

## Special Issue

# Impacts of Climate Change on Tree Physiology and Responses of Forest Ecosystems

### Message from the Guest Editor

Climate change-driven events, as heat waves, prolonged droughts, and floodings, are evident and characterised by noticeable intensity, frequency, and spatial distribution. However, forest trees may develop remarkable physiological mechanisms to cope with challenging environmental regimes caused by global warming, rising atmospheric CO<sub>2</sub>, fluctuating water availability, elevated N depositions, and others. Whether physiological resilience and resistance on the tree level result in ecophysiological responses ensuring plasticity of forest ecosystems to the ongoing climate change or if forests may be severely impacted by climate change are core questions of current forest research. This Special Issue of *Forests* aims at exploring the progress on key aspects of tree physiology and forest ecophysiology in light of climate change. We welcome review articles and original research papers from the leaf to the ecosystem level, based on experimental, theoretical, or modeling approaches.

### Guest Editor

Dr. Mariangela Fotelli

Hellenic Agricultural Organization-Demeter, Forest Research Institute, Vasilika, 570 06 Thessaloniki, Greece

### Deadline for manuscript submissions

closed (15 April 2021)



## Forests

an Open Access Journal  
by MDPI

Impact Factor 2.5  
CiteScore 4.6



[mdpi.com/si/31501](https://mdpi.com/si/31501)

*Forests*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[forests@mdpi.com](mailto:forests@mdpi.com)

[mdpi.com/journal/  
forests](https://mdpi.com/journal/forests)





# Forests

---

an Open Access Journal  
by MDPI

---

**Impact Factor 2.5**  
**CiteScore 4.6**



[mdpi.com/journal/  
forests](https://mdpi.com/journal/forests)



## About the Journal

### Message from the Editor-in-Chief

*Forests* (ISSN 1999-4907) is an international and cross-disciplinary, scholarly forestry journal. The distinguished editorial board and refereeing process ensures the highest degree of scientific rigor and review of all published articles. Original research articles and timely reviews are released online, with unlimited free access. Our goal is to have *Forests* be recognized as one of the foremost publication outlets for high quality, leading edge research in this broad and diverse field. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global forestry community.

---

### Editor-in-Chief

Prof. Dr. Giacomo Alessandro Gerosa

Department of Mathematics and Physics, Catholic University of Brescia,  
I-25121 Brescia, Italy

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, PubAg, AGRIS, PaperChem, and other databases.

#### Journal Rank:

JCR - Q2 (Forestry) / CiteScore - Q1 (Forestry)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.1 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).