Karabil S, Zorita E, Hünicke B, 2017: Mechanisms of variability in decadal sea-level trends in the Baltic Sea over the 20th century. Earth Syst Dynam 8:1031-1046, https://doi.org/10.5194/esd-8-1031-2017

Karlson AML, Gorokhova E, Elmgren R, 2015: Do deposit-feeders compete? Isotopic niche analysis of an invasion in a species-poor system. Scientific Reports 5:9715

Karlson AML, Duberg J, Motwani NH, Hogfors H, Ploug H, Svedén JB, Garbaras A, Sundelin B, Hajdu S, Larsson U, Elmgren R, Gorokhova E, 2015: Nitrogen fixation by cyanobacteria stimulates production in Baltic food-webs. Ambio 44(S3):S413-S426

Karlsson K-G, 1999: Satellite sensing techniques and applications for the purpose of BALTEX. Meteorologische Zeitschrift 9(2):111-116

Karlsson K-G, 1997: Cloud climate investigations in the nordic region using NOAA AVHRR data. Theor Appl Climatol 57:181-195

Karlsson K-G, 1996: Validation of modelled cloudiness using satellite-estimated cloud climatologies. Tellus 48A(5):767-785

Karlsson K, Willén U, Jones C, Wyser K, 2008: Evaluation of regional cloud climate simulations over Scandinavia using a 10-year NOAA Advanced Very High Resolution Radiometer cloud climatology, J Geophys Res 113, D01203, doi:10.1029/2007JD008658

Karlsson PE, Tang L, Sundberg J, Chen D, Lindskog A, Pleijel H, 2007: Increasing risk for negative ozone impacts on the vegetation in northern Sweden, Environ Poll 150:96-106

Karsten S, Radtke H, Gröger M, Ho-Hagemann HTM, Mashayekh H, Neumann T, Meier HEM, 2024: Flux coupling approach on an exchange grid for the IOW Earth System Model (version 1.04.00) of the Baltic Sea region Geosci. Model Dev., 17, 1689–1708, https://doi.org/10.5194/gmd-17-1689-2024, February2024.

Karsten S, Radtke H, Gröger M, Ho-Hagemann HTM, Mashayekh H, Neumann T, Meier HEM, 2023: Exchange-grid coupling approach for the IOW Earth System Model (version 1.04. 00) of the Baltic Sea region Geosci. Model Dev., 17, 1689–1708

Karstens U, Nolte-Holube R, Rockel B, 1996: Calculation of the water budget over the Baltic Sea catchment area using the regional forecast model REMO for June 1993. Tellus 48A(5):684-692

Kauker F, Meier HEM, 2003: Modeling decadal variability of the Baltic Sea: 1. Reconstructing atmospheric surface data for the period 1902 – 1998. J Geophys Res 108, C8, 3267 10.1029/2003JC001797

Keevallik S, Soomere T, 2014: Regime shifts in the surface-level average air flow over the Gulf of Finland during 1981-2010. Proceedings of the Estonian Academy of Sciences 63(4):428-437

Keevallik S, Vint K, 2015: Temperature extremes and detection of heat and cold waves at three sites in Estonia. Proceedings of the Estonian Academy of Sciences 64(4):473-479

Keevallik S, Spirina N, Sula E-M, Vau I, 2014: Statistics of different public forecast products of temperature and precipitation in Estonia. Proceedings of the Estonian Academy of Sciences 63(2):174-182

Keevallik S, 2013: Annual variation of air-water temperature difference at three Estonian coastal stations. Estonian Journal of Engineering 19(4):329-335

Keevallik S, Vint K, 2012: Influence of changes in the station location and measurement routine on the homogeneity of the temperature, wind speed and precipitation time series. Estonian Journal of Engineering 18(4):302-313

Keevallik S, Krabbi M, 2011: Temperature, humidity and wind from Estonian and Finnish radiosonde data (1993-2009). Estonian Journal of Engineering 17:345-358

Keevallik S, Männik A, Hinnov J, 2010: Comparison of HIRLAM wind data with measurements at Estonian coastal meteorological stations. Estonian Journal of Earth Sciences 59(1):90-99

Keevallik S, Loitjärv K, 2010: Solar radiation at the surface in the Baltic Proper. OCEANOLOGIA 52(4):583-597

Keevallik S, 2010: Shifts in meteorological regime of the late winter and early spring in Estonia during recent decades. Theor Appl Climatol, DOI 10.1007/s00704-010-0356-x

Keevallik S, Soomere T, 2010: Towards quantifying variations in wind parameters across the Gulf of Finland. Estonian Journal of Earth Sciences 59(4):288-297

Keevallik S, Soomere T, 2009: Seasonal and diurnal variations of wind parameters at Pakri. Estonian Journal of Engineering 15(3):227-239

Keevallik S, Soomere T, 2008: Shifts in early spring wind regime in North-East Europe (1955-2007). Clim Past 4:147-152

Keevallik S, 2008: Wind speed and velocity in three Estonian coastal stations 1969-1992. Estonian Journal of Engineering 14(3):209-219

Keevallik S, Soomere T, Pärg R, Žukova V, 2007: Outlook for wind measurement at Estonian automatic weather stations. Proc. Estonian Academy of Sci, Engineering 13(3):234-251

Keevallik S, 2003: Changes in spring weather conditions and atmospheric circulation in Estonia (1955-1995). Int J Climatol 23:263-270

Keevallik S, 2003: Possibilities of reconstruction of the wind regime over Tallinn Bay. Estonian Academy of Sciences Engineering 9(3):209-219

Keevallik S, Rajasalu R, 2000: Upper-air winds over Estonia and European circulation patterns. Phys Chem Earth 25(2):173-176

Keevallik S, Rajasalu R, 2000: Winds on the 500 hPa isobaric level over Estonia (1953-1998). Phys Chem Earth 26(5-6):425-429

Keevallik S, 2000: Relationships between temperature and snow cover in spring. IRS'2000: Current problems in atmospheric radiation, A. Deepak Publishing, Hampton, Virginia

Keevallik S, Russak V, 2000: Changes in the amount of low clouds in Estonia (1955-1995). Int J Climatol 21(3):389-397

Keevallik S, Post P, Tuulik J, 1999: European circulation patterns and meteorological situation in Estonia. Theor Appl Climatol 63(1-2):117-127

Keevallik S, Kärner O, 1997: A method to derive surface insolation from NOAA AVHRR data. Adv Space Res 19(3):527-531

Keevallik S, Tooming H, 1996: Relationships between surface albedo and spring heat accumulation. Tellus 48A(5):727-732

Kelpšaite L, Herrmann H, Soomere T, 2008: Wave regime differences along the eastern coast of the Baltic Proper. Proceedings of the Estonian Academy of Sciences 57(4):225-231

Keup-Thiel E, Klepp C-P, Raschke E, Rockel B, 2003: Regional model simulation of the North Atlantic cyclone "Caroline" and comparisons with datellite data. Annales Geophysicae, 21:655-659

Kholodkevich S, Kuznetsova T, Sharov A, Kurakin A, Lips U, Kolesova N, Lehtonen K, 2017: Applicability of a bioelectronic cardiac monitoring system for the detection of biological effects of pollution in bioindicator species in the Gulf of Finland. J Mar Syst 171:151-158

Kiedrzynska E, Wagner-Lotkowska I, Zalewski M, 2008: Quantification of phosphorus retention efficiency by floodplain vegetation and a management strategy for a eutrophic reservoir restoration. Ecol Engin 33:15-25

Kiesel J, Wolff C, Lorenz M, 2024: Brief communication: From modelling to reality – flood modelling gaps highlighted by a recent severe storm surge event along the German Baltic Sea coast Nat Hazards Earth Syst Sci 24;3841–3849

Kiesel J, Honsel LE, Lorenz M, Gräwe U, Vafeidis AT, 2023: Raising dikes and managed realignment may be insufficient for maintaining current flood risk along the German Baltic Sea coast Commun Earth Environ 4:433

Kiesel J, Lorenz M, König M, Gräwe U, Vafeidis AT Regional assessment of extreme sea levels and associated coastal flooding along the German Baltic Sea coast, Nat Hazards Earth Syst Sci, 23: 2961–2985

Kilpeläinen T, Tuomenvirta H, Jylhä K, 2008: Climatological characteristics of summer precipitation in Helsinki during the period 1951–2000. Boreal Env Res 13:67-80

Kitaev L, Volodicheva N, Oleinikov A, 2007: Multi-year variability of the snowiness over north-west part of the East European plain. (In Russian). Annals of Glaciological Studies, 102:65-72Kitaev L, 2006: Connection of the monthly changing of temperature and snow cover over Northern Europe. (In Russian). Cryosphere of Earth 3:76-82

Kitaev L, Razuvaev V, Heino R, Forland E, 2006: Duration of snow cover over Northern Europe. Russian Meteorology and Hydrology, Allerton Press. Inc., New York, NY, USA 3:95-100

Kitaev L, Førland E, Razuvaev V, Tveito OE, Krueger O, 2005: Distribution of snow cover over Northern Eurasia. Nordic Hydrology 36(4-5):311-320

Kitaev L, Kislov A, Krenke A, Razuvaev V, Martuganov R, Konstantinov I, 2002: The snow cover characteristics of northern Eurasia and their relationship to climatic parameters. Boreal Environmental Research 7(4):437-445

Kjellström E, Christensen OB, 2020: Regional Climate Modeling for the Baltic Sea Region. OXFORD RESEARCH ENCYCLOPEDIA (ORE), "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Kjellström E, Ruosteenoja K, 2007: Present-day and future precipitation in the Baltic Sea region as simulated in a suite of regional climate models. Climatic Change 81:281-291

Kjellström E, Bärring L, Jacob D, Jones R, Lenderink G, Schär C, 2007: Modelling daily temperature extremes: Recent climate and future changes over Europe. Climatic Change 81:249-265

Kjellström E, Döscher R, Meier HEM, 2005: Atmospheric response to different sea surface temperatures in the Baltic Sea: coupled versus uncoupled regional climate model experiments. Nordic Hydrology 36(4-5):397-411

Klavins M, Briede A, Rodinov V, Kokorite I, Frisk T, 2002: Long-term changes of the river runoff in Latvia. Boreal Environmental Research 7(4):447-456

Klimavičius L, Rimkus, 2024: E Compound drought and heatwave events in the eastern part of the Baltic Sea region. Oceanologia 66(1):26-36

Klimavicius L, Rimkus E, Stonevicius E, Maciulyte V, 2023: Seasonality and long-term trends of NDVI values in different land use types in the eastern part of the Baltic Sea basin. Oceanologia, 65 (1):171-181, January-March 2023

Kniebusch M, Meier HEM, Radtke H, 2019: Changing salinity gradients in the Baltic Sea as a consequence of altered freshwater budgets. Geophys Res Lett 46:9739-9747, doi: 10.1029/2019gl083902

Kniebusch M, Meier HEM, Neumann T, Börgel F, 2019: Temperature variability of the Baltic Sea since 1850 and attribution to atmospheric forcing variables. J Geophys Res Oceans 124:4168-4187, doi: 10.1029/2018JC013948

Knuuttilla S, Räike A, Ekholm P, Kondratyev, 2017: Nutrient inputs into the Gulf of Finland: Trends and water protection targets. Journal of Marine Systems 171:54-64

Köster FW, Möllmann C, Hinrichsen H-H, Tomkiewicz J, Wieland K, Kraus G, Voss R, MacKenzie BR, Schnack D, Makarchouk A, Plikshs M, Beyer JE, 2005: Baltic cod recruitment – the impact of climate variability on key processes. ICES J Mar Sci 62:1408-1425

Köster FW, Möllmann C, Neuenfeldt S, Vinther M, St. John MA, Tomkiewicz J, Voss R, Hinrichsen H-H, MacKenzie BR, Kraus G, Schnack D, 2003: Fish stock development in the central Baltic Sea (1974-1999) in relation to variability in the environment. ICES Mar Sci Symposium 219

Köster FW, Hinrichsen H-H, Schnack D, St. John MA, MacKenzie BR, Tomkiewicz J, Möllmann C, Kraus G, Plikshs M, Makarchouk A, Aro E, 2003: Recruitment of Baltic cod and sprat stocks: identification of critical life stages and incorporation of environmental variability into stock-recruitment relationships. Scientia Marina 67(S1):129-154

Köster FW, Hinrichsen H-H, St. John MA, Schnack D, MacKenzie BR, Tomkiewicz J, Plikshs M, 2001: Developing Baltic cod recruitment models. II. Incorporation of environmental variability and species interactions. Can J Fish Aquat Sci 58: 1534-1556

Kohsiek W, Meijninger WML, Debruin HAR, Beyrich F, 2006: Saturation of the Large Aperture Scintillometer. Boundary-Layer Meteorology 121(1):111-126

Koistinen J, Michelson DB, 2002: BALTEX weather radar-based precipitation products and their accuracies. Boreal Environment Research 7:253-263

Koistinen J, King R, Saltikoff E, Harju A. 1999: Monitoring and assessment of systematic measurement errors in the NORDRAD network. American Meteorological Society, 29th Radar Meteorology 13B.1:765-768

Kotovirta V, Jalonen R, Axell L, Riska K, Berglund R, 2008: A system for route optimization in ice-covered waters, Cold Regions Sci Tech 55(1):52-62

Kotta J, Aps R, Herkül K, 2008: Predicting ecological resilience of marine benthic communities facing a high risk of oil spills. Coast Environ 2008 (101 - 110).WIT Press

Kõuts T, Wang K, Leppäranta M, 2007: On connection between mesoscale stress of geophysical sea ice models and local ship load. Proceedings of the 10th International Symposium on Practical Design of Ships and other Floating Structures, Houston, Texas, USA, 1-5 October 2007

Kowalewska-Kalkowska H, Kowalewski M, 2019: Combining Satellite Imagery and Numerical Modelling to Study the Occurrence of Warm Upwellings in the Southern Baltic Sea in Winter. Remote Sens 11(24):2982; doi:10.3390/rs11242

Kowalkowski T, Pastuszak M, Igras J, Buszewski B, 2012: Differences in emission of nitrogen and phosphorus into the Vistula and Oder basins in 1995-2008 - Natural and anthropogenic causes (MONERIS model). J Mar Syst 89: 48-60.

Kowalewska-Kalkowska H, Kowalewski M, 2005: Operational hydrodynamic model for forecasting extreme hydrographic events in the Oder Estuary. Nordic Hydrology 36(4-5):411-420

Krapf K, Naumann M, Dutheil C, Meier HEM, 2022: Investigating Hypoxic and Euxinic Area Changes Based on Various Datasets From the Baltic Sea. Front Mar Sci 9:823476, doi: 10.3389/fmars.2022.823476.

Krysanova V, Hattermann F, Habeck A, 2005: Expected changes in water resources availability and water quality with respect to climate change in the Elbe River basin (Germany). Nordic Hydrology 36(4-5):321-335

Kudryavtseva N, Soomere T, 2017: Satellite altimetry reveals spatial patterns of variations in the Baltic Sea wave climate. Earth Syst Dynam 8:697-706, https://doi.org/10.5194/esd-8-697-2017

Kücken M, Gerstengarbe F-W, Werner PC, 2002: Cluster analysis results of regional climate model simulations in the PIDCAP period. Boreal Environment Research 7:219-223

Kuliński K, Rehder G, Asmala E, Bartosova A, Carstensen J, Gustafsson B, Hall POJ, Humborg C, Jilbert T, Jürgens K, Meier HEM, Müller-Karulis B, Naumann M, Olesen JE, Savchuk O, Schramm A, Slomp CP, Sofiev M, Sobek A, Szymczycha B, Undeman E, 2022: Biogeochemical functioning of the Baltic Sea. Earth Syst Dynam, 13:633–685, https://doi.org/10.5194/esd-13-633-2022.

Kulinski K, Szymczcha B, Koziorowska K, Hammer K, Schneider B, 2018: Anomaly of total boron concentration in the brackish waters of the Baltic Sea and its consequence for the CO2 system calculations. Mar Chem 204:11-19

Kuliński K, Schneider B, Szymczycha B, Stokowski M, 2017: Structure and functioning of the acid-base system in the Baltic Sea. Earth Syst Dynam Discuss https://doi.org/10.5194/esd-2017-39

Kuliński K, Hammer K, Schneider B, Schulz-Bull D, 2016: Remineralization of terrestrial dissolved organic carbon in the Baltic Sea. Mar Chem 181:10-17

Kuliński K, Schneider B, Hammer K, Machulik U, Schulz-Bull D, 2014: The influence of dissolved organic matter on the acid–base system of the Baltic Sea. J Mar Syst 132:106-115

Kuliński K, Pempkowiak J, 2011: The carbon budget of the Baltic Sea. Biogeosciences 8(11):3219-3230

Kuliński K, She J, Pempkowiak J, 2011: Short and medium term dynamics of the carbon exchange between the Baltic Sea and the North Sea. Cont Shelf Res 31(15):1611-1619

Kull A, Kull An, Jaagus J, Kuusemets V, Mander Ü, (2008) The effects of fluctuating climatic and weather events on nutrient dynamics in a narrow mosaic riparian peatland. Boreal Environment Research 13(3):243-263

Kurkin A, Rybin A, Soomere T, Kurkina O, Rouvinskaya E, 2020: Spatial Distribution of Energy of Subinertial Baroclinic Motions in the Baltic Sea. Front. Earth Sci. doi: 10.3389/feart.2020.00184

Kusmierczyk-Michulec J, Rozwadowska A, 1999: Optical thickness of Baltic aerosol. Oceanologia 41(2):1-19

Kusmierczyk-Michulec J, Marks R, Kruczalak K, 1997: Modelling of the aerosol size distribution and aerosol optical properties over the Baltic Sea. Oceanologia 39(1): 3-16

Kusmierczyk-Michulec J, Darecki M, 1996: The aerosol optical thickness over the Baltic Sea. Oceanologia 38(4):423-435

Kuss J, Nausch G, Engelke C, von Weber M, Lutterbeck H, Naumann M, Waniek JJ, E. Schulz-Bull D, 2020: Changes of Nutrient Concentrations in the Western Baltic Sea in the Transition Between Inner Coastal Waters and the Central Basins: Time Series From 1995 to 2016 With Source Analysis. Front. Earth Sci. doi: 10.3389/feart.2020.00106

Kutser T, Metsamaa L, Dekker AG, 2008: Influence of the vertical distribution of cyanobacteria in the water column on the remote sensing signal. Estuar Coast Shelf Sci 78(4):649-654

Kuzikova I, Safronova V, Zaytseva T, Medvedeva N, 2017: Fate and effects of nonylphenol in the filamentous fungus Penicillium expansum isolated from the bottom sediments of the Gulf of Finland. J Mar Syst 171:111-119

Łabuz TA (2013) Polish coastal dunes – affecting factors and morphology. Landform Analysis, 22:33-59

Łabuz TA (2012) Coastal Response to Climatic Changes: Discussion with Emphasis on Southern Baltic Sea. Landform Analysis 21:43-55

Laihonen P, Rönkä M, Tolvanen H, Kalliola R, 2003: Geospatially structured biodiversity information as a component of a regional biodiversity clearing house. Biodiversity and Conservation 12:103-120

Lakson M, Post P, Sepp M, 2019: The Impact of Atmospheric Circulation on Air Temperature Rise in Estonia. Front. Earth Sci. doi: 10.3389/feart.2019.00131

Lass HU, Prandke H, Liljebladh B, 2003: Dissipation in the Baltic proper during winter stratification. J Geophys Res 108:C6 3187

Lass HU, Matthäus W, 1996: On temporal wind variations forcing salt water inflows into the Baltic Sea. Tellus 48A(5):663-671

Launiainen J, Cheng B, Uotila J, Vihma T, 2001: Turbulent surface fluxes and air-ice coupling in the Baltic Air-Sea-Ice Study (BASIS). Annales Glaciology 33:237-242

Lavento M, 2018: Regional History of Settlement and Human Impacts in the Baltic Sea Region Over the Last 2000 Years. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Lawford RG, Stewart R, Roads J, Isemer H-J, Manton M, Marengo J, Yasunari T, Benedict S, Koike T, Williams S, 2004: Advancing Global-and Continental-Scale Hydrometeorology: Contributions of GEWEX Hydrometeorology Panel. Bulletin of the American Meteorological Society 85(12):1917-1930

Leeben A, Alliksaar T, Heinsalu A, Lepane V, Veski S, 2008: Tracking changes in the organic matter in a lake palaeoecosystem: a spectrophotometric approach. Org Geochem 39(8):915-918

Leeben A, Tõnno I, Freiberg R, Lepane V, Bonningues N, Makarõtševa N, Heinsalu A, Alliksaar T, 2008: History of anthropogenically mediated eutrophication of Lake Peipsi as revealed by the stratigraphy of fossil pigments and molecular size fractions of pore-water dissolved organic matter. Hydrobiologia 599:49-58

Lehmann A, Myrberg K, Post P, Chubarenko I, Dailidiene I, Hinrichsen H-H, Hüssy K, Liblik T, Lips U, Meier HEM, Bukanova T, 2022: Salinity dynamics of the Baltic Sea. Earth Syst. Dynam., 13, 373–392, https://doi.org/10.5194/esd-13-373-2022, 2022

Lehmann A, Höflich K, Post P, Myrberg K, 2017: Pathways of deep cyclones associated with large volume changes (LVCs) and major Baltic inflows (MBIs). J Mar Syst 167:11-18

Lehmann A, Getzlass K, Harlaß J, 2011: Detailed assessment of climate variability in the Baltic Sea area for the period 1958 to 2009. Clim Res 46:185-196

Lehmann A, Myrberg K, 2008: Upwelling in the Baltic Sea – A review. J Mar Syst 74(3-12):141

Lehmann A, Lorenz P, Jacob D, 2004: Modelling the exceptional Baltic Sea inflow events in 2002–2003. Geophys Res Lett 31

Lehmann A, Hinrichsen H–H, 2002: Water, heat and salt exchange between the deep basins of the Baltic Sea. Boreal Environmental Research 7(4):405-415

Lehmann A, Krauß W, Hinrichsen H-H, 2002: Effects of remote and local atmospheric forcing on circulation and upwelling in the Baltic Sea. Tellus 54A:299-316

Lehmann A, Hinrichsen H-H, 2001: The importance of water storage variations for water balance studies of the Baltic Sea. Phys Chem Earth (B) 26(5-6):383-389

Lehmann A, Hinrichsen H-H, 2000: On the thermohaline variability of the Baltic Sea. J Mar Syst 25:333-357

Lehmann A, Hinrichsen H-H, 2000: On the wind driven and thermohaline circulation of the Baltic Sea. Phys Chem Earth (B) 25(2):183-189

Lehmann A, 1995: A Three-dimensional baroclinic eddy-resolving model of the Baltic Sea. Tellus 47A:1013-1031

Lehtoranta J, Savchuk O, Elken J, Dahlbo K, Kuosa H, Raateoja M, Kauppila P, Räike A, Pitkainen H, 2017: Atmospheric forcing controlling inter-annual nutrient dynamics in the open Gulf of Finland. J Mar Syst 171:4-20

Lenderink G, van Meijgaard E, 2001: Impacts of cloud and turbulence schemes on integrated water vapor: Comparison between model predictions and GPS measurements. Meteorol Atmos Phys 77:131-144

Lenderink G, van Meijgaard E, Holtslag AAM, 1999: Evaluation of the ECHAM4 cloud-turbulence scheme for Stratocumulus. Meteorologische Zeitschrift 9(2):41-47

Leppäranta M, 2023: History and Future of Snow and Sea Ice in the Baltic Sea unlocked. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , 'CLIMATE SCIENCE'

Leppäranta M, Lewis JE, 2007: Observations of Ice Surface Temperature in the Baltic Sea. Int J Remote Sens 28(17):3963-3977

Leppäranta M, Sun Y, Haapala J, 1998: Comparisons of sea-ice velocity fields from ERS-1 SAR and a dynamic model. J Glaciol 44(147):248-262

Liblik T, Buschmann F, Siht E, Kuprijanov I, Väli G, Lipp M, Erm A, Laanemets J, Eschbaum R, Verliin A, Saks L, Zekker I, 2024: Environmental impact of water exchange blocking in a strait – a multidisciplinary study in the Baltic Sea. Oceanologia 66(1):9-25

Liblik T, Lips U, 2019: Stratification Has Strengthened in the Baltic Sea – An Analysis of 35 Years of Observational Data. Front. Earth Sci. doi: 10.3389/feart.2019.00174

Lilja S, 2018: Climate, History, and Social Change in Sweden and the Baltic Sea Area From About 1700. OXFORD RESEARCH ENCYCLOPEDIA (ORE), "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Lindau R, Simmer C, 2005: Derivation of a root zone soil moisture algorithm and its application to validate model data. Nordic Hydrology 36(4-5):335-348

Lindau R, 2002: Energy and water balance of the Baltic Sea derived from merchant ship observations, Boreal Environmental Research 7(4):417-424

Lindau R, Ruprecht E, 1999: SSM/I-derived total water vapour content over the Baltic Sea compared to independent data. Meteorologische Zeitschrift 9(2):117-123

Lindenthal A, Hinrichs C, Jandt-Scheelke S, Kruschke T, Lagemaa P, van der Lee EM, Maljutenko I, Morrison HE, Panteleit TR, Raudsepp U, 2024: Baltic Sea surface temperature analysis 2022: a study of marine heatwaves and overall high seasonal temperatures Copernicus Publications, State Planet, 4-osr8, 16, https://doi.org/10.5194/sp-4-osr8-16-2024

Linderholm HW, Jansson P, Chen D, 2007: A high-resolution reconstruction of Storglaci?ren mass balance back to 1781 using tree-ring data and circulation indices, Quat Res 67:12-20

Linderholm HW, Walther A, Chen D, 2007: Twentieth-century trends in the thermal growing season in the Greater Baltic Area. Climatic Change, doi: 10.1007/s10584-007-9327-3

Linderholm HW, Chen D, 2005: Winter in central Scandinavia precipitation variability during the past five centuries inferred from Pinus sylvestris tree rings. Boreas 34:43-52

Linderson M-L, Achberger C, Chen D, 2004: Statistical Downscaling and Scenario Construction of Precipitation in Scania, Southern Sweden. Nordic Hydrology 35:261-278

