

Restoration of a Swamp White Oak Woodland

The Upper Mississippi Forest Partnership and the National Fish and Wildlife Foundation jointly initiated the Upper Mississippi River Watershed Fund. The Foundation funds projects that benefit the forests of the Upper Mississippi while improving wildlife habitat and water quality.

Background

Swamp white oak woodlands have become increasingly rare since the time of European settlement, primarily because human activities have disturbed natural flooding and fire cycles needed to maintain them. Both The Nature Conservancy and the Iowa Department of Natural Resources (DNR) classify swamp white oak woodlands as a high conservation priority because of their global rarity and exceptional species diversity.

Immediate threats to these unique woodlands include the invasion of reed canary grass and exotic woody vegetation. Despite the ecological value of swamp white oak woodlands, scientific information about their restoration and management is limited.

Location

The Nature Conservancy's Swamp White Oak Preserve is part of the Lower Cedar River Valley located in Muscatine County in southeastern Iowa. The project area is also included in the Iowa DNR's "Southeastern Area Amphibian and Reptile Conservation Area," the first of its kind in the Nation.

Goals

- Improve the quality of a globally threatened, degraded swamp white oak woodland by reintroducing fire and controlling invasive species
- Share knowledge gained from restoration activities with conservation partners

Results

- Controlled burns, herbicide treatments, and mechanical methods will be used to remove exotic species
- Stumps and sprouts will be treated to prevent resprouting

- Results will be shared via a Fire Learning Network
- An information kiosk will describe the project, and a permanent swamp white oak woodland restoration "demonstration area" will be created
- Long-term responses to treatments will be monitored
- The Nature Conservancy will continue to cooperate with the Iowa DNR and Grinnell College on an ongoing groundwater and nutrient cycling study

Outcomes/Accomplishments

Creating a demonstration area under an existing partnership is expected to spur similar conservation actions and further refine research needs in the region. Through scheduled field trips, partners plan to directly reach at least 50 landowners and other cooperators in the area.

Fortunately, the preserve still has more than 300 species of native plants. Opening the canopy will encourage two things: recolonization of native species and the collection of native seeds that could be used for restoration projects elsewhere.

The project will restore habitat used by at least 12 species of greatest conservation need, including Blanding's turtle and the Eastern Massasauga rattlesnake.

Partners

The Nature Conservancy, Iowa Department of Natural Resources, Grinnell College

Grant Amount

\$ 29,672



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