U.S. Fish & Wildlife Service

Fish Lines

Region 3 - Great Lakes/Big Rivers

Leadership in Conserving, Enhancing, and Restoring Aquatic Ecosystems

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Region 3 Fisheries Working to Improve Recreational Fishing on Military Bases

(See the "*Feature Story*" on Page 5)

-USFWS photos

Fish and Wildlife Service involvement with recreational fishing on military bases: (Top Row, Lt. to Rt.) Carterville Fishery Resources Office (FRO),Scott Air Force Base, volunteers prepare brush piles to improve fish habitat; Columbia FRO biologists retrieve a sample of the fish community at Fort Leavenworth; Columbia FRO biologists electrofish to sample a recreational fishery; (Middle Row) Genoa National Fish Hatchery (NFH) provides rainbow trout to Fort McCoy; Fish and Wildlife Service offices in the La Crosse, Wisconsin, area sponsor an annual fishing day at the Tomah Veterans Administration Hospital; (Bottom Row) Carterville FRO biologist removes walleye scales for age and growth analysis; Carterville FRO staff in partnership with the Crane Naval Support Activity work up fish collected by electrofishing; The Fish and Wildlife Service has been involved with recreational fishery enhancement at Fort McCoy for decades - this historical photo is of fish stocking at Fort McCoy in March 1952.

Region 3 - Great Lakes/Big Rivers Region

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

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.

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Click here to visit our Fisheries Web Site

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 evaluate 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 interagency fisheries databases; provide technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydropower 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 referrred 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

List of Acronyms

DNR- Department of Natural Resources
FHC- Fish Health Center
FRO- Fishery Resources Office
NFH- National Fish Hatchery
NWR- National Wildlife Refuge

Feature Story - Region 3 Fisheries Working to Improve Recreational Fishing on Military Bases

Many of the Regional Fisheries program's activities are directed toward the vast natural resources of the Great Lakes and large rivers of the region. But this is only part of the story.

Throughout the region, much work is conducted on a smaller scale without much fanfare. One such program is the Fish and Wildlife Service's ongoing work with military bases to provide recreational opportunities for the servicemen and women, their families, and civilian employees.

Several Fisheries offices in Region 3 work with installations of the U.S. Army, Navy, and Air Force to fulfill their natural resources needs. They provide valuable services such as creating recreational fisheries, assessing fish communities, conducting public outreach and education, stocking and managing sport fish, and monitoring for endangered species. Following are some examples.

The Carterville Fishery Resources Office (FRO) staff has provided fishery management assistance to U.S. Naval Support Activity (NSA) Crane for over 15 years. Located in Southwestern Indiana, NSA Crane is a picturesque 62,000 acres of rolling hills and hardwood forests with several small reservoirs and ponds.

The crown jewel of NSA Crane is the 800-acre Lake Greenwood. Its crystal clear waters are home to several species of fish including largemouth bass, bluegill, crappie, channel catfish, and walleye. Lake Greenwood is a popular recreational spot for base employees and the site of numerous bass fishing tournaments throughout the year.

Each year, Carterville FRO biologists conduct a spring electrofishing survey to assess the status of the fishery. The data is critical to form annual fishery management recommendations. Biologists have conducted a fall electrofishing survey in past years to assess the success of walleye stocking in Lake Greenwood. In place of the annual fall walleye survey, they will soon replace the fall assessment with a spring gillnetting survey to better evaluate the walleye population.

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Crane Naval Support Activity (NSA) employee Scott Montgomery nets a fish during a night electrofishing survey. Each year, Carterville Fishery Resources Office conducts a spring electrofishing survey to assess the status of the fishery. The data allows for annual fishery management recommendations to maintain a quality fishery.

Staff also provides fishery management assistance to Scott Air Force Base (AFB). Located in Southwestern Illinois, Scott AFB encompasses 2,500 acres and contains two small ponds managed for sportfishing. Common fish species that call Scott AFB home include largemouth bass, redear sunfish, bluegill, and channel catfish.

Throughout the years, these ponds have been popular recreational destinations for thousands of base employees and their families. Staff conducts an annual electrofishing survey to assess the fish community. Data garnered from these surveys is essential to create fishing regulations and determine the species and numbers of fish to be stocked. Wise management of these ponds has led to consistent sportfishing opportunities for many years.

The staff has also improved fish habitat at the Scott AFB ponds and collected fish for contaminant testing. Base staff can now ensure the fish are safe for human consumption.

The Columbia FRO provides management assistance and performs fish community assessments for Fort Leavenworth, a 5,600-acre U.S. Army base bordering the Missouri River in Northeastern Kansas. Fort Leavenworth boasts a long and colorful history; included on the base are the first U.S. military prison and the Fort Leavenworth National Cemetery.

Biologists conduct fishery surveys of two small impoundments on the base and on the Missouri River bordering Fort Leavenworth to implement resource management practices that will ensure quality recreational fishing for military employees and families. FRO biologists also sample the Missouri River bordering Fort Leavenworth to check for the presence of the endangered pallid sturgeon.

Fishery surveys such as those conducted at Fort Leavenworth are an important tool in gathering data which will help scientists better understand the pallid sturgeon, so that this species may one day experience a full recovery. Columbia FRO will also be taking on a greater role in public outreach and education at Fort Leavenworth.

Farther north, Genoa National Fish Hatchery (NFH) has worked closely with Fort McCoy Army Base for several years to provide a tremendous recreational fishery for rainbow trout. Located in Central Wisconsin, Fort McCoy is a 60,000-acre base with 1,400 full-time employees. Annually, 100,000 soldiers are trained at Fort McCoy.

The base offers a variety of recreational activities for military personnel and their families. Fishing in the many small lakes on the base is one of the favored pastimes. Genoa NFH supplies approximately 12,000 catchable-size rainbow trout annually, a preferred fish species among the 50,000 anglers who spend 100,000 hours pursuing fish at Fort McCoy.

During the past several years, Genoa NFH has also supplied walleyes to Indiana's NSA Crane facility for stocking in Lake Greenwood. The walleye have been a welcome addition to the lake's fishery, and anglers have reported catches of large walleyes.

Genoa NFH and La Crosse FRO also co-hosted a Fishing Day event at Tomah Veterans Administration Hospital in Wisconsin.

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Roger Gordon of the Genoa National Fish Hatchery releases six inch walleyes into Lake Greenwood at Naval Support Activity Crane in Indiana.

Neosho NFH provided its services to the Iowa Veterans Administration Hospital by raising and delivering nearly 1,300 rainbow trout to the hospital. This delivery created an excellent source of recreational fishing for the patients and their families.

One of the most challenging yet rewarding aspects of working for the Fish and Wildlife Service is meeting the demands of diverse user groups. Working with military personnel can be one of the most rewarding experiences, because it gives us the opportunity to give back, in a small way, to those who have given and sacrificed so much for us. In times such as these, it is important that military men and women have access to high quality recreational opportunities that can provide a reprieve from the stress of their daily lives.

The Fish and Wildlife Service is proud to be able to provide recreational fishing opportunities that are enjoyed by thousands of military personnel and their families.

For additional information about this article and the Carterville Fishery Resources Office, contact Colby Wrasse at:

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Partnerships and Accountability

Lake Sturgeon Survey Begins on the Maumee River

Biologist James Boase of the Alpena Fishery Resources Office (FRO) joined forces with biologists Jim McFee and Chris Vandergoot from Ohio Department of Natural Resources (DNR) Division of Wildlife to conduct a lake sturgeon survey of the Maumee River, a tributary to Western Lake Erie. The River supports Ohio's largest spawning run of walleyes. For years, recreational anglers targeting walleye on the Maumee have occasionally caught lake sturgeon below Providence Dam and Grand Rapids Dam. Preliminary genetic information collected from lake sturgeon captured by commercial fishers near the mouth suggests that there may be a distinct population of lake sturgeon in Western Lake Erie. The primary objective of the study is to determine if and where lake sturgeons are spawning in the Maumee River watershed. Following the spring spawning survey, we will begin sampling habitat parameters to determine whether the system can support juvenile lake sturgeon. This effort, if successful, would be a major step for the rehabilitation of lake sturgeon in Western Lake Erie. The project is funded by the National Fish and Wildlife Foundation.

James Boase, Alpena FRO

-USFWS photo by Jim Boase

Jim McFee of the Ohio Department of Natural Resources (DNR) carries egg traps used to sample for lake sturgeon eggs on the Maumee River. The Fish and Wildlife Service, Ohio DNR, and National Fish and Wildlife Foundation are partnering to examine whether lake sturgeon are using this Lake Erie tributary river for spawning.

Alpena FRO Participates in Radio Program with Congresswoman

Alpena FRO Project Leader Jerry McClain participated in "The Washington Connection," a monthly radio program hosted by United States Representative Candice Miller of Michigan. McClain was asked to participate in the show when he visited with Miller during Fisheries and Habitat Conservation's "March Madness" week. The monthly radio program airs on local stations in Michigan Congressional Districts and updates citizens on Miller's Washington activities, as well as issues of interest to her district. During the interview with the Congresswoman, McClain discussed lake sturgeon restoration efforts directed by the Alpena FRO, reasons for the decline of the species, and impediments to restoration. McClain also discussed the sturgeon spawning site that has been discovered near the Blue Water Bridge in Port Huron, Michigan, and the importance of that site to remnant stocks in that area of the Great Lakes. McClain also provided an overview of the Fish and Wildlife Service and the responsibilities of the Alpena FRO in Lake Huron and the St. Clair corridor. The interview was taped on March 29 and aired on April 1. Interaction with Michigan congressional offices helps increase visibility of Fish and Wildlife Service programs, enhances relationships with district and Washington staff, and establishes points of contact for natural resources issues for which the Alpena FRO has responsibility.

Jerry McClain, Alpena FRO

Alpena FRO Discusses Participation in Regional Media Workshop

Project Leader Jerry McClain of the Alpena FRO and Michigan DNR's Alpena Fisheries Research Station Chief Jim Johnson met with Peter Annin, associate director of the Institutes for Journalism & Natural Resources (IJNR). They discussed participation in a workshop that annually brings together natural resource leaders and journalists to discuss regional issues of interest. A major objective of the workshop is to stimulate increased interest by journalists in writing stories on natural resource topics. This summer the event will be held in Northern Michigan, with numerous field trips to highlight various aspects of natural resource management. The Fisheries segment of the July conference will be held in the Alpena area, and McClain and Johnson have been asked to participate.