Lindfors A, Kaurola J, Arola A, Koskela T, Lakkala K, Josefsson W, Olseth JA, Johnsen B, 2007: A method for reconstruction of past UV radiation based on radiative transfer modeling: applied to four stations in northern Europe. J Geophys Res 112:D23201

Lindskog M, Salonen K, Järvinen H, Michelson DB, 2004: Doppler Radar Wind Data Assimilation with HIRLAM 3DVAR. Mon Wea Rev 132(5):1081-1092

Lips I, Lips U, 2008: Abiotic factors influencing cyanobacterial bloom development in the Gulf of Finland (Baltic Sea). Hydrobiologia 614(1):133-140

Liu SM, Liang W, Guo X, Wu N, Zhang W, Shan X, Zhao H-D, Wang J, Huang J, 2023: Biogeochemistry-ecosystem-social interactions on the Chinese continental margins. Oceanologia, 65 (1):278-296, January-March 2023

Liu Y, Meier HEM, Eilola K, 2017: Nutrient transports in the Baltic Sea - results from a 30-year physical-biogeochemical reanalysis. Biogeosciences, 14, 2113-2137

Liu Y, Meier HEM, Eilola K, 2014: Improving the multi-annual, highresolution modelling of biogeochemical cycles in the Baltic Sea by using data assimilation. Tellus A 66:24908

Liu Y, Meier HEM, Axell L, 2013: Reanalyzing temperature and salinity on decadal time scales using the Ensemble Optimal Interpolation data assimilation method and a 3D ocean circulation model of the Baltic Sea. J Geophys Res 118:5536-5554, doi:10.1002/jgrc.20384

Ljungemyr P, Gustafsson N, Omstedt A, 1996: Parameterization of lake thermodynamics in a high-resolution weather forecasting model. Tellus 48A(5):608-621

Lobmeyr M, Lohmann D, Ruhe C, 1999: An application of a large scale conceptual hydrological model over the Elbe region. Hydrol Earth Syst Sci 3(3):363-374

Löptien U, Mårtensson S, Meier HEM, Höglund A, 2013: Long-term characteristics of simulated ice deformation in the Baltic Sea. J Geophys Res 118/2:801-815, doi:10.1002/jgrc.20089

Löptien U, Meier HEM, 2011: The influence of increasing water turbidity on the sea surface temperature in the Baltic Sea: A model sensitivity study. J Mar Syst 88:323-331, doi:10.1016/j.jmarsys.2011.06.001

Lohmann D, Raschke E, 1998: Regional scale hydrology: II. Application of the VIC-2L model to the Weser River, Germany. Hydrol Sci 43(1):143–158

Lohmann D, Nolte-Holube R, Raschke E, 1996: A large-scale horizontal routing model to be coupled to land surface parameterization schemes. Tellus 48A(5):708-721

Lorant V, McFarlane N, Laprise R, 2002: A numerical study using the Canadian regional climate model for the PIDCAP period. Boreal Environment Research 7:203-210

Lorenz M, Gräwe U, 2023: Uncertainties and discrepancies in the representation of recent storm surges in a non-tidal semi-enclosed basin: a hindcast ensemble for the Baltic Sea, Ocean Sci 19:1753–1771

Lorenz M, Arns A, Gräwe U How Sea Level Rise May Hit You Through the Backdoor: Changing Extreme Water Levels in Shallow Coastal Lagoons, Geophys. Res. Lett. 50: e2023GL105512, doi:10.1029/2023GL105512

Lundin LC, Halldin S, Lindroth A, Cienciala E, Grelle A, Hjelm P, Kellner E, Lundberg A, Mölder M, Morén A-S, Nord T, Stähli M, 1999: Continuous long-term measurements of soil-plant-atmosphere variables at a forest site. Agr Forest Meteorol 98-99:53-73

Ma, X, Sun M, Lennartz ST, Bange, HW, 2020: A decade of methane measurements at the Boknis Eck Time Series Station in Eckernförde Bay (southwestern Baltic Sea). Biogeosciences 17:3427-3438. doi.org/10.5194/bg-17-3427-2020

Ma, X, Lennartz ST, Bange HW, 2019: A multi-year observation of nitrousoxide at the Boknis Eck Time-Series Station in the Eckernförde Bay (southwestern Baltic Sea). Biogeosciences 16:4097-4111. DOI 10.5194/bg-16-4097-2019

Maciulyte V, Rimkus E, Valiukas D, Stonevicius E, 2023: Long-term precipitation events in the eastern part of the Baltic Sea region. Oceanologia, 65 (1):141-150, January-March 2023

MacKenzie BR, Horbowy J, Köster FW, 2008: Incorporating environmental variability in stock assessment – predicting recruitment, spawner biomass and landings of sprat (Sprattus sprattus) in the Baltic Sea. Can J Fish Aquatic Sci 65:1334-1341

MacKenzie BR, Schiedek D, 2007: Long-term sea surface temperature baselines – time series spatial covariation and implicaitons for biological processes. J Mar Syst 68:405-420

MacKenzie BR, Schiedek D, 2007: Daily ocean monitoring since the 1860s shows record warming of northern European seas. Global Change Biol 13:1335-1347

MacKenzie BR, Bager M, Ojaveer H, Awebro K, Heino U, Holm P, Must A, 2007: Multi-decadal scale variability in the eastern Baltic cod fishery 1550-1860 – evidence and causes. Fish Res 87:106-119

MacKenzie BR, Gislason H, Möllmann C, Köster FW, 2007: Impact of 21st century climate change on the Baltic Sea fish community and fisheries. Global Change Biol 13(7): 1348-1367

MacKenzie BR, Köster FW, 2004: Fish production and climate: sprat in the Baltic Sea. Ecology 85:784-794

MacKenzie BR, Alheit J, Conley DJ, Holm P, Kinze CC, 2002: Ecological hypotheses for a historical reconstruction of upper trophic level biomass in the Baltic Sea. Can J Fish Aquatic Sci 59:173-190

MacKenzie BR, Hinrichsen H-H, Plikshs M, Wieland K, Zezera A, 2000: Quantifying environmental heterogeneity: estimating the size of habitat for successful cod Gadus morhua egg develop-ment in the Baltic Sea. Mar Ecol Progr Series 193:143-156

Madsen KS, Murawski J, Blokhina M, Su J, 2019: Sea Level Change: Mapping Danish Municipality Needs for Climate Information. Front. Earth Sci. doi: 10.3389/feart.2019.00081

Madsen KS, Høyer JL, Suursaar Ü, She J, Knudsen P, 2019: Sea Level Trends and Variability of the Baltic Sea From 2D Statistical Reconstruction and Altimetry. Front. Earth Sci. doi: 10.3389/feart.2019.00243

Madsen KS, Hoyer J, Tscherning C, 2007: Near-coastal satellite altimetry: Sea surface height variability in the North Sea–Baltic Sea area. Geophys Res Lett 34:L14601, doi:10.1029/2007GL029965

Magnuszewski A, Kiedrzynska E, Wagner-Lotkowska I, Zalewski M, 2007: Numerical modeling of material fluxes on the floodplain wetland of the Pilica River, Poland. In: Okruszko T., Szatylowicz J., Miroslaw – Swiatek D., Kotowski W., Maltby E. (Eds). Wetlands: Monitoring, Modeling and Management. A.A. Balkema Publishers – Taylor & Francis Group

Majewski W, 2008: Urban flash flood in Gdańsk – 2001; solutions and measures for city flood management. Int J River Basin Manag 5(4):357-367

Makynen MP, Cheng B, Simila M, Vihma T, Hallikainen M, 2007: Comparisons between SAR backscattering coefficient and results of a thermodynamic snow/ice model for the Baltic Sea Land-Fast Sea Ice. IEEE Trans Geosci Rem Sens 45(5):1131-1141

Malmaeus JM, Eklund JM, Karlsson OM, Lindgren D, 2008. The optimal size of dynamic phosphorus models for Baltic coastal areas. Ecol Mod 216:303-315

Mander Ü, Lõhmus K, Teiter S, Uri V, Augustin J, 2008: Gaseous nitrogen and carbon fluxes in riparian alder stands. Boreal Environment Research 13(3):231-241

Mankiewicz-Boczek J, Urbaniak M., Romanowska-Duda Z., Izydorczyk K., 2006: Toxic cyanobacteria strains in lowland dam reservoir (Sulejów Res., central Poland): amplification of MCY genes for detection and identification. Polish Journal of Ecology 53(2):1-11

Mårtensson S, Meier HEM, Pemberton P, Haapala J, 2012: Ridged sea ice characteristics in the Arctic from a coupled multicategory sea ice model. J Geophys Res 117, C00D15, doi:10.1029/2010JC006936.

Martyanov SD, Isaev AV, Ryabchenko VA, 2023: Model estimates of microplastic potential contamination pattern of the eastern Gulf of Finland in 2018. Oceanologia, 65 (1):86-99, January-March 2023

Maslowski W, Walczowski W, 2002: Circulation of the Baltic Sea and its connection to the Pan-Arctic region - a large scale and high-resolution modeling approach. Boreal Environmental Research 7(4):319-325

Mätlik O, Post P, 2008: Synoptic weather types that have caused heavy precipitation in Estonia in the period 1961-2005. Estonian Journal of Engineering 14(3):195-208

Mauder M, Liebethal C, Göckede M, Leps J-P, Beyrich F, Foken T, 2006: Processing and quality control of flux data during LITFASS-2003. Boundary-Layer Meteorology 121(1):67-88

Medvedev I, Kulikov E, 2019: Low-Frequency Baltic Sea Level Spectrum. Front. Earth Sci. doi: 10.3389/feart.2019.00284

Medvedeva N, Zaytseva T, Kuzikova I, 2017: Cellular responses and bioremoval of nonylphenol by the bloom-forming cyanobacterium Planktothrix agardhii 1113. J Mar Syst 171:120-128

Meier HEM, Reckermann M, Langner J, Smith B, Didenkulova I, 2023: The Baltic Earth Assessment Reports, Earth Syst Dynam Preprint esd-2023-4, February 2023

Meier HEM, Barghorn L, Börgel F, Gröger M, Naumov L, Radtke H, 2023: Multidecadal climate variability dominated past trends in the water balance of the Baltic Sea watershed Climate and Atmospheric Science 6:58

Meier HEM, Kniebusch M, Dieterich C, Gröger M, Zorita E, Elmgren R, Myrberg K, Ahola M, Bartosova A, Bonsdorff E, Börgel F, Capell R, Carlén I, Carlund T, Carstensen J, Christensen OB, Dierschke V, Frauen C, Frederiksen M, Gaget E, Galatius A, Haapala J, Halkka A, Hugelius G, Hünicke B, Jaagus J, Jüssi M, Käyhkö J, Kirchner N, Kjellström E, Kulinski K, Lehmann A, Lindström G, May W, Miller P, Mohrholz V, Müller-Karulis B, Pavón-Jordán D, Quante M, Reckermann M, Rutgersson A, Savchuk OP, Stendel M, Tuomi L, Viitasalo M, Weisse R, Zhang W, 2022: Climate Change in the Baltic Sea Region: A Summary. Earth Syst. Dynam., 13:457–593, https://doi.org/10.5194/esd-13-457-2022.

Meier HEM, Dieterich C, Gröger M, Dutheil C, Börgel F, Safonova K, Christensen OB, Kjellström E, 2022: Oceanographic regional climate projections for the Baltic Sea until 2100. Earth Syst. Dynam., 13, 159–199, https://doi.org/10.5194/esd-13-159-2022, 2022

Meier HEM, Dieterich C, Gröger M, 2021: Natural variability is a large source of uncertainty in future projections of hypoxia in the Baltic Sea. Commun Earth Environ 2, 50

Meier HEM, Saraiva S, 2020: Projected Oceanographical Changes in the Baltic Sea. OXFORD RESEARCH ENCYCLOPEDIA (ORE), "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Meier HEM, Börgel F, Frauen C, Radtke H, 2020: Commentary: Lake or Sea? The unknown future of central Baltic Sea herring. Front Ecol Evol 8: 55, doi: 10.3389/fevo.2020.00055

Meier HEM, Eilola K, Almroth-Rosell E, Schimanke S, Kniebusch M, Höglund A, Pemberton P, Liu Y, Väli G, Saraiva S, 2019: Correction to: Disentangling the impact of nutrient load and climate changes on Baltic Sea hypoxia and eutrophication since 1850. Clim Dynam 53: 1167-1169, doi: 10.1007/s00382-018-4483-x

Meier HEM, Edman M, Eilola K, Placke M, Neumann T, Andersson H, Brunnabend S-E, Dieterich C, Frauen C, Friedland R, Gröger M, Gustafsson B, Gustafsson E, Isaev A, Kniebusch M, Kuznetsov I, Müller-Karulis B, Omstedt A, Ryabchenko V, Saraiva, Savchuk, 2019: Assessment of Uncertainties in Scenario Simulations of Biogeochemical Cycles in the Baltic Sea. Front Mar Sci, https://doi.org/10.3389/fmars.2019.00046

Meier HEM, Dieterich C, Eilola K, Höglund A, Radtke H, Saraiva S, Wahlström I, 2019: Future projections of record-breaking sea surface temperature and cyanobacteria bloom events

in the Baltic Sea. Ambio https://doi.org/10.1007/s13280-019-01235-5 Ecosystem Governance in the Baltic Sea

Meier HEM, Eilola K, Almroth-Rosell E, Schimanke S, Kniebusch M, Höglund A, Pemberton P, Saraiva S, 2018: Disentangling the impact of nutrient load and climate changes on Baltic Sea hypoxia and eutrophication since 1850. Clim Dynam 1-22

Meier HEM, Edman M, Eilola K, Placke M, Neumann T, Andersson H, Brunnabend S-E, Dieterich C, Frauen C, Friedland R, Gröger M, Gustafsson B, Gustafsson E, Isaev A, Kniebusch M, Kuznetsov I, Müller-Karulis B, Omstedt A, Ryabchenko V, Saraiva, Savchuk, 2018: Assessment of Euthrophication Abatement Scenarios for the Baltic Sea by Multi-Model Ensemble Simulations. Front Mar Sci, https://doi.org/10.3389/fmars.2018.00440

Meier HEM, Väli G, Naumann M, Eilola K, Frauen C, 2018: Recently accelerated oxygen consumption rates amplify deoxygenation in the Baltic Sea. J Geophys Res 123(5):3227-3240

Meier HEM, Höglund A, Eilola K, Almroth-Rosell E, 2017: Impact of accelerated future global mean sea level rise on hypoxia in the Baltic Sea. Clim Dynam 49(1-2):163-172

Meier HEM, Rutgersson A, Reckermann M, 2014: An Earth System Science Program for the Baltic Sea Region. EOS 95(13):109-110

Meier HEM., Hordoir R, Andersson HC, Dieterich C, Eilola K, Gustafsson BG, Höglund A, Schimanke S, 2012: Modeling the combined impact of changing climate and changing nutrient loads on the Baltic Sea environment in an ensemble of transient simulations for 1961-2099. Clim Dyn 39:2421-2441, doi: 10.1007/s00382-012-1339-y

Meier HEM, Anderson HC, Arheimer B, Blenckner T, Chubarenko B, Donnelly C, Eilola K, Gustafsson B, Hansson A, Havenhand J, Höglund A, Kuznetsow I, MacKenzie B, Müller-Karulis B, 2012: Comparing reconstructed past variations and future projections of the Baltic Sea ecosystem – first results from multi-model ensemble simulations. Environ Res Lett 7(3):034005

Meier HEM, Andersson HC, Eilola K, Gustafsson BG, Kuznetsov I, Müller-Karulis B, Neumann T, Savchuk OP, 2011: Hypoxia in future climates: A model ensemble study for the Baltic Sea. Geophys Res Lett 38:L24608, doi:10.1029/2011GL049929

Meier HEM, 2007: Modeling the pathways and ages of inflowing salt- and freshwater in the Baltic Sea. Estuar Coast Shelf Sci 74(4):610-627

Meier HEM, Kjellström E, Graham LP, 2006: Estimating uncertainties of projected Baltic Sea salinity in the late 21st century. Geophys Res Lett 33:L15705, doi:10.1029/2006GL026488

Meier HEM, Broman B, Kallio H, Kjellström E, 2006: Projections of future surface winds, sea levels, and wind waves in the late 21st century and their application for impact studies of flood prone areas in the Baltic Sea region. Sea Level Change Affecting the Spatial Development of the Baltic Sea Region. Edited by Philipp Schmidt-Thomé. Geological Survey of Finland, Special paper 41:23-43

Meier HEM, 2006: Baltic Sea climate in the late twenty-first century: a dynamical downscaling approach using two global models and two emission scenarios. Clim Dynam 27(1):39-68

Meier HEM, Feistel R, Piechura J, Arneborg L, Burchard H, Fiekas V, Golenko N, Kuzmina N, Mohrholz V, Nohr C, Paka VT, Sellschopp J, Stips A, Zhurbas V, 2006: Ventilation of the Baltic Sea deep water: A brief review of present knowledge from observations and models. Oceanologia 48(S):133-164

Meier HEM, 2005: Modeling the age of Baltic Sea water masses: Quantification and steady state sensitivity experiments. J Geophys Res 110:C02006

Meier HEM, Broman B, Kjellström E, 2004: Simulated sea level in past and future climates of the Baltic Sea. Clim Res 27(1):59-75

Meier HEM, Döscher R, Broman B, Piechura J, 2004: The major Baltic inflow in January 2003 and preconditioning by smaller inflows in summer/autumn 2002: A model study. Oceanologia 46(4):557-579

Meier HEM, Döscher R, Halkka A, 2004: Simulated distributions of Baltic Sea-ice in warming climate and consequences for the winter habitat of the Baltic Ringed Seal. Ambio 33(4):249-256

Meier HEM, Döscher R, Faxén T, 2003: A multiprocessor coupled ice-ocean model for the Baltic Sea: Application to salt inflow. J Geophys Res 108(C8):3273

Meier HEM, Kauker F, 2003: Modeling decadal variability of the Baltic Sea. Part 2: The role of freshwater inflow and large-scale atmospheric circulation for salinity, J Geophys Res 108(C11):3368

Meier HEM, Kauker F, 2003: Sensitivity of the Baltic Sea salinity to the freshwater supply. Clim Res 24:231-242

Meier HEM, 2002: Regional ocean climate simulations with a 3D ice-ocean model for the Baltic Sea. Part 1: Model experiments and results for temperature and salinity. Clim Dynam 19:237-253

Meier HEM, 2002: Regional ocean climate simulations with a 3D ice-ocean model for the Baltic Sea. Part 2: Results for sea-ice. Clim Dynam 19:255-266

Meier HEM, Döscher R, 2002: Simulated water and heat cycles of the Baltic Sea using a 3D coupled atmosphere-ice-ocean model, Boreal Environmental Research 7(4):327-334

Meier HEM, Faxén T, 2002: Performance Analysis of a Multiprocessor Coupled Ice-Ocean Model for the Baltic Sea. J Atmos Ocean Tech 19:114-124

Meier HEM, 2001: On the parameterization of mixing in three-dimensional Baltic Sea models. J Geophys Res 106(C12):30,997-31,016

Meijninger WML, Beyrich F, Lüdi A, Kohsiek W, DeBruin HAR, 2006: Scintillometer-Based Turbulent Fluxes of Sensible and Latent Heat Over a Heterogeneous Land Surface – A Contribution to Litfass-2003. Boundary-Layer Meteorology 121(1):89-110

Meinke I, 2017: On the comparability of knowledge transfer activities – a case study at the German Baltic Sea Coast focusing regional climate services. Adv Sci Res 14:145-151

Meinke I, von Storch H, Feser F, 2004: A validation of the cloud parameterization in the regional model SN-REMO. J Geophys Res 109(D13) DOI: 10.1029/2004JD004520

Melet A, van de Wal R, Amores A, Arns A, Chaigneau A, Dinu I, Haigh ID, Hermans THJ, Lionello P, Marcos M, Meier HEM, Meyssignac B, Palmer MD, Reese R, Simpson MJR, Slangen A, 2023: Sea Level Rise in Europe: Observations and projections State Planet 2023-1-106

Mengelkamp H-T, Beyrich F, Heinemann G, Ament F, Bange J, Berger F, Bösenberg J, Foken T, Hennemuth B, Heret C, Huneke S, Johnsen K-P, Kerschgens M, Kohsiek W, Leps J-P, Liebethal C, Lohse H, Mauder M, Meijninger W, Raasch S, Simmer C, Spieß T, Tittebrand

A, Uhlenbrock J, Zittel P, 2006: Evaporation Over A Heterogeneous Land Surface. Bull Am Meteorol Soc 87(6):775-786

Mengelkamp H-T, Kiely G, Warrach K, 2001: Evaluation of the hydrological components added to an atmospheric land-surface scheme. Theor Appl Climatol 69:199-212

Mengelkamp H-T, Warrach K, Ruhe C, Raschke E, 2001: Simulation of runoff and streamflow on local and regional scales. Meteorol Atmos Phys 76:107-117

Merchel M, Walczoowski W, Rak D, Wieczorek P, 2024: The use of Argo floats as virtual moorings for monitoring the South Baltic Sea. Oceanologia 66(1):99-110

Meywerk J, Quante M, Sievers O, 2005: Radar based remote sensing of cloud liquid water—application of various techniques—a case study. Atmos Res 75(3):167-181

Miao J-F, Chen D, Borne K, 2007: Evaluation and comparison of Noah and Pleim-Xiu land surface models in MM5 using G?TE2001 data: Spatial and temporal variations in near-surface air temperature. J Appl Meteorol Climatol 46(10):1587-1605

Miao J-F, Chen D, Wyser K, Borne K, Lindgren J, Svensson MK, Thorsson S, Achberger C, Almkvist E, 2007: Evaluation of MM5 mesoscale model at local scale for air quality applications over the Swedish west coast: Influence of PBL and LSM parameterizations, Meteorol Atmos Phys, DOI: 10.1007/s00703-007-0267-2

Miao J-F, Chen D, Wyser K, 2006: Modelling Subgrid Scale Dry Deposition Velocity of O3 along the Swedish west coast with MM5-PX Model, Atmos Environ 40:415-429

Michelson DB, Jones CG, Landelius T, Collier CG, Haase G, Heen M, 2005: Down-to-Earth modelling of equivalent surface precipitation using multisource data and radar. The Q J Roy Meteorol Soc 131:1093-1112

Michelson DB, 2004: Systematic correction of precipitation gauge observations using analyzed meteorological variables. J Hydrol 290:161-177

Michelson DB, Sunhede D, 2004: Spurious weather radar echo identification and removal using multisource temperature information. Meteorol Appl 11:1-14

Michelson DB, Landelius T, Jones CG, Collier CG, 2004: Attempts to parameterize cloud water profiles using a neural network. Atmos Sci Let 5(7):141-145

Michelson DB, Koistinen J, 2000: Gauge-radar network adjustment for the Baltic Sea Experiment. Phys Chem Earth (B) 25(10-12):915-920

Michelson DB, Foltescu VL, Häggmark L, Lindgren B, 1999: MESAN Mesoscale analysis of precipitation. Meteorologische Zeitschrift 9(2):85-96

Miettunen, E., Tuomi, L. and Myrberg, K. 2020. Water exchange between the inner and outer archipelago areas of the Finnish Archipelago Sea in the Baltic Sea Ocean Dynamics, https://doi.org/10.1007/s10236-020-01407-y

Moberg A, Jones PD, Lister D, Walther A, Brunet M, Jacobeit J, Saladie O, Sigro J, Aguilar E, Della-Marta P, Luterbacher J, Yiou P, Alexander LV, Chen D, Klein Tank AMG, Alexandersson H, Almarza C, Auer I, Barriendos M, Begert M, Bergström H, Böhm R, Butler J, Caesar J, Drebs A, Founda D, Gerstengarbe F-W, Giusi M, Jönsson T, Maugeri M, Österle H, Pandzic K, Petrakis M, Srnec L, Tolasz R, Tuomenvirta H, Werner PC, Linderholm H, Philipp A, Wanner H, Xoplaki E, 2006: Indices for daily temperature and precipitation extremes in Europe analysed for the period 1901-2000. J Geophys Res 111, D22106, doi:10.1029/2006JD007103

Mölders N, Raabe A, Tetzlaff G, 1996: A comparison of two strategies on land surface heterogeneity used in a mesoscale ß meteorological model. Tellus 48A(5):733-749

Möllmann C, 2019: Effects of Climate Change and Fisheries on the Marine Ecosystem of the Baltic Sea. OXFORD RESEARCH ENCYCLOPEDIA (ORE),"CLIMATE SCIENCE" https://doi.org/10.1093/acrefore/9780190228620.013.682

Moros M, Kotilainen A, Snowball I, Neumann T, Perner K, Meier HEM, Papenmeier S, Kolling H, Leipe T, Sinninghe Damsté JS, Schneider R, 2024: Giant saltwater inflow in AD 1951 triggered Baltic Sea hypoxia BOREAS 53(2)-125-138, April 2024

Moros M, Kotilainen AT, Snowball I, Neumann T, Perner K, Meier HEM, Leipe T, Zillén L, Sinninghe Damsté JS, Schneider R, 2020: Is 'deep-water formation' in the Baltic Sea a key to understanding seabed dynamics and ventilation changes over the past 7,000 years? Quat Int 550:55-65, doi: 10.1016/j.quaint.2020.03.031

Myllykangas J-P, Jilbert T, Jakobs G, Rehder G, Werner J, Hietanen S, 2017: Effects of the 2014 major Baltic inflow on methane and nitrous oxide dynamics in the water column of the central Baltic Sea. Earth Syst Dynam 8:817-826, https://doi.org/10.5194/esd-8-817-2017

Myrberg K, Korpinen S, Uusitalo L, 2019: Physical oceanography sets the scene for the Marine Strategy Framework Directive implementation in the Baltic Sea. Mar Pol 107, 103591

Myrberg K, Lips U, Orlova M, 2017: towards a healthier Gulf of Finland – results of the International Gulf of Finland Year 2014. J Mar Syst 171:1-3

Myrberg K, Andrejev O, Lehmann A, 2010: Dynamic features of successive upwelling events in the Baltic Sea - a numerical case study. Oceanologia 2010, 52(1):77-99.

