



U.S. Fish & Wildlife Service



Fisheries Operational Plan Accomplishment Report for Fiscal Year 2004

Region 3 - Great Lakes/Big Rivers



Partnerships and Accountability



Aquatic Habitat Conservation and Management



Workforce Management



Aquatic Species Conservation and Management



Aquatic Invasive Species



Cooperation with Native Americans



Public Use



Leadership in Science and Technology

To view monthly issues of "Fish Lines", see our Regional website at: (<http://www.fws.gov/midwest/Fisheries/>)

Great Lakes - Big Rivers Region

Message from the Assistant Regional Director for Fisheries

The Fisheries Program in Region 3 (Great Lakes – Big Rivers) is committed to the conservation of our diverse aquatic resources and the maintenance of healthy, sustainable populations of fish that can be enjoyed by millions of recreational anglers. To that end, we are working with the States, Tribes, other Federal agencies and our many partners in the private sector to identify, prioritize and focus our efforts in a manner that is most complementary to their efforts, consistent with the mission of our agency, and within the funding resources available.

At the very heart of our efforts is the desire to be transparent and accountable and, to that end, we present this Region 3 Annual Fisheries Accomplishment Report for Fiscal Year 2004. This report captures our commitments from the Region 3 Fisheries Program Operational Plan, Fiscal Years 2004 & 2005.

This document cannot possibly capture the myriad of activities that are carried out by any one station in any one year, by all of the dedicated employees in the Fisheries Program, but, hopefully, it provides a clear indication of where our energy is focused. This is a work in progress and we welcome your feedback on not only how to improve this document, but also on how we can better conserve all of our aquatic resources and recreational fishing opportunities. Thank you for taking the time to review this document and your efforts to help conserve our precious aquatic resources.

Gerry Jackson

Assistant Regional Director
Fisheries

Introduction

The Fisheries Program of the U.S. Fish and Wildlife Service (Service) has played a vital role in conserving and managing fish and other aquatic resources since 1871. Today, the Fisheries Program is a critical partner with States, Tribes, other governments, other Service programs, private organizations, public institutions, and interested citizens in a larger effort to conserve these important resources. In 2002, working with its many partners in aquatic conservation through the Sport Fishing and Boating Partnership Council's Fisheries Steering Committee, the Service completed its strategic vision for the Fisheries Program: "Conserving America's Fisheries, U.S. Fish and Wildlife Service Fisheries Program, Vision for the Future." The Vision includes goals, objectives, and action items on a national scale for the Fisheries Program.

The Great Lakes/Big Rivers Region (Region) Operational Plan is an extension of the Vision, describing more specifically the activities that the Regional Fisheries Program will implement in Fiscal Years 2004 and 2005. This accomplishment report addresses the commitments from the Operational Plan. The Fisheries Program and its partners and stakeholders recognize that responsibilities for managing and conserving many fish and other aquatic resources are shared, and overall success is contingent upon the combined knowledge, resources and commitment of each party. Therefore, the Region views this accomplishment report as a general contract between us and our partners and stakeholders. Specific species and habitat targets are identified in individual species management plans. For more information about management plans or for a listing of plans, please contact your local office or the Regional Office (612-713-5111).

Great Lakes - Big Rivers Region Fisheries Field Offices

National Fish Hatcheries

The Region's National Fish Hatcheries primarily focus on native fish restoration/rehabilitation by stocking fish and eggs, such as pallid and lake sturgeon and by developing and maintaining brood stocks of selected fish strains, such as lake trout and brook trout. Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, stock rainbow trout in fulfillment of federal mitigation obligations and assist with 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. The U.S. Department of State and Canadian Department of Fisheries and Oceans fund this program through the Great Lakes Fishery Commission.

Fishery Resources Offices

Fishery Resources Offices conduct assessments of fish populations to guide management decisions, perform key monitoring and control activities related to invasive, aquatic species; survey and evalu-

ate aquatic habitats to identify restoration/rehabilitation 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 Partners for Fish and Wildlife and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key inter-agency fisheries databases; provide technical expertise 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. In other Regions of the Service, FRO's are also referred to as Fish and Wildlife Management Assistance Offices.

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



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
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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
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Marquette, MI 49855
Gary Klar (gerald_klar@fws.gov)
906/226-6571

Pendills Creek/Sullivan Creek
National Fish Hatchery
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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
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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
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Ashland, WI 54806
Mark Dryer (mark_dryer@fws.gov)
715/682-6185

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

Green Bay Fishery Resources Office
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Mark Holey (mark_holey@fws.gov)
920/866-1717

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

LaCrosse Fish Health Center
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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

Conserving America's Fisheries

Fisheries Program Vision for the Future

Region 3 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. Aquatic Invasive Species

Aquatic invasive species are one of the most significant threats to fish and wildlife and their habitats. Local and regional economies are severely affected with control costs exceeding \$123 billion annually. The Fisheries Program has focused its efforts on preventing introductions of new aquatic invasive species, detecting and monitoring new and established invasives, controlling established invasives, providing coordination and technical assistance to organizations that respond to invasive species problems, and developing comprehensive, integrated plans to fight aquatic invasive species

4. 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.

5. 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.

6. 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.

7. 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.

8. 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.

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.

Partnerships and Accountability

Partnerships

Our Goal: Open, interactive communication between the Fisheries Program and its partners.

Our primary focus is on developing and improving relationships with our stakeholders and partners.

Our Objective Strengthen government, Tribal, and non-governmental relationships in the Great Lakes-Big Rivers Region to promote collaborative conservation strategies for conserving aquatic resources.

Our Commitment

– **The Fisheries Program will:**

- Initiate frequent informal communications with State, Tribal, Federal, Non-governmental organizations, partners, and other programs of the Service to identify and resolve aquatic resource management problems, explore new opportunities, and maintain productive working relationships.

“...initiated many formal and informal communications with agencies and organizations...”

- Participate in meetings held by partners to broaden the Program’s perspective and appreciation of the range of issues collectively faced by resource managers.

“...participated in meetings with other agencies and organizations when invited...”

- Work with the Mississippi Interstate Cooperative Resources Association (MICRA) and the Great Lakes Fishery Commission to conserve native species.

“...signed a Memorandum of Agreement with the Great Lakes Fishery Commission covering the participation of regional office and field office staff as members, observers, and alternates on 55 task forces and committees, as coordinated under the Strategic Plan for Management of Great Lakes Fisheries, toward achieving Great Lakes fish community objectives...”

- Work with various task forces and committees to restore aquatic resources in the Midwest.

“...participated in the 2004 State of the Lakes Ecosystem Conference, coordinated by the Great Lakes Commission, which is held every two years and focuses on the state of aquatic systems and environmental quality indicators, several of which are maintained by the Service...”

– **Jordan River and Iron River National Fish Hatcheries will:**

- Develop a Friends Group to help foster interactions between the local communities and the Hatcheries (MI, WI). (FY05 and FY06 Department of the Interior Performance Measure).

“... have developed a Friends group for the Iron River NFH to help foster interactions between the local communities and the hatcheries...”



-USFWS

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



-USFWS

Rob Elliott, Green Bay FRO, Tom Meronek, Wisconsin DNR, and Greg Bunker, Stockbridge-Munsee Indian Community Conservation Office examine an adult lake sturgeon captured during a joint fishery assessment.



-USFWS

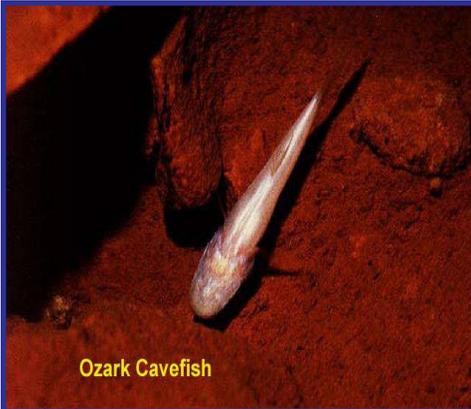
Habitat restoration projects such as this one are accomplished through Fish and Wildlife Service programs such as the Private Lands, Coastal, and Fish Passage programs.

Partnerships and Accountability



-USFWS

A variety of conservation measures have been implemented since 2001 by the U.S. Army Corps of Engineers, with assistance from the interagency Mussel Coordination Team, to save the federally endangered Higgins' eye pearl mussel from extinction.



Ozark Cavefish

-USFWS

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



-GLFC

This is a sea lamprey treatment site on the Manistique River. Marquette and Ludington Biological Stations control sea lampreys in coordination with the Great Lakes Fishery Commission and other stakeholders.

“...continued outreach efforts to establish a Friends group at the Jordan River NFH by posting signs in visitor’s center and talking with visitors throughout the year; held the “First Annual Jordan River Hatchery Festival” in conjunction with a Friends group meeting with over 140 kids attending the event and three people attending the Friends group meeting (fifteen people are signed up for Friends group, but no one has stepped forward to lead the organization process)...”

Spotlight on Partnerships

Successful international partnerships in the Great Lakes have included restored fish populations, protected habitats, and enhanced recreational fisheries. Partners in the Great Lakes include 8 states, 10 tribes, the Province of Ontario, Federal agencies in the U.S. and Canada, non-governmental organizations, industry, and international organizations like the Great Lakes Fishery Commission. Since its formation in 1954, the Commission has looked to the Service as a partner in controlling the invasive sea lamprey and supporting the restoration and maintenance of the \$4 billion Great Lakes sport fishery. These partnerships restored lake trout in Lake Superior, one of the world’s largest bodies of freshwater.

Through the Great Lakes Fish and Wildlife Restoration Act, the Fisheries Program has funded nearly \$3 million in state and tribal projects to restore Great Lakes fishery resources. Projects focus on 32 fisheries restoration recommendations submitted in a 1995 report to Congress, as well as priorities of the Lake Committees, articulated in Fish Community Objectives for each of the Great Lakes.

The U.S. General Accounting Office (GAO) released a report in April, 2003, describing 148 Federal and 51 state programs that fund environmental restoration activities in the Great Lakes Basin. Among the findings, the GAO report indicated that only eight of those federal or state programs report outcome information. Of the eight programs, the GAO report cites two Service programs, sea lamprey control and stocking depleted lake trout populations, as examples. The Service conducts sea lamprey control operations as the U.S. agent in partnership with the Great Lakes Fishery Commission, Fisheries and Oceans Canada, and the U. S. Geological Survey.

Partnerships and Accountability

Accountability

Our Goal: Effective measuring and reporting of the Fisheries Program's progress toward meeting short-term and long-term fish and other aquatic resource conservation goals and objectives.

Our primary focus is on developing effective accountability measurements and reporting.

Our Objectives

- Improve communication and accountability to States, Tribes, partners, and other stakeholders regarding plans, accomplishments, and commitments.
- Manage Fisheries Program activities and funding to maximize performance.
- Improve the transfer of information developed by the Fisheries Program to States, Tribes, partners, and other stakeholders.

Our Commitment

- **The Fisheries Program will:**

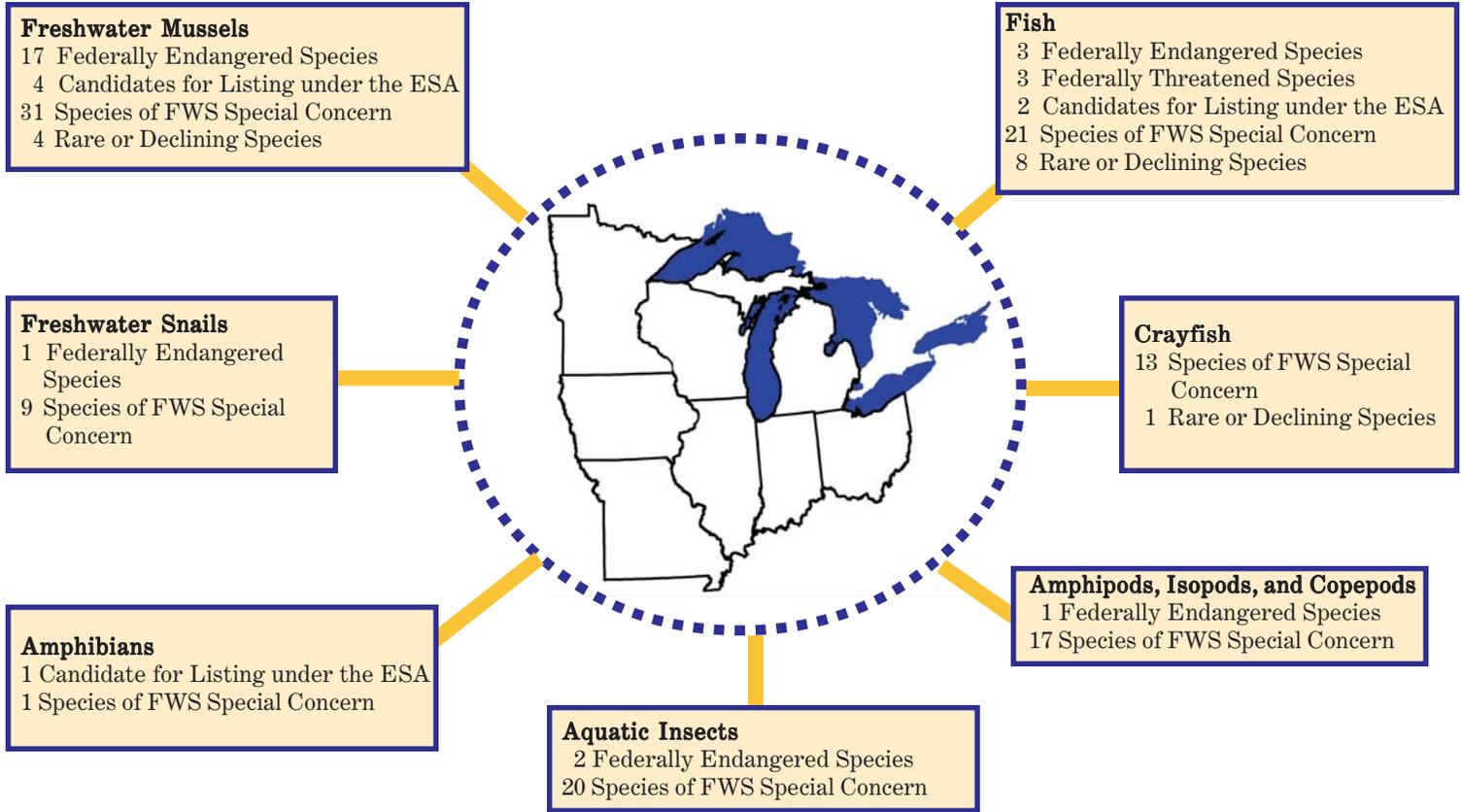
- Meet at least annually with State and Tribal fish and wildlife agency representatives and non-governmental organizations to coordinate activities.
“...met with most State and Tribal agencies to coordinate activities...”
- Prepare an annual report on the Fisheries Program's accomplishments.
“...developed this annual report of accomplishments based on our “Region 3 Fisheries Program Operational Plan Fiscal Years 2004 & 2005...”
- Manage our funds to maximize Fisheries Program performance.
“...spent 99.9987 percent of allocated funds to accomplish critical mission related activities, and exceeded all assigned performance measures...”
- Develop accomplishment reports and provide summaries to State and Tribal partners and stakeholders.
“...provided accomplishments to partners and stakeholders through *Fish Lines*, station reports, regional and station websites, and email links...”
- Participate in Government Accounting Office (GAO) audits of the Service.
“...audits of the Fisheries program by the GAO did not occur in FY04...”
- Participate in audits of the Service's financial management records by KPMG, which is a private auditing firm.
“...was no requirement for additional information from the Region 3 Fisheries program from KPMG in FY2004; the main areas of review were completed during the FY03 audit period...”
- Participate in an independent performance evaluation conducted by the Sport Fishing and Boating Partnership Council.
“...cooperated with the Sport Fishing and Boating Partnership Council independent evaluation...”
- Communicate regularly with our partners and stakeholders through *Fish Lines*, a monthly account of performance highlights. (<http://www.fws.gov/midwest/Fisheries/library/fishlines.htm>)
“...sent approximately 250 hard copies of *Fish Lines* monthly to individuals/groups which include all of our key partners and stakeholders, or emailed hot-links monthly for those that prefer to view accomplishments over the web...”
- Maintain an informative website on the internet. (<http://www.fws.gov/midwest/Fisheries/>)
“...maintained our regional Fisheries website as a one-stop shopping site for our program with links to other partners and stakeholders...”

Partners and Stakeholders

1854 Authority
 American Fisheries Society
 American Sportfishing Association
 Audubon Society
 Bad River Band of Lake Superior Tribe of Chippewa Indians
 Badger Fly Fishers
 BASS Federation
 Bass Pro Shops
 Bay Mills Indian Community
 Bois Forte (Nett Lake) Lake Superior Band of Chippewa Indians
 Brice Prairie Foundation
 Bureau of Indian Affairs
 Cabela's
 Cheboygan Sportsmans Club
 Chippewa Ottawa Resource Authority (CORA)
 Cleveland Museum of Natural History
 Crawford County Land Conservation Department
 Department of Defense
 Department of Fisheries and Oceans - Canada
 DTE Energy
 East Jordan Snowmobile Club
 Falling Rock Walleye Club
 Federal Emergency Management Authority
 Fond du Lac (Lake Superior) Band of Chippewa Indians
 Forest County Potawatomi Community
 Friends of Pendills Creek Hatchery
 Friends of the Big Muddy
 Friends of the Jordan River Valley
 Friends of the Neosho National Fish Hatchery
 Friends of the Upper Mississippi River Fishery Services
 Friends of the Upper Mississippi River Refuges
 Grand Portage (Lake Superior) Band of Chippewa Indians
 Grand River Partners Inc. (Ohio)
 Grand Traverse Bay Band of Ottawa & Chippewa Indians
 Great Lakes Fishery Commission
 Great Lakes Indian Fish & and Wildlife Commission
 Great Lakes Sportfishing Council
 Hannahville Indian Community
 Hawkeye Fly Fishing Association
 Ho-Chunk Nation of Wisconsin
 Illinois Department of Natural Resources
 Indiana Department of Natural Resources
 Iowa Department of Natural Resources
 Iowa State University
 Izaak Walton League
 Joint Sport Fishing Club Meeting
 Keweenaw Bay Indian Community
 Kickapoo Valley Resource Management Board
 Lac Courte Oreilles Band
 Lac du Flambeau Band of Lake Superior Chippewa Indians
 Lac Vieux Desert Band of Lake Superior Chippewa Indians
 LaCrosse County Conservation Alliance
 LaCrosse County Dept. of Land Conservation
 Lake Metro Parks (Ohio)
 Lake Michigan Fisheries Forum-17 members
 Leech Lake Band of Ojibwe
 Legend Lake Property Owners Association
 Little Manistee River Watershed Conservation Council
 Little River Band of Ottawa Indians
 Little Traverse Bay Bands of Odawa Indians
 Lower Sioux Indian Community in Minnesota
 Lower Sioux Mdewakanton Indian Community
 M.A.K.O. Fly Fisher's Association
 Mancelona Rotary
 Manistique Papers Inc.
 Manitou Bluffs Conservation Group (Missouri)
 Match-E-Be-Nash-She-Wish Band of Potawatomi Indians of MI
 Menominee Indian Tribe of Wisconsin
 Michigan Association of RC&Ds
 Michigan Charterboat Association
 Michigan Conservation Districts
 Michigan Department of Environmental Quality
 Michigan Department of Natural Resources
 Michigan Department of Transportation
 Michigan Inland Lakes and Stream Association
 Michigan State University
 Michigan United Conservation Clubs
 Mille Lacs Band of Ojibwe
 Minnesota Department of Natural Resources
 Mississippi Interstate Cooperative Resource Assoc.
 Mississippi Valley Conservancy
 Mississippi Valley Partners
 Mississippi Walleye Club
 Missouri Department of Conservation
 Missouri River Communities Network
 Missouri Smallmouth Alliance
 Mohican Nation Stockbridge-Munsee Band
 National Fish and Wildlife Foundation
 National Park Service
 Natural Heritage Foundation
 Natural Resource Conservation Service
 Nebraska Game & Parks Commission
 Nature Conservancy
 New York Depart. of Environmental Conservation
 North American Native Fishes Association
 Northland Sportmans Club
 Nottawaseppi Huron Band of Potawatomi
 Ohio Department of Natural Resources
 Ohio Environmental Protection Agency
 Oneida Tribe of Indians of Wisconsin
 Ontario Ministry of Natural Resources
 Ottawa National Wildlife Refuge Association
 Overton-Woodridge Levee and Drainage Dist.
 Pennsylvania Depart. of Environmental Protection
 Pere Marquette Watershed Council
 Peshawbestown Community Center
 Pokagon Band of Potawatomi Indians
 Prairie Island Indian Community
 Pure Fishing
 Rainy River First Nation
 Red Cliff Band of Lake Superior Chippewa Indians
 Red Lake Band of Chippewa Indians
 River Alliance of Wisconsin
 River Relief/Missouri River Relief
 Sac and Fox Tribe of the Mississippi in Iowa
 Saginaw Chippewa Indian Tribe of Michigan
 Sault Ste. Marie Tribe of Chippewa Indians
 Sea Grant
 Shakopee Mdewakanton Sioux Community
 Sierra Club
 Sakaogon Chippewa (Mole Lake) Community of Wisconsin
 Soo Area Sportsman's Club
 South Dakota Department of Game, Fish & Parks
 Sport Fishing and Boating Partnership Council
 St. Croix Chippewa Indians of Wisconsin
 Sturgeon for Tomorrow
 The Nature Conservancy
 Thunder Bay Brown Trout Committee
 Thunder Bay Walleye Club
 Tip of the Mitt Watershed
 Trout Unlimited
 U. S. Army Corps of Engineers
 U.S. Department of Agriculture
 U.S. Environmental Protection Agency
 U. S. Forest Service
 U. S. Geological Survey
 Upper Black River Restoration Committee
 Upper Sioux Community of Minnesota
 Vernon County Land/Water Conservancy
 West Fork Sports Club
 White Earth Band of Chippewa
 Wisconsin Association of Lakes
 Wisconsin Department of Natural Resources
 Wisconsin Hunting and Fishing Alliance

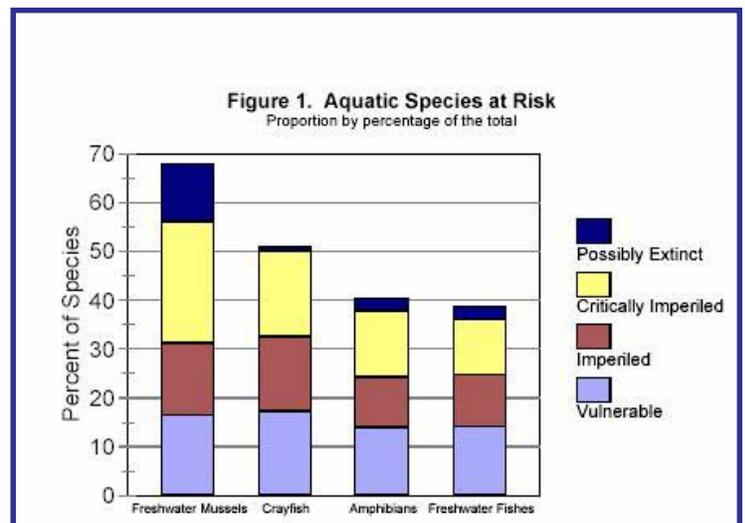
Our Fisheries and Aquatic Resources are in Trouble!

Conservation Status of Aquatic Species in Region 3



The need to protect, restore, and enhance aquatic resources has never been greater.

- Since 1900, 123 aquatic freshwater species have become extinct in North America (Ricciardi and Rasmussen 1999).
- Of the 822 native freshwater fish species in the U.S., 39% are at risk of extinction (Stein and Flack 1997).
- Forty-three percent of federally-listed threatened and endangered species rely to some extent on wetland habitats (Sipple).
- Thirty four percent of fish, 65% of crayfish, and 75% of the 297 freshwater mussels in the U.S. are classified as rare or extinct, in comparison to 11-15% of terrestrial vertebrates (Master 1990).
- As of 2004, 227 aquatic species are federally threatened or endangered: 21 amphibians, 115 fish, 70 bivalves, and 21 crustaceans (USFWS 2004).



(Stein and Flack, 1997 Species Report Card)

Aquatic Species Conservation and Management

Native Species



-USFWS photo by Louise Mauldin

Staff from Neosho NFH and Columbia FRO tag federally endangered pallid sturgeon raised at Neosho NFH. This work is identified as recovery plan tasks for this species.



-USFWS

Mussel Propagation Biologist Tony Brady collects mussel larva (glochidia) from a Higgins' eye pearlymussel at Genoa NFH. Genoa NFH has developed culturing techniques for several native mussel species.



-USFWS

Smallmouth bass serve as host fish for federally endangered Higgins' eye pearlymussels at the Genoa NFH.

Our Goal: Self-sustaining populations of native fish and other aquatic resources that maintain species diversity, provide recreational opportunities for the American public, and meet the needs of Tribal communities.

(Endangered and Threatened Species)

Our Objective Recover fish and other aquatic resource populations protected under the Endangered Species Act (ESA), in collaboration with the Service's Endangered Species Program.

Our primary focus for this objective is on implementing recovery activities that: 1) prevent the extinction of threatened and endangered species, and; 2) lead to down-listing or de-listing species listed under the ESA. Specifically, we work with pallid sturgeon, Higgins eye pearlymussel, winged mapleleaf, Topeka shiner and Niangua darter.