Topics to be discussed in the Fisheries module will include the changing food web in Lake Huron, the 2000 Consent Decree and sea lamprey control. McClain will participate in a panel discussion on the Consent Decree and how

implementation has affected Lake Huron fisheries. It is anticipated that journalists will follow with stories.
Jerry McClain, Alpena FRO

Task Force Chairs Present Management Field Plans to the Sea Lamprey Integration Committee

The Great Lakes Fishery Commission maintains a group of task forces by programmatic theme that deal with technical issues and field plans within the Sea Lamprey Control program. On April 25 and 26, task force chairs presented plans for the 2006 field season during the plenary session of the 2006 Spring Sea Lamprey Integration Committee (SLIC) meeting in Ann Arbor, Michigan. The SLIC is the recommending body to the Great Lakes Fishery Commission, comprising members from Ohio State University, Department of Fisheries and Oceans Canada, Fish and Wildlife Service, Ontario Ministry of Natural Resources, Minnesota DNR, Ohio DNR, Michigan State University, and the Secretariat of the Great Lakes Fishery Commission.

Fish and Wildlife Service biologists Michael Fodale, chair of the Connecting Channels and Lentic Areas Task Force; Dennis Lavis, acting chair of the Lampricide Control Task Force; Kasia Mullett, chair of the Barrier Task Force; and Michael Twohey, chair of the Reproduction Reduction Task Force, presented plans for the Sea Lamprey Control priority programs for 2006. The second of the two annual meetings will focus on budget needs and new initiatives.

The sea lamprey management 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 annual benefit of $4 billion to $6 billion per year to the region. The Fish and Wildlife Service delivers a program of integrated sea lamprey control in U.S. waters of the Great Lakes as a contracted agent of the Great Lakes Fishery Commission.
Michael Fodale, Marquette Biological Station

Congressional Staff Tour Genoa NFH and Get a Taste of the Upper Mississippi

Congressional staff representing Wisconsin Congressman Ron Kind toured the Genoa National Fish Hatchery (NFH) and had an opportunity to participate in several hatchery operations. Staffers Karrie Jackelen of the La Crosse District office and Erik Olson of the Washington, D.C. office, saw lake sturgeon restoration efforts that were commencing with the arrival of eggs from Wisconsin's Wolf River, and then took a close-up look at an adult lake sturgeon that had been captured on the river in one of the hatchery's nets. Both parties survived the incident, none the worse for wear, but not before seeing how our coworkers from the La Crosse FRO operate. Pam Thiel and Dave Wedan demonstrated fish capture and assessment techniques and allowed Karrie and Erik to assist by netting fish immobilized by the station's electrofishing boat.

Ongoing river conservation efforts were discussed, including the Midwest Driftless Area Initiative, a fish habitat conservation proposal that focuses on unique habitats in the four-state unglaciated region of Wisconsin, Iowa, Minnesota, and Illinois. Karrie and Erik also toured the station's new office facilities to finish out the day. The rain held off and the audience was interested and captive (figuratively speaking). That always adds up to a great day on the river!
Doug Aloisi, Genoa NFH

-USFWS
Congressional staff from Representative Ron Kind's office pause for a picture in front of an electrofishing boat at the Genoa National Fish Hatchery. Erik Olson is from the Washington D.C. office and Karrie Jackelen is from the La Crosse District office.

Genoa Gets Assistance from Wisconsin DNR to Augment the Captive Brood Stock Program

Wisconsin DNR personnel assisted Genoa NFH in collecting 100 black crappies from Lake Neshonic, Wisconsin, in April. Wisconsin DNR located the healthy population in Lake Neshonic during annual assessments and transferred a sample to the La Crosse Fish Health Center (FHC) for disease screening. After receiving a clean bill of health, the Lake Neshonic crappies were brought to Genoa. The addition of the crappies to the hatchery is part of an ongoing protocol to periodically augment Genoa's captive brood stock in order to produce disease free and genetically diverse progeny for the production of two- to four-inch fingerlings. The crappies will also be used in ongoing mussel research during host fish suitability trials for mussel species of concern in the Upper Mississippi River basin. In addition, thousands of black

crappie are also stocked annually on national wildlife refuges, tribal lands, and at Wisconsin and Iowa sites of the Upper Mississippi River National Wildlife and Fish Refuge for enhanced recreational fishing opportunities.
Nick Starzl, Genoa NFH

-USFWS
Black crappie are held at the Genoa National Fish Hatchery as a source of disease free and genetically diverse progeny for the production of fingerlings. They are also used for ongoing mussel research during host fish suitability trials for mussel species of concern in the Upper Mississippi River basin.

Jordan River NFH Friends Hold Executive Committee Meeting

The Friends of the Jordan River National Fish Hatchery met in April to finalize by-laws, decide on dues, brainstorm on membership drives, and to discuss numerous other topics. Friends group President Bob MacCord brought the meeting to order at 6:30 pm. Treasurer Peg Myers put forth a motion to adopt a 2.5-mile section of the North Country trail adjacent to the hatchery grounds for clean up and care (see next article). The motion was passed unanimously. This was their first real action as a group, and forming a partnership with the North Country Trail Association seems like a great way to start.
Tim Smigielski, Jordan River NFH

-USFWS photo by Tim Smigielski
Friends of the Jordan River National Fish Hatchery President Bob MacCord and hatchery manager Rick Westerhof sign the declaration of the organization and Memorandum of Understanding for the new Friends group.

Friends of the Jordan River NFH Kick Off with Inaugural Project

Friends of the Jordan River National Fish Hatchery teamed up with the East Jordan Cub Scout Pack 17 to clean up a section of the North Country Trail on Earth Day in April. The 2.5-mile trail section in the Jordan Valley was adopted by the recently formed Friends group as a stewardship project. The Friends and Scouts worked hard clearing the trail of downed trees, branches and litter, in addition to hiking five miles. Their efforts did not go unnoticed by passing backpackers who gratefully offered handshakes and words of thanks. The hike ended back at the hatchery where a warm meal awaited the tired and hungry crew. Special thanks to the Cub Scouts and parents for their stewardship and hard work, to the Cub Master for his famous beans and hobo stew, to the hatchery staff for their participation and support, and to the North Country Trail Association. Those interested in knowing more about the Friends of the Jordan River National Fish Hatchery may call the hatchery at (231) 584-2461. The group welcomes new members.
Peg Myers, Friends of the Jordan River National Fish Hatchery

-USFWS
The Friends of the Jordan River National Fish Hatchery partnered with Cub Scout Pack 17 of East Jordan, Michigan, to do some trail maintenance on Earth Day. This is the inaugural project for the newly established Friends group.

Neosho NFH Hosts Distinguished Visitors

Neosho NFH hosted some very distinguished guests in April. Dr. Mamie Parker, Assistant Director of Fisheries and Habitat Management in the Washington office, Region 3 Regional Director Robyn Thorson, and Gerry Jackson, Assistant Regional Director for Fisheries for Region 3, met with Steve McIntosh of Congressman Blunt's office and Stacy Burk of Senator Bond's office concerning the new visitor center/office complex that will be constructed at Neosho NFH. The city of Neosho and the Friends Group rolled out the red carpet for our guests.
Roderick May, Neosho NFH

-USFWS
Assistant Director of Fisheries and Habitat Conservation (left) came from Washington D.C. while Regional Director Robyn Thorson and Assistant Regional Director of Fisheries Gerry Jackson came from the Twin Cities to the Neosho , Missouri, to discuss the new complex that will be constructed at the Neosho National Fish Hatchery.

Lake Superior Binational Program Touts Recent Accomplishments

Ashland FRO continues to work with the Lake Superior Binational Program, serving on the Lake Superior Task Force and Work Group as United States Co-Chair of the Aquatics Community Committee (ACC) and member of the Terrestrial Wildlife Community Committee. Significant accomplishments so far in 2006 include: 1) Attended the Lake Superior Task Force, Work Group, Aquatic and Terrestrial Wildlife Community Committee (TWCC) meetings and conference calls; 2) Completed Lakewide Management Plan (LaMP); 3) Provided input and edits to assist in the update of the Important Habitat Map; 4) Continued support of the Lake Superior Pathfinders Leadership School as well as the Connecting the Coast project; 5) Provided review of LaMP 06 and participated on multiple LaMP 06 conference calls; 6) Authored, co-authored, or edited multiple sections of Chapter 6 (Consolidated Ecosystem Report) in LaMP 2006 including Herptile, Lynx and Peregrine Falcon Reports, TWCC and Aquatic Community Committee Challenges and Next Steps, the Aquatic Environment section, and Sustainable Chequamegon of the Sustainability Chapter; 7) In conjunction with the winter Lake Superior Technical Committee meeting, developed topics for discussion and action by the ACC including progress made on the 2004-06 work plan, revision of work plan priorities, and other ACC related actions; 8) Represented the ACC at the 2006 Great Lakes Fishery Commission Lake Committee meeting in Windsor, Canada; 9) Coordinated TWCC involvement in the implementation of the herptile project by tracking project progress and organizing conference calls to receive updates and provide TWCC input to the principle investigators; and 10) Promoted LaMP and Lake Superior Work Group goals during participation in Great Lakes Regional Collaboration activities.
Ted Koehler, Ashland FRO

Wisconsin Brook Trout Coordination Meeting Held

In April, Ashland FRO and the Wisconsin DNR hosted a meeting to discuss brook trout management and restoration activities. Other participants included Whittlesey Creek National Wildlife Refuge (NWR), Red Cliff Tribe, Bad River Tribe, Apostle Islands National Lakeshore, and Trout Unlimited. The purpose of the meeting was to communicate what has been done, what is being done, and what is planned as it relates to managing brook trout and their habitat in Lake Superior waters of Wisconsin. Participants expressed their desire to hold the meeting annually to keep abreast of issues. Trout Unlimited also suggested that the meeting include field trips to view habitat work that has been done to benefit brook trout. Trout Unlimited puts a lot of volunteer time into many habitat projects but doesn't often get the opportunity to follow-through with their efforts, and they suggested this meeting as a way facilitate that request.
Jonathan Pyatskowit, Ashland FRO

Fish and Wildlife Service Contributes to Lake Superior Lakewide Management Plan

The Great Lakes Water Quality Agreement between Canada and the United States requires the development of Lakewide Management Plans (LaMPs), which use an ecosystem approach to integrate habitat, terrestrial wildlife, and aquatic ecosystem components. This integration allows for the development of both environmental protection and natural resource management strategies.

