

Special Issue

Stable Isotope Applications in Forest Ecosystems

Message from the Guest Editors

In this Special Issue, we invite studies developing applications of stable isotopes in forest ecology, adaptive forest management, tree physiology, and ecohydrology. In particular, we encourage studies enquiring into:

- Water vapor fluxes and carbon storage of forests, and their potential feedbacks on climate;
- Present and future shifts in tree responses to climate change toward water saving, and their effects on the magnitude and nature of climate–vegetation feedbacks;
- The upscaling of annual and intra-annual tree-ring isotopic signals to entire ecosystems benchmarking vegetation models of varying complexity;
- Temporal changes in the proportion of wood components in tree rings in relation to climate fluctuations and isotope-based retrievable climate signals;
- Stand dynamics under competition or disturbances (pests, forest fires), and assessment of forest management strategies to cope with them;
- Tree physiological responses using stable isotopes in combination with emerging tree-ring proxies;
- Long-term physiological responses of forest trees to elevated CO₂ and climate change across the globe, particularly in less explored areas.

Guest Editors

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Deadline for manuscript submissions

closed (30 June 2021)



Forests

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Impact Factor 3.1
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Message from the Editor-in-Chief

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