



climate



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Climate Change Impact on Plant Ecology

Guest Editors:

Dr. Marcello Vitale

Department of Environmental
Biology, Sapienza University of
Rome (UNIROMA1), Piazzale Aldo
Moro, 5, I-00185 Rome, Italy

Dr. Alessio Collalti

Forest Modelling Lab., Institute
for Agriculture and Forestry
Systems in the Mediterranean,
National Research Council of
Italy (CNR-ISAFO), Via Madonna
Alta 128, 06128 Perugia, Italy

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Message from the Guest Editors

Dear Colleagues,

Global climate varies naturally over time scales from decades to thousands of years and longer. These natural variations can originate from internal fluctuations that exchange energy, water, and carbon among the atmosphere, oceans, and land, and from external influences, including variations in the energy received from the sun and the effects of volcanic eruptions. Human activities can also influence climate by altering atmospheric CO₂ concentrations, and other greenhouse gases including aerosols and the reflectivity of Earth's surface by changing land cover. Viewing forests as complex adaptive systems can provide insights into ecosystem processes and hierarchical interactions. The main purpose of this Special Issue is to define methodological approaches aimed at evaluating the impacts of climate change on the structural and functional processes of forests throughout the cross-scale interactions. A special focus is on elaboration of conceptual models and predictive algorithms on the effects of climate change on functional processes—such as carbon assimilation and plant respiration—and keeping of ecosystem services and biodiversity.



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Special Issue



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Editor-in-Chief

Dr. Timothy G. F. Kittel

Institute of Arctic and Alpine
Research, University of Colorado
Boulder, Boulder, CO 80309-0450,
USA

Message from the Editor-in-Chief

Climate (ISSN 2225-1154) was established in 2013 to provide an open-access outlet for innovative research, review articles, new direction papers, and short communications relevant to all disciplines related to climate at all scales. The journal encourages papers ranging from climate change detection and attribution and Earth system modeling to ecosystem, hydrologic, and socioeconomic impacts and climate mitigation and adaptation measures. The influence of *Climate* is strong and growing (IF 3.2 in 2024, CiteScore 5.7 in 2024).

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Contact Us

Climate Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
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