The Lake Superior LaMP is administered though the Lake Superior Binational Program. The LaMP was completed in 2000 and is updated every two years to reflect progress being made and to address new challenges and efforts to protect and restore the integrity of the Lake Superior ecosystem. Ashland FRO personnel contributed to LaMP 2000 and each of the subsequent updates.

For the 2006 LaMP Update, Ashland FRO staff edited, authored, and reviewed sections of the document. Henry Quinlan, United States co-chair of the Aquatic Committee, and Ted Koehler, staff and member of the Terrestrial Committee, contributed to development of the ecosystem chapter which addresses the status of aquatic and terrestrial organisms and their habitats. Mark Dryer is a member of the Task Force which serves as a steering committee responsible for the binational program direction. The 2006 LaMP Update is currently undergoing final review followed by printing and was released for all audiences on Earth Day, April 22. It is available on the web at http://www.epa.gov/greatlakes/lakesuperior/index.html.
Henry Quinlan, Ashland FRO

Aquatic Species Conservation and Management

Partners Kick-off the Higgins' eye Pearlymussel Propagation Season

Go Team! As the weather slowly warms and dandelions explode all around, Genoa NFH staff and volunteers from U.S. Geological Survey, La Crosse FRO, Twin Cities Field Office, Iowa DNR, Minnesota DNR, and Wisconsin DNR are busy with Federally endangered Higgins' eye pearlymussel propagation activities at the Clam Palace. Genoa NFH has been involved with Higgins' eye pearlymussel recovery since 1999, when zebra mussels invaded critical habitat areas for the mussel in many areas of the Mississippi River. Zebra mussels reproduce in excessive numbers and their young attach to hard surfaces such as native mussel shells, forming a thick layer that robs food from native mussels and prevents them from completing their complicated life cycle. Native mussels such as the Higgins' eye require fish to carry their larval form called *glochidia*. This species of mussel uses a "fishing lure" to attract fish close enough to release glochidia into the fish's mouth where the glochidia attach to the gills for several weeks. While on the fish's gills, the glochidia receive nutrients needed to complete their metamorphoses into free living juvenile mussels that drop to the bottom of the river.

Volunteers assist Genoa staff with inoculating host fish with glochidia, thus helping the Higgins' eye pearlymussel complete their life cycle. Volunteers introduce largemouth bass and walleye to glochidia in small buckets. After several minutes of exposure to the glochidia, the volunteers bring a fish to staff to be checked for the level of infestation. A target rate of 400 glochidia per fish is the goal of this infestation process, with more than 3.2 million juveniles to be produced this summer. Fifty-eight adult Higgins' eye pearlymussels were collected to infest 7,950 host fish.

Host mussels are collected by SCUBA divers from the Genoa NFH and Minnesota DNR, who scour the bottom of the St. Croix and the Mississippi rivers for the egg bearing (gravid) females. Two to three weeks after the infestation process, fish are released into Mississippi River tributaries in Wisconsin and Iowa, or placed in cages in Lake Pepin, Minnesota, and Ice Harbor in Dubuque, Iowa. Higgins' eye pearlymussels propagated in cages are protected from predators such as carp and suckers, and provide an opportunity to quantify the success of this program. Higgins' eye pearlymussel propagation efforts have produced over 11,000 juveniles in cages since 2000 with more than 7,000 two- to three-year old sub-adult mussels being placed back into the upper portions of the Mississippi River.

Tony Brady, Genoa NFH

-USFWS

Tony Brady (left) and Roger Gordon, along with biologist Dave Heath of the Wisconsin Department of Natural Resources place fish in buckets during the inoculation phase of native mussels where the mussel larvae attaches to gills of host fish.

Outreach + Partnerships = Mussel Restoration for the Cedar River in Iowa

After two meetings this past winter to build support for a mussel restoration project on the Cedar River in Iowa, Genoa NFH, Hartman Reserve Nature Center, and the Cedar Valley Walleye club began mussel restoration efforts by demonstrating mussel propagation techniques to stakeholders at Hartman Reserve's annual Earth Fair event on April 23. Two hundred largemouth bass and 100 walleye cultured at Genoa NFH were taken to Hartman Reserve, where kids and adults had the opportunity to inoculate them with mussel larva called glochidia.

Glochidia from the plain pocketbook mussel were used to inoculate the bass while walleyes were inoculated with black sandshell glochidia. Genoa NFH mussel biologist Tony Brady led the demonstration by harvesting the glochidia from the mussels and distributing glochidia to buckets, containing fish, used by volunteers for the inoculation. Volunteers then placed an air stone in the bucket and allowed a few minutes for the glochidia to attach to the gills of the fish, where young mussels receive nutrients during this critical part of their life cycle. After several minutes, Brady checked the fish for an adequate inoculation, and then the fish were released into the Cedar River, where with a little luck, the glochidia will complete their metamorphoses, break free from the fish, and come to rest in a habitat favorable for survival. Members of the Cedar Valley Walleye Club assisted in the demonstration by distributing fish to the volunteers and directing them to the release

site, while Hartman Reserve provided access to the River and additional volunteers over the course of the event.

In addition to releasing inoculated fish, a small floating cage containing inoculated largemouth bass was deployed in Shirey Lake on the grounds of the Hartman Reserve. This cage will give Hartman Reserve staff an opportunity to share with visitors about native freshwater mussels in the Midwest.

Tony Brady, Genoa NFH

-USFWS

Partners from Hartman Reserve, Iowa Department of Natural Resources, and Cedar Valley Walleye Club inoculate walleyes with black sandshell mussel larva. The walleyes were released into the Cedar River and with a little luck, the mussels will complete their metamorphoses, break free from the fish, and begin growth in a new home.

Spring Spawning Activities Underway at Genoa NFH

Mid-March marks the beginning of the season of "romance" for captive fish stocks at Genoa NFH. The hatchery, located in Southwestern Wisconsin on the banks of the Upper Mississippi River, is home to nearly 1,000 captive adult sport fish comprising six species. These fish are maintained as captive brood stock whose sole purpose is to produce millions of progeny to fulfill fishery management goals.

The hatchery produces hundreds of thousands of largemouth bass, smallmouth bass, bluegills, yellow perch, and other species annually to meet fishery requests from National Wildlife Refuges, military installations, tribal governments, and cooperative management projects with states and universities. The process of filling these requests begins in March, when station biologists and technicians harvest, sort to species, and stock hundreds of brood fish into rearing ponds on the hatchery.

Once water temperatures warm to a specific species requirement, the fish begin to reproduce in rearing ponds on their own without any further involvement by fish culturists. Depending on the species or the life stage required for a particular management plan, the ponds are harvested from early July until late autumn. Throughout this "grow out" period, the young fish or adults are removed from the ponds by netting or allowed to cohabitate with the newly hatched generation. Once the adults are removed from the rearing ponds, they are maintained in a communal wintering pond until the following spring when the process begins all over again. Brood fish are fed a diet of hatchery produced forage fish throughout the year, or in the case of some of the smaller species, insects and other invertebrates from the ponds.

Roger Gordon, Genoa NFH

Second Year of Lake Sturgeon Survey Begins in Saginaw River Watershed

Biologists from Alpena FRO and volunteers Larry Hess, Barry Pulaski, and Larry Dinsmore began sampling for lake sturgeon in the Saginaw River watershed during early April. This project was funded by the National Fish and Wildlife Foundation and the Saginaw Bay Watershed Initiative Network with the goal of determining locations where lake sturgeon may be spawning. Potential lake sturgeon spawning sites have been identified below dams located on the Cass, Shiawassee, and Tittabawassee rivers. Sampling gear has been placed below the dams to collect eggs from lake sturgeon and other species that are spawning at those sites. Eggs are collected and transported to the U.S. Geological Survey (USGS) laboratory in Ann Arbor, Michigan, where they are hatched in incubation jars. USGS biologist Jeff Allen has been overseeing the aquaculture portion of the study and is beginning to identify fish that have been hatching. Following the spring spawning survey, we will begin sampling habitat parameters to determine if the system can support juvenile lake sturgeon. This effort, if successful, would be a major step for the rehabilitation of lake sturgeon in Lake Huron.

James Boase, Alpena FRO

-USFWS photo by Jim Boase

Biologist James Boase examines an egg trap for lake sturgeon eggs while volunteer Larry Hess looks on. The traps were set in three tributaries of the Saginaw River watershed. This is the second year of the survey which is funded by Saginaw Bay Watershed Initiative Network and the National Fish and Wildlife Foundation.

St. Marys River Lake Sturgeon Project Underway

Biologist Scott Koproski completed preparation for field work and initiated coordination activities for the St. Marys River Lake Sturgeon Project, scheduled from May through August. Koproski received a grant from the National Fish and Wildlife Foundation (NFWF) to assess lake sturgeon in the St. Marys River, the connecting waterway between lakes Superior and Huron. Partners on the project include Lake Superior State University, Bay Mills Indian Community, Soo Area Sportsman, and eight volunteers. All partners have donated time and vessels to this project.

Funding awarded from the NFWF will be used to capture and implant sonic telemetry tags in lake sturgeons in the St. Marys River. Anecdotal information indicates that lake sturgeon were commonly encountered in the St. Marys River; however, very little is currently known about population size, available habitat, and spawning locations within this system. We may be able to provide more definitive answers for researchers and managers by capturing and following these fish. This project would not be possible without the help of the partners, volunteers, and the NFWF.
Scott Koproski, Alpena FRO

Alpena FRO Assists in Retrieving Lake Sturgeon from a Saginaw Bay Trap Net

On April 19, biologist Adam Kowalski was contacted by Warren Beers, a state-licensed commercial fisher on Saginaw Bay, who sought assistance in recovering a lake sturgeon from a commercial trap net. Kowalski traveled to Saginaw Bay and assisted in removing the lake sturgeon from the net, recording biological data on the fish.

