

# Introduction and General Description

Minnesota contains a diversity of landscapes and habitats, ranging from boreal forest in the northeast, to the Big Woods of the transition zone, to the tallgrass prairie along the west and southwest portions of the State. Interspersed throughout all these various landscapes are millions of acres of lakes and wetlands.

The U.S. Fish and Wildlife Service assists private landowners across the State with the restoration, management and protection of these habitats on their land through the Partners for Fish and Wildlife Program.

In Minnesota there are 12 national wildlife refuges, five Wetland Management Districts, one Ecological Services Field Office and one Private Lands Office with personnel trained to provide technical advice and financial assistance to landowners who voluntarily restore wildlife habitat on their land. The Partners Program in Minnesota, initiated in 1987, has grown to be a very popular and successful Service activity. Since its inception, more than 12,000 wetlands have been restored and over 500 upland sites have been restored to native prairie habitat.

# **MINNESOTA**



Kate and Pat Miller's wetland restoration in Mille Lacs County

In Minnesota, the Partners
Program has focused on restoring
specific types of habitats. The
main emphasis of the program has
been wetland restoration and more
recently, upland/prairie restoration
or establishment. The Partners
Program has also become
increasingly involved in restoring
in-stream aquatic habitat as well as
streambank vegetation through the
use of bioengineering techniques.

# Habitats of Special Concern

#### Wetland Habitat

Minnesota is often referred to as the Land of 10,000 Lakes. According to recent figures, Minnesota has more than 15,000 lakes, 63,000 miles of rivers and streams, and more than 10 million acres of wetlands of various types. Wetlands are extremely valuable natural resources and are important



**Prairie Pothole Region - western Minnesota** 

for providing fish and wildlife habitat, flood control, ground water recharge, filtration of pollutants, recreational opportunities and scenic benefits.

In Minnesota, the Service is partnering with a number of entities to help restore and establish important fish habitat and stabilize streambanks on the Rock River for the federally endangered Topeka shiner. Work is ongoing as more private landowners become interested in restoring that type of wetland habitat on their land.

#### Prairie Habitat

Native grasslands or prairies provide important habitat for many species of wildlife. The vast grasslands of long ago spread from the northwestern to the southeastern tip of the State of Minnesota and consisted of a variety of plant communities. The diversity of plant species provided sources of food, cover and breeding habitat for migratory songbirds and waterfowl. It was also home for large mammals such as bison and elk.

In Minnesota, through the Partners Program, over 14,000 acres of upland prairie habitat have been restored on private property.



Landowner with seed drill seeding warm season native prairie seeds.



Survey work on the Rock River for a streambank stabilization project. This river provides habitat for the federally endangered Topeka shiner.



Blazing star, a prairie wildflower, in its native habitat.

### **Threats**

### <u>Lost Habitats</u> Wetlands

In the early history of Minnesota, nearly one-third of the State's acreage was considered wetland. With the advent of agricultural development in the late 1800s and early 1900s, many of Minnesota's wetlands located within the transition zone, or central forests, and within the southern and western prairie areas were drained.

Today, less than half of the original wetland acreage remains because of the installation of drainage tiles and surface ditches.

It is estimated that more than 23,000 miles of drainage ditches exist in the State.

#### **Prairies**

As with the loss of wetland habitat, much of the fertile prairie has also been converted to agriculture. Of the less than 1 percent remains.

## **Conservation Strategies**

The Partners Program in Minnesota is carried out through the cooperation of private landowners who voluntarily offer drained wetlands and degraded uplands for restoration. Assistance is offered either in the form of informal advice on design and location of potential restoration projects, or design and funding of restoration projects through a voluntary Wildlife Management Agreement with the landowner. With this voluntary arrangement, habitats are restored at little or no cost for participating landowners who agree to protect their restored wetlands for a minimum of 10 years, and their restored uplands for a minimum of 20 years. Most habitat restoration projects are accomplished through a partnership not only with the individual landowner, but also with other contributing partners. This helps defray costs for all involved, establishes the most cost-effective conservation practice, and provides high quality habitat. This cooperative effort helps all partners achieve mutual conservation objectives.

Typically, the "dirt work" is accomplished using either Service personnel and equipment, if the project is located near a refuge or Wetland Management District, or a private contractor is hired through the Partners Program to complete the project as designed by Service personnel.

In Minnesota, the cost to restore a drained wetland generally averages about \$200-300/acre. Native grass establishment varies from \$50-\$500 per acre. Streambank, riparian and in-stream habitat restoration or enhancement averages \$4 per linear foot, but can range from \$0.10 to \$50.00 per linear foot.

Restoration projects may include, but are not limited to:

- restoring wetland hydrology by plugging drainage ditches
- < breaking underground tile drainage systems
- < dike construction
- < planting warm season native grasses



Dave Jacobson, landowner, and Dennis Hall, FWS Engineering Technician, installing a water control structure.



Dave Jacobson, landowner, surveys his restored wetland.

- < installing fences to allow for restoration of stream and riparian areas
- reconstruction of in-stream aquatic habitat through bioengineering techniques.

#### **Partners**

The foundation of the Partners Program focuses on partnerships. These are formed not only with private landowners, but also with other Federal and State agencies, private conservation organizations, local agencies, communities, school groups, businesses and other private individuals. These partnerships have generated significant habitat restoration accomplishments on private lands, with an emphasis

on wetland, streambank, riparian, and in-stream aquatic habitat restoration, and native grassland establishment.

Our most important partners remain the thousands of private landowners who choose to restore and protect habitat for fish and wildlife on their land. Our partners have included:

- < Natural Resources Conservation Service
- < Farm Service Agency
- < U.S. Army Corps of Engineers
- < Environmental Protection Agency
- < Minnesota Department of Natural Resources</p>
- Minnesota Board of Water and Soil Resources
- < Minnesota Extension Service
- < University of Minnesota
- < Soil and Water Conservation Districts
- < School Districts
- < Cities and Towns
- < Mille Lacs Band of Chippewa Indians
- Lower Sioux Mdewakanton Indian
   Community
- < Upper Sioux Community of Minnesota
- < White Earth Chippewa
- < Red Lake Band of Chippewa Indians
- < Minnesota Waterfowl Association
- < Pheasants Forever
- < Ducks Unlimited
- < Trout Unlimited
- < Muskies, Inc.

Cooperative efforts with USDA and Minnesota Waterfowl Association on Conservation Reserve Program Sign-Ups will result in the restoration of about 2,500 wetlands located mostly in the northwestern part of the State, at no cost to landowners involved.

#### **Prairie Habitat**

Also this past year, the Partners Program has helped 65 landowners in Minnesota establish 1,296 acres of native prairie on 69 sites.

Currently in Minnesota, more than 14,000 acres of prairie habitat on over 560 sites has been restored through the Partners Program.

#### **Future Needs**

Based on past experience and recognizing landowner interest and willingness to voluntarily participate in restoration activities in Minnesota, we estimate that the following is immediately available for restoration:

- Restore 40,000 acres of wetland habitats,
- Establish 20,000 acres of native grass and forb plantings and
- Restore and enhance 30 miles of streambank, riparian and in-stream

**CONTACT** 

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## Accomplishments

#### **Wetland Habitats**

In fiscal year 2000, through the Partners Program, over 1,250 wetland sites, totaling 4,392 acres, and approximately 16,300 feet of stream and riparian habitat were restored. This was accomplished through successful partnerships with over 360 landowners across the State.

To date more than 12,600 wetland restorations have been completed statewide, improving more than 42,800 acres of fish and wildlife habitat.

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