

Special Issue

Microbes and Biogeochemical Cycling in Terrestrial Ecosystems Under Climate Change

Message from the Guest Editor

Microbes, the most diverse organisms on earth, play a pivotal role in terrestrial ecosystems by influencing essential processes such as litter decomposition, nutrient cycling, biodiversity maintenance, soil fertility, and climate regulation. Understanding the microbial mechanisms involved in soil carbon and nutrient cycling is crucial for comprehending ecosystem dynamics and their feedback to the climate system. This Special Issue aims to address the following key questions:

- How do soil microbes influence specific aspects of carbon and nutrient cycling processes?
- What factors govern the resilience and adaptation of microbial community structures in response to environmental changes?
- How do microbial functional traits related to carbon and nutrient cycling operate at the ecosystem level?
- How do microbial processes vary temporally and spatially across different terrestrial landscapes?

Guest Editor

Prof. Dr. Fazhu Zhao

Department of Environmental Science and Engineering, Northwest University, Xi'an, China

Deadline for manuscript submissions

closed (31 July 2025)



Microorganisms

an Open Access Journal
by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed



mdpi.com/si/213950

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

[mdpi.com/journal/
microorganisms](https://mdpi.com/journal/microorganisms)





Microorganisms

an Open Access Journal
by MDPI

Impact Factor 4.2
CiteScore 7.7
Indexed in PubMed



[mdpi.com/journal/
microorganisms](https://mdpi.com/journal/microorganisms)



About the Journal

Message from the Editor-in-Chief

"Microorganism" merges the idea of the very small with the idea of the evolving reproducing organism is a unifying principle for the discipline of microbiology. Our journal recognizes the broadly diverse yet connected nature of microorganisms and provides an advanced publishing forum for original articles from scientists involved in high-quality basic and applied research on any prokaryotic or eukaryotic microorganism, and for research on the ecology, genomics and evolution of microbial communities as well as that exploring cultured microorganisms in the laboratory.

Editor-in-Chief

Dr. Nico Jehmlich

Department of Molecular Toxicology, UFZ-Helmholtz Centre for
Environmental Research, 04318 Leipzig, Germany

Author Benefits

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, CAPlus / SciFinder, AGRIS, and other databases.

Journal Rank:

JCR - Q2 (Microbiology) / CiteScore - Q1 (Microbiology (medical))

Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 15.2 days after submission; acceptance to publication is undertaken in 2.9 days (median values for papers published in this journal in the first half of 2025).