Our Commitment

– Columbia Fishery Resources Office:

- Serve as the Lower Missouri River Pallid Sturgeon Recovery Work Group Leader and coordinate endangered pallid sturgeon recovery efforts, including management, propagation, and stocking in the Lower Missouri River (IA, KS, MO, NE).

“...served as the Lower Missouri River Pallid Sturgeon Recovery Work Group Leader by hosted a meeting of the group in May, coordinated recovery efforts by serving as a member of the Recovery Team, monitored 225 miles of the Lower Missouri River in FY2004 resulting in the capture of 21 pallid sturgeon, assisted propagation efforts by tagging 2,276 pallid sturgeon prior to their release into the Lower Missouri River, and worked with Lower Missouri River states to stock 35,320 pallid sturgeon...”

- Monitor the status of the pallid sturgeon population and associated fish community in Lower Missouri River (IA, KS, MO, NE)

“...monitored the pallid sturgeon population through sampling for the Pallid Sturgeon and Associated Fish Community Assessment Project in the Lower Missouri River with surveys sampling over 225 miles of the Lower Missouri River within the coordinated basin-wide effort using seven gear types throughout the entire year...”

- Provide technical assistance to the Niangua Darter Recovery Team to recover darters in the Osage River Basin “...proposed projects to the Recovery Team in conjunction with the Missouri Department of Conservation and Columbia Ecological Services Field Office; aided the Recovery Team in gathering data for entry into Missouri Department of Conservation’s Niangua darter GIS database through site visits to low water crossings in the Niangua darter range in Missouri, gathered photos, measured structure, and typed culverts and stream parameters which will aid the group in prioritizing structure replacement for future years...”

Aquatic Species Conservation and Management

- La Crosse Fishery Resources Office:

- Work with partners to collect, re-distribute and monitor endangered Higgins' eye pearl mussel for recovery efforts in the Upper Mississippi River Basin (IL, IA, MN, WI).
"...dove with partners and the Service Dive Team to collect endangered Higgins' eye pearl mussels in the St. Croix River and Pool 14 of the Mississippi River; monitored special mussel culture cages for survival in Pools 4 and 9 of the Mississippi River..."
- Work with partners to collect and aggregate endangered winged mapleleaf mussels for recovery efforts in the Upper Mississippi River Basin (MN, WI).
"...dove with partners to aggregate specimens of the endangered winged mapleleaf mussel in the St. Croix River and transported mussel larva (glochidia) to the Genoa NFH..."

- Genoa National Fish Hatchery:

- Work with partners (e.g. Minnesota & Wisconsin DNRs and U.S. Geological Survey) to begin efforts to culture Winged Mapleleaf mussels for stocking under an interagency recovery program in the Upper Mississippi River Basin (MN, WI).
"...received a grant and acquired equipment, host fish, and inoculated 100 channel catfish with an estimated 30,000 winged mapleleaf glochidia; currently holding fish on station until conditions are favorable for their release in spring..."
- Culture Higgins' eye pearl mussel for stocking under an interagency recovery program in the Upper Mississippi River Basin (IL, IA, MN, WI). (work supported by **FONS project # 2002-001**)
"...produced an estimated 2,333,665 juvenile Higgins' eye pearl mussel juveniles and stocked them in the Mississippi River basin..."
- Culture approximately 10,000 yearling host fish for endangered Higgins' eye pearl mussel recovery efforts (IL, IA, MN, WI).
"...cultured 12,000 host fish for Higgins' eye recovery with 9,240 fish used in Higgins' eye recovery efforts, according to Corps production goals; the excess fish were stocked on NWR's and used for tribal fish stocking commitments..."

- Neosho National Fish Hatchery:

- Culture and tag 5,000 endangered pallid sturgeon (nine inch) for stocking under an interagency (e.g. Missouri Department of Conservation, Iowa DNR, and U.S. Army Corps of Engineers) recovery program in the Missouri River (MO, IA, KS, NE). (**FONS #2002-007**)
"...cultured and tagged 2,357 pallid sturgeon - a pit tag as well as an elastomer tag were used to mark each fish, and they were stocked into three different sites along the Missouri River in the Middle Basin (RPMA 4)..."
- Provide technical assistance to complete the Pallid Sturgeon Propagation Plan for the Missouri River (IA, KS, MO, MT, NE, ND, SD).
"...provided technical assistance by actively participating in the revision of the Pallid Sturgeon Propagation Plan for the Missouri River..."
- Protect the water source for the threatened Ozark cavefish on a portion of the Ozark Cavefish NWR (MO).
"...protected the water source for the threatened Ozark cavefish by continuous monitoring of the water quality on a portion of the Ozark Cavefish NWR that is located on the hatchery; continued to maintain a live camera inside the spring box to monitor the number of cavefish as well as allow the public to observe this unique little fish in its natural environment..."

- La Crosse Fish Health Center:

- Complete two fish health assessments per year on pallid sturgeon cultured at the Neosho NFH (MO)
"...completed only one assessment in March due to restricted funding..."
- Complete at least one fish health assessment per year at Genoa NFH on host fish used for freshwater mussel culture (WI).
"...completed one fish health assessment at the Genoa NFH as required of donor fish used as mussel hosts..."
- Provide technical assistance on pallid sturgeon fish health for the Region (IA, MO).
"...attended several workshops and meetings with Region 6 fish health experts to better assess pallid sturgeon in Region 3..."

Aquatic Species Conservation and Management

(Aquatic Species of Concern)



-USFWS

Biologists from the Region 3 FRO's provide leadership for interagency collaborative efforts to restore depleted lake sturgeon populations.



-USFWS

Ashland FRO biologists assess spawning lake sturgeon populations in the Bad and White Rivers, Wisconsin. Data collected will be used to estimate the size, to describe biological characteristics of fish, and to analyze the genetic characteristics of the 2004 spawning runs.



-USFWS

Staff from 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.

Our Objective Restore declining fish and other aquatic resource populations, in collaboration with States, Tribes, partners, and stakeholders.

Our primary focus for this objective is on restoration activities that will help prevent the need to list species under the ESA. Specifically, we work with lake sturgeon, paddlefish and native mussels in the Mississippi, Missouri and Ohio river basins and lake trout, coaster brook trout, lake sturgeon, and lake herring in the Great Lakes.

Our Commitment

– Regional Office will:

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund native fish restoration activities addressing recommendations of the Great Lakes Fishery Resources Restoration Study (IL, IN, MI, MN, NY, OH, PA, WI).

“...the following Restoration Act funded projects were in progress from previous funding years or received initial year of funding during FY04: Dynamics and biology of siscowet lake trout in Lake Superior- Michigan State University; Use of unmanned submersibles to study lake trout spawning on the Lake Michigan mid-lake reef- University of Wisconsin- Milwaukee; a biophysical model of Lake Erie walleye recruitment: explaining historical recruitment and anticipating consequences of future climate change- Michigan State University; Development of genetic management guidelines for lake sturgeon- University of California-Davis; Analysis of tagging data to quantify lake trout migration in Lake Huron- University of Michigan- Ann Arbor; Lake Huron lake whitefish distribution study- University of Illinois; Comparison of techniques for stock discrimination of Lake Erie walleye- Great Lakes Fishery Commission; Otolith microchemistry for percid production in Lake Erie- Great Lakes Fishery Commission; Evaluating current reproductive success of lake trout at the Port of Indiana breakwater- University of Illinois- Urbana-Champaign...”

- Work through our position as observer on the Council of Lake Committees to pursue native fish rehabilitation on a Great Lakes wide scale consistent with fish community objectives for each lake (IL, IN, MI, MN, NY, OH, PA, WI). “...participated in two meetings during October 2003 and April 2004 which addressed native fish rehabilitation including the propagation of the Klondike Reef (Lake Superior) strain of lake trout for rehabilitation stocking, lake sturgeon restoration actions, and the declining status of American eel populations...”

Aquatic Species Conservation and Management

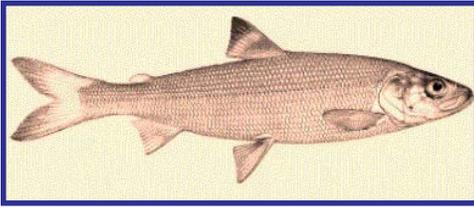
- Alpena Fishery Resources Office:

- Work with partners to monitor the status of lake trout and to restore populations and habitat through interagency plans for Lake Huron (MI).
“...continued to assist in evaluating lake trout stocking programs in Lake Huron and provided an updated analysis of post-stocking movement from four near shore sites to the interagency Lake Huron Lake Technical Committee; assisted the Michigan DNR with statistical-catch-at-age modeling for two Northern Lake Huron management units; conducted annual lake trout spawning surveys at five offshore reef sites in Central Lake Huron to monitor spawner abundance as an indicator of progress for lake wide rehabilitation...”
- Work with partners to monitor the status of lake sturgeon and to restore populations and habitat through interagency plans for Lake Huron, Lake Erie and connecting waters (MI, OH).
“...continued to provide Service leadership for interagency collaborative efforts to restore depleted lake sturgeon in Lake Huron and the Detroit River connecting waterway; surveyed lake sturgeon populations in the St. Clair River and conducted telemetry using ultrasonic tags to determine movement patterns and habitat selection in the system by working with Ontario Ministry of Natural Resources, Michigan DNR, U.S. Geological Survey, and Ontario commercial fishers; a total of 30 adult lake sturgeon were captured in 2004, six of which were implanted with ultrasonic tags, and 43 juvenile lake sturgeon were captured with eight implanted with ultrasonic tags; tracking of juvenile sturgeon helped identify preferred resting/feeding habitat that will be characterized in 2005 - critical habitat for juvenile lake sturgeon has been relatively unknown prior to this research and identifying characteristics important to this life stage will be critical for habitat protection and restoration efforts throughout the Great Lakes...”
- Work with partners to monitor the status of lake herring and develop interagency recovery plans in Lake Huron (MI).
“...reviewed and provided recommendations for the development of a Draft Lake Herring Recovery plan for Lake Huron; major shifts in Lake Huron food web dynamics have created a window of opportunity for recovery of native pelagic prey species; discussion and planning will continue in early FY 05 for possible reintroduction efforts...”
- Work with partners to identify the status of and develop interagency restoration plans for freshwater mussels in the St. Clair River Delta (MI).
“...initiated dialogue with researchers in Ontario waters of Lake St. Clair on possible complementary efforts in U.S. waters; the St. Clair delta region is known to possess a rich diversity of native mussels and protection of this unique micro-habitat is essential; consultation has been initiated with regional mussel specialists at the Genoa NFH for future survey work...”
- Work with the Michigan DNR, East Lansing Field Office and others to assess the status of Eastern sand darter (MI).
“conducted beach seining at 10 locations in the Detroit River in cooperation with U.S. Geological Survey biologists to assist the Michigan DNR with a comprehensive survey of the beach fish community where proposed development may impact listed species such as the Eastern sand darter...”

- Ashland Fishery Resources Office:

- Work with partners to monitor the status of brook trout and to restore populations and habitat through interagency plans for Lake Superior (MI, MN, WI).
“...working with state, tribal, private, and federal partners: stream habitat assessment work and fish stocking efforts were conducted within the Whittlesey Creek NWR; conducted electrofishing and fyke-netting operations on the Bayfield Peninsula and electrofishing around Oak and Basswood islands; completed three electrofishing surveys on Chequamegon Bay; conducted annual spring monitoring of coaster brook trout in Tobin Harbor, Isle Royale National Park, and on the north and south shores of Isle Royale; worked with partners to develop a grant that replaced three problem culverts and funded an intensive training program on the design of “Fish Friendly Road Crossings”; Great Lakes National Program Office grants funded the design of an internet web page regarding *No/Low Impact Culverts for Fish Passage*...”

Aquatic Species Conservation and Management



-Canadian Wildlife Society

Shortjaw Cisco

Ashland FRO biologists worked with the East Lansing Field Office and the Green Bay FRO to review and provide comments on a shortjaw cisco status report.



-USFWS

Fishery Biologist Nate Caswell from the Carterville FRO holds a shovelnose sturgeon. Carterville FRO is working in partnership with the Ohio DNR to reintroduce shovelnose sturgeon to the Upper Ohio River basin.



-USFWS

This is a juvenile winged mapleleaf mussel less than 24 hours old. The mussel larva (glochidia) that formed this juvenile was inoculated onto the gills of a channel catfish host 266 days earlier.

- Work with partners to monitor the status of lake sturgeon and to restore populations and habitat through interagency plans for Lake Superior (MI, MN, WI).

“...working with state and private partners, a volunteer program utilizing commercial fishers on Lake Superior was established to gather data on incidental catches; monitored the spear harvest of lake sturgeon on Lake Winnebago, Wisconsin; conducted an annual assessment of spawning lake sturgeon in the Bad and White rivers, Wisconsin...”

- Work cooperatively with the Endangered Species program and the U.S. Geological Survey to assess the status of shortjaw cisco in Lake Superior.

“...worked with the East Lansing Field Office and the Green Bay FRO to review and provide comments on a report by the U.S. Geological Survey regarding the status of shortjaw cisco, and held numerous meetings and conference calls on this issue...”

– Carterville Fishery Resources Office will:

- Collect 150-200 adult shovelnose sturgeon from the Ohio River (extirpated from portions of Ohio waters) to support Ohio DNR’s reintroduction program (IL, OH).

“...collected 155 adult shovelnose sturgeon from the Lower Ohio River that Ohio DNR stocked into the Scioto River and collected additional sturgeon to attempt spawning at a private fish hatchery (two spawning events were unsuccessfully attempted in FY04)...”

– Columbia Fishery Resources Office will:

- Collect and provide biological data on lake sturgeon to the Missouri Department of Conservation for stock assessment (MO).

“...provided biological data from recaptures of lake sturgeon that were tagged by the Missouri Department of Conservation during basin wide sampling efforts for Pallid Sturgeon and Associated Fish Community Assessment; wild or untagged lake sturgeons were tagged with PIT tags and recapture data was collected from PIT tagged fish with tagging and recapture data forwarded to the MDC coordinator for stock assessment...”

- Collect and provide biological data on paddlefish in the Lower Missouri River to the Mississippi Interstate Cooperative Resource Association Paddlefish/Sturgeon Committee for stock assessments (MO).

“...served as the database manager for the Mississippi Interstate Cooperative Resource Association Paddlefish/Sturgeon Committee working with the 22 states on the committee to update the database and modify it to better provide paddlefish tagging information back to the state agencies; modifications made to this database will allow the Fish and Wildlife Service to aid the states in developing paddlefish management plans...”

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- Provide technical assistance to Missouri Department of Conservation to help re-write a 10-year paddlefish management plan (MO).
“...provided technical assistance to the Missouri Department of Conservation on re-writing a 10 year paddlefish management plan which should be completed in late FY2005...”
- Provide technical assistance to help write a comprehensive, multi-state paddlefish plan for the Lower Missouri River (SD, NE, KS, IA, MO).
“...provided technical assistance on writing a comprehensive multi-state paddlefish plan for the Lower Missouri River which should be completed in late FY2005...”

– Green Bay Fishery Resources Office

- Work with partners to monitor the status of lake trout in Lake Michigan, revise the lake trout rehabilitation plan and restore populations and habitat through coordinated interagency actions (MI, IL, IN, WI).
“...conducted two gill net surveys at six sites in conjunction with four state, three tribal, and one federal agency and led an effort to compile, electronically archive, and analyze data on over 8,000 lake trout captured in 950 gill net lifts in surveys from 1998-2004; led a drafting effort to develop a new lake trout rehabilitation plan for Lake Michigan, and developed one manuscript describing the performance of lake trout released into Lake Michigan...”
- Work with partners to monitor the status of lake sturgeon in Lake Michigan, develop a rehabilitation plan and restore populations and habitat through coordinated interagency actions (MI, IL, IN, WI).
“...conducted status assessment surveys of spawning lake sturgeon populations in four Green Bay tributaries and of the mixed stock inhabiting Green Bay as part of a coordinated effort by state and tribal agencies and universities to determine the status and rehabilitation needs for lake sturgeon in Lake Michigan; analyzed data to estimate abundance, document and quantify reproductive success, determine stock structure, and quantify habitat - incorporated results into the ongoing development of a Lake Michigan Lake Sturgeon Rehabilitation Plan for Lake Michigan...”
- Work with partners to identify the status of spotted musky and develop and implement interagency rehabilitation plans for Green Bay (MI, WI).
“...worked with the Wisconsin DNR to identify potential wild spotted musky populations to serve as a source of gametes for transfer to the waters of Green Bay; worked with the University of Wisconsin-Stevens Point to develop gamete collection guidelines in order to preserve the available genetic diversity from the donor stock in the fish that are ultimately stocked into Green Bay...”

– Genoa National Fish Hatchery will:

- Work with partners (e.g. Minnesota and Wisconsin DNRs) to identify the host fish for various imperiled mussels species in the Upper Mississippi River Basin (IL, IA, MN, WI). (FONS project # 2002-001)
“...did not accomplish host fish work this year - instead, emphasis was placed on native mussel juvenile production (85,000 juvenile black sandshell juveniles were produced and release in the Mississippi River basin; 30,705 pocketbook mussels were released in the basin as a result of a cooperative research study with the Upper Mississippi Environmental Science Center; 22,950 Hickorynut mussels were released in Pool 9 of the Upper Mississippi River; an attempt to produce juveniles of fat mucket was unsuccessful this fiscal year)...”
- Culture 1,000 lake trout in the isolation unit for future brood stock at Sullivan’s Creek NFH under interagency restoration programs for the Great Lakes (MI, WI).
“...spawned eggs from 100 pairs of wild Cayuga Lake fish with the assistance of the New York Department of Environmental Conservation; currently holding 2,850 (9.5 inch) lake trout until their last disease inspection this spring before transfer to the Sullivan Creek NFH for use as future brood fish...”

Aquatic Species Conservation and Management



-USFWS

Eggs are gently removed from a coaster brook trout at the Iron River NFH. Biologists at the hatchery will hatch the eggs for restoration programs in Lake Superior.



-USFWS

Iron River and Sullivan Creek NFH's serve as lake trout brood stock stations and produce millions of eggs for rehabilitation programs in the Great Lakes.



-USFWS

Biologist Crystal Anderson spawns a lake trout at the Sullivan Creek NFH. Lake trout from Fish and Wildlife Service hatcheries are used for rehabilitation programs in the Great Lakes.

- Culture 25,000 lake sturgeon (3 strains) for stocking under interagency restoration programs on the Menominee Indian Reservation (e.g. Menominee Indian Tribe and Wisconsin DNR), Red River of the North Basin (e.g. First Nations of Canada, White Earth Band of Chippewa, and Minnesota DNR), and the Missouri River Basin (e.g. Missouri Department of Conservation) (MN, MO, WI). (**FONS project # 2003-001**)

“...cultured and distributed 32,509 fall fingerling lake sturgeon to the Menominee Indian Reservation, Red River of the North basin, and the Missouri River basin with surplus fish provided to the Minnesota DNR to meet needs in their Red River lake sturgeon restoration plan...”

- Culture 7,500 yearling brook trout and 20,000 fingerling brook trout for stocking under an interagency restoration program in Lake Superior (MI, MN, WI).

“...cultured and stocked 12,500 yearling coaster brook trout which represents a 40% increase above management goals; excess fish were provided to the State of Wisconsin and for tribal commitments to meet management objectives...”

- Work with partners to collect and isolate future lake trout brood stock from wild Lake Superior, Seneca Lake and Cayuga Lake donor populations (MI, NY, WI).

“... collections were not made for the Great Lakes lake trout rehabilitation program in FY04, as directed by the lake trout brood stock facilities...”

- Iron River National Fish Hatchery will:

- Work cooperatively with the Keweenaw Bay Indian Community and other partners to collect and isolate future lake trout and brook trout brood stock from wild Lake Superior donor populations (MI, WI). (**FONS project # 2001-001**)

“... worked cooperatively with the Keweenaw Bay Indian Community and other partners to collect and isolate a future Apostle Island strain of lake trout from wild Lake Superior donor populations...”

- Maintain strains of lake trout (Apostle Island, Green Lake, Traverse Island, and Isle Royale) and brook trout (Siskowit Bay and Tobin Harbor) brood stock, as defined by restoration plans for lakes Superior, Huron, and Michigan, to support interagency restoration programs in the upper Great Lakes (MI, MN, IL, IN, WI).

“...maintained strains of lake trout (Apostle Island, Green Lake, Traverse Island, and Isle Royale) and brook trout (Siskowit Bay and Tobin Harbor) brood stock, as defined by restoration plans for lakes Superior, Huron, and Michigan, to support interagency restoration programs in the Upper Great Lakes...”

- Produce lake trout (3-5 million eggs; 1.2 million yearlings) and brook trout (3-500,000 eggs; 50,000 fry; 50,000 fingerlings; 50 adults) for stocking under interagency restoration programs in Lake Superior, Lake Huron, and Lake Michigan (MI, MN, IL, IN, WI).

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“...produced 1,434,230 lake trout eggs and 475,514 brook trout eggs which met or exceeded all of our requests; 1.197 million yearling lake trout and an additional 254,735 fingerling lake trout were stocked into the Upper Great Lakes; 147,644 fry, fingerling, and yearling brook trout were stocked to meet all commitments for stocking under interagency restoration programs in Lake Superior, Lake Huron, and Lake Michigan...”

- Work with partners through the Lake Michigan Technical Committee and the Lake Huron Technical Committee to update and implement interagency lake trout restoration plans (MI, IL, IN, WI).

“...continued to work with partners through the Lake Superior Technical Committee, Lake Michigan Technical Committee, and the Lake Huron Technical Committee to update and implement interagency lake trout restoration plans...”

– Jordan River National Fish Hatchery will:

- Produce 1.8 million lake trout yearlings for stocking under interagency restoration programs in Lake Huron and Lake Michigan (MI, IL, IN, WI).

“...produced 1.91 million lake trout yearlings (6.6% increase from the commitment) for stocking under interagency restoration programs in lakes Huron and Michigan...”

- Operate the M/V Togue to stock 3 million lake trout yearlings from Iron River, Pendills Creek and Jordan River NFHs at offshore reefs in Lake Michigan and Lake Huron (MI, IL, IN, WI).

“...operated the M/V Togue to stock 3.072 million lake trout yearlings from Iron River, Pendills Creek, and Jordan River NFH’s at offshore reefs in lakes Huron and Michigan...”

- Provide 600,000-900,000 lake trout fry to Pendills Creek NFH for rearing to yearling stage (MI, IL, IN, WI).

“...transferred 850,719 lake trout fry to Pendills Creek NFH for rearing to yearling stage...”

- Work with partners through the Lake Michigan Technical Committee and the Lake Huron Technical Committee to update and implement interagency lake trout restoration plans (MI, IL, IN, WI).

“...participated on the Lake Huron and Lake Michigan Technical Committees and Lake Trout Task Groups to update and implement interagency lake trout restoration plans with our partners; assisted with development of offshore stocking sites for both lakes, alternative shore stocking sites for both lakes, and ready to implement pulse stocking in Lake Huron if approved by Lake Committee; assisted with the development of a new rehabilitation plan for Lake Michigan; marked and tagged 1.91 million lake trout per monitoring and evaluation plans for both lakes...”

– Neosho National Fish Hatchery will:

- Hold 100 freshwater drum as host fish for Southwest Missouri State University’s efforts to culture the Neosho Mucket, a candidate species for listing under the *ESA* (MO).

“...continued to hold and care for 100 freshwater drum as host fish for the Southwest Missouri State University’s efforts to culture the Neosho mucket, a candidate species for listing under the Endangered Species Act...”

- Experiment with culturing freshwater drum to provide a continuous supply for Neosho mucket culturing efforts (MO).

“...continued to experiment with the culturing of freshwater drum in a pond environment, in an effort to provide a continuous supply of small drum for the mussel work being done in the Ozarks which is a cooperative effort with the Columbia Field Office and Southwest Missouri State University...”

– Pendills Creek National Fish Hatchery will:

- Produce 750,000 lake trout yearlings for stocking under interagency restoration programs in Lake Huron and Lake Michigan (IL, IN, MI, WI).

“produced approximately 832,000 lake trout yearlings that were stocked into Lakes Huron and Michigan under interagency restoration programs which was an 11% increase over the production goal without hatchery enhancements...”

Aquatic Species Conservation and Management



-USFWS

The Sullivan Creek NFH maintains the Klondike strain of lake trout to provide offspring for rehabilitation programs in Lake Erie.



-USFWS

Corey Puzach of the La Crosse FHC takes fish health samples from a paddlefish snagged at the Black River near Piedmont, Missouri. Staff collects tissue samples from cold, cool, and warm water fish species in support of the Wild Fish Health Survey.



-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 and Bay Mills Indian Community with lake whitefish assessments in lakes Huron and Michigan. Note the sea lamprey wounding scar.

- Work with partners through the Lake Michigan Technical Committee and the Lake Huron Technical Committee to update and implement interagency lake trout restoration plans (MI, IL, IN, WI).

“...attended technical committee meetings for both lakes and assisted where possible with technical expertise on lake trout production, brood stock, and distribution issues...”

– Sullivan Creek National Fish Hatchery will:

- Work with partners to collect and isolate future lake trout brood stock from wild Lake Superior, Lake Huron, Seneca Lake and Cayuga Lake donor populations (MI, NY, WI).

“...involved with all future brood stock issues and future brood stock collection issues including the Parry Sound brood stock strain...”