Myrberg K, Lehmann A, Raudsepp U, Szymelfenig M, Lips I, Lips U, Matciak M, Kowalewski M, Krężel A, Burska D, Szymanek L, Ameryk A, Bielecka L, Bradtke K, Gałkowska A, Gromisz S, Jędrasik J, Kaluźny M, Kozłowski Ł, Krajewska-Sołtys A, Ołdakowski B, Ostrowski M, Zalewski M, Andrejev O, Suomi I, Zhurbas V, Kauppinen O-K, Soosaar E, Laanemets J, Uiboupin R, Talpsepp L, Golenko M, Golenko N, Vahtera E, 2008: Upwelling events, coastal offshore exchange, links to biogeochemical processes - Highlights from the Baltic Sea Science Congress at Rostock University, Germany, 19-22 March 2007. Oceanologia 50(1):95-113

Najafzadeh F, Jankowski M, Giudici, Männikus R, Suursaar Ü, Viška M, Soomere T, 2024: Spatiotemporal variability of wave climate in the Gulf of Riga. Oceanologia 66(1):56-77

Narapusetty B, Mölders N, 2005: Evaluation of Snow Depth and Soil Temperatures Predicted by the Hydro–Thermodynamic Soil–Vegetation Scheme Coupled with the Fifth-Generation Pennsylvania State University–NCAR Mesoscale Model. J Appl Meteorol: 44(12):1827-1843

Naumov L, Meier HEM, Neumann T, 2024: Oxygen dynamics in the Baltic Sea under reduced nutrient inputEGU General Assembly 2024, Vienna, Austria, 14–19 Apr 2024, EGU24-12994, https://doi.org/10.5194/egusphere-egu24-12994, April 2024

Naumov L, Meier HEM, Neumann T, 2023: Dynamics of oxygen sources and sinks in the Baltic Sea under different nutrient inputs Front. Mar. Sci., Sec. Coastal Ocean Processes, 10

Naumov L, Neumann T, Meier HEM, Radtke H, 2023: Elevated oxygen consumption in the central Baltic Sea reduces ventilation XXVIII General Assembly of the International Union of Geodesy and Geophysics (IUGG)

Naumov L, Neumann T, Radtke H, Meier HEM, 2023: Limited ventilation of the central Baltic Sea due to elevated oxygen consumption Front. Mar. Sci., Sec. Coastal Ocean Processes 10

Neset T, Andersson L, 2008: Environmental impact of food production and consumption – from phosporus leakage and resource depletion to recycling. In Formas book: Water and Food, pp. 99-108

Nielsen NW, Hansen Sass B, 2003: A numerical, high-resolution study of the life cycle of the severe storm over Denmark on 3 December 1999. Tellus 55A:338-351

Nijssen B, Bowling LC, Lettenmaier DP, Clark DB, Maayar ME, Essery R, Goers S, Gusev YM, Habets F, van den Hurk B, Jin J, Kahan D, Lohmann D, Mahanama S, Mocko D, Nasonova O, Niu G-Y, Samuelsson P, Shmakin AB, Takata K, Verseghy D, Viterbo P, Xue Y, Yang Z-L, 2003: Simulation of high latitude hydrological processes in the Torne-Kalix basin: PILPS Phase 2(e) - 2: Comparison of model results with observations. Glob Planet Change 38:31-53

Nilsson C, Goyette S, Bärring L, 2007: Relating forest damage data to the wind field from high resolution RCM simulations: Case study of Anatol striking Sweden in December 1999. Glob Planet Change 57:161-176

Nilsson T, Elgered G, 2008: Long-term trends in the atmospheric water vapor content esti-mated from groun d-based GPS data. J Geophys Res 113(D19) DOI: 10.1029/2008JD010110

Ning T, Elgered G, Willen U, Johansson JM, 2013: Evaluation of the atmospheric water vapor content in a regional climate model using ground-based GPS measurements. J Geophys Res - Atmos 118:1-11

Ning T, Elgered G, 2012: Trends in the AtmosphericWater Vapor Content From Ground-Based GPS: The Impact of the Elevation Cutoff Angle. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing 5(3):744-751

Niiranen S, Yletyinen J, Tomczak MM, Blenckner T, Hjerne O, MacKenzie B, Müller-Karulis B, Neumann T, Meier HEM, 2013: Combined effects of global climate change and regional ecosystem drivers on an exploited marine food web. Global Change Biology 19:3327-3342, doi:10.1111/gcb.12309

Niros A, Vihma T, Launiainen J, 2002: Marine meteorological conditions and air-sea exchange processes over the Baltic Sea in 1990s. Geophysica 38:59-87

Noffke A, Sommer S, Dale AW, Hall P, Pfannekuch O, 2016: Benthis nutrient fluxes in the Eastern Gotland Basin (Baltic Sea) with particular focus on microbial mat ecosystems. J Mar Syst 158:1-12

Norbäck Ivarsson L, Andrén T, Moros M, Joest Andersen T, Lönn M, Andrén E, 2019: Baltic Sea Coastal Eutrophication in a Thousand Year Perspective. Front. Environ. Sci. doi: 10.3389/fenvs.2019.00088

Norman, M, Rutgersson A, Sahlee E, 2013: Impact of improved air–sea gas transfer velocity on fluxes and water chemistry in a Baltic Sea model, J Mar Syst 111-112:175-188

Norman M, Parampil S, Rutgersson A, Sahlée E, 2013: Influence of coastal upwelling on the air-sea gas exchange of CO2 in a Baltic Sea Basin, TELLUSB 65

Oesterle H, 2002: Selection of representative stations by means of a cluster analysis for the BAMAR region in the PIDCAP period. Boreal Environment Research 7:301-304

Okulov O, Ohvril H, Kivi R, 2002: Atmospheric precipitable water in Estonia, 1990-2001. Boreal Environment Research 7:291-300

Olli K, Clarke A, Danielsson Å, Aigars J, Conley D, Tamminen T, 2008: Diatom stratigraphy and long-term dissolved silica concentrations in the Baltic Sea. J Mar Syst 73(3-4):284-299

Olsson J, Lindström G, 2008: Evaluation and calibration of operational hydrological ensemble forecasts in Sweden. J Hydrol 350:14-24

Olsson J, Persson M, Jinno K, 2007: Analysis and modeling of solute transport dynamics by breakdown coefficients and random cascades. Water Resources Res 43:W03417, doi: 10.1029/2005WR004631

Oltchev A, Cermak J, Nadezhdina N, Tatarinov F, Tishenko A, Ibrom A, Gravenhorst G, 2002: Transpiration of a mixed forest stand: Field measurements and simulation using SVAT models. Boreal Environmental Research 7(4):389-397

Omstedt A, Dailidienė I, von Storch H, Grønfeldt Winther R, 2024: Philosophical views of Baltic Basin climate and environmental sciences Oceanologia, 66 (4)/2024, 66407

Omstedt A, von Storch H, 2024: The BALTEX/Baltic Earth program: Excursions and returns. Oceanologia 66(1):1-8

Omstedt A, 2023: How to develop an understanding of the marginal sea system by connecting natural and human sciences. Oceanologia, 65 (1):20-29, January-March 2023

Omstedt A, Gustavsson B, 2022a: The ocean: Excursion and return. Filosofia, (67), 25-40, December 2022

Omstedt A, Gustavsson B, 2022: The complex interactions between humans and the marine environment require new efforts to build beauty and harmony. Front. Mar. Sci., 18 August 2022, Sec. Marine Conservation and Sustainability, https://doi.org/10.3389/fmars.2022.913276

Omstedt A, 2018: The Development of Climate Science of the Baltic Sea Region. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Omstedt A, Edman M, Claremar B, Rutgersson A 2015: Modelling the contributions to marine acidification from deposited SOx, NOx, and NHx in the Baltic Sea: Past and present situations. Cont Shelf Res 111:234-249

Omstedt A, Elken J, Lehmann A, Leppäranta M, Meier HEM, Myrberg K, Rutgersson A, 2014: Progress in physical oceanography of the Baltic Sea during the 2003-2014 period. Progress in Oceanography 128:139-171

Omstedt A, Edman M, Claremar B, Frodin P, Gustafsson E, Humborg C, Hägg H, Mörth M, Rutgersson A, Schurgers G, Smith B, Wällstedt T, Yurova A, 2013: Future changes in the Baltic Sea acid_base (pH) and oxygen balances. Tellus B 64:19586, http://dx.doi.org/10.3402/tellusb.v64i0.19586.

Omstedt A, Edman M, Anderson LG, Laudon H. 2010: Factors influencing the acid–base (pH) balance in the Baltic Sea: a sensitivity analysis. Tellus B 62(4):280-295

Omstedt A, Gustafsson E, Wesslander K, 2009: Modelling the uptake and release of carbon dioxide in the Baltic Sea surface water. Cont Shelf Res 29:870-885

Omstedt A, Hansson D, 2006: Erratum to: The Baltic Sea ocean climate system memory and response to changes in the water and heat balance components. Cont Shelf Res 26(14):1685-1687

Omstedt A, Hansson D, 2006: The Baltic Sea ocean climate system memory and response to changes in the water and heat balance components. Cont Shelf Res 26(2):236-251

Omstedt A, Chen Y, Wesslander K, 2005: A comparison between the ERA40 and the SMHI gridded meteorological databases as applied to Baltic Sea modelling. Nordic Hydrology 36(4-5):369-380

Omstedt A, Nohr C, 2004: Calculating the water and heat balances of the Baltic Sea using ocean modelling and available meteorological, hydrological and ocean data. Tellus 56A:400-414

Omstedt A, Elken J, Lehmann A, Piechura J 2004: Knowledge of the Baltic Sea physics gained during the BALTEX and related programmes. Progress in Oceanography 63(1-2):1-28

Omstedt A, Pettersen C, Rodhe J, Winsor P, 2004: Baltic Sea climate: 200yr of data on air temperature, sea level variation, ice cover, and atmospheric circulation, Clim Res 25:205-216

Omstedt A, Axell LB, 2003: Modeling the variations of salinity and temperature in the large Gulfs of the Baltic Sea. Cont Shelf Res 23:265-294

Omstedt A, Chen D, 2001: Influence of atmospheric circulation on the maximum ice extent in the Baltic Sea. J Geophys Res 106(C3):4493-4500

Omstedt A, Gustafsson B, Rodhe J, Walin G, 2000: Use of Baltic Sea modelling to investigate the water cycle and the heat balance in GCM and regional climate models. Clim Res 15:95-108

Omstedt A, Rutgersson A, 2000: Closing the water and heat cycles of the Baltic Sea, Meteorologische Zeitschrift 9(1):59-66

Omstedt A, Axell LB, 1998: Modelling the seasonal, interannual and long-term variations of salinity and temperature in the Baltic proper. Tellus 50A:637-652

Omstedt A, Müller L, Nyberg L, 1997: Interannual, seasonal and regional variations of precipitation and evaporation over the Baltic Sea. Ambio 26:8

Omstedt A, Nyberg L, 1996: Response of Baltic Sea ice to seasonal, interannual forcing and climate change. Tellus 48A(5):644-662

Osadczuk A, Borówka R, Dudzińska-Nowak J, 2024: Two Millennia of Natural and Anthropogenic Changes of the Polish Baltic Coast. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , 'CLIMATE SCIENCE'

Overgaard J, Butts MR, Rosbjerg D, 2007: Improved scenario prediction by using coupled hydrological and atmospheric models. Quantification and Reduction of Predictive Uncertainty for Sustainable Water Resources Management (Proceedings of Symposium HS2004 at IUGG2007, Perugia, July 2007). IAHS Publ. 313

Paavel B, Arst H, Reinart A, 2008: Variability of bio-optical parameters in two North-European large lakes. Hydrobiologia 599(1):201-211

Paka VT, Zhurbas VM, Golenko MN, Korzh AO, Kondrashov AA, Shchuka SA, 2019: Innovative Closely Spaced Profiling and Current Velocity Measurements in the Southern Baltic Sea in 2016–2018 With Special Reference to the Bottom Layer. Front. Earth Sci. doi: 10.3389/feart.2019.00111

Paplinska B, 1999: Case study of wave dependent drag coeficient in the Baltic Sea. Meteorologische Zeitschrift 9(1):67-72

Parard G, Rutgersson A, Parampil SR, Charantonis AA, 2017: The Potential of using Remote Sensing data to estimate Air–Sea CO2 exchange in the Baltic Sea. Earth Syst Dynam 8 Discuss https://doi.org/10.5194/esd-2017-33

Parard G, Charantonis A, Rutgersson A, 2015: Remote sensing the sea surface CO2 of the Baltic Sea using the SOMLO methodology. *Biogeosciences* 12:3369-3384

Passenko J, Lessin G, Erichsen A, Raudsepp U, 2008: Validation of hydrostatic and non-hydrostatic versions of hydrodynamical model MIKE 3 applied for the Baltic Sea. Estonian Journal of Engineering, 14(3):255-270

Pastuszak M, Stålnacke P, Pawlikowski K, Witek Z, 2011: Response of Polish rivers (Vistula, Oder) to reduced pressure from point sources and agriculture during the transition period (1988-2008). J Mar Syst 94:157-173

Peltier W, 1999: Postglacial variations in the level of the sea' implications for climate dynamics and solis-earth geophysics. Geophysics 36(4):603-689

Pemberton P, Nilsson J, Hieronymus M, Meier HEM, 2015: Arctic Ocean water-mass transformation in S-T coordinates. J Phys Oceanogr 45:1025–1050

Pemberton P, Nilsson J, Meier HEM, 2014: Arctic Ocean freshwater composition, pathways and transformations from a passive tracer simulation. Tellus A, 66, 23988, http://dx.doi.org/10.3402/tellusa.v66.23988

Peters G, Fischer B, Andersson T, 2002: Rain observations with a vertically looking Micro Rain Radar (MRR). Boreal Environmental Research 7(4):353-362

Peters O, Hertlein C, Christensen K, 2002: A complexity view of rainfall. Phys Rev Lett 88:1

Piehl S, Friedland R, Heyden B, Leujak W, Neumann T, Schernewski G, 2023: Modeling of water quality indicators in the western Baltic Sea: Seasonal oxygen deficiency Environ Model Assess 28, 429–446. https://doi.org/10.1007/s10666-022-09866-x

Pihlainen S, Zandersen M,Hyytiäinen K, EstrupAndersen H, Bartosova A, Gustafsson B, Jabloun M, McCrackin M, Meier HEM, Olesen JE, Saraiva S, Swaney D, Thodsen H, 2020: Impacts of changing society and climate on nutrient loading to the Baltic Sea. Sci Total Environ 731

Pirazzini R, Vihma T, Granskog MA, Cheng B, 2006: Surface albedo measurements over sea ice in the Baltic Sea during the spring snowmelt period. Ann Glaciol 44:7-14

Pirazzini R, Vihma T, Launiainen J, Tisler P, 2002: Validation of HIRLAM boundary layer structures over the Baltic Sea, Boreal Environment Research 7:211-218

Placke M, Meier HEM, Neumann T, 2021: Sensitivity of the Baltic Sea Overturning Circulation to Long-Term Atmospheric and Hydrological Changes. J Geophys Res: Oceans, 126, e2020JC016079.

Placke M, Meier HEM, Gräwe U, Neumann T, Liu Y, 2018: Long-term mean circulation of the Baltic Sea as represented by various ocean circulation models. Front Mar Sci 5:287

Polyak Y, Shigaeva T, Gubelit Y, Bakina L, Kudryavtseva V, Polyak M, 2017: Sediment microbial activity and its relation to environmental variables along the eastern Gulf of Finland coastline. J Mar Syst 171:101-110

Porz L, Zhang W, Schrum C, 2023: Natural and anthropogenic influences on the development of mud depocenters in the southwestern Baltic Sea. Oceanologia, 65 (1):182-193, January-March 2023

Post P, Aun M, 2024: Changes in cloudiness contribute to changing seasonality in the Baltic Sea region. Oceanologia 66(1):91-98

Post P, Truija V, Tuulik J, 2002: Circulation weather types and their influence on temperature and precipitation in Estonia. Boreal Environment Research 7:281-289

Pushpadas D, Schrum C, Daewel U, 2015: Projected climate change impacts on North Sea and Baltic Sea: CMIP3 and CMIP5 model based scenarios. Biogeosciences Discuss 12:12229-12279

Radtke H, Brunnabend S-E, Gräwe U, Meier HEM, 2020: Investigating interdecadal salinity changes in the Baltic Sea in a 1850–2008 hindcast simulation. Clim Past 16:1617-1642, doi: 10.5194/cp-16-1617-2020

Radtke H, Börgel F, Brunnabend S-E, Eggert A, Kniebusch M, Meier HEM, Neumann D, Neumann T, Placke M, 2019: Validator - a web-based interactive tool for validation of ocean models at oceanographic stations. J Open Source Software 7:18, doi: 10.5334/jors.259

Räisänen J, 2018: Future Climate Change in the Baltic Sea Region and Environmental Impacts. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Räisänen J, Hansson U, Ullerstig A, Döscher R, Graham LP, Jones C, Meier HEM, Samuelsson P, Willén U, 2004: European climate in the late twenty-first century: regional simulations with two driving global models and two forcing scenarios. Clim Dynam 22(1):13-31

Ramacher MOR, Karl M, Bieser J, Jalkanen J-P, Johansson L, 2019: Urban population exposure to NOx emissions from local shipping in three Baltic Sea harbour cities – a generic approach. Atmos Chem Phys 19:9153–9179

Raschke E, Meywerk J, Rockel B, 2002: Has the project BALTEX so far met its original objectives? Boreal Environment Research 7:175-182

Raschke E, Meywerk J, Warrach K, Andrae U, Bergström S, Beyrich F, Bosveld F, Bumke K, Fortelius C, Graham LP, Gryning S-E, Halldin S, Hasse L, Heikinheimo M, Isemer H-J, Jacob D, Jauja I, Karlsson K-G, Keevallik S, Koistinen J, van Lammeren A, Lass U, Launiainen J, Lehmann A, Liljebladh B, Lobmeyr M, Matthäus W, Mengelkamp T, Michelson DB, Napiórkowski J, Omstedt A, Piechura J, Rockel B, Rubel F, Ruprecht E, Smedman A-S, Stigebrandt A, 2001: BALTEX (Baltic Sea Experiment): A European contribution to investigate the energy and water cycle over a large drainage basin. Bulletin of the American Meteorological Society 82(11):2389-2413

Raschke E, Karstens U, Nolte-Holube R, Brandt R, Isemer H-J, Lohmann D, Lobmeyer M, Rockel B, Stuhlmann R, 1998: The Baltic Sea Experiment BALTEX: A brief overview and some selected results of the authors. Surveys in Geophysics 19:1-22

Rautiainen M, Lang M, Mõttus M, Kuusk A, Nilson T, Kuusk J, T. Lükk, 2008: Multi-angular reflectance properties of a hemiboreal forest: an analysis using CHRIS PROBA data. Rem Sens Environ 112(5):2627-2642

Reckermann M, Meier HEM, Kulinski K, Dudzinska-Nowak J, 2024: Baltic Earth: Assessing the Baltic Earth System. Oceanologia 66 (1) V-VI

Reckermann M, Harff J, Meier HEM, Kulinski K, von Storch H: 2023: Earth system changes in marginal seas, Editorial. Oceanologia, 65 (1):V-VIII, January-March 2023

Reckermann M, Omstedt A, Soomere T, Aigars J, Akhtar N, Bełdowska M, Bełdowski J, Cronin T, Czub M, Eero M, Hyytiäinen KP, Jalkanen J-P, Kiessling A, Kjellström E, Kuliński K, Guo Larsén X, McCrackin M, Meier HEM, Oberbeckmann S, Parnell K, Pons-Seres de Brauwer C, Poska A, Saarinen J, Szymczycha B, Undeman E, Wörman A, Zorita E, 2022: Human impacts and their interactions in the Baltic Sea region. Earth Syst. Dynam., 13, 1–80, https://doi.org/10.5194/esd-13-1-2022, 2022

Reckermann M, Meier HEM, Stendel M, 2020: Editorial: The Baltic Sea Region in Transition. Front. Earth Sci., October 2020, https://doi.org/10.3389/feart.2020.589252

Reckermann M, Langner J, Omstedt A, von Storch H, Keevallik S, Schneider B, Arheimer B, Meier HEM, Hünicke B, 2011: BALTEX - an interdisciplinary research network for the Baltic Sea Region. Environmetal Research Letters 6(4)

Reid PC, Beaugrand G, 2012: Global synchrony of an accelerating rise in sea surface temperature. Journal of the Marine Biological Association of the United Kingdom 92(07):1435-1450

Reinart A, Pedusaar T, 2008: Reconstruction of the time series of the underwater light climate in a shallow turbid lake. Aquatic Ecology 42(1):5-15

Reinart A, Reinhold M, 2008: Mapping Surface Temperature in Large Lakes with MODIS data. Rem Sens Environ 112(2):603-611

Richter M, Deppisch S, von Storch H, 2013: Observed Changes in Long-Term Climatic Conditions and Inner-Regional Differences in Urban Regions of the Baltic Sea Coast. Atmos Clim Sci 3(2):165-176

Rimkus E, Stonevicius E, Kilpys J, Maciulyte V, Valiukas D, 2017: Drought identification in the eastern Baltic region using NDVI. Earth Syst Dynam 8:627-637, https://doi.org/10.5194/esd-8-627-2017

Rimkus E, Stankunavichius G, 2002: Snow water equivalent variability and forecast in Lithuania. Boreal Environmental Research 7(4):457-462

Roads J, Raschke E, Rockel B, 2002: BALTEX water and energy budgets in the NCEP/DOE reanalysis II, Boreal Environmental Research 7(4):307-317

Rockel B, Geyer B, 2008: The performance of the regional climate model CLM in different climate regions, based on the example of precipitation, Meterol Z 17(4):487-498

Rockel B, Woth K, 2007: Extremes of near-surface wind speed over Europe and their future changes as estimated from an ensemble of RCM simulations. Climatic Change 81:267-280

Rockel B, Karstens U, 2001: Development of the water budget for three extra-tropical cyclones with intense rainfall over Europe. Meteorol Atmos Phys 77:75-83

Rodhe J, Winsor P, 2002: On the influence of the freshwater supply on the Baltic Sea mean salinity. Tellus 54A:175-186

Rönkä M, Tolvanen H, Lehikoinen E, von Numers M, Rautkari M, 2008: Breeding habitat preferences of 15 bird species on south-western Finnish archipelago coast: The applicability of digital spatial data archives to habitat assessment. Biol Conservat 141:402-416

Rönkä M, Saari L, Lehikoinen E, Suomela J, Häkkilä K, 2005: Environmental changes and population trends of breeding waterfowl in northern Baltic Sea. Annales Zoologici Fennici 42:587-602

Rose T, Crewell S, Löhnert U, Simmer C, 2005: A network suitable microwave radiometer for operational monitoring of the cloudy atmosphere. Atmospheric Research 75(3):183-200

Rosin K, Keevallik S, 2012: Regional variation of hourly and daily totals of global radiation recorded at automatic weather stations in Estonia. Estonian Journal of Engineering 18(1):76-86

Rozwadowska A, 1999: Uncertainty in estimating mean solar radiation fluxes at the Baltic surface from irregular ship-borne meteorological observations. Oceanologia 41(1):25-50

Rozwadowska A, Isemer H-J, 1998: Solar radiation fluxes at the surface of the Baltic Proper. Part 1. Mean annual cycle and influencing factors. Oceanologia 40:307-330

Rozwadowska A, Kusmierczyk-Michulec J, 1998: Finding the aerosol optical thickness over the Baltic Sea – comparison of two methods. Oceanologia 40(3):165-182

Rozwadowska A, 1996: Influence of clouds on the broadband spectral irradiance at the Baltic surface. Oceanologia 38(3):297-315

Rubel F, Brugger K, 2009: 3-hourly quantitative precipitation estimation over Central and Northern Europe from rain gauge and radar data. Atmos Res 94:544-554

Rubel F, Rudolf B, 2001: Global daily precipitation estimates proved over the European Alps. Meteorologische Zeitschrift 10(5):407-418

Rubel F, Hantel M, 2001: BALTEX 1/6-degree daily precipitation climatology 1996-1998. Meteorol Atmos Phys 77:155-166

Rubel F, Hantel M, 2000: BALTEX precipitation analysis: Results from the BRIDGE preparation phase. Phys Chem Earth 26(B):397-401

Rubel F, Hantel M, 1999: Correction of daily rain gauge measurements in the Baltic Sea drainage basin. Nordic Hydrology 30:191-208

Rubel F, 1998: PIDCAP - Ground Truth Precipitation Atlas , Österreichische Beiträge zu Meteorologie und Geophysik, Heft 18, Vienna 1998

Rubel F, 1996: PIDCAP - Quick Look Precipitation Atlas, Österreichische Beiträge zu Meteorologie und Geophysik, Heft 15, Vienna 1996

Ruddiman W, Fuller D, Kutzbach J, Tsedakis P, Kaplan J, Ellis E, Vavrus S, Roberts C, Fyfe R, He F, Lemmen C, Woodbridge J, 2016: Late Holocene climate: Natural or anthropogenic. Reviews of Geophysics 54(1):93-118

Rudolph C, Lehmann A, 2006: A model-measurements comparison of atmosphericforcing and surface fluxes of the Baltic Sea. OCEANOLOGIA 48(3):333-360

Rummukainen M, Bergström S, Persson G, Rodhe J, Tjernström M, 2004: The Swedish Regional Climate Modelling Programme, SWECLIM: A Review. Ambio 33(4):176-182

Rummukainen M, Räisänen J, Bringfelt B, Ullerstig A, Omstedt A, Willén U, Hansson U, Jones C, 2001: A regional climate model for northern Europe: model description and results from the downscaling of two GCM control simulations. Clim Dynam 17:339-359

Ruosteenoja K, Jylhä K, 2022: Projected climate change in Finland during the 21st century calculated from CMIP6 model simulations. Geophysica 56 (1):39–69

Ruosteenoja K, Räisänen J, 2021: Evolution of observed and modelled temperatures in Finland in 1901–2018 and potential dynamical reasons for the differences. DOI: 10.1002/joc.7024, Int J Climatol 41 (5):3374-3390

Ruosteenoja K, Markkanen T, Räisänen J, 2020: Thermal seasons in northern Europe in projected future climate. Int J Clim 40(10):.4444-4462 doi.10.1002/joc.6466, August 2020

