

# Ecological Restoration

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**Front Cover Feature:** North American inland salt deserts are one of the largest ecosystems in the western United States. There is a growing need for restoration of this ecosystem, due to disturbance by heavy livestock use, wildfire, recreation, energy development, and invasive species impacts. In this issue, Jonas and colleagues review the current literature and survey restored salt desert sites in western Colorado, resulting in guidelines for success. Picture here, a reference site at Badger Wash, Colorado, USA. Photo Credit: Jayne Jonas.

### **Back Cover Features:**

**Top:** Understanding seed germination and establishment requirements of restoration species is critical to the success of restoration projects. In this issue, Alstad and colleagues tested the establishment potential of both large- and small-seeded prairie plant species, finding that while large-seed species established at higher rates than small-seeded species, prescribed burning increased establishment of all species. Photo Credit: Amy Alstad.

**Middle:** Seed for restoration projects is often collected from the wild. However, some species have limited seeded output. In this issue, Rantala-Skyes and Campbell found that fertilizer does not necessarily increase seed output for two perennial herbs native to subarctic North America. Pictured here, *Potentilla anserina* (silverweed). Photo Credit: Benjamin Polowich.

**Bottom:** Topsoils removed for energy projects have potential to be important for soil and vegetation restoration, but little is known regarding the longevity of the seed bank in stock-piled topsoil. Lovell and colleagues assessed the seedbanks of stockpiles and found that the composition and number of seeds in the seedbanks depending on stockpile depth and sampling season. Shown here, one of the studied stock-piles of topsoil (left-hand half of the photo) left from the construction of a frac pond (back right of photo), Dimmit County, Texas, USA. Photo credit: Paula Maywald.