- Maintain strains of lake trout brood stock, as defined by restoration plans to provide 5 million eggs for interagency restoration programs in lakes Huron and Michigan (MI, IL, IN, WI).

“...maintained and produced over five million eggs, helping fulfill interagency restoration program egg requests for lakes Huron and Michigan...”

- Maintain Lake Superior Klondike strain lake trout brood stock and provide 200,000 eggs to Allegheny NFH for rearing to the yearling stage and stocking under interagency restoration programs in Lake Erie (MI, NY).

“maintained the Lake Superior Klondike strain of brood stock and provided more than 200,000 eyed eggs to Allegheny NFH for rearing and stocking under interagency restoration programs in Lake Erie (MI, NY)”.

– La Crosse Fish Health Center will:

- Conduct fish health pathogen screening and diagnostic services for the Service’s Great Lakes brook trout and lake trout restoration stocking activities (MI, WI).

“...completed two inspections for each Fish and Wildlife Service facility in Region 3...”

- Increase the number of watersheds with current wild fish health surveys to 36 out of 363 watersheds in Region 3 (IL, IN, IA, MI, MN, MO, OH, WI). (FY05 Department of the Interior Performance Measure)

“...increased the number of watersheds for wild fish health surveys to over 50 out of the 363 watersheds in Region 3...”

(Self-sustaining Species)

Our Objective Maintain diverse, self-sustaining fish and other aquatic resource populations in collaboration with Tribes, States, partners, and other stakeholders.

Aquatic Species Conservation and Management

Our primary focus for this objective is on management activities that help maintain species at self-sustaining levels. Specifically, we work with lake whitefish, walleye, and shovelnose sturgeon.

Our Commitment

– Regional Office will:

- Work through the Council of Lake Committees of the Great Lakes Fishery Commission to conserve native fish and fisheries consistent with the Joint Strategic Plan for Management of Great Lakes Fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

“...worked closely through the Council of Lake Committees to propose a new basin-wide fish marking program aimed at improving the management of lake trout and pacific salmon fisheries; as part of the “Mass Marking Demonstration” task group, new technologies available for coded-wire tagging and fin clipping of hatchery propagated fish were successfully demonstrated at the Iron River NFH, Wisconsin, in August, 2004...”

– Alpena Fishery Resources Office will:

- Conduct fishery-independent assessments to monitor the status of lake whitefish populations in the 1836 Treaty waters of Lake Huron (MI).

“...completed a total of 43 sets of 2,700’ gangs of graded mesh gill net in two Northern Lake Huron lake whitefish management units for fishery independent assessments - the data collected from this survey was used to update Statistical Catch at Age Models for generation of safe harvest limits in 1836 Treaty waters of Lake Huron...”

- Work with Chippewa Ottawa Resource Authority, Michigan DNR, Ontario Ministry of Natural Resources, Bruce Power, and the First Nations to conduct a lake-wide lake whitefish tagging study to determine stock delineation in Northern Lake Huron (MI).

“...tagged a total of 1,481 lake whitefish captured on spawning reefs in the Thunder Bay region of Lake Huron as part of a lake wide tagging study, which was conducted with the assistance of a tribal commercial fisher who fishes trap nets in the Rockport area...”

- Work with the Michigan DNR, Chippewa Ottawa Resource Authority and the five 1836 Treaty Tribes to identify, assess and reduce threats to lake whitefish, walleye and other stocks targeted by fisheries in the 1836 Treaty waters of Lake Huron (MI).

“...provided 128 lake whitefish stomachs to the Great Lakes Environmental Research Lab for diet analysis to assist in a project to quantify the food web changes currently occurring in Lake Huron; the invasion by zebra mussels has caused a dramatic change in the lower trophic food web that has resulted in reduced growth rates and fitness of lake whitefish stocks in the Great Lakes; lake whitefish are the principal species targeted by tribal commercial fishers in 1836 Treaty waters of Lake Huron...”

– Ashland Fishery Resources Office will:

- Work with the Michigan DNR, Chippewa Ottawa Resource Authority and the five 1836 Treaty Tribes to identify, assess and reduce threats to lake whitefish, lake trout, walleye and other stocks targeted by fisheries in the 1836 Treaty waters of Lake Superior (MI).

“...coordinated a study with the Red Cliff Tribe of Lake Superior Chippewa’s to explore the diet of invasive Eurasian ruffe on lake trout and lake whitefish spawning habitat; aged lake trout scales collected from anglers at various creel check points on Lake Superior - scales were collected in both 1836 and 1842 treaty waters of Lake Superior...”

- Work with partners to monitor the status of and identify potential threats to lake trout populations in Lake Superior (MI, MN, WI).

“...assisted the Michigan DNR Marquette Fisheries Station with the entry of lake trout data from spring assessment fishing conducted from 1970 to 1989 in Lake Superior...”

- Conduct fishery-independent assessments to monitor the status of lake whitefish populations in the 1836 Treaty waters of Lake Superior (MI).

Aquatic Species Conservation and Management



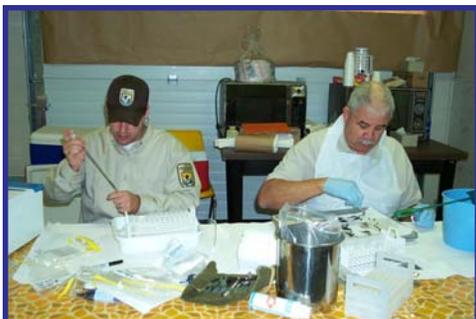
-USFWS

Nate Caswell, Carterville FRO, holds a shovelnose sturgeon collected during a fishery assessment, looking at the population in the Middle Mississippi and Lower Ohio Rivers. Commercial fishermen are increasingly targeting shovelnose sturgeon as a source of caviar.



-USFWS

Ann Runstrom, La Crosse FRO, holds a paddlefish that found a temporary home in a viewing tank at the Polander Lake Dedication.



-USFWS

The La Crosse FHC conducts a fish health pathogen screening at one of the Region's Great Lakes fish hatcheries.

“...conducted lake trout and lake whitefish surveys to determine harvest options in 1836 Treaty waters of Eastern Lake Superior; under the 1836 Treaty Fishery Assistance Program, approximately 1,200 lake whitefish scale samples were aged and entered into a fisheries database...”

- Work with the Wisconsin DNR and the Great Lakes Indian Fish and Wildlife Commission to monitor the status of and identify threats to walleye populations targeted by fisheries in the 1837 and 1842 Treaty waters (WI).

“...provided 10 staff weeks of assistance to the Great Lakes Indian Fish and Wildlife Commission and the Wisconsin DNR to conduct walleye assessments on 35 Ceded Territory lakes; participated on the Red Lake Task Force Committee to restore walleye populations in Red Lake...”

- **Carterville Fishery Resources Office:** “...supported the Comprehensive Environmental Compensation and Liability Act (CERCLA) response investigation at Crab Orchard NWR by working with CERCLA biologists to complete field sampling, necropsies, sample preparation, data analysis, and report writing...” (IL)
- **Columbia Fishery Resources Office will:**
 - Collect and provide biological data on shovelnose sturgeon to the Missouri Department of Conservation for stock assessment (MO).
“...collected and provided recapture data to the Missouri Department of Conservation’s Missouri River Sturgeon Coordinator - the data was retrieved from floy-tagged shovelnose sturgeon captured during regular sampling under the Pallid Sturgeon and Associated Fish Community Assessment project...”
- **Green Bay Fishery Resources Office will:**
 - Conduct fishery-independent assessments and monitor the status of lake whitefish populations in Northern Lake Michigan (MI, WI).
“...set over 14,000 feet of gill-net in three separate whitefish management units in Northern Lake Michigan to determine relative abundances and characterize biological attributes of lake whitefish populations...”
 - Work cooperatively with the Wisconsin DNR to assess the status of yellow perch populations in Green Bay, Lake Michigan, using models and data analysis (WI).
“...worked with the Wisconsin DNR to compile their assessment and commercial monitoring data into an accessible database; developed a statistical catch at age model to estimate abundance and mortality rates for the Green Bay yellow perch population, and provided results to assist with yellow perch harvest management decisions...”

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- Work with the Michigan DNR, Chippewa Ottawa Resource Authority and the five 1836 Treaty Tribes to identify, assess and reduce threats to lake whitefish, walleye and other stocks targeted in fisheries of the 1836 Treaty waters of Lake Michigan (MI).
“...assisted with the calculation of safe harvest limits for whitefish in the treaty waters, and provided input for fisheries monitoring plans for walleye...”
- **La Crosse Fishery Resources Office will:**
 - Support the La Crosse FHC to conduct the annual Wild Fish Health Survey (MN, WI).
“...collected specimens for the La Crosse FHC with staff and volunteers in Pools 3, 4, and 7 of the Upper Mississippi River and the Illinois Waterway...”
 - Conduct post-construction fish sampling (non-paddlefish and sturgeon) at the Polander Lake island construction project in the Upper Mississippi River (MN, WI). (**FY04 only**)
“...conducted post-construction fish sampling (non-paddlefish and sturgeon) at the Polander Lake Habitat Rehabilitation and Enhancement Project with assistance from the Upper Mississippi River National Wildlife and Fish Refuge (NW&FR) staff...”
- **La Crosse Fish Health Center will:**
 - Conduct the Wild Fish Health Survey (IL, IN, IA, MI, MN, MO, OH, WI).
“...only conducted wild fish health surveys in Illinois, Michigan, Missouri, and Wisconsin due to funding shortages...”
 - Investigate disease outbreaks for wild and hatchery raised fish (IL, IN, IA, MI, MN, MO, OH, WI).
“...completed investigations of outbreaks of Largemouth Bass Virus and carp kills in wild fish from Illinois, Wisconsin, and Iowa...”
 - Conduct pathogen screening for wild fish brought onto the Service’s NFHs (MI, MO, WI).
“...completed all assignments for screening fish transferring to Fish and Wildlife Service facilities in Michigan and Wisconsin...”
 - Verify findings from other agencies’ fish pathologists (IL, IN, IA, MI, MN, MO, OH, WI).
“received no requests to verify findings from other agencies...”

Interjurisdictional Species

Our Goal: Interjurisdictional fish populations are managed at self-sustaining levels.

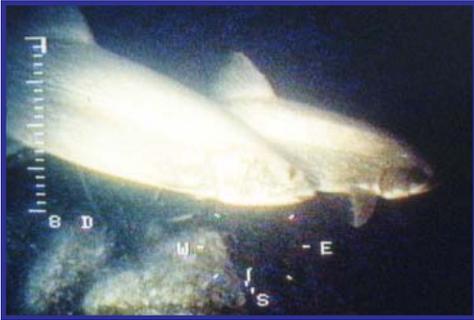
Our primary focus is on supporting, facilitating and/or leading collaborative approaches to conserve and restore sustainable interjurisdictional fish populations.

Our Objective Support, facilitate, and/or lead collaborative approaches to manage interjurisdictional fisheries.

Our Commitment

- **Regional Office will:**
 - Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund activities supporting collaborative approaches to managing interjurisdictional fisheries (IL, IN, MI, MN, NY, OH, PA, WI).
“...the following Restoration Act funded projects were in progress from previous funding years or received initial year of funding during FY04: Development of genetic management guidelines for lake sturgeon- University of California-Davis; Food habits of Lake Ontario offshore prey fish: a reassessment of the magnitude and dynamics of planktivory- Great Lakes Fishery Commission; assessment of pit tags for estimating exploitation of walleyes in Lake Erie and Saginaw Bay- Ohio Department of Natural Resources; Analysis of tagging data to quantify lake trout migration in Lake Huron- University of Michigan- Ann Arbor; Potential impact of steel-hulled barges on movement of fish across an electric barrier to prevent the entry of invasive

Aquatic Species Conservation and Management



-USGS photo by Greg Kennedy

This image shows two lake trout on spawning reef habitat at the Tawas artificial reef in Lake Huron which is in approximately 12-15 feet of water.



-USFWS

Walleye sampling in Ceded Territory lakes is a critical component to estimate adult populations and establish harvest levels.



-USFWS

Greg Conover from the Carterville FRO holds a paddlefish collected during a fisheries assessment in Pool 26 of the Mississippi River. The effort is part of a larger basin effort involving 23 states to understand paddlefish migration and basin-wide stocking.

carp into Lake Michigan- University of Illinois; Lake Huron lake whitefish distribution study- Chippewa / Ottawa Resources Authority (CORA); Comparison of techniques for stock discrimination of Lake Erie walleye- Great Lakes Fishery Commission..."

- Work through the Council of Lake Committees to pursue collaborative approaches to managing interjurisdictional fisheries (IL, IN, MI, MN, NY, OH, PA, WI).

"...worked with the "Blue Ribbon Panel" of the Council of Lake Committees (CLC) to outline and implement an enhanced prey fish management program for Great Lakes waters involving cooperative assessment activities conducted by the U.S. Geological Survey's Great Lakes Science Center under an annual memorandum of agreement with the CLC..."

- Alpena Fishery Resources Office will:

- Participate through the Lake Huron Technical Committee to conserve, restore and manage interjurisdictional fish stocks in Lake Huron (MI).

"...served as members of the Lake Huron Technical Committee and the Lake Trout and Lake Sturgeon Task Groups of that body to represent the Fish and Wildlife Service and contribute to interagency management of interjurisdictional fish stocks - participation included attendance at four meetings and interim discussions conducted via teleconferencing..."

- Assist Michigan, Chippewa Ottawa Resource Authority and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Huron through the Technical Fisheries Committee, Modeling Subcommittee and Executive Council (MI).

"...served as Chair of the Technical Fisheries Committee (TFC) and Co-Chair of the Modeling Sub-committee (MSC), biological teams established to implement and oversee fishery management in 1836 Treaty Waters of the Great Lakes; the TFC met on four occasions to review and establish harvest limits for lake trout and lake whitefish in 1836 Treaty waters and held one conference call to discuss stocking issues; the MSC met twice and held two conference calls to conduct modeling necessary for establishment of the harvest limits..."

- Provide data input to U.S. Geological Survey for the Lake Huron coded-wire tag database for use in managing interjurisdictional fisheries in Lake Huron (MI).

"...processed coded-wire tags (CWT) from 554 lake trout in 2004 and provided the data for consolidation in the lake wide database; the data are used to provide a report to the Lake Huron Committee updating the committee on CWT studies being conducted for evaluating progress in lake trout rehabilitation; biologists from the Alpena FRO are co-authors on this annual report..."

Aquatic Species Conservation and Management

– Ashland Fishery Resources Office will:

- Participate through the Lake Superior Technical Committee to conserve, restore, and manage interjurisdictional fish stocks in Lake Superior (MI, MN, WI).
“...served as a member of the Lake Superior Technical Committee: led discussions regarding lake sturgeon surveys, splake as an introduced member of the fish community, status of the fishery management plan development for Isle Royale National Park, and chaired the Lake Sturgeon Work Group for the Binational Program Aquatic Community Committee...”
- Assist Michigan, Chippewa Ottawa Resource Authority, and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Superior through the Technical Fisheries Committee (MI).
“...completed independent assessments of lake whitefish in 1836 Treaty waters (Grand Marais, Michigan) under the 2000 Consent Decree with assessments conducted using 3,600’ variable mesh gill nets along eight randomly selected transects; data collected included length, weight, sex and maturity, age structures, stomach contents, and sea lamprey marks with the information used in models that were developed to help allocate safe harvest levels for both sport and commercial fisheries and allow for continued restoration of lake trout; aged approximately 1,200 lake whitefish scale samples and entered the information into a database under the 1836 Treaty Fishery Assistance Program; completed another set of lake trout scales collected from anglers at various creel check points on Lake Superior...”
- Assist Michigan, Minnesota, Wisconsin, Great Lakes Indian Fish and Wildlife Commission, and member tribes in managing interjurisdictional fisheries in the 1837 and 1842 Treaty ceded waters (MI, MN, WI).
“...provided 10 staff weeks of assistance to the Great Lakes Indian Fish and Wildlife Commission and the Wisconsin DNR to conduct walleye assessments on 35 Ceded Territory lakes; participated on the Red Lake Task Force Committee to restore walleye populations in Red Lake; conducted lake trout and lake whitefish surveys to determine harvest options in Eastern Lake Superior...”

– Carterville Fishery Resources Office will:

- Provide fisheries technical assistance to the U.S. Army Corps of Engineers for mitigation planning as part of the Ohio River Main Stem Studies (IL, IN, OH).
“...participated in Ohio River Main Stem Studies coordination meetings to develop restoration and mitigation plans and technically reviewed numerous reports evaluating the proposed cumulative effects of the expansion project...”
- Participate in the Mississippi Interstate Cooperative Resource Agency - Paddlefish/Sturgeon Subcommittee to improve and coordinate management activities (IL, IN, IA, MN, MO, OH, WI).
“...participated in Mississippi Interstate Cooperative Resource Agency meetings of both the Executive Board and Paddlefish Subcommittee, delivering up-to-date information on paddlefish stocks based on tagging information we compiled and also up-to-date information on the status of the Asian Carp Management and Control Plan; maintained a database for shovelnose sturgeon tags from the Ohio River to provide a centralized location for researchers throughout the basin to contact when tagged fish are captured...”

– Columbia Fishery Resources Office will:

- Participate in the Mississippi Interstate Cooperative Resource Agency Paddlefish/Sturgeon Subcommittee to improve and coordinate management activities (IL, IN, IA, MN, MO, OH, WI).
“...served as an active member of this subcommittee and managed a paddlefish tagging database for the subcommittee; worked to modify the tagging database to allow better distribution of the information to the member states...”

Aquatic Species Conservation and Management



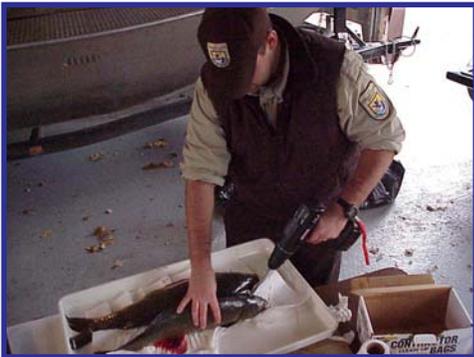
-USFWS

The Fish and Wildlife Service's lake trout stocking vessel, M/V Togue, traveled approximately 2,630 miles in lakes Michigan and Huron stocking approximately 3,073,000 lake trout yearlings in FY2004. It is the second most active vessel in the Great Lakes.



-USFWS

This image is a magnification of a coded-wire tag in the snout of a lake trout. Information gained from tag returns is entered into databases for use by agencies.



-USFWS

Cory Puzach from the La Crosse FHC takes a sample from a carp to test for the Spring Viremia of Carp Virus. The non-native virus was detected in carp located in Wisconsin and Illinois.

- Green Bay Fishery Resources Office will:

- Participate through the Lake Michigan Technical Committee to conserve, restore and manage interjurisdictional fish stocks in Lake Michigan (IL, IN, MI, WI).

“...served as the Fish and Wildlife Service representative on the Lake Michigan Technical Committee (LMTTC) and as technical liaison to the Committee; chaired two specialized task groups of the LMTTC, the Lake Trout Task Group and the Lake Sturgeon Task Group, both of which are developing new restoration plans for these native species; participated in the planning and evaluation of lake trout stocking in Lake Michigan; directed the completion of the Lake Michigan State of the Lake Report...”

- Assist Michigan, Chippewa Ottawa Resource Authority, and tribal parties to the Consent Decree in managing interjurisdictional fisheries in the 1836 Treaty waters of Lake Michigan through the Technical Fisheries Committee, Modeling Subcommittee and the Executive Council (MI).

“...helped determine appropriate harvest levels for each party according to the allocation rules of the Consent Decree and biologically based upper harvest limits for management units with tribal and state fisheries for lake trout and whitefish through participation in the Modeling subcommittee; assisted with decisions and reviewed proposals for changes made to fishing locations, walleye stocking sites, and numbers of walleye stocked through the Technical Fisheries Committee...”

- Maintain the following interagency databases: Great Lakes Fish Stocking Database, Lake Michigan Creel Summary, and Lake Michigan Coded-Wire Tag Return Data (IL, IN, MI, MN, NY, OH, PA, WI).

“...updated the inter-agency databases with 2004 data, provided 2003 summary reports for Great Lakes Stocking and Lake Michigan Creel data to the Lake Michigan Lake Committee, and distributed 2004 Lake Michigan lake trout coded wire tag return data to four state and three tribal agencies; the annual update of the Great Lakes Fish Stocking Database will occur later this spring as contributing agencies complete 2004 data submissions to the Green Bay FRO...”

- La Crosse Fish Health Center will:

- Work with States and Tribes to coordinate regional responses and actions to new fish diseases, such as the Spring Viremia of Carp Virus and the Largemouth Bass Virus (IL, IN, IA, MI MN, MO, OH WI).

“...worked with the states of Illinois, Iowa, and Wisconsin to define the spread of new, high visibility fish pathogens such as Spring Viremia of Carp Virus, Largemouth Bass Virus, and other new pathogens by participating in joint collection trips such as the Goby Roundup and Asian Carp Corral which is led by the La Crosse FRO...”

Aquatic Invasive Species

Our Goal: Risks of aquatic nuisance species (ANS) invasions are substantially reduced, and their economic, ecological, and human health impacts are minimized.

Our primary focus is on education, preventing new introductions of ANS and working with others to reduce the impacts from Asian carp, zebra mussels, round gobies, sea lamprey, rusty crayfish, Eurasian water milfoil, spiny water fleas, and Eurasian ruffe.

Our Objective Work with other Service programs, States, Tribes, partners, and other stakeholders to reduce the risk of new ANS introductions.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund activities reducing the risk of aquatic nuisance species introductions (IL, IN, MI, MN, NY, OH, PA, WI, and Ontario).

“...the following Restoration Act funded projects were in progress from previous funding years or received initial year of funding during FY04: Evaluations of pilot-scale venturi oxygen stripping to prevent ballast water invasions- University of Maryland Center for Environmental Science; Potential impact of steel-hulled barges on movement of fish across an electric barrier to prevent the entry of invasive carp into Lake Michigan- University of Illinois; Status of a refuge for native freshwater mussels from impacts of the exotic zebra mussel in the delta area of Lake St. Clair- Great Lakes Fishery Commission...”

- Provide technical assistance to the States of Minnesota and Missouri to assist development of their State ANS Management Plans (MN, MO).

“...sent materials, information, and guidance to the states of Missouri and Minnesota to aid in the development of their State ANS Management Plans; met with the team that is developing the Minnesota plan, and made plans for future meetings to continue developing that plan...”

- Support all approved State and the St. Croix Interstate ANS Management Plans (IL, IA, MI, MN, OH, WI).

“...allocated funding for all plans (except for Ohio which chose not to request funding) during FY04; developed modifications to existing Cooperative Agreements and new Cooperative Agreements were sent to cooperators (State and Tribal entities) for their approval...”

- Support the Great Lakes and Mississippi River Basin ANS Regional Panels (IL, IN, IA, MI, MN, MO, OH, WI, and others within the Basins).



-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.



-USFWS

Divers from the Region’s Dive Team prepare to “treasure hunt” in Pool 2 of the Upper Mississippi River near Minneapolis, Minnesota. The treasure they will look for is endangered mussels. Native mussels have been impacted by invasive zebra mussels.



Eurasian watermilfoil is a feathery, submerged invasive aquatic plant that can quickly form thick mats in shallow areas of lakes and rivers. This invasive plant chokes out native plants and affects boating, fishing, and swimming.

Aquatic Invasive Species



Zebra Mussel Watch Card

"Watch Cards" are available for many invasive species. The cards help people identify invasive species and lists contacts if you encounter one.



-USFWS

These invasive bighead carp were captured in backwater areas of the Mississippi River in Southern Illinois. Agencies are working together to prevent Asian carp species from establishing new populations.



-USFWS

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

"...participated in planning for, and convening of a meeting of the Great Lakes Panel where staff helped plan and facilitate a workshop (rapid response case study) convened by that panel; a staff member is the Vice-chair of the Mississippi River Basin Panel, so he helped plan and convene two panel meetings, led development of work plans for panel committees, and planned for a joint meeting with the Aquatic Nuisance Species Task Force..."

- Provide technical assistance and support for the 100th Meridian Initiative, a Traveler Information System, focusing on educating travelers about how they can prevent the spread of aquatic invasive species (MN).

"...will soon install a Traveler's Information System at the Cabela's store in Owatonna, Minnesota. The system consists of a low-frequency radio that will broadcast messages to travelers on I-35 and customers who visit the store; messages will focus on how people can prevent the spread of aquatic invasive species; partners in this initiative include Cabela's, Minnesota DNR, and the Minnesota Department of Transportation..."

- Work with the Cabela's store in Owatonna, Minnesota and Minnesota DNR to install a kiosk to help educate the 1 million store visitors about invasive species, their impacts, agencies activities, and what people can do to prevent the spread and minimize impacts (MN).

"... installation of a computer-based kiosk has been approved by Cabela's corporate office; developed draft designs of the kiosk and a flow chart of materials to be contained in it that include a field guide to invasive species being developed by the Mississippi River Basin Panel on Aquatic Nuisance Species..."

- All Fishery Resources Offices will:

- Deliver educational programs and materials to the public and news media about the threat of aquatic invasive species and actions the public can take to prevent introduction and range expansion (IL, IN, IA, MI, MN, MO, OH, WI).

"...participated in 19 events in 2004 where the message on ANS issues was delivered; conducted two interview stories with the local television station WBKB (Alpena FRO)..."

