



Annual Fisheries Accomplishment Report for Fiscal Year 2003

Region 3 - Great Lakes/Big Rivers



Partnerships and Accountability



Aquatic Habitat Conservation and Management



Workforce Management



Aquatic Species Conservation and Management



Cooperation with Native Americans



Public Use



Leadership in Science and Technology



Region 3 - Great Lakes/Big Rivers Region

The Mission of the U.S. Fish & Wildlife Service: working with others to conserve, protect and enhance fish, wildlife, and plants and their habitats for the continuing benefit of the American people

Conserving America's Fisheries

Fisheries Program Vision for the Future



The vision of the Service's Fisheries Program is working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and to support Federal mitigation programs for the benefit of the American public.

Implementing this vision will help the Fisheries Program do more for aquatic resources and the people who value and depend on them through enhanced partnerships, scientific integrity, and a balanced approach to conservation.

Strategic Plan Vision Focus Areas

1. Partnerships and Accountability

Partnerships are essential for effective fisheries conservation. Many agencies, organizations, and private individuals are involved in fisheries conservation and management, but no one can do it alone. Together, these stakeholders combine efforts and expertise to tackle challenges facing fisheries conservation. The success of these partnerships will depend on strong, two-way communications and accountability.

2. Aquatic Species Conservation and Management

The Fisheries Program maintains and implements a comprehensive set of tools and activities to conserve and manage self-sustaining populations of native fish and other aquatic resources. These tools and activities are linked to management and recovery plans that help achieve restoration and recovery goals, provide recreational benefits, and address Federal trust responsibilities. Sound science, effective partnerships, and careful planning and evaluation are integral to conservation and management efforts.

3. Public Use

As the population in the United States continues to grow, the potential for adverse impacts on aquatic resources, including habitat will increase. At the same time, demands for responsible, quality recreational fishing experiences will also increase. The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing, habitat restoration, and education programs and through mitigating impacts of Federal water projects. The Service also recognizes that some aquatic habitats have been irreversibly altered by human activity (i.e. - dam building). To compensate for these significant changes in habitat and lost fishing opportunities, managers often introduce non-native species when native species can no longer survive in the altered habitat.

4. Cooperation with Native Americans

Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Fisheries Program plays an important role in providing help and support to Tribes as they exercise their sovereignty in the management of their fish and wildlife resources on more than 55 million acres of Federal Indian trust land and in treaty reserved areas.

5. Leadership in Science and Technology

Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science.

6. Aquatic Habitat Conservation and Management

Loss and alteration of aquatic habitats are principal factors in the decline of native fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nation's rivers have altered flows, and 50 percent of waterways fail to meet minimum biological criteria.

7. Workforce Management

The Fisheries Program relies on a broad range of professionals to accomplish its mission: biologists, managers, administrators, clerks, animal caretakers, and maintenance workers. Without their skills and dedication, the Fisheries Program cannot succeed. Employees must be trained, equipped and supported in order to perform their jobs safely, often under demanding environmental conditions, and to keep current with the constantly expanding science of fish and aquatic resource management and conservation.

Inside this Issue

Great Lakes - Big Rivers Region Fisheries Field Offices (Page 4)



- National Fish Hatcheries
 - Sea Lamprey Control Stations
 - Fishery Resources Offices
 - Fish Health Center
- (Page 4)

Great Lakes - Big Rivers Regional Fisheries Program

FY 2003 Highlights Summary
(Page 5)

National Fish Passage Program Accomplishments for 1999-2003 in the Great Lakes/Big Rivers Region
(Page 6)

Partnerships and Accountability (Page 7)



Partnership
(Page 7)

Accountability
(Page 10)

Aquatic Species Conservation and Management (Page 12)



- Native Species*
(Page 12)
- Aquatic Nuisance Species*
(Page 13)
- Interjurisdictional Fisheries*
(Page 14)

Public Use (Page 17)



*Public Use/Recreational Fisheries/
Mitigation*
(Page 17)

Cooperation with Native Americans (Page 19)



Cooperation with Native Americans
(Page 19)

Leadership in Science and Technology (Page 21)



Leadership in Science and Technology
(Page 21)

Aquatic Habitat Conservation and Management (Page 23)



Aquatic Habitat
(Page 23)

Fish Passage
(Page 24)

Workforce Management (Page 26)



Workforce Management
(Page 26)

Great Lakes - Big River Fisheries Field Offices (Page 27)



Office contacts for the fourteen U.S. Fish and Wildlife Service Fisheries Field Offices for the States of Illinois, Indiana, Iowa, Michigan, Minnesota, Missouri, Ohio, and Wisconsin
(Page 27)

Click here to visit our Fisheries Web Site

Great Lakes - Big Rivers Region Fisheries Field Offices

National Fish Hatcheries

National Fish Hatcheries develop and maintain brood stocks of selected fish strains with our primary focus on native species such as lake trout, pallid sturgeon, lake sturgeon and brook trout. Hatcheries also provide technical assistance and sources of fish and eggs to cooperating agencies, provide fish and eggs for research, stock fish and eggs as part of native fish restoration programs, stock fish in fulfillment of federal mitigation obligations and assist with restoration and recovery of native mussels and other native aquatic species.

Sea Lamprey Control Stations

Sea Lamprey Control Stations assess and control sea lamprey populations throughout the Great Lakes. This program is supported through funding from the State Department and administered through the Great Lakes Fishery Commission.

Fishery Resources Offices

Fishery Resources Offices perform key monitoring and control activities related to invasive aquatic species; survey and evaluate native fish stocks and aquatic habitats to identify restoration opportunities; play a key role in targeting and

implementing native fish and habitat restoration programs; work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's Private Lands and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key interagency databases; provide technical assistance to other Service programs addressing contaminants, endangered species, federal project review and hydro-power operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state, tribal and private hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health throughout the region; examines and certifies the health of captive hatchery stocks; and, performs a wide range of special services helping to coordinate fishery program offices and partner organizations.

Great Lakes - Big Rivers Region Fisheries Field Offices



Fisheries

FY 2003 Highlights

Regional Facts

- Region 3 encompasses 450,000 square miles and a population of more than 54 million people including four Great Lakes and most of the Upper Mississippi River basin
- According to the 2001 National Survey on Fishing, Hunting and Wildlife Recreation, 9.6 million people fished and spent more than \$7.8 billion in our Region
- 99,934 people visited field stations and staff represented the program at 103 aquatic and educational events
- Volunteers contributed 26,631 hours
- Fisheries employs about 200 professionals at five national fish hatcheries, six fishery resources offices, two sea lamprey control biological stations, and one fish health center

National Fish Hatcheries and Fish Health Center

(\$4 million-operations; \$1.3 million-maintenance)

- ✓ Distributed over 10 million fish and 5 million eggs with emphasis on native species such as lake trout, brook trout, and sturgeon
- ✓ Produced and distributed over 520,000 endangered Higgins' eye pearlymussels
- ✓ Assessed 209 hatchery fish populations for certifiable fish pathogens
- ✓ Sampled 32 watershed units under the Wild Fish Health Survey

To date, two friends groups established: "Friends of the Neosho National Fish Hatchery" and "Friends of the Upper Mississippi River Fishery Services"

Sea Lamprey Control Stations

(\$6 million-operations)

- ✓ Treated 35 streams with chemicals to control sea lampreys
- ✓ Assessed adult populations in 54 streams and larval populations in 162 streams
- ✓ Have achieved a 90% reduction of sea lampreys from historic levels supporting a \$4 billion industry
- ✓ Sterile male sea lampreys are being released in 10 rivers in Michigan and Wisconsin
- ✓ Low-head barriers to block spawning runs of adult sea lampreys are in place on 17 streams in Wisconsin and Michigan

Fishery Resources Offices

(\$4.5 million-operations)

- ✓ Fulfilled 105 Tribal technical assistance requests
- ✓ Conducted 38 surveys covering 429 river miles for aquatic invasive species baseline/trend information
- ✓ Conducted 72 outreach educational activities emphasizing aquatic invasive species
- ✓ Removed or bypassed 15 fish passage barriers opening 158 miles to fish access
- ✓ Enhanced or restored 29 miles of riparian and instream habitat and 131 acres of wetland habitat
- ✓ Enhanced or restored 121 acres of upland habitat
- ✓ Provided over \$830,000 in grants to our partners for aquatic resource projects

National Fish Passage Program

Region 3 - Great Lakes/Big Rivers

Accomplishments for 1999-2003

A stream grade control structure was removed to enable fish passage.



