Special Issue

Advances in Wood Anatomy: From Species Identification to Ecological and Technological Insights

Message from the Guest Editors

Quantitative wood anatomy has emerged as a key interdisciplinary tool bridging taxonomy, ecology, and forest technology, and recent advances in high-resolution imaging, trait-based analysis, and integrative methodologies have expanded the role of wood anatomical research from traditional species identification toward deeper ecological and technological applications. This Special Issue brings together cutting-edge studies that explore the anatomical diversity of woody species across a wide range of forest types—including temperate, Mediterranean, boreal, and tropical ecosystems—linking cellular traits to environmental drivers, growth performance, and climate resilience. Collectively, the Special Issue seeks to highlight how wood anatomy serves not only as a diagnostic tool but also as a powerful proxy to understand past climates, predict tree responses to global change, and enhance sustainable wood use in modern applications.

Guest Editors

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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.

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