"...distributed aquatic invasive species (AIS) "watch cards" to harbor masters and sporting goods stores and motels in the Upper Peninsula of Michigan; participated in interviews with the Minneapolis Star Tribune, Minneapolis, Minnesota, concerning the threat in Lake Superior from Eurasian ruffe, zebra mussels, and round goby; interviewed with the Ottawa Daily Times, Ottawa, Illinois, concerning the threat from round goby to the Illinois waterways and the threat from Asian carp to the Great Lakes; presented a career presentation to the Washburn Middle School, Washburn, Wisconsin, which

Aquatic Invasive Species

included threats from some AIS; updated the station web page that provide current information regarding aquatic invasive species and issues of range expansion (Ashland FRO)..."

"...mounted a bighead and silver carp for display in the office, interviewed by National Public Radio on Asian carp work (Carterville FRO)..."

"...provided educational literature describing the threats of aquatic invasive species to the public during office participation in the Missouri River Relief Educational Day at Columbia Bottoms Conservation Area (Columbia FRO)..."

"...worked with local schools and county governments to provide new information, watch cards and posters about the potential threat of aquatic invasive species (Green Bay FRO)..."

"...provided educational programs and materials to school groups, national Watchable Wildlife conference, Minnesota Star Tribune, Grand Excursion, Ducks Unlimited, Outdoorama, multiple Fishing Days events, U.S. Army Corps of Engineers, La Crosse Boat and Travel Show, and the Mississippi Valley Fishing Expo; worked with the Chicago media market on the Goby Roundup/Asian Carp Corral (La Crosse FRO)..."

- Provide technical assistance and information exchange to agencies and researchers investigating potential control and prevention measures for new aquatic invasive species (IL, IN, IA, MI, MN, MO, OH, WI).

"...served as webmaster for three websites that provide for an information exchange for the general public and for other researchers in the Great Lakes; documentation of new sightings of existing or new invasive species were provided to the U.S. Geological Survey in Gainesville, Florida which houses a national database (Alpena FRO)..."

"...monitored and reported new aquatic invasive species range expansions in Lake Superior and the Illinois River to the Great Lakes Fishery Commission, Wisconsin DNR, Michigan DNR, Ontario Ministry of Natural Resources, National Park Service, other FRO's, universities, and the Ruffe Control Committee of the Aquatic Nuisance Species Task Force (Ashland FRO)..."

"...chaired the Asian Carp Working Group providing constant communication with agencies and researchers working on Asian carp and routinely coordinated efforts and provides technical assistance (Carterville FRO)..."

"...provided technical assistance to the Keithsburg unit of the Port Louisa NWR, Illinois about the potential control measures and presence of Asian Carp on the refuge; conducted annual fishery survey at the Overton Bottoms unit of the Big Muddy National Fish and Wildlife Refuge, Missouri to assess floodplain response by Asian carp; gathered information to better understand the early life history ecology of bighead and silver carp and their relationship with the Missouri River floodplain including impacts on local native fish communities of floodplain water bodies (Columbia FRO)..."

"...provided summaries of aquatic invasive species sampling to agencies within the Lake Michigan basin (Green Bay FRO)..."

"...participated in Asian carp management plan development; assisted the Ft. McCoy Military installation with Eurasian water milfoil control efforts; worked with the U.S. Geological Survey on their distribution maps and research development (La Crosse FRO)..."

- Alpena Fishery Resources Office will:

- Conduct surveillance for Eurasian ruffe and other aquatic invasive species in areas of probable invasion in order to detect early presence and initiate control actions in Lake Huron (MI).
"...conducted annual surveillance sampling using trawling, gill nets, and electrofishing units at 19 sites in Lake Huron..."

- Ashland Fishery Resources Office will:

- Conduct surveillance for Eurasian ruffe and other aquatic invasive species in areas of probable invasion in order to detect early presence and initiate control actions in Lake Superior (MI, MN, WI).

Aquatic Invasive Species



-USFWS

Eurasian Ruffe

Fisheries offices continually monitor range expansion of invasive Eurasian ruffe in the Great Lakes.



-New York State Department of Environmental Conservation

Sea Lamprey

The sea lamprey program continues to work closely with partners to control populations of sea lampreys in tributaries of the Great Lakes to protect the fishery and related economic activities in the basin (an estimated benefit of \$4-6 billion/year to the region). The Fish and Wildlife Service delivers a program of integrated sea lamprey control in the United States waters of the Great Lakes as a contracted agent of the Great Lakes Fishery Commission.



-Shedd Aquarium

The invasive round goby population exploded since initial detection in the Great Lakes. The goby passed through the inter-basin connection to the Illinois River and is moving closer to the Mississippi River.

“...conducted three seasonal surveys for Eurasian ruffe and other aquatic invasive species (AIS) in five locations on the periphery and in advance of the documented ruffe range in Lake Superior with permanent index transects established over high risk sites in each location to facilitate consistent annual monitoring of environmental conditions, fish community status, and detection of early presence of AIS; detected range expansion of Eurasian ruffe in Marquette Harbor, Michigan, and notified the area fish manager of the Michigan DNR of this new discovery, and the ruffe control committee representative for the Lake Carriers was requested to initiate implementation of voluntary ballast water exchange for all ships drawing ballast from Marquette Harbor, Michigan; due to slow expansion of ruffe and difficulty in conducting effective monitoring, dedicated AIS surveillance in Minnesota waters of Lake Superior was not done; however, using a bottom trawl, the U.S. Geological Survey conducted incidental tows in eight locations along the near shore waters of Minnesota with no AIS captured; conducted three seasonal population investigations of Eurasian ruffe in three Wisconsin tributaries and one Michigan tributary to Lake Superior - in the Wisconsin tributaries, we continue to monitor a trend in which yellow perch abundance declines during years when ruffe abundance increases, and this trend may also be developing in the Michigan tributary; continued to monitor potential ruffe impact on lake trout and lake whitefish recruitment in cooperation with the Red Cliff tribe of Lake Superior Chippewas with data collected from this monitoring being insufficient to detect impact; conducted an assessment of round gobies over four locations in the Illinois River...”

– Carterville Fishery Resources Office will:

- Inspect and certify shipments of triploid grass carp from private producers to reduce risk of expanding diploid populations in the wild.

“...conducted 11 inspections of Region 3 triploid grass carp producers, certifying more than 14,000 triploid grass carp for 30 shipments to 5 states...”

– Green Bay Fishery Resources Office will:

- Conduct surveillance for Eurasian ruffe and other aquatic invasive species in areas of probable invasion in order to detect early presence and initiate control actions in Lake Michigan (MI, WI).

“...sampled nine ports in Lake Michigan that were likely dispersal locations for Eurasian ruffe, based on Great Lakes shipping traffic information supplied by the Great Lakes Carriers Association...”

– Genoa National Fish Hatchery will:

- Adhere to the station’s zebra mussel prevention plan and develop Hazard Analysis and Critical Control Point plans to

Aquatic Invasive Species

avoid aquatic invasive species introductions and reduce risks of aquatic invasive species introductions through existing stocking programs (WI). (FY05 only)

“...will be developing plans in FY05...”

Our Objective Work with other programs in the Service, States, Tribes, partners, and other stakeholders to monitor and track the existing range and impacts of ANS and develop programs designed to limit the expansion of those populations.

Our Commitment

– Regional Office will:

- Work through membership on the Sea Lamprey Integration Committee Core Group to provide planning and recommendations guiding the control of sea lamprey to the Great Lakes Fishery Commission (IL, IN, MI, MN, NY, OH, PA, WI).

“...participated in the Sea Lamprey Integration Committee Core Group meetings during October 2003 and April 2004; the October meeting resulted in the preparation of detailed sea lamprey control and research program recommendations and accompanying budget for the 2004 field season, which were presented to the Great Lake Fishery Commission at their annual meeting; the April meeting resulted in laying out the final details of the bi-national sea lamprey control program for 2004...”

- Work with the Upper Mississippi River Basin States to evaluate the biological and environmental soundness of technological barriers to slow or stop the upstream colonization by bighead and silver carp (IA, IL, MN, WI).

“...worked with Upper Mississippi River basin states to cooperatively fund the *Feasibility Study to Limit the Invasion of Asian Carp into the Upper Mississippi River Basin* which was conducted by the consultant firm FISHPRO, and resulted in recommendations to limit the spread of Asian carp in the basin...”

- Work with the City of Chicago, State of Illinois, the U.S. Army Corps of Engineers, and the Metropolitan Water Reclamation District of Greater Chicago to stop Asian carp from establishing self-sustaining populations in the Great Lakes (IL, IN, MI, MN, OH, WI).

“...worked with the La Crosse FRO, City of Chicago, State of Illinois, U.S. Army Corps of Engineers, and the Metropolitan Water Reclamation District of Greater Chicago to develop plans for a second electrical in the Chicago Sanitary and Ship Canal, which is being constructed, and will reduce the risk of Asian carp invasion of the Great Lakes...”

– Alpena Fishery Resources Office will:

- Conduct Eurasian ruffe and round goby monitoring activities to determine status, population trends and impacts on native fishes in Lake Huron and the St. Marys River (MI).

“...conducted population monitoring for ruffe and goby populations at nine locations where populations exist in Lake Huron...”

- Conduct round goby surveillance activities to monitor the status and trends of populations at Shiawassee NWR (MI).

“...worked with Shiawassee NWR staff to conduct a public fishing effort to look for invasive round gobies in refuge waters...”

- Coordinate with state, tribal and Federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control aquatic nuisance species in Lake Huron and Lake Erie (MI, OH).

“...directed similar effort at this task as in past years...”

– Ashland Fishery Resources Office will:

- Coordinate monitoring and surveillance programs for Eurasian ruffe Great Lakes-wide through position as Chair of the Ruffe Control Committee (IL, IN, MI, MN, NY, OH, PA, WI).

“...conducted three seasonal surveys for Eurasian ruffe and other aquatic invasive species (AIS) in five locations on the periphery and in advance of the documented ruffe range in Lake

Aquatic Invasive Species



-USFWS

A minnow trap is prepared to be set to determine the presence of round goby as part of a monitoring program referred to as the "Goby Round-Up."



-USFWS

This is a young-of-the-year silver carp was collected from the Illinois River. Silver and bighead carp are spreading within the Mississippi and Missouri rivers and Great Lakes regions.



-USFWS

Since their introduction to the Great Lakes in 1986 from ship ballast water, invasive zebra mussels have quickly spread and are now found in at least twenty states and two Canadian Provinces.

Superior with permanent index transects established over high risk sites in each location to facilitate consistent annual monitoring of environmental conditions, fish community status, and detection of early presence of AIS; detected range expansion of Eurasian ruffe in Marquette Harbor, Michigan, and notified the area fish manager of the Michigan DNR of this new discovery, and the ruffe control committee representative for the Lake Carriers was requested to initiate implementation of voluntary ballast water exchange for all ships drawing ballast from Marquette Harbor, Michigan; due to slow expansion of ruffe and difficulty in conducting effective monitoring, dedicated AIS surveillance in Minnesota waters of Lake Superior was not done; however, using a bottom trawl, the U.S. Geological Survey conducted incidental tows in eight locations along the near shore waters of Minnesota with no AIS captured; conducted three seasonal population investigations of Eurasian ruffe in three Wisconsin tributaries and one Michigan tributary to Lake Superior - in the Wisconsin tributaries, we continue to monitor a trend in which yellow perch abundance declines during years when ruffe abundance increases, and this trend may also be developing in the Michigan tributary; continued to monitor potential ruffe impact on lake trout and lake whitefish recruitment in cooperation with the Red Cliff tribe of Lake Superior Chippewas with data collected from this monitoring being insufficient to detect impact; conducted an assessment of round gobies over four locations in the Illinois River..."

- Conduct Eurasian ruffe and round goby monitoring activities to determine status, population trends and impacts on native fishes in Lake Superior (MI, MN, WI).

"...conducted an assessment of round gobies over four locations in the Illinois River..."

- Coordinate with state, tribal and federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control aquatic nuisance species in Lake Superior (MI, MN, WI).

"...coordinated with the Lake Carriers Association to determine the source vector of Eurasian ruffe discovered in the Marquette, Michigan harbor..."

- Carterville Fishery Resources Office will:

- Lead the development of a National Asian Carp Management and Control Plan (IL, IN, IA, OH, MI, MN, MO, WI).

"...led the establishment of an Asian Carp Work Group to develop a National Asian Carp Management and Control Plan which included hosting of a workshop in May 2004 (more than 70 attendees) to begin developing strategies and action plans, drafting workshop proceedings, and planning a second meeting to begin identifying and drafting components of the plan..."

Aquatic Invasive Species

- Monitor the presence of Asian carp in the Cache River within the Cypress Creek NWR (near the site where the first black carp was caught in the wild) (IL).
“...sampled the Cache River to look for additional black carp and fortunately, none were found (although numerous juvenile and adult bighead and silver carp were observed near the outlets at the Mississippi and Ohio rivers); sampled sites on Cypress Creek NWR while the Illinois DNR sampled much of the Cache River as part of their stream monitoring program...”
- Determine Asian carp habitat use on the Middle Mississippi River NWR (IL, MO).
“...sampled flood plain habitats of the Middle Mississippi River National Wildlife Refuge and found widespread use of these waters by thousands of young-of-the-year Asian carps (including silver carp, bighead carp, and grass carp)...”
- Complete a preliminary assessment using traditional and non-traditional sampling gears for capturing Asian carp to develop a standardized sampling protocol as identified by the Asian Carp Work Group (IL, MO).
“...completed a preliminary assessment of the efficiency of boat electrofishing, seines, gill nets, hoop nets, and experimental gill and trammel nets in capturing Asian carp in the Middle Mississippi River and its associated backwaters (young-of-the-year specimens were efficiently collected but adult fish collection was variable)...”
- **Columbia Fishery Resources Office will:**
 - Complete a preliminary assessment using new sampling gears to begin assessing the population of Asian carp in the Missouri River (MO).
“...researched effective net types for collecting Asian carp - these large, fast, and powerful fish are not easily captured with conventional nets; therefore, cooperative efforts with Innovative Net Solutions resulted in the ordering of experimental gillnets composed of proprietary, high stretch, high hanging ratio monofilament designed for large powerful fish - these nets are scheduled to be field tested in 2005...”
 - Develop techniques to age Asian carp and improve population estimates in the Missouri River (MO).
“...assisted the U.S. Geological Survey in recapturing silver carp from the Missouri River tributaries that were carrying telemetry and archival tags with aging structures collected from these fish for use in an ongoing station aging study; collected young-of-year silver carp from Missouri River scour holes with anecdotal evidence suggesting that spawning was triggered by previous flood stage water levels; will continue obtaining biological information on this invasive species to aid in future management and control and work to manage and control these invasive species...”
- **Green Bay Fishery Resources Office will:**
 - Monitor Eurasian ruffe to determine the status and trends of populations in Lake Michigan (MI, WI).
“...worked to determine status and expansion of Eurasian ruffe in the Green Bay and northern areas of Lake Michigan with bottom trawl assessments in potential dispersal areas...”
 - Coordinate with state, tribal and Federal partners, the U.S. Coast Guard, the Great Lakes Carriers Association and others to detect and control aquatic nuisance species in Lake Michigan (MI, IL, IN, WI).
“...collaborated with natural resource agencies within the Great Lakes basin to implement a rapid response protocol for early detection and possible eradication of new, localized aquatic invasive infestations...”
- **La Crosse Fishery Resources Office will:**
 - Monitor the range expansion of zebra mussels on the St. Croix River and Upper Mississippi River (MN, WI).
“...conducted biweekly plate sampling on the St. Croix River and selected sites on the Mississippi River for adult zebra mussels - sampled the St. Croix River qualitatively and quantitatively four times a year with native mussel beds and marinas targeted...”

Aquatic Invasive Species



-GLFC

This pontoon boat is operated by Sea Lamprey Control staff to conduct invasive sea lamprey assessments on the St. Marys River in the Upper Peninsula of Michigan.



-USFWS

Fish and Wildlife Service personnel apply lampricide on the St Marys River to areas with high densities of invasive sea lampreys. Over 200 acres of river bottom were treated in 2004. The St Marys River is the international boundary between the United States and Canada.



-GLFC

A technician from the Sea Lamprey Control program releases invasive sea lampreys with implanted PIT tags during a migratory pheromone field trial. Pheromones are chemical signals that pass between organisms of the same species to communicate. Preliminary results of this study are encouraging.

- Lead the Service's effort to coordinate and monitor the range expansion and changes in abundance of round gobies and Asian carp in the Illinois River and Waterway (IL).
 - “... conducted the 9th annual Goby Round Up/Asian Carp Corral in a 100 mile stretch of the Illinois Waterway, with internal and external partners, to determine the upstream leading edge of Asian carp and the downstream distribution of round goby...”
- Work with the City of Chicago, State of Illinois, the U.S. Army Corps of Engineers and others to develop a rapid response capability in case Asian carp make it past the electric barrier (IL).
 - “...participated in meetings of the rapid response team of the Chicago River Dispersal Barrier Task Force and helped develop a plan...”
- Work with partners to monitor the Asian carp population in the Illinois River and Waterway (IL).
 - “...worked with the Illinois DNR, Chicago District of the Corps of Engineers, and Metro District to sample monthly for Asian carp in the vicinity of the electrical barrier on the Chicago Ship and Sanitary Canal...”
- **Marquette and Ludington Biological Stations will:**
 - Plan and conduct sea lamprey assessment and control operations in coordination with the Great Lakes Fishery Commission, Fisheries and Oceans Canada, U.S. Geological Survey and State, Tribal, and university partners (IL, IN, MI, MN, NY, OH, PA, WI, and Ontario).
 - “...completed lampricide treatment of 48 Great Lakes tributaries and conducted assessments to detect and determine the extent of sea lamprey infestations in 241 tributaries in coordination with the Great Lakes Fishery Commission, Fisheries and Oceans Canada, U.S. Geological Survey, and State, Tribal, and University partners...”
 - Meet the species-specific international treaty obligation to control sea lamprey populations (IL, IN, MI, MN, OH, WI).

(FY05 Department of the Interior Performance Measure)

 - “...continued to apply integrated control methodologies in the St. Marys River for the third year in order meet the species-specific international treaty obligation to control sea lamprey populations; additional control effort was allocated to the Great Lakes where sea lamprey abundance was above lake trout target wounding levels...”

Public Use

Recreational Fishing



-USFWS
Alpena FRO staff talks to the public during the annual Brown Trout Fishing Derby at Alpena, Michigan.

Our Goal: Quality opportunities for responsible fishing and other related recreational enjoyment of aquatic resources on Service lands, on Tribal and military lands, and on other waters where the Service has a role.

Our primary focus is on enhancing recreational fishing opportunities on Service, Tribal, and Department of Defense lands.

Our Objective Work with other Service programs, States, Tribes, partners, and other stakeholders to enhance recreational fishing opportunities on Service, Tribal, and Department of Defense lands.

Our Commitment

– **Alpena Fishery Resources Office will:**

- Host National Fishing Day events and organize additional aquatic education and fishing clinics in Michigan (MI).
“...participated in a public aquatic education program through a public fishing day event at the Ottawa NWR...”
- Assist Shiawassee NWR, Detroit River International wildlife Refuge and Ottawa NWR in evaluating and managing sport fish populations and providing recreational fishing opportunities (MI, OH).

“...did not deliver any management assistance efforts for recreational fishing to Shiawassee NWR, Detroit River International Wildlife Refuge or Ottawa NWR in FY04...”

– **Ashland Fishery Resources Office will:**

- Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Whittlesey Creek NWR and Iron River NFH (WI).
“...assisted staff from the Whittlesey Creek NWR during National Fishing Day by giving a demonstration of fish habitat types and proper catch-and-release practices; gave three presentations at the Northern Great Lakes Visitor Center and Whittlesey Creek NWR regarding the Whittlesey Creek watershed, highlighting the wildlife of Whittlesey Creek and the Whittlesey Creek NWR Habitat Management Plan; gave a presentation on habitat needs and rehabilitation plans for coaster brook trout to a large group of concerned citizens, environmentalists, and anglers in Marquette, Michigan...”

- Assist Whittlesey Creek NWR in evaluating and managing sport fish populations and providing recreational fishing opportunities (WI).

“...implemented experiment to establish coaster brook trout in Whittlesey Creek which involved seven days of stream habitat assessments to obtain a population estimate for salmon and trout species for Whittlesey Creek NWR; studied brook trout at a number of locations along the upper stretches of Whittlesey Creek...”



-USFWS
Biologists Heather Enterline and James Boase answer questions from the public at the Traverse City Hunting and Fishing Expo.



-USFWS
A volunteer carefully stocks a coaster brook trout into Whittlesey Creek near Ashland, Wisconsin as part of a long-term plan with the Wisconsin DNR to establish a self-sustaining population.

Public Use



-USFWS

This healthy bass was collected during an electrofishing survey at DeSoto Lake. This lake, which is part of the DeSoto NWR, has provided excellent recreational fishing for decades.



-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 Conservation Plans.



-USFWS

Over 100 people attended the first annual Genoa NFH fishing clinic/derby in June 2003 hosted by the hatchery and the Friends of the Upper Mississippi River Fishery Services. The derby is now an annual event.

- Carterville Fishery Resources Office will:

- Participate in a National Fishing Day event in partnership with the Crab Orchard NWR (IL).
 - “...assisted in organizing and hosting the Annual Kid’s Fishing Derby at Crab Orchard NWR, including an electrofishing demonstration and providing a tank with live fish collected from a local lake for children to watch and ask questions about (more than 500 attended)...”
- Assess recreational fisheries and develop management recommendations on:
 - Crab Orchard, Illinois River Complex, Big Oaks, Port Louisa, and Two Rivers NWR’s (IL, IN).
 - “...assisted the Illinois DNR with annual fishery surveys on three lakes on Crab Orchard NWR, rearing of largemouth bass, evaluating regulation changes to improved largemouth bass recruitment, and a public meeting to discuss the current status of the fisheries and provided management recommendations to the refuge manager...”
 - Scott Air Force Base and Crane Naval Weapons Support Center (IL, IN).
 - “...surveyed Cardinal Lake and Scott Lake on Scott Air Force Base to develop management and harvest guidelines to improve recreational fishing and coordinated the evaluation of fish samples for contaminants analyses; conducted a spring fishery survey of Lake Greenwood on Crane Naval Weapons Support Center and developed a management report, conducted a fishery evaluation in one of the base’s smaller ponds, and completed a fall walleye survey to evaluate the success of an on-going walleye stocking program...”

- Columbia Fishery Resources Office will:

- Participate in a National Fishing Day event held by a partner (MO).
 - “...was unable to participate in the National Fishing Day event held by Missouri Department of Conservation because of failed communications...”
- Assess recreational fisheries and develop management recommendations on DeSoto NWR (IA).
 - “...reviewed and made recommendations on a fisheries management plan developed by DeSoto NWR staff in coordination with the Iowa DNR and the Nebraska Game and Parks Commission with goals, objectives and strategies outlined to enhance fishing opportunities for the public; assessed recreational fishery resources at the Iowa Army Ammunition Plant (Iowa) and Ft. Leavenworth (Kansas), and established an intent to provide fisheries resources surveys and analysis with Ft. Leonard Wood (Missouri)...”

Public Use

- **Green Bay Fishery Resources Office will:**
 - Host National Fishing Day events and organize additional aquatic education and fishing clinics (WI).
“...provided aquatic education programs to four local school groups at an earth day natural resources program at a local environmental education center; provided aquatic education to a group of county governmental officials...”
 - Assist Seney NWR in evaluating and managing sport fish populations and providing recreational fishing opportunities (MI).
“...worked cooperatively with Seney NWR to evaluate and sample fish stocks within the refuge to provide best management practices for recreational fishing...”
- **La Crosse Fishery Resources Office will:**
 - Co-host Fishing Day events at Tomah Veterans Administration Hospital and participate in Fishing Day events at Minnesota Valley NWR, Necedah NWR, Upper Mississippi River NW&FR, and Genoa NFH (MN, WI).
“...co-hosted Fishing Day events and participated in Fishing Day events at Minnesota Valley NWR, Necedah NWR, an Upper Mississippi River NW&FR ice fishing event, and an ice fishing and open water event with Genoa NFH in conjunction with our Friends group...”
 - Assess recreational fisheries and develop management recommendations on Horicon, Necedah, and Tamarac NWR’s (MN, WI).
“...assessed recreational fisheries on Horicon NWR and the Fox River satellite, and Tamarac NWR and will write the report with management recommendations in FY05; sampled water quality and fisheries at Necedah NWR that was part of the prescribed management action in previous recommendations for the fishery at Harvey’s Pond...”
- **Genoa National Fish Hatchery will:**
 - Co-host Fishing Day events at Tomah Veterans Administration Hospital and the hatchery (MN and WI).
“...co-hosted fishing events at the hatchery and Tomah Veterans Administration Hospital, and supplied 1,300 catchable rainbow trout for the events...”
 - Participate in Fishing Day events at the Upper Mississippi River NW&FR (IA, MN, and WI).
“...participated in the U.S. Army Corps of Engineers sponsored National Fishing Week event...”
 - Culture 15,000 rainbow trout (8-10 inch) for Fort McCoy and Tomah Veterans Administration Hospital, and Red Lake, Grand Portage, Lac Vieux Desert, and Oneida Indian Reservations (WI, MN).
“...stocked 15,748 (10.5 inch) rainbow trout at Fort McCoy, Tomah Veterans Administration Hospital, Lac Vieux Desert Indian Reservation, and Oneida IR...”
 - Culture walleye for recreational fishing on Desoto NWR, Upper Mississippi River NW&FR, Crane Naval Base, Fort McCoy, and Iowa Ammunition Plant (IA, IN, MN, WI).
“...stocked 2,475 advanced fingerling walleyes for DeSoto NWR and 2,740 advanced fingerling walleyes for Crane Naval Base...”
 - Culture 100-200,000 bluegills, 200-300,000 northern pike, and 50-400 adult white bass for recreational fishing objectives on Horicon NWR and Upper Mississippi River NW&FR (IA, MN, WI).
“...cultured and distributed 162,737 bluegill to Horicon NWR and Upper Mississippi River NW&FR; supplied 160,000 northern pike fry to Horicon NWR - this number is lower than requested due to rearing some fish to larger size (35,000 to 1.5 inches) for Horicon in Genoa’s rearing ponds...”
 - Culture 500 brook trout for recreational fishing objectives at a Wisconsin Boy Scout camp (WI).
“...fish were unavailable for this program this year as efforts were concentrated on meeting high priority tribal commitments...”

