

# Ecological Restoration

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**Front Cover Feature:** The need for abundant and appropriate seeds of native plants has encouraged some native plant nurseries to develop their own populations of wildflower and grass species that are regularly requested by clients. These fields in central New Jersey have been developed by Pinelands Nursery & Supply, Columbus, NJ, to provide local genotypes to restoration projects in the region. Irregular ordering, changing preferences, and the challenges of knowing the reproductive ecology of many species all challenge the ability of these nurseries to quickly expand supplies to meet fluctuating demands. These expansive fields are open-pollinated and were started with accessions from several local populations to build genetic diversity. Special seed collection and cleaning facilities are then needed to meet the needs of restoration practitioners. Photo credit: Steven N. Handel.

### Back Cover Features:

Top: To effectively restore degradation of the landscape due to the rapid boom in energy development, an understanding of both the role of soils and weed invasion is necessary. In this issue, Espeland and colleagues test the role of cover crops in ecosystem recovery after energy development and the potential for dispersed reclamation activities to facilitate weed invasion and spread. Photo credit: Erin K. Espeland.

Middle: Understanding the appropriate collection zones for native plants used in restoration activities is a key concept for successful restoration. Pictured here, thimbleweed, cup plant, downy wild rye, and American bellflower growing in greenhouses at Iowa State University. Photo credit: Catherine M. Mabry.

Bottom: To restore coastal scrub communities on mined sites, Busnardo and colleagues found that seeding these communities on amended soils was more successful than container plantings. Pictured here, Leona Quarry reclamation and coastal scrub restoration project site, central California, USA, after completion of mass grading and topsoil preparation. Photo Credit: Karen Verpeet.