Iowa

- 7 culvert and weir renovations
- 85 stream miles reconnected
- \$25,000 Program contribution
- \$40,000 partner contribution

This bridge replaced a culvert on the Manistee River in Michigan.



Michigan

- 6 culvert renovations
- 1 dam removal
- 1 watershed inventory
- 55 stream miles reconnected
- \$125,000 Program contribution
- \$436,000 partner contribution

A permanent fish passage structure was added to this box culvert on Grand Portage Creek, Minnesota.



Minnesota

- 3 culvert renovations
- 1 dam removal
- 1 rock ramp construction below dam
- 55 stream miles reconnected
- \$106,000 Program contribution
- \$90,000 partner contribution

Baskets to capture fish were redesigned in 2000 to more effectively sample fish entering Metzger Marsh in Ohio.



Ohio

- 1 wetland dike renovation
- 906 wetland acres reconnected
- \$80,000 Program contribution
- \$33,000 partner contribution

Log jams were removed from Graveyard Creek in Wisconsin to enable fish passage.



Wisconsin

- 3 beaver dam removal projects
- 8 stream miles reconnected
- 1 training workshop conducted
- 1 study of fish movements and habitat use
- \$60,000 Program contribution
- \$71,000 partner contribution

The goal of the National Fish Passage Program is to restore native fish and other aquatic species to self-sustaining levels by reconnecting habitat that has been fragmented by barriers.

Partnerships and Accountability

Partnership

Pallid Sturgeon Restoration – Mississippi River Resource Action Team

(Carterville FRO)

“...participated on the Mississippi River Resource Action Team reviewing scopes of work for pallid sturgeon research and identified habitat restoration projects...”

Partnership to improve Fish Passage at Missouri Stream Crossings for Niangua Darter

(Columbia FRO)

“...established partnership of state and federal agencies to consolidate funding and efforts to improve fish passage for Niangua darter at four road crossings...”

Endangered Species Recovery Teams

(La Crosse FRO)

“... participated on Higgins’ Eye Pearlymussel, Winged Mapleleaf Mussel, and Topeka Shiner Recovery Teams to develop and implement recommendations to build populations to self-sustaining levels...”

Brook Trout Rehabilitation in Lake Superior

(Ashland FRO)

“...assisted the Great Lakes Fishery Commission in publishing the Brook Trout Rehabilitation Plan for Lake Superior...”

Zebra Mussel Task Force and Monitoring on the St. Croix River

(La Crosse FRO)

“... monitored zebra mussels on the St. Croix River as a member of the multi-agency St. Croix River Zebra Mussel Task Force resulting in major changes to the Response Plan and management of the river...”

Great Lakes Lake Sturgeon Coordination

(Ashland FRO)

“...assisted in coordinating and planning a lake sturgeon coordination meeting that brought together 110 biologists, fishery managers, researchers, and members of the public representing over 40 agencies, institutions, and groups to discuss lake sturgeon conservation...”

Improved Management of Missouri’s Paddlefish Population

(Columbia FRO)

“...assisted Missouri Department of Conservation in developing a ten – year paddlefish management plan...”

Expand Ohio River Sturgeon Tagging Database

(Carterville FRO)

“...continued to work with partners to incorporate sturgeon tagging data into the central database, developed by Carterville FRO, to facilitate management of sturgeon...”



-USFWS

Since 2000, a variety of conservation measures have been implemented by the U. S. Corps of Engineers with assistance from the interagency Mussel Coordination Team to save the Federally Endangered Higgins’ eye pearlymussel from extinction. Genoa NFH has developed culturing techniques for native mussels and carefully monitor their growth.



-USFWS

The Threatened Niangua darter occurs in 11 counties within the Osage River Basin in Missouri. Columbia FRO partnered with federal, state, and local agencies to merge funds and effort to increase fish passage for this native species.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge



-USFWS

Fish and Wildlife Service and Ontario Ministry of Natural Resources employees teamed up to conduct spawning lake sturgeon assessments in Canadian waters of Lake Superior. Funding was provided through a Great Lakes Fishery Trust grant to collect samples and describe the genetics of spawning lake sturgeon populations in the Great Lakes.

Ontario Ministry of Natural Resources Lake Sturgeon Work

(Alpena FRO)

“...assisted Ontario Ministry of Natural Resources capture and tag lake sturgeon; provided guidance on creating lake sturgeon spawning habitat...”

Partnering with State Agencies to Benefit Lake Sturgeon

(Alpena FRO)

“...assisted Ohio Division of Wildlife with a survey of potential lake sturgeon spawning locations on the Maumee River; advised Idaho Fish and Game on appropriate lake sturgeon tags and tagging techniques; assisted Michigan DNR with their work in Lake St. Clair...”

Study of Historic Distribution and Abundance of Lake Sturgeon in the Lake Michigan Basin

(Green Bay FRO)

“...Fish and Wildlife Service participated with Saint Mary’s University to investigate historical distribution and abundance of lake sturgeon in Lake Michigan...”

Scioto River Shovelnose Sturgeon Reintroduction Project

(Carterville FRO)

“...assisted Ohio Division of Wildlife with a cooperative shovelnose sturgeon reintroduction program to the Scioto River where sturgeon have long been extirpated...”

Lake Sturgeon Assessment in the Lower Chippewa River

(La Crosse FRO)

“...assisted Wisconsin DNR collect, tag, and release over 100 lake sturgeon in the lower Chippewa River which will provide our partners data to manage this native species...”

Isle Royale National Park Fishery Management Plan

(Ashland FRO)

“...assisted with development of a comprehensive fishery management plan for Isle Royale National Park to guide long-term management of fishery resources...”

First Ever Great Lakes-wide Lake Sturgeon Coordination Meeting

(Green Bay FRO)

“...Great Lakes lake sturgeon rehabilitation issues on stocking, genetic objectives for remnant populations, and assessment techniques discussed by 110 partner biologists, managers, researchers...”

Interagency Organization Participation by La Crosse FRO

(La Crosse FRO)

“...participated in the Upper Mississippi River Interagency Committee, Fish and Wildlife Group, Fish and Wildlife Interagency Committee, Environmental Management Program Coordinating Committee, Mississippi Interstate Cooperative Resource Association, and Mississippi River Research Consortium facilitating our ability to work with partners...”



-USFWS

Carterville FRO staff assisted the Ohio Division of Wildlife with a shovelnose sturgeon reintroduction project on the Scioto River.

DNR = Department of Natural Resources
FHC = Fish Health Center
FRO = Fishery Resources Office
NFH = National Fish Hatchery
NWR = National Wildlife Refuge
NF&WR = National Fish & Wildlife Refuge
NW&FR = National Wildlife & Fish Refuge

Endangered Higgins' Eye Pearlymussel Recovery Efforts

(Genoa NFH)

"...refined culture and propagation operations to produce more than 518,000 endangered Higgins' eye pearlymussels..."

Whirling Disease Survey for the Michigan DNR

(La Crosse FHC)

"...processed 890 samples of trout from Michigan streams for whirling disease finding some positive samples..."

Green Bay FRO assists Wisconsin DNR with Yellow Perch Recruitment Problem in Green Bay

(Green Bay FRO)

"...provided data analysis and population model to Wisconsin DNR to assist them with harvest management and recovery of yellow perch in Green Bay, Wisconsin..."

Accord reached between Fish and Wildlife Service, Great Lakes Fishery Commission, and State of Michigan

(Ludington Biological Station)

"...signed a memorandum of understanding between the Fish and Wildlife Service, the Great Lakes Fishery Commission, and Michigan DNR for cooperation in the construction, operation, and maintenance of sea lamprey barriers on Michigan streams..."

Partnerships and Rainbow Trout

(Neosho NFH)

"...improved long-term partnerships with Tribal and state partners by providing 10,410 lbs. of rainbow trout in an effort to develop collaborative conservation strategies for aquatic resources..."

Assist U.S. Geological Survey with Water Quality Project in Eastern Iowa

(La Crosse FRO)

"...assisted U.S. Geological Survey with fish community sampling on 4 eastern Iowa rivers as part of the National Water Quality Assessment Program..."