Public Use



-USFWS

Steve Redman (center left) and Dale Bast (center right) from the Iron River NFH show off coaster brook trout brood fish at the Fishing Expo sponsored by Trout Unlimited, held at the Bayfield County Civic Center in Ashland, Wisconsin.



-USFWS photo by Joanie Moore

Michigan Department of Environmental Quality staff present a surface runoff model called "Enviroscape" which was a popular stop for visitors at the 1st annual Hatchery Fest at the Jordan River NFH.

- Culture largemouth bass for recreational fishing objectives on Desoto and Crab Orchard NWRs, Crane Naval Base, and the Iowa Ammunition Plant (IA, IN, WI).
 "...cultured and stocked 4,556 largemouth bass for DeSoto NWR; no stockings were done this year on Crab Orchard NWR due to this being a new request in FY2004 and pond harvest will not occur until FY05..."

- Iron River National Fish Hatchery will:

- Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Whittlesey Creek NWR and Ashland FRO (WI).

"...worked to help host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Whittlesey Creek NWR and Ashland FRO..."

- Jordan River National Fish Hatchery will:

- Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Pendills Creek NFH and Alpena FRO (MI).

"...held the "First Annual Jordan River Hatchery Festival" in coordination with Seney NWR, Alpena FRO, Pendills Creek NFH, Michigan DNR's Oden State Fish Hatchery and Bellaire Forest Management Fire Unit, and Michigan Department of Environmental Quality with over 140 kids attending..."

- Neosho National Fish Hatchery will:

- Culture 1,500 rainbow trout (nine-inch) for the Iowa Veterans Administration Hospital (IA).

"...produced 1,500 quality rainbow trout (9 inch) for the Iowa Veterans Administration Hospital..."

- Culture 5,000 rainbow trout (nine-inch) for Fort Riley (KS).

"...produced 5,000 rainbow trout (9 inch) for Fort Riley as part of a reimbursable agreement..."

Water Works Wonders Campaign



-photos courtesy of the Water Works Wonders Campaign

The Fish and Wildlife Service supports the national campaign to increase participation in recreational angling and boating. The Recreational Boating and Fishing Foundation sponsors the Water Works Wonders advertising campaign and highlights National Boating and Fishing Week events.

Public Use

- Host the Neosho NFH Annual Fishing Clinic/Derby (MO).
“...hosted an Annual Fishing Clinic/Derby, with our Friends group, for 8-11 year old kids in the area with over 150 kids participating in the event and over 40 volunteers assisting with this worthy effort along with many partners; the clinic focused on boating safety, fishing ethics, fish identification, casting, fly fishing, and knot tying with kids being able to put to use what they learned during the morning, to catch fish during the afternoon...”
- **Pendills Creek and Sullivan Creek National Fish Hatcheries will:**
 - Host National Fishing Day events and organize additional aquatic education and fishing clinics in partnership with Seney NWR, Jordan River NFH and Alpena FRO (MI).
“...co-hosted two fishing day events, one with Seney NWR and the other with the Soo Area Sportsmen’s Club; did not have adequate funding to assist Jordan River NFH or Alpena FRO with any additional activities; sponsored an educational booth at the Sault Ste. Marie Home Show...”
- **La Crosse Fish Health Center will:**
 - Co-host Fishing Day events at Tomah Veterans Administration Hospital.
“...co-hosted the May 19 Fishing Day event at Tomah Veterans Administration Hospital...”
 - Participate in Fishing Day events at the Upper Mississippi River NW&FR and the Genoa NFH (MN, WI).
“...hosted a kids fishing day at the Genoa NFH for 75 kids through the Friends of the Upper Mississippi River Fishery Services Friends group with assistance from the La Crosse FRO and La Crosse FHC...”

Our Objective Provide support to States, Tribes, and other partners to identify and meet shared or complementary recreational fishing and aquatic education and outreach objectives.

Our Commitment

- **All Field Stations will:**
 - Host station tours and participate in/or organize other public education events for local schools, environmental groups and interested organizations (IL, MI, MO, WI).
“...participated in 27 outreach events targeting school groups, environmental groups, and interested organizations with four of the events hosted at or near the station (Alpena FRO)...”
“...participated in an education workshop associated with Missouri River Relief, a multi agency cooperative river cleanup initiative, by collecting native fishes from the Missouri River for display and giving students from area schools a hands-on opportunity to experience large river fish species and their unique ecology; participated in a field trip associated with the Missouri River Natural Resources Conference held in Columbia, Missouri by conducting a trawling demonstration, explaining the various types of trawls used on the Missouri River, and showing conference attendees the fish species that were collected using that gear type (Columbia FRO)...”
“...hosted 10 school groups with 250 people, and 12 off site presentations (state fairs, outdoor expos, etc.) with a total of 15,529 people attending (Genoa NFH)...”
“...assisted Marinette County, Wisconsin with environmental days for county fourth grade classes; participated in an earth day natural resources program at a local environmental education center; hosted an office open house to thank community leaders, building owners, and contractor staff for their assistance with completing the newly constructed Green Bay Field Office and to provide them a tour of the completed facility and description of the work conducted out of the office (Green Bay FRO)...”

Public Use



-USFWS

Staff at Iron River NFH give a tour of the hatchery to students and instructors from Lac Courte Oreilles College, Hayward, Wisconsin.



-USFWS

Nick Starzl gives a tour to students at the Genoa NFH. Annually, several hundred students visit the hatchery and learn about recreational fishing and native species restoration.



-GLFC

A young child is in awe over an adult sea lamprey display provided by the Sea Lamprey Control program.

“...hosted 20 students from the Agricultural Food Sciences Academy, Little Canada, Minnesota, for three days of educational activities which included spawning fish, sample counting production fish, collecting fish quality information, and stocking retired brood fish; conducted numerous tours for students from preschool through college level groups; attracted 70 people to an open house to see what happens at a fish hatchery; assisted the local Trout Unlimited Chapter in their annual fund raiser (Iron River NFH)...”

“...hosted station tours (Alpena High school, Kinsley High Outdoor Club, AuSable Institute) and developed an Eagle Scout project at the hatchery to benefit public resources; provided a 24 hour hot beverage center for all visitors (snowmobilers, hikers, fish enthusiasts) at the hatchery; cleaned four miles of US 131 three times during the year to protect the environment and promote stewardship in cooperation with Michigan Department of Transportation (Jordan River NFH)...”

“...participated in several sport, boat and travel shows by manning booths, presenting demonstrations, and answering questions; presented to schools in the Coon Valley and La Crosse, Wisconsin area; participated in ice fishing derbies and kids fishing days; judged projects at the science fair for high school kids at St. Mary's College in Winona, Minnesota (La Crosse FHC)...”

“...judged science fairs for various schools in the greater La Crosse area, made presentations at numerous school groups; helped man a booth at the national American Fisheries Society meeting (La Crosse FRO)...”

“...hosted tours during the fiscal year and participated in public education events for local schools, environmental groups, and civic groups (Neosho NFH)...”

“...gave tours to schools, groups and even one tour for a Tanzania Government Conservation Group; assisted with an Open House/Dedication, two Children's Fishing Events, and Parade; presented to several groups including Trout Unlimited and the Soo Area Sportsmen's Club (Pendills Creek and Sullivan Creek NFH's)...”

“...conducted or participated in 61 public education events for local schools, environmental groups, and interested organizations involving 134 staff days of effort to provide information on aquatic recreation opportunities and restoration activities of the Fish and Wildlife Service (Marquette and Ludington Biological Stations)...”

- Alpena Fishery Resources Office will:

- Participate in the Great Lakes Lighthouse Festival and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).

“...spent 38 staff hours at a station booth during the Great Lakes Lighthouse Festival...”

Public Use

- **Ashland Fishery Resources Office will:**
 - Work with the Northern Great Lakes Visitor Center partners to enhance educational displays and conduct public education events (WI).
“...gave presentations at a public and agency gathering to celebrate a new exhibit that depicts a fall scene with spawning brook trout, other native fish and wildlife mounts, flood plain and stream habitats, and a bald eagle nest at the Northern Great Lakes Visitor Center and Whittlesey Creek NWR; served as chairman on the Board of Directors at the Northern Great Lakes Visitor Center...”
- **Green Bay Fishery Resources Office will:**
 - Work with the Oneida Tribe of Indians of Wisconsin and the Wisconsin DNR to organize and hold an annual youth and elders fishing day (WI).
“...assisted the Oneida Tribe of Indians of Wisconsin with a 5th annual youth and elders fishing day...”
- **La Crosse Fishery Resources Office will:**
 - Conduct environmental education activities and provide displays for various events, such as Earth Day and River Fest in La Crosse, Wisconsin (WI).
“...conducted Earth Day activities at various local schools, participated in River Fest at Trempleau NWR, and had educational displays at the Grand Excursion on the Mississippi River, La Crosse Travel and Boat Show, and Mississippi Valley Fishing Expo with nearly 10,000 people and kids in touch with the Fishery program through these efforts...”
- **Ludington and Marquette Biological Stations will:**
 - Participate in the Great Lakes Lighthouse Festival and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).
“...conducted or participated in 61 public education events for local schools, environmental groups, and interested organizations involving 134 staff days of effort to provide information on aquatic recreation opportunities and restoration activities of the Fish and Wildlife Service...”
- **Genoa National Fish Hatchery will:**
 - Collect and/or propagate northern pike (300,000 fry; 30,000 two-inch fingerlings) and walleye (12-20 million eggs; 1-2 million fry; 100,000 two-inch fingerlings; 15,000 six-inch advanced fingerlings) for other state and tribal resource agencies' management efforts (AZ, IL, OK, TX, and WI).
“...collected, propagated, and distributed 715,046 northern pike (680,000 fry and 35,046 1.5 inch pike) which represented over a 100 percent increase in commitments for northern pike; collected and distributed 7,766,000 walleye eggs, 5,504,000 fry, 178,141 2 inch fingerlings; stocked 8,640 advanced fingerling walleye to Minnesota waters at the direction of state management plans - more effort was concentrated on fry this year as some production facilities were not able to accept eggs...”
 - Culture 5,000 (six inch) walleye for recreational fishing on Legend Lake, Wisconsin (WI).
“...stocked 1,200 fall fingerling lake sturgeon, with another 1,200 planned to be stocked this spring under the Menominee lake sturgeon restoration plan...”
 - Collect 30-60,000 sauger eggs for the State of Nebraska's recreational fishing objectives (NE).
“...supplied the state of Nebraska with 468,000 sauger eggs, a 780 percent increase over request for their rearing ponds...”
- **Iron River National Fish Hatchery will:**
 - Work with the Northern Great Lakes Visitor Center (U.S. Forest Service) to enhance educational displays and conduct public education and fishing events (WI).
“...continued to work closely with the Northern Great Lakes Visitor Center (U.S. Forest Service) to enhance educational displays and conduct public education and fishing events; helped develop a Wisconsin DNR stocking permit to allow the use of retired brood fish to be stocked into the ponds at the visitor center...”

Public Use



-USFWS photo by Rick Westerhof

Tim Smigielski applies a trout tattoo to a child at the Northland Sportsman's Club Family Hunting & Fishing Expo. Jordan River NFH employees staffed a booth that provided information on lake trout rehabilitation and other Fish and Wildlife Service activities.



-USFWS

Rainbow trout in a raceway at Neosho NFH are crowded together in preparation for distribution to Lake Taneycomo, a popular fishing location.



-USFWS

The crew at the Neosho NFH load rainbow trout onto a Missouri Department of Conservation distribution truck for mitigation stocking into Lake Taneycomo.

- Work with the Wisconsin DNR to provide surplus brook trout for stocking into public waters to enhance recreational fishing (WI).

“...developed a plan, with the assistance of the Wisconsin DNR, to provide surplus brook trout for stocking into public waters in 2005 to enhance recreational fishing; assisted the Genoa NFH in transporting excess brood stock brook trout from the isolation facility to three local trout lakes in Northern Wisconsin...”

– Jordan River National Fish Hatchery will:

- Participate in the Great Lakes Lighthouse Festival, Mancelona Bass Festival, Kalkaska Trout Festival, Traverse City Sports Show, the Northland Hunting and Fishing Expo and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).

“...participated in the Great Lakes Lighthouse Festival, Mancelona Bass Festival, Traverse City Sports Show, Northland Hunting and Fishing Expo, R/V Sturgeon Christening/Commissioning, and new brood stock building dedication at Sullivan Creek NFH to provide information on aquatic recreation opportunities and restoration activities of the Fish and Wildlife Service; participated on the Michigan Outdoor Adventures radio segment to educate the public about natural resource issues in the state of Michigan; developed the station website using two experienced volunteers...”

- Hold an annual Jordan River Hatchery Festival to educate children about natural resources, in coordination with Seney NWR, Alpena FRO and Pendills Creek NFH, Michigan DNR, Michigan Department of Environmental Quality and local non-governmental organizations (MI).

“...held the “First Annual Jordan River Hatchery Festival” in coordination with Seney NWR, Alpena FRO, Pendills Creek NFH, Michigan DNR’s Oden State Fish Hatchery and Bellaire Forest Management Fire Unit, and Michigan Department of Environmental Quality with over 140 kids attending the event...”

– Neosho National Fish Hatchery will:

- Host an Annual Open House to educate the public about the hatchery, the Service and the natural resources of Missouri (MO).

“...hosted an Annual Open House during the fiscal year with hundreds of visitors passing through the hatchery, which was a cooperative effort with the City of Neosho, Friends of the Neosho National Fish Hatchery, Neosho Rotary Club, and the Missouri Department of Conservation...”

Public Use

– Pendills Creek and Sullivan Creek National Fish Hatcheries will:

- Participate in the Great Lakes Lighthouse Festival, Traverse City Sports Show, the Northland Hunting and Fishing Expo and other public events to provide information on aquatic recreation opportunities and restoration activities of the Service (MI).
“only participated in the Traverse City Sports Show due to budget constraints; management is looking into more local events to participate in...”
- Work with the Friends of Pendills Creek Hatchery to help sponsor public education in conservation in the Brimley, Michigan area (MI).
“...worked with the Friends group at a variety of events including two children’s fishing events, the Open House/Dedication at Sullivan Creek NFH, and a parade; Friends group members volunteered at the hatcheries by giving tours and assisting with the spawning operations...”

Mitigation Fisheries

Our Goal: The Federal government meets its responsibilities to mitigate for the impacts of Federal water projects, including restoring habitat and/or providing fish and associated technical support to compensate for lost fishing opportunities.

Our primary focus is on meeting our mitigation responsibilities associated with Lake Taneycomo (Table Rock Dam), Missouri.

Our Objective Meet the Service’s responsibilities for mitigating fisheries at Federally funded water projects in the Great Lakes-Big Rivers Region.

Our Commitment

– Neosho National Fish Hatchery will:

- Culture 225,000 rainbow trout (nine to ten inches) to meet the Federal mitigation responsibilities for the Federally funded water project at Lake Taneycomo (MO).
“...produced 232,603 rainbow trout (9.5–10 inches) to meet the Federal mitigation responsibilities for the federally funded water project at Lake Taneycomo...”
- Meet the mitigation production target (MO). (FY05 Department of the Interior Performance Measure).
“...met the mitigation production target...”

– La Crosse Fish Health Center will:

- Provide annual fish health services to the mitigation program at Neosho NFH (MO)
“...completed two inspections and the pallid sturgeon assessment as required...”



-USFWS photo by George Gentry



-USFWS

Historic photo of the Neosho NFH. Neosho NFH was built in 1888 but was renovated in 1961 to produce rainbow trout.

Neosho NFH, one of the oldest hatcheries still operating, was retrofitted in 1961 to raise rainbow trout to help compensate for the impacts of Federal dams built on the White River in Missouri. Today, Lake Taneycomo is one of the most popular trout fishing locations in the state.

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 captured lake sturgeon.

Our Goal: To assist Tribes in the management, protection, and conservation of their treaty-reserved or statutorily defined trust natural resources.

Our primary focus is on respecting and promoting Tribal self-government, self-determination and sovereignty of federally recognized Tribes relating to fish and wildlife resource, as defined by the Service's Native American Policy.

Our Objective Provide technical assistance in fisheries science and natural resource management to Tribes and Treaty Authorities in the Region.

Our Commitment

– Regional Office will:

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund native fish and aquatic habitat restoration activities lead by tribal governments (MI, MN, NY, WI).

“...the following Restoration Act funded projects were in progress during FY04 from previous funding years: Lake Huron lake whitefish distribution study- Chippewa/Ottawa Resources Authority; Mapping of habitat in tributary and near shore waters of Lake Superior to facilitate development of quantifiable fish community objectives and lake sturgeon rehabilitation- Bad River Band of Lake Superior Tribe of Chippewa Indians...”

- Support enhancement of capabilities of tribal natural resource departments through functions of the Native American Fish and Wildlife Society (MI, MN, WI).
“...worked with the Native American Fish and Wildlife Society and provided funding in support of their annual meeting...”
- Support enhancement of tribal natural resource department capabilities and conservation programs through the Tribal Wildlife and Tribal Land Owner Incentive grant programs (MI, MN, WI, IA).

“...assigned each field station the task of working with their assigned tribes to inform them of the grant opportunities and to help guide them through the application process for the funds; was one of the most successful regions in the Fish and Wildlife Service in acquiring funding through this grant process...”

- Develop policy, briefings, and positions to address 1836 Treaty fishery issues raised by the tribal parties to the Executive Council or through the dispute resolution process of the Consent Decree (MI).

“...coordinated the involvement of Department of Interior and Fish and Wildlife Service participants in the August, 2004, Executive Council meeting in Traverse City, Michigan; prepared briefing materials addressing fishery issues, accompanied the Department's Executive Council representative to the meeting, and completed notes and follow up assignments resulting from the meeting...”



-USFWS

Ashland FRO Biologist Frank Stone is geared up for cold weather. Stone is assisting the Great Lakes Indian Fish and Wildlife Commission in determining recruitment levels of juvenile walleye in several northern Wisconsin lakes.



-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.

Cooperation with Native Americans

– Alpena Fishery Resources Office will:

- Provide technical assistance to tribes in Michigan according to federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI).
“...provided assistance for implementation of the 2000 Consent Decree to protect treaty fishing opportunities and protect the fishery resources of Lake Huron...”
- Provide technical assistance to Chippewa Ottawa Resource Authority for walleye recruitment surveys in the St. Marys River (MI).
“...provided one week of effort and an electrofishing vessel to conduct a walleye assessment at four locations in the St. Marys River as a collaborative effort with the Chippewa Ottawa Resource Authority...”
- Participate with the Technical Fisheries Committee, Modeling Subcommittee and Executive Council, under the August 7, 2000, U.S. District Court Consent Decree, generating annual harvest limits for tribal fisheries in 1836 Treaty waters (MI).
“...continued to provide expertise for implementation of the 2000 Consent Decree by serving as Chair of the Technical Fisheries Committee (TFC) and Co-Chair of the Modeling Sub-Committee (MSC); organized and led four meetings of the TFC and two meetings of the MSC; participated on the MSC and conducted population modeling to generate safe harvest limits for state and tribal fisheries in 1836 Treaty waters...”
- Process coded-wire tags from lake trout captured in tribal commercial, subsistence and assessment to recover data beneficial to lake trout rehabilitation in 1836 Treaty waters of Lake Huron (MI).
“...processed 133 lake trout specimens containing coded-wire tags for inclusion in the Lake Huron coded-wire tag database...”

– Ashland Fishery Resources Office will:

- Provide technical assistance to tribes in Minnesota, Wisconsin and Michigan according to federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI, MN, WI).
“...provided eight staff weeks of assistance to the Great Lakes Indian Fish and Wildlife Commission and the Wisconsin DNR to conduct walleye assessments on 35 Ceded Territory lakes; continued bottom trawling to assess abundance of juvenile walleye and forage fish in the Upper and Lower Red Lakes, Minnesota in cooperation with the Red Lake Band of Chippewa’s and Minnesota DNR; provided technical assistance to the Grand Portage Reservation regarding the cormorant issue on Lake Superior; aged approximately 1,200 lake whitefish scale samples and entered the information into a database under the 1836 Treaty Fishery Assistance Program; assisted the Keweenaw Bay Indian Community with the collection of fall lake trout assessment data, marking of hatchery released fish, and development of a walleye rearing pond; concluded a five week project assisting the Fond du Lac Band in assessing the recruitment of lake sturgeon and channel catfish...”
- Provide technical assistance to the Red Lake Band in monitoring the status of walleye populations in Red Lake (MN).
“...continued to work with the Red Lake Band of Chippewa, Minnesota DNR, Bureau of Indian Affairs, and the University of Minnesota, to restore a naturally spawning population of walleye in Red Lake...”
- Provide technical assistance to the Mille Lacs Band in monitoring the status of walleye populations in Mille Lacs Lake (MN).
“...continued assistance with a walleye marking study on Mille Lacs Lake, Minnesota, between the Great Lakes Indian Fish and Wildlife Commission and Minnesota DNR...”
- Provide technical assistance to the Bad River Band in assessing lake sturgeon in the Bad River (WI).
“...assessment of spawning lake sturgeon in the Bad and White Rivers resulted in collecting data on 178 sturgeon...”

Cooperation with Native Americans



-USFWS

The Green Bay FRO staff worked cooperatively with the Forest County Potawatomi to perform stream electroshocking surveys on tribal land.



-USFWS

Heidi Keuler, 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.



-GLFC

Tribal members from the Red Cliff Tribe of Lake Superior Chippewa Indians assist sea lamprey control staff during a lampicide treatment of Red Cliff Creek in Northern Wisconsin.

- Coordinate and publish the Midwest Tribal Aquaculture Network newsletter (MI, MN, WI).

“...published a quarterly Internet newsletter (*Midwest Tribal Aquaculture Network*) to assist tribal hatchery programs through the sharing of cool/cold water fish culture practices...”

– **Green Bay Fishery Resources Office will:**

- Provide technical assistance to tribes in Wisconsin and Michigan (in the Lake Michigan watershed) according to federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MI, WI).

“...provided technical assistance to the Little Traverse Bay Band through our expertise in quantitative stock assessment methods and application of customized computer software; provided analysis of data for the Great Lakes Indian Fish and Wildlife Commission and provided training on advanced analytical methods for tribal staff that participated in fisheries modeling workshops; provided technical assistance to the Stockbridge-Munsee Community with stocking and fishery management issues, worked with the Forest County Potawatomi Community to provide training, technical assistance, and sampling protocols for lake population estimates and stream index sampling...”

- Participate with the Technical Fisheries Committee, Modeling Subcommittee and Executive Council, under the August 7, 2000, U.S. District Court Consent Decree, generating annual harvest limits for tribal fisheries in 1836 Treaty waters (MI).

“...integrally involved with the Executive Council, Technical Fisheries Committee, and Modeling Subcommittee of the 2000 Consent Decree; primary modeler responsible for generating harvest limits in two tribal whitefish zones, and assisted with the generation of harvest limits in other zones...”

- Process coded-wire tags from lake trout captured in tribal commercial, subsistence and assessment to recover data beneficial to lake trout rehabilitation in 1836 Treaty waters of Lake Michigan (MI).

“...extracted and decoded more than 1,500 coded wire tags from lake trout specimens turned in by Lake Michigan partner agencies, updated the coded wire tag return database to facilitate analysis of the data, and assisted tribal biologists by aging lake whitefish scales...”

- Provide technical assistance to the Oneida Tribe of Indians of Wisconsin in assessing the fisheries of Quarry Lake and implementing habitat restoration in Trout Creek (WI).

“...worked with the Oneida Tribe of Indians of Wisconsin to assess fish populations in Quarry and Osnu’ hsa Lakes; assisted with habitat restoration projects on the Trout Creek/Duck Creek watershed...”

