

Recovering a Prairie Orchid

by Kris Lah



This picture was taken at one of the volunteer training sessions on non-federal land. In the middle of the picture is Marlin Bowles of the Morton Arboretum, a species expert and author of the recovery plan. In the front and to the left is June Keibler, the Volunteer Coordinator for the stewardship network for over 10 years.

USFWS Photo

A partnership of stakeholders and the Fish and Wildlife Service's Chicago Ecological Services Field Office took root over 10 years ago and has blossomed into an active recovery program for the eastern prairie fringed orchid (*Platanthera leucophaea*). Scientists, volunteers, landowners, and conservation organizations in northeastern Illinois have a strong interest in the recovery of the rare wildflower. This interest grew into action that includes habitat management, annual demographic and census data collection, research, hand-pollination, population augmentation, reintroduction, and outreach.

Sowing Seeds of Stakeholder Involvement

The eastern prairie fringed orchid was once widespread across the upper Midwest, with additional populations in Oklahoma, Virginia, New Jersey, and Maine. After it had declined in range by more than 70 percent, it was listed as threatened in 1989. Most populations now contain fewer than 50 plants and are not considered highly viable. Illinois had the largest and most extensive presettlement orchid populations and has suffered the most drastic decline of any state in the species' historical range. The orchid once occurred in 33 counties of northern Illinois but is now only found in 9 counties.

All of the Illinois populations are on nonfederal land and are concentrated in the Chicago metropolitan area. In fact, the largest populations in Illinois occur on private property and land owned by small municipalities. Therefore, cooperative efforts are essential for recovering the orchid. Landowners have cooperated

in the recovery effort by providing access to their property and allowing research, management, and seed collection to be conducted. In addition, they have become partners with the state and the Service by sharing the costs of many of these projects.

Stakeholders were identified and consulted early, and consultation has continued throughout the recovery planning and implementation stages. Once individuals, groups, or agencies have an interest in the issue and are made aware of how the subject is being addressed, they become participants in the recovery process. Input from stakeholders during developing the recovery plan for the orchid, and recognition of recovery achievements, has given stakeholders a sense of ownership of the plan and a commitment to the orchid's recovery.

By working with stakeholders such as state and county agencies, The Nature Conservancy, Chicago Wilderness, the Orchid Society, private landowners,

corporations, botanic gardens, and arboretums, the Chicago Field Office has been able to pool resources, skills, and knowledge for accomplishing recovery tasks. One of the first tasks was to locate additional orchid populations and contact the landowners. As a result, new population remnants have been found and the quest to find appropriate habitats for orchid reintroduction continues.

The Project Blossoms

In 1993, the Service's Chicago Field Office cultivated a partnership with The Nature Conservancy. It first approached the Conservancy with the idea of tapping into its volunteer stewardship network to engage "citizen scientists" in recovery efforts for the orchid. The Conservancy helped to recruit volunteers, but most of the interest was spread by word of mouth and with help from the media. There were 30 participants at the first volunteer training session, with 30 more volunteers joining soon after. Members of the volunteer network have remained very dedicated over the last 10 years, with 70 percent of the original group still active.

Since the volunteer program's inception, its leaders have maintained their roles. Most notable is June Keibler, the Volunteer Coordinator. Through more than 10 years, June's dedication has shown a personal commitment to the species. Her enthusiasm and diligence motivates others to take a stake in eastern prairie fringed orchid recovery.

So what do the volunteers do? *A Lot!* They collect census and demographic data, evaluate the management condition of their site, and collect and disperse seeds. Some of the variables that the volunteers collect data on include height, number of leaves, number of flowers, number of flowers hand-pollinated, herbivory impacts, and habitat conditions. Volunteers have been asked to do additional work on occasion, such as collect tissue samples and manage habitat, and they have always come through. All of the data the volunteers

collect are provided to researchers at the Chicago Botanic Garden and the Morton Arboretum. Researchers then compile this data and look for correlations with other variables.

In addition to annual census and demographic data collection, volunteers also hand-pollinate the orchid. The natural pollinators for the eastern prairie fringed orchid are night flying hawk-moths. Hand-pollinating the orchid has increased seed production, which allows for augmentation of existing populations and introduction of seed to start new populations.

The Fruits of Their Labor

A month and a half after the plants are pollinated, volunteers return to the site to monitor and collect seed capsules. The seeds are then used to augment existing populations and establish new ones in protected sites, with the hope of contributing towards recovery. State partners have helped by finding publicly owned sites with appropriate habitat. Last year alone, their efforts provided for introduction of seed into 15 new sites.

The progress that has been made toward the recovery of the orchid could not have been accomplished without the participation of stakeholders. The volunteer program alone is responsible for starting six new populations, successfully reintroducing the orchid to five historic sites, finding unknown populations, and augmenting existing populations. The Service has provided seed for protected land, established relationships with landowners, and assisted in the management of orchid habitat. Such stakeholder involvement is a vital part of recovery efforts for the eastern prairie fringed orchid and many other threatened and endangered species.

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The eastern prairie fringed orchid may grow as tall as 40 inches, and has an inflorescence with as many as 40 creamy white flowers

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