Protocol Implemented for the Sea Lamprey Control Program

(Marquette Biological Station)

"...implemented "Protocol to Protect and Avoid Disturbance to Federal and/or State-Listed Endangered, Threatened, Candidate, Proposed, or Special Concern Species and Critical or Proposed Critical Habitats in or near Great Lakes Streams Scheduled for Applications of Granular Bayluscide to Assess Populations of Larval Sea Lampreys during 2003..."



-GLFC

This is a low-head invasive sea lamprey barrier on the west branch of the Whitefish River in Delta County, Michigan. Barriers are designed and constructed to stop upstream migration of sea lampreys while providing passage of native fish.



-USFWS

La Crosse FRO biologist assisted the U. S. Geological Survey – Iowa City Office with their National Water Quality Assessment program.

- DNR = Department of Natural Resources
- FHC = Fish Health Center
- FRO = Fishery Resources Office
- NFH = National Fish Hatchery
- NWR = National Wildlife Refuge
- NF&WR = National Fish & Wildlife Refuge
- NW&FR = National Wildlife & Fish Refuge

Accountability



-USFWS

Pictured is an Endangered pallid sturgeon. Fish and Wildlife Service staff serve on the Pallid Sturgeon Recovery Team and coordinate recovery activities of the Middle Basin Pallid Sturgeon Workgroup.



-USFWS

The round goby is an invasive, nuisance fish species that negatively impacts native species through their aggressive nature, competition for food and habitat, egg predation, and rapid proliferation in waters where they become established in the Great lakes. They are being monitored in the Illinois Waterway which is a corridor to the Mississippi River Basin.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Region 3 Invasive Species Coordinator

(Regional Office)

“...supported 5 state/interstate plans and draft plans for Indiana and Wisconsin, and partnered with Great Lakes and Mississippi river Basin Panels on Aquatic Nuisance Species, Great Lakes Commission, Mississippi Interstate Cooperative Resource Association, Chicago Sanitary and Ship Canal Barrier Advisory Panel, and City of Chicago...”

Middle Missouri River Basin Pallid Sturgeon Recovery

(Columbia FRO)

“...staff serves on the Pallid Sturgeon Recovery Team and coordinates the recovery activities of the Middle Missouri River Basin Pallid Sturgeon Workgroup...”

Provide Technical Assistance to the Niangua Darter Recovery Plan

(Columbia FRO)

“...participates as a technical advisor to the Niangua Darter Recovery Team to ensure recovery plan implementation and provide necessary population information...”

Round Goby and Asian Carp Monitoring in the Illinois Waterway

(La Crosse FRO)

“...led a multi-agency monitoring program which detected round gobies 7 miles further downstream (17% down the length of the Illinois Waterway on the way to the Mississippi River); collected no bighead or silver carp any further upstream than previously documented (21 miles below the electrical barrier and 50 miles from Lake Michigan)...”

Draft Asian Carp Management and Control Plan

(Carterville FRO)

“...leading a team of Federal, state, and non-governmental organization stakeholders to produce a final plan for managing and controlling invasive Asian carp...”

Sea Lamprey Populations reduced 90% from Historic Levels

(Marquette and Ludington Biological Stations)

“...have achieved a 90% reduction of invasive sea lampreys from historic levels helping to support a \$4 billion industry in the Great Lakes...”

Largemouth Bass Viral Work for Illinois, Michigan, and Wisconsin Natural Resource Agencies

(La Crosse FHC)

“...inspected swim bladders and kidney tissue from 786 bass supplied by natural resource agencies in Illinois, Michigan, and Wisconsin for Largemouth Bass Virus finding some positive results...”



-USFWS

Management plans have been developed throughout the Midwest to rehabilitate native lake sturgeon populations. A rehabilitation plan is under development for Lake Michigan.

Task Group formed to Develop Lake Sturgeon Rehabilitation Plan for Lake Michigan

(Green Bay FRO)

“...development of comprehensive lake sturgeon rehabilitation plan for Lake Michigan initiated by a Lake Sturgeon Task Group...”

Lake Sturgeon Restoration Efforts continue at Genoa NFH

(Genoa NFH)

“...distributed over 32,000 lake sturgeon eggs for both research and restoration efforts involving 2 tribes and 5 states and reared and stocked 13,600 6-8 inch fish to support restoration plans...”

Great Lakes Fish Stocking Database

(Green Bay FRO)

“...basin-wide data imported from cooperating agencies and now available through the Great Lakes Fishery Commission web site...”

Pictured Rocks Fishery Management

(Ashland FRO)

“...provided the first systematic inventory of fish species inhabiting the Pictured Rocks National Lake Shore in Lake Superior...”

Lake Superior Committee Report

(Ashland FRO)

“...drafted the lake sturgeon and aquatic nuisance species sections of the State of the Lake Superior Report...”

Triploid Grass Carp Inspection and Certification Program

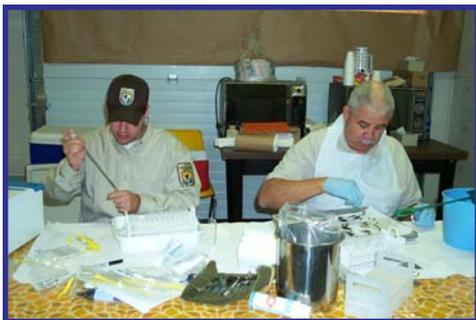
(Cartersville FRO)

“...conducted 10 inspections of commercial grass carp producer facilities certifying 20 shipments totaling 15,000 fish...”

Fish Health Inspection Work for Illinois, Michigan, and Ohio Natural Resource Agencies

(La Crosse FHC)

“... processed 4,165 salmonids screening for certifiable fish diseases for natural resource agencies in Illinois, Michigan, and Ohio...”



-USFWS

Fish health experts perform inspections for agencies throughout the Great Lakes, Big Rivers Region. They screen for certifiable fish diseases that are listed in the National Fish Health Policy.

- DNR = Department of Natural Resources
- FHC = Fish Health Center
- FRO = Fishery Resources Office
- NFH = National Fish Hatchery
- NWR = National Wildlife Refuge
- NF&WR = National Fish & Wildlife Refuge
- NW&FR = National Wildlife & Fish Refuge

Aquatic Species Conservation and Management

Native Species



Ozark Cavefish

-USFWS

Rare Ozark cavefish inhabit one of the springs that supply water to the Neosho NFH. Hatchery staff continues efforts to protect the area surrounding the spring and educate the public about this unique native fish.

Wild Fish Health Surveys

(La Crosse FRO)

“...collected wild fish samples from three pools of the upper Mississippi River for the National Wild Fish Health Survey...”

Ozark Cavefish Conservation

(Neosho NFH)

“...protected rare Ozark cavefish living in one of the spring boxes that provides part of the water supply for Neosho NFH...”

Fish Health Inspections at Six National Fish Hatcheries

(La Crosse FHC)

“...inspected approximately 10,000 fish for certifiable fish pathogens at isolation facilities located at Genoa NFH and Keweenaw Bay Tribal Fish Hatchery...”

Fish Health Inspections at Lake Trout and Coaster Brook Trout Isolation Facilities

(La Crosse FHC)

“...inspected approximately 10,000 fish for certifiable fish pathogens at isolation facilities located at Genoa NFH and Keweenaw Bay Tribal Fish Hatchery...”

Surveys and Technical Assistance provided to Tamarac and Rydell NWRs

(La Crosse FRO)

“...monitored fish populations at Tamarac and Rydell NWRs utilizing the information to improve management practices...”

Developed and Implemented a Fish Community Health Assessment at Crab Orchard NWR

(Cartersville FRO)

“...supported the Comprehensive Environmental Compensation and Liability Act response investigation at Crab Orchard NWR by providing fish health, fish population and aquatic community monitoring...”

Cool Water Species Egg Collection Activities

(Genoa NFH)

“...collected 12 million eggs of 3 cool water fish species for use in Tribal, Federal, and conservation exchange projects in 5 states fulfilling all national requests...”

Improvement of Recreational Fishing at Harvey's Pond at Necedah NWR

(La Crosse FRO)

“...completed a fish survey of Harvey's Pond at Necedah NWR which will guide future management efforts...”



