

# Special Issue

## Atmospheric Nutrients: Sources and Impact on Terrestrial and Marine Ecosystems

### Message from the Guest Editors

Massive amounts of tiny aerosol particles of both natural and anthropogenic sources are transported over distances up to thousands of km and deposited on soil, plants, glaciers and into the ocean, carrying macronutrients (such as phosphorous and nitrogen) and trace metals (such as iron) that are essential for marine and terrestrial ecosystems. Global aerosol emissions include mineral-dust particles originating from continental deserts, as well as volcanic ashes and biomass burning aerosols produced from large-scale bushfires, i.e., pyrogenic dust. In this Special Issue, we invite authors to submit manuscripts that will contribute to improve existing understanding of the ecological and biogeochemical impacts of atmospheric nutrients from natural and/or anthropogenic sources on marine and terrestrial ecosystems, both in the past, present and future. Contributions based on *in-situ* observations, proxy reconstructions from e.g. ice-, and sediment archives, laboratory experiments, satellite remote sensing data and/or numerical modeling approaches are all welcome. Catarina V. Guerreiro, Jan-Berend Stuut, Cecile Guieu and Tim Jickells



**Atmosphere**

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### Guest Editors

Dr. Catarina Guerreiro

Prof. Dr. Jan-Berend Stuut

Dr. Cécile Guieu

Prof. Dr. Tim Jickells

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### Deadline for manuscript submissions

closed (30 November 2022)





## About the Journal

### Message from the Editor-in-Chief

Continued developments in instrumentation and modeling have driven atmospheric science to become increasingly more complex with a deeper understanding of concepts, mechanisms, and interactions. This is the field that innovation built and it has led to a better appreciation for the complexity with atmosphere. Human life is intertwined in this complexity as we strive to better understand our atmosphere. Climate change is constantly stretching the limits of our thinking and forcing new ideas and concepts to be played out. Welcome to the Anthropocene!

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### Editor-in-Chief

Dr. Daniele Contini

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