Cooperation with Native Americans

- La Crosse Fishery Resources Office will:

- Provide technical assistance to tribes in Wisconsin and Minnesota according to federal trust responsibilities, reserved rights, tribal management authority and Regional tribal liaison assignments (MN, WI).
“... provided technical assistance to the Menominee Indian Tribe and White Earth Reservation, including developing and implementing tribal grants; served as a liaison with Minnesota and Wisconsin DNR’s on tribal fishery issues; attended the Native American Fish and Wildlife Society regional meeting; met with the Ho Chunk on tribal grants; completed an aquatic vegetation report for Prairie Island Reservation...”
- Continue efforts to restore lake sturgeon to the White Earth and Menominee Indian Reservations and evaluate stocking success (MN, WI).
“...met with the Menominee and White Earth biologists and Wisconsin and Minnesota DNR’s in coordination meetings for sturgeon restoration on the reservations; conducted stocking assessments with over 4,000 hours of gill net effort over nine nights capturing 442 lake sturgeon on Legend Lake on the Menominee Reservation - collected fin rays for estimating age from 250 sturgeon and 260 fish received new tags...”
- Conduct trout stream and lake surveys on the Menominee and White Earth Indian Reservations (MN, WI).
“...conducted trout stream and lake surveys on the Menominee and White Earth reservations for brook trout, brown trout, walleye, and sturgeon...”
- Work with Ashland FRO to monitor walleye populations at Mille Lacs Lake for the Mille Lacs Band and Great Lakes Indian Fish and Wildlife Commission (MN).
“...conducted a spring walleye assessment on Mille Lacs Lake for the Great Lakes Indian Fish and Wildlife Commission and provided electrofishing equipment to the Great Lakes Indian Fish and Wildlife Commission for their use in fall walleye sampling...”
- Harvest walleye at Rydell NWR for stocking on the White Earth Indian Reservation (MN).
“...harvested approximately 8,000 walleye fingerlings (averaged 7 inches) and stocked the fish on the Red Lake Reservation instead of the White Earth Indian Reservation...”

- Ludington and Marquette Biological Stations will:

- Work cooperatively with the Great Lakes Indian Fish and Wildlife Commission, Chippewa Ottawa Resource Authority, Bad River Band, Red Cliff Band, Grand Traverse Bay Band and Little Traverse Bay Band to implement sea lamprey control activities (MI, WI).
“...implemented five cooperative agreements with the Great Lakes Indian Fish and Wildlife Commission, Chippewa Ottawa Resource Authority, Bad River Band, Red Cliff Band, Grand Traverse Bay Band, and Little Traverse Bay Band for sea lamprey trapping operations on 16 streams in lakes Superior, Michigan, and Huron in which 10,027 lamprey were captured; developed an integrated management plan for controlling sea lampreys in Red Cliff Creek in cooperation with the Red Cliff Band of Lake Superior Chippewa Indians that addressed lampricide treatments, trapping of spawning-phase adults, and eventual elimination of “mark-recapture” efficiency studies during spring trapping operations; discussed having a sea lamprey barrier constructed on Red Cliff Creek...”

- Iron River National Fish Hatchery will:

- Work cooperatively with the Red Cliff Band to enhance brook trout propagation programs to support rehabilitation plans in Lake Superior (WI).
“...assisted the Red Cliff Band through loans of egg picking equipment and provided genetic advice on management of their brook trout propagation programs to support rehabilitation plans in Lake Superior...”
- Work cooperatively with the Keweenaw Bay Band to enhance propagation capabilities in support of the Jumbo River rehabilitation program (MI).
“...assisted the Keweenaw Bay Band by supplying brood stock management advice in support of the Jumbo River rehabilitation program...”

Cooperation with Native Americans



-USFWS

Scott Yess (center) from the La Crosse FRO poses with Randy Zortman (left), White Earth Natural Resources Department, and Joe Hunter (right) from Rainy River First Nations during an egg collection project for lake sturgeon.



-USFWS

John Johnston from the Iron River NFH and two Keweenaw Bay Tribal Hatchery workers load lake trout and brook trout that have passed through a two year isolation period. In exchange for this service, Iron River stocks lake trout yearlings into nearby Lake Superior.



-USFWS

Staff from the Iron River NFH transfer lake trout to the offshore stocking vessel, M/V Togue. The vessel is scheduled to be replaced in FY2006 and will improve our stocking and assessment capabilities.

- **Jordan River National Fish Hatchery will:**
 - Provide technical assistance to the Little Traverse Bay Band in the development of a lake trout propagation program (MI).
“...received no requests for technical assistance from the Little Traverse Bay Band...”
 - Provide technical assistance to the Chippewa Ottawa Resource Authority’s Nunn’s Creek Fish Hatchery in enhancing propagation programs (MI).
“...provided technical assistance and loaned equipment to the Chippewa Ottawa Resource Authority’s Nunn’s Creek Fish Hatchery for their early incubation and rearing program...”
- **Pendills Creek National Fish Hatchery will:**
 - Work with the Bay Mills Indian Community, the Sault Ste. Marie Band and the Chippewa Ottawa Resource Authority, to provide technical assistance in fish propagation and develop cooperative natural resource programs (MI).
“...continued to consult with Bay Mills Indian Community fishery representatives over current program status and continued to work with a member of the Chippewa Ottawa Resource Authority regarding evaluation of mass marking equipment and implementation proposals...”
- **La Crosse Fish Health Center will:**
 - Provide technical assistance by hosting workshops, conferences, training opportunities and fish health services for Tribal governments (MI, MN, WI).
“...had three tribal attendees take the annual Fish Health Short course; provided fish health inspection and diagnostic services to tribes...”

Our Objective Provide fish from National Fish Hatcheries to support Tribal fish culture programs, subsistence programs, ceremonies, outdoor recreation and resource management activities.

Our Commitment

- **Genoa National Fish Hatchery will:**
 - Culture 1,500 lake sturgeon yearlings for stocking under an interagency restoration program for the Menominee Indian Reservation (WI).
“...stocked 1,200 fall fingerling lake sturgeon, with another 1,200 planned to be stocked this spring under the Menominee lake sturgeon restoration plan, which represents a 67 percent increase over the commitment of 1,500 - this is the first year of yearling stockings, so we are currently culturing next year’s commitment...”
 - Culture 13,000 Rainy River strain lake sturgeon for stocking under interagency restoration plans for White Earth Indian Reservation and the Red River of the North (MN).
“...stocked 13,000 lake sturgeon into waters of the White Earth Indian Reservation according to the White Earth sturgeon restoration plan...”

Cooperation with Native Americans

- Culture 600 brook trout (10 inches) for stocking under interagency restoration programs at the Red Lake Indian Reservation (MN).
 - “...will complete this stocking in FY05 and will be included in next years accomplishment report - did not stock any in FY04 since we were under a 3 year moratorium on stocking in Minnesota due to an outbreak of furunculosis in Fall 2001...”
- Culture six-inch walleye fingerlings for stocking under interagency restoration programs at the Menominee (FY04 – 13,000; FY05 – 3,000), Stockbridge Munsee (FY04 only – 600), Red Lake (FY04 – 21,000; FY05 – 8,000), and White Earth (FY04 only – 52,000) Indian Reservations (MN, WI).
 - “...cultured and stocked 13,781 advanced fingerling walleye in Legend Lake (Menominee Tribe) which is a 6 percent increase in the stocking request; supplied 300 advanced fingerling walleye to the Stockbridge-Munsee tribe; stocked 21,607 advanced fingerling walleye in Red Lake Indian Reservation waters which met the commitment; stocked 52,245 advanced fingerling walleye into White Earth Indian Reservation waters, fully meeting commitments...”
- Culture bluegills, brook trout, largemouth bass, rainbow trout, and walleye, as requested, for recreational fishing on Tribal lands (MI, MN, WI).
 - “..this accomplishment is built into the above accomplishments on Tribal lands...”
- **Iron River National Fish Hatchery will:**
 - Enhance programs and facilities to produce additional lake trout above current goal of 1.2 million yearlings to help meet requirements of the August 7, 2000, Consent Decree (MI,WI).
 - “...installed two new metal buildings to replace the air supported domes, and added a bulk liquid oxygen storage tank to enhance production of additional lake trout above the current goal of 1.2 million yearlings to help meet requirements of the August 7, 2000, Consent Decree; future use of light manipulation of brood stocks along with chilling of eggs will allow for increases in yearling production...”
 - Provide lake trout yearlings to the Keweenaw Bay Indian Community for stocking into Lake Superior as part of the Memorandum of Understanding through which the Keweenaw Bay Tribal Hatchery operates as a brood stock isolation facility (MI).
 - “...stocked about 90,000 yearling lake trout with coded-wire tags and specific fin clips as part of the Memorandum of Understanding through which the Keweenaw Bay Tribal Hatchery operates as a brood stock isolation facility...”
- **Jordan River National Fish Hatchery will:**
 - Enhance programs and facilities to produce additional lake trout above the current goal of 1.8 million yearlings to help meet requirements of the August 7, 2000, Consent Decree (MI).
 - “...produced an additional 110,000 lake trout through careful water management in an effort to meet requirements of the August 7, 2000, Consent Decree...”
- **Pendills Creek National Fish Hatchery will:**
 - Enhance programs and existing facilities to produce additional lake trout above the current goal of 750,000 yearlings to help meet the requirements of the August 7, 2000, Consent Decree (MI).
 - “...enhanced programs and existing facilities to produce additional lake trout above the current goal of 750,000 yearlings to help meet the requirements of the August 7, 2000, Consent Decree...”
 - Construct new hatchery facilities and double lake trout production to meet the requirements of the August 7, 2000, Consent Decree (MI).
 - “...have a construction project developed for new hatchery facilities that will double lake trout production to meet the requirements of the August 7, 2000, Consent Decree...”
- **La Crosse Fish Health Center will:**
 - Conduct fish health assessments as part of interagency lake sturgeon restoration efforts on the Menominee Indian Reservation (WI).
 - “...provided histological services for importation purposes...”

Coordination with Tribal Governments

The area of the United States encompassed by the Great Lakes – Big Rivers Region of the U. S. Fish and Wildlife Service is home to 36 federally recognized tribes, bands, and communities, and 3 intertribal organizations. The fish, wildlife and natural resource interests of Native Americans in our Region cover large areas included under the Treaties of 1836, 1837, 1842 and 1854. These lands and waters contain a great diversity of plant and animal life managed under authorities of tribal governments and states.

The Federal Government, Department of Interior, and Fish and Wildlife Service, have trust responsibilities to assist Native Americans in protecting, conserving and utilizing their reserved, treaty guaranteed, or statutorily identified trust assets. The Service adopted a Native American Policy in 1994 with the express purpose to articulate the general principles that will guide the service's government-to-government relationship to Native American governments in the conservation of fish and wildlife resources.

For the Service's Region 3 Fisheries Program, the most important aspects of fulfilling trust responsibilities to tribes are to provide consultation, technical assistance, cooperative partnerships and training opportunities to Native American fish and wildlife professionals, consistent with the principles of tribal self-determination and self-governance.

Effective and efficient coordination with tribal natural resource programs is therefore one of our most important goals. We will hold regular coordination meetings with tribes and continue the more frequent communication that occurs between tribes, our Fishery Resources Offices, and National Fish Hatcheries, in planning and implementing conservation activities.

In order to establish the most direct and efficient lines of communication between tribes and the Service's Fishery Program in this Region, we have assigned each of our Fishery Resources Offices the lead responsibility for supporting the needs of several recognized Native American groups in the Great Lakes – Big Rivers Region, as outlined here.



-USFWS

Alpena FRO staff set experimental gill nets as part of the fishery independent lake whitefish survey in 1836 Treaty waters of Northern Lake Huron.

The Alpena FRO is responsible for working with:

Chippewa Ottawa Resource Authority

Bay Mills Indian Community

Sault Ste. Marie Tribe of Chippewa Indians

Saginaw Chippewa Indian Tribe of Michigan

Match-E-Be-Nash-She-Wish Band of Potawatomi Indians of Michigan

Pokagon Band of Potawatomi Indians

Nottawaseppi Huron Band of Potawatomi

Coordination with Tribal Governments



-USFWS

Ashland FRO and Fond du Lac Band staff are ready for a lake sturgeon assessment on the St. Louis River. Fin samples are taken from captured fish for genetic analysis.



-USFWS

The Bad River Band of Lake Superior Chippewa Wildlife Department completed the second year of a three year study to assess sora, Virginia, and yellow rail populations in the wild rice dominated wetlands of the Kakagon/Bad River wetland complex.



-USFWS

White Earth Department of Natural Resources Biologist Will Bement holds a lake sturgeon that was caught in Round Lake on the White Earth Reservation. Lake sturgeon have been re-introduced on the reservation by the White Earth DNR, Fish and Wildlife Service, and others.

The Ashland FRO is responsible for working with:

Great Lakes Indian Fish and Wildlife Commission
1854 Authority

Bois Forte (Nett Lake) Lake Superior Band of Chippewa Indians
Fond du Lac (Lake Superior) Band of Chippewa Indians
Grand Portage (Lake Superior) Band of Chippewa Indians
Mille Lacs Band of Ojibwe
Red Lake Band of Chippewa Indians
Leech Lake Band of Ojibwe
Keweenaw Bay Indian Community
Lac Vieux Desert Band of Lake Superior Chippewa Indians
Bad River Band of Lake Superior Tribe of Chippewa Indians
Lac Courte Orielles Band
Lac du Flambeau Band of Lake Superior Chippewa Indians
Red Cliff Band of Lake Superior Chippewa Indians
Sakaogon Chippewa (Mole Lake) Community of Wisconsin
St. Croix Chippewa Indians of Wisconsin

The Green Bay FRO is responsible for working with:

Oneida Tribe of Indians of Wisconsin
Mohican Nation Stockbridge-Munsee Band
Hannahville Indian Community
Forest County Potawatomi Community
Grand Traverse Bay Band of Ottawa and Chippewa Indians
Little Traverse Bay Bands of Odawa Indians
Little River Band of Ottawa Indians

The LaCrosse FRO is responsible for working with:

White Earth Band of Chippewa
Menominee Indian Tribe of Wisconsin
Shakopee Mdewakanton Sioux Community
Upper Sioux Community of Minnesota
Lower Sioux Indian Community in Minnesota
Prairie Island Indian Community
Sac and Fox Tribe of the Mississippi in Iowa
Ho-Chunk Nation

Leadership in Science and Technology



-USFWS

Ashland FRO Biologist Lee Newman conducts a radio telemetry study on coaster brook trout. He is trying to locate a radio-tagged fish released into Whittlesey Creek near Ashland, Wisconsin.



-USFWS

Alpena FRO's new vessel, R/V Sentinel, enhances the Fish and Wildlife Service's ability to contribute to lake-wide assessment plans and fish community and environmental objectives.



-USFWS

Paddlefish that are captured during assessment activities provide information for the Mississippi Interstate Cooperative Resource Association Sturgeon and Paddlefish Stock Assessment Database. The database is managed by the Carterville and Columbia FRO's.

Our Goal: Science developed and used by Service employees for aquatic resource restoration and management is state-of-the-art, scientifically sound and legally defensible, and technological advances in fisheries science developed by Service employees are available to partners.

Our primary focus is on developing, applying, and disseminating state-of-the-art science and technology to conserve and manage aquatic resources.

Our Objective Utilize state-of-the-art, scientifically sound, legally defensible scientific and technologic tools to formulate and execute fishery related plans and policies.

Our Commitment

- Alpena Fishery Resources Office will:

- Participate in the development and use of Geographic Information Systems capability to support aquatic habitat conservation activities for Lake Huron and Lake Erie (MI, OH).
 "...employed Geographic Information System capabilities to provide assistance to station staff and intra- and inter-agency biologists to support habitat and aquatic species conservation which included work on updates for Fish Passage and Partners for Fish and Wildlife projects completed by station staff and a poster illustrating the lake trout stocking program using the offshore stocking vessel, *M/V Togue*..."
- Contribute to lake-wide assessment plans and fish community and environmental objectives for Lakes Huron and Erie, through the Great Lakes Fishery Commission (MI, OH).
 "...continued to provide technical support for joint projects addressing the Lake Huron Fish Community Objectives and participated on an Environmental Objectives drafting team for the Lake Huron Committee..."
- Evaluate and define genetic characteristics of lake sturgeon and contribute to restoration planning and workshops on these stocks (MI, OH).
 "...completed a collaborative lake sturgeon genetic analysis project funded by the Great Lakes Fishery Trust and submitted the final report - the genetics work was conducted by the University of California-Davis and sample collection carried out by Service staff..."
- Conduct statistical catch-at-age modeling of lake trout and lake whitefish populations in northern Lake Huron to produce safe harvest limits for state recreational and tribal commercial fisheries (MI).
 "...completed updates of statistical catch-at-age models for two Lake Huron lake trout management units and two lake whitefish management units..."

Leadership in Science and Technology

– Ashland Fishery Resources Office will:

- Contribute to lake-wide assessment plans and fish community objectives for Lake Superior, through the Great Lakes Fishery Commission (MI, MN, WI).
“...had a Fish and Wildlife Service representative for Lake Superior on the Lake Superior Technical Committee...”
- Contribute to interagency efforts to evaluate and define genetic characteristics of migratory Lake Superior brook trout and to restoration planning and workshops on these stocks (MI, MN, WI).
“...collected 70 genetic samples from Siskiwit Bay, Big and Little Siskiwit Rivers and Tobin Harbor on Isle Royale, plus 67 genetic samples from Whittlesey Creek following the guidelines for the Whittlesey Creek Restoration Plan - samples will be analyzed to determine strain and whether they are stocked or naturally reared fish...”
- Contribute to interagency efforts to evaluate and define genetic characteristics of lake sturgeon and to restoration planning and workshops on these stocks (MI, MN, WI).
“...participated in gathering genetic material from spawning lake sturgeon in accordance with the project *Development of a Management Plan for Lake Sturgeon within the Great Lakes Basin Based on Population Genetic Structure*; gathered genetic material in the Bad and White rivers in Wisconsin and the Batchawana and Chippewa rivers in Ontario, Canada, to identify the genetic make-up of populations and to determine if separate strains exist within the Great Lakes basins...”
- Participate in the development and use of Geographic Information Systems capability to support aquatic habitat conservation activities for Lake Superior, with initial focus on Whittlesey Creek NWR and Isle Royale National Park (MI, WI).
“...collected Geographic Information Systems spatial data for analysis and display of results for our work on Whittlesey Creek and Isle Royale National Park...”

– Carterville Fishery Resources Office will:

- Manage the Mississippi Interstate Cooperative Resource Association Paddlefish Coded Wire Tag Center to provide consolidated data used to develop interjurisdictional management plans (IL, IN, IA, MN, MO, OH, WI).
“...processed more than 10,000 reference tags from wild captured and hatchery-reared paddlefish, and more than 500 recovered tags from recaptured paddlefish - incorporated resultant data into the national database...”

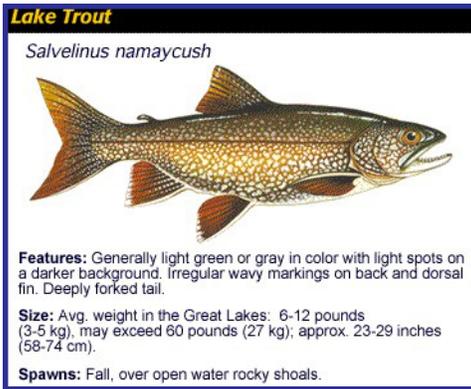
– Columbia Fishery Resources Office will:

- Manage and analyze data in the Mississippi Interstate Cooperative Resource Association Paddlefish Stock Assessment Database to help develop interjurisdictional management plans (IL, IN, IA, MN, MO, OH, WI).
“...served as the database manager for the Mississippi Interstate Cooperative Resource Association Paddlefish Stock Assessment database; made modifications to the database to allow for better transfer of paddlefish tagging information to cooperators - efforts will assist the member states in developing paddlefish management plans...”

– Green Bay Fishery Resources Office will:

- Provide technical assistance to the other Service's Great Lakes fisheries stations through the Great Lakes Fishery Analyst (IL, IN, MI, MN, NY, OH, PA, WI).
“...provided statistical advice on field sampling to the Ashland FRO on brook trout studies in Lake Superior; recommended statistical analysis package to Genoa NFH personal; provided technical assistance three times to state agencies; provided analytical lead on analysis of lake trout assessment data for Lake Michigan Lake Trout Task Group; served as Core Member of the Great Lakes Fishery Commission's Sea Lamprey Control Research Working group; made recommendations on over \$1.0 million dollars of research funding...”

Leadership in Science and Technology



-USFWS

Neosho NFH staff continue to refine culture techniques for endangered pallid sturgeon.



-USFWS

Pictured are lake trout eggs in an incubator. Two types of temperature recorders were tested during this project. Hatching of some lake trout eggs are delayed at the Pendills Creek NFH to help accommodate rehabilitation programs.

- Provide technical leadership by chairing the Lake Michigan Lake Trout Task Group and Lake Sturgeon Task Group (IL, IN, MI, WI).
 - “...led analysis of the survival of five strains of lake trout stocked by Fish and Wildlife Service hatcheries in Lake Michigan which led to the selection of three strains for future stocking; led the analysis and manuscript preparation of a study that compared the post-release survival of two sizes of lake trout in Lake Michigan; led the development of a draft of a new plan for restoring lake trout in Lake Michigan; served as Chair of the Lake Sturgeon Task Group, where the Service has worked with representatives from partner agencies to outline a rehabilitation plan for lake sturgeon in Lake Michigan, including drafting a guidelines document for genetic conservation, propagation, and stocking of lake sturgeon in Lake Michigan...”
 - Contribute to lake-wide assessment plans and fish community objectives for Lake Michigan, through the Great Lakes Fishery Commission (IL, IN, MI, WI).
 - “...worked with agency partners by conducting or assisting in assessment activities at five sites identified in the Lake-wide Assessment Plan for Lake Michigan; interacted with the Lake Michigan Committee and Lake Michigan Technical Committee on the implementation of the fish community goals, such as promoting the restoration of lake herring and investigating the role of mass marking trout and salmon to determine the extent of wild recruitment of Pacific salmon...”
 - Evaluate and define genetic characteristics of lake sturgeon and contribute to restoration planning and workshops on these stocks (IL, IN, MI, WI).
 - “...organized the collection of genetic samples from remnant spawning populations of lake sturgeon in Lake Michigan; partnered with Michigan State University to determine stock structure and genetic diversity in existing populations; worked with agency partners to incorporate results into a draft guidelines document for the genetic conservation, propagation, and stocking of lake sturgeon in Lake Michigan as part of a lake-wide rehabilitation plan...”
- **Iron River National Fish Hatchery will:**
- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (IL, IN, MI, MN, WI).
 - “... continued to refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible which included the installation of low head oxygenation equipment that has greatly enhanced the living environment of the cultured fishes...”
 - Develop methods to manipulate lake trout brood stock spawning cycles and incubation periods, by delaying

Leadership in Science and Technology

maturation and chilling eggs, to better meet production requirements (IL, IN, MI, NY, WI).

“...developed methods to manipulate lake trout brood stock spawning cycles through the use of extended photo period manipulations, and applied this technique to the entire Lewis Lake brood stock population at Saratoga National Fish Hatchery, Wyoming to delay the spawning of that strain to better meet production requirements...”

– **Jordan River National Fish Hatchery will:**

- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (MN, IL, IN, MI, WI).

“...refined oxygen management, fish loading, feeding regimen, and Goede’s Fish Health Parameters to produce the highest quality lake trout possible; developed plans with the Division of Engineering to replace 48 outside raceways to increase fish propagation; inspected Five Tile water supply piping system to ensure adequate supply of water for fish culture...”

- Prepare a comprehensive lake trout rehabilitation plan for the Service’s Great Lakes operations covering all aspects of propagation and stocking (IL, IN, MI, WI).

“...due in FY05...”

– **Neosho National Fish Hatchery will:**

- Continue to refine density requirements for pallid sturgeon (MO, KS, IA, NE).

“...continued to refine density requirements for pallid sturgeon throughout the fiscal year with heated water as well as recirculated water used throughout the process...”

– **Pendills Creek National Fish Hatchery will:**

- Refine fish culture and husbandry techniques in order to produce the highest quality lake trout possible (IL, IN, MI, WI).

“...working on diet trials to improve early life stage rearing...”

– **Pendills Creek and Sullivan Creek National Fish Hatcheries will:**

- Develop methods to manipulate lake trout brood stock spawning cycles and incubation periods, by delaying maturation and chilling eggs, to better meet production requirements (IL, IN, MI, NY, WI).

“...development of manipulation capabilities for lake trout brood stock spawning cycles remain unfunded as a Fishery Operational Needs item; have limited egg chilling capability with the system being poorly designed and very costly to maintain and operate - only conducted egg chilling for a small number of Klondike strain lake trout eggs shipped to Allegheny NFH...”

– **La Crosse Fish Health Center will:**

- Provide fish health services to states, tribes, and private aquaculturists during any fish health emergency (IL, IN, IA, OH, MI, MN, MO, WI).

“...experienced no emergencies...”

- Maintain a modern, operational laboratory able to conduct highly technical laboratory procedures (IL, IN, IA, OH, MI, MN, MO, WI).

“...maintained the laboratory standards to conduct highly technical laboratory procedures...”

Our Objective Develop and share state-of-the-art, scientifically sound, legally defensible scientific and technologic tools with other Service programs, States, Tribes, partners, and other stakeholders.

Our Commitment

– **Regional Office will:**

- Work with partners through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund state-of-the-art science to enhance conservation of Great Lakes fishery resources (IL, IN, MI, MN, NY, OH, PA, WI).

“...the following Restoration Act funded projects were in progress from previous funding years or received initial year of funding during FY04: Use of unmanned submersibles to study lake trout spawning on the Lake Michigan mid-lake reef- University of Wisconsin- Milwaukee; Evaluations of pilot-scale venturi oxygen stripping to prevent ballast water invasions-

Leadership in Science and Technology



-USFWS

Technicians from Northwest Marine Technology describe the clipping and tagging trailer which was tested at the Iron River NFH for mass marking lake trout.