The lake sturgeon had been previously tagged by both the Wisconsin DNR, in Lake Winnebago, and Michigan DNR. Kowalski recorded the tag numbers and contacted both agencies to provide the updated data. Beers is one of several commercial fishers who assist Alpena FRO in collecting data from lake sturgeon caught as by-catch during their fishing seasons.
Adam Kowalski, Alpena FRO

-USFWS photo by Adam Kowalski
Biologist Adam Kowalski assisted Warren Beers, a state licensed commercial fisher on Saginaw Bay, to safely remove this lake sturgeon from a commercial trap net. The fish was caught as by-catch during normal fishing operations.

Annual Lake Trout Distribution Begins at Jordan River NFH

The first fish releases of the spring for the Jordan River NFH were completed on April 19 in Lake Huron's Drummond Island Refuge. By the end of April, about 523,000 lake trout averaging approximately 6 inches in total length were stocked. All were released offshore into Northern Lake Huron using the Fish and Wildlife Service's lake trout stocking vessel, the *M/V Togue*.
Wayne Talo, Jordan River NFH

Fish Kill on Lake Erie

Dave Insley of the Ohio Division of Wildlife received a report of significant kill of freshwater drum in the western basin of Lake Erie on April 26. Ken Phillips of the La Crosse FHC was in Ohio working on another project and was able to assist with the investigation. Twelve moribund freshwater drum were held in a pen at the Sandusky Fisheries Research Unit of the Ohio Division of Wildlife, and the fish were observed to be swimming near the surface and upside down. External and internal necropsies were performed on the drum by Insley and Phillips. Tissue samples for bacterial, viral, and histological analysis were collected from the fish and transported to the La Crosse FHC for further analysis. Results are pending.
Rick Nelson, La Crosse FHC

-USFWS
Ken Phillips of the La Crosse Fish Health Center performs a necropsy on freshwater drum while investigating a fish kill in Lake Erie.

Sampling for Spring Viremia of Carp

During the week of April 24, Ken Phillips of the La Crosse FHC traveled to Castalia, Ohio, to sample common carp for Spring Viremia of Carp Virus (SVCV). Ohio Division of Wildlife crews electro-fished 120 carp for disease sampling from Rocky Fork Lake, the Maumee River, and Mosquito Creek Reservoir, along with 32 carp from Turkey Foot Lake. In addition to screening for SVCV, samples were also collected from 30 fish at each site to screen for bacterial pathogens and Infectious Pancreatic Necrosis Virus as part of the National Wild Fish Health Survey. Dave Insley of the Ohio Division of Wildlife assisted with site selection and coordinated electro-fishing efforts and sample collection.

SVCV was first discovered in the United States in 2002 and primarily affects carp and other cyprinid fishes. Because SVCV is a fish disease of international concern, the Fish and Wildlife Service recently began a surveillance program, sponsored by the U.S. Department of Agriculture's Animal and Plant Health Inspection Service, to determine the distribution of SVCV in the United States.

Rick Nelson, La Crosse FHC

Fourteen Lake Sturgeon Captured in One Day on the Osage River

During the week of March 13, biologists Corey Lee and Geno Adams and technician James Williams captured 14 lake sturgeon while gill netting in the Osage River as part of additional sampling for the Long-term Pallid Sturgeon Monitoring Project. The largest of the fish was just less than four feet in length. The confluence of the Osage River has been previously recognized by the Columbia FRO as a hot spot for catching lake sturgeon in the lower 250 miles of the Missouri River.

Eight of these fourteen fish were confirmed as stocked fish, implanted with a coded-wire tag, that the Missouri Department of Conservation (MDC) had released in the Missouri to restore a native population. All 14 fish were tagged with Passive Integrated Transponders (PIT) before being released. Captured lake sturgeons are PIT tagged as part of a collaboration with MDC in recapture studies which show movement and survival. This is part of a successful 20+ year stocking program by MDC. Lake sturgeon is listed as an endangered species by Missouri.

Corey Lee, Columbia FRO

-USFWS photo by Corey Lee

Displayed are 8 of the 14 lake sturgeon captured while gill netting in the Osage River as part of the Long-term Pallid Sturgeon Monitoring Project.

Twelve and a Half Miles of Gillnet Used During Winter Pallid Sturgeon Monitoring

The end of March marked the end of winter gillnetting for the Pallid Sturgeon Monitoring Project. Gillnetting started during early December and continued throughout the winter months. Monitoring the Lower Missouri River for pallid sturgeons has been a major task for the Columbia FRO and other agencies involved with sampling the upper portions of the river (South Dakota Game and Fish, Nebraska Game and Parks, Missouri Department of Conservation, and Missouri River basin Fish and Wildlife Service offices). Biologists Andrew Plauck, Corey Lee, Jeff Finley, Geno Adams, Nick Fronahuer, Cliff Wilson, Nick Utrup, Wyatt Doyle, and Jennifer Johnson all braved some harsh winter weather and ran more than twelve and half miles of gill nets since the beginning of December.

Gill nets are used during the colder months when river fishes can easily tolerate stress they may experience from being entangled. Experimental gill nets with four different mesh sizes ranging from 1½ -4 inches are the standard gear for this aspect of the project. Dead-set (anchored in one location overnight) trammel nets, and larger mesh gill nets are also used as non-standard (wild) gears to target larger sturgeon—typically pallid sturgeons—and to compare effectiveness of the standard gear while reducing by-catch of smaller, non reproductive sturgeon. When the water warms up, other gears including trawls and drifted nets replace the stationary gears in our year-round pursuit of pallid sturgeon and other Missouri River fishes.

Only nine pallid sturgeon and seven hybrids (pallid and shovelnose cross) were captured during the winter season among thousands of shovelnose sturgeon. The shovelnose sturgeon data has yet to be entered; based on the number of gloves we've worked to shreds, an estimate of 4,000 shovelnose sturgeon is likely a conservative figure.

We were hoping to capture large, wild pallid sturgeon for transport to Gavins Point NFH. Wild fish are needed for brood stock to increase genetic diversity of the stocking program. Unfortunately, the nine pallid sturgeons that were captured were either not yet reproductively mature or were of hatchery origin and represent a family of genetically identical fish previously stocked. Sampling for brood stock continued through April with several different gears including baited setlines, trawling, drifting trammel nets, and large mesh gillnets.

While the endangered pallid sturgeons are obviously not encountered daily, many other interesting fish were captured. The Lower Missouri River is known for its large catfish. Two very large blue catfish—both over 70 lbs.—were captured within two weeks of each other. Another fish that raised eyebrows on a cold, nasty day was a 14-inch albino blue catfish, the first our crew has ever seen. A week later, on another blustery day, an albino shovelnose sturgeon was captured, another first for our crew. Albinism is a rare occurrence in riverine fishes and having captured two emphasizes the amount of effort this project is placing on finding the elusive and extremely rare pallid sturgeon.

Andy Plauck, Columbia FRO

Andy Plauck wrestles with a 70 pound blue catfish captured during pallid sturgeon monitoring in the Missouri River (above). A rare albino shovelnose sturgeon was also captured (below).

-USFWS photos

Pallid Sturgeon Culture at the Neosho NFH

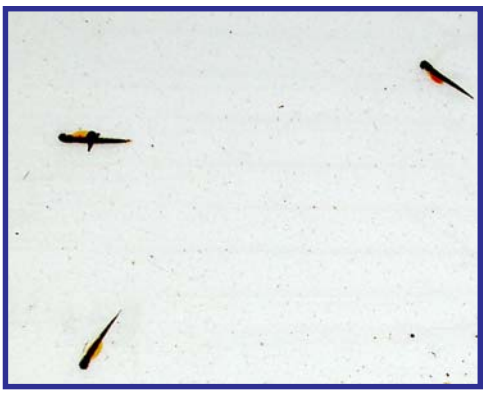
Most of the pallid sturgeon being reared at the Neosho NFH have reached the average target size, and tagging began the last week in April. Each fish will carry two tags, an elastomer tag and a Passive Integrated Transponder (PIT) tag. Assistant Director Dr. Mamie Parker, Regional Director Robyn Thorson, and Assistant Regional Director for Fisheries Gerry Jackson were visiting the hatchery at the time, and got a chance to tag some of these Federally endangered fish. After tagging, the sturgeon will be stocked into the Missouri River.

Roderick May, Neosho NFH

Brook Trout Fry Released

In December 2005 and January 2006, the Iron River NFH and Ashland FRO stocked coaster brook trout eggs in egg boxes to establish a self-sustaining brook trout population in Whittlesey Creek, Wisconsin. On March 30, Jonathan Pyatskowit and Henry Quinlan removed the egg boxes and released the fry in slack water or off-stream eddies where current was reduced. Once spring flows recede, we will try to capture released fry using small aquarium nets to confirm survival. During the 2003-2004 egg stocking, we were able to capture hatched fry using this method and hope to be able to find more fry again this year.

Jonathan Pyatskowit, Ashland FRO



-USFWS

These coaster brook trout fry hatched from eggs that were placed in protective boxes in Whittlesey Creek near Ashland, Wisconsin, under the initiative to establish a self-sustaining population.

Aquatic Invasive Species

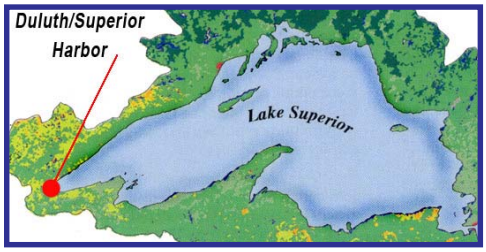
Aquatic Invasive Species Early Detection Monitoring Model for the St. Louis River Estuary

The Ashland FRO participated in an early detection and monitoring workshop for aquatic invasive species (AIS) sponsored by the U.S. Environmental Protection Agency (EPA) laboratory in Duluth, Minnesota. The EPA lab is designing an AIS early detection monitoring protocol model using the St. Louis River estuary (includes Duluth and Superior, Wisconsin, harbors) as the case study area. Other participants in the workshop included the Departments of Natural Resources for Minnesota and Wisconsin, U.S. Geological Survey Lake Superior Biological Station, Minnesota Sea Grant, University of Minnesota-Duluth, University of Minnesota-Natural Resources Research Institute, University of Wisconsin-Superior, and Wilson Environmental Laboratories, Inc.