-USFWS

With assistance from refuge staff, La Crosse FRO personnel perform a fishery survey at Tamarac NWR. Fishery management has been incorporated into Refuge Comprehensive Management Plans.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Cool and Warm Water Fish Species Propagation and Distribution
(Genoa NFH)

“...propagated and distributed more than 5 million cool and warm water native fish of 8 species to federal, tribal, and state cooperators to fill management plan objectives...”



-USFWS

This northern pike was captured during spring fishery operations near Genoa NFH. Annual production and distribution of cool and warm water native fish species number more than 5 million benefiting fishery projects on National Wildlife Refuges, Tribal Trust responsibilities, fishery management projects on Federal lands, and state cooperator conservation exchanges. Recently, several fish species such as walleye, largemouth bass, and smallmouth bass have been identified as hosts to several native mussel species with a supply of these fish being a critical component to recovery efforts.

Aquatic Nuisance Species

Evaluate Asian Carp Age and Growth Data and Long-term Catch Records in the Lower Missouri River
(Columbia FRO)

“...examined current and historical catch data to assess changes in Asian carp populations over time; collected fin ray samples in 2003 to examine Asian carp age and growth...”

Sea Lamprey Control in the Upper Great Lakes
(Marquette and Ludington Biological Stations)

“...assessed adult invasive sea lamprey populations in 54 streams and larval populations in 162 streams; treated 35 streams to control sea lampreys..”

Aquatic Nuisance Species Coordination Activities in the St. Marys River and Lake Huron
(Alpena FRO)

“...monitored for presence and spread of aquatic nuisance species (ANS) at 9 Lake Huron and St. Marys River locations; controlled spring spawning populations of invasive ruffe in the Thunder Bay River; provided ANS educational programs to 12,000 resource users...”

Invasive Species Monitoring at Cypress Creek NWR
(Carterville FRO)

“...initiated rapid response monitoring for black carp at the Cypress Creek NWR area after the first wild invasive black carp was captured in the vicinity – no additional black carp were discovered...”

Aquatic Invasive Species Monitoring on Crab Orchard NWR
(Carterville FRO)

“...developed and implemented an aquatic invasive species monitoring program on the Crab Orchard NWR with efforts directed toward detection of invasive Asian carp, zebra mussels, and zooplankton species...”

Distribution of Asian Carp Identification Kits
(Carterville FRO)

“...completed development of an Asian carp identification kit which will be distributed to natural resource biologists throughout the Mississippi River Basin to help identify individual Asian carp species...”

Asian Carp Monitoring on the Middle Mississippi River NWR
(Carterville FRO)

“...monitored Asian carp utilization on the Middle Mississippi River NWR to provide a better understanding of the dynamics of these new invaders...”



-GLFC

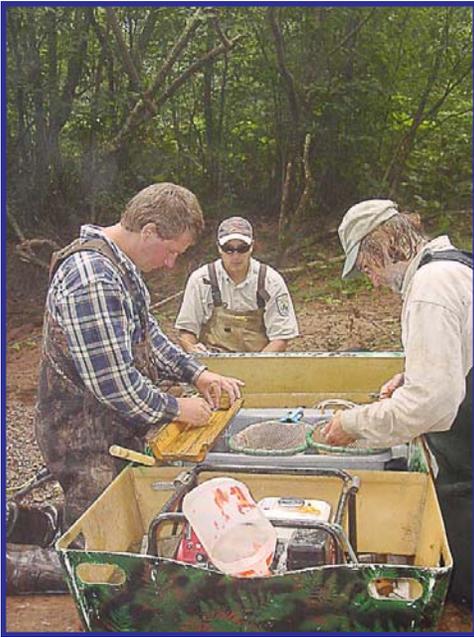
Parasitic sea lampreys are attached to this native lake trout. Each sea lamprey, an invasive species in the Great Lakes, is capable of killing upwards of 40 pounds of lake trout.

- DNR = Department of Natural Resources
- FHC = Fish Health Center
- FRO = Fishery Resources Office
- NFH = National Fish Hatchery
- NWR = National Wildlife Refuge
- NF&WR = National Fish & Wildlife Refuge
- NW&FR = National Wildlife & Fish Refuge



-USFWS

Biologists use gill nets to remove invasive Eurasian ruffe adults from Thunder Bay, Lake Huron in hopes of slowing their spread to new areas.



-USFWS

Staff from the Fish and Wildlife Service, Wisconsin DNR, and Trout Unlimited partnered to conduct a fish population estimate for Whittlesey Creek near Ashland, Wisconsin. Estimates are a critical component in the experiment to establish a self-sustaining native brook trout population there.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Invasive Eurasian Ruffe Surveillance and Control

(Ashland FRO, Green Bay FRO)

“...completed surveillance in 15 sites from Keweenaw Peninsula to the St. Marys River in Lake Superior finding no new discoveries; investigated fish communities of 4 tributary estuaries of Lake Superior to identify trends that may be influenced by the presence of ruffe; conducted ruffe population reduction in the Ontonagon River; and surveyed for invasive ruffe along western and southern shores of Lake Michigan to determine the actual range in the lake...”

Interjurisdictional Fisheries

Lower Missouri River Pallid Sturgeon and Shovelnose Sturgeon Monitoring Project

(Columbia FRO)

“...completed cooperative three year monitoring project for pallid sturgeon on the Missouri River which targeted 30 bends in 2 river segments along 225 river miles...”

Lake Sturgeon and Pallid Sturgeon examined for the Irido-like Viral Agents found in White Sturgeon

(La Crosse FHC)

“...collected belly skin and pectoral fin slips from 60 lake sturgeon and 30 pallid sturgeon held at Genoa and Neosho NFHs for histological examination for the Irido-like viral agents...”

Coaster Brook Trout Restoration and Salmonid Isolation Facility

(Genoa NFH)

“...maintained two strains of coaster brook trout as emergency back-up and cleared for shipment one year class of coaster brook trout brood stock from the isolation facility at Genoa NFH...”

Lake Trout restored in MN-3 Sector of Lake Superior

(Ashland FRO)

“...terminated stocking of lake trout in MN-3 management unit of Lake Superior because “all” criteria for lake trout rehabilitation were met...”

Pallid Sturgeon Recovery Efforts

(Neosho NFH)

“...reared, tagged, and stocked 2,100 endangered pallid sturgeon under guidance from the Pallid Sturgeon Recovery Team...”

Coaster Brook Trout Genetics enhanced in Hatchery Stocks

(Iron River NFH)

“...enhanced genetic diversity of 2 strains of coaster brook trout (producing 566,000 green eggs) by maintaining captive spawning populations and introducing wild gametes from wild...”

Monitoring Shovelnose Sturgeon Stocks in the Ohio River

(Carterville FRO)

“...worked with Purdue University and the Illinois DNR to understand shovelnose sturgeon life histories and movements between the Wabash and Ohio rivers...”

Pallid Sturgeon stocked in Lower Missouri River

(Columbia FRO)

“...tagged, measured, and weighed 2,000 pallid sturgeon at Gavins Point NFH and assisted with their release at Boonville, Missouri...”

Assessment of Coaster Brook Trout in Northern Lake Michigan

(Green Bay FRO)

“...performed fishery assessments, in cooperation with the U.S. Forest Service and Michigan DNR, on seven tributaries to northern Lake Michigan and took samples for genetic analysis...”

Jordan River NFH produces 2,033,190 Native Lake Trout for the Great Lakes

(Jordan River NFH)

“...stocked 2,033,190 native lake trout into the Great Lakes as part of a multifaceted native fish restoration effort...”

Lake Trout Restoration assessed in Lake Michigan

(Green Bay FRO)

“...assessed lake trout populations on 3 near-shore and 2 mid-lake reefs that have historically been stocked with lake trout...”

Lake Sturgeon Restoration in Lake Huron, St. Clair River, Detroit River, and Lake Erie

(Alpena FRO)

“...sampled lake sturgeon in the Rifle River of Lake Huron; surveyed artificial spawning reef in the Detroit River; documented movements of radio transmitter implanted fish; geo-referenced Port Huron site; completed report for genetics project...”

Lake Trout Rehabilitation Efforts at Iron River NFH

(Iron River NFH)

“...reared, marked, and stocked 1,039,000 yearling and 175,000 fingerling lake trout in Lakes Michigan and Huron in support of rehabilitation efforts...”

Lake Sturgeon Genetics Management Plan for Lake Superior

(Ashland FRO)

“...collected 146 tissue samples from 10 Lake Superior tributaries for genetic analysis...”

