

Findings from a
Long-term Study
of the **Baltic Sea Reveal**
Possible Answers to
Issues of Intense
Worldwide Concern

**State and Evolution of the
Baltic Sea, 1952-2005**

**A Detailed 50-Year Survey of Meteorology and Climate,
Physics, Chemistry, Biology, and Marine Environment**

Edited by Rainer Feistel; Günther Nausch and Norbert Wasmund

978-0-471-97968-5 • 704 pages • Hardcover w/CD-ROM • April 2008
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As one of the best-investigated seas in the world for more than a century, the Baltic Sea has been subject to environmental protection measures endorsed by the international Helsinki Commission (HELCOM) in 1979. Now, based on a fifty-year study conducted by the Leibniz Institute for Baltic Sea Research (abbreviated IOW for Leibniz-Institut für Ostseeforschung Warnemünde), this book brings together an organized and comprehensive summary of their fascinating observations and findings. Written by well-known experts from IOW and other international institutes, this revealing book concentrates on long-term changes in the Baltic Sea—which can be extrapolated to shed light on the environmental problems of other shelf seas, brackish seas, and large estuaries—thereby contributing to our understanding of water exchange processes, eutrophication, and climatic impacts at the forefront of international concern.

Covering meteorology, climate, physics, chemistry, and biology, this book serves as a reference source for research into the long-term evolution of environmental problems, offering causes, effects, and possible solutions. It covers a wealth of information, including:

Estuarine circulation and saltwater intrusions that dramatically affect ecosystems

Extreme and special weather situations, including ice conditions

Climatic trends and variability and satellite image analyses

Sea state characteristics and wind-driven and internal currents and waves

Coastline formation and sedimentary records

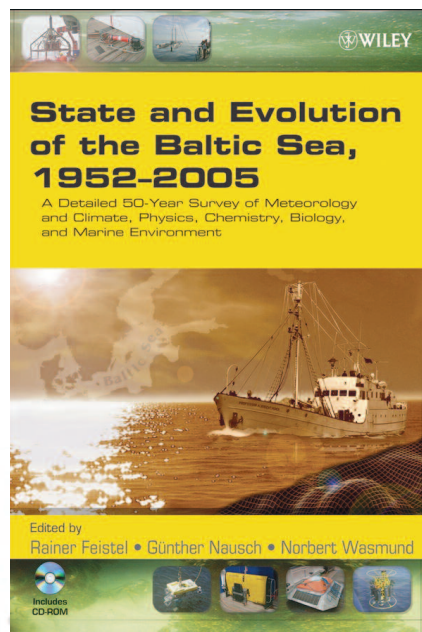
Eutrophication, concentration, and fluctuation of nutrients and trace metals

Phytoplankton, macrophytobenthos, zoobenthos, and fish stock

Numerical modeling of the complex ecosystem

And much more

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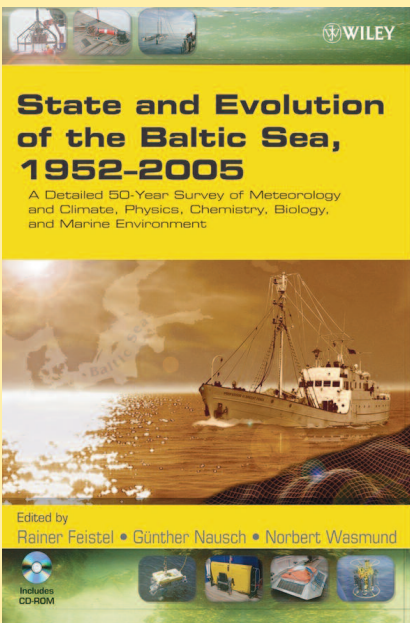
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Includes
CD-ROM

An accompanying CD-ROM provides useful supplementary material such as oceanographic reference data; long-term observational data on weather, sea level, ice cover and plankton, hydrochemical and hydro-physical data; and selected color figures from the book. *State and Evolution of the Baltic Sea, 1952-2005* serves as an indispensable resource for students and scientists in oceanography, Baltic Sea research, environmental fields or the geosciences, marine biology, and politics.

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