Participants were divided into two groups, fish and invertebrates. Each group brainstormed ideas for sampling methods, as well as when and where to target the sampling methods in the harbor. The fish group suggested two areas of focus, early detection monitoring targeting heavy boat slips, tributary mouths, and boat ramps; and sampling for established populations targeting other habitats (spawning, nursery, macrophytes). The invertebrate group suggested a tiered approach, with detecting presence/absence (qualitative) in broad areas as the first tier. If detected, the second tier of invertebrate sampling would consist of point assessments (quantitative).

Other strategies that the EPA lab is considering for the model include rapid reporting, balancing presence versus assessment, combining vectors and habitats, the use of previous sampling to guide design, and using geographic information to check for a spatial distribution between different vectors.

Gary Czypinski, Ashland FRO



-USFWS

The Ashland Fishery Resources Office participated in an aquatic invasive species (AIS) early detection and monitoring workshop sponsored by the U.S. Environmental Protection Agency laboratory in Duluth, Minnesota. The lab is designing an AIS early detection monitoring protocol model using the St. Louis River estuary (includes Duluth and Superior, Wisconsin harbors) as the case study area.

Draft Asian Carp Management and Control Plan Submitted to Aquatic Nuisance Species Task Force

For nearly two years, the Fish and Wildlife Service, through the Carterville FRO, worked collaboratively with a diverse group of nearly 70 stakeholders to develop solutions for managing and controlling Asian carps. The Asian Carp Working Group, chaired by Greg Conover of the Carterville FRO, collaboratively developed a draft national management and control plan for Asian carps in the United States. Management and control of Asian carp is contentious, especially because three of the four species (bighead, black, and grass carps) currently have commercial applications and are legally sold and traded in the United States.

This collaborative process was a highly successful effort and nearly all issues were resolved. The draft plan identifies seven goals, 46 strategies, and 129 recommendations to protect the nation's natural resources. The *Draft National Asian Carp Management and Control Plan* was submitted to the Aquatic Nuisance Species (ANS) Task Force. The ANS Task Force will review the document and consider it for release to the public for comment. The draft plan will be one of several aquatic nuisance species issues discussed at the upcoming ANS Task Force meeting this May.

Greg Conover, Carterville FRO

Mississippi Interstate Cooperative Resource Association Executive Board Briefed on Carp Plan

Carterville FRO biologist Greg Conover attended the Mississippi Interstate Cooperative Resource Association (MICRA) Executive Board meeting to discuss the management and control of Asian carps in the United States. Four species of carp native to Asia (bighead, black, grass, and silver carps) have been introduced into waters of the United States; three species (bighead, grass, and silver carps) have established reproducing populations within the Mississippi River basin. Bighead and silver carps are spreading rapidly throughout the basin. Greg provided the MICRA Executive Board with an overview of the *Draft National Asian Carp Management and Control Plan*, as well as the strategies and recommendations identified by the Asian Carp Working Group for managing and controlling these species.

Greg Conover, Carterville FRO

Public Use

Fort McCoy Rainbow Trout Stockings Pay Great Dividends to Anglers

Spring trout season is upon us, and to prepare for the big opener the Genoa NFH raised and stocked 15,000 9.5 inch rainbow trout for the Fort McCoy Army Base, located near Sparta, Wisconsin. Creel surveys and the sale of base trout stamps indicate that this rainbow trout fishery created 33,280 angler trips which result in 66,580 angler hours of quality fishing in 2005.

In recent years, due to a reprioritization in the Fisheries program, the base was forced to contract out rainbow trout production. After a few years of being supplied rainbow trout from other sources, it was found that quality control and a reliable source of fish at time of stocking were lacking. Due to some recent improvements at Genoa, some coldwater culture facilities became available without impacting ongoing restoration programs. The hatchery was approached to provide 15,000 rainbow trout per year through a reimbursable agreement. It has been a win/win situation for both agencies. Through cooperative management, a highly used and popular recreational fishing opportunity is being provided for local anglers.

Doug Aloisi, Genoa NFH

-USFWS

Genoa National Fish Hatchery personnel stock rainbow trout at Fort McCoy as part of a reimbursable agreement.

"People Eat That?"

When my scalpel opened up the belly of the sturgeon, the ripe black roe oozed from the incision. "What is that black stuff!," exclaimed one child. I replied it was the eggs of the sturgeon. Also known as roe, which is processed into caviar, a delicacy in some cultures, to which the child replied "Gross! People eat that?"

Paxton-Keeley Elementary School sits adjacent to the Columbia FRO office providing the opportunity to partner in education with area children. Last year we invited the first grade classes to see some of the fish from the Missouri River. The students and teachers of the school expressed their desire to learn more about fish in the second grade so we stepped it up a notch.

This year the students learned about the physical characteristics of different animals and how they are adapted to living in various surroundings. Jennifer Johnson, Andy Roberts (malacologist with Columbia Ecological Services Field Office), and Jeff Finley displayed a variety of different body forms of fish and mussels found in the Missouri River. More than 100 students watched a video of lures used by mussels, handled different mussel shells, and learned the body forms and important organs of Asian carp, smallmouth buffalo, paddlefish, river carpsucker, and shovelnose sturgeon during a dissection exercise.

We are grateful for the opportunity to work closely with our neighbors and the students and staff of Paxton-Keeley Elementary. It is a joy to partner with our local schools and shape the minds of tomorrow's natural resource managers, thus fulfilling our goal to facilitate shaping future leaders through promotion and outreach.

Jeff Finley, Columbia FRO

-USFWS photo by Andy Starostka

Children from a Paxton-Keeley Elementary 2nd grade class look on as biologist Jeff Finley dissects a female shovelnose sturgeon. The black eggs of the sturgeon were particularly facinating to the children.

Another Day with Wildlife

On April 2, biologist Jennifer Johnson and technician Dustin Martin represented the Fish and Wildlife Service at the city of Columbia, Missouri, annual "A Day with Wildlife" celebration. This marks the second year Columbia FRO has participated in the event, organized by the Missouri Department of Conservation and featuring booths from both government natural resources and non-government organizations related to natural resources. Popular activities include archery and marksmanship workshops along with a children's fishing clinic. This free event provides local residents an opportunity to enjoy a fine spring day and explore the numerous outdoor activities that Missouri has to offer.

The Columbia FRO uses the event to promote the goals and current activities of the Fisheries program. Jennifer and Dustin displayed a workboat and trawl equipment used in Missouri River fisheries projects and displayed live shovelnose sturgeon, allowing kids to get up close and personal with this odd looking fish. This gave biologists a chance to educate attendees on general life history characteristics of river fish and what role they play in the river ecosystem. Jennifer and Dustin fielded questions from visitors regarding current station activities such as the Pallid Sturgeon Recovery Project, Habitat Assessment Project, and Mitigation efforts along the Missouri River.
Jennifer Johnson, Columbia FRO

-USFWS photo by Dustin Martin
Biologist Jennifer Johnson talks about shovelnose sturgeon at the 2006 *A Day With Wildlife* in Columbia, Missouri.

Ashland FRO Participates in Trout Unlimited Fishing Expo

The Wild Rivers Chapter of Trout Unlimited hosted its annual Fishing Expo on a warm Saturday afternoon on April 8. This annual event brings together Trout Unlimited, and local natural resources agencies and organizations to highlight events and projects they are working on. It is also used as a fund raiser for the Wild Rivers Chapter's many projects.

Ashland FRO biologist Glenn Miller staffed a booth highlighting the Region 3 Fish Passage program and projects the office has done and has planned for the upcoming year. Fact sheets, posters, and brochures on the Fish Passage program and the Ashland FRO fish passage website were made available. Two posters from the Region 3 Fish Passage program, one showing all dams over six feet in height and the other highlighting current and completed projects, were also displayed.

The public had good questions on what the Fish Passage program is and how it benefits the aquatic ecosystem. One of the general comments made was in regards to the Fish Passage poster highlighting the dams over six feet, as it looks like there are numerous waterways in Region 3 that have a problem with fish passage. When it was explained that road crossings and culverts exaggerate the problem even more, many expo participants wondered how they could help. In addition, a website address for the Bad River Watershed Association and a copy of their recent newsletter describing their culvert survey were available that described the actions individuals can take to help with this problem. The Ashland FRO booth was flanked by booths from Whittlesey Creek NWR and Iron River NFH.
Glenn Miller, Ashland FRO

-USFWS
Alpena Fishery Resources biologist Glenn Miller discusses the Fish Passage program and other office projects at the Wild Rivers Chapter of Trout Unlimited Fishing Expo.

2006 Aquatic Invasive Species Awareness and Earth Day Event Held

Live sea lamprey were a popular attraction at the third annual Earth Day Celebration and "Bring Your Child to Work Day" event that took place on April 20 at Constitution Hall in Lansing, Michigan, Heather Rawlings of the Alpena FRO and Bob Kavetsky of the East Lansing Field Office participated in the event, providing information on invasive species, and the U.S. Geological Survey Hammond Bay Biological Station provided live invasive sea lampreys for display. The event was hosted by the Michigan Depart-

ment of Environmental Quality, Michigan Department of Agriculture, and Michigan DNR to educate students about the Earth's resources and environmental issues. More than 500 children, some with parents and some with school groups, attended the event.
Anjanette Bowen, Alpena FRO

-USFWS photo by Heather Rawlings
Bob Kavetsky educates students about invasive species during the Aquatic Species Awareness and Earth Day event held on April 20 in Lansing, Michigan. Alpena Fishery Resources Office and East Lansing Field Office staffed the event which was hosted by several State of Michigan agencies.

River Education Days a Success

The 3rd Annual River Education Days held at Trempealeau NWR drew some 800 students who attended the two days of presentations, games, learning exercises, and other fun events. Invited presenters included staff from the La Crosse FHC, La Crosse FRO, U.S. Army Corps of Engineers, U.S. Geological Survey, Trempealeau First Response Emergency Medical Unit, and the Trempealeau NWR. Lunch was also provided to all in attendance.

