

## Special Issue

# Functional and Phylogenetic Diversity of Microbial Communities in Freshwater and Soil Environments

### Message from the Guest Editor

Microbial communities are essential drivers of ecosystem functioning, influencing nutrient cycling, biogeochemical processes, and ecological stability. However, despite rapid advancements in high-throughput sequencing and computational tools, our understanding of their phylogenetic and functional dynamics remains incomplete, particularly in freshwater and soil environments. This Special Issue aims to bridge this knowledge gap by gathering studies that explore the diversity, ecological roles, and evolutionary trajectories of microbial communities in dynamic ecosystems. We welcome research articles, reviews, and case studies on topics such as microbial community composition, metabolic potential, ecological interactions, and environmental drivers. Additionally, we encourage studies that employ cutting-edge methodologies—including metagenomics, transcriptomics, and functional assays—to elucidate microbial adaptation mechanisms and their responses to environmental changes.

### Guest Editor

Dr. Ahyoung Choi

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### Deadline for manuscript submissions

31 October 2025



## Diversity

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## About the Journal

### Message from the Editor-in-Chief

*Diversity* (ISSN 1424-2818) is a scholarly journal that covers all areas of diversity research. Our distinguished editorial board and refereeing process ensures the highest degree of scientific rigor for publishing. Original research articles and timely reviews are released online, with unlimited free access.

We invite papers and reviews on multidisciplinary topics of diversity that bridge organismic diversity (systematics, biodiversity, phylogeny, population genetics, and evolution) and molecular diversity (phytochemistry and biophysics).

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### Editor-in-Chief

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#### Rapid Publication:

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