Special Issue

Carbon Storage in Lake Sediments Under Climate Change

Message from the Guest Editors

Limiting climate change is currently one of the most critical challenges facing science in the 21st century. Achieving this goal requires a comprehensive understanding of carbon resources and the mechanisms of carbon cycling in the environment. In this context, lake research plays a particularly important role. However, lakes are especially vulnerable to climate change. Rising water temperatures, altered sedimentation patterns, and significant changes in water surface area and volume highlight the need to update and expand our understanding of these dynamic ecosystems. In this regard, it is of crucial importance to identify indicators of carbon transformation and storage rates in sediments, which will allow tracking the dynamics of carbon sequestration under increasing environmental changes.

We welcome submissions that explore how climate change influences carbon dynamics in lake sediments, including carbon stocks, carbon forms, carbon interactions between water and sediment, carbon exchanges between sediment and the atmosphere, biochemical indicators of carbon transformations in sediments, modelling of future changes, and the impact of these changes on society and industry.

Guest Editors

Prof. Dr. Barbara Futa

Institute of Soil Science, Environment Engineering and Management, University of Life Sciences in Lublin, Leszczyńskiego 7, 20-069 Lublin, Poland

Dr. Joanna Gmitrowicz-Iwan

Institute of Soil Science, Environmental Engineering and Management, University of Life Sciences in Lublin, Leszczyńskiego St. 7, 20-069 Lublin, Poland

Deadline for manuscript submissions

30 December 2025

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/si/244806

Water
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
water@mdpi.com

mdpi.com/journal/water

Water

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 6.0

mdpi.com/journal/water

About the Journal

Message from the Editor-in-Chief

In the context of global changes, the sustainable management of water cycles, going from global and regional water cycles to urban, industrial and agricultural water cycles, plays a very important role on the water resources and on their relationships with food, energy, biodiversity, ecosystem functioning and human health. *Water* invites authors to provide innovative original full articles, critical reviews and timely short communications and to propose special issues devoted to new technological and scientific domains and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision.

Editor-in-Chief

Dr. Jean-Luc PROBST
Centre de Recherche sur la Biodiversité l'Environnement (CRBE) UMR CNRS/UPS/INPT/IRD, Centre National de la Recherche Scientifique (CNRS), University of Toulouse, Campus ENSAT, Auzeville Tolosane, Toulouse, France

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, GeoRef, PubAg, AGRIS, CAPlus / SciFinder, Inspec, and other databases.

Journal Rank:

JCR - Q2 (Water Resources) / CiteScore - Q1 (Aquatic Science)

MDPI