Ruosteenoja K, Vihma T, Venäläinen A, 2019: Projected Changes in European and North Atlantic Seasonal Wind Climate Derived from CMIP5 Simulations. JCLI 32:6467-6490

Ruosteenoja K, Jylhä K, Kämäräinen M, 2016: Climate Projections for Finland under the RCP Forcing Scenarios. Geophysica 51(1):17-50

Ruosteenoja K, Räisänen J, Venäläinen A, Kämäräinen M, 2015: Projections for the duration and degree days of the thermal growing season in Europe derived from CMIP5 model output. Int J Climatol 36(8):3039-3055

Ruosteenoja K, Tuomenvirta H, Jylhä K, 2007: GCM-based regional temperature and precipitation change estimates for Europe under four SRES scenarios applying a super-ensemble pattern-scaling method. Clim Change 81(S1):193-208

Ruprecht, E, Kahl T, 2003: Investigation of the atmospheric water budget of the BALTEX area using NCEP/NCAR reanalysis data. Tellus 55A:426-437

Russak V, 1996: Atmospheric aerosol variability in Estonia calculated from solar radiation measurements. Tellus 48A(5):786-791

Rutgersson A, Kjellström E, Haapala J, Stendel M, Danilovich I, Drews M, Jylhä K, Kujala P, Guo Larsén X, Halsnæs K, Lehtonen I, Luomaranta A, Nilsson E, Olsson T, Särkkä J, Tuomi L, Wasmund N, 2022: Natural Hazards and Extreme Events in the Baltic Sea region. Earth Syst. Dynam., 13, 251–301, https://doi.org/10.5194/esd-13-251-2022, 2022

Rutgersson A, Jaagus J, Schenk F, Stendel M, 2014: Observed changes and variability of atmospheric parameters in the Baltic Sea region during the last 200 years. Clim Res 61(2):177-190

Rutgersson A, Norman M, Schneider B, Pettersson H, Sahlee E, 2008: The annual cycle of carbon dioxide and parameters influencing the air-sea carbon exchange in the Baltic Proper. J Mar Syst 74:381-394

Rutgersson A, Carlsson B, Smedman A-S, 2007: Modelling sensible and latent heat fluxes over sea during unstable, very close to neutral conditions. Boundary-Layer Meteorology 123:395-415

Rutgersson A, Omstedt A, Chen Y. 2005: Evaluation of the heat balance components over the Baltic Sea using four gridded meteorological databases and direct observations. Nordic Hydrology 36(4-5):381-396

Rutgersson A, Omstedt A, Räisänen J. 2002: Net precipitation over the Baltic Sea during present and future climate conditions. Clim Res 22:27-39

Rutgersson A, Smedman A-S, Omstedt A, 2001: Measured and simulated latent and sensible heat fluxes at two marine sites in the Baltic Sea. Boundary-Layer Meteorology 99:53-84

Rutgersson A, Smedman A-S, Högström U, 2001: Use of conventional stability parameters during swell. J Geophys Res 106(C11):117-134

Rutgersson A, Bumke K, Clemens M, Lindau R, Foltescu V, Michelson D, Omstedt A, 2001: Precipitation estimates over the Baltic Sea: Present state of the art. Nordic Hydrology 32(4):285-314

Rutgersson A, 1999: A comparison between long term measured and modeled sensible heat and momentum fluxes using a High Resolution Limited Area Model (HIRLAM). Meteorologische Zeitschrift 9(1):31-39

Safonova K, Meier HEM, Gröger M, 2024: Summer heatwaves on the Baltic Sea seabed contribute to oxygen deficiency in shallow areasCommunications Earth & Environment 5:106, February 2024

Samuelsson M, Stigebrandt A, 1996: Main characteristics of the long-term sea level variability in the Baltic Sea. Tellus 48A(5):672-683

Saraiva S, Meier HEM, Andersson H, Höglund A, Dieterich C, Hordoir R, Eilola K, 2019: Uncertainties in projections of the Baltic Sea ecosystem driven by an ensemble of global climate models. Front Earth Sci 6:244

Saraiva S, Meier HEM, Andersson H, Höglund A, Dieterich C, Gröger M, Hordoir R, Eilola K, 2018: Baltic Sea ecosystem response to various nutrient load scenarios in present and future climates. Clim Dynam (2018). https://doi.org/10.1007/s00382-018-4330-0

Saue T, 2016: Directional distribution of chilling winds in Estonia. Int J Biometeorol 60:1165-1173

Savchuk O, 2010: Large-Scale Dynamics of Hypoxia in the Baltic Sea. Earth and Environmental Sciences, The Handbook of Environmental Chemistry 12:1-24, DOI: 10.1007/698_2010_53

Savchuk O, Wulff F, 2009: Long-term modeling of large-scale nutrient cycles in the entire Baltic Sea. Hydrobiologia 629(1):209-224

Savchuk O, Wulff F, Hille S, Humborg C, 2008: The Baltic Sea a century ago — a reconstruction from model simulations, verified by observations. J Mar Syst 74(1-2): 485-494

Schade NH, 2017: Evaluating the atmospheric drivers leading to the December 2014 flood in Schleswig-Holstein, Germany. Earth Syst Dynam 8:405-418, https://doi.org/10.5194/esd-8-405-2017

Schenk F, Zorita E, 2012: Reconstruction of high resolution atmospheric fields for the Northern Europe using analog-upscaling. Clim Past 8:1-23

Schernewski G, Balciunas A, Gräwe D, Gräwe U, Klesse K, Schulz M, Wesnigk S, Fleet D, Haseler M, Möllmann N, Werner S, 2017: Beach macro-litter monitoring on southern Baltic beaches: results, experiences and recommendations. J Coast Conserv pp 1-21 open access, DOI 10.1007/s11852-016-0489-x

Schimanke S, Meier HEM, 2016: Decadal-to-Centennial Variability of Salinity in the Baltic Sea. J Clim 29(20):7173-7188

Schimanke S, Dieterich C, Meier HEM, 2014: An algorithm based on SLP- uctuations to identify major Baltic inflow events. Tellus A 66:23452

Schimanke S, Meier HEM, Kjellström E, Strandberg G, Hordoir R, 2012: The climate in the Baltic Sea region during the last millennium. Clim Past 8:1419–1433, https://doi.org/10.5194/cp-8-1419-2012

Schröder D, Vihma T, Kerber A, Brümmer B, 2003: On the parameterization of turbulent surface fluxes over heterogeneous sea ice surfaces. J Geophys Res 108(C6):3195

Schrum C, 2017: Regional Climate modeling and air-sea coupling, Climate Science: Oxford Research Encyclopedias, DOI:10.1093/acrefore/9780190228620.013.3

Semenova I, Slizhe M, 2020: Synoptic Conditions of Droughts and Dry Winds in the Black Sea Steppe Province Under Recent Decades. Front. Earth Sci. doi: 10.3389/feart.2020.00069

Sepp M, Post P, Jaagus J, 2005: Long-term changes in the frequency of cyclones and their trajectories in Central and Northern Europe. Nordic Hydrology 36(4-5):297-310

Sepp M, Jaagus J, 2002: Frequency of circulation patterns and air temperature variations in Europe. Boreal Environment Research 7:273-279

Shaltout M, Tonbol K, Omstedt A, 2015: Sea-level change and projection for future flooding along the Egyptian Mediterranean coast. Oceanologia 57(4):293-307

Shaltout M, Omstedt A, 2012: Calculating the water and heat balances of the Eastern Mediterranean Basin using ocean modelling and available eteorological, hydrological and ocean data. Oceanologia 54(2):199-232

Shaoxin Chen, Haifei Yang, Mingliang Li, Fei Xing, Benwei Shi, Ya Ping Wang, 2024: Sediment dynamic on the tidal flat sheltered by artificial engineering: A case study on eddies. Estuarine Coast Shelf Sci 296, 108829

She J, Meier HEM, Darecki M, Gorringe P, Huess V, Kouts T, Reissmann JH, Tuomi L, 2020: Baltic Sea operational oceanography - a stimulant for regional earth system research. Front Earth Sci 8:7, doi: 10.3389/feart.2020.00007

Shiyu Wang, Rolf D. Vogt, Qiulian Wang, Pengyu Mei, Xueqiang Lu: How do major ions and fulvic acid affect dissolved inorganic phosphorus adsorption onto suspended particulate matter in estuarine environment? Estuarine Coast Shelf Sci 296, 108625

Shuyu Wu, Jun Liu, Hongxian Chu, Dapeng Bai, Yongcai Feng, Mengting Li, Kuanle Bao, 2024: Identification of three stages of paleochannels and main source analysis beginning in the middle Pleistocene in the western Bohai sea in north China. Estuarine Coast Shelf Sci 296, 108601

Sipelgas L, Raudsepp U, Uiboupin R, 2008: Optical and physical properties of coastal water and their relations to radar (ASAR) data- case study of Muuga Bay in the Gulf of Finland. Estonian Journal of Ecology 57(3)185-197

Skogen MD, Aarflot JM, García-García LM, Ji R, Ruiz-Villarreal M, Almroth-Rosell E, Belgrano A, Benkort D, Daewel U, Edman M, Friedland R, Gao S, Hill-Cruz M, Hjøllo SS, Huret M, Kellner JB, van Leeuwen S, Lopez de Gamiz-Zearra A, Maar M, Mousing EA, Peck MA, Pastor Rollan A, Sailley SF, Saraiva S, Speakman C, Troost T, Yumruktepe VC, 2024: Bridging the gap: integrating models and observations for better ecosystem understanding Mar Ecol Prog Ser 739: 257-268, doi: 10.3354/meps14616

Skogen MD, Eilola K, Hansen JS, Meier HEM, Molchanov MS, Ryabchenko VA, 2014: Eutrophication status of the North Sea, Skagerrak, Kattegat and the Baltic Sea in present and future climates: A model study. J Mar Syst 132:174-184

Služenikina J, Keevallik S, 2013: Winds in the Gulf of Riga from QuickSCAT and ground measurements. Int J Rem Sens 34(16): 5731-5747

Smedman A-S, Gryning S-E, Bumke K, Högström U, Rutgersson A, Batchvarova E, Peters G, Hennemuth B, Tammelin B, Hyvönen R, Omstedt A, Michelson D, Andersson T, Clemens M, 2005: Precipitation and evaporation budgets over the Baltic Proper: Observations and modelling. J Atmos Ocean Sci 10(3):163-191

Soomere T, 2024: Climate Change and Coastal Processes in the Baltic Sea. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , 'CLIMATE SCIENCE'

Soomere T, 2023: Numerical simulations of wave climate in the Baltic Sea: a review. Oceanologia, 65 (1):117-140, January-March 2023

Soomere T, Weisse R, Behrens A. 2012: Wave climate in the Arkona Basin, The Baltic Sea. Ocean Sci 8:287-300

Soomere T, Delpeche N, Viikmäe B, Quak E, Meier HEM, Döös K, 2011: Patterns of current-induced transport in the surface layer of the Gulf of Finland. Boreal Env. Res., 16 (suppl. A), 49-63

Soomere T, Myrberg K, Lepparänta M, Nekrasov A, 2008: The progress in knowledge of physical oceanography of the Gulf of Finland: a review for 1997-2007, OCEANOLOGIA 50(3):287-362

Soomere T, Behrens A, Tuomi L, Nielsen JW, 2008: Wave conditions in the Baltic Proper and in the Gulf of Finland during windstorm Gudrun. Natural Hazards and Earth System Sciences, 8(1):37-46

Soomere T, Keevallik S, 2003: Directional and extreme wind properties in the Gulf of Finland. Estonian Academy of Sciences Engineering 9(1):73-90

Soomere T, Elken J, Kask J, Keevallik S, Kouts T, Metsaveer J, Peterson P, 2003: Fast ferries as a new key forcing factor in Tallinn Bay. Estonian Academy of Sciences Engineering 9(3):220-242

Soomere T, Keevallik S, 2001: Anisotropy of moderate and strong winds in the Baltic Proper. Estonian Academy of Sciences Engineering 50(1):25-49

Sproson D, Sahlée E, 2014: Modelling the impact of Baltic Sea upwelling on the atmospheric boundary layer. Tellus 66A:24041

Stanev E, Pein J, Grashorn S, Zhang Y, Schrum C, 2018: Dynamics of the Baltic Sea Straits via Numerical Simulation of Exchange Flows, *Ocean Modelling 131:40-58*

Stanev E, Schulz-Stellenfleth J, Staneva J, Grayek S, Grashorn S, Behrens A, Koch W, Pein J, 2016: Ocean forecasting for the German Bight: from regional to coastal scales. Ocean Sci 12:1105-1136

Stanev E, Lu X, Grashorn S, 2015: Physical processes in the transition zone between North Sea and Baltic Sea, Numerical simulations and observations.Ocean Modelling 93:56-74

Stattegger K, Leszczynska K, 2023: Rapid sea-level rise during the first phase of the Littorina transgression in the western Baltic Sea. Oceanologia, 65 (1):202-210, January-March 2023

Staudt M, Kallo H, Schmidt-Thomé P, 2004: Modelling a future sea level change scenario affecting the spatial development in the Baltic Sea Region – First results of the SEAREG project. Managing the Baltic Sea. G. Schernewski & N. Löser (eds.): Coastline Reports 2:195 - 199

Stenström-Khalili MI, Håkanson L, 2009: Variations and Spurious Correlations Related to DIN, DIP, TN, TP, DIN/DIP and TN/TP in Lakes, Rivers, and Marine Systems. Open Mar Biol J 3:28-35

Stewart RE, Burford JE, Crawford RW, 1999: On the characteristics of the water cycle of the Mackenzie River Basin. Meteorologische Zeitschrift 9(2):103-110

Stigebrandt A, Liljebladh B, De Brabandere L, Forth M, Granmo Å, Hall P, Hammar J, Hansson D, Kononets M, Magnusson M, Norén F, Rahm L, Treusch AH, Viktorsson L, 2015: An Experiment with Forced Oxygenation of the Deepwater of the Anoxic By Fjord, Western Sweden. Ambio 44:42-54

Stigebrandt A, Lass H-U, Liljebladh B, Alenius P, Piechura J, Hietala R, Beszczynska A, 2002: DIAMIX - an experimental study of diapycnal deepwater mixing in the virtually tideless Baltic Sea. Boreal Environmental Research 7(4):363-369

Stiller B, Beyrich F, Hollaz G, Leps J-P, Richter S, Weisensee U, 2005: Continuous measurements of the energy budget components at a pine forest and at a grassland site. Meteorol Z 14:137-142

Stipa T, Vepsäläinen J, 2002: The fragile climatological niche of the Baltic Sea. Boreal Environmental Research 7(4):335-342

Stoew B, Elgered G, 2004: Characterization of Atmospheric Parameters using a ground based GPS network in North Europe. Journal of the Meteorological Society of Japan 82(1B)587-596

Stoew B, Elgered G, Johansson JM, 2001: An assessment of estimates of integrated water vapor from ground-based GPS-data. Meteorol Atmos Phys 77:99-107

Stoicescu S-T, Hoikkala L, Fleming V, Lips U, 2024: Continuing long-term expansion of low-oxygen conditions in the Eastern Gulf of Finland. Oceanologia 66(1):139-152

Stokowski M, Schneider B, Rehder G, Kulinksi K, 2020: The characteristics of the CO2 system of the Oder River estuary (Baltic Sea). J Mar Syst 211:103418, 2020, 11, November 2020

Suhareva N, Aigars J, Poikāne R, Heredia NA, Tunēns J, Fedorovska A, Baraškova L, 2024: Trophic magnification of Hg, PBDE and PCB in population of European perch with varying feeding ecology in the Baltic Sea. Estuarine Coast Shelf Sci 296, 108727

Suursaar Ü, Jaagus J, Kont A, Rivis R., Tõnisson H, 2008: Field observations on hydrodynamic and coastal geomorphic processes off Harilaid Peninsula (Baltic Sea) in winter and spring 2006-2007. Estuar Coast Shelf Sci 80(1):31-41

Suursaar Ü, Aps R, 2007: Spatio-temporal variations in hydro-physical and -chemical parameters during a major upwelling event off the southern coast of the Gulf of Finland in summer 2006. Oceanologia 49(2):209-228

Suursaar Ü, Kullas T, Otsmann M, Saaremäe I, Kuik J, Merilain M, 2006: Cyclone Gudrun in January 2005 and modelling its hydrodynamic consequences in the Estonian coastal waters. Boreal Env Res 11(2):143-159

Svedäng H, 2023: The Development of Fish Stocks and Fisheries in the Baltic Sea Since the Last Glaciation. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , 'CLIMATE SCIENCE'

Svedén J, Walve J, Larsson U, Elmgren R, 2016: The bloom of nitrogen-fixing cyanobacteria in the northern Baltic Proper stimulates summer production. J Mar Syst 163:102-112

Takle ES, Roads J, Rockel B, Gutowski Jr WJ, Arrit RW, Meinke I, Jones CG, Zadra A, 2007: Transferability intercomparison: An opportunity for new insight on the global water cycle and energy budget, Bull Amer Soc 88:375-384

Tallberg P, Heiskanen A-S, Niemistö J, Hall POJ, Lehtoranta J, 2017: Are benthic fluxes important for the availability of Si in the Gulf of Finland? J Mar Syst 171:89-100

Talpsepp L, 2008: On the influence of the sequence of coastal upwellings and downwellings on the surface water salinity in the Gulf of Finland. Estonian Journal of Engineering, 14(1):29-41

Terskii P, Kuleshov A, Chalov S, Terskaia A, Belyakova P, Karthe D, Pluntke T, 2019: Assessment of Water Balance for Russian Subcatchment of Western Dvina River Using SWAT Model. Front. Earth Sci. doi: 10.3389/feart.2019.00241

Tian T, Boberg F, Christensen OB, Christensen JH, She J, Vihma T, 2013: Resolved complex coastlines and land-sea contrasts in a high-resolution regional climate model: a comparative study using prescribed and modelled SSTs. Tellus A 65:1-19

Tomingas O, 2002: Relationship between atmospheric circulation indices and climate variability in Estonia. Boreal Environmental Research 7(4):463-469

Tõnisson H, Orviku K, Jaagus J, Suursaar Ü, Kont A, Rivis R, 2008: Coastal Damages on Saaremaa Island, Estonia, Caused by the Extreme Storm and Flooding on January 9, 2005. J Coast Res 24(3):602-614

Tooming H, Kadaja J, 1999: Snow cover and surface albedo in Estonia. Meteorol Z 9(2):97-102

Tooming H, 1996: Changes in surface albedo and air temperature at Tartu, Estonia. Tellus 48A(5):722-726

Tuomi L, Kanarik H, Björkqvist J-V, Marjamaa R, Vainio J, Hordoir R, Höglund A, Kahma KK, 2019: Impact of Ice Data Quality and Treatment on Wave Hindcast Statistics in Seasonally Ice-Covered Seas. Front. Earth Sci. doi: 10.3389/feart.2019.00166

Turner DR, Edman M, Gallego-Urrea JA, Claremar B, Hassellöv I-M, Omstedt A, Rutgersson A, 2017:The potential future contribution of shipping to acidification of the Baltic Sea. Ambio, Springer, Open Access, October 2017 https://doi.org/10.1007/s13280-017-0950-6

Ulfsbo A, Kuliński K, Anderson LG, Turner DR, 2015: Modelling organic alkalinity in the Baltic Sea using a Humic-Pitzer approach. Mar Chem 168:18-26

Ungersböck M, Rubel F, Fuchs T, Rudolf B, 2000: Bias correction of global daily rain gauge measurements. Phys Chem Earth 26(5-6):411-414

Uotila J, Launiainen J, Vihma T, 1995: Analysis of the surface drift currents in the Bothnian Sea. Geophysica 31:37-49

Urbaniak M, Zieliński M, Wesołowski W, Zalewski M, 2008: PCBs and heavy metals contamination in bottom sediments from three reservoirs of different catchment characteristics. Polish Journal of Environmental Studies 17(6):941-949

Vajedsamiei J, Warlo N, Meier HEM, Melzner F, 2024: A Bayesian overhaul of thermal tolerance landscape models: Predicting ectotherm lethality buildup and survival amid heatwaves bioRxiv, 2024.01. 23.576827, January 2024

Väli G, Meier HEM, Liblik T, Radtke H, Klingbeil K, Gräwe U, Lips U, 2024: Submesoscale processes in the surface layer of the central Baltic Sea: A high-resolution modelling study. Oceanologia 66(1):78-90

Väli G, Meier HEM, Placke M, Dieterich C, 2019: River runoff forcing for ocean modeling within the Baltic Sea Model Intercomparison Project. Rostock: Leibniz Institute for Baltic Sea Research Warnemünde. (Meereswissenschaftliche Berichte = Marine Science Reports ; 113), doi: 10.12754/msr-2019-0113

Väli G, Zhurbas V, Lips U, Laanemets J, 2017: Submesoscale structures related to upwelling events in the Gulf of Finland, Baltic Sea (numerical experiments). J Mar Syst 171:31-42

Väli G, Meier HEM, Elken J, 2013: Simulated halocline variability in the Baltic Sea and its impact on hypoxia during 1961–2007. J Geophys Res 118:6982-7000, doi:10.1002/2013JC009192

Van Dam B, Lehmann N, Zeller MA, Neumann A, Pröfrock D, Lipka M, Thomas H, Böttcher ME, 2022: Benthic alkalinity fluxes from coastal sediments of the Baltic and North seas: comparing approaches and identifying knowledge gaps. Biogeosciences, 19, 3775–3789

Van den Hurk BJJM, Graham LP, Viterbo P, 2002: Comparison of land surface hydrology in regional climate simulations of the Baltic Sea catchment. J Hydrol 255:169-193

Van Lammeren A, Feijt A, Konings J, van Meijgaard E, van Ulden A, 1999: Combination of ground-based and satellite cloud observations on a routine basis. Meteorol Z 9(2):125-134

Van Meijgaard E, Crewell S, 2005: Comparison of model predicted liquid water path with ground-based measurements during CLIWA-NET. Atmos Res 75(3):201-226

Van Meijgaard E, Andrae U, Rockel B, 2001: Comparison of model predicted cloud parameters and surface radiative fluxes with observations on the 100km scale. Meteorol Atmos-Phys 77:109-130

Van Meijgaard E, Konings JA, Feijt AJ, van Lammeren A, 1999: Comparison of model predicted cloud cover profiles with observations from ground and satellite. Meteorol Z 9(1):21-30

Vassiljev A, Blinova I, Ennet P, 2008: Source apportionment of nutrients in Estonian rivers. Desalination 226:222-230

Venäläinen A, Laapas M, Pirinen P, Horttanainen M, Hyvönen R, Lehtonen I, Junila P, Hou M, Peltola HM, 2017: Estimation of the high-spatial-resolution variability in extreme wind speeds for forestry applications. Earth Syst Dynam 8:529-545, https://doi.org/10.5194/esd-8-529-2017

Venäläinen A, Heikinheimo M, 1997: The spatial variation of long-term mean global radiation in Finland. Int J Climatol 17:415-426

Vihma T, 2014: Effects of Arctic Sea Ice Decline on Weather and Climate: A Review Surv Geophys DOI 10.1007/s10712-014-9284-0

Vihma T, Haapala J, 2009: Erratum to "Geophysics of sea ice in the Baltic Sea: A review". Prog Oceanogr 80:129-148

Vihma T, Haapala J, 2009: Geophysics of sea ice in the Baltic Sea: A review. Prog Oceanogr 80:129-148

Vihma T, Brümmer B, 2002: Observations and modelling of the on-ice and off-ice air flow over the northern Baltic Sea. Boundary-Layer Meteorology 103(1):1-27

Vihma T, 1995: Subgrid parameterization of surface heat and momentum fluxes over polar oceans. J Geophys Res 100(C11):22,625–22,646

Viitasalo M, Bonsdorff E, 2022: Global climate change and the Baltic Sea ecosystem: direct and indirect effects on species, communities and ecosystem functioning, Earth Syst. Dynam., 13:711–747, https://doi.org/10.5194/esd-13-711-2022.

Viitasalo M, 2019: Impacts of Climate Change on the Ecosystem of the Baltic Sea. OXFORD RESEARCH ENCYCLOPEDIA (ORE),"CLIMATE SCIENCE", https://doi.org/10.1093/acrefore/9780190228620.013.692

von Numers M, Korvenpää T, 2007: 20th century vegetation changes in an island archipelago, SW Finland. Ecography 30:789-800 + supplementary data.

von Storch H, 2023: Perceptions of an endangered Baltic Sea. Oceanologia, 65 (1):44-49, January-March 2023

Vuorinen I, 2018: Ecosystems of the Baltic Sea Since the Last Glaciation. OXFORD RESEARCH ENCYCLOPEDIA (ORE) , "CLIMATE SCIENCE" http://climatescience.oxfordre.com/browse?t0=ORE_CLI:REFCLI036

Vuorinen I, Hänninen J, Rajasilta M, Laine P, Eklund J, Montesino-Pouzols F, Corona F, Junker K, Meier HEM, Dippner J, 2015: Scenarion simulations of future salinity and ecological consequences in the Baltic Sea and adjacent North Sea areas - implications for environmental monitoring. Ecological Indicators 50:196-205

Vuorinen P, Saulamo K, Lecklin T, Rahikainen M, Koivisto P, Keinänen M, 2017: Baseline concentrations of biliary PAH metabolites in perch (Perca fluviatilis) in the open Gulf of Finland and in two coastal areas. J Mar Syst 171:134-140

Vuorinen P, Roots O, Keinänen M, 2017: Review of organohalogen toxicants in fish from the Gulf of Finland. J Mar Syst 171:141-150

Wåhlström I, Almroth-Rosell E, Edman M, Olofsson M, Eilola K, Fleming V, Gröger M, Arneborg L, Meier HEM, 2024: Increased nutrient retention and cyanobacterial blooms in a future coastal zone Estuarine, Coastal and Shelf Science.301-108728, June 2024

Wåhlström I, Meier HEM, 2014: A model sensitivity study for the sea–air exchange of methane in the Laptev Sea, Arctic Ocean. Tellus B, 66, 24174, http://dx.doi.org/10.3402/tellus

Wang S, Dieterich C, Döscher R, Höglund A, Hordoir R, Meier HEM, Samuelsson P, Schimanke S, 2015: Development and evaluation of a new regional coupled atmosphere-ocean model in the North Sea and the Baltic Sea. Tellus A, 67, 24284, http://dx.doi.org/10.3402/tellusa.v67.24284

Wang J, Kwok R, Saucier FJ, Hutchings J, Ikeda M, Hibler III W, Haapala J, Coon MD, Meier HEM, Eicken H, Tanaka N, Prentki D, Johnson W, 2003: Working towards improved small-scale sea ice-ocean modeling in the Arctic seas. EOS, Trans. AGU, 84(34), 325, 329-330.