The La Crosse FHC had a booth display on *Fish Anatomy and Dissection of Trout for Inspection Purposes*. Fish were provided by the Genoa NFH. Groups of students with teachers and volunteer parents were split into five groups to visit each site scattered throughout the NWR grounds. A 35-45 minute presentation was provided for each group with time allowed to answer the many questions by students.
Rick Nelson, La Crosse FHC

-USFWS
The 3rd Annual River Education Days, held at Trempealeau National Wildlife Refuge (NWR), drew some 800 students. Presenters included staff from the La Crosse Fish Health Center, La Crosse Fishery Resources Office, U.S. Army Corps of Engineers, U.S. Geological Survey, Trempealeau First Response Emergency Medical Unit, and the Trempealeau NWR.

University Students Experience Fish Health for a Day

Eleven students from the University of Wisconsin-La Crosse worked with Becky Lasee and Corey Puzach of the La Crosse FHC as part of their coursework for Aquatic Animal Health. The class goes over a wide range of fish health topics such as fish anatomy, viruses, bacteria, parasites, nutrition, and environmental concerns. The students had several lectures that prepared them for this lab.

The students experienced virology first hand for a day. Their first task was working with cells. A variety of cell lines are used in screening for fish viruses. The students learned how to distinguish healthy cells from infected cells. They also worked on a cell split. Cells must be split for propagation purposes. The students then infected a flask of healthy cells with I*nfectious Pancreatic Necrosis* or IPN, a viral disease primarily associated with salmon and trout, but also isolated from other fish species. The students examined their cell splits for successful propagation. The students also compared these flasks with their IPN infected flasks. They successfully infected their flasks and saw the results of virus on healthy cells. A facility tour concluded the day.
Rick Nelson, La Crosse FHC

-USFWS
Students from the University of Wisconsin-La Crosse worked with La Crosse Fish Health Center staff as part of their coursework for *Aquatic Animal Health*.

Tomah Veterans Administration Fish Pond Improvements

A five-person cleanup crew of Fish and Wildlife Service personnel cleaned and removed excess weeds and algae from the edges of a pond used for the annual Tomah Veterans Administration's spring fishing tournament. The crew consisted of Dave Wedan, Scott Yess, and volunteer Don Schroeder from the La Crosse FRO; Rick Nelson from the La Crosse FHC; and Tesa Hoveland, student employee from the La Crosse District Office of the Upper Mississippi River National Wildlife and Fish River Refuge.

Just under 1,000 pounds of water weeds and algae were removed along the pond edges and taken to a compost pile for use in

the Medical Center's flower garden. The project will provide better fishing access for disabled veterans during the tournament. In previous years, many more pounds of weeds and algae have been removed, but with increased aeration, cooler temperatures, and mild winters, the vegetation was been kept down this year. The water in the pond is very clear and the 10-12 foot depth should create good fishing for the veterans. Genoa NFH has already stocked 1,000 9.5 inch rainbow trout into the pond. Previous stockings of largemouth bass and assorted panfish should offer a variety of opportunities to catch a fish. Local area middle school students will be on-hand to provide assistance to the veterans while fishing. To cap off the event, there will be a fish fry for all attendees and prizes awarded for a variety of categories so that everyone is a winner.
Rick Nelson, La Crosse FHC
Scott Yess and Dave Wedan, La Crosse FRO

Rainbow Trout from the Neosho NFH Support Public Use

Neosho NFH stocked local recreational areas with catchable size rainbow trout in April. About 500 were stocked in Hickory Creek which runs through a city park and 625 fish were taken to Capps Creek. In addition to the local stockings, 1,500 rainbow trout were transported to Knoxville, Iowa, and stocked into a Veterans Administration recreational fishing pond.
Roderick May, Neosho NFH

Neosho NFH Holds Annual Open House

Neosho NFH hosted its annual open house on April 22 and 23, coinciding with the City of Neosho's Thomas Hart Benton Festival and Dogwood Tour. Normally the open house event is just one day, Sunday; this year the city asked the hatchery to open its doors to the public and give tours on Saturday also. Just to kick it up a notch, the hatchery served hot dogs, chips, and drinks to the public.

Sunday was the big day, though. Several conservation organizations set up booths and the Missouri Department of Conservation gave away free dogwood, red bud, and white pine trees, which always attract a huge crowd. The Friends of the Neosho National Fish Hatchery served hot dogs and polish sausages with all the fixings to the visitors at lunch time. Both days went very well. Approximately 5,000 people passed through the hatchery over the weekend.
Roderick May, Neosho NFH

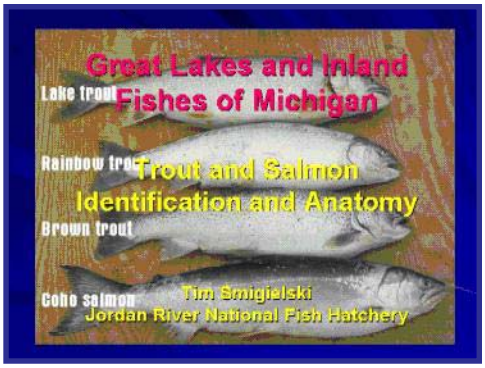
Opening Day of Trout Season a Success for Jordan River NFH and Partners

Of course the wind blew hard and it was cold, but April 29 will live in the memories of the many children who participated in the annual opening day event at the improved Johnson's Pond site in Mancelona, Michigan. Well over 100 kids fished there that Saturday. The opening ceremonies were led by Jordan River NFH's biologist Tim Smigielski, who spoke briefly to the crowd about partnerships and protection and enhancement of natural resources. State Senator Jason Allen and State Representative Kevin Elsenheimer helped kick off the day. There were lots of kids eating hotdogs, catching trout, bluegills, and bass, and they had a whole lot of fun. The partners and supporters, including Jordan River NFH, of the pond improvement project were in attendance to witness the fruits of their labor.
Tim Smigielski, Jordan River NFH

-Photo by Joan Moore
Biologist Tim Smigielski of the Jordan River National Fish Hatchery rocks the mic at the opening of the recently rehabilitated Johnson's Pond in Mancelona, Michigan. Michigan State Senator Jason Allen (left) and Michigan State Representative Kevin Elsenheimer (center) attended the event.

Mancelona Schools Students Tour Jordan River Hatchery

On a sunny Tuesday in April, 66 fifth graders from the Mancelona Middle School toured the Jordan River NFH. The students were on site for 1 ½ hours learning about cold water fish culture, lake trout rehabilitation, fish identification, and fish anatomy. The students from three fifth grade classes were led by biologists John Johnston and Paul Haver. Biologist Tim Smigielski showed a presentation on Great Lakes trout and salmon identification. Connie Brigham, a chaperone and organizer of the trip, was impressed and urged the students to return to the hatchery another day with family and friends.
Tim Smigielski, Jordan River NFH



-USFWS Screenshot

Tim Smigielski, with the assistance of other Jordan River National Fish Hatchery staff, has developed presentations and programs that have taken the hatchery outreach program to a new level.

Jordan River Adopts a Highway

Jordan River NFH completed the first-of-the-season Adopt-a-Highway roadside cleanup on April 27 with the help of six students from Concord Academy Antrim, four members of the East Jordan Snowmobile Club, and three members of the Friends of the Jordan River National Fish Hatchery. The crew collected 20 bags of trash from both sides of a two mile length of U.S. 131. Thanks very much to the following people for their assistance: Concord Academy Antrim students Nicole, Jenny, Erin, Stephanie, Mike, and Amanda; East Jordan Snowmobile Club members Jim, Marilyn, Gary, and Thad; Friends of the Jordan River NFH members Dan and Peg; and hatchery volunteers Andy and Dan.
Wayne Talo, Jordan River NFH

-USFWS photo by Wayne Talo

Jordan River National Fish Hatchery sponsors a crew for the Adopt-a-Highway roadside cleanup program in Michigan.

Boy Scouts Visit Jordan River

Wayne Talo provided a tour of the Jordan River NFH to a group of Boy Scouts in April. The group consisted of 25 to 30 people (including chaperones) from troops out of Traverse City and Okemos, Michigan. They stopped at the hatchery during their hike along the Jordan River Pathway to learn about the hatchery and take a lunch break. There was a brief rain storm at the end of the tour, so we set up some empty garage bays for their lunch break. After lunch, manager Rick Westerhof talked to them about careers in fisheries and various aspects of hatchery administration.
Wayne Talo, Jordan River NFH

-USFWS photo by Wayne Talo

Wayne Talo provided a local Boy Scouts troup with a tour of the Jordan River National Fish Hatchery.

Cooperation with Native Americans

Coasters Cruise to Lake Superior! Partnerships at Work on the North Shore

After 15 months of grow-out at the Genoa NFH, 12,000 9.5 inch coaster brook trout were loaded onto one of the largest distribution trucks that the Great Lakes/Big Rivers Region has available and placed in their new home, the cool waters of the North Shore of Lake Superior.

The Grand Portage Tribe, in cooperation with Ashland FRO, Iron River NFH, and Genoa NFH, is participating in a ten-year restoration program to bring back coasters to tribal waters, from which they have been absent since the 1950s due to inland stream habitat destruction. Coasters require stream habitats for spawning and nursery areas for the newly hatched fry. After a period of time, they migrate to the lake to grow and mature, hopefully to return to spawn in the inland streams. A newly drafted interagency management plan calls for restoration stockings to occur yearly for a decade, accompanied with fishery assessments to measure stocking survival. This cooperative effort with the tribe is already beginning to reap benefits.

Coasters are being found in local waters and a small fishery has been established. It is hoped that through these efforts and through the re-establishment of stream habitats that coasters require for spawning and nursery areas, coasters will once again frequent the North Shore. Many thanks to Dale Bast, Kurt Schilling, and Angie Baren of the Iron River NFH for making their distribution truck available and hauling coasters.
Doug Aloisi, Genoa NFH

-USFWS
This coaster brook trout has reached the size specified in a management plan to restore coaster brook trout in waters of the Grand Portage Tribe along the North Shore of Lake Superior.

