

### FROM THE PIER OF KNOWLEDGE TO THE HORIZON OF DISCOVERY

#### Welcome to the Baltic Sea Science Congress 2025!

This interdisciplinary event brings together researchers, policymakers, and stakeholders to explore the multifaceted dynamics of the Baltic Sea and its catchment, examining the rich history, current functioning, and future prospects of this region. Over the course of the conference, we will delve into critical topics distributed among **seven thematic sessions** covering a wide range of disciplines and addressing fundamental scientific problems and environmental challenges. By fostering **interdisciplinary dialogue** and **international collaboration**, we aim to generate innovative solutions to preserve and protect the unique marine environment of the Baltic Sea for generations to come. Join us to share your knowledge, insights, and strategies to ensure a sustainable future for this vital ecosystem.

#### **Important Dates**

Call for Abstracts: 10 December 2024 Registration Open: 15 January 2025

Abstract Submission Deadline: 21 February 2025

**Acceptance Notification:** 21 March 2025

Early Bird Registration Deadline: 31 March 2025

Registration Deadline: 14 April 2025 Conference Days: 26-30 May 2025 Find more details at www.bssc2025.pl



Organiser:

Patronage:











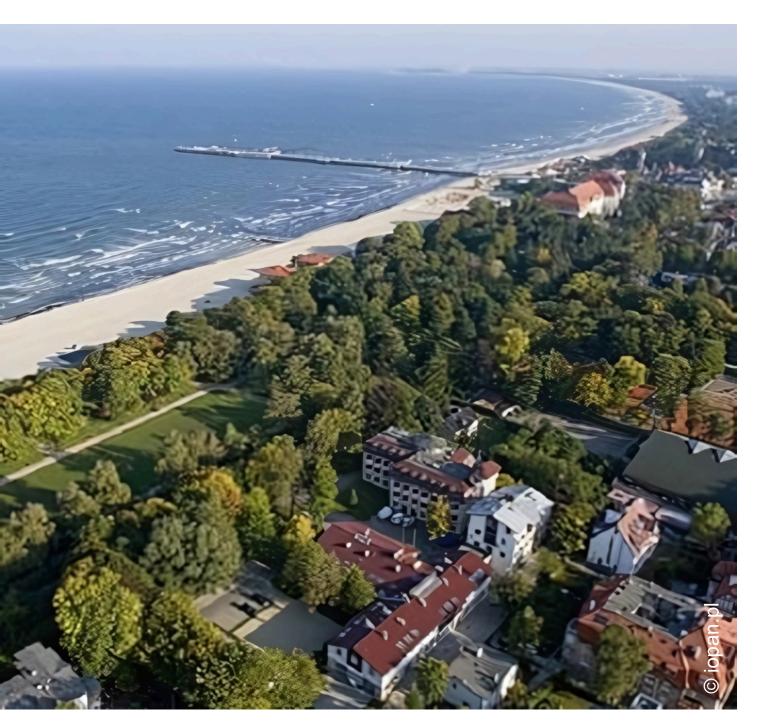
**Financial support:** 



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#### **Abstract Submission and Registration**

We welcome oral and poster contributions related to the conference topics. Abstract submission and registration will be available through the **Oxford Abstracts** platform. Early registration fee is 400 € for regular participants and 220 € for students. Standard registration rates of 450 € and 250 €, respectively, will apply after the early registration deadline. Abstract submission opens on 10 December 2024, while registration begins on 15 January 2025. Links for both will be available on the conference website.





#### **Scientific Committee**

Karol Kuliński, Poland (Chair) Markus Meier, Germany Katarzyna Łukawska-Matuszewska, Poland Urmas Lips, Estonia Teresa Radziejewska, Poland Elinor Adrén, Sweden Tamara Zalewska, Poland Piia Post, Estonia Jacob Carstensen, Denmark Inga Dailidiene, Lithuania Astra Labuce, Latvia Gregor Rehder, Germany Laura Tuomi, Finland Ksenia Pazdro, Poland Bo Gustafsson, Sweden Jan Marcin Węsławski, Poland Kai Myrberg, Finland Martin Jakobsson, Sweden Sławomir Sagan, Poland Oliver Zielinski, Germany Aarno Kotilainen, Finland Kevin Parnell, Estonia Katarzyna Piwosz, Poland

#### **Local Organizing Committee**

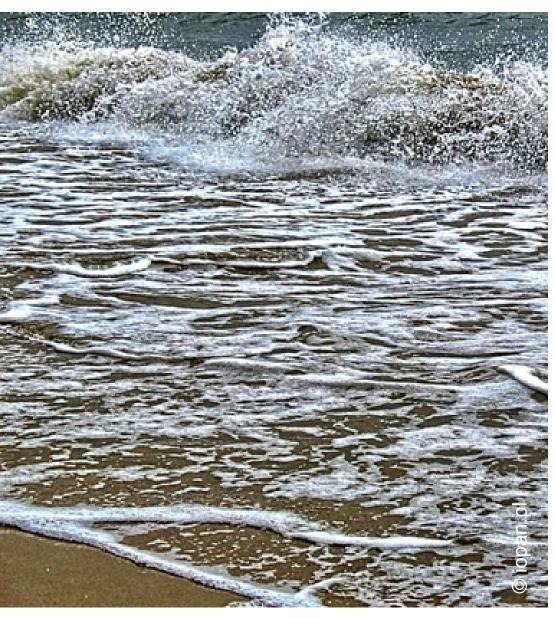
Karol Kuliński
Katarzyna Koziorowska-Makuch
Agnieszka Jędruch
Aleksandra Kaszuba-Rakowska
Joanna Potrykus
Ewa Korejwo
Aleksandra Adamska
Marcin Wichorowski
Sławomir Sagan

