

Chippewa NF Unique Partnership Saves Showy Lady Slippers

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The Showy Lady Slipper is the official state flower of Minnesota.

The Chippewa National Forest in North Central Minnesota is developing a unique public-private partnership to mitigate and reduce impacts of a highway upgrade along 15 miles of Trunk Highway 39, the Ladyslipper Scenic Highway. The highway upgrade is necessary to improve safety and travel speed on an important corridor that provides the most direct route to recreational sites and businesses between the major highway corridor of U.S. Hwy. 2 and the Village of Blackduck, Minnesota.

The major challenge of the partnership is to ensure that a population of several thousand Showy Lady's Slippers, the state flower of Minnesota, are not irreparably damaged or eliminated during the highway upgrade. The Pennington Orchid bog along this route, is one of the most prolific producers of orchids in the upper Midwest.

A citizen's Scenic Byway Committee has worked with local governments and landowners to provide education resources about the highway upgrade and the possible impact to the orchids, and is very active in the ecological planning to ensure the survival of the colonies.

The partnership between the Forest Service and community involves

matching the sophisticated resource mapping and ecological management skills of the Forest Service, with the enthusiasm and local involvement of citizens. The Forest Service provided the global positioning tools and personnel necessary to conduct flower location surveys, and to make maps of all the major orchid colonies along the highway.

Ray Newman, a Forest Service Plant Ecologist, organized local volunteers to conduct the yearly surveys during the Lady's Slippers flowering period. Volunteers helped survey the entire highway corridor and noted rough numbers, condition, size and distance from the road for all Lady's Slipper colonies.

Data for each point is recorded and analyzed jointly using the visualization tools of Geographic Information Systems (GIS). Accurate locations of the orchids is used to help design the road to maintain at least some of the colonies. Having precise colony information also allows efficient transplant, so that salvage operations can move the orchids to areas that contain a certain necessary for their survival.

The ability to work with microorganism populations that are symbiotic (in partnership) with those higher plants that humans wish to manage effectively, may be an important legacy of this human partnership.

"We are still at the conceptual stage for working with fungal partners, but our human partnerships may be an important step in understanding how to successfully manage orchids along roadsides," Newman said.

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