

Forest microclimate dynamics drive plant responses to warming

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Local factors restrain forest warming

Microclimates are key to understanding how organisms and ecosystems respond to macroclimate change, yet they are frequently neglected when studying biotic responses to global change. Zellweger *et al.* provide a long-term, continental-scale assessment of the effects of micro- and macroclimate on the community composition of European forests (see the Perspective by Lembrechts and Nijs). They show that changes in forest canopy cover are fundamentally important for driving community responses to climate change. Closed canopies buffer against the effects of macroclimatic change through their cooling effect, slowing shifts in community composition, whereas open canopies tend to accelerate community change through local heating effects.

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