Ashland FRO Assists Great Lakes Indian Fish & Wildlife Commission with Spring Walleye Surveys

The Ashland FRO assisted the Great Lakes Indian Fish and Wildlife Commission this spring with several walleye population surveys. The objective of this annual assessment is to estimate spawning populations of adult walleye and to collect fish for mercury testing from several lakes in Northern Wisconsin.

Walleye population estimates are used to set safe harvest levels on which tribal harvest quotas are based. Frank Stone conducted electrofishing assessment surveys on five lakes over an eleven night period. The sampling effort is conducted at night because this is when spawning activity and opportunities to collect walleye are maximized. Normally 1-3 nights of fish collection are needed on each lake to obtain sufficient data.
Frank Stone, Ashland FRO

Friends and Volunteers Tag Lake Sturgeon

La Crosse FRO volunteers and members of the Friends of the Upper Mississippi River Fishery Services helped PIT tag and check tag retention on 1,200 lake sturgeon at the Genoa NFH. The fish are destined to be stocked on the Menominee Indian Reservation. PIT tags, or Passive Integrated Transponders, are a little bigger than a grain of rice. When PIT tags are activated by a reader, they emit a digital code, similar to a bar code, that is displayed by the reader. Because the tags are only "on" when activated by the reader, they have an indefinite life span, making them an excellent tag for a long-lived species like lake sturgeon. Each tag has a unique code, enabling biologists to keep records for individual fish. A sample the tagged fish were also measured. This will enable us to track growth and survival of stocked lake sturgeon. In the long term, we may be able to reduce hatchery production costs by having a better understanding of post-stocking survival.

Volunteers enjoyed handling a large number of interesting fish. In addition, it was of great benefit to the Fish and Wildlife Service because of the quality of data collected on these fish, and because of the amount of work accomplished through volunteers. This work would have taken days instead of hours, had we not had the help of great volunteers.
Ann Runstrom, La Crosse FRO

-USFWS
Friends group member Don Schroeder holds a lake sturgeon while biologist Ann Runstrom makes sure the fish contains a Passive Integrated Transponder tag. The fish will be stocked on the Menominee Indian Reservation.

Leadership in Science and Technology

National Wild Fish Health Survey Sampling

Staff from the La Crosse FHC and the La Crosse FRO met in a joint effort at the Perrot State Park, Wisconsin, boat landing to sample carp as part of a National Wild Fish Health Survey. Many carp were collected and are being processed for the presence of pathogens of concern. La Crosse FRO provided an electrofishing boat to collect samples in the Mississippi River adjacent to the park.

Sampling carp species is a specialized request under a Memorandum of Understanding (MOU) with the Department of Agriculture-APHIS (Animal and Plant Health Inspection Service) and the Fish and Wildlife Service. The survey is to look at reported fish kill sites of common carp and related species going back four years throughout the United States. A fish virus called *Spring Viremia of Carp Virus* (SVCV) was recently found for the first time in carp at a commercial fish farm in the Southeastern United States. Since then, several new cases have been reported, especially in the Midwest including the Mississippi River.

Rick Nelson, La Crosse FHC

-USFWS

Ken Phillips samples wild fish as part of the National Wild Fish Health Survey.

There's More Than One Way to Hook a Fish

One of the many attributes of the Fish and Wildlife Service is that we employ people from many different backgrounds and experiences from around the nation. As we work with other natural resource agencies we learn even more. This can have positive outcomes when we can apply lessons and techniques from one region to another. This type of collaboration was evident when biologists at Columbia FRO were tasked with developing a better set line design which was durable, easier to deploy, safer to use, and allowed us to sample a large area for pallid sturgeon brood stock once water temperatures prevented the use of entanglement gear.

Andy Starostka and Jeff Finley worked to come up with a more durable and safer alternative to the "jump boxes" used at the Long Term Resource Monitoring stations and historically used at our office. Jump boxes contain the main line with all the leader lines that are directed attached to hooks. Andy's experience working in Alaskan waters and around longline boats provided insight to the use of large ganion clips, a heavy main line and tuna leader for the construction of our stageings (also known as ganions and droppers depending on local vernacular). The technique uses a four inch ganion clip with a swivel, a durable stiff material called "Tuna Leader" with a working strength of 800 pounds, and aluminum crimps to secure the hooks to the leader and leader to the swivel. The gainions are clipped onto 3/16" braided nylon rope at ten foot intervals.

The weakest link in the process is the hook, a 4/0 stainless steel O'Shaggassey. If tangled in debris or rocks, we no longer loose mainline, leaders, or swivels as the main line can be secured to the boat and pulled loose. The hook will straighten out long before the line breaks, and the hook can be easily bent back into shape or replaced. We now loose less time and gear in the process of searching for the elusive pallid sturgeon.

Safety was another primary consideration. Jump boxes either work flawlessly or are a terrible nightmare, with nothing in between. The hooks are pre-baited, permanently affixed to the main line, and organized into a box where they literally pop out of the box as tension is placed on the line when set. If a hook gets tangled, the deck hand must attempt to right the line or risk loosing the whole set in a tangled ball of twine. When this happens, it takes time and patience to untangle, which is not always an option in the swift waters of the Missouri River. Using our new design, the mainline is fed out of a tub or bucket without any hooks on it. The clips are pre-baited and either arranged in a rack or laid on the deck. As the line is set, the 10 foot intervals are marked where the ganions can be clipped. This keeps all hooks out of

the boat and resists tangling the line. When retrieved, the ganions are unclipped as the line is retrieved and the main line shucked into a tub or bucket without any hooks.

In a recent training exercise with other agencies, critical information was shared to make this process even safer. South Dakota Game, Fish and Parks employees suggested we anchor our boat, attach a float to the down stream end of the main line and clip ganions as the current pulls the line down stream. This prevents the deckhand from trying to "hold the boat" if they fall behind and still keeps hooks out of the boat. Once all the ganions are attached to the floating line, the deck hand will drop an anchor on the upstream end of the set line and then proceed to the end of the line, where the float is attached, to secure a weight or anchor to the end.

Jeff Finley, Columbia FRO

-USFWS

The Columbia Fishery Resources Office has adapted the use of ganion clips with swivels for use with set lines. The pre-baited hook units are attached to the main line as it is deployed, minimizing tangles and providing a safer work environment.

-USFWS photo by Jeff Finley

Biologist Geno Adams clips hook units (ganions) to the mainline of a set line on the Missouri River to catch pallid sturgeon broodstock. The detachable ganions are safer and minimize tangles.

2005 Lake Huron Lake Whitefish Distribution Study

Biologist Aaron Woldt of the Alpena FRO compiled lake whitefish tagging data from Fish and Wildlife Service and partner agencies in a shared database as part of a Great Lakes Fish and Wildlife Restoration Act-funded Lake Huron lake whitefish distribution study. The goals of this study are to determine the spatial distribution and movement patterns of eight selected lake whitefish stocks in Lake Huron and to determine the contribution of each stock to commercial fishery yields. The eight stocks selected for this study are Detour, Alpena (Middle Island & Thunder Bay), Saginaw Bay, Burnt Island, South Bay mouth, the Fishing Islands, Douglas Point, and Sarnia. Partner agencies for this study include the Fish and Wildlife Service, Chippewa Ottawa Resource Authority, Michigan DNR, Bruce Power, Chippewas of Nawash, Saugeen First Nation, and Ontario Ministry of Natural Resources.

In the fall of 2005, the seven participating agencies tagged about 8,500 lake whitefish across all sampling sites. Over 24,000 lake whitefish have been tagged and released from 2003 through 2005. Data was entered by each agency into a standard database designed by Woldt and sent to the Alpena FRO for inclusion in a central study database. Woldt provided each agency with data collection protocols and database formats prior to the study's start. Woldt has been working with agency representatives to ensure data accuracy and timely entry. To date, data has been entered and proofed from six agencies. Once all data has been entered, Woldt will distribute copies of the central database to all partners. The full database is needed to accurately process tag returns and issue rewards. Each tag carries a $5 reward.

Aaron Woldt, Alpena FRO

Aquatic Habitat Conservation and Management

Resolution Promotes Restoration of Driftless Area Watersheds

A joint resolution signed by the U.S. Secretary of Agriculture and the governors of Wisconsin, Minnesota, Iowa, and Illinois to collectively promote and facilitate restoration of watersheds in the Midwest Driftless Area was introduced to the public on April 19 at a festive news conference hosted by Trout Unlimited in La Crosse, Wisconsin. Dignitaries who addressed a standing room audience at the event included Dr. Mark Rey (U.S. Department of Agriculture, Under Secretary of Natural Resources and Environment), U.S. Representative Ron Kind of Wisconsin, Barbara Laughton (Wisconsin Lieutenant Governor), Pat Leavenworth (U.S. Department of Agriculture, Natural Resources Conservation Service State Conservationist for Wisconsin), and Chris Wood (Trout Unlimited, Vice President for Conservation).

Past land management practices in this unique, unglaciated region of the Upper Midwest have frequently caused massive soil erosion, stream degradation, and poor water quality in portions of this scenic landscape for more than a century. Federal efforts to reverse these trends began in Southwestern Wisconsin with the Coon Creek Watershed Project, the nation's first large-scale demonstration of soil and water conservation farming practices that began during the Dust Bowl era of the 1930s; however, many Driftless Area streams and the communities through which they flow continue to be adversely impacted by accelerated rates of water runoff and soil erosion.

The new resolution commits state and Federal agencies to work with local land owners to improve the region's land and water quality and use farm-bill programs to help pay for it. Changes in farming, grazing, and forest management practices can control water runoff and stem soil erosion, leading to cleaner water, healthier cropland, stronger economies, and an enhanced quality of life in the region. The benefits of watershed restoration became self-evident as staff from the La Crosse FRO and the Upper Mississippi River National Wildlife and Fish Refuge chauffeured dignitaries and guests on an afternoon auto tour of the region. Recently completed restoration work along Mill Creek near Chatfield, Minnesota, and North Bear Creek near Highlandville, Iowa, has stabilized these stream banks, improved trout habitat, attracted more anglers, provided new business opportunities, and benefited landowners and businesses that were previously threatened by severe bank erosion.