Coaster Brook Trout Restoration in Lake Superior

(Iron River NFH)

“...reared, marked, and released 158,000 coaster brook trout fry and fingerlings into Lake Superior bays and tributaries to restore spawning populations as part of cooperative management plans...”

Pendills Creek NFH produced and stocked 511,070 Lake Trout in Lakes Michigan and Huron

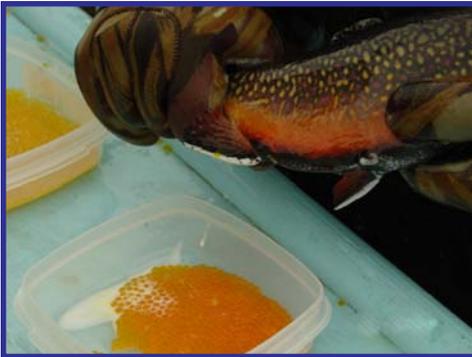
(Pendills Creek NFH)

“...stocked 511,070 lake trout weighing 30,247 pounds of the Lewis Lake and Seneca Lake strains in Lakes Michigan and Huron...”



-USFWS

Pallid sturgeon are reared in tanks at the Neosho NFH in support of the Pallid Sturgeon Recovery Plan. In FY 2003 Neosho NFH produced 2,100 Endangered pallid sturgeon.



-USFWS

Eggs are gently removed from a coaster brook trout at the Iron River NFH. The resultant eggs produced 158,000 fry and fingerlings for restoration programs in Lake Superior.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Lake Sturgeon collected from Green Bay Commercial Fisher during Winter 2003

(Green Bay FRO)

“...collected biological data and tissue samples from 23 lake sturgeon in Green Bay to provide distribution and abundance information ...”

Lakewide Survival of Lake Trout Strains stocked in Lake Michigan

(Green Bay FRO)

“...lead a multi-agency sampling and analysis effort to determine the relative survival of 5 strains of lake trout stocked into Lake Michigan...”

M/V Togue stocks Native Lake Trout

(Jordan River NFH)

The M/V Togue traveled 2,619 miles in Lakes Michigan and Huron stocking approximately 3,074,000 lake trout yearlings on 35 reefs.

Lake Huron Lake Trout Restoration

(Alpena FRO)

“...processed 1,500 coded wire tags recovered from lake trout fisheries and used information to plot movement; presented hatchery quality-at-release study results; gave 2 presentations describing interagency efforts to rehabilitate lake trout...”

Lake Trout Brood Stock Program at Iron River NFH

(Iron River NFH)

“...maintained 16 captive, genetically diverse spawning populations of lake trout, consisting of 5 strains, producing 4.2 million green eggs to address rehabilitation objectives for the upper Great Lakes...”

Process Coded Wire Tags to evaluate Lake Trout Restoration

(Green Bay FRO)

“...processed 2,372 sport and assessment caught lake trout coded wire tags and distribution information back to 8 participating agencies...”

Hiawatha Forest NFH ships Approximately 3,805,000 Eyed Eggs

(Hiawatha Forest NFH)

“...produced and shipped over 3,805,000 eyed eggs of six strains of lake trout to four NFHs and one state agency for high priority native fish restoration programs...”

Lake Sturgeon Reproductive Success evaluated in Green Bay Tributaries

(Green Bay FRO)

“...successful lake sturgeon reproduction discovered in four Green Bay tributaries...”

Analysis of Incidental Lake Sturgeon Captures in Lake Michigan Commercial Fishery

(Green Bay FRO)

“...prepared report summarizing data on 119 lake sturgeon captured in Lake Michigan from 1996 – 2002 yielding information regarding movements, depth preferences, spatial distribution, and rate of encounter...”



-USFWS

The Fish and Wildlife Service lake trout stocking vessel, M/V Togue, traveled 2,619 miles in Lake Michigan and Lake Huron stocking approximately 3,074,000 lake trout yearlings on 35 off shore reefs.



-USFWS

Lake trout brood stock stations produce eggs for rehabilitation programs in the Great Lakes. Sullivan Creek NFH produced and shipped over 3,805,000 eyed eggs of six strains to four National Fish Hatcheries and one state agency.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Public Use/Recreational Fishing/Mitigation



-USFWS

Spring-time tours by local Head Start youth are an annual event at the Pendills Creek NFH which is located in the Eastern Upper Peninsula of Michigan near Sault Ste. Marie. An estimated 21,400 visitors enjoy the hatchery each year.

Public Education and Outreach Activities for Alpena FRO

(Alpena FRO)

“...participated in 60 educational, professional, and outreach events reaching approximately 73,350 people; updated 4 web pages and had 6 media interviews...”

Green Bay FRO assists Marinette County, Wisconsin with an Environmental Field Day

(Green Bay FRO)

“...329 Marinette County, Wisconsin 4th graders educated about fish biology and biological sampling techniques...”

Lake Trout Brood Stock Retired

(Hiawatha Forest NFH)

“...415 (5134 pounds) of old lake trout brood stock were retired and stocked into Michigan lakes -Ottawa Lake, Golden Lake, and Lake Michigamme providing a unique fishing opportunity...”

Visitation/Outreach at Pendills Creek/Hiawatha Forest NFHs

(Pendills Creek/Hiawatha Forest NFH)

“...21,400 visitors came to Pendills Creek/Hiawatha Forest NFHs including 8 organized tours; attended the Lighthouse Festival at Alpena, MI and National Fishing Day at Seney National Wildlife Refuge, MI...”

An Estimated 15,000 Visitors tour Jordan River NFH

(Jordan River NFH)

“...approximately 15,000 visitors tour Jordan River NFH; staff attended four major Michigan events...”



-USFWS

Snowmobilers in northern Michigan take a break at the Jordan River NFH and learn about lake trout rehabilitation in the Great Lakes.

Rainbow Trout Mitigation for Lake Taneycomo

(Neosho NFH)

“...produced 229,445 (82,588lbs.) of rainbow trout to help mitigate the effects of a federal water project for Lake Taneycomo, Missouri...”

Genoa NFH Outreach

(Genoa NFH)

“...reached over 12,000 people with the mission of the Genoa NFH and the Fish and Wildlife Service...”

La Crosse FRO Outreach Program

(La Crosse FRO)

“...educated thousands on the role of the Fish and Wildlife Service at 6 events and 3 NWR fishing events with emphasis on aquatic invasive species, native mussels, and inter-jurisdictional native fish species...”

Natural Resources Management Program at Crane Naval Weapons Support Center

(Carterville FRO, Genoa NFH)

“...cooperatively managed 820 acre Lake Greenwood with military staff and the Indiana DNR conducting population surveys and stocking advanced fingerling walleyes...”

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Neosho NFH Outreach*(Neosho NFH)*

“...educated the public by participating and organizing conservation related activities, serving on the local tourism committee, working with hatchery Friends Group, hosting fish clinics and derbies, and keeping the homepage updated...”

Outreach at Iron River NFH*(Iron River NFH)*

“...hosted 8 school, college, and community groups reaching over 1,700 people explaining the mission of the Iron River NFH...”

Ashland FRO Outreach*(Ashland FRO)*

“...participated in numerous outreach events including college career days, media journalist training/education on Lake Superior fisheries, set up booth at Trout Unlimited event, completed Centennial Safari and Great Lakes Coastal Program web page projects...”

Pendills Creek NFH Public Access to Lake Superior Shoreline*(Pendills Creek NFH)*

“...beach access upgraded to enhance natural beauty of area and provide safe access...”

Crab Orchard NWR Annual Kid's Annual Fishing Derby*(Carterville FRO)*

“...participated in the annual Kid's Fishing Derby at Crab Orchard NWR which included a fishing derby, aquarium, and toddler activities which attracted over 500 parents and children...”

Columbia FRO reaches out to Educators*(Columbia FRO)*

“...participated in an event coordinated by Missouri Department of Conservation which brought over 100 school teachers onto the Missouri River where they learned about the need to restore and conserve river resources...”

Free Fishing Days at the Big Muddy NF&WR*(Columbia FRO)*

“...assisted Big Muddy NF&WR staff introduce children to fishing during an event held at Arrow Rock State Historic Site, Missouri cosponsored by 8 partner groups...”