-USFWS

Green Bay FRO and Wisconsin DNR biologists work cooperatively to enhance yellow perch stock assessment capabilities.



-USFWS

The winged mapleleaf is a federally endangered mussel. In 2004, La Crosse FRO, working with U.S. Geological Survey and others, identified the host fish. In 2005, Genoa NFH will begin efforts to culture this species.

University of Maryland Center for Environmental Science; Otolith microchemistry for percid production in Lake Erie-Great Lakes Fishery Commission; A geographic information system (GIS) for Great Lakes aquatic habitat-University of Michigan- Ann Arbor; Comparative bioenergetic modeling of lake whitefish populations in Lake Erie and Lake Ontario- Great Lakes Fishery Commission..."

- Work with other Service Programs to identify research priorities for U.S. Geological Survey under the Science Support Program.
 - “...worked with other programs to rank proposals submitted by the U.S. Geological Survey scientists to the Science Support Program; the list of regional research project priorities was approved by the Regional Director, and then sent to the Washington Office Science Coordinator...”
- Work with partners and stakeholders to establish an Aquatic Resource Technology Center, enhancing science capabilities in the Region.
 - “...made limited progress on this commitment- approached many agencies and organizations that provided support for the concept, and we continue to push forward...”
- **Alpena Fishery Resources Office will:**
 - Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Huron (MI).
 - “...monitored the mass marking demonstration at the Platte State Fish Hatchery to evaluate its potential use for the lake trout program, and provided input to the Evaluation Team...”
- **Ashland Fishery Resources Office will:**
 - Develop and transfer expertise in state-of-the-art techniques in riparian and hydrology restoration and analysis for fish habitat (MI, MN, WI).
 - “...hosted a training program to help township, county, and agency personnel design and construct fish and habitat friendly road crossings in the Bad River watershed; hosted the 2004 Wisconsin Private Lands Technical Session which is a meeting of the Private Lands staff to discuss local riparian and hydrology practices; developed a position description for fluvial geomorphologist capability...”
- **Columbia Fishery Resources Office will:**
 - Work with the U.S. Geological Survey to determine the highest priority needs for research on the Missouri River, specifically related to endangered pallid sturgeon (IA, MO).
 - “...coordinated with the U.S. Geological Survey to capture adult pallid sturgeon for telemetry tracking in the Missouri River; evaluated the spatial distribution of hatchery stocked pallid sturgeon with results indicating that

Leadership in Science and Technology

stocked fish were likely to move upstream, occupy similar habitats as adult pallid sturgeon, and stocking is making a contribution to reestablish the species..."

- Develop large river trawling technology and techniques for application on the Missouri River (IA, MO).

"...developed and tested new trawl types required to evaluate sturgeon and benthic fishes in the Missouri River using ever-evolving technology, and enlisted the expertise of professional trawl manufacturers to achieve the best fit for the specific environmental conditions found in the Missouri River..."

- Provide support to the U.S. Geological Survey pallid sturgeon telemetry project for determining the life history and habitat use in the Lower Missouri River (IA, KS, MO, NE).

"...tracked pallid sturgeon using telemetry technology in cooperation with the U.S. Geological Survey (USGS) resulting in a better understanding of the habitat requirements and preference of pallid sturgeon in the Lower Missouri River; two pallid sturgeon and twelve shovelnose sturgeon were captured and implanted with telemetry sending units by the USGS - the FRO recaptured pallid and shovelnose sturgeon to retrieve old telemetry tags..."

– Green Bay Fishery Resources Office will:

- Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

"...actively served on the Mass Marking Task Force, Great Lakes Fishery Commission, by working with hatchery personnel and the principal vendor to demonstrate the technology to state and tribal partners at Iron River NFH, and developing a progress report to the Council of Lake Committees/Great Lakes Fishery Commission on cost and feasibility of bringing this technology to the Great Lakes..."

- Work cooperatively with the Wisconsin DNR to develop population models for lake whitefish and yellow perch in Lake Michigan and lake trout in Lake Superior (WI).

"...worked cooperatively with the Wisconsin DNR to develop Statistical Catch at Age models for the Green Bay yellow perch fishery and the Lake Michigan lake whitefish fishery; worked with DNR staff to evaluate and refine the Lake Superior lake trout model; held two workshops and met individually with DNR staff to provide training on the application of assessment models and to discuss the results of the modeling analysis; developed software to assist with the diagnostics and evaluation of the fisheries models..."

- Provide technical leadership in the design, construction and operation of a new offshore stocking and lake trout assessment vessel, the Spencer F. Baird, to enhance lake trout restoration in Lake Huron and Lake Michigan (IL, IN, MI, WI).

"...provided input on stock assessment equipment needs for the new vessel, M/V Spencer F. Baird, and participated in a selection process for awarding the construction contract - continued to provide technical input on all matters related to the science mission during construction and outfitting..."

– La Crosse Fishery Resources Office will:

- Work with the U.S. Geological Survey to identify the fish host species for the endangered winged mapleleaf mussel (MN, WI). **(FY04 only)**

"...collaborated with the U.S. Geological Survey and identified blue catfish and channel catfish as the fish hosts for the endangered winged mapleleaf mussel; determined the early life history thermal requisites at no additional cost to the Fish and Wildlife Service..."

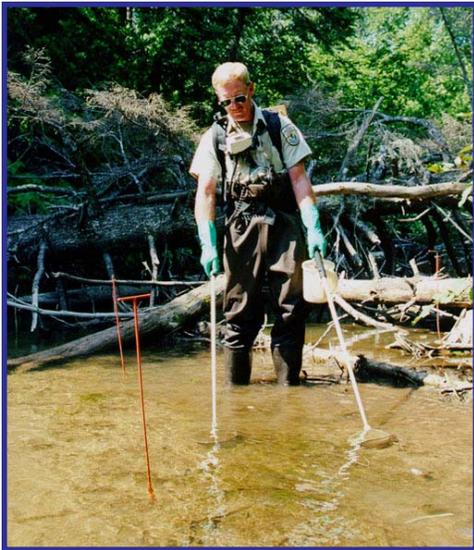
- Work with the U.S. Geological Survey to develop laboratory methods to define life history characteristics and for propagating the endangered winged mapleleaf mussel (MN, WI). **(new project in FY05)**

"...this is a new project for FY05..."

– Ludington and Marquette Biological Stations will:

- Analyze and implement results of the larval assessment and sterile male release technique peer reviews as part of sea lamprey control operations (IL, IN, MI, MN, NY, OH, PA, WI).

Leadership in Science and Technology



-GLFC

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



-USFWS

Steve Redman monitors water quality for an experimental hydrogen peroxide egg treatment at the Iron River NFH. Staff are looking at hydrogen peroxide as a replacement for formalin to treat fungus on lake trout eggs.



Spencer F. Baird

Construction will be completed in 2005 for the new Great Lakes fish stocking and hatchery product evaluation vessel, M/V Spencer F. Baird.

“...implementation and evaluation of the sterile-male-release technique is proceeding in a highly effective and efficient manner as noted by the expert panel review - compelling evidence is apparent that the technique has reduced recruitment of sea lampreys in the St. Marys River, and that it is a vital part of the integrated control strategy; participating in additional efforts recommended by the panel including understanding recruitment variation, enhancements to trapping sea lampreys, and investigation of the potential of using females for sterilization; published a research theme paper to promote a collaborative link with outside researchers to further understand the technique...”

- Participate in the development of experimental pheromone release technique as an alternative sea lamprey control measure (IL, IN, MI, MN, NY, OH, PA, WI).

“...has been an integral partner and leader in field evaluation of sea lamprey pheromones with field trials during 2004 demonstrating a strong tendency for migrating sea lampreys to enter a tributary and traps that are treated with larval extract vs. a tributary and traps that were not treated - ovulating females were more attracted to traps baited with more spermiating males than traps baited with fewer spermiating males when given equal opportunity to enter all traps arranged across in a stream; remains an integral partner in field trials funded for the next two years; published a research theme paper to promote a collaborative link with outside researchers to further understand sea lamprey pheromones...”

- Genoa National Fish Hatchery will:

- Conduct practical research in cooperation with U.S. Geological Survey on topical disinfection of cool and warm water species of eggs to prevent spread of fish diseases (IL, IN, IA, MN, MO, OH, WI).

“...was unfunded by the U.S. Geological Survey in FY04; conducted informal trials at the station that indicated that topical disinfection techniques for walleye/pike are not toxic to eggs, and will be developing topical disinfection procedures for river spawning operations...”
- Culture largemouth bass, northern pike, rainbow trout, smallmouth bass, walleye, and yellow perch for U.S. Geological Survey and university research (WI).

“...provided 100 perch brood stock, 240 rainbow trout, 234,825 fathead minnows, 269,200 walleye eggs to the U.S. Geological Survey; provided 100 lake sturgeon to Purdue University; provided 200 smallmouth bass to Bowling Green State University...”
- Investigate the effects of fish therapeutants on mussel glochidia infested on fish gills in cooperation with U.S. Geological Survey (IL, IN, IA, MN, MO, OH, WI).

Leadership in Science and Technology

“...completed the first year of a two year study to investigate the effects of fish therapeutants on mussel larva (glochidia) by supplying expertise and labor to enumerate and evaluate effects of chemicals on the successful transformation of juvenile mussels...”

– Iron River National Fish Hatchery will:

- Complete and publish results of a study on the use of peroxide to control pathogens on lake trout eggs (IL, IN, MI, WI).

“...has completed and published results of a study entitled *Efficacy of Hydrogen Peroxide and Formalin to Control Saprolegniasis on Lake Trout (Salvelinus Namaycush) Eggs...*”

- Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

“...hosted multi-agency tours of the Mass Marking Trailer at Iron River NFH; assessed this technology for use in conducting studies of hatchery lake trout life history in lakes Michigan and Huron...”

– Jordan River National Fish Hatchery will:

- Provide technical leadership in the design, construction and operation of a new offshore stocking and lake trout assessment vessel, the Spencer F. Baird, to enhance lake trout restoration in Lake Huron and Lake Michigan (IL, IN, MI, WI).

“...provided technical leadership in the design, construction, and operation of a new offshore stocking and lake trout assessment vessel, the Spencer F. Baird, to enhance lake trout rehabilitation in lakes Huron and Michigan; the vessel is currently under construction at Conrad Industries, Morgan City, Louisiana...”

- Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

“...traveled to the Platte River State Fish Hatchery and Iron River NFH to view the mass marking demonstration trailer for use in the Great Lakes; provided comments on the study...”

– Neosho National Fish Hatchery will:

- Experiment with live and dry diets for pallid sturgeon culture as part of the Pallid Sturgeon Recovery effort (MO, KS, IA, NE).

“...continued to experiment with live and dry diets for pallid sturgeon culture as part of the Pallid Sturgeon Recovery effort - used bloodworms with great success, and de-capsulated brine shrimp will be used for hatched out fry in the future...”

– Pendills Creek National Fish Hatchery will:

- Investigate the use of mass marking technology for use in conducting studies of hatchery lake trout life history in Lake Michigan and Lake Huron (IL, IN, MI, WI).

“...continued hatchery membership in the Mass Marking Task Group by evaluating mass marking technology, making recommendations, and analyzing the potential use for enhanced lake trout stocking evaluation capabilities...”

– La Crosse Fish Health Center will:

- Assist Bozeman, Montana Fish Health Center and National Conservation Training Center to help teach the fish health management short course.

“...did not assist with teaching, as directed...”

- Work with research labs to field test new procedures and techniques (IL, IN, IA, OH, MI, MN, MO, WI).

“...worked with the U.S. Geological Survey in cooperative studies such as a bacterial project studying *Columnaris*...”

- Continue to refine the Service’s Fish Health Policies and Guidelines (IL, IN, IA, OH, MI, MN, MO, WI).

“...addressed the Service’s Fish Health Policies, Implementation guidelines, and new laboratory procedures as a team member on several committees; serves as the Investigational New Animal Drug coordinator for Region 3...”

National Fish Habitat Initiative: A Start to a Solution

The National Fish Habitat Initiative (Initiative) is a nationwide strategy that harnesses the energies, expertise and existing partnerships of state and federal agencies and conservation organizations to focus national attention and resources on common priorities to improve aquatic habitat health.

In response to recommendations from the Sport Fishing and Boating Partnership Council, the Fisheries Program recognized Aquatic Habitat Conservation and Management as one of seven focus areas for the program. The Fisheries Program also committed to work with Federal, State, Tribal and other partners and stakeholders to explore the benefits of a National Aquatic Habitat Plan and determine the appropriate Service role. On September 13, 2003, the International Association of Fish and Wildlife Agencies endorsed the concept and indicated they would take the lead in developing a comprehensive national fisheries habitat plan/strategy and initiate coordination with other existing fisheries habitat activities.

Fisheries leaders met at five locations throughout the U.S. between May and August 2004 to develop strategies and goals for the Initiative. Recommendations from these meetings include fostering geographically-focused, locally-driven, scientifically-based partnerships to protect, restore and enhance the aquatic habitats across the nation. The Initiative is often compared to the highly successful North American Waterfowl Management Plan. The Waterfowl Plan was implemented in the 1980s to forge partnerships for restoration or protection of millions of acres of wetland breeding areas for waterfowl.

December 2003 Midwest Meeting, Kansas City, Missouri: The kick-off meeting for the Initiative focused on the Midwest region and covered the Initiative's relationship to a number of multi-state organizations including the Mississippi Interstate Cooperative Resource Association, Great Lakes Fishery Commission and Southeast Aquatic Resources Partnership.

To date, the Service's Fish Passage Program has supported 76 fish passage projects with over 141 different partners, restored access to 3,443 river/stream miles and 65,088 acres of habitat.

Table 1. Current Fish Passage projects funded in Region 3 through FY2004.

State	Project Title	Project Type	Year Funded	Lead FRO
IA	Stream Stabilization MO River Watershed	Grade control structures	2003	Columbia
MI	Northern-Lower MI Watershed	Culvert renovation	2003	Alpena
MN	Ottertail Dam Removal	Dam removal	2003	La Crosse
MO	Water Control Structure (Ditch 5)	Refuge water control structure modification	2003	Cartersville
MO	Water Control Structure (Ditch 3)	Refugewater control structure modification	2003	Cartersville
OH	Two Ohio Streams Culvert	Culvert renovation	2003	Alpena
WI	Bark River Culvert	Culvert renovation	2003	Ashland
WI	Bad River Watershed Fish Passage	Culvert renovation	2003	Ashland
MN	Heiberg Dam	Notch dam, and rock ramp	2004	La Crosse
IL	Big Rock Creek	Rock ramp below dam	2004	Cartersville
MO	Mingo National Wildlife Refuge	Refugewater control structure modification	2004	Cartersville
MO	Hickory Road crossing	Low water crossing	2004	Columbia
WI	Vaughan Creek culvert	Culvert renovation	2004	Ashland
WI	Pike River Dam removal	Dam removal	2004	Green Bay
MI	Lower Michigan Watersheds - culverts	Culvert renovation	2004	Alpena
MI	Carp River culverts	Culvert renovation	2004	Green Bay
IA	Shellrock River Dam removal	Dam removal	2004	La Crosse

Aquatic resources in the United States are in decline, and habitat destruction is a principal culprit. Habitat alteration is a contributing factor to 75 percent of all fish extinctions during the past 75 years and 91 percent of fish listings under the Endangered Species Act.

Aquatic Habitat Conservation and Management

Our Goal: America's streams, lakes, estuaries, and wetlands are functional ecosystems that support self-sustaining communities of fish and other aquatic resources.

Our primary focus is on collaborating with partners to conserve and restore habitats for sturgeon, trout, darters, and other native fish species.

Our Objective Facilitate management of aquatic habitats on national and regional scales by working with States, Tribes, partners and other stakeholders.

Our Commitment

– Regional Office will:

- Work with partners and stakeholders through the Great Lakes Fish and Wildlife Restoration Act Proposal Review Committee to identify and fund aquatic habitat enhancement proposals (IL, IN, MI, MN, NY, OH, PA, WI).

“...the following Restoration Act funded projects were in progress from previous funding years or received initial year of funding during FY04: Huron-Erie corridor system habitat assessment- changing water levels and effects of global climate change- Ohio State University; A geographic information system (GIS) for Great Lakes aquatic habitat- University of Michigan- Ann Arbor; Mapping of habitat in tributary and nearshore waters of Lake Superior to facilitate development of quantifiable fish community objectives and lake sturgeon rehabilitation- Bad River Band of Lake Superior Tribe of Chippewa Indians; Effects of barriers and fragmentation on riverine fish population ecology and genetics- Great Lakes Fishery Commission; Status of a refuge for native freshwater mussels from impacts of the exotic zebra mussel in the delta area of Lake St. Clair- Great Lakes Fishery Commission...”

- Work with partners and stakeholders to support and develop the National Fisheries Habitat Initiative (IL, IN, IA, MI, MN, MO, OH, WI).

“...co-hosted the first regional stakeholder meeting on December 9, 2003 in Kansas City, Missouri, with the Mississippi Interstate Cooperative Resource Association and Bass Pro to discuss the National Fish Habitat Initiative; participated in the American Fisheries Society's “Healthy Fish Habitats Work Group Forum” science workshop held on August 22, 2004 in Madison, Wisconsin...”

- Work with partners and stakeholders to develop watershed-scale Fish Passage Program Initiatives (IL, IN, IA, MI, MN, MO, OH, WI).



This culvert on Hardwood Creek in Michigan was too small and dark to allow fish to pass under this road (upper). The culvert was replaced with a new structure (below) using funds from partners and the Fish Passage Program.



-USFWS photos



-USFWS

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

Aquatic Habitat Conservation and Management



-USFWS

This is one of two wetland restorations completed in Ogemaw County, Michigan. The projects restored 10 acres of aquatic habitat on private land. Funding was obtained through the Partners for Fish and Wildlife program.



-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

This is sandbar habitat at the Cranberry Bend unit of the Big Muddy National Fish and Wildlife Refuge on the Missouri River. Columbia FRO staff monitor fish use of restored and newly created aquatic habitat.

“...completed three Fish Passage program projects removing a total of three barriers and restoring 35 miles of stream for native fish; continued or initiated 14 Fish Passage program projects toward removing a total of 21 barriers and restoring 320 miles of stream for native fish...”

– Alpena Fishery Resources Office will:

- Develop a systematic aquatic habitat information and evaluation approach for use in prioritizing habitat restoration activities in the Lake Huron and Lake Erie watersheds, in coordination with the Michigan and Ohio DNRs and other partners (MI, OH).

“...coordinated the scheduling of a meeting with Michigan DNR personnel to discuss the Service’s Fish Passage, Coastal, and Partners for Fish and Wildlife programs to ensure DNR input on project prioritization with a similar meeting scheduled with Ohio in 2005...”

- Work with partners to propose, implement, and monitor results of habitat restoration projects through the Service’s Partners for Fish and Wildlife Program, Fish Passage Program and Coastal Program in northern Michigan (MI).

“...have not developed an in depth monitoring program to evaluate the efficacy of program projects - lack funding to do comprehensive follow-ups...”

- Lead the Service’s implementation of the Partners for Fish and Wildlife Program habitat restoration projects in counties of Michigan’s northern Lower Peninsula (MI).

“...coordinated for delivery of wetland restoration projects at 18 sites totaling 368 acres; coordinated 10 riparian projects improving habitat for 40 stream miles; serves as coordinator of Partners program for 23 Northern Michigan counties...”

- Work with the Michigan and Ohio DNRs and U.S. Geological Survey to identify and describe juvenile rearing and adult spawning habitat for lake sturgeon in the Saginaw River, St. Clair River and Maumee River (MI, OH).

“...completed a juvenile lake sturgeon project funded by the National Fish & Wildlife Foundation in the St. Clair River which included sonic tagging and tracking of juvenile fish to locate critical juvenile habitat in the system; conducted the project in partnership with Michigan DNR and U.S. Geological Survey...”

– Ashland Fishery Resources Office will:

- Develop a systematic aquatic habitat information and evaluation approach for use in prioritizing habitat restoration activities in the Lake Superior watershed, in coordination with the Michigan, Minnesota and Wisconsin DNRs and other partners (MI, MN, WI).

“...developed a worksheet for numerically ranking grant proposals under the Great Lakes Coastal program...”

Aquatic Habitat Conservation and Management

- Work with partners to develop, prioritize and monitor habitat improvement projects through the Service's Partners for Fish and Wildlife Program, Great Lakes Coastal Program, and Fish Passage Program, and the U.S. Environmental Protection Agency's Binational Program and Superior Coastal Initiative under the North American Wetlands Conservation Act (MI, MN, WI).

"...contributed to the restoration or enhancement of 41 acres of wetlands, over four miles of stream, and 316 upland acres through the Partners for Fish and Wildlife program; funded 14 projects totaling \$166,000, which contributed to restoration/enhancement of 205 acres of coastal habitat, seven miles of stream and riparian habitat and one fish passage barrier project that opened 25 miles of stream through the Great Lakes Coastal program; funded one training course on the design of "Fish Friendly Road Crossings" and designing an Internet web page regarding the Planning, Design, and Construction of Fish Friendly Stream Crossings through a \$10,000 grant from the Great Lakes National Program Office; continued to work with the Lake Superior Binational Program, serving on the Lake Superior Work Group, as U.S. Co-Chair of the Aquatics Community Committee, and member of the Terrestrial Wildlife Community Committee..."

- Work with the appropriate agencies and organizations to help with the restoration of the Bad River Watershed and the five priority Bayfield Peninsula streams; Whittlesey Creek, Sioux River, Raspberry River, Bark River, and Cranberry River (WI).

"...hosted a training program to help township, county, and agency personnel design and construct fish and habitat friendly road crossings in the Bad River watershed; developed a grant application that will fund the replacement of three problem culverts; completed the second year of a three year study to assess sora, Virginia, and yellow rail populations in the wild rice dominated wetlands of the Kakagon/Bad River wetland complex; conducted electrofishing and fyke-netting operations on the Bayfield Peninsula (Sand, Little Sand, Raspberry, Buffalo, and Red Cliff Bays); electrofished around Oak and Basswood Islands in an attempt to determine the presence of coaster brook trout with assistance from the Wisconsin DNR, National Park Service, Trout Unlimited, and the Red Cliff Tribe..."

- Co-lead the Service's implementation of Coastal Program supported aquatic habitat conservation and restoration activities in the upper Great Lakes with East Lansing Field Office (IL, IN, MI, MN, WI).

"...funded 14 projects totaling \$166,000, which contributed to restoration/enhancement of 205 acres of coastal habitat, seven miles of stream and riparian habitat and one fish passage barrier project that opened 25 miles of stream through the Great Lakes Coastal program (with East Lansing Field Office)..."

- Carterville Fishery Resources Office will:

- Evaluate pallid and shovelnose sturgeon habitat use on the Middle Mississippi River NWR to develop habitat restoration plans (IL, MO).

"...intensively sampled for spawning adults, eggs, and larval sturgeon (only shovelnose sturgeon were collected) on the Middle Mississippi River NWR to determine habitat utilization, evaluated sturgeon utilization of dike fields in the Middle Mississippi River, and identified potential spawning locations..."

- Provide technical assistance on habitat restoration projects with State and Federal partners within the U.S. Army Corps of Engineers – St. Louis District (IL, MO).

"...participated on the River Resources Action Team which evaluates habitat projects within the U.S. Army Corps of Engineers – St. Louis District as well as habitat projects within the Upper Mississippi River Environmental Management Program..."

- Serve on interagency teams to develop, prioritize and monitor habitat improvement projects as part of the Upper Mississippi River Environmental Management Program (IL, MO).

"...worked with the River Resources Action Team and others on the Swan Lake Habitat Restoration and Enhancement Program project to discuss and prioritize monitoring needs, develop scopes of work, and begin monitoring..."

Aquatic Habitat Conservation and Management



-USFWS

Plano Dam is one of two dams on the Big Rock Creek that blocks 69 miles of river habitat. Funding was secured from the State of Illinois and through the Fish Passage program. A design is being developed.



-USFWS

The La Crosse FRO worked with the Vernon County Land Conservation Office, Trout Unlimited, and private landowners to restore fish habitat in 8.3 miles of stream in Vernon County, Wisconsin. Partners contributed \$375,000 to match \$25,000 funded through the Department of the Interior's Cooperative Conservation Initiative Program.



-USFWS

Ashland FRO coordinated the Griffin Wetland project that restored two wetland acres and has a positive impact on wildlife in the surrounding 80 acres. This Iron River watershed project was funded through the Partners for Fish and Wildlife program and benefits the American black duck, American woodcock, and gray wolf.

- Columbia Fishery Resources Office will:

- Coordinate and evaluate Missouri River habitat projects with U.S. Army Corps of Engineers, DeSoto NWR, Big Muddy NF&WR, and basin states (IA, KS, MO, NE).
“...served as a member of the team that was assigned to evaluate Missouri River habitat projects conducted by the U.S. Army Corps of Engineers; worked with both the Big Muddy NF&WR and the DeSoto NWR to coordinate and evaluate their habitat projects on the Missouri River...”
- Provide technical assistance for Missouri River habitat projects as part of the Missouri River Mitigation Project Team (IA, KS, MO, NE).
“...served on the Fisheries Technical Team for the Missouri River Mitigation Project by working with the Columbia Ecological Services office, U.S. Army Corps of Engineers, and state fish and game agencies to establish a monitoring program to evaluate native fish communities in restored and constructed chutes and their associated backwater habitats on the Lower Missouri River - monitoring and evaluation will enable the Mitigation Project Team to determine whether the mitigation sites are performing as expected...”
- Monitor and assess fish communities in portions of the Missouri River to determine fish response to habitat modifications (MO).
“...evaluated changes in the native fish community within Lisbon chute that resulted from the construction of a control structure near the inlet of the side channel (Lisbon chute is part of Lisbon Bottoms, a unit managed by the Big Muddy NWR)...”

