

Special Issue

Integrated Approaches to Understanding Plant Photosynthesis Dynamics in Forest Ecosystems Under Climate Change

Message from the Guest Editor

In recent decades, climate change has significantly impacted forest ecosystems, including alterations in plant photosynthesis processes. By incorporating findings from canopy-level studies, soil microbial research, and ecosystem-scale experiments, we can develop comprehensive models that capture the complex interactions between climate change, forest dynamics, soil microbial communities, and photosynthetic processes. These integrated approaches not only enhance our understanding of forest responses to environmental stress but also inform conservation strategies aimed at preserving the integrity and resilience of forest ecosystems in a rapidly changing world.

We welcome contributions from plant scientists across disciplines, including original research, review/mini-review articles, and opinion pieces, to highlight new applications and the sophisticated roles of plant photosynthesis analysis in understanding and addressing the challenges posed by climate change and stress in forest ecosystems.

Guest Editor

Dr. Nan Xu

Key Laboratory of Heilongjiang Province for Cold-Regions Wetlands Ecology and Environment Research, Harbin University, Harbin, China

Deadline for manuscript submissions

31 August 2025



Forests

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 4.6



mdpi.com/si/208204

Forests
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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).