Special Issue

Microbial Biogeography in Global Oceanic Systems

Message from the Guest Editor

Over the past decade, significant progress has been made in characterizing the biogeography of the microbial community present in the surface ocean. Major oceanographic campaigns and distributed time series locations have revealed systematic patterns of microbial biodiversity and seasonal oscillations of community composition that are strongly associated with environmental conditions and unique ocean biomes or seascapes. However, significant spatiotemporal observational gaps still exist, such as the mesopelagic and deep, the Indian and Western Pacific, and sub-polar and/or winter conditions. Moreover, our understanding of the relationship between microbiome diversity, metabolism, and the function of the ecosystem is nascent. Further work is needed to quantify microbial community traits and their impact on marine biogeochemical rates and fluxes. In order to enhance the prediction of ocean biogeochemistry trends, establishing the global ocean baselines of microbial biodiversity and functional biogeography as well as elucidating the mechanistic properties of microbial communities that influence system-level processes is critical.

Guest Editor

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The *Journal of Marine Science and Engineering* (*JMSE*; ISSN 2077-1312) is an international peer-reviewed open access journal which provides an advanced forum for studies related to marine science and engineering. The journal aims to provide scholarly research on a range of topics, including ocean engineering, chemical oceanography, physical oceanography, marine biology and marine geosciences. We invite you to publish in our journal sharing your important research findings with the global ocean community.

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