Warrach K, Ruhe C, Mengelkamp H -T, Raschke E, 1998: Runoff simulation in the upper Warta catchment during 1992 and 1993. Phys Chem Earth B 24(1-2):15-18

Wasmund N, Nausch G, Feistel R, 2013: Silicate consumption – an indicator for long term trends in spring diatom development in the Baltic Sea. J Plankton Res 35:393-406

Weigel B, Andersson HC, Meier HEM, Blenckner T, Snickars M, Bonsdorff E, 2015: Long-term progression and drivers of coastal zoobenthos in a changing system. Mar Ecol Progr Series 528:141159, doi: 10.3354/meps11279

Weisse R, Dailidiene I, Hünicke B, Kahma K, Madsen K, Omstedt A, Parnell K, Schöne T, Soomere T, Zhang W, Zorita E, 2021: Sea Level Dynamics and Coastal Erosion in the Baltic Sea Region. Earth Syst. Dynam., 12, 871–898, 2021

Weisse R, Hünicke B, 2019: Baltic Sea Level: Past, Present, and Future. OXFORD RESEARCH ENCYCLOPEDIA (ORE),"CLIMATE SCIENCE", https://doi.org/10.1093/acrefore/9780190228620.013.693

Wesslander K, Hall P, Hjalmarsson S, Lefevre D, Omstedt A, Rutgersson A, Sahlée E, Tengberg A, 2011: Observed carbon dioxide and oxygen dynamics in a Baltic Sea coastal region. J Mar Syst 86:1-9

Wesslander K, Omstedt A, Schneider B, 2010: Inter-annual and seasonal variations in the air–sea CO2 balance in the central Baltic Sea and the Kattegat. Cont Shelf Res 30(14):1511-1521

Westerlund A, Tuomi L, Alenius P, Myrberg K, Miettunen E, Vankevich RE, Hordoir R, 2019: Circulation patterns in the Gulf of Finland from daily to seasonal timescales. Tellus A: Dynamic Meteorology and Oceanography, July 2019

Wetterhall F, Halldin S, Xu C-Y, 2007: Seasonality properties of four statistical-downscaling methods in central Sweden. Theor Appl Climatol 87(1-4):123-137

Wilewska-Bien M, Granhag L, Andersson K, 2016: The nutient load from food waste generated onboard ships in the Baltic Sea. Mar Poll Bull 105 (1):359-366

Willén U, Crewell S, Baltink HK, Sievers O, 2005: Assessing model predicted vertical cloud structure and cloud overlap with radar and lidar ceilometer observations for the Baltex Bridge Campaign of CLIWA-NET. Atmos Res 75(3):227-255

Winsor P, Rohde J, Omstedt A., 2001: Erratum Baltic Sea ocean climate: An analysis of 100 yr of hydrographic data with focus on the freshwater budget. Clim Res 18:5-15

Wojtal A, Bogusz D, Menshutkin V, Izydorczyk K, Frankiewicz P, Wagner-Lotkowska I, Zalewski M, 2008. A study of Daphnia-Leptodora-juvenile Percids interactions using a mathematical model In the biomanipulated Sulejów Reservoir. Ann Limnol – Int J Lim 44(1):7-23

Wolanski E, Boorman LA, Chicharo L, Langlois-Saliou E, Lara R, Plater AJ, Uncles RJ, Zalewski M, 2004: Ecohydrology as a new tool for sustainable management of estuariaes and coastal waters. Wetlads Ecology and Management 12:235-276

Wolski T, Wisniewski B, 2023: Characteristics of seasonal changes of the Baltic Sea extreme sea levels. Oceanologia, 65 (1):151-170, January-March 2023

Xiao Wang, Wenyan Zhang, Xinong Xie, Hui Chen, Beichen Chen, 2024: Holocene sedimentary distribution and morphological characteristics reworked by East Asian monsoon dynamics in the Mekong River shelf, South Vietnam. Estuarine Coast Shelf Sci 296, 108784

Yang X, Sass BH, Elgered G, Johansson JM, Emardson TR, 1999: A comparison of precipitable water vapor estimates by an NWP simulation and GPS observations. J Appl Meteorol 38:941-956

Zalewska T, Wilman, B, Łapeta B, Marosz M, Biernacik D, Wochna A, Saniewski M, Grajewska A, Iwaniak M, 2024: Seawater temperature changes in the southern Baltic Sea (1959–2019) forced by climate change. Oceanologia 66(1):37-55

Zalewski M, Wagner I, 2008: Ecohydrology of urban aquatic ecosystems for healthy cities [In:] Wagner I, Marshalek J, Breil P (eds). 2007. Aquatic Habitats in Sustainable Urban Water Management: Science, Policy and Practice. Taylor and Francis/Balkema: Leiden.

Zalewski M, 2007: Ecohydrology as a Concept and Management Tool, (in:) King C., Ramkinssoon J Clüsener- Godt M. Adeel Z. (eds.) Water and Ecosystems. Managing water in Diverse Ecosystems To Ensure Human Well-being, UNU-INWEH UNESCO MAB, pp. 39-53

Zalewski M, 2006: Ecohydrology an interdisciplinary tool for integrated protection and management of water bodies, Arch Hydrobiol Suppl 16(4 158/4):613-622

Zalewski M, Wagner I, 2005: Ecohydrology – the use of water and ekosystem processes for healthy urban environments. Ecol Hydrobiol 5(4):263-268

Zalewski M, Santiago-Fandino V, Neate J, 2003: Energy, water, plant interactions:"Green Feedback" as a mechanism for environmental management and control through the application of phytotechnology and ecohydrology. Hydrol Proc 17:2753-2767

Zalewski M, 2002: Ecohydrology - the use of ecological and hydrological processes for sustainable management of water resources. Hydrol Sci J 47(5):825-834

Zalewski M, 2000: Ecohydrology - the scientific background to use ecosystem properties as management tools toward sustainability of water resources. Guest Editorial, Ecol Engin 16:1-8

Zandersen M, Hyytiäinen K, Meier HEM, Tomczak MT, Bauer B, Haapasaari PE, Olesen JE, Gustafsson BG, Refsgaard JC, Fridell E, Pihlainen S, Le Tissier MDA, Kosenius A-K, Van Vuuren DP, 2019: Shared socio-economic pathways extended for the Baltic Sea: exploring long-term environmental problems. Reg Environ Change 19:1073-1086, doi: 10.1007/s10113-018-1453-0

Zhang Jinpeng, Pingyuan Li, Michal Tomczak, Yufeng Wang, Huayang Gan, Guanqiang Cai, Qiao Xue, Jianmei Hou, Na Yi, Bing Wang, 2024: Diatom record the holocene marine facies deposition history in inner bay of Pearl River Estuary, South China. Estuarine Coast Shelf Sci 296, 108766

Zhang J, Tomczak M, Witkowski A, Zhen X, Li C, 2023: A fossil diatom-based reconstruction of sea-level changes for the Late Pleistocene and Holocene period in the NW South China Sea. Oceanologia, 65 (1):211-229, January-March 2023

Zhang YJ, Stanev EV, Grashorn S, 2016: Unstructured-grid model for the North Sea and Baltic Sea: Validation against observations. Ocean Modelling 97:91-108

Zhang Y, Rockel B, Stuhlmann R, Hollmann R, Karstens U, 2000: REMO cloud modeling: Improvements and validation with ISCCP DX data. J Appl Meteorol 40:389-408

Zhurbas VM, Laanemets J, Kuzmina NP, Muraviev S, Elken J, 2008: Direct estimates of the lateral eddy diffusivity in the Gulf of Finland of the Baltic Sea (based on the results of numerical experiments with an eddy resolving model). Oceanology 48(2):175-181

Ziverts A, Jauja I, 1999: Mathematical model of hydrological processes METQ98 and its applications. Nordic Hydrology 30(2):109-128

Zobkov M, Esiukova E, 2016: Microplastics in Baltic bottom sediments: Quantification procedures and first results. Mar Pollut Bull 114(2):724-732

05. Reports and Proceedings

Achberger, Ch. and D. Chen, 2006: Trend of extreme precipitation in Sweden and Norway during 1961-2004. Research Report C72, ISSN 1400-383X, Earth Sciences Centre, Göteborg University, Gothenburg, Sweden, 58 pp.

Ahola M, Bergström L, Blomqvist M, Boedeker D, Börgel F, Carlén I, Carlund T, Carstensen J, Aagaard Christensen JP, Futter M, Gaget E, Glibko O, Gröger M, Dierschke V, Dieterich C, Frederiksen M, Galatius A, Gustafsson B, Frauen C, Halkka A, Halling C, Holfort J, Huss M, Hyytiäinen K, Jürgens K, Jüssi M, Kallasvuo M, Kankainen M, Karlsson AML, Karlsson M, Kiessling A, Kjellström E, Kontautas A, Krause-Jensen D, Kuliński K, Kuningas S, Käyhkö J, Laht J, Laine A, Lange G, Lappalainen A, Laurila T, Lehtiniemi M, Lerche K-O, Lips U, Martin G, McCrackin M, Meier HEM, Mustamäki N, Müller-Karulis B, Naddafi R, Niskanen L, Nyström Sandman A, Olsson J, Pavón-Jordán D, Pålsson J, Rantanen M, Razinkovas-Baziukas A, Rehder G, Reißmann JH, Reutgård M, Ross S, Rutgersson A, Saarinen J, Saks L, Savchuk O, Sofiev M, Spich K, Särkkä J, Viitasalo M, Jouni V, Virtasalo J, Wallin I, Weisse R, Wikner J, Zhang W, Zorita E, Östman Ö, 2021: Climate change in the Baltic Sea : 2021 fact sheet. HELCOM Fact Sheet, ISSN: 0357-2994, https://oulurepo.oulu.fi/handle/10024/30958

Almroth E., M. Skogen, I. Sehested Hansen, T. Stipa, and S. Niiranen. (2008) The year 2006-An eutrophication status report of the North Sea, Skagerrak, Kattegat and the Baltic Sea. A demonstration project, SMHI Oceanography No 91.

Arheimer, B., and Andersson, L., 2007: Catchment modeling for quantification of Swedish nutrient transport to the sea and effects of measures. IWRM, 2006, Bochum, Germany,In: IAHS Publication 317. Eds. Schumann, A. and Pahlow, M. Reducing the Vulnerability of Societies to Water Related Risks at the Basin Scale. pp. 84-89.

Arheimer, B., Lindström, G., Pers, C., Rosberg, J. & Strömqvist, J. (2008) Development and test of a new Swedish water quality model for small-scale and large-scale applications. XXV Nordic Hydrological Conference, Reykjavik, August 11-13, 2008. NHP Report No. 50, pp. 483-492.

Axell, L., 2001: Turbulent Mixing in the Ocean with Application to Baltic Sea Modeling. Doctoral Thesis, Department of Oceanography, Earth Sciences Center, Göteborg University, Göteborg, Sweden.

Bennartz, R., A. Thoss, A. Dybroe and D. B. Michelson, 1999: Nowcasting SAF precipitation analysis from AMSU. SMHI Visiting Scientist Report.

Bergström, S., 1996: Hydrological modelling of arctic river runoff. WCRP-93, WMO/TD No. 739.

Bergström, S., B. Carlsson and L.P. Graham, 1996: Modelling the water balance of the Baltic Basin - preliminary results. XIX Nordic Hydrological Conference - Akureyri, August 1996.

Bremicker, M., K. Ludwig, and K. G. Richter, 1996: Wasserhaushaltsmodelle für das Weser- und Ostsee-Einzugsgebiet. Mitteilungen des Institutes für Wasserwirtschaft, Hydrologie und landwirtschaftlichen Wasserbau der Universität Hannover, Heft 83.

Beyrich, F. : 2000 ´LITFASS-98 Experiment 25.05.1998 - 30.06.1998 Experiment-Report`, Offenbach: Arbeitsergebnisse der Abteilung Forschung des DWD, Nr. 62, 78 pp.

Beyrich, F.: 2001 ´Zusammenfassung der Ergebnisse aus dem Projekt LITFASS Lindenberg Inhomogeneous Terrain - Fluxes between Atmosphere and Surface a long-term Study`, Offenbach: Arbeitsergebnisse der Abteilung Forschung des DWD, Nr. 70, 70 pp.

Beyrich, F.: 2004 ´Verdunstung über einer heterogenen Landoberfläche: Das LITFASS - 2003 Experiment - Ein Bericht´, Offenbach: Arbeitsergebnisse der Abteilung Forschung des DWD Nr. 79, 100 pp.

Beyrich, F.; W. Adam, 2004: A note on the use of CEOP reference site data for comparison with the output of global models: The Lindenberg example. *CEOP-Newsletter* 6, 6-7Bumke, K. and M. Clemens, 2001: Precipitation measurements over sea, WCRP-115 edited by G. White, pp. 303-306.

Beyrich, F., W. K. Adam, 2007: Site and Data Report for Lindenberg Reference Site in CEOP - Phase I, Berichte des Deutschen Wetterdienstes, Vol 230, 55 pp.

Beyrich, F., S.H. Richter; U. Weisensee; H.-J. Herzog; H.A.R. de Bruin; W.M.L. Meijninger: 2002 ´Fluxes over a heterogeneous land surface: Results and perspectives of the LITFASS program`, Proc. 15th Symp. on Boundary Layers and Turbulence, Wageningen July 15-19, Boston: AMS, pp. 653-654.

Beyrich, F.; J. Bange; F.H. Berger; Chr. Bernhofer; Th. Foken; B. Hennemuth; S. Huneke; W. Kohsiek; J.-P. Leps; H. Lohse; A. Lüdi; M. Mauder; W. Meijninger; H.-Th. Mengelkamp: 2004 ´Energy and water vapor fluxes over a heterogeneous land surface: The LITFASS-2003 experiment`, AMS: 16th Symp. on Boundary Layers and Turbulence, Portland (ME) 9-14 August 2004, paper 9.1 (Extended Abstract on CD).

Borenäs, K. and J. Piechura, 2007: Baltic variability and exchanges. CLIVAR Exchanges Newsletter, No 40 (Vol. 12, No 1).

Bülow K, Dieterich C, Elizalde A, Gröger M, Heinrich H, Hüttl-Kabus S, Klein B, Mayer B, Meier HEM, Mikolajewicz U, Narayan N, Pohlmann T, Rosenhagen G, Schimanke S, Sein D, Su J, 2014: Comparison of three regional coupled ocean atmosphere models for the North Sea under today's and future climate conditions. KLIWAS27/2014, KLIWAS Zeitschriftenreihe, Bundesanstalt für Gewässerkunde, Koblenz, 265 pp

Carlsson, B., 1999: Some facts about the Torne and Kalix River Basins. SMHI Report, Hydrology, No. 80.

Carlsson, B., 2000: The BALTEX Hydrological Data Centre (BALTEX-HDC), 2000, Status Report.

Carlsson, B., 2001: The BALTEX Hydrological Data Centre (BALTEX-HDC), 2001, Status Report.

Chen, D. and A. Walther, Moberg, A., P.D. Jones, J. Jacobeit, D. Lister, 2006: Trend atlas of the EMULATE indices. Research Report C73, Earth Sciences Centre, G?teborg University, Gothenburg, Sweden, 797 pp.

Danish National Committee for BALTEX, BALTEX - Danish profile, 1994.

Dieterich C, Schimanke S, Wang S, Väli G, Liu Y, Hordoir R, Axell L, Höglund A, Meier HEM, 2013: Evaluation of the SMHI coupled atmosphere-ice-ocean model RCA4-NEMO. Report Oceanography (RO) No.47, SMHI, Norrköping, Sweden

Dölling, I., K. Brückner, J. Riedl, and H. Seltmann, 1995: Übersicht über die Rostocker Radarmessungen während PIDCAP, Deutscher Wetterdienst, Hohenpeißenberg.

Dybroe, A., K. -G. Karlsson, M. Moberg, and A. Thoss, 2000: Scientific report for the SAFNWC midterm report, SMHI Scientific Report for the SAFNWC MTR.

Dybroe, A., K.-G. Karlsson, and A. Thoss, 2001: The AVHRR cloud mask scheme of the SAFNWC. SMHI Publication.

Edberg K, Fransson A-L, Elander I, 2017: Island and the Pipeline: Gotland Facing the Geopolitical Power of Nord Stream. Örebro University , 2017. , 61 p. Series Centrum för urbana och regionala studiers skriftserie: rapport, ISSN 1653-1531 ; 71

Eilola K, Meier HEM, Almroth E, Höglund A, 2019: Transports and budgets of oxygen and phosphorus in the Baltic Sea. Rapport Oceanografi No.96, SMHI, Norrköping, Sweden, 39

Eilola K, Hansen J, Meier HEM, Molchanov MS, Ryabchenko VA, Skogen MD, 2013: Eutrophication Status Report of the North Sea, Skagerrak, Kattegat and the Baltic Sea: A model study. Rapport Oceanografi No.115, SMHI, Norrköping, Sweden

Eilola K, Hansen J, Meier HEM, Myrberg K, Ryabchenko VK, Skogen MD, 2011: Eutrophication Status Report of the North Sea, Skagerrak, Kattegat and the Baltic Sea: A model study. Rapport Oceanografi No.110, SMHI, Norrköping, Sweden

Eilola K, Gustafson BG, Hordoir R, Höglund A, Kuznetsov I, Meier HEM, Neumann T, Savchuk OP, 2010: Quality assessment of state-of-the-art coupled physicalbiogeochemical models in hindcast simulations 1970-2005. Rapport Oceanografi No.101, SMHI, Norrköping, Sweden, 21 pp

Eriksson, L. E. B., Borenäs, K., Dierking, W., Pemberton, P., Griph, S., and Lindh, H. (2008) "Improved sea-ice monitoring for the Baltic Sea: Project overview and first results", Proceedings of The 2nd International Workshop on Advances in SAR Oceanography from Envisat and ERS Missions, Frascati, Italy, 21-25 January, 2008.

Graham, L. P., 2000: Large scale hydrologic modeling in the Baltic Basin. Doctoral Thesis, Division of Hydraulic Engineering, Dept. of Civil and Environmental Engineering, Royal Institute of Technology, Stockholm.

Gryning, S. -E. and E. Batchvarova, 2002: Mixing heights in urban areas: Will 'rural' parameterisations work? In: Extended abstracts. COST workshop on boundary layer parameterisations, Zürich (CH), 24-25 May 2001. Rotach, M. W.; Fisher, B.; Piringer, M. (eds.), pp. 99-109.

Gryning, S. -E. and E. Batchvarova, 2002: Marine atmospheric boundary-layer height estimated from NWP model output. In: Proceedings. 8. International conference on harmonisation within atmospheric dispersion modelling for regulatory purposes, Sofia (BG), 14-17 Oct 2002. Batchvarova, E., Syrakov, D. (eds.), pp. 200-204.

Gustafsson BG, Savchuk OP, Meier HEM, 2011: Load scenarios for ECOSUPPORT. Technical Report No.4, Baltic Nest Institute, Stockholm, Sweden. ISSN 978-9186655-03-7

Gustafsson BG, Meier HEM, Savchuk OP, Eilola K, Axell L, Almroth E, 2008: Simulation of some engineering measures aiming at reducing effects from eutrophication of the Baltic Sea. Report Series C82, Earth Sciences Centre, Göteborg University, Sweden, 59 pp

Haapala, J, P. Alenius, J. Dubra, S.V. Klyachkin, R. Kõuts, M. Leppäranta, A. Omstedt, L. Pakstys, N. Schmelzer, C. Schrum, A. Seinä, K. Strübing, M. Sztobryn and E. Zaharchenko, 1996: IDA - Ice data bank for Baltic Sea climate studies. Report series in geophysics No 35

Hagedorn, R., 2000: Ein gekoppeltes Atmosphäre-Ozean-Modell für das Ostsee-Einzugsgebiet. Berichte aus dem Institut für Meereskunde an der Christian-Albrechts-Universität, Kiel Nr. 314.

Höglund A, Meier HEM, Broman B, Kriezi E, 2009: Validation and correction of regionalised ERA-40 wind fields over the Baltic Sea using the Rossby Centre Atmosphere model RCA3.0. Rapport Oceanografi No.97, SMHI, Norrköping, Sweden, 29 pp

Hordoir R, An BW, Haapala J, Meier HEM, 2013: A 3D ocean modelling configuration for Baltic and North Sea exchange analysis. Report Oceanography (RO) No.48, SMHI, Norrköping, Sweden

Isemer, H.-J., 1995: Runoff data in the Baltic Sea catchment area. GKSS Publication 95.

Isemer, H.-J., 1996: Weather patterns and selected precipitation records in the PIDCAP period August to November 1995. GKSS Publication 96/E/55.

Jauja, I., 1999: Probable maximum flood generated by snowmelt. Promocijas darba kopsavilkums.

Johnsen, K.-P., 2003: GPS atmosphere sounding project - An innovative approach for the recovery of atmospheric parameters WP 232 - validation of regional models - BALTEX - and contributions to WP 341 and WP 344. GKSS Publication 2003/34.

Kabisch N, Stadler J, Korn H, Bonn A, 2016: Nature-based solutions to climate change mitigation and adaptation in urban areas. BfN-Skripten 446.

Karlsson, K.-G., 1996: Cloud classifications with the SCANDIA model. SMHI RMK Report, No. 67.

Karlsson, K.-G., 2001: A NOAA AVHRR cloud climatology over Scandinavia covering the period 1991-2000. SMHI RMK Report, No. 97.

Kauker, F. and M. Meier, 2002: Reconstructing atmospheric surface data for the period 1902-1998 to force a coupled ocean-sea ice model of the Baltic Sea. SMHI RMK Report No. 99.

Keevallik, S., 1997: Spring snow cover and temperature in the region of the Baltic Sea. IAMAS/IAPSO Joint Assemblies, Melbourne, 1-9 July 1997, Abstract, pp. IM5-20.

Launiainen, J., 1999: BALTEX-BASIS data report 1998. International BALTEX Secretariat, Publication No. 14.

Löptien U, Meier HEM, 2011: Simulated distribution of colored dissolved organic matter in the Baltic Sea. Rapport Oceanografi No.109, SMHI, Norrköping, Sweden

Loth, B., 1996: Snow cover modelling in AGCM. BALTEX Snow Workshop / Nov 96.

Majewski W., 2006: Measures and solutions for flood management, Local case – Flash flood in Gdańsk 2001, Keynote lecture, Proceedings 3rd International Symposium on Flood Defence, Taylor & Francis/Balkema 2006.

Majewski W., 2007: New Approach to flood management. XXVII International School o Hydraulics, pp.149 – 158, Fig. 6, Refrences 8. Institute of Geophysics Warsaw

Majewski W., 2009: Anthropogenic changes in the region of Gdańsk Żuławy (Vistula delta) resulting from climatic effects, Conference Proceedings Szczecin, May 2009, pp. 78-79, Fig.4., References 1.

Meier HEM, Eilola K, Gustafsson BG, Kuznetsov I, Neumann T, Savchuk OP, 2012: Uncertainty assessment of projected ecological quality indicators in future climate. Rapport Oceanografi No.112, SMHI, Norrköping, Sweden

Meier HEM, Andersson H, Dieterich C, Eilola K, Gustafsson BG, Höglund A, Hordoir R, Schimanke S, 2011: Transient scenario simulations for the Baltic Sea Region during the 21st century. Rapport Oceanografi No.108 SMHI, Norrköping, Sweden

Meier HEM, Eilola K, 2010: Future projections of ecological patterns in the Baltic Sea. Rapport Oceanografi No.107 SMHI, Norrköping, Sweden

Meier HEM, Andréasson J, Broman B, Graham LP, Kjellström E, Persson G, Viehhauser M, 2006: Climate change scenario simulations of wind, sea level, and river discharge in the Baltic Sea and Lake Mälaren region - a dynamical downscaling approach from global to local scales. Reports Meteorology and Climatology No.109, SMHI, Norrköping, Sweden, 52 pp

Meier, H.E.M. and F. Kauker, 2002: Simulating Baltic Sea climate for the period 1902-1998 with the Rossby Centre coupled ice-ocean model. SMHI RO Report No. 30.

Meier, H. E. M., 2001: The first Rossby Centre regional climate scenario for the Baltic Sea using a 3D coupled ice-ocean. SMHI RMK Report No. 95.

Meier, H. E. M., 2000: The use of the k-e turbulence model within the Rossby Centre regional ocean climate model: parameterization development and results. SMHI RO Report No. 28.

Meier, H. E. M., 1999: First results of multi-year simulations using a 3D Baltic Sea model. SMHI RO Report No. 27.

Meier, H. E. M., R. Döscher, A. C. Coward, J. Nycander and K. Döös, 1999: RCO - Rossby Centre regional ocean climate model: model description (version 1.0) and first results from the hindcast period 1992/93. SMHI RO Report No. 26.

Meier, H. E. M., 1996: Ein regionales Modell der westlichen Ostsee mit offenen Randbedingungen und Datenassimilation. Berichte aus dem Institut für Meereskunde an der Christian-Albrechts-Universität, Kiel, Nr. 284.

Mengelkamp, H. -T., K. Warrach and E. Raschke, 1997: A land surface scheme for atmospheric and hydrologic models: SEWAB (Surface Energy and Water Balance). GKSS Publication 97/E/69.

Michelson, D. B., T. Anderson, J. Koistinen, C. Collier, J. Riedl, J. Szturc, U. Gjertsen, A. Nielsen, and S. Overgaard, 2000: BALTEX Radar Data Centre products and their methodologies. SMHI RMK Report No. 90, 76pp.

Nolte-Holube, R., U. Karstens, D. Lohmann, B. Rockel, and R. Stuhlmann, 1996: Regional scale atmospheric and hydrological modelling: Results and validation for the Baltic Sea and Weser catchments. GKSS Publication 96/E/54.