Visitor Center Outreach in Onalaska, Wisconsin*(La Crosse FHC, La Crosse FRO)*

“...received 1,500 visitors to the Fish and Wildlife Service's resource center in Onalaska, Wisconsin...”

Support to Regional Military Bases*(Carterville FRO, Genoa NFH, Neosho NFH)*

“...surveyed 2 lakes at Scott Air Force Base; cultured and distributed 14,000 and 4,000 rainbow trout to Fort McCoy and Fort Riley Army Bases, respectively...”



-USFWS

This fishing derby was sponsored by the Neosho NFH. A lunch was provided by the Friends Group with help from the local Lions Club.



-USFWS

A participant tries to get a reaction from brook trout in an aquarium during the "Calling Contest." This was one of several events hosted by the Ashland FRO and Whittlesey Creek NWR during their Refuge Centennial Celebration.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Cooperation with Native Americans



-USFWS

A lake sturgeon is released after a biologist records measurements and collects tissue samples. Tissue samples are used for genetic analysis. Tribal commercial fishers are providing excellent support by gathering biological information and tagging incidentally captured lake sturgeon.



-USFWS

These lake whitefish were captured during a survey in Lake Huron. This native fish is important to the Native American commercial fishery. Alpena FRO assisted the Chippewa Ottawa Resources Authority (CORA) and Bay Mills Indian Community with lake whitefish assessments in lakes Huron and Michigan.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

U.S. v Michigan 2000 Consent Decree Responsibilities in 1836 Treaty Waters

(Ashland FRO)

“...contributed to Consent Decree with state and tribal partners through committee participation and fishery assessments specifically by setting two 3600’ gill nets along 8 transects, collecting biological data on commercially desirable species, and aging 800 lake trout and 800 lake whitefish samples...”

Commercial Fishers assist with Lake Sturgeon Assessment and Monitoring

(Ashland FRO)

“...established a cooperative project with Lake Superior Tribal Natural Resources Departments to work with commercial fishers to gather biological information and tag incidentally captured lake sturgeon...”

Egg Isolation Agreement with Keweenaw Bay Tribal Government

(Iron River NFH)

“...stocked 90,000 lake trout yearlings into Keweenaw Bay, Lake Superior, as part of a Memorandum of Understanding with the Tribe for use of their hatchery facility to isolate wild gametes...”

Lake Sturgeon Restoration on the Menominee Reservation

(La Crosse FRO)

“...assessed population status of lake sturgeon stocked and transferred to Menominee Indian Reservation waters with the goal to restore populations...”

Fishery Assistance to the Oneida Tribe of Indians of Wisconsin

(Green Bay FRO)

“...provided management assistance for 4 lakes and 7 streams; organized creel survey for Duck Creek; performed stream quality surveys on 11 sights on 7 streams...”

Tribal Assistance for Fishery Assessments

(Alpena FRO)

“...assisted the Chippewa Ottawa Resource Authority (CORA) and Bay Mills Indian Community with lake whitefish assessments in Lakes Huron and Michigan; assisted CORA with assessments of annual juvenile walleye abundance in Treaty waters...”

Fish Health Inspections at Tribal Fish Hatcheries

(La Crosse FHC)

“...collected and analyzed 395 samples for certifiable diseases from rainbow and brook trout being raised at Lac du Flambeau, Red Cliff, and Keweenaw Bay Tribal fish hatcheries...”

Fishery Assistance to Forest County Potawatomi

(Green Bay FRO)

“...performed population estimates on Bug Lake using gill and fyke nets and electro shocked 5 streams within the reservation...”



-USFWS

Keweenaw Bay staff takes a photo break from their stream survey work. Data will be used to develop baseline information to manage their fisheries. Ashland FRO staff assisted the Keweenaw Bay Natural Resources Department.



-USFWS

A La Crosse FRO biologist samples aquatic vegetation on a lake at the Prairie Island Dakota Community. The Community is interested in establishing rice beds in the study area.

**DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge**

Technical Assistance provided to Little Traverse Bay Band of Odawa Indians

(Jordan River NFH)

“...provided technical assistance to Little Traverse Bay Band of Odawa Indians on development of a lake trout hatchery...”

Fourth Annual Oneida Nation Youth and Elders Fishing Day

(Green Bay FRO)

“...organized and held a Youth and Elders Fishing Day on Osnu’sha Lake, Oneida Nation, for 225 parents, children, and elders...”

Implement 2000 Consent Decree

(Alpena Fro)

“...chaired the Technical Fisheries Committee and co-chaired Modeling Subcommittee for the 2000 Consent Decree; conducted fishery independent lake whitefish surveys at 24 sites in Lake Huron ...”

Stock Assessments and Harvest Limits developed by Modeling Subcommittee of the 2000 Consent Decree

(Green Bay FRO)

“...generated safe harvest limits for 17 lake whitefish and 9 lake trout management units, improved assessment process, provided additional analysis...”

Lake Whitefish Scales aged by Green Bay FRO Biologists

(Green Bay FRO)

“...aged 2,500 lake whitefish scales to assess year-class abundance and size at age for fish harvested by Tribal commercial fisherman...”

Lake Superior Technical Committee Projects

(Ashland FRO)

“...cooperated with Red Cliff Band and Great Lakes Indian Fish and Wildlife Commission to survey siscowet (fat) lake trout in Michigan waters west of Keweenaw Peninsula...”

Aquatic Vegetation and Fishery Surveys conducted for Prairie Island Dakota Community

(La Crosse Fro)

“...conducted annual fisheries assessment and first ever aquatic vegetation survey for the Prairie Island Dakota Community; provided samples for the National Wild Fish Health Survey; provided samples for radio nucleotide testing due to the proximity of a nuclear power plant and radioactive waste storage facility...”

Assist Tribal Resource Managers with Fishery Resource and Fish Hatchery Needs

(Ashland FRO)

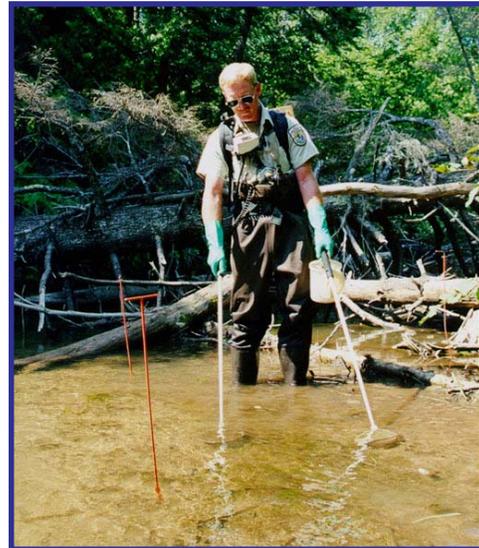
“...responsible for assistance to 14 Native American Tribes and 2 Tribal organizations with FY 2003 activities including assistance with spring and fall walleye population surveys, construction of a fish passage structure, planning for a tribal fish hatchery, maintaining a tribal newsletter, discussion of parameters to restore walleye in Red Lake...”

Leadership in Science and Technology



-USFWS

La Crosse FRO conducted fish host tests for the Federally Endangered winged mapleleaf mussel. This critical link in their life history needs to be determined before propagation can be initiated, as defined in the Recovery Plan.



-GLFC

A sea lamprey control employee assesses a stream for invasive sea lampreys by electrofishing larvae.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Tracking the Endangered Pallid Sturgeon

(Columbia FRO)

“...gathered information regarding movements and habitat preferences from 2 endangered pallid sturgeon fitted with sonic transmitters in cooperation with researchers from the U.S. Geological Survey...”

Genoa NFH discovers New Host Fish for Endangered Higgins’ Eye Pearlymussels and Hickorynut Mussels

(Genoa NFH)

“...determined that white bass is a suitable host fish for Higgins’ eye pearlymussels and that lake sturgeon is a suitable host for hickorynut mussels, both Endangered species...”

Determination of Host Fish Species for the Federally Endangered Winged Mapleleaf Mussel

(La Crosse FRO)

“...conducted fish host tests for the federally endangered winged mapleleaf mussel...”

Completed Invasive Round Goby Predation Study

(Alpena FRO)

“...completed 3 research projects to examine invasive round goby predation and abundance on Lake Huron lake trout spawning reefs and federal lands...”

