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# Microbial Life in the Cold: A Focus on Extreme Aquatic Environments

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Deadline for manuscript submissions: closed (20 December 2022)

#### **Message from the Guest Editors**

physical environment shapes the microbial The communities by evolutionary adaptation and acclimation responses to long- and short-term variations. Raising temperatures and freezing-thawing phenomena are among main environmental stressors acting on the microbiota in a global change scenario. With this Special Issue of Water we intend to explore the diversity and survival strategies of cold-adapted microorganisms (bacteria, archaea, viruses, and eukaryotes), the ecological role played by the microbial communities in biogeochemical cycling (impacting community dynamics at seasonal and spatial scales), and the challenges for life encountered by microorganisms. Therefore, we are looking for experimental studies, reviews, and distributional surveys relating to any aspect of microbial diversity, including origin of life, ecology, astrobiology, molecular biology, physiology, and biotechnology, related to eukaryotes and prokaryotes in liquid cold matrices. Comparative studies on Arctic and Antarctic microbiology will be also welcome.[...]

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

https://www.mdpi.com/journal/water/special\_issues/polar\_microbiology









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#### 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 scientific domains and and to interdisciplinary approaches of the water cycles. We ensure a critical review process and a quick turnaround between submission and final decision

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