Special Issue

Ecological and Physiological Aspects of Xylem Formation in Trees

Message from the Guest Editors

The development of efficient plant hydraulic systems was essential for the evolution and divergence of vascular and seed plant lineages. The aim of this Special Issue is to present exciting and innovative research on plant hydraulics, particularly on the formation of xylem tissues from individuals to plant communities. Due to the underrepresentation of the major resistors in plants (leaves, flowers, and roots), studies aimed at progressing our understanding of these organs and their role on the whole plant hydraulic function will be of great interest.
we are soliciting original research papers, reviews, technical papers, and perspective papers addressing questions related to (i) the effect of plant ontogeny on cavitation resistance; (ii) the effect of plant ontogeny and environmental factors; (iii) the translation of these changes of xylem function, if any, into the physiological performance of the plant; or (iv) anatomical and physiological adaptations of new xylem tissues from plants that have suffered irregular climatic conditions, such as extreme drought events.

Guest Editors

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