Contaminant Analysis and Early Mortality Syndrome in Lake Trout

(Alpena FRO)

“...participate in research by collecting lake trout tissue and egg samples for the U.S Geological Survey and National Oceanic and Atmospheric Administration for contaminant analysis and early mortality syndrome research...”

Sea Lamprey Assessment implements Recommendations to Advance Procedures

(Marquette Biological Station)

“...completed field portion of a project that begins implementing recommendations on ways to improve the quality of science currently being employed to determine lampricide treatments...”

Fish Passage Needs for Lake Sturgeon assessed on the Upper Chippewa River in Wisconsin

(La Crosse FRO)

“...assisted Wisconsin DNR and U.S. Forest Service capture and radio-tag 16 lake sturgeon to identify habitat use and movement, specifically to identify if a fish passage project should be pursued at the Winter Hydro Dam...”

Fish and Wildlife Service Manages the National Paddlefish Database and Coded-wire Tag Processing Center

(Carterville FRO, Columbia FRO)

“...developed and operates a coded-wire tag/processing center in support of a basin-wide paddlefish stock assessment project conducted by the Mississippi Interstate Cooperative Resource Association (28 state natural resource agencies) which includes 7 years of data on 1.5 million hatchery reared fish and 17,000 wild, tagged fish...”

Hiawatha Forest NFH produces 228,000 Lake Trout Fry for Experimental Study

(Hiawatha Forest NFH)

“...228,000 lake trout fry planted on reefs in Lake Michigan as a predation study in cooperation with the Ontario Ministry of Natural Resources and Michigan Department of Natural Resources...”

National Wild Fish Health Survey

(La Crosse FHC)

“...collected over 2,600 tissue samples from cold, cool, and warm water fish species this year in support of the National Wild Fish Health Survey...”

Great Lakes Lake Sturgeon Information available on Web-based GIS Database

(Green Bay FRO)

“...a web-based geographic information system (GIS) database developed by partners to inventory all information on current and historic status and distribution of lake sturgeon throughout the Great Lakes...”

Hiawatha Forest NFH provides Eggs for Cold Water Fish Culture Course

(Hiawatha Forest NFH)

“...provided approximately 68,000 green lake trout eggs for students attending the Cold Water Fish Culture Course...”

Fewer Sea Lampreys produced in the St. Marys River

(Marquette Biological Station)

“...reproduction of invasive sea lampreys reduced by about 80% during 2003 in the St. Marys River due to a combination of trapping and sterile male releases...”



-USFWS

Carterville and Columbia FROs operate the National Paddlefish Database and Coded-wire Tag Processing Center. The database contains 7 years of data on 1.5 million hatchery reared fish and 17,000 wild, tagged fish.



-USFWS

Corey Puzack of the La Crosse FHC is taking fish health samples from a paddlefish snagged at the Black River near Piedmont, Missouri. Staff collected over 2,600 tissue samples from cold, cool, and warm water fish species this year in support of the National Wild Fish Health Survey.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Aquatic Habitat Conservation and Management

Aquatic Habitat



-photo by Robert J. Hurt

Islands constructed in Polander Lake are part of a Habitat Rehabilitation and Enhancement Project on the Upper Mississippi River. La Crosse FRO and Upper Mississippi River NW&FR - Winona District staff are studying fish usage at the site.



-USFWS

The Griffin Wetland is a Partners for Fish and Wildlife project in the Iron River watershed that restored 2 wetland acres and has a positive impact on wildlife in the surrounding 80 acres. Species which benefited include the American black duck, American woodcock, and gray wolf.

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Monitored Native Fish Use and Habitat in the Self-restored Lisbon Bottoms Chute

(Columbia FRO)

“...monitored fish and habitat data in the self-restored Lisbon Bottoms Chute finding twice the diversity of species here than in the adjacent river...”

Utilization of Polander Lake by Paddlefish following Artificial Island Construction

(La Crosse FRO)

“...determined the current distribution and relative abundance of paddlefish in Polander Lake to assess changes after construction of an island complex as part of a Habitat Rehabilitation and Enhancement Project...”

Great Lakes Coastal Program

(Ashland FRO)

“...enhanced, restored, and protected 800 acres of coastal fish and wildlife habitat in 10 separate projects...”

Enhancing Recreational Fishing Opportunities at Two Rivers NWR

(Cartersville FRO)

“...conducted fishery surveys to monitor re-colonization of Swan Lake after a recent Environmental Management Program Habitat Restoration and Enhancement Project was completed in 2003...”

Effects of Dredge Spoil on Habitat and Fish of the Illinois and Mississippi Rivers

(Cartersville FRO)

“...completed 3rd year of a 3 year project to determine the effects of dredge spoil on aquatic habitats and fish communities of the Illinois and Mississippi Rivers which will compare habitat and fish communities prior to and after dredging operations...”

Private Lands/Partners for Fish and Wildlife Program

(Ashland FRO)

“...restored 139 acres on 8 wetlands, opened fish passage on 1,350 feet of stream, and restored 47 acres to native grasses...”

Provided Technical Assistance in Mitigation Planning on the Ohio River

(Cartersville FRO)

“...provided technical assistance on fish passage as part of the cumulative effects study for the U.S. Army Corps of Engineers Ohio River Navigation Study; developed mitigation plans in cooperation with Federal and state partners to restore aquatic habitat for inter-jurisdictional fish and endangered mussels...”



-USFWS

Sandbar habitat at Cranberry Bend Unit of the Big Muddy NF&WR on the Missouri River. Columbia FRO staff monitor fish use of restored and created aquatic habitat.

Monitored Native Fish and Habitat on the Big Muddy NF&WR (Columbia FRO)

“...monitored fishery benefits of restored flood plain habitat in the Cranberry Bend and Overton Bottom units of the Big Muddy NF&WR...”

Green Bay FRO assists with Trout Stream Improvement Project (Green Bay FRO)

“...worked with Marinette Land and Water Conservation Department, Green Bay Ecological Services Office, and Wisconsin Department of Natural Resources to protect ¼ mile of trout stream and prevent grazing and erosion in 6 acres of wetlands...”

Missouri River Coordination (Columbia FRO)

“...participated with other Missouri River partners to establish a list of priority research and monitoring goals for Missouri River habitat restoration...”

Trout Stream Restoration in the West Fork of the Kikapoo River and Billings Creek, Vernon County, Wisconsin

(La Crosse FRO)

“...improved habitat by placing 45 LUNKER structures, 30 boulder retards, weir/pool structures to 6 sites, and more than 2,500 feet of eroded bank stabilized on the West Fork of the Kikapoo River and Billings Creek...”

Trout Stream Restoration in the Upper Iowa River Watershed (La Crosse FRO)

“...improved over 1,200 feet of 3 cold water streams (Bear Creek, French Creek, and Bigalk Creek) by stabilizing eroding stream banks...”

Trout Stream Restoration in Plum Creek, Crawford County, Wisconsin

(La Crosse FRO)

“...restored 1,500 feet of stream for native brook trout with LUNKER structures, boulder retards, weirs, and pool-riffle enhancements...”



-photo by Duane Raver/USFWS

Native alligator gar now have access to additional critical spawning and nursery habitat at Mingo NWR after the completion of 2 fish passage projects.

Fish Passage

Western Iowa Streams Fish Passage Improvement Project (Columbia FRO)

“...worked with the Iowa DNR, Iowa State University, and U.S. Geological Survey to modify grade control structures and restore 85 miles of Missouri River tributary streams allowing native fish species such as Topeka shiner and pallid sturgeon to bypass barriers...”

Alligator Gar return to Mingo NWR (Carterville FRO)

“...completion of 2 fish passage projects made 5,300 acres of wetlands, containing critical native alligator gar spawning and nursery habitat, available at Mingo NWR for restoring alligator gar populations in the Mississippi River Basin...”

DNR = Department of Natural Resources
FHC = Fish Health Center
FRO = Fishery Resources Office
NFH = National Fish Hatchery
NWR = National Wildlife Refuge
NF&WR = National Fish & Wildlife Refuge
NW&FR = National Wildlife & Fish Refuge

Fish Passage on the White Earth River

(La Crosse FRO)

“...provided fish passage for lake sturgeon to White Earth Lake by constructing a rock rapid fish way...”

Brook Trout Restoration on Cheyenne Creek in Vernon County, Wisconsin

(La Crosse FRO)

“...provided fish passage, improved water quality, and habitat on 2.75 miles of Cheyenne Creek by removing beaver dams, installing in-stream structures, and stabilizing banks...”

