Special Issue

Physiological, Morphological and Anatomical Traits to Abiotic Stress in Woody Plants

Message from the Guest Editors

Woody species are increasingly exposed to abiotic stressors such as drought, heat, changes in precipitation conditions and anthropogenic landscape disturbances. These stress factors affect key plant functions—altering growth patterns, wood formation and overall performance—and are leading to rapid shifts in forest dynamics worldwide. Understanding how woody plants respond to abiotic stress at physiological, morphological and anatomical levels is essential to predict their resilience, productivity and ecological function under future scenarios. This Special Issue invites original papers, reviews and short communications dealing with the trait-based responses of woody plants to abiotic stress, and we welcome studies that address wood formation (xylogenesis), growth allocation, structural adaptation and functional traits linked to stress tolerance and wood quality. Submissions may include field experiments, anatomical or mechanical trait analyses, ecophysiological monitoring or modelling approaches across different climatic zones, forest types and species—including underutilised or ecologically important taxa.

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