Omstedt, A., 1999: Forecasting ice on lakes, estuaries and shelf seas. NATO ASI Series, Vol. I 56.

Omstedt, A. and L. Nyberg, 1995: A coupled ice-ocean model supporting winter navigation in the Baltic Sea - Part 2 Thermodynamics and meteorological coupling. SMHI RO Report No. 21.

Omstedt, A., L. Nyberg and M. Leppäranta, 1994: A coupled ice-ocean model supporting winter navigation in the Baltic Sea - Part 1. SMHI RO Report No. 17.

Persson, G., Bärring, L., Kjellström, E., Strandberg, G. and Rummukainen, M., 2007: Climate indices for vulnerability assessments. SMHI Reports Meteorology and Climatology RMK No 111. Swedish Meteorological and Hydrological Institute, Norrköping, Sweden, 64 pp.

Pettersson, O., 1998: Hydrological Status Report March 1998, Status Report, SMHI, Norrköping.

Räisänen, J., U. Hansson, A. Ullerstig, R. Döscher, L. P. Graham, C. Jones, M. Meier, P. Samuelsson, U. Willén, 2003: GCM driven simulations of recent and future climate with the Rossby Centre coupled atmosphere - Baltic Sea regional climate model RCAO. SMHI RMK Report, No. 101.

Rosberg, J. and Arheimer, B., 2007: Modelling climate change impact on phosphorus load in Swedish rivers. In: Water Quality and Sediment Behaviour of the Future: Predictions for the 21st Century, IAHS Publ.314:90-97.

Rubel, F., 2001: Aktuelle österreichische Beiträge zum World Climate Research Programme (WCRP). ÖGM Bulletin, 2001/1, 13-19.

Ruosteenoja K, Kämäräinen M, Aniskevicia S, Pirinen P, Mäkelä A, 2016: Development of climate change scenarios for Latvia for the period until year 2100. FMI publicationsReport 2016:7

Rutgersson, A., 2000: Water and heat exchange processes over the Baltic Sea. Acta Universitatis Upsaliensis. Comprehensive Summaries of Uppsala Dissertations from the Faculty of Science and Technology 530. Uppsala.

Schneider B, Matthäus W, 2021: Kurt Buch (1881 - 1967) - The historic development ofthe physico-chemical basics of the marine CO2 system. IOW Marine Science Reports, No 117 2021, ISSN 2195-657X, pp 103

Uotila, J., T. Vihma and J. Launiainen, 1997: Marine meteorological radiosoundings in the northern Baltic Sea from R/V Aranda in 1994-95. Meri Report Series of the Finnish Institute of Marine Research, No. 30, 57p.

Väli G, Meier HEM, Elken J, 2012: Simulated variations of the Baltic Sea halocline during 1961-2007. Report Oceanography, No.44, SMHI, Norrköping, Sweden

Wozniak, Z., 1997: Reliability of precipitation measurements under extreme conditions. Acta Universitatis Wratislaviensis No. 1950, Prace Instytutu Geograficznego, Seria C. Meteorologia i Klimatologia, Vol. IV, p. 171-178.

06. Presentations at BALTEX Study Conferences

6.1 First Study Conference on BALTEX, Visby, Sweden, 1995

Page numbers refer to the Conference Proceedings

Total number of presentations: 103

Alenius P: Sea surface temperature variability in the Northern Baltic Sea with reference to normal period 1961 – 1990. pp 48

Andrejev O: Reconstruction of hydrophysical fields of the Baltic Sea using a four-dimensional data analysis. pp49

Babkin VL: River discharge from the territory of the Russian Federation to the Baltic Sea. pp 50

Becker A: Climate impact studies in eastern Brandenburg the semi-distributed hydrological model EGMO and proposal for nested drainage basin studies (HYNEST). pp 51

Bengtsson L: The hydrological cycle in climate and weather prediction. pp 1

Bennartz R: Rainfall and cloud identification over oceans and coastal regions using a combination of infrared and microwave satellite data. pp 55

Berger FH: Radiation budget components inferred from satellite data for the Baltic Sea. pp 56

Bergström S: River runoff to the Baltic Sea – Natural variability and human impact. pp 53

Bumke K: Estimates of evaporation at the Baltic Sea from 1992/93. pp 57

Calanca P: Atmospheric diagnostics from assimilation products of a high resolution limited area model. pp 59

Carlsson B: Modelling the Baltic river. pp 60

Chubarenko B: Principal model of water exchange process between Vistula Bay and Baltic Sea area. pp 62

Dera J: Solar radiation energy absorbed by Baltic waters: The example of the Gdansk basin. pp 63

Dowell MD.: Microspectral analysis, seasonal and geographic variability, in the Baltic proper. pp 64

Drusch M: Microwave surface emissitivity retrieval in the BALTEX area. pp 65

Dubicki A: Pattern of long-term changes in precipitation amount in the area of Poland as an effect of anthropogenic factors. pp 67

Dubra J: Long-term trends of outflow of the coastal waters from the lagoon Kurschiu Marios. pp 69

Eiola K: On the development of a thermocline in spring at temperatures below the temperature of maximum density with application to the Baltic Sea. pp 70

Elo A-R: The heat balance components calculated with the probe temperature model fort wo lakes. pp 71

Evreeva S: Variability of sea surface characteristics in estuaries under the conditions of natural climate variations, river runoff and ice effects. pp 73

Fashchevsky BV: Hydrological and hydrochemical changes in the Baltic Sea basin rivers and lakes in Belarus. pp 74

Zhuravin S: Trends in hydrological regime changes in the Baltic Sea basin on the territory of Russia. pp 183

6.2 Second Study Conference on BALTEX, Rügen, Germany, 1998
Page numbers refer to the Conference Proceedings.
Total number of presentations: 139

Alestalo M: BRIDGE - The central modelling and observational period in BALTEX - actual planning status. pp 3

Andersson T, Michelson DB: Vertical reflectivity profiles to detect radar mirages (ANAPROP) pp 4

Andrejev O, Engqvist A: Water exchange of the Stockholm archipelago on ecologically relevant time scales. A cascade modeling approach. pp. 6

Arpe K: The hydrological cycle in the ECHAM4 model over the BALTEX area. pp 7

Axell L: Deep-sea mixing in the Baltic Sea in relation to wind energy. pp 8

Beckmann B-R,Tetzlaff G: Water budget of the Darss-Zingst Bodden chain. pp 10

Belenko S, Chichkova E, Kondratiev A: Retrieval of clouds water content using satellite data in summer 1997 in eastern Europe. pp 12

Bengtsson L: Snow in the Baltic Basin - Diagnostics and modelling. pp 13

Bengtsson L: Climate modelling of the Baltic Sea catchment area. pp 14

Bennartz R, Michelson DB: Correlation of precipitation estimates derived from the Gotland weather radar and the DMSP SSM/I during BALTEX PIDCAP. pp 15

Bergström S: Internal model validation - A necessity for confidence in water balance parameterisation. pp 16

Beszczynska-Möller A: Transport of dense, near-bottom waters in the Stolpe Channel and related meso-scale hydrodynamic structures. pp 18

Beyrich F, Neisser J: The meteorological observatory in Lindenberg and the LITFASS facilities - A core base for a BALTEX cloud/precipitation - land surface processes experiment. pp 20

Blomgren S, Larson M, Hanson H: Numerical modelling of the wave climate in the southern Baltic Sea. pp 21

Bösenberg J, Hirsch L, Peters G, Wulfmeyer V: Remote sensing of turbulent water vapor transport using differential absorption lidar and radio-acoustic sounding. pp 23

Brandt R, Karstens U, Raschke E, Rockel B: Validation of REMO using synoptical observations. pp 25

Buchholz W, Dybkowska-Stefek D: Assessment of flood risk in the lower Odra river region. pp 27

Bumke K, Karger U, Hasse L: Evaporation over the Baltic Sea. pp 28

Butina M, Melnikova G, Stikute I: Potential impact of climate change on the hydrological regime in Latvia. pp 30

Chomka M: Some aspects of mass transfer modelling in various coastal zones. pp 32

Zhang Y, Macke A, Raschke E: Sensibility of cirrus radiative forcing to cloud microphysical and optical properties. pp 247

Zhang Z, Haapala J, Leppäranta M, Stipa T, Sandven S: Sea ice drift in the Bay of Bothnia Comparison of results from GPS drifters, ERS-2 and Radarsat SAR and a numerical model. pp 249

Ziverts A, Jauja I: Simulation of actual evapotranspiration and runoff from the Daugava river basin. pp 250

6.3 Third Study Conference on BALTEX, Åland, Finland, 2001
Page numbers refer to the Conference Proceedings.
Total number of presentations: 134

Andersson T, Peters G, Fischer B: Radar profiles of rain rate, reflectivity and fall speed of precipitation particles. pp 1

Andræ U, Fortelius C: Reanalysis of BRIDGE. An estimation of the water and heat budgets over the Baltic Sea drainage basin through variational data assimilation. pp 3

Andrejev O, Myrberg K, Alenius P, Lundberg PA: Mean circulation, exchange, retention and renewal time of water masses in the Gulf of Finland. pp 5

Ansper I, Fortelius C: Verification of HIRLAM marine wind forecasts in the Baltic. pp 7

Arpe K, Hagemann S: Trends in the hydrological cycle over the Baltex area, simulated and observed. pp 9

Batchvarova E, Gryning S-E: The height of the marine boundary layer over the Baltic Sea: Measurements and modelling. pp 11

Bennartz R, Thoss A, Dybbroe A, Michelson DB: Precipitation classification and analysis from remote sensing observations. pp 13

Berger FH, Halecker T: Surface radiant and energy flux densities inferred from satellite data for different BALTEX periods. pp 15

Bergström S, Graham LP, Gardelin M: Climate change impacts on the hydrology of the Baltic Basin. pp 17

Bergström S, Lindström G: A Swedish perspective on recent wet years in the Baltic basin. pp 19

Beyrich F, deBruin H, Lohse H, Richter SH, Weisensee U: Energy and water cycle components over a heterogeneous land surface: Status and results from LITFASS. pp 21

Bouma HR, Gradinarsky LP: Climate monitoring using GPS: Statistical analysis in space and time of the estimated amounts of water vapor from the Swedish and Finnish Permanent GPS Networks. pp 23

Bowling L, Lettenmaier D, Graham LP: Land-surface parameterizations in northern regions: preliminary results from the PILPS 2e model intercomparison. pp 25

Brümmer B, Müller G, Schröder D, Vihma T: Winter field campaigns BASIS/BALTIMOS over the Bay of Bothnia. pp 27

Butina M, Nikolushkina I: The flood events on the Daugava River. pp 29

Carlsson B: The BALTEX Hydrological Data Centre. pp 31

6.4 Fourth Study Conference on BALTEX, Bornholm, Denmark, 2004

*Proceedings of the 4th Study Conference

Page numbers refer to the Conference Proceedings.
Total number of presentations: 106

Arheimer B: Modelling riverine nutrient input to the Baltic Sea and water quality measures in Sweden. pp 186

Arpe K, Hagemann S, Jacob D, Roeckner E: The realism of the ECHAM5.2 models to simulate the hydrological cycle in the Arctic and Baltic area. pp 153

Bange J, Wilken S, Spieß T, Zittel P: Calibrated surface temperature maps of heterogeneous terrain derived from Helipod and German Air Force Tornado Flights during LITFASS-2003. pp 39

Bange J, Spieß T, Zittel P: Improved method for the determination of turbulent surface fluxes using low-level flights and inverse modelling. pp 67

Bennartz R, Walther A: Precipitation type statistics in the Baltic region derived from three years of BALTEX radar data centre (BRDC) data. pp 9

Bergström S, Andréasson J, Graham LP, Lindström G: Use of hydrological data and climate scenarios for climate change detection in the Baltic Basin. pp 158

Beyrich F, Bange J, Bernhofer C, de Bruin HAR, Foken T, Hennemuth B, Huneke S, Kohsiek W, Leps J-P, Lohse H, Lüdi A, Mauder M, Meijninger W, Queck R, Zittel P: LITFASS-2003 - A land surface / atmosphere interaction experiment: energy and water vapour fluxes at different scales. pp 37

Beyrich F, Adam WK: CEOP reference site data from Lindenberg: Be aware of terrain heterogeneity! pp 71

Bissolli P, Nitsche H, Rosenow W: Clouds and water vapor over the Baltic Sea 2001-2003: First results of the new preliminary DWD climate monitoring programme. pp 23

Brümmer B, Kirchgäßner A, Müller G: Characteristics of the atmospheric boundary layer over Baltic Sea ice. pp 43

Carlsson B: The BALTEX Hydrological Data Centre, BHDC. pp 73

Chekan R, Korneev V: Hydrological and hydrochemical surface water monitoring network in the Republic of Belarus. pp 75

Christensen JH: Prediction of regional scenarios and uncertainties for defining european climate change risks and effects PRUDENCE – An extract with a Northern European focus. pp 160

Christensen OB, Guldberg A, Jørgensen AT, Hohansen RM, Grum M, Linde J, Christensen JH: Extreme precipitation on a sub-daily scale simulated with an RCM: Present day and future climate. pp 169

Clemens M, Bumke K: Measured drop size distributions: Differences over land and sea. pp 48

Döscher R, Meier HEM: Simulated sea surface temperature and sea ice in different climates of the Baltic. pp 162

Drusch M: Assimilation of new land surface data sets in weather prediction models. pp 11

6.5 Fifth Study Conference on BALTEX, Saaremaa, Estonia, 2007

*Proceedings of the 5th Study Conference

Page numbers refer to the Conference Proceedings.
Total number of presentations: 122

Trafimava L, Chekan R, Danilovich I, Nekrasava L: Formation of a Hydrological Regime of Rivers and Reservoirs during the past Decades in the Belarus Part of the Baltic Sea Basin. pp 169

Tsarev V, Sharatunova M: Some Features of Bottom Water Spreading into the Baltic Sea. pp 148

Volchak A, Parfomuk S: Variations in the West Dvina River Annual Runoff. pp 171

Volchak A, Luksha V, Volchek AI: Transformation of the Water Run-off of the Baltic Sea Basin Rivers in the Territory of Belarus. pp 187

Volchek A, Kuzavko Y, Kostiuk D, Volchek AN: A Distributed Automated System of Flood Registration and Prediction. pp 189

von Storch H, Bhend J: How do we know that Human Influence is Changing the Climate in the Baltic Sea Region? pp 27

Vuglinsky V: Current and Expected Changes in River Ice Regimes within the Russian Part of Baltic Drainage Basin. pp 43

Wang K, Leppäranta M, Gästgifvars M, Vainio J: The Drift and Dispersion of an Oil Spill in the Baltic Sea Ice Season: Observation of the Runner 4 Case. pp 97

Wesslander K, Anderson LG, Hall P, Hjalmarsson S, Lefevre D, Omstedt A, Rutgersson A, Sahleé E, Tengberg A: Pilot Study of the Spring Air-Sea CO2 Exchange in a Baltic Sea Coastal Region. pp 208

Wibig J: Water Vapour Transport in Europe. pp 129

Zhurbas V, Laanemets J: Estimation of Lateral Mixing in the Gulf of Finland Caused by Upwelling/Downwelling Squirts. pp 150

Ziverts A, Bakute A, Apsite E: The Application of the Conceptual Model Metq2006 for the River Iecava Basin as Case Study in Latvia. pp 74

Zorita E, Wagner S, Gonzalez-Rouco F, von Storch H: Climate Simulations of the Past Millennium with the Global Model ECHO-G: Results for the Baltex Area. pp 46

Zülicke C: Model for the Air-Sea Gas Exchange through Film-Covered Water. pp 110

Zīlniece I, Valdmane T, Kraule I: Participation of Ventspils City Council in the Project „Coastal Zone Management in the Baltic Sea Region / COASTMAN". pp 194

6.6 Sixth Study Conference on BALTEX, Międzyzdroje, Island of Wolin, Poland, 14 to 18 June 2010

*Proceedings of the 6th Study Conference
Page numbers refer to the Conference Proceedings.
Total number of presentations: 97

Andersson HC. and the ECOSUPPORT consortium: ECOSUPPORT (Advanced tool for scenarios of the Baltic Sea ECOsystem to SUPPORT decision making): Project approach and selected results. pp 5

Andrejev O, Sokolov A, Soomere T, Myrberg K, Viikmäe B: Using multi-year circulation simulations to identify areas of reduced risk for marine transport. Application to the Gulf of Finland. pp 135

6.7 Seventh Study Conference on BALTEX, Borgholm, Island of Öland, Sweden, 10 to 14 June 2013

*Proceedings of the 7th Study Conference
Page numbers refer to the Conference Proceedings.
Total number of presentations: 110

Wang S, Dieterich C, Döscher R: Simulation of present and future climate variability over the Baltic Sea area with the new SMHI atmosphere-ocean-ice coupled model RCA4_NEMO. pp 101

Wasmund N, Nausch G, Feistel R: Influence of temperature on the long-term spring diatom development in the Baltic Sea. pp 172

Westerlund A, Roiha P, Tuomi L, Siiriä S, Boman H: Forecasting sea level variations in the northern Baltic Sea with a three-dimensional hydrodynamical model. pp 41

Wibig J: Precipitation extremes projections for Poland for the period 2021-2050. pp 124

Wolski T, Wiśniewski B: Maximum sea levels on the selected of the Baltic Sea coast. pp 126

Zapadka T, Stoltmann D, Paszkuta M, Sokólski M: Surface radiation budget of the Baltic Sea from satellite data. pp 42

Zhuravlev S: Estimation of the peak outflow from natural lakes within the Neva River basin. pp 128

Zieliński M: Singularities of turbulent sensible heat flux in urban areas – The Łódź case study. pp 44

Zorita E, Hünicke B: Detecting acceleration in long time series of Baltic Sea level. pp 103

07. Presentations at Baltic Earth Conferences

7.1 First Conference on Baltic Earth, Nida, Curonian Spit, Lithuania, 13 to 17 June 2016

*Proceedings of the 1st Baltic Earth Conference
Page numbers refer to the Conference Proceedings.
Total number of presentations: 134

Alber R, Post P, Sepp M: Relationships of cloud-to-ground lightning with circulation weather types over Estonia 2005–2014. pp 69

Aun M, Eerme K, Aun M, Ansko I: Changes in UV radiation in Estonia based on measurements and model calculations of UVA and UVB doses since 1955 at Tõravere. pp 135

Binczewska A, Astemann P, Moros M, Sławińska J: Benthic foraminifera record environmental and climate changes in the Bornholm Basin (Baltic Sea) over the last 6 millennia pp 11

Boesch DF, Johnson Z, Li M: Rehabilitating the Chesapeake Bay (USA) ecosystem under changing climate pp 1

Borzenkova I, Borisova O, Sapelko T: The temporal and spatial distribution of the cool episode about 8.2 ka ago in the Baltic Sea basin and surrounding areas. pp 165

Bulskaya I, Kolbas A, Dyliuk D, Kuuzmitsky A: The impact of the urban surface runoff on the receiving river: the case study of Brest, Belarus. pp 189

Buschmann F, Erm A, Rebane J, Listak M: Investigating sediment resuspension using combined optical and acoustic methods. pp 111

Čerkasova N, Kataržytė M, Umgiesser G, Baltranaitė E: Curonian Lagoon bathing water quality assessment trough microbial pollution modelling. pp 190

Česnulevičius A, Bautrėnas A, Bevainis L, Morkūnaitė R, Ovodas D: Intensity of Eolian processes on Lithuanian part of Curonian Spit. pp 112

Zhuravlev S, Kurochkina L, Shalashina T: Detection of trends in the magnitude of spring floods for the eastern parts of the Gulf of Finland basin. pp 108

7.2 Second Conference on Baltic Earth, Helsingør, Denmark, 11 to 15 June 2018

*Proceedings of the 2nd Baltic Earth Conference
Page numbers refer to the Conference Proceedings.
Total number of presentations: 126

Arneborg L: Analysis of factors influencing the salinity of Baltic inflows and how these may change with sea level rise. pp 13

Asadchaya M, Kvach A, Zhuravovich L: Impact of «small» climate-forming factors in the formation of the hydrological regime of the basins of the Zapadnaya Dvina and Neman Rivers in Belarus. pp 147

Baltaci H: Temporal behavior of atmospheric circulation types in Marmara Region (NW Turkey). pp 149

Bange H: The Eckernförde Bay (SW Baltic Sea) through the ages: Time-series measurements at the Boknis Eck time-series station. pp 175

Bathmann U: Baltic Earth in context with other European and national Earth system programmes. pp 1

Baužienė I, Edvardsson J, Lamentowicz M, Taminskas J, Šimanauskienė R: Hydroclimatic dynamics and peatland land cover response over last centuries – A multi-proxy reconstruction from hydro-meteorological data, peat stratigraphy, testate amoebas and remotely sense approaches. pp 177

Bhatt BC, Sorteberg A: Evaluation of the ERA-20C data using surface observations in the Hardanger Glacier, Norway. pp 197

Börgel F, Frauen C, Schimanke S, Meier HEM: The impact of the Atlantic Multidecadal Oscillation on the salinity variability of the Baltic Sea. pp 14

Brunnabend S-E, Gräwe U, Lange X, Meier HEM: Water exchange through the Danish Straits with global mean sea level rise. pp 16

Brunnabend S-E, Placke M, Frauen C, Börgel F, Schmidt M, Neumann T, Meier HEM: Evaluation of a regional climate system model for the Baltic Sea region. pp 198

Brusendorff A-C: International science collaboration for ocean climate. pp 3

Cahill B, Fischer J, Graewe U, Burchard H, Wilkin J, Warner J, Ganju N: The Impact of Water Constituents on Radiative Heat Transfer in the Open Ocean and Shelf Seas. pp 35

Christensen OB, Larsen MAD, Drews M, Stendel M, Christensen JH: Do we know more about climate change than during PRUDENCE? pp 200

Cieślikiewicz W, Cupiał A: Reliability of HIPOCAS wind wave hindcast data for the southern Baltic Sea. pp 71

Cuxart J: Update on GEWEX in its 30th anniversary. pp 4

7.3 Third Conference on Baltic Earth, originally Hel, Poland, 1 to 5 June 2020 due to the SARS-CoV-2 pandemic this conference was held online from 2 to 3 June 2020

*Proceedings of the 3rd Baltic Earth Conference
Page numbers refer to the Conference Proceedings.
Total number of presentations: 110

7.4 4th Conference on Baltic Earth, Hel, Poland, 30 May to 3 June 2022
*Proceedings of the 4th Baltic Earth Conference

Page numbers refer to the Conference Proceedings.
Total number of presentations: 116

Werna W, Forster S: Microphytobenthos in sandy permeable sediment of the Southern Baltic Sea: laboratory study of potential primary production and respiration quantified with oxygen microelectrodes. pp 71

Wolski T, Wiśniewski B: Theoretical maximum and minimum sea levels and the probability of their occurrence at selected Baltic tide gauge stations. pp 115

Yu Changxun, Turner S, Högfors-Rönnholm E, Huotari S, Lopez-Fernandez M, Shchukarev M, Boily J-F, Österholm P, Virtasalo J, Dopson M, Åström ME: Manganese biogeochemistry in boreal estuaries affected by acidic and metal-rich drainage: the roles of bacterial communities and water chemistry. pp 72

Zalewska T, Saniewski M, Grajewska A, Łapeta B, Wochna A, Marosz M, Biernacik D: Physico-chemical changes in the southern Baltic Sea in 1959 – 2019 forced by the climate change. pp 180

Zapadka T, Stoltmann D: Radiation budget at the Baltic Sea surface in 2010-2021. pp 127

Žeižis V, Zandersons V, Grebešs E: Erosion assessment using remote sensing data: A case study of Latvian coastline. pp 117

Zeller MA, Roeser P, Kallmeyer J, Rooze J, Clemens D, Schönke M, Feldens P, Sommer S, Böttcher ME: Anthropogenic impact of mobile ground-contact fishing on the biogeochemistry of the Baltic Sea surface sediments Part II: Long-term effects on iron sulfide authigenesis. pp 147

Zhang Jinpeng, Du Wenbo, Dudzinska-Nowak J, Miluch J, Dong Shiming, Wang Yufeng, Cheng Yuan, Qian Xing: Modeling Regional Sedimentary Sequence in the North of South China Sea in Late Pleistocene. pp 198

Zhang Wenyan, Miluch J, Denker C: Reconstruction of morphological evolution of the Baltic Sea and the North Sea during the Last Glacial Cycle. pp 199

7.5 5th Conference on Baltic Earth, Jurmala, Latvia, 13 May to 17 May 2024

*Proceedings of the 4th Baltic Earth Conference

Page numbers refer to the Conference Proceedings.
Total number of presentations: 107

Andriule A, Vasiliauskiene E, Rapalis P, Šaparnis L: Air pollution and it's dispersion in the city of Klaipeda: the influence of meteorological conditions of the Baltic Sea Region. pp 86

Arlinghaus P, Pogorzelski D, Zhang W: Comparing Baltic and North Sea coastline using remote sensing and machine learning. pp 154

Barghorn L, Meier HEM, Radtke H, Neumann T: Exceptional warming and intensified oxygen depletion due to warm saltwater inflows in the western Baltic Sea. pp 120

Bitinas A, Damušytė A: Reconstruction of post-glacial eustatic sea level in the south-eastern Baltic Sea. pp 52

Börgel F, Gröger M, Meier HEM, Dutheil C, Radtke H, Borchert L: The impact of Atlantic Multidecadal Variability on Baltic Sea temperatures limited to winter. pp 122

Bojan M: Scour effect in Łeba, Poland – Impact of submerged breakwaters. pp 53

Wranne Willstrand A, Biddle LC, Monforte C, Rollo C: Continuous Baltic Sea Glider Observatories; two case studies. pp 152

Zandersons V, Žeizis V: Coastal erosion assessment for Latvia using Sentinel-2 data. pp 84

Zhang Jinpeng, Pingyuan Li, Shiming Dong, Yufeng Wang: Comparative studies on the river mouth system development and sedimentary environment changes between Pearl River and Oder River. pp 167

Zielinski O: Changing Marine Lightscapes. pp 119

08. Presentations at BALTEX Workshops and Special Conferences

8.1 Hydological, Oceanic and Atmospheric Experience from BALTEX: Extended Abstracts of the XXII EGS Assembly, Vienna, Austria, 21 – 25 April 1997

