

USDA Forest Service Botany in the News

Uinta National Forest Introduction Program to Recover Clay Phacelia, One of Utah's Most Endangered Species

Who: Uinta NF, U.S. Fish and Wildlife Service, The Nature Conservancy, USFS Rocky Mountain Research Station, Red Butte Garden, Brigham Young University and Utah Native Plant Society.

What: Known from only two small populations on private lands, the Forest Service is contributing to recovery efforts of one of the nation's rarest plants, the Endangered Clay phacelia (*Phacelia argillacea*) by taking action to establish new populations on federal lands. Over the past decade, the Uinta NF has conducted extensive surveys in suitable habitat on federal lands adjacent to occupied sites but no additional populations have been found. Field surveys conducted in 2001 indicated an alarmingly low number of plants in the known populations due a series of natural and weather related factors (drought, predation, etc.) which subsequently led to the need for urgent action to begin Seed collection for ex-situ testing and seed bank expansion. The goal is to establish up to 13 new populations on federal lands that would ensure that this species does not go extinct.

When: Beginning in 2007 and thereafter.

Where: Spanish Fork Ranger District, Uinta National Forest

How: In 2004, the USFWS provided initial funding for this project to begin seed collection on TNC-owned Clay phacelia habitat. Assisting were members of the Red Butte Garden staff (a Center for Plant Conservation garden), UNPS, and Dr. Susan Meyer from the Rocky Mountain Research Station in Provo, Utah. In 2005, Dr. Meyer conducted initial germination procedures at the Provo Shrub lab, which resulted in 53 potted plants. She later took these plants at home, where she had a small apiary of blue orchard bees. To her delight, the 53 plants produced 11,000 seeds! These will be the source of young plants and seeds to be planted out on the Uinta National Forest in 2007. Additional genetics research will be conducted by BYU in 2007 on populations from both known locations.

Why: Rare plant species found on private land do not receive the same level of protection under the Endangered Species Act that animals do. Therefore, it has always been a high priority for Clay phacelia's recovery that new populations be established on lands with more certain protection. Thanks to the actions of the Uinta NF leadership and its many agency and private partners, efforts to recover one of America's beautiful gems is well under way.

Contact: Denise Van Keuren, Forest Ecologist, Uinta NF (801) 342-5179.



Clay Phacelia habitat is found on sparsely vegetated slopes of the Green River shale formation at about 6,600-foot elevation. Photo credit: Denise Van Keuren.



Clay Phacelia grows on fragile, barren soils on steep hillsides only in Spanish Fork Canyon, Utah. Photo credit: Denise Van Keuren.



Blue orchard bee, *Osmia lignaria*. Photo credit: ARS Logan Bee Lab.