



# Alpena Fishery Resources Office Partners for Fish and Wildlife

## Annual Report 2005



Heather L. Rawlings  
U.S. Fish & Wildlife Service  
Alpena Fishery Resources Office  
145 Water Street, Alpena, MI 49707

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*“The mission of the U.S. Fish and Wildlife Service is working with others to conserve, protect and enhance fish, wildlife, plants and their habitats for the continuing benefit of the American people.”*

## **I. Introduction**

The Partners for Fish and Wildlife Program (Partners) is a voluntary habitat restoration program that provides restoration expertise and financial assistance to private landowners, Tribes, and other conservation partners that willingly restore fish and wildlife habitat on their property. The Partners Program differs from other Federal restoration programs in that it focuses on restoring habitat for migratory birds such as shorebirds, songbirds, waterfowl; anadromous (migratory) fish such as sturgeon, and declining plant and animal communities such as native prairie and quality stream habitats. All private landowners, Tribes and local governments are eligible for the program. Program participation is voluntary and project implementation is based on fish and wildlife benefits. Since the Partners program was initiated in Michigan in 1988, over 1,500 projects have been completed, and approximately 10,240 acres of wetland, upland and riverine habitats have been restored.

### **Alpena Fishery Resources Office Partners for Fish and Wildlife Program**

The Alpena FRO initially began working with the Partners Program through the Clean Water Action Plan and Fish Habitat Restoration funding that became available to field offices in 1999. Aquatic restoration is a natural focus of a fishery station, and the Alpena FRO had been working with local watershed restoration committees since 1997. The focus of projects was the reduction of sediment entering the watersheds from stream bank erosion sites, road/stream crossings, and improving fish habitat by removal or displacement of sediment, and removing barriers to fish passage. In 2000 the Alpena FRO started a small wetland restoration program and accepted five counties in NE Michigan as the area of responsibility. In 2001 the Alpena FRO received funding to hire a permanent coordinator and expanded the area of responsibility to include twenty counties in the northern part of the lower peninsula of Michigan.

## **II. Study Site**

The northern lower peninsula of Michigan is primarily a rural, forested landscape with small pockets of development and little industry. Agriculture dominates the central southern counties, whereas the coastline and the northern tip of the lower peninsula relies on logging, oil and gas extraction and tourism as the major industries. Large tracts of State and Federally-owned land are present throughout the region. Twelve Federally Endangered species are located within this twenty-county area, many of them associated with habitats located within the coastal dunes and wetlands. Originally northern lower Michigan's primary vegetation consisted of beech/sugar maple/hemlock forest interspersed with white pine, red pine and jack pine. A mixed conifer swamp habitat is prevalent in large parts of northeastern Michigan. The eastern coastline is rocky, with

bedrock very close to the surface dominated by karst topography. The western coastline is much sandier with a dune-dominated coastline.

### III. Results

In FY 2005 the Alpena FRO received \$148,000 from habitat restoration funds (1121) to restore wetlands, in-stream habitat (including fish passage), and riparian habitat. These funds were matched with \$156,000 of non-federal funding for a 1:1 match of federal to non-federal funding. In total, sixty-nine acres of wetland were restored in six counties on fourteen sites throughout the northern tip of the lower peninsula of Michigan. In addition, 8,600 acres of wetland was treated for the invasive Eurasian watermilfoil, five miles of stream bank erosion sites were restored, five beaver dams were removed opening ten miles of the Black River, and seven miles of in-stream habitat was improved for fisheries habitat through the placement of in-stream structures on the Black River.

#### A. Wetland Restoration

Table 1 lists wetland projects by landowner name, county, acreage restored or enhanced, and project cost.