Page numbers refer to the IBAS Publication No. 8.
Total number of presentations: 20

Berger F, Mecklenburg S, Jagdhuhn S: Spatial variability of surface radiation budget components inferred from satellite data. pp 63

Drusch M, Simmer C: Soil moisture retrieval with SSM/I over vegetated areas in Central Europe. pp 77

Gäng H: Development and validation of new SSM/I-algorithms for the retrieval of vertically interated cloud liquid water over the Baltic Sea. pp 83

Grossklaus M, Hasse L, Jacob D: Validation of numerical precipitation forecasts by in situ measurements at sea. pp 127

Hagedorn R, Lehmann A, Jacob D: First steps towards a fully coupled Baltic Sea ocean – Atmosphere model. pp 145

Hamelbeck F, Hantel M: Sub-gridscale properties of atmospheric budgets for BALTEX. pp 101

Hansen Sass B, Yang X: PIDCAP re-analysis and atmospheric budget diagnosis. pp 135

Jacob D, Windelbrand M, Podzun R, Graham LP: Investigations of the water and energy cycle of the Baltic Sea using global and regional climate models. pp 107

Kucharski F, Rhodin A, Callies U, Eppel DP: Variational soil moisture analysis by assimilating screen-level atmospheric observations. pp 161

Launiainen J, Brummer B, Hakansson B, Roth R, Smedman A-S, Vihma T: Balitc Air-Sea-Ice Study (BALTEX-Basis) – A field experiment off BALTEX. pp 25

Lehmann A: On the water, heat and salt balance of the Baltic Sea. pp 151

Lindau R, Ruprecht E, Jung T: Atmospheric fields over the Baltic Sea derived from SSM/I observations. pp 55

Lobmeyer M: An application of a large-scale conceptual hydroloical model over the Elbe region. pp 47

Lohmann D, Liang X, Wood EF, Lettenmaier DP: Results oft he PILPS-2c exmeriment. pp 29

Loth B, Bengtsson L, Jacob D: Snow cover simulations in the BALTEX area using a global climate model. pp 117

Mengelkamp H-T, Warrach K: SEWAB – a SVAT model with variable infiltration capacity and explicit runoff formulation. pp 39

Müller G, Simmer C: Detection and determination of rainfall with the SSM/I over Germany. pp 69

Omstedt A, Gustafsson N: Atmosphere-Ice-Ocean coupling in the BALTEX re-analysis period 1986/87. pp 143

Rozwadowska A, Isemer H-J: Solar radiation fluxes at the Baltic Sea surface. pp 17

Rutgersson A, Smedman A: Can similarity theory be applied in the Atmospheric Marine Boundary Layer over the Baltic Sea? pp 7

8.2 Parameterization of surface fluxes, atmospheric planetary boundary layer and ocean mixed layer turbulence for BRIDGE – What can we learn from field experiments? Workshop at Abisco, Lapland, Sweden, 20 - 21 June 1999

Page numbers refer to the IBAS Publication No. 17.
Total number of presentations: 17

Bergström S, Lindström G, Gardelin M: A hydrological perspective on unification of meteorological and hydrological Land surface models. pp 61

Beyrich F: What can we learn from LITFASS with regard to the modelling of surface fluxes? pp 49

Bringfelt B: Validation of HIRLAM with NOPEX data. pp 43

Gryning S-E, Batchvarova E: Pre-processing of heat hlux and incoming solar radiation at the northern site during winter conditions. pp 37

Hagedorn R: Coupling of regional atmosphere and ocean models. pp 103

Jacob D: Modelling activities and model intercomparisons within BALTEX. pp 22

Kowalczak P: Shaping on the basis climatic and hydrologic parameters on the Polish Lowland on the basis of the Warta River basin. pp 76

Launiainen J, Bin Cheng, Uotila J, Vihma T: BASIS and air-ice coupling. pp 87

Meier HEM: Choices for parameterization of turbulence in the Baltic Sea. pp 108

Mölders N: On the effects of lakes on energy and water fluxes. pp 80

Rutgersson A: Observation and modelling of surface fluxes over sea. pp 92

Savijärvi H: WINTEX and modelling of winter conditions: What can we learn from field experiments? pp 34

Smedman A-s, Högström U: What have we learned from field experiments? pp 13

Tjernström M: Parameterization of soil and surface processes in SWECLIM. pp 55

Van den Hurk B: Runoff simulations for BALTEX. pp 68

Woetman Nielsen N: A comparison of three different turbulence parameterization scheme for HIRLAM. pp 29

Woetman Nielsen N: Revision of the surface flux parameterization over sea in HIRLAM: Theory and results. pp 100

8.3 2nd International Lund RCM Workshop 21st Century Challenges in Regional-scale Climate Modelling, Lund University, Sweden 4 - 8 May 2009

Page numbers refer to the IBAS Publication No. 41.
Total number of presentations: 171

Ahrens B, Dobler A: Regional climate change impact studies in the upper Danube and upper Brahmaputra river basin using CLM projections. pp 249

Alexandru A, de Elia R, Laprise R, Separovic L, Biner S: Influence of large-scale nudging on regional climate model simulations. pp 1

Anders I, von Storch H, Rockel B: Verification of simulated near surface wind speeds by a multi model ensemble with focus on coastal regions. pp 181

Anderson CJ: Examining the relative roles of precipitation and cloud material feedback generated by convective parameterization. pp 91

Anderson CJ, Gutowski, Jr WJ, Hoerling MP, Quan Xiaowei: Use of regional climate models in regional attribution studies. pp 227

Apsīte E, Bakute A, Kurpniece L: River runoff projection of future climate in Latvia. pp 251

Arritt RW: The North American Regional Climate Change Assessment Program (NARCCAP): Status and results. pp 183

Arritt RW: MRED: Multi-RCM ensemble downscaling of global seasonal forecasts. pp 184

Artale V, Calmanti S, Carillo A, Dell'Aquila A, Herrmann M, Pisacane G, Ruti PM, Sannino G, Struglia MV, Giorgi F, Bi X, Pal JS, Rauscher S: An atmosphere-ocean regional climate model for the Mediterranean area: Present climate and XXI scenario simulations. pp 185

Bärring L, Pawlak W, Fortuniak K, Andrae U: High-resolution simulation of a windstorm event to assess sampling characteristics of windstorm measures based on observations. pp 155

Berg P, Haerter J, Thejll P, Piani C, Hagemann J, Christensen JH: Moisture availability and the relationship between daily precipitation intensity and surface temperature. pp 121

Bergström S, Andréasson J, Graham LP: Application of regional-scale climate modelling to account for climate change in the hydrological design for dam safety in Sweden. pp 253

Bethers U, Seņņikovs J, Timuhins A: A comparison of RCM performance for the eastern Baltic region and the application of the histogram equalization method for RCM outputs. pp 3

Bica B, Sperka S, Steinacker R: MesoClim – A mesoscale alpine climatology using VERA-reanalyses. pp 157

8.4 International Conference on Climate Change The environmental and socio-economic response in the southern Baltic region. University of Szczecin, Poland 25 - 28 May 2009

Page numbers refer to the IBAS Publication No. 42.
Total number of presentations: 93

09. Presentations at Baltic Earth Workshops and Special Conferences

9.1 Baltic Earth Workshop on Natural hazards and extreme events in the Baltic Sea region, Finnish Meteorological Institute, Dynamicum, Helsinki, 30-31 January 2014

IBES Publication No. 1.
Total number of presentations: 28 (no page numbers)

Dreier N, Schlamkow C, Fröhle P, Salecker D: Hybrid Approach for the Assessment of Changes of Extreme Waves at the German Baltic Sea Coast on the Basis of Regional Climate Model Data.

Eelsalu M, Lagemaa P, Pindsoo K, Soomere T: Evaluation of extreme water levels and their return periods near Tallinn using the ensemble approach.

Gregow E, Saltikoff E, Hohti H: Precipitation accumulation analysis – Assimilation of radar-gauge measurements and validation of different methods.

Jaagus J: Changes in severe storm and high sea-level events on the Estonian coast.

Kärner O, Post P: Climate tolerance - sensible way to define weather extremes.

Kahma K: Extreme sea levels on the Finnish coast.

Koistinen J, Hohti H, Kauhanen J, Kilpinen J, Nurmi P, Rossi P, Jokelainen M, Heinonen M, Fred T, Moisseev D: Probabilistic seamless extreme rainfall forecasting system for lead times 1-120 hours.

Kowalewska-Kalkowska H: Severe water events in the Odra River mouth area in the light of recent sea level rise.

Mäkelä A, Enno S-E, Haapalainen J: Thunderstorm climatology of Northern Europe in 2002-2013 based on the NORDLIS lightning location system.

Melnik VI, Kamarouskaya AV: Frequency of hazardous hydrometeorological phenomena in Belarus.

Partasenok I, Chekan R: Shift of extreme spring streamflow on rivers in Belarus part of the Baltic Sea basin.

Pindsoo K, Eelsalu M, Org M, Soomere T: Trends in long-term components and rapid variations in the water level: A case study for Tallinn Bay.

Räisänen J: Extremes in a changing climate change.

Rutgersson A: Introduction to Baltic Earth and the Workshop.

Rutgersson A, Wu Lichuan: Do we need a coupled modelling system when modelling extreme events?

Ryabchenko V, Andreev P, Averkiev A, Dvornikov A, Klevanny K, Tsepelev V: Storm surges in the easternmost Gulf of Finland during operation of the Flood Protection Barrier of St. Petersburg.

Salecker D, Fröhle P: Assessment of extreme surge hydrographs for the south-western Baltic Coast using univariate and bivariate statistical models.

Sile T, Cepite-Frisfelde D, Seņņikovs J, Bethers U: Modelling of extreme weather events in Latvia in 2012 using WRF.

Stendel M: From short range forecasts to climate change projections of extreme events in the Baltic Sea region.

Toll V, Männik A: Direct radiative effect of wildfire smoke on severe thunderstorm events in the Baltic Sea Region.

Vihma T: Does Arctic sea ice decline increase the occurrence of extreme weather conditions in mid-latitudes?

Wibig W, Piotrowski P: How does the city influence precipitation extremes?

Weidemann H, Weisse R: Storm surge climate in the western Baltic Sea 1948-2012.

Woong An B, Haapala J: Changes in Baltic Sea Surface Temperature extremes.

9.2 2nd International Conference on Climate Change - The environmental and socio-economic response in the Southern Baltic regionSzczecin, Poland, 12-15 May 2014

*Abstracts of the International Conference onClimate Change - The environmental and socio-economic re-sponse in the Southern Baltic regionSzczecin, Poland, 12-15 May 2014
Page numbers refer to the IBES Publication No. 2.
Total number of presentations: 64

Bartnicki J, Simpson D: Effects of climate change on atmospheric nitrogen deposition to the Baltic Sea. pp 41

Baubiniene A, Morkunaite R: Dynamics of Baltic Sea environment under the influence of climate changes (case study of Lithuanian most famous coastal summer resorts). pp 77

Baykova I, Kostrukova O: The Gulf Of Finland: Social and Economic Problems of St.-Petersburg in Conditions of the Natural Environment Change. pp 27

Bialogrodzka J, Jakacki J, Stramska M: Multiyear trends and variability in the Baltic Sea level derived from satellite radar altimetry and ocean model. pp 43

Bierstedt S, Zorita E, Hünicke B: A wind direction analysis for the Baltic Sea region: Is it possible to draw conclusions from mean wind statistics on extreme wind statistics? pp 5

Borzenkova I, Kuznetsov D, Sapelko T: The cool event about 8.2 ka ago in the Baltic Sea Basin: proxies data and paleoclimatic reconstructions. pp 7

Bulskaya I, Volchek A: Influence of climate change on urban surface runoff pollution in the city of Brest, Belarus. pp 45

Cieszyńska (Zuzewicz) A, Stramska M: Interactions between phytoplankton blooms and environmental conditions in the Baltic Sea – a modelling study. pp 19

Czarnecka M, Nidzgorska-Lencewicz J: The cyclical nature of seasonal precipitation in Pomerania in the period 1951 – 2010. pp 46

Dailidienė I, Baudler H, Rukšėnienė V: Effect of climate change on ice regime of lagoons of the southern and eastern Baltic Sea. pp 78

Deng J, Harff J, Schimanke S, Meier HEM: A method for estimating coastline recession due to sea level rise by assuming stationary wind-wave climate. pp 80

Dobosz S, Seddon A, Witkowski A, Kierzek A, Cedro B: Late Glacial to Holocene environmental changes with special reference to salinity reconstructed from shallow water lagoon sediments of the southern Baltic Sea coast. pp 9

Dräger N, Theuerkauf M, Hübener T, Wulf S, Kienel U, Slowinski M, Plessen B, Dulski P, Schedel R, Ott F, Lorenz S, Brauer A: Disentangling influences on varve preservation in a 1200-year record of partially varved sediments from Lake Tiefer See (NE Germany) – A multi-proxy approach. pp 10

Dreier N, Schlamkow C, Fröhle P, Salecker D: Future Wave Climate Projections at the German Baltic Sea Coast on the Basis of the Regional Climate Model Cosmo-CLM. pp 48

9.3 3rd International Lund Regional-Scale Climate Modelling Workshop21st Century Challenges in Regional Climate ModellingLund, Sweden, 16-19 June 2014

*Abstracts of the 3rd International Lund Regional-Scale Climate Modelling Workshop21st Century Chal-lenges in Regional Climate ModellingLund, Sweden, 16-19 June 2014

Page numbers refer to the IBES Publication No. 3.
Total number of presentations: 206

Zubler E, Fröb F, Fischer AM, Liniger MA, Appenzeller C: Climate change scenarios over complex topography: assessing the added value of dynamical downscaling. pp 386

9.4 Baltic Earth - Gulf of Finland Year 2014 Modelling WorkshopModelling as a tool to ensure sustainable development of the Gulf of Finland-Baltic Sea ecosystemFinnish Environment Institute SYKE, Helsinki, 24-25 November 2014

*abstracts Baltic Earth - Gulf of Finland Year 2014 Modelling Workshop: Modelling as a tool to ensure sustainable development of the Gulf of Finland-Baltic Sea ecosystem
Page numbers refer to the IBES Publication No. 4.
Total number of presentations: 21

An BW, Haapala J: Circulation changes in the Baltic Sea during the 20th and 21st century. pp 8

Baykova I, Kostrukova O: The Gulf Of Finland: Social and economic problems of St. Petersburg in conditions of natural environmental change. pp 8

Eelsalu M, Julge K, Soomere T, Grünthal E: Quantification of the evolution of a small beach applying laser scanning technology. pp 10

Eremina T, Voloshchuk E, Maximov A, Ryabchenko V: Biogeochemical changes on the sediment-water interface due to Marenzelleria ssp. invasion in the eastern Gulf of Finland. pp 11

Gustafsson B: Eutrophication and cost-effective nutrient load reductions (BSAP). pp 6

Huttunen I, Piirainen V, Huttunen M, Lehtonen H, Korppoo M, Vehviläinen B: Successful adaptation of agriculture to the climate change helps in mitigating the increasing nutrient loading to the Baltic Sea. pp 9

Kallio K, Lindfors A, Vahtera E, Virtanen S: Continuous measurement of water quality using navigational buoys in Helsinki sea area. pp 12

Kujala P: Major human threats in the Gulf of Finland (oil spills, shipping accidents)

Lehmann A, Post P, Höflich K, Myrberg K: Atmospheric circulation patterns forcing large water volume changes of the Baltic Sea. pp 14

Lips U: General physical forcing of the Gulf of Finland area, and how the forcing affects the ecosystems

Lorkowski I, Janssen F: Towards an operational ecosystem model for the North and Baltic Sea. pp 13

Mahmood AB: Detect and Estimate the Impact of the Positive Phase of the North Atlantic Oscillation (NAO+) index on the Mean Sea Level Variability in Winter Condition at the Finland Gulf: Approximate Solutions. pp 15

Meier HEM: Biogeochemical modelling of the Baltic Sea and related challenges

Myrberg K: The scientific goals of the Gulf of Finland Year and linkages to Baltic Earth

Pindsoo K, Eelsalu M, Soomere T: Quantification of the impact of vessel wakes on the transport of coarse sediment. pp 16

Podgornyj K, Dmitrieva O: A study of biotransformation forms of nitrogen, phosphorus and the oxygen dynamics in Neva Bay waters based on a spatially inhomogeneous simulation model. pp 17

Poutanen M: Opening and The Gulf of Finland Year Declaration

Sepp M, Mändla K, Post P: On the origins of cyclones entering the Baltic Sea region. pp 18

Soomere T: Major natural hazards in the Gulf of Finland. pp 6

Viitasalo M: The effects of climate change to the Gulf of Finland ecosystem.

Virtasalo J: Sediment core studies can provide realistic scenarios for modelling extreme storm events. pp 19

9.5 A Doctoral Students Conference Challenges for Earth system science in the Baltic Sea region: From measurements to models. University of Tartu and Vilsandi Island, Estonia, 10 - 14 August 2015

*Abstracts of the Doctoral Students Conference Challenges for Earth system science in the Baltic Sea re-gion: From measurements to models
Page numbers refer to the IBES Publication No. 5.
Total number of presentations: 37

Alari V, Staneva J: Response of water temperature to surface wave effects: experiments with the coupled NEMO-WAM. pp 6

Alber R: Diurnal cycle of precipitation in Estonia. pp 8

Aun Margit, Eerme K, Aun Martin, Ansko I: Reconstruction of UVB and UVA radiation at Tõravere, Estonia, for years 1955-2003. pp 10

Baiduk V: Impacts of climate change on rivers water regime over Southern and Eastern part of the Republic of Belarus. pp 11

Gallego-Urrea J, Edman M, Turner D, Omstedt A, Claremar B, Rutgersson A: Modelling the effects of NOx, SOx and NHx deposition on the Baltic Sea carbon system. pp 12

Gulev S: Atmospheric transports and the vision of the propagation of Atlantic signals to Europe. pp 13

Jaagus J: 150 years of meteorological observations at the Vilsandi maritime meteorological station: climate variability and climate changes. pp 14

Jakobson L, Jakobson E, Post P: Arctic teleconnections to Baltic Sea region. pp 16

Kabral N: Heavy metal accumulation in different parts of coniferous forest at Estonian ICP IM Vilsandi area. pp 18

Kamenik J: Recurrence interval of Estonian precipitation extremes. pp 19

Kangro E: Development of the relationship between phytoplankton absorption coefficient and chlorophyll-a concentration for remote sensing applications for large Estonian lakes. Validation of MERIS standard and processed data. pp 21

Komsaare K, Hõrrak U, Iher H: Air ion formation events at Tahkuse Observatory, Estonia. pp 22

Kõuts M, Raudsepp U, Maljutenko I, Treimann ML: Long-term model study of nutrient and detritus dynamics in the Baltic Sea. pp 24

Voormansik T, Post P: Analysis of convective storms in Estonia based on the data from polarimetric weather radars and lightning detectors. pp 58

Yang Y, Leppäranta M, Cheng B: Investigation of the climate impact on the snow and ice thickness in Lake Vanajavesi, Finland. pp 59

Zekker I, Rikmann E, Mandel A, Raudkivi M, Kroon K, Loorits L, Mihkelson J, Seiman A, Daija, Tenno T, Tenno T: Smooth temperature decreasing FOR nitrogen removal in cold (9-15° C) ANAMMOX biofilm reactor tests. pp 61

9.6 International advanced PhD course on Impact of climate change on the marine environment with special focus on the role of changing extremes. Askö Laboratory, Trosa, Sweden, 24 - 30 August 2015

*Abstracts of the International advanced PhD course on Impact of climate change on the marine environ-ment with special focus on the role of changing extremes
Page numbers refer to the IBES Publication No. 6.
Total number of presentations: 30

Akstinas V: Climate change impact on hydrological extremes in Lithuanian rivers. pp 5

Andersson A: Modelling effects of river inflow of dissolved organic carbon on coastal production. pp 6

Binczewska A: Reconstruction of climate and environmental changes in the Baltic Sea and the Skagerrak during the last 6000 years, based on microfossil proxies- foraminifera. pp 7

Bulskaya I: Influence of surface runoff from urban territory on the ecosystem of the receiving river. pp 9

Čerkasova N: Hydrologic modeling of the Nemunas River watershed. pp 11

Chen Y: Transport dynamics of the Baltic Sea system at the coastal scale. pp 13

Conley DJ, Carstensen J, Gustafsson B, Slomp C: Hypoxia in the Baltic Sea. pp 14

Ehrnsten E: The provision of ecosystem services in a Baltic Sea coastal food-web. pp 15

Elmgren R: Future climate change effects in the Baltic Sea proper. pp 17

Friedrich J: Early diagenesis in sediments, sediment-water fluxes and pelagic-benthic coupling. pp 19

Hinners J: Consequences of alterable phytoplankton traits for ecosystem dynamics in a changing environment. pp 21

Inácio M: Ecosystem Services of Coastal Lagoons. pp 22

Jokinen S: The development of hypoxia in coastal basins of the northern Baltic Sea during the last 2000 years. pp 24

Labuce A: Effect of variability in environmental conditions on Baltic Sea Calanoid Copepod egg bank and recruitment. Preliminary results – Acartia and Eurytemora long-termpopulation analysis. pp 26

Lubiene I: Loads, transport and transformations of N, P and Si along the continuum of Nemunas - coastal zone of the Baltic Sea. pp 28

9.7 HyMex-Baltic Earth WorkshopJoint regional climate system modelling for the European sea regions. ENEA, Rome, Italy, 5- 6 November 2015

*Abstracts of the HyMex-Baltic Earth WorkshopJoint regional climate system modelling for the European sea regions
Page numbers refer to the IBES Publication No. 7.
Total number of presentations: 52

9.8 A PhD seminar in connection with the Gulf of Finland Scientific ForumExchange processes between the Gulf of Finland and other Baltic Sea basins. Tallinn, Estonia, 19 November 2015

*Abstracts of the PhD seminar in connection with the Gulf of Finland Scientific ForumExchange processes between the Gulf of Finland and other Baltic Sea basinsTallinn
Page numbers refer to the IBES Publication No. 8.
Total number of presentations: 11

9.9 Baltic Earth Workshop on Coupled atmosphere-ocean modeling for the Baltic Sea and North Sea. Leibniz Institute for Baltic Sea Research Warnemünde, Germany 7-8 February 2017

*Abstracts of the Workshop on Coupled atmosphere-ocean modeling for the Baltic Sea and North Sea. Germany 7-8 February 2017
Page numbers refer to the IBES Publication No. 10.
Total number of presentations: 11

Pham TV, Brauch J, Früh B, Ahrens B: Added predictive skill in decadal hindcast with coupled model COSMO-CLM/NEMO. pp 15

Staneva J, Alari V, Breivik Ø, Bidlot J-M, Ho Hagemann HTM, Fenoglio Marc L, Koch W, Mogensen K , Stanev EV, Wahle K, Krüger O: The added value of coupling of atmosphere and circulation models with waves for the North Sea-Baltic Sea. pp 16

Su Jian, Yang Hu, Moseley C, Elizalde A, Sein D, Pohlmann T: Ocean feedback mechanism in a coupled atmosphere-ocean model system for the North Sea. pp 17

9.10 MedCORDEX-Baltic Earth-COST Workshop: Regional Climate System Modelling for the European Sea Regions. Universitat de les Illes Baleares, Palma de Mallorca, Spain 14 - 16 March 2018

*Abstracts of the MedCORDEX-Baltic Earth-COST Workshop: Regional Climate System Modelling for the European Sea Regions. Universitat de les Illes Baleares, Palma de Mallorca, Spain 14 - 16 March 2018
Page numbers refer to the IBES Publication No. 12.
Total number of presentations: 45

Ahrens B, Pothapakula PK, Leps N, Akhtar N, Primo Ramos C: Coupled Regional Climate Modelling Systems: Pros and Cons. pp 13

Amores A, Jordà G: Mesoscale eddy properties in the Mediterranean sea from high resolution models. pp 14

Aniśkiewicz P, Stramska M: The comparison of observational data with the results from ROMS model in the Porsanger fjord, Norway. pp 17

Aniśkiewicz P, Stramska M: The high-resolution simulations of WRF model in two high-latitude fjords: Porsanger and Hornsund. pp 18

Baltaci H: Climatology, precipitation types and atmospheric conditions of extreme precipitation events in western Turkey. pp 19

Batibeniz F, Ashfaq M, Turuncoglu UU, Onol B: Role of air-sea coupling in the simulation of moisture sources over the Mediterranean Basin. pp 21

Beuvier J, Drévillon M, Lellouche J-M, Garric G, Drillet Y: Comparison of regional and global oceanic reanalyses in the Mediterranean Sea. pp 24

Brauch J, Dröse M, Stegert C, Pham TV, Früh B: Activities with COSMO-CLM and NEMO for the North and Baltic seas at DWD. pp 26

Brunnabend S-E, Frauen C, Placke M, Börgel F, Meier HEM: A regional coupled Earth system model to study climate variations in the regions of the Baltic Sea. pp 27

Cabos W, Sein D, Parras I, Izquierdo A: The climate change signal for temperature and salinity in the Western Mediterranean Sea in a regionally coupled ocean-atmosphere model. pp 29

Cahill B, Fischer J, Graewe U, Burchard H, Wilkin J, Warner J, Ganju N: The Impact of Water Constituents on Radiative Heat Transfer in the Open Ocean and Shelf Seas. pp 31

9.11 Baltic Earth WorkshopMultiple drivers for Earth system changes in the Baltic Sea region. Tallinn, Estonia, 26 - 27 November 2018

*Abstracts of the Baltic Earth Workshop Multiple drivers for Earth system changes in the Baltic Sea region
Page numbers refer to the IBES Publication No. 14.
Total number of presentations: 62

Siedlewicz G, Borecka M, Białk-Bielińska A, Stepnowski P, Pazdro K: Residues of selected antibiotics in sediments collected from the southern Baltic Sea - concentrations and risk assessment. pp 43

Sigray P: Underwater noise as a driver for Earth system changes in the Baltic Sea region. pp 23

Słomińska M, Janas U, Kendzierska H: Links between the taxonomic and functional structure of macrobenthic fauna communities on the example of Puck Bay coastal mosaic (southern Baltic Sea) pp 44

Soomere T: Responses of coastal processes to multiple drivers in the Baltic Sea region. pp 26