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#### **Thematic Sessions**

#### 1. Physical and Biogeochemical Changes in the Baltic Sea

This session aims to investigate both natural and anthropogenic changes in the physical and biogeochemical functioning of the Baltic Sea across different time scales, including past conditions, current observations, and future projections. We invite research that examines alterations in the physical environment, including salinity and temperature dynamics, water column stratification, sea level rise, light availability etc. Additionally, we welcome studies investigating all aspects of organic matter's production, alteration, and remineralisation, including processes occurring both in the water column and sediments as well as under oxic and anoxic conditions. Contributions specifically addressing eutrophication and oxygen deficits, as well as those exploring climate change-driven impacts, are particularly welcome. We encourage the use of diverse methodologies and tools, including paleoceanographic reconstructions, various modelling approaches, in situ and remote observations and data analysis from long-term monitoring programmes. By examining changes occurring across different time and spatial scales, this session seeks to provide a comprehensive understanding of the evolving Baltic Sea and to inform effective management and conservation strategies.





#### 2. Ecosystem Health and Biodiversity

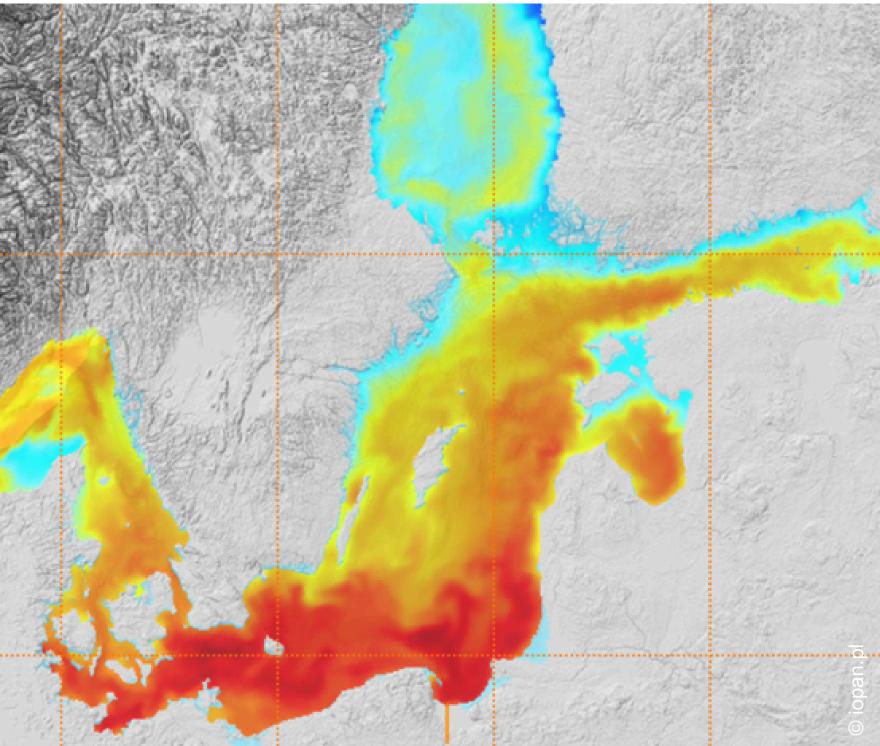
This session aims to explore the interrelationship between ecosystem health and biodiversity in the Baltic Sea region, focusing on how changes in biological diversity affect ecosystem stability and resilience. We welcome research that evaluates indicators of ecosystem health, including species composition (from micro- to macroorganisms), food-web structure, habitat quality, ecological functions, and cumulative effects assessments. Contributions that document biological diversity, assess habitat health, and identify threats posed by climate change, ocean acidification, oxygen deficits, eutrophication, invasive species, pathogenic and antimicrobial resistant (AMR) microbes, and other human activities are particularly encouraged. Additionally, studies that highlight the role of biodiversity in enhancing ecosystem resilience to environmental changes will be highly valued. Through this session, we seek to foster collaborative discussions that advance our understanding of the importance of biodiversity in maintaining healthy marine ecosystems and inform effective conservation and management strategies.