**Table 1. Wetland Projects funded with FY2005 Habitat Restoration Funds**

<b>Landowner Name</b>	<b>County</b>	<b>Acreage</b>	<b># of wetlands</b>	<b>USFWS Cost</b>
Lafave	Presque Isle	3	1	\$2,350
Clark	Alcona	5	1	\$2,350
Joslin	Alcona	4	1	\$2,395
Westenbarger	Alpena	2	1	\$3,942
Veenstra	Wexford	3	2	\$6,342
Jackson	Wexford	2	2	\$2,495
Magnusson	Cheboygan	12	2	\$11,000
Schell	Alcona	33	2	\$5,677
Azbell	Oscoda	5	2	\$6,155
<b>TOTAL</b>	<b>6 Counties</b>	<b>69</b>	<b>14</b>	<b>\$42,706</b>

Following is a brief description of each wetland restoration project and the resource outcomes.

## Lafave, Presque Isle County



**Figure 1. Pictured is the Lafave property, pre-construction, in November 2004.**

This 3-acre wetland was restored in a fallow hayfield. The original wetland had been ditched in two different directions. We plugged one ditch, and built a small earthen dike blocking the other. The site had filled completely with water by the spring of 2006. The landowner has seen a sharp increase in



**Figure 2. This is the Lafave property, post-construction in spring 2006**

waterfowl use of the property, and has noticed turkey and deer utilized their new watering hole.



**Figure 3. This is the Clark property immediately following construction in July 2005**

## Clark, Alcona County

This drainage had been ditched in the 1950's while the field was used for grazing. Now fallow, this property is kept for hunting and recreation, but nobody is currently living on the property. The drainage was blocked with a small earthen dike, enhancing a 5-acre wetland that was formally a very narrow scrub/shrub habitat (Figure 3). The landowner



**Figure 4. This is the Clark wetland fully flooded in the spring of 2006.**

is extremely pleased with the project, and would like to do an additional project in 2007 on his Father's property.



**Figure 5. This is the Joslin's field before construction in July 2004.**

## Joslin, Alcona County

A small drainage ditch emptying into the West Branch of the Pine River was blocked with a small earthen dike, flooding approximately 4 acres of fallow pasture. The landowner shared in the cost of the project, by paying to dig a deeper area well upstream of the dam. This project will be followed with an additional project to restore the ¼-mile of the Pine River that flows through Mr. Joslin's property. Three erosion sites will be repaired, and large woody debris will be added to the riverine habitat in the spring of 2006. Partners include Huron Pines Resource, Conservation & Development, the Pine



**Figure 6. This is the partially-filled Joslin wetland in the spring of 2006.**

River/VanEttan Lake Watershed Restoration Committee, and a local chapter of Trout Unlimited.

### **Westenbarger, Alpena County**

A small woodland site, this created wetland provides habitat for wood ducks and a watering hole for the variety of wildlife found in the Alpena area including deer, turkey, and black bear. An avid Ducks Unlimited member, this landowner was

seeking a chance to provide migratory bird habitat on his own property.

Projects for the Veenstra, Jackson, Magnusson, Schell and Azbell properties have been obligated with 2005 funds, but have not been constructed due to a number of obstacles beyond our control.



**Figure 7. Westenbarger property, during construction December 2004**

## **B. In-Stream Habitat Improvements**

The Alpena FRO has been working with local watershed restoration committees since 1997. Watersheds include the Thunder Bay River, Misery Bay, Pine River/VanEttan Lake, Ocqueoc River, Jordan River, AuSable River, and the Cheboygan River Watershed (which includes the sub-watersheds of the Black, Pigeon, Sturgeon, Rainy, Maple, and Indian Rivers). Types of work include stream bank erosion restoration, construction of access stairs and canoe launch platforms, fish habitat improvement, beaver dam removal, and assisting county road commissions with road/stream crossing improvements. College and high school students are hired through local conservation districts for the summer. The crew chief, hired through the conservation district, is a permanent or seasonal person with several years of experience conducting stream restoration work. Volunteer labor from conservation groups such as Trout Unlimited and the Montmorency County Conservation Club are utilized when they are able to assist with restoration projects in addition to the summer work crews.