- Green Bay Fishery Resources Office will:

- Work with the Illinois, Indiana, Michigan and Wisconsin DNRs to develop a systematic approach to evaluating and prioritizing aquatic habitat restoration activities in the Lake Michigan watershed (IL, IN, MI, WI).
“...secured funding and then contracted with Purdue University to assist in conducting a study to quantify habitat (both above and below existing barriers) that would be suitable for all life stages of lake sturgeon and use the data to develop a decision tool to aid managers in prioritizing habitat rehabilitation efforts and selecting priority waters for sturgeon rehabilitation efforts...”
- Propose, implement and monitor the results of aquatic habitat improvement projects in the Lake Michigan watershed through the Service's Partners for Fish and Wildlife Program, Fish Passage Program and Coastal Program, working with the Illinois, Indiana, Michigan and Wisconsin DNRs and other partners (IL, IN, MI, WI).
“...worked cooperatively with the Michigan DNR to develop a ranking criteria for habitat restoration projects for Michigan projects within the Lake Michigan basin -

Aquatic Habitat Conservation and Management

working to develop a similar systematic approach with the Wisconsin DNR; worked to develop a Great Lakes basin wide database for field use that monitors aquatic habitat restoration projects completed by Great Lakes FRO's and funded through the Fish and Wildlife Service's Partners for Fish and Wildlife, Fish Passage, Fish Habitat Restoration, and Coastal programs; developed a presentation for local, state, and other federal agencies to provide information relating to federal assistance programs that can be used to fund projects that conserve native species and their habitats..."

- La Crosse Fishery Resources Office will:

- Participate in planning ecosystem restoration projects implemented as part of the U.S. Army Corps of Engineers' Upper Mississippi River-Illinois Waterway System Navigation Study (IL, IA, MN, WI).
"...participated in planning efforts for ecosystem restoration projects as part of the U.S. Army Corps of Engineers' Upper Mississippi River-Illinois Waterway System Navigation Study..."
- Serve on interagency teams to develop, prioritize and monitor habitat improvement projects as constructed as part of the Upper Mississippi River Environmental Management Program (IL, IA, MN, WI).
"...served on the Fish and Wildlife Work Group and Fish and Wildlife Interagency Committee teams to develop and prioritize habitat improvement projects for the Environmental Management Program..."
- Participate in planning and evaluation of fish passage improvements at Locks and Dam as part of the Upper Mississippi River Navigation Project (IL, IA, MN, WI).
"...participated in the Fish and Wildlife Work Group to evaluate fish passage on the Upper Mississippi River..."
- Work with the appropriate agencies and organizations to help with the restoration of the Red River Watershed (MN).
"...worked with the City of Crookston, Minnesota DNR, Federal Emergency Management Agency, White Earth Band, and Wildrice Watershed District on fish passage projects in the Red River Basin and initiated the development of an Environmental Assessment for fish passage in the basin..."

- Iron River NFH will:

- Monitor the status of Schacte Creek and Middle Creek watersheds and take action as needed, in coordination with the Wisconsin DNR, to conserve aquatic habitat quality (WI).
"...continued to monitor the status of Schacte Creek and Middle Creek watersheds through extensive hatchery effluent sampling in coordination with the Wisconsin DNR, to conserve aquatic habitat quality..."

- Jordan River NFH will:

- Work with the Friends of the Jordan River and Michigan DNR to monitor the status of the Jordan River watershed and take action as needed to conserve aquatic habitat quality (MI).
"...attended the Friends of the Jordan River monthly board meetings and met with Michigan DNR Gaylord Office personnel to discuss the status of the Jordan River watershed to conserve aquatic habitat quality in Michigan..."

- Pendills Creek and Sullivan Creek NFHs will:

- Work with the U.S. Forest Service, Michigan Department of Environmental Quality and Michigan DNR to monitor the status of the Videans Creek, Pendills Creek and Sullivan Creek watersheds and take action as needed to conserve aquatic habitat quality (MI).
"...continued to work with all area partners ensuring the continued support, safety, and conservation of all hatchery water supplies; worked diligently with Michigan Department of Environmental Quality to maintain all water discharge requirements..."

Aquatic Habitat Conservation and Management



-USFWS

Thunder Bay Power near Alpena, Michigan has a working committee that assists with meeting Federal Energy Regulatory Commission license requirements. Alpena FRO staff represent the Fish and Wildlife Service on the committee and provided guidance for fish passage and other aquatic issues.



-photo by Duane Raver/USFWS

Alligator Gar

Carterville FRO worked with the Mingo NWR, using funds from the Fish Passage Program, to develop water control structures that are friendly to alligator gar movements. Partners in this project hope to restore alligator gar on this Refuge.



-USFWS

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

Our Objective Develop and expand the use of Program expertise to assist in avoiding, minimizing, or mitigating impacts of habitat alteration on aquatic species and monitor and evaluate completed projects.

Our Commitment

- Alpena Fishery Resources Office will:

- Provide technical assistance to Thunder Bay Power and Michigan DNR to achieve compliance with Federal Energy Regulatory Commission license on the Thunder Bay River (MI).

“...participated in three Work Group meetings to ensure compliance with Articles of License agreement...”

- Provide technical assistance to the Saginaw Bay Natural Resource Damage Assessment for restoration planning and implement aquatic habitat rehabilitation projects (MI).

“...had very little participation in Natural Resource Damage Assessment activities at this phase in the program in 2004, but staff receives and reviews minutes from a wetland restoration group that is working at a specific site in Saginaw Bay...”

- Provide technical support to the East Lansing Field Office and the Reynoldsburg Field Office in reviewing permits, licenses, federal projects and other actions proposed for the Lake Huron and Lake Erie basins (MI, OH).

“...reviewed and made comments on a Draft Management Plan for the listed Hungerford’s Crawling Water Beetle, with dialogue between the East Lansing Ecological Services office improving through frequent phone conversations on issues specific to the Lake Huron basin with fisheries interests...”

- Ashland Fishery Resources Office will:

- Provide technical support to the East Lansing Field Office and the Twin Cities Field Office in reviewing permits, licenses, federal projects and other actions proposed for the Lake Superior Basin (MI, MN, WI).

“...provided comments on project proposals and attended meetings to support Ecological Services offices in Michigan, Minnesota, and Wisconsin including the following: Michigan - mining, delisting grey wolf, fish passage; Minnesota - St. Louis River restoration planning, fish passage; Wisconsin - Chequamegon Bay Super Fund Site, piping plover surveys, grey wolf delisting hearings, and project reviews...”

- Carterville Fishery Resources Office will:

- Work with the Service’s Ecological Services and National Wildlife Refuge Programs to monitor and evaluate aquatic habitat restoration efforts in the Illinois, Mississippi and Ohio Rivers associated with U.S. Army Corps of Engineers activities (IL, IN, MO, OH).

Aquatic Habitat Conservation and Management

“...conducted fishery surveys on Two Rivers NWR to assess the recolonization of Swan Lake (Swan Lake was once a popular fishing location but declined due to sedimentation and was subsequently the site of an Environmental Management Program Habitat Restoration and Enhancement Project)...”

- Provide technical assistance to the Illinois DNR with ramping projects to restore fish passage at two dams on Big Rock Creek (IL).

“...secured funding, agreements, and environmental clearances for two fish passage projects on Big Rock Creek (dams are scheduled to be “ramped” (rocks piled below the dam to provide a gradual slope up to the dam) by December 2004)...”

- Carterville FRO “...completed the third year of a three year project to determine the effects of dredge spoil on aquatic habitat and fish communities of the Mississippi River finishing sample collection and drafting a final report and manuscript (IL, MO)...”

– Columbia Fishery Resources Office will:

- Work with the Service’s Ecological Services and National Wildlife Refuge Programs to monitor and evaluate aquatic habitat restoration efforts in the Illinois, Mississippi and Ohio Rivers associated with U.S. Army Corps of Engineers activities (IL, IN, IA, MN, MO, OH, WI).

“...assessed fish community response in an engineered side channel (Overton chute that was constructed by the Corps of Engineers in 2000 and redesigned in 2002, and managed by the Big Muddy NWR), and examined seasonal habitat use of the side channel in relation to habitat use of the adjacent navigation channel; monitored changes in the fish community and habitat use in Lisbon chute (a naturally created side channel modified by the Corps of Engineers to maintain the integrity of the navigation channel, and managed by the Big Muddy NWR) in light of recent modifications made to improve aquatic habitat within the side channel...”

- Implement aquatic habitat restoration projects for Niangua darters in the Osage River watershed in Missouri and for Topeka shiners in Western Iowa (IA, MO).

“...partnered with the Missouri Department of Conservation, Dallas County Commission, Missouri Natural Heritage Foundation, Federal Emergency Management Agency, Missouri State Emergency Management Agency, Great Rivers Engineering, and the U.S. Army Corps of Engineers to construct an open-span low water crossing over Thomas Creek, located in Southern Missouri, to allow Niangua darters and other aquatic species to pass freely and opened two miles of stream to Niangua darter habitation...”

– Green Bay Fishery Resources Office will:

- Provide technical assistance to the Lower Green Bay/Fox River Natural Resource Damage Assessment for restoration planning and implement aquatic habitat rehabilitation projects (WI).

“...assisted the Fish and Wildlife Service’s Natural Resource Damage Assessment coordinator with development of criteria to evaluate proposals for fish restoration projects and coordinated a meeting with the Wisconsin DNR to review new fish restoration project ideas...”

- Monitor the effectiveness of the fish barrier net at the Ludington Pumped Storage Hydroelectric plant and determine the annual fish damages as mitigation for the operation of the plant (MI).

“...worked with the Michigan DNR, tribal biologists, and a researcher from Michigan State University to adjust the methodology to assess the damages as a result of the operation of the Ludington Pumped Storage Hydroelectric plant, and served on a net monitoring team to review the effectiveness of the barrier net operated six months out of the year...”

- Propose and implement aquatic habitat rehabilitation projects through the Great Lakes Fishery Trust (MI).

“...worked with the Scientific Advisory Team to develop funding categories and criteria to evaluate project proposals submitted for funding; worked with multiple partners to develop broad projects to address habitat restoration projects to achieve the goals of the Great Lakes Fishery Trust...”

Aquatic Habitat Conservation and Management



-photo by Robert J. Hurt

Islands constructed in Polander Lake by the U.S. Army Corps of Engineers are part of a Habitat Rehabilitation and Enhancement Project on the Upper Mississippi River. La Crosse FRO and Upper Mississippi River National Wildlife and Fish Refuge staff are studying fish usage at the site.



-USFWS

Biologist Susan Wells and volunteers stabilize the bank at a habitat restoration site along Crane Creek at Ottawa NWR.



-USFWS

Biologists from Carterville FRO electrofish in Crab Orchard Lake as part of an evaluation on the effectiveness of polychlorinated biphenyl (PCB) remediation at the Sangamo National Priorities List site under the Crab Orchard Superfund Project in Southern Illinois.

- Provide technical assistance to the Green Bay Field Office to achieve fisheries habitat goals for Federal Energy Regulatory Commission licensed facilities in tributaries to Green Bay (MI, WI).

“...assisted representatives from the Green Bay Ecological Services Field Office with the identification of critical habitat and the articulation of habitat needs for lake sturgeon that may be affected by the operation of the De Pere hydroelectric project on the Fox River and the Menominee and Park Mill hydroelectric projects on the Menominee River and included: reviewing and drafting letters, attending several meetings, and participating on conference calls as part of the re-licensing of these facilities by the Federal Energy Regulatory Commission...”

- Provide technical support to the Green Bay Field Office, East Lansing Field Office and Chicago Field Office in reviewing permits, licenses, federal projects and other actions proposed for the Lake Michigan Basin (IL, IN, MI, WI).

“...provided assistance to the Green Bay and East Lansing Field Offices with section 7 reviews and biological assessments for habitat restoration projects within the Lake Michigan basin; provided input to the Green Bay Field Office for its review of the license applications for the proposed expansion of the Oak Creek Power Plant and the proposed Highway 41 bypass around Peshtigo, Wisconsin; attended meetings and provided input and written contributions to the East Lansing Field Office for a coordinated Fish and Wildlife Service comment letter regarding fish passage issues related to the installation of a sea lamprey barrier on the Manistique River...”

- La Crosse Fishery Resources Office will:

- Work with the Service’s Ecological Services and National Wildlife Refuge Programs to monitor and evaluate aquatic habitat restoration efforts in the Illinois and Mississippi Rivers associated with Corps activities (IL, IA, MN, WI).
- “...monitored the fishery near the newly constructed island in Polander Lake in the Upper Mississippi River NW&FR; worked as part of the Fish and Wildlife Work Group and Fish and Wildlife Interagency Committee that evaluates and plans habitat projects...”
- Provide fish passage technical assistance for the Federal Energy Regulatory Commission re-licensing of the Prairie du Sac Dam (WI).

“...participated with the Green Bay Field Office and the Wisconsin DNR by attending meetings and providing information, especially on paddlefish and sturgeon populations in the Wisconsin River, that will be used for the Federal Energy Regulatory Commission re-licensing of the Prairie du Sac hydroelectric dam...”

Aquatic Habitat Conservation and Management

- Implement aquatic habitat restoration projects for trout in Southwest Wisconsin and Northeast Iowa and for sturgeon in the Red River of the North watershed in Minnesota (IA, WI).

“...worked with six partners to stabilize 1,030 feet of eroding stream bank and fenced off 1,550 feet of trout stream habitat in the Upper Iowa River watershed; worked with five partners in Southeast Minnesota to stabilize the bank of Trout Brook; worked with seven partners in Southwest Wisconsin to improve trout and herptile habitat in the Kickapoo River watershed by installing 63 LUNKER cover structures and over 80 boulder retards, and constructing a hibernacula adjacent to the stream...”

– **La Crosse Fish Health Center will:**

- Work with the Service’s National Wildlife Refuge Program and other fisheries offices to help assess various water habitats on Service lands to address concerns of fish health and species identification (IL, IN, IA, OH, MI, MN, MO, WI).

“...worked with FRO’s and NWR’s to assist with studies including the Goby Roundup and Asian Carp Corral...”

Our Objective Coordinate with the National Wildlife Refuges System that contains priority species or key habitats to identify and implement opportunities for increasing the quantity and improving the quality of aquatic habitat.

Our Commitment

– **Alpena Fishery Resources Office will:**

- Provide technical assistance to Shiawassee and Ottawa NWRs and the Detroit River International Wildlife Refuge for planning, designing and implementing aquatic habitat restoration projects (MI, OH).

“...did no activities for this commitment in FY2004...”

– **Ashland Fishery Resources Office will:**

- Provide technical assistance to Whittlesey Creek and Rice Lake NWRs for planning, designing and implementing aquatic habitat restoration projects (MN, WI).

“...specific accomplishments at the Whittlesey Creek NWR included the Wickstrom Instream Habitat Improvement and the Riparian Forest Restoration project; no aquatic habitat restoration projects were requested for the Rice Lake NWR...”

– **Carterville Fishery Resources Office will:**

- Conduct post-project biological monitoring to evaluate fisheries age structure response to the Swan Lake Habitat Rehabilitation and Enhancement Project at Two Rivers NWR (IL).

“...coordinated the collection of fish in Swan Lake and reference lakes for aging, and have processed and aged hundreds of these fish...”

- Provide technical assistance to Two Rivers, Crab Orchard, Cypress Creek, Mingo, Mark Twain, Illinois River, Big Oaks, and Patoka NWR’s for planning, designing and implementing aquatic habitat restoration projects (IL, IN, MO).

“...continued assistance on Two Rivers NWR with the Swan Lake Project, Mingo NWR with fish passage projects, and other NWR’s through participation on the River Resources Action Team that assesses habitat restoration projects on parts of the Upper Mississippi River...”

- Provide technical assistance to Mingo NWR with replacement of screw gates to allow fish passage as part of the Refuge’s alligator gar restoration program (MO).

“...continued to provide technical assistance (primarily in project development and reporting) on the projects for Ditch 11 (completed in Spring 2004), Ditch 3 (completed July 2004), Ditch 5 (ongoing), and Ditch 6 (preparing for completion in FY05)...”

Aquatic Habitat Conservation and Management

- **Columbia Fishery Resources Office will:**
 - Provide technical assistance to the Big Muddy National Fish and Wildlife Refuge and DeSoto, Swan Lake, and Port Louisa NWR's for planning, designing and implementing aquatic habitat restoration projects (IL, IA, MO).
 - “...provided follow up technical assistance to the habitat renovation project performed on the Iowa Army Ammunition Plant's Stump Lake in 2002 with habitat improvements complete - the lake has been restocked and is being monitored to provide future quality recreational fishing opportunities...”
- **Green Bay Fishery Resources Office will:**
 - Provide technical assistance to Seney NWR for planning, designing and implementing projects to enhance brook trout habitat in the Upper Driggs River (MI).
 - “...provided technical assistance with habitat restoration projects to enhance spawning substrate for native brook trout populations in the Upper Driggs River...”
- **La Crosse Fishery Resources Office will:**
 - Provide technical assistance to the Upper Mississippi River NW&FR, Minnesota Valley, Necedah, Horicon, and Tamarac NWRs for planning, designing and implementing aquatic habitat restoration projects (MN, WI).
 - “...provided technical assistance to the Upper Mississippi River NW&FR and Minnesota NWR through the Environmental Management Program Habitat Rehabilitation and Enhancement Program with Pool 8 Islands, Spring Lake, Polander Lake, and Long Meadow Lake being the high priority projects; conducted surveys to evaluate needs at Necedah NWR; sampled and made management recommendations at Horicon NWR; completed a report with recommendations at Tamarac NWR; participated in the Fish and Wildlife Work Group as they developed Pool Plans that were used in the Comprehensive Conservation Planning for the Upper Mississippi River NW&FR...”
- **Iron River NFH will:**
 - Work with the Service's National Wildlife Refuge and Ecological Services Programs and other partners to manage 1,200 acres of Service land under management of the Iron River NFH (WI).
 - “...worked closely with the Whittlesey Creek NWR, Northland College, local neighbors, and other partners to manage 1,200 acres of Fish and Wildlife Service land under management of the Iron River NFH...”
- **Pendills Creek and Sullivan Creek NFHs will:**
 - Assist Green Bay FRO in implementing aquatic habitat evaluation and restoration projects at Seney NWR (MI).
 - “... offered assistance to the Green Bay FRO and Seney NWR with regard to all aquatic resource issues or needs...”
- **Neosho NFH will:**
 - Work with the Service's National Wildlife Refuge and Ecological Services Programs and other partners to manage 244 acres of Service land under management of the Neosho NFH (MO).
 - “...worked closely with the NWR program, as we oversaw a portion of the Ozark Cavefish NWR that is located on the hatchery; worked closely with the Columbia Field Office in protecting the four springs that supply critical water to the hatchery for production since maintaining good water quality is imperative for the survival of the blind cavefish, endangered pallid sturgeon, freshwater drum, and rainbow trout that were produced at the hatchery...”

Workforce Management



-USFWS

Training is an important component for Workforce Management. These students attended a Fish and Wildlife Service sponsored short course titled "Introduction to Fish Health." Employees from the La Crosse FHC serve as trainers for this very popular course.



-USFWS

Each year the La Crosse FRO and the La Crosse District of the Upper Mississippi River National Wildlife and Fish Refuge honor their volunteers with a banquet.



-USFWS

The 2004 Conservational Career Diversity Intern Program participants were: (left to right) Carlos Lozano, Anne Bolick, Ashley Umberger, and Melissa Cheung. The Genoa National Fish Hatchery (NFH), La Crosse FHC, La Crosse FRO, and Neosho NFH each supported one of the interns to work over a 12 week period.

Our Goal: Maintain and support an adequately sized, strategically positioned workforce with state-of-the-art training, equipment, and technologies in their career fields.

Our primary focus is on recruiting, supporting, and positioning an effective and motivated workforce capable of meeting the expectations of employees and partners in fish and other aquatic resource conservation.

Our Objectives

- Identify critical staff and functions needed to support various types and sizes of Program offices and be able to fill critical vacancies and gaps in the current workforce with well-qualified individuals.
- Train and develop employees for the most effective utilization of their skills and positions.
- Ensure Program employees and facilities are equipped with the technology, tools, and equipment to effectively and to efficiently conduct their jobs.

Our Commitment

- Develop business management plans for each office.
- Ensure staffing levels are adequate to meet mission critical goals.
- Initiate recommendations from the Workforce Planning Team for the Fish and Wildlife Management Assistance Program.
- Identify core competencies required for our employees and work with the National Conservation Training Center to develop training opportunities for employees to meet competency levels.
- Ensure that supervisors maintain current Individual Development Plans for their employees and ensure that employees complete individual developmental activities.
- Identify and implement operational, structural, and geographic changes that will help maximize effectiveness and efficiency at field stations.

"...participated as a Region 3 representative to a national Workforce Planning Team by attended two meetings and two conference calls to develop recommendations to the Directorate relating to overall effort and for defining competencies needed to improve visibility and effectiveness of Fish and Wildlife Management Assistance program (Alpena FRO)..."

"...began developing a station strategic plan as we work toward a business management plan (Carterville FRO)..."

"...developed Individual Development Plans; developed a business management plan for the office which was provided to the Fishery Program Supervisor; utilized term appointments, emergency hires, students, and volunteers to maintain a staffing level necessary to meet mission critical goals (Columbia FRO)..."

"...completed Individual Development Plans for all of the station staff; participated in the National Conservation Training Center survey on fisheries training; maintained two temporary positions from May-September and participated in the Youth Conservation

Workforce Management



-USFWS

A student employee at the Jordan River NFH sample counts a group of lake trout as part of a diet comparison.



-GLFC

CPR and first aid training is an important component in managing the workforce.



-NCTC

National Conservation Training Center

The National Conservation Training Center trains and educates natural resource managers to accomplish common goal of conserving fish, wildlife, plants, and their habitats.

Corps by hiring two enrollees for 10 weeks in the summer (Genoa NFH)...”

“...fully implemented the budget tracking system to manage the office budget; identified training needs and provided training opportunities for staff; completed employee evaluations and identified development opportunities (Green Bay FRO)...”

“...developed Individual Development Plans for each employee and review them annually to ensure employees complete their developmental activities; identified core competencies of new employees and provided training classes (Foundations) at the National Conservation Training Center to provide future opportunities; drafted a standard operating plan for the administrative technician position at all facilities and implemented the Budget Tracking System; ensured adequate staffing levels by using volunteers, hiring emergency hires, and temporary students, and filling vacant positions; provided CPR, First and/or Safety training to Alpena FRO, Alpena Coast Guard Station, Jordan River NFH, Seney NWR, and East Lansing Field Office; assisted the East Lansing Field Office by serving as the Public Hearing Officer for the proposal to delist the Eastern Distinct Population Segment of the gray wolf in Sault Ste. Marie; provided training to two new administrative technicians at Pendills Creek NFH and assisted the project leader with administrative functions (Jordan River NFH)...”

“...served on the National Conservation Training Center’s National Fisheries Training committee and core competencies review (La Crosse FHC)...”

“...employed 58 seasonal staff to meet the mission critical goals as detailed in the Memorandum of Agreement with the Great Lakes Fishery Commission; maintained two Student Career Experience Program students, one at the MS level and one at the PhD level; provided 16 formal training opportunities from Individual Development Plans, and on-the-job training for all staff; provided training to maintain competencies in safety related functions such as boat operating, CPR, First Aid, and vehicle operation; worked with personnel from Marquette, Ludington, and Sault Ste. Marie, Canada on assessment, alternative control, and lampricide control activities (Marquette and Ludington Biological Stations)...”

List of Acronyms

ANS - Aquatic Nuisance Species or AIS - Aquatic Invasive Species
Commission - Great Lakes Fishery Commission
Consent Decree - U.S. District Court Consent Decree
CORA - Chippewa Ottawa Resource Authority
DNR - Department of Natural Resources
ESA - Endangered Species Act
FERC - Federal Energy Regulatory Commission
FHC - Fish Health Center
FONS - Fishery Operational Needs System
FRO - Fishery Resources Office
GAO - Government Accounting Office
GIS - Geographical Information System
GLIFWC - Great Lakes Indian Fish and Wildlife Commission
HACCP - Hazard Analysis and Critical Control Point
MDC - Missouri Department of Conservation
MICRA - Mississippi Interstate Cooperative Resource Association
M/V - Motor Vessel
NF&WR - National Fish and Wildlife Refuge
NFH - National Fish Hatchery
NRCS - Natural Resource Conservation Service
NRDA - Natural Resources Damage Assessment
NW&FR - National Wildlife and Fish Refuge
NWR - National Wildlife Refuge
NWRS - National Wildlife Refuge System
PIT - Passive Integrated Transponder
Region - Great Lakes-Big Rivers Region
Service - U.S. Fish and Wildlife Service

List of State Acronyms

IA - Iowa
IL - Illinois
IN - Indiana
KS - Kansas
MI - Michigan
MN - Minnesota
MO - Missouri
NE - Nebraska
NY - New York
OH - Ohio
PA - Pennsylvania
SD - South Dakota
WI - Wisconsin



**Fisheries Accomplishment Report
Region 3, Great Lakes - Big Rivers
Fiscal Year 2004**

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