Stoicescu S-T, Lips U, Liblik T: Assessment of eutrophication status based on sub-surface oxygen conditions in the Gulf of Finland (Baltic Sea). pp 44

Stokowski M, Schneider B, Rehder G, Kuliński K: Biogeochemical transformations in the river mouth as the drivers of the total alkalinity loads to the Baltic Sea. pp 45

Szymczycha B, Borecka M, Kłostowska Z, Lengier M: Submarine Groundwater Discharge and its impacts on coastal environments. pp 18

Tammert H, Pall P, Avi R, Nõges T, Kisand V: Native lake bacteria vs. tourists from rivers - who stay in lake and who continue travelling towards the Baltic Sea? pp 45

Tröltzsch J, Hasenheit M, Krüger I, Boteler B, Roth E, Matthias V, Quante M, Fridell E, Moldanova J, Jalkanen J-P, Hassellöv I-M, Ytreberg E, Granhag L, Eriksson M: Tackling Pressures from Shipping, Baltic Sea. pp 46

Turov P, Lind K, Lips I: Microplastic pollution in aquatic environments of Estonia. pp 46

Undeman E: Responses of organic contaminant cycling to multiple drivers in the Baltic Sea. pp 27

Uudeberg K, Kõks K-L, Randla M, Põru G, Ansper A, Reinart A: Optical Water Type Guided Approach for Inland Waters OAS Algorithms. pp 47

Wörman A: Effects of watershed engineering on floods and nutrient export to the Baltic Sea

Ytreberg E: Water pollution by antifouling as a driver for Earth system changes in the Baltic Sea region. pp 22

Zandersen M, Hyytiäinen K, Pihlainen S, Meier HEM, Tomczak MT, Bauer B, Haapasaari P, Olesen JE, Gustafsson BG, Refsgaard JC, Fridell E, Le Tissier MDA, Kosenius A-K, Van Vuuren DP: Socio-economic drivers and plausible developments under alternative global futures. pp 14

Zubkovych S, Ivus G, Homenko G, Hurska L, Ozymko R: Quantity Assessment of winter fronts intensity over Ukraine. pp 47

9.12 Baltic Earth Workshop Hydrology of the Baltic Sea Basin: Observations, Modelling, Forecasting. St. Petersburg, Russia, 8 - 9 October 2019

*Abstracts of the Workshop Hydrology of the Baltic Sea Basin: Observations, Modelling, Forecasting. St. Petersburg, Russia, 8 - 9 October 2019
Page numbers refer to the IBES Publication No. 15.
Total number of presentations: 17

9.13 Baltic Earth Workshop Climate projections and uncertainties in the northern Baltic Sea region. Helsinki, Finland, 19 - 20 November 2019

*Abstracts of the Climate projections and uncertainties in the northern Baltic Sea region Helsinki, Finland, 19 - 20 November 2019

Page numbers refer to the IBES Publication No. 16.
Total number of presentations: 15

Alenius P, Tuomi L, Roiha P, Westerlund A: Some notes on the physics of the Gulf of Finland and its modeling. pp 11

Andersen T: Disentangling seston stoichiometry by short-term incubation experiments and hierarchical linear models. pp 12

Delpeche-Ellmann N, Varbla S, Jahanmard V, Ellmann A: Deeper insights into the validation of hydrodynamic models using a synergy of remote sensing data. pp 14

Dieterich C, Gröger M, Jeworrek J, Jylhä K, Kjellström E, Meier HEM, Olsson T, Wu Lichuan, Rutgersson A: Convective Snow Bands over the Baltic Sea in an Ensemble of Regional Climate Scenarios. pp 16

Ehlers B-M, Abalichin J, Janssen F: The Projection Service for Waterways and Shipping (ProWaS) – first results of model sensitivity studies on the influence of global climate change to the Baltic Sea. pp 18

Ehlers B-M, Abalichin J, Janssen F: The Projection Service for Waterways and Shipping (ProWaS) – validation of a NEMO and HBM setup for the northern Baltic Sea. pp 19

Gröger M, Dieterich C, Meier HEM: Consistent changes in a large ensemble of regional climate projections downscaled for the Baltic Sea. pp 20

Gustafsson B, Gustafsson E, Müller-Karulis B, Savchuk O: Biogeochemical cycles of the Gulf of Bothnia. pp 22

Huseby S, Ahlgren J, Wikner J: The unique character of the Gulf of Bothnia. pp 23

Kuliński K: Structure and variability of the CO2 system in the Baltic Sea – facts and challenges. pp 24

Mathlouthi M, Lebdi F: Predicting extreme dry spell risk based on probability distribution in coastal region of Tunisia. pp 25

Meier HEM, Dieterich C, Gröger M: Ensemble modelling of the Baltic Sea in past and future climates. pp 27

Pein J, Daewel U, Benkort D, Geyer B, Stanev E, Schrum C: Ecosystem modelling in the Baltic Sea region with ECOSMO in the context of climate change - experiences and perspectives. pp 29

Ryabchenko VA, Isaev AV, Vankevich RE, Sein DV: Sensitivity of reproduction of the modern climate of the Baltic Sea to external forcing on the example of MITgcm. pp 30

Siiriä S, Arneborg L, Fredrikson S, Hieronymus J, Höglund A , Oikkonen A, Roiha P, Särkkä J, Tuomi L: SmartSea scenarios on development of the Gulf of Bothnia area from recent days to 2060. pp 31

Volchek A, Kostiuk D, Petrov D, Sheshko N: Forecast of socio-economic damage caused by flooding. pp 32

9.14 ESA-Baltic Earth Workshop: Earth Observation in the Baltic Sea region Online, 21 September 2020

*Abstracts of the ESA-Baltic Earth Workshop: Earth Observation in the Baltic Sea region
Online, 21 September 2020
Page numbers refer to the IBES Publication No. 19.
Total number of presentations: 13

Darecki M: Fusion of satellite data with eco-hydrodynamic model as an effective tool for monitoring and climate research of the Baltic Sea. pp 16

González-Gambau V, Olmedo E, González-Haro C, Turiel A, Martínez J, Gabarró C, Alenius P, Tuomi L, Roiha P, Arias M, Catany R, Fernández D, Sabia R: First regional SMOS Sea Surface Salinity products over the Baltic Sea and its oceanographic added-value. pp 8

González-Haro V, Passaro M, Müller FL, González-Gambau V, Olmedo E, Turiel A: Exploring synergies between remote sensing products developed under the framework of ESA Baltic+ initiative: Sea Surface Salinity and Sea Surface Height. pp 9

Gruber T, Ågren J, Angermann D, Ellmann A, Gisinger C, Nastula J, Oikonomidou X, Poutanen M, Schlaak M: Geodetic SAR for Height System Unification and SeaLevel Research in the Baltics. pp 10

Hieronymi M, Doerffer R, Krasemann H, Schütt E: Atmospheric correction for the full spectrum of optical water types. pp 15

Jaramillo F, Darvishi M, Aminjafari S, Nia M: Using InSAR observations to understand effects of climate change on water resources in the Baltic Sea Basin. pp 14

Kahru M: Changing seasonality of the Baltic Sea.

Koponen S: ESABaltic+Sea-Landbiogeochemicallinkages(Baltic+SeaLaBio). pp 13

Lehmann A: Salinity dynamics in the BalticSea. pp 7

Müller FL, Passaro M, Abulaitijiang A, Andersen OB, Chalençon E, Dettmering D, Høyer JL, Johansson M, Oelsmann J, Rautiainen L, Ringgaard IM, Rinne E, Särkkä J, Scarrott R, Schwatke C, Seitz F, SkovgaardMadsen K, Tuomi L, Ambrozio A, Restano M, Benveniste J: BalticSEAL:Exploiting regional opportunities and a natural laboratory to advance processing algorithms for altimetry-derived Sea Surface Height estimation. pp 12

Passaro M, Müller FL, Abulaitijiang A, Andersen OB, Chalençon E, Dettmering D, Høyer JL, Johansson M, Oelsmann J, Rautiainen L, Ringgaard IM, Rinne E, Särkkä J, Scarrott R, Schwatke C, Seitz F, Skovgaard Madsen K, Tuomi L, Ambrozio A, Restano M, Benveniste J: Baltic SEAL: new insights into the mean and variability of the sea level in the Satellite Altimetry era. pp 11

Uiboupin R: EO data for characterizing wintertime marine heat wave impacts in the BalticS ea region. pp 17

Zhang Shuping, Rutgersson A, Philipson P, Wallin MB, Schneider B, Perttilä M: Sea Surface pCO2 in the Baltic Sea with the support of ESA remote sensing missions. pp 18

9.15 EMS2 Conference Marginal Seas – Past and Future, Online, 16-17 December 2020

*Abstracts of the EMS2 Conference Marginal Seas – Past and Future, Online,
16-17 December 2020
Page numbers refer to the IBES Publication No. 20.
Total number of presentations: 27

9.16 River Mouth Systems and Marginal Seas - Natural drivers and human impacts, Online, 5 - 7 December 2022

* River Mouth Systems and Marginal Seas - Natural drivers and human impacts,
Online, 5 - 7 December 2022
Page numbers refer to the IBES Publication No. 22.
Total number of presentations: 44

Zeng Guanzhong, Xu Jiaqi, Xia Rui: Grain size characteristics and sedimentary environment response of different sedimentary facies in ZK-XH01 borehole at the entrance of Hanjiang River. pp 58

Zhang Jinpeng, Wang Yufeng, Dong Shiming, Hou Jianmei, Li Pingyuan, Chen Chixin, Xia Zhen: The Pearl River Estuary system evolution in Late Quaternary: Sea-Level, Climate, Paleogeography change. pp 24

Zhang Wenbo, Li Hongyu, Liu Xiaohuang: Remote sensing monitoring of seawater intrusion in the background of Yellow River Delta erosion. pp 25

10. International BALTEX Secretariat Publication Series

ISSN 1681- 6471 (as of No. 22)

No. 55, August 2013:
Minutes of the 30th Meeting of the BALTEX Science Steering Group held at Strand Hotell, Borgholm, Öland, Sweden, 9 June 2013, 27 pp

No. 54, August 2013:
Minutes of the 29th Meeting of the BALTEX Science Steering Group held at Park Inn Copenhagen Airport, Copenhagen, Denmark, 22 January 2013, 16 pp

No. 53, June 2013:
Seventh Study Conference on BALTEX. Conference Proceedings. Borgholm, Island of Öland, Sweden, 10-14 June 2013. Editors: Marcus Reckermann and Silke Köppen, 189 pp

No. 52, December 2012:
Minutes of the 28th Meeting of the BALTEX Science Steering Group held at Marine Systems Institute at Tallinn University of Technology, Tallinn, Estonia, 20 pp

No. 51, December 2011:
Minutes of 27th Meeting of the BALTEX Science Steering Group held at Baltic Sea Research Institute, Warnemünde, 29-30 Editor: Marcus Reckermann, 29 pp

No. 50, September 2011:
A survey of the perceptions of regional political decision makers concerning climate change and adaptation in the German Baltic Sea region**.** Authors: Dennis Bray and Grit Martinez, 97 pp

No. 49, March 2011:
Minutes of 26th Meeting of the BALTEX Science Steering Group held at the University of Gothenburg, Sweden, 24-25 November 2010. Editor: Marcus Reckermann and Hans-Jörg Isemer, 30 pp

No. 48, October 2010:
SurBACC, A survey of the perspectives of climate scientists concerning climate change and climate science in the Baltic Sea basin. Author: Dennis Bray 82 pp

No. 47, September 2010:
Minutes of the 25th Meeting of the BALTEX Science Steering Group held at Międzyzdroje, Island of Wolin, Poland, 14-18 June 2010. Editor: Marcus Reckermann and Hans-Jörg Isemer, 20 pp

No. 46, June 2010:
Sixth Study Conference on BALTEX. Conference Proceedings. Międzyzdroje, Island of Wolin, Poland, 14-18 June 2010. Editor: Marcus Reckermann and Hans-Jörg Isemer, 181 pp

No. 45, March 2010:
Minutes of 24th Meeting of the BALTEX Science Steering Group held at the University of Riga, Riga, Latvia, 16 - 18 November 2009.

No. 44, November 2009:
BALTEX Phase II 2003 – 2012 Revised Objectives. A Summary Amendment to the BALTEX Phase II Science Framework and Implementation Plan. 23 pp

No. 43, July 2009:
23rd BALTEX Science Steering Group Meeting, 12-14 January 2009, Finnish Meteorological Institute, Helsinki, Finland.

No. 42, May 2009:
International Conference on Climate Change – The environmental and socioeconomic response in the southern Baltic region. University of Szczecin, 25-28 May 2009. Conference Proceedings. Editors: Andrzej Witkowski, Jan Harff and Hans-Jörg Isemer 140 pp

No. 41, April 2009:
2nd International Lund RCM Workshop: 21st Challenges in Regional-scale Climate Modelling. Lund University, 4-8 May 2009. Workshop Proceedings. Editors: Burkhardt Rockel, Lars Bärring and Marcus Reckermann. 292 pp

No. 40, May 2008:
22nd Meeting of the BALTEX Science Steering Group held at Swedish Meteorological and Hydrological Institute, Norrköping, Sweden 23-25 May 2008, 56 pp

No. 39, September 2007:
21st Meeting of the BALTEX Science Steering Group held at Kultuurivara, Kuressaare, Estonia 3 June 2007, 54 pp

No. 38, June 2007:
Fifth Study Conference on BALTEX, Kuressaare, Saarema, Estonia, 4-8 June 2007
Conference Proceedings. Editor: Hans-Jörg Isemer, 212 pp

No. 37, March 2007:
20th Meeting of the BALTEX Science Steering Group hosted by the State Hydrological Institute, St. Petersburg, Russia, 6 - 8 December 2006, 64 pp

No. 36, October 2006:
19th Meeting of the BALTEX Science Steering Group at the Agrenska Villan of Göteborg University, Sweden, 23 - 24 May 2005, 47 pp

No. 35, June 2006:
Assessment of Climate Change for the Baltic Sea Basin - The BACC Project-Editors: The BACC Lead Author Group. 26 pp

No. 34, April 2006:
BALTEX Phase II (2003 - 2012): Science Framework and Implementation Strategy. 92 pp

No. 33, February 2006:
18th Meeting of the BALTEX Science Steering Group at the Meteorological Observatory Lindenberg - Richard Aßmann Observatory, Lindenberg, Germany, 18 - 20 October 2005. 55 pp

No. 32, November 2005:
17th Meeting of the BALTEX Science Steering Group at the Institute for Meteorology and Water Management, Poznan, Poland, 24 - 26 November 2004, 100 pp

No. 31, October 2005:
BALTEX PHASE I, 1993-2002, State of the Art Report. Editors: Daniela Jacob and Anders Omstedt. 181 pp

No. 30, October 2004:
Minutes of the 16th Meeting of the BALTEX Science Steering Group at Gudhjem Bibliotek, Bornholm, Denmark, 23 May 2004, 33 pp

No. 29, May 2004:
Fourth Study Conference on BALTEX, Gudhjem, Bornholm, Denmark, 24-28 May 2004 Conference Proceedings. Editor: Hans-Jörg Isemer, 193 pp

No. 28, February 2004:
Science Plan for BALTEX Phase II 2003-2012. 41 pp

No. 27, January 2004:
Minutes of the 15th Meeting of the BALTEX Science Steering Group at Risö National Laboratory, Wind Energy Department, Roskilde, Denmark, 8-10 September 2003. 84 pp

No. 26, July 2003:
CLIWA-NET: BALTEX BRIDGE Cloud Liquid Water Network. Final Report. Editors: Susanne Crewell, Clemens Simmer, Arnout Feijt, Erik van Meijgaard, 53 pp

No. 25, May 2003:
Minutes of the 14th Meeting of the BALTEX Science Steering Group at Lund University, Department of Physical Geography and Ecosystems Analysis, Lund, Sweden, 18-20 November 2002. 63 pp

No. 24, April 2003:
The eight BALTIMOS Field Experiments 1998-2001. Field Reports and Examples of Measurements. Editors: Burghard Brümmer, Gerd Müller, David Schröder, Amélie Kirchgäßner, Jouko Launiainen, Timo Vihma, 138 pp

No. 23, September 2002:
Minutes of the 13th Meeting of the BALTEX Science Steering Group at the Estonian Business School, Centre for Baltic Studies, Tallinn, Estonia, 17-19 June 2002, 119 pp

No. 22, April 2002:
Minutes of the 12th Meeting of the BALTEX Science Steering Group held at Royal Netherlands Meteorological Institute (KNMI), De Bilt, The Netherlands, 12-14 November 2002. 97 pp

No. 21, July 2001:
Minutes of the 11th Meeting of the BALTEX Science Steering Group at the Max-Planck-Institute for Meteorology, Hamburg, Germany, 13-14 November 2000. 57 pp

No. 20, July 2001:
Third Study Conference on BALTEX, Mariehamn, Island of Åland, Finland, 2-6 July 2001. Conference Proceedings. Editor: Jens Meywerk, 264 pp

No. 19, May 2001:
BALTEX-BASIS: Final Report. Editors: Jouko Launiainen and Timo Vihma. 223 pp

No. 18, May 2000:
Minutes of the 10th Meeting of the BALTEX Science Steering Group at the Faculty of Environmental Engeneering, Warsaw Technical University, Warsaw, Poland, 7-9 February 2000. 33 pp

No. 17, April 2000:
BRIDGE - What can we learn from field experiments? Proceedings from a workshop arranged by the BALTEX Working Group on Numerical Experimentation and the BALTEX Working Group on Process Studies, Abisko, Lapland, Sweden, 20-21 June 1999, 115 pp

No. 16, July 1999:
Minutes of the 9th Meeting of the BALTEX Science Steering Group at Finnish Meteorological Institute in Helsinki, Finland, 19-20 May 1999, 25 pp

No. 15, May 1999:
Minutes of the 8th Meeting of the BALTEX Science Steering Group at Stockholm University in Stockholm, Sweden, 8-10 December 1998, 94 pp

No. 14, March 1999:
BALTEX-BASIS Data Report 1998. Editor: Jouko Launiainen, 96 pp

No. 13, January 1999:
Minutes of the 6th Meeting of the BALTEX Science Steering Group at the Danish Meteorological Institute in Copenhagen, Denmark, 2 - 4 March 1998, 98 pp

Nr. 12, November 1998:
Minutes of the 7th Meeting of the BALTEX Science Steering Group at Hotel Aquamaris in Juliusruh, Island of Rügen, Germany, 26 May 1998, 68 pp

No. 11, May 1998:
Second Study Conference on BALTEX, Juliusruh, Island of Rügen, 25 - 29 May 1998. Conference Proceedings, 251 pp

No. 10, January 1998:
Minutes of the 5th Meeting of the BALTEX Science Steering Goup at Latvian Hydrometeorological Agency in Riga, Latvia, April 14-16, 1997, 155 pp

No. 9, October 1997:
The Main BALTEX Experiment 1999 – 2001, Strategic Plan, October 1997, 75 pp

No. 8, August 1997:
Hydrological, Oceanic and Atmospheric Experience from BALTEX.
Extended Abstracts of the XXII EGS Assembly, Vienna, Austria, April 21 - 25, 1997. Editors: M. Alestalo and H.-J. Isemer. August 1997, 172 pp

No. 7, February 1997:
Minutes of the 4th Meeting of the BALTEX Science Steering Group at Institute of Oceanology PAS in Sopot, Poland, June 3 - 5, 1996, 129 pp

No. 6, October 1996:
BALTEX Radar Research - A Plan for Future Action, 47 pp

No. 5, March 1996:
Minutes of the 3rd Meeting of the BALTEX Science Steering Group at Strand Hotel in Visby, Sweden, 2 September 1995, 98 pp

No. 4, October 1995:
Minutes of the 2nd Meeting of The BALTEX Science Steering Group at Finnish Institute of Marine Research In Helsinki, Finland, January 25-27, 1995, 138 pp

No. 3, August 1995:
First Study Conference on Baltex. Conference Proceedings. Editor: Anders Omstedt, 190 pp

No. 2, March 1995:
Baltic Sea Experiment BALTEX: Initial Implementation Plan, 84 pp

No. 1, August 1994:
Minutes of the 1st Meeting of The Science Steering Group at GKSS Research Center In Geesthacht, Germany, May 16-17, 1994, 100 pp

11. International Baltic Earth Secretariat Publication Series

ISSN 2198-4247

No. 24, December 2024
International Workshop: Multiple Drivers of Earth system changes in the Baltic Sea region 4-5 December 2024. International Baltic Earth Secretariat Publication No.24, 42 pp.

No. 23, May 2024
5th Baltic Earth Conference "New Challenges for Baltic Sea Earth System Research" Jurmala, Latvia, 13. May 2024 - 17. May 2024. 224 pp.

No. 22, December 2022
Programme, Abstracts, Participants. River Mouth Systems and Marginal Seas - Natural drivers and human impacts. Online, 5 - 7 December 2022. 78 pp

No. 21, May 2022
4th Baltic Earth Conference "Assessing the Baltic Sea Earth System" Jastarnia, Hel, Poland, 30. May 2022 - 03. June 2022. 201 pp.

No. 20, December 2020
Programme, Abstracts, Participants. EMS2 Conference Marginal Seas – Past and Future, Online, 16-17 December 2020. 60 pp

No. 19, September 2020
Programme, Abstracts, Participants. ESA-Baltic Earth Workshopon Earth Observation in the Baltic Sea Region. Online, 21. September 2020. 26 pp

No. 18, June 2020
3rd Baltic Earth Conference "Earth system changes and Baltic Sea coasts". Proceedings. Hel, Poland, 1 - 5 June 2020, due to the SARS-CoV-2 pandemic, an online conference on 2 - 3 June 2020. International Baltic Earth Secretariat Publication No.18, 209 pp.

No. 17, February 2020
Anders Omstedt: 45 years of wandering - from processes to systems, through outer and inner seas. An interview by Hans von Storch and Marcus Reckermann with foreword by Jüri Elken, 63 pp.

No. 16, November 2019
Programme, Abstracts, Participants. Baltic Earth Workshop “Climate Projections and uncertainties in the northern Baltic Sea region". Helsinki, Finland, 19-20 November 2019, 38 pp.

No.15, October 2019
Programme, Abstracts, Participants. Baltic Earth Workshop “Hydrology of the Baltic Sea Basin: Observations, Modelling, Forecasting". St. Petersburg, Russia, 8-9 October 2019, 48 pp.

No.14, November 2018
Programme, Abstracts, Participants. Baltic Earth Workshop “Multiple drivers for Earth system changes in the Baltic Sea region.” Tallinn, Estonia, 26-27 November 2018. International Baltic Earth Secretariat Publication No.14, 58 pp.

No. 13, June 2018
2nd Baltic Earth Conference "The Baltic Sea in Transition". Proceedings, Helsingør, Denmark, 11 -15 June 2018. International Baltic Earth Secretariat Publication No.13, 216 pages

No. 12, March 2018:
Programme, Abstracts, Participants. MedCORDEX-Baltic Earth-Cost Workshop: "Regional climate system modelling for the European Sea Regions". Universitat de les Illes Baleares, Palma de Mallorca, Spain, 14-16 March 2018. International Baltic Earth Secretariat Publication No.12, 96 pp.

No. 11, February 2017:
Baltic Earth Science Plan. International Baltic Earth Secretariat Publication No.11, 28 pp.

No. 10, February 2017:
Workshop on Coupled atmosphere-ocean modelling for the Baltic Sea and North Sea. Leibniz Institute for Baltic Sea Research Warnemünde, Germany, 7-8 February 2017. International Baltic Earth Secretariat Publication No.10, 24 pp.

No. 9, June 2016:
1st Baltic Earth Conference "Multiple drivers for Earth system changes in the Baltic Sea region" Nida, Curonian Spit, Lithuania, 13 -17 June 2016. International Baltic Earth Secretariat Publication No.9, 222 pages

No. 8, November 2015:
Programme, Abstracts, Participants. A PhD seminar in connection with the Gulf of Finland Scientific Forum: "Exchange process between the Gulf of Finland and other Baltic Sea basins". Tallinn, Estonia, 19 November 2015. International Baltic Earth Secretariat Publication No.8, 27 pages

No. 7, October 2015:
Programme, Abstracts, Participants. HyMex-Baltic Earth Workshop: "Joint regional climate system modelling for the European sea regions". ENEA, Rome, Italy, 5-6 November 2015. International Baltic Earth Secretariat Publication No. 7, 103 pages

No. 6, August 2015:
Programme, Abstracts, Participants. International advanced PhD course: "Impact of climate change on the marine environment with special focus on the role of changing extremes". Askö Laboratory, Trosa, Sweden, 24-30 August 2015. International Baltic Earth Secretariat Publication No. 6, 61 pages.

No. 5, August 2015:
Programme, Abstracts, Participants. A Doctoral Students Conference: "Challenges for Earth system science in the Baltic Sea region: From measurements to models". University of Tartu and Vilsandi Island, Estonia, 10-14 August 2015. International Baltic Earth Secretariat Publication No. 5, 66 pages

No. 4, November 2014:
Programme, Abstracts, Participants. Baltic Earth - Gulf of Finland Year 2014 Modelling Workshop "Modelling as a tool to ensure sustainable development of the Gulf of Finland- Baltic Sea ecosystem". Finnish Environment Institute SYKE, Helsinki, 24-25 November 2014. International Baltic Earth Secretariat Publication No. 4, 27 pages

No. 3, June 2014:
Workshop Proceedings of the 3rd International Lund Regional-Scale Climate Modelling Workshop "21st Century Challenges in Regional Climate Modelling". Lund, Sweden, 16-19 June 2014. International Baltic Earth Secretariat Publication No. 3, 391 pages

No. 2, May 2014:
Conference Proceedings of the 2nd International Conference on Climate Change - The envi-

ronmental and socio-economic response in the Southern Baltic region. Szczecin, Poland, 12-15 May 2014. International Baltic Earth Secretariat Publication No. 2, 110 pages

No.1, January 2014:
Programme, Abstracts, Participants. Baltic Earth Workshop on ”Natural hazards and extreme events in the Baltic Sea region”. Finnish Meteorological Institute, Dynamicum, Helsinki, 30-31 January 2014. International Baltic Earth Secretariat Publication No. 1, 33 pages