### **Upper Black River Watershed**

Two college students and one crew chief comprised the 2005 work crew for the Upper Black River Watershed. These local youth are enrolled in environmental and engineering programs at Lake Superior State University and Michigan Technical University. The largest project for the work crew was the placement of



**Figure 8. This eddy area in the Black River is eroding the bank.**



**Figure 9. This is the eddy area after LWD placement. Note the placement of the trees to redirect the river flow off of the eroding bank (main branch of Black River, Montmorency County).**

current log deflectors (Figures 8 and 9). Due to sediment loading many reaches of the Black Lake Watershed have become shallow and wider, resulting in uniform river morphology. Current log deflectors are placed to closely imitate naturally fallen trees in the stream. These logs divert the main current to the center of the stream to create a narrower and deeper stream. During bankfull precipitation events the logs trap sediment behind them, eventually creating a new stream bank. Additionally the logs provide shelter for fish and other aquatic organisms. Approximately ten river-miles in the Upper Black River were improved with the placement of these structures in 2005. All sites are being closely monitored to determine effects of structure placement. This year the crew was hired for two weeks by Canada Creek Ranch (a large

private resort in Montmorency County) to improve sections of Canada Creek with the log structures.

Beaver activity is a chronic problem the Upper Black River. The Upper Black River Watershed Restoration Committee works with local trappers to reduce beaver numbers from areas of concentrated populations where dams were completely blocking the river. Local trappers removed beaver over the winter months. The work crew removed five dams over the course of the summer throughout the Upper Black River watershed, opening 10 river-miles to free-flowing habitat.

The following groups contributed funds, materials, and labor to in-stream restoration work in the Black Lake Watershed:

Upper Black River Watershed Restoration Committee	\$ 2,000
Michigan Flyfishing Club	\$ 5,000
Canada Creek Ranch	\$ 16,000
Trout Unlimited, Vanguard Chapter	\$ 2,000
State of Michigan	permit assistance
U.S. Fish and Wildlife Service	\$ 15,000
<b>TOTAL</b>	<b>\$ 40,000</b>

### **Thunder Bay River**

Two college students were hired to work on stream bank erosion sites on the Thunder Bay River. Beginning in 1996, the work crew has progressively moved downstream restoring stream bank erosion sites. The summer of 2005 was a re-building year for Thunder Bay River restoration activities. The summer work started with the crew floating the navigable parts of the river, and clearing obstructions that block flow and/or navigation of small recreational crafts. Five stream bank erosion sites were planted with shrubs to aid in restoration efforts. Four new sites were surveyed for Michigan Department of Environmental Quality permit applications. Two erosion

sites were restored with a combination of fieldstone placement and vegetative plantings. Several weeks were spent assisting the Black River work crew with the large woody debris project on Canada Creek Ranch. The crew was employed from mid-June through August to complete the work.

In total, 2,000 Thunder Bay River informational brochures were finalized and printed in summer 2005 by the Montmorency Conservation District. Distribution of the brochures was initiated with a mailing to all of the riparian landowners along the Thunder Bay River corridor.

### **Fletcher Floodwater Milfoil Treatment**

Fletcher Floodwater is an 8600 acre impoundment in the Thunder Bay River Watershed. Located in Alpena and Montmorency Counties in Northern Michigan, this shallow impoundment is widely known for excellent yellow perch, northern pike, and panfish fishing. The Floodwaters



**Figure 10. Eurasian watermilfoil grows in abundance in Fletcher Floodwater, July 2005.**

is home to the second-largest Osprey population in the Midwest. It is also home to nesting eagles, loons, and serves as a waterfowl resting area. In recent years the Floodwaters has become inundated with the invasive Eurasian watermilfoil (*Myriophyllum spicatum*). The Eurasian watermilfoil (milfoil) out-competes native vegetation (Figure 10), reduces the growth and abundance of fish populations, and dramatically disrupts the aquatic ecosystem.