Habitat Restoration through the “Partners for Fish and Wildlife Program”

(Alpena FRO)

“...43 acres of wetlands on 11 sites and 8 stream bank erosion sites restored; 3 fish passage projects completed opening 42 miles of river; 4 miles of river habitat was improved by structure placement...”

Fishery Management Assistance at Ottawa NWR

(Alpena FRO)

“...conducted surveys at Metzger Marsh to assess inter-jurisdictional fish passage into the 906 acre wetland at Ottawa NWR...”

Replacement of Perched Culvert on Bull Alley Run, Ashland County, Ohio

(Alpena FRO)

“...replaced culvert which opened 1 mile of stream to passage of darters and several species of cyprinids and catostomids...”

Dam Removal on Ottawa River, Ohio

(Alpena FRO)

“...National Fish and Wildlife Foundation funds used to remove a 5 foot dam on the Ottawa River opening 10 miles of stream to native white suckers and walleye; 5,680 feet of stream bank was stabilized...”

Little Lake Creek Fish Passage

(Ashland FRO)

“...restored fish passage to about 0.4 miles of upstream habitat on Little Lake Creek at the Grand Portage Reservation...”

Small Dam Removal on Tannery Creek

(Alpena FRO)

“...dam removal opened fish passage to 3 river miles of spawning habitat for native brook trout and a seasonal sea lamprey barrier built to keep out invasive sea lamprey...”

Opening Fish Passage at Johnson Crossing Road at Headwaters of the Black River

(Alpena FRO)

“...replaced perched culverts to allow fish passage of native brook trout to 2 miles of spawning habitat consisting of several riffle areas...”



-USFWS

This fish passage project, located on the White Earth River in Minnesota, replaces a dam with cascading riffles and pools allowing lake sturgeon and other native species access to White Earth Lake.



-USFWS

Bottomless culverts are designed to allow uninhibited passage of native fish such as brook trout.

- DNR = Department of Natural Resources
- FHC = Fish Health Center
- FRO = Fishery Resources Office
- NFH = National Fish Hatchery
- NWR = National Wildlife Refuge
- NF&WR = National Fish & Wildlife Refuge
- NW&FR = National Wildlife & Fish Refuge

Workforce Management



-USFWS

Training is an important component for Workforce Management. These students are attending a Fish and Wildlife Service sponsored short course titled "Introduction to Fish Health." Several employees from the La Crosse FHC serve as trainers for this very popular course which also attracts attendees from many of our partner agencies.



-USFWS

Each year the La Crosse FRO and the La Crosse District of the Upper Mississippi River NW&FR honor their volunteers with a banquet. In fiscal year 2003, fishery volunteers contributed 800 hours to the La Crosse FRO. Volunteers have become a critical component in fulfilling our Mission.

Fish Friendly Road Crossings Training Course

(Ashland FRO)

"...worked with Regional and National Conservation Training Center staff to develop a course in the design and construction of fish friendly road crossings..."

National Conservation Training Center Course "Introduction of Fish Health"

(La Crosse FHC)

"...instructed the course "Introduction to Fish Health" to 16 students..."

La Crosse FRO Volunteer Program

(La Crosse FRO)

"...honored 44 volunteers who contributed 1,300 hours with a Friends Group sponsored banquet..."

Educating our Work Force at Iron River NFH

(Iron River NFH)

"...participated in training sessions on hazardous materials, bulk liquid oxygen, and administrative functions; and networked at technical and lake committee meetings and coordination meetings..."

Open Water Motorboat Safety Course taught in Region 3

(Green Bay FRO)

"...coordinated the Open Water Module motorboat training in Alpena, Michigan teaching students to navigate using charts, operate distress signals, GPS, and perform man-overboard drills..."

Safety, Operational, and Career Training for Alpena FRO Staff

(Alpena FRO)

"...personnel completed 765 hours of training in 21 courses and 3 details to enhance safety and effectiveness of operations..."

Volunteers at the La Crosse FHC

(La Crosse FHC)

"...received assistance from volunteers for disease diagnostic inspections and Wild Fish Health Survey exams totaling 115 hours..."

DNR = Department of Natural Resources
 FHC = Fish Health Center
 FRO = Fishery Resources Office
 NFH = National Fish Hatchery
 NWR = National Wildlife Refuge
 NF&WR = National Fish & Wildlife Refuge
 NW&FR = National Wildlife & Fish Refuge

Great Lakes - Big Rivers Regional Fisheries Offices

Regional Office, 1 Federal Drive, Fort Snelling, MN 55111-4056; 612/713-5111
Gerry Jackson (gerry_jackson@fws.gov)

Michigan

Alpena Fishery Resources Office
Federal Building; 145 Water Street
Alpena, MI 49707
Jerry McClain (jerry_mcclain@fws.gov)
989/356-3052

Jordan River National Fish Hatchery
6623 Turner Road
Elmira, MI 49730
Rick Westerhof (rick_westerhof@fws.gov)
231/584-2461

Ludington Biological Station
229 South Jebavy Drive
Ludington, MI 49431
Dennis Lavis (dennis_lavis@fws.gov)
231/845-6205

Marquette Biological Station
1924 Industrial Parkway
Marquette, MI 49855
Gary Klar (gerald_klar@fws.gov)
906/226-6571

Pendills Creek/Sullivan Creek
National Fish Hatchery
21990 West Trout Lane
Brimley, MI 49715
Curt Friez (curt_friez@fws.gov)
906/437-5231

Missouri

Columbia Fishery Resources Office
101 Park Deville Drive; Suite A
Columbia, MO 65203
Tracy Hill (tracy_hill@fws.gov)
573/234-2132

Neosho National Fish Hatchery
East Park Street
Neosho, MO 64850
David Hendrix (david_hendrix@fws.gov)
417/451-0554

Illinois

Carterville Fishery Resources Office
9053 Route 148, Suite A
Marion, Illinois 62959
Rob Simmonds (rob_simmonds@fws.gov)
618/997-6869

Wisconsin

Ashland Fishery Resources Office
2800 Lake Shore Drive East
Ashland, WI 54806
Mark Dryer (mark_dryer@fws.gov)
715/682-6185

Genoa National Fish Hatchery
S5689 State Road 35
Genoa, WI 54632-8836
Doug Aloisi (doug_aloisi@fws.gov)
608/689-2605

Green Bay Fishery Resources Office
2661 Scott Tower Drive
New Franklin, WI 54229
Mark Holey (mark_holey@fws.gov)
920/866-1717

Iron River National Fish Hatchery
10325 Fairview Road
Iron River, WI 54847
Dale Bast (dale_bast@fws.gov)
715/372-8510

LaCrosse Fish Health Center
555 Lester Avenue
Onalaska, WI 54650
Richard Nelson (rick_nelson@fws.gov)
608/783-8441

LaCrosse Fishery Resources Office
555 Lester Avenue
Onalaska, WI 54650
Pamella Thiel (pam_thiel@fws.gov)
608/783-8431



**Fisheries Accomplishment Report
Region 3, Great Lakes/Big Rivers
FY 2003**

**U.S. Fish & Wildlife Service
Region 3
Division of Fisheries
1 Federal Drive
Ft. Snelling, MN 55111**

Phone: 612/713-5111

Partners

Partners are critical to fulfill our Fish and Wildlife Service mission. Partners we worked with in FY2003 included over 25 natural resource agencies, over 35 Tribal governments and organizations, over 55 non-governmental organizations, and 5 Friends Groups.



RECYCLED PAPER

Printed on 30% Recycled
by Fiber Weight Paper

The Fisheries Accomplishment Report - FY2003 was produced by the Fisheries Program, Region 3, U.S. Fish & Wildlife Service, Ft. Snelling, Minn. Items included are selected from monthly reports submitted by Region 3 fisheries offices. Photos included are used by permission and may be copyrighted. Questions or comments concerning the report should be addressed to Dave Radloff, 612/713-5158 or email at david_radloff@fws.gov

Equal opportunity to participate in, and benefit from programs and activities of the U.S. Fish and Wildlife Service is available to all individuals regardless of race, color, national origin, sex, age, disability, religion, sexual orientation, status as a parent and genetic information. For information contact the U.S. Department of Interior, Office for Equal Opportunity, 1849 C Street N.W., Washington, DC 20240