

# Ecological Restoration

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**Front Cover Feature:** Changing climate is causing plant and animal distributions to move towards more favorable niche conditions. For trees on mountain sides, movement upslope is limited by the ranges height. No appropriate microclimate and site may be available over time. For culturally iconic species such as Cedar of Lebanon (*Cedrus libani*) the loss is profoundly cultural as well as ecological. Efforts based on restoration science may be stymied. Image credit: Angela Johnsen.

### Back Cover Features:

Top: Major habitat disturbances are unpredictable and can modify or destroy a restoration effort. Abella and colleagues studied effects of a major tornado on an Ohio woodland restoration and found significant impacts on many floristic features. However, many restoration goals were still being met. Photo credit: Scott Abella.

Middle: Long-term measurements of a restored woodland restoration by Shea and Helgeson record the changes of tree biodiversity and abundance over time. New species disperse in from nearby habitats and relative abundance of planted species changed over the 23-year study period. Photo credit: Kathleen Shea.

Bottom: Multiple chemical and mowing treatments were successfully tested by Farthing and colleagues in Texas habitats damaged by Bermudagrass (*Cynodon dactylon*) invasion. Results may be useful in many southwestern habitats seeking greater native plant biodiversity. Photo credit: Trevor Farthing.