On July 8, 2005, nine partners from local industry, conservation organizations, and natural resource agencies (including the Service) pooled funds and resources to contract Enviro Science to assess, monitor, and release 15,000 native milfoil-eating weevils into the Floodwaters (Figure 11). Currently the milfoil covers 75% of the Floodwaters. Release of these weevils was focused in three areas of the lake, and should encourage the proliferation of the native weevil population. The lake will be monitored for the next three years to determine effects of the weevils. Fundraising efforts continue for the purchase and placement of additional weevils.

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**Figure 11. Diver tying bag of weevils to milfoil in Fletcher Floodwater, July 2005.**

On September 21, 2005 monitoring was conducted on the treatment sites, and according to Enviro Science, “Weevils were present in every life cycle stage in all three of the stocked sites, and were found in high abundance, averaging .14 weevils per stalk of Eurasian watermilfoil. For a first year projects it’s a great number” (Alexis Maple, Enviro Science Biologist). The Fletcher Pond Improvement Association hopes to expand the project in future years to hasten the reduction of the milfoil.

## Technical Assistance

Beginning in 2002 the Alpena FRO Partners Program began serving on the Department of Agriculture's Natural Resource Conservation Service (NRCS) Wetland Reserve Program (WRP) and Farm Service Agencies' Debt for Nature review teams. All sites that are being considered for funding under these programs are subject to review by several agency personnel. Teams in Michigan consist of the local NRCS coordinator, an NRCS engineer, a Michigan Department of Environmental Quality representative, and a Partners coordinator from the U.S. Fish and Wildlife Service. To date the Alpena FRO representative has reviewed sites in Grand Traverse, Leelenau and Missaukee Counties.



## V. Discussion

Although much was accomplished in 2005, many projects, particularly wetland projects, were not able to be completed due to budgetary obstacles. Remaining 2005 funding has been obligated towards ten wetland restoration projects on five properties, and construction will commence in the spring of 2006. Budgets for many non-profit and local governmental organizations have been reduced due to general economic conditions, and these drops in budget affect the amount of matching dollars available for conservation programs. These budget shortfalls affect the quantity and quality of restoration projects for all organizations. Maintaining strong partnerships is more critical now than ever, and is a pivotal component of the PFW Coordinator's program success.

Fiscal year 2006 will bring with it new challenges and opportunities for the Partners Program. Monitoring of past sites will continue with all 2001 and 2005 sites visited, pictures taken, and a monitoring form completed. Projects planned for 2006 include the restoration of five road/stream crossings, repair of erosion sites in seven watersheds, large woody debris placement in two watersheds, and the restoration of approximately 100 acres of wetland. One of these projects is described in detail below.

### Maple River Watershed

Involvement with local watershed restoration groups has grown. A partnership with the Conservation Resource Alliance (CRA) has involved the Partners Program in the Maple River Watershed in Emmet County. This is an important watershed because it contains the largest remaining population of the Federally Endangered Hungerford's crawling water beetle. One road crossing and four stream bank erosion sites will be repaired in the vicinity of these population sites in hopes of creating a cleaner, more stable environment for this riffle beetle. The 5 culverts currently in place at the Robinson



**Figure 12. Robinson Road/Maple River crossing before construction.**



Road/Maple River crossing will be replaced with a bottomless culvert. The erosion sites will be restored with a combination of coir logs, willow stakes, facines and vegetative plantings. Construction is scheduled for the summer of 2006

## **Outreach**

The Alpena FRO Partners Program works hard to build support with both private landowners and natural resource agencies. We give presentations at local conservation club meetings, conservation district meetings, watershed committee meetings, and natural resource agency meetings. Presentations to school or scouting groups are available upon request. Additional information about the Alpena FRO Partners program is located on the office website:

<http://www.fws.gov/midwest/Alpena/partnersforfishandwildlife.htm>.