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#### 3. Geological Processes and Coastal Erosion

This session investigates the geological processes that contribute to marine sedimentation, coastal erosion, and the overall reshaping of the Baltic Sea's coastline and seabed. We invite research that examines natural factors such as wave action, sediment transport, and seabed geology, as well as anthropogenic influences like coastal development and climate change. Contributions focusing on stratigraphic analysis, sedimentation and erosion patterns and their effects on coastal ecosystems and habitats are particularly welcome. Additionally, studies exploring the interplay between erosion and sediment dynamics, as well as mitigation strategies and sustainable practices for managing coastal changes, will be highly valued. Through this session, we aim to enhance our understanding of the Baltic Sea geology, and coastal dynamics and promote effective approaches to preserving the integrity of the Baltic Sea's shorelines.





#### 4. Land-Ocean-Atmosphere Interactions and Catchment Processes

This session focuses on the complex interactions between terrestrial, marine and atmospheric systems in the Baltic Sea region, emphasising the impact of climate change as well as catchment and large-scale atmospheric processes such as NAO on marine ecosystems. We invite studies that examine how past and present land use, agricultural practices, and urban development influence nutrient runoff, sediment transport, and pollution in marine waters as well as affect marine biodiversity, habitat quality, and ecosystem services. Contributions that assess the functioning of coastal filter, including the role of microorganisms, in modifying terrestrial loads, carbon burial (blue carbon) and nutrient cycling in shallow regions are particularly welcome. Additionally, research exploring the future scenarios of external forcings, integrated management strategies and stakeholder collaboration in addressing these multifaceted interactions including promoting sustainable practices in catchment areas will be encouraged. By fostering an interdisciplinary dialogue, this session aims to enhance our understanding of land-ocean-atmosphere dynamics and inform policies for sustainable and holistic ecosystem management in the Baltic Sea region.

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#### 5. Marine Pollution: Sources, Trends, Effects and Solutions

This session aims to investigate the various aspects of marine pollution affecting the Baltic Sea, encompassing issues such as plastic pollution, dumped munition, shipwrecks, drifting fishing nets, oil spills, shipping- and industry-related pollution, including noise, and hazardous chemicals. We welcome studies that identify key pollutants and their mixtures, including emerging ones, provide data on pollution levels, and assess their impacts on marine life and ecosystem health. Contributions that explore microbial players in processing pollutants, innovative solutions and remediation strategies, including policy initiatives and technological advancements, are highly encouraged. Additionally, research highlighting the role of public awareness campaigns and community engagement in addressing pollution challenges will be valuable. By fostering interdisciplinary dialogue, this session seeks to identify effective approaches to monitor and combat marine pollution and promote a healthier Baltic Sea environment.

#### 6. Exploitation of Ecosystem Services and Its Impact on the Baltic Sea Ecosystem

This session seeks to explore the sustainable use and exploitation of ecosystem services provided by the Baltic Sea, including fisheries, tourism, shipping, and industrial development e.g. expansion of ports, offshore wind farms, oil and gas mining, nuclear power plants, submarine pipelines and power lines. Research contributions are expected to analyse the ecological, biogeochemical, economic, and social impacts of these activities on marine biodiversity and habitat integrity. We welcome studies that assess the trade-offs between economic benefits and environmental health, highlighting both positive and negative consequences of human activities. Furthermore, discussions on effective management strategies and policy frameworks including marine spatial planning aimed at mitigating adverse impacts while maximizing the sustainable use of ecosystem services will be encouraged. Contributions that incorporate stakeholder perspectives and community engagement in ecosystem service management are particularly valued.



#### 7. Emerging Technologies for Research and Monitoring

This session focuses on innovative technologies developed and implemented for research and monitoring of the Baltic Sea ecosystem and other marginal seas. We encourage contributions on research and development that utilize sensors, drifting floats, automatic buoys and moorings, underwater drones and robots, remote sensing as well as new sophisticated analytical and monitoring methods including eDNA studies and application of monitoring organisms to capture and analyse environmental changes. Contributions that demonstrate the application of advanced data analytics and modelling, machine learning (ML) and artificial intelligence (AI) in processing large datasets or enhancing predictive and operational models will be particularly welcome. Additionally, research highlighting the integration of citizen science initiatives with technological advancements to engage local communities in environmental monitoring is encouraged. Through this session, we aim to explore the potential of emerging technologies to enhance our understanding of the Baltic Sea ecosystem and other shelf seas and inform effective management practices.

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#### **Practical Information**

#### Conference venue

The conference will be held at the Radisson BLU Hotel & Conference Center in Sopot, the largest hotel conference venue in the Tri-City. The center features spacious facilities surrounded by greenery and offers rooms equipped with high-speed Wi-Fi, advanced sound systems, and comprehensive technical amenities.

#### Radisson BLU Hotel ★★★★

Bitwy pod Płowcami 54, 81-731 Sopot https://www.radissonblusopot.pl/en/





#### **Travel**

The nearest airport to Sopot is Gdańsk Lech Walesa Airport (GDN), located approximately 17 km from the venue. The airport offers excellent connections to numerous European cities. For more information, visit www.airport.gdansk.pl.

#### **Local Transportation**

From Gdańsk Airport you can reach downtown Sopot through four main transportation options: taxi, train with transfer, direct bus service, or car rental.



Scan for directions



#### **Accommodation**

Sopot is a popular tourist destination with a wide range of hotels and apartments to suit different budgets. Detailed accommodation information and options will be available on the website soon.

