



*forests*



*Special Issue Reprint*

## **Response of Tree Rings to Climate Change and Climate Extremes**

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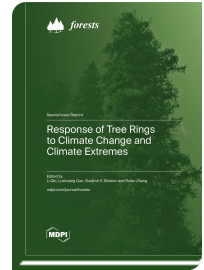
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ISBN 978-3-7258-4749-5 (Hardback)

ISBN 978-3-7258-4750-1 (PDF)



Global warming is an undisputed fact, and climate change further exacerbates the variability in the distribution and pattern of precipitation. The frequency and intensity of extreme climate events have increased significantly in the context of global climatic change, and these events have a profound impact on forest ecosystems. Therefore, it is critical to understand the response and feedback of tree growth to climate change and climate extremes. Tree rings are one of the best proxy data for understanding long-term climate and environmental changes. The aim of this reprint is to investigate in depth the responses of tree growth to climate change and climate extremes, and to reconstruct past climate changes based on proxy data from tree rings. We have collated 17 high-quality research paper, exploring the relationship between tree rings and vegetation indices, analyzing the responses of different tree-ring parameters (including tree ring width, stable carbon isotopes, density and blue intensity) to climate, and further exploring the impact of climate extremes and droughts on tree growth. In addition, past temperature and streamflow changes across different regions have also been reconstructed. We hope that these studies will promote the development of dendrochronology research.



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