# Special Issue

## Water Use Efficiency and Hydraulic Traits of Forest Trees in Changing Environment

### Message from the Guest Editors

Forests play an essential role in mitigating climate change thanks to their ability to regulate terrestrial water and carbon cycles. Changes in temperature and precipitation increased the frequency and intensity of extreme meteorological events (droughts, heatwaves, and floods) impacting forest eco-physiology.

Trees react plastically to extreme climate events through changes in water-use efficiency, stomatal/photosynthetic behavior, and through adjustments in functional and hydraulic traits. There is a risk that forests may exceed their tolerance thresholds in the future, resulting in increasing tree mortality.

This Special Issue welcomes original research, including multidisciplinary approaches (such as eco-physiology, dendro-ecology, stable isotopes, remote sensing, etc.) performed at individual or population scale. Potential topics include:

- Detection of drivers and mechanisms behind forest water-use responses to climate change
- Identification of tree survival strategies for extreme climate
- Understanding of the eco-physiological processes responsible for tree mortality and decreases in tree growth in drought conditions
- Effects of forest management on tree water-use dynamics

### Guest Editors

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### Deadline for manuscript submissions

closed (28 February 2025)

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## Editor-in-Chief

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