



water

an Open Access Journal by MDPI



Microbial Ecology of Particulate Organic Matter Aggregates in Aquatic Ecosystems

Guest Editor:

Dr. Mina Bizic

Department of Experimental Limnology, Leibniz Institute of Freshwater Ecology and Inland Fisheries (IGB), 12587 Berlin, Germany

Deadline for manuscript submissions:

closed (10 July 2022)

Message from the Guest Editor

Downward fluxes in particulate Organic Matter (OM) represent the major process for the sequestering and storing of atmospheric CO₂ in sediment of aquatic bodies through the process known as the biological carbon pump. The sinking process of OM particles, typically referred to as marine or lake snow, has been studied for eight decades. However, though much is known, even more is left to be uncovered. For example, studies from the last decade have shown that the amount of carbon sequestered may be underestimated. There are two main reasons for this: first, the methodological difficulties in following OM particles from the surface to the sediment through the sinking process, and second, the lack of a good mechanistic understanding of the microbial processes taking place while OM particles sink. For example, the role of fungi in the degradation process of OM particles is largely unknown. Similarly, not much is known regarding the remineralization of OM by particle-associated viruses.

[...]

For further reading, please follow the link to the Special Issue Website at:

https://www.mdpi.com/journal/water/special_issues/microbial_ecology_particulate



[mdpi.com/si/87011](https://www.mdpi.com/si/87011)

Special Issue



water



an Open Access Journal by MDPI

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

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.

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)

Contact Us

Water Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/water
water@mdpi.com
[X@Water_MDPI](https://twitter.com/Water_MDPI)