



## Ozone Effects on Vegetation under a Climate Change Scenario

Guest Editors:

**Dr. Alfredo Rocha**

Centre for Environmental and Marine Studies (CESAM) & Department of Physics, University of Aveiro, 3810-193 Aveiro, Portugal

**Prof. Dr. Ana Isabel Miranda**

CESAM and Department of Environment and Planning, University of Aveiro, Aveiro, Portugal

Deadline for manuscript submissions:  
**closed (31 August 2021)**

### Message from the Guest Editors

Dear Colleagues,

This Special Issue addresses contemporary research into the effects of climate change on ozone levels and thereafter into vegetation health. Vegetation is both a source of precursors and a consumer of ozone. It emits ozone precursors, such as volatile organic compounds, and removes ozone by absorption through dry deposition.

The physiological effects of ozone absorption are manifested through reduced photosynthesis, increased aging at the cellular level, and through damage to reproductive processes, enhancing increased disease susceptibility, decreased plant growth and reproductive capacity, and loss of biodiversity. High ozone levels can therefore lead to loss of productivity and quality of agricultural fields, and consequently to economic losses.

Original results and review papers related to the analysis of the synergistic effects among climate, ozone, and vegetation, under a climate change context, are encouraged. Authors are also expected to work on the underlying mechanisms associated to interactions between weather and ozone, taking into consideration the contribution of vegetation as a source of ozone precursors.





an Open Access Journal by MDPI

## Editor-in-Chief

### Dr. Daniele Contini

Institute of Atmospheric Sciences  
and Climate (ISAC), National  
Research Council (CNR), Str. Prv.  
Lecce-Monteroni km 1.2, 73100  
Lecce, Italy

## 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!

## 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, Inspec, CAPlus / SciFinder, Astrophysics Data System, and other databases.

**Journal Rank:** CiteScore - Q2 (*Environmental Science (miscellaneous)*)

## Contact Us

---

Atmosphere Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/atmosphere](http://mdpi.com/journal/atmosphere)  
[atmosphere@mdpi.com](mailto:atmosphere@mdpi.com)  
[X@Atmosphere\\_MDPI](https://twitter.com/Atmosphere_MDPI)