The Fish and Wildlife Service is also playing an active, long-term role in the Midwest Driftless Area Restoration Effort (MDARE) and has pledged $100,000 from the National Fish Habitat Initiative in support of this work for 2006. For more information on the role of the Fish and Wildlife Service in the MDARE, contact Louise Mauldin at the La Crosse FRO or visit the website at: http://www.fws.gov/midwest/lacrossefisheries/projects/Driftless.html.

Mark Steingraeber, La Crosse FRO

-USFWS

Iowa Department of Natural Resources employees electrofish for trout in North Bear Creek on the Walter Langland Farm near Highlandville, Iowa, during a tour of Driftless Area watersheds that have recently been restored.

Severance Creek Bliss Road Fish Passage Project

On April 20, the Antrim County Road Commission completed a culvert replacement at the Bliss Road crossing on Severance Creek in Northern Lower Michigan. The project identified two undersized and perched culverts that reduced native brook trout passage in the Jordan River. The culvert also contributed to ponding of water upstream causing water temperatures to warm. The project was completed by replacing the perched culverts with a bottomless culvert. Replacement of the culvert opened up approximately three miles of aquatic habitat for native brook trout. Oversight for project construction was provided by Alpena FRO biologists Susan Wells and Heather Rawlings, and Kim Balke from the Conservation Resources Alliance (CRA). Funding for this project was provided by the Region 3 Fish Passage program, Partners for Fish and Wildlife, Antrim County Road Commission, and in-kind services from CRA.

Susan Wells, Alpena FRO

Post Monitoring of Little Ocqueoc Fish Passage Project Conducted

Biologist Susan Wells and Huron Pines Resource Conservation and Development (RC&D) conducted a post construction survey of a 2005 project site on the Little Ocqueoc Creek in April. The survey was done to document changes in the morphology of the stream that may be occurring. Wells and personnel from Huron Pines RC&D had conducted a pre-construction survey on August 31, 2005. The Little Ocqueoc is a tributary to the Ocqueoc River, which is a state designated blue ribbon trout stream. The site contained twin perched culverts that prohibited fish movement into the upper stretches of the system. The Presque Isle County Road Commission completed the project in October 2005 using a bottomless railroad tanker car.

Both pre and post-construction surveys included a full longitudinal profile of 500 feet of the stream above and below the site. A comprehensive pebble count was also conducted to document substrate above and below the structure. Kris Bruestle from Huron Pines RC&D entered the information for both evaluations into a computer program which drew the profile and calculated the dominate substrate. The post-construction survey data indicates that a change has occurred in the plunge pool dimensions below the new structure; however, the hydraulics of the system are still conforming to changes resulting from installation of the new bottomless structure. In the fall of 2006 the survey will be repeated to continue documenting any morphological changes that may be occurring. The Michigan DNR has provided historical fishery data for this area and has plans to return to this site for a fishery assessment within the next two years. The fishery data combined with the morphological data will provide a comprehensive look at changes in the morphology and biology of the system before and after the restoration project occurred.

Susan Wells, Alpena FRO

-USFWS photo by Susan Wells

Alpena Fishery Resources Office and Huron Pines Resource Conservation and Development conducted a post construction survey of Little Ocqueoc Creek to document changes in the morphology of the stream that may be occurring. The site contained perched culverts that were replaced with a bottomless culvert in 2005.

Field Season Begins with Explosion of Work

The Alpena FRO's Partners for Fish and Wildlife program field season began in a dramatic fashion in early April due to an early snowmelt and warmer than average temperatures. A record number of landowners have contacted biologist Heather Rawlings with requests for site visits and the Fish and Wildlife Service's involvement on stream, wetland, and grassland improvement projects. Sixteen site visits were conducted in eight counties, two surveys were completed, and two fieldwork planning meetings were held.

A record number of requests ensure projects that will be chosen for funding will be higher quality sites with more partner participation. The Alpena FRO annually provides approximately $180,000 towards habitat restoration projects in Northern Michigan through the Partners for Fish and Wildlife program.

Heather Rawlings, Alpena FRO

-USFWS photo by Heather Rawlings

The Alpena Fishery Resources Office's Partners for Fish and Wildlife program field season began in a dramatic fashion in early April due to an early snowmelt and warmer than average temperatures. Sixteen site visits were conducted in eight counties, two surveys were completed, and and two fieldwork planning meetings held.

Ashland FRO Fish Passage Program Coordinator Meets with County Highway Officials

At the April meeting of the Ashland County Highway Commission, biologist Glenn Miller presented information on the Region 3 Fish Passage program and Ashland FRO's work with fish passage projects. The latest Region 3 fact sheet along with other literature on fish passage was made available to the commissioners, including a short history of how Ashland FRO has worked with the Ashland County Highway Department and towns in Ashland County.

Highway Superintendent Emmer Shields praised past cooperative projects, and highlighted several projects for the upcoming field season. Shields pointed to a project where an aluminum box culvert will be used to replace an undersized crossing currently in place, as a result of training that personnel had received at a workshop hosted by the Ashland FRO.

An offer of technical expertise was offered to Ashland County officials in developing fish passage projects on the county highways and other projects as needed. The Ashland FRO is looking forward to this working relationship with Ashland County and will be making this offer to the other counties over the next few months.
Glenn Miller, Ashland FRO

Big Cats Part of Catch as Planning and Monitoring Continue for Fish Passage Projects on the Mississippi River

The Carterville FRO participated in planning and preliminary evaluation of fish passage projects at two of the main stem locks and dams on the Upper Mississippi River. The U.S. Army Corps of Engineers' St. Louis and Rock Island Districts are currently planning fish passage projects at Mel Price Lock and Dam near Alton, Illinois, and Lock and Dam 22 near Hannibal, Missouri. Part of the planning process is the evaluation of the fisheries at the dams before, during, and after construction of fish passage structures. The purpose of our work was to determine which species were concentrating in the area below the dams on a seasonal basis. The Corps' vessel *M/V Boyer* performed high-resolution sonar work below both dams in May and November 2005. Concentrations of fish below the dams were mapped, and Carterville FRO personnel used deep-water electrofishing and netting to determine the species compositions.

As a follow-up to the 2005 work, the Corps and Carterville FRO repeated the sampling in April, and will do so again in May. The intent of the back-to-back samples is to identify species assemblages below both dams, before and after the dams go to an "open river" condition. "Open river" occurs when the river rises to a point that the dam gates are raised completely out of the water and the river is actually free-flowing (at least for a short time). Although this is a common occurrence, it may or may not happen at a given dam every year. Unfortunately nature does not always cooperate, and this spring was no different. Open river conditions will likely not be reached at Mel Price Lock and Dam this year. At Lock and Dam 22, the *M/V Boyer* crew worked late into the night to complete sonar work prior to the Lockmaster opening the gates; unfortunately, Mother Nature didn't allow enough time for the *M/V Boyer* and the Carterville FRO crew to complete their work before going to open river. Carterville FRO sampling was completed after the dam had been at open river for a number of days.

A variety of species were captured at both dams. Deep-water electrofishing proved to be moderately effective in capturing fish at various depths, but it was especially effective for fish that were on or near the bottom of the river. In one relatively small area below Mel Price Lock and Dam, we were able to capture nearly 250 blue catfish ranging in size from 5 – 51 inches by dragging the electrodes along the bottom in water up to 40 feet deep. Supplemental netting at both dams allowed us to capture primarily sturgeons, species that we were unable to effectively capture with electrofishing. Other species captured at the dams included sauger, flathead catfish, bighead carp, silver carp, and blue suckers. This work will be an ongoing part of a multi-faceted fisheries monitoring plan for these fish passage projects. Partners in this project include the U.S. Army Corps of Engineers, Illinois DNR, Missouri Department of Conservation, and Southern Illinois University.
Nate Caswell, Carterville FRO

-USFWS photo by Rob Simmonds
Carterville Fishery Resources Office biologists Nate Caswell (left) and Colby Wrasse hoist a pair of impressive blue catfish captured with deep-water electrofishing below Mel Price Lock and Dam in Alton, Illinois, during pre-project evaluation of a fish passage project at the dam.

Workforce Management

National Conservation Training Center travels to the Field to Conduct Electrofishing Training

Hosted by the Ludington Biological Station, the National Conservation Training Center came to Michigan recently to train more than 25 people in the safe use of electrofishing. Most students were members of the Sea Lamprey Control program; however, there were several fishery professionals from across the country. The training was conducted at the West Shore Community College and is in response to the Fish and Wildlife Service's modified Electrofishing Policy that requires employees to undergo electrofishing training every five years. Instructors Jim Reynolds and Jim Boardman conducted the 40-hour course that taught electric circuit theory, system components, and sampling considerations; and also stressed employee safety, awareness of fish stress and injury, and focused on increasing personal skills in operating various electrofishing gear types.
Michael Fodale, Marquette Biological Station

-GLFC by Michael Fodale
Instructors Jim Reynolds (upper left) and Jim Boardman (upper right) conduct measurements of the electrical parameters from a boomshocking boat during National Conservation Training Center sponsored *Principles and Techniques of Electrofishing* course.

Staff Train New and Returning Employees at Marquette and Ludington Biological Stations

American Red Cross certified Cardiopulmonary Resuscitation (CPR) instructors (Fish and Wildlife Service employees) trained over 30 new and returning employees to the Sea Lamprey Control program during the month of April. The program, led by Dr. Gary Klar, is committed to a very strong safety program that uses CPR and First Aid training as a foundation of annual safety training for its employees. Other safety related training included Defensive Driving for Federal Employees, All Terrain Vehicle Safety, Hazard Communication and Awareness, Motorized Shop Tool Safety, DOI Boat Safety, Lyme Disease, and West Nile Virus along with fire extinguisher practice and certain job-related safety techniques dealing with machines and vehicles.
Michael Fodale, Marquette Biological Station

Fishery Biologist - A Career Worth Considering

Mark Steingraeber, a fishery biologist at the La Crosse FRO, made environmental career presentations to more than 200 students from six local schools, and the University of Wisconsin-La Crosse on four occasions during March and April. He described the duties, responsibilities, and requirements of a professional fishery biologist for the Fish and Wildlife Service while a monitor displayed examples of the diverse work performed daily by fishery biologists who are employed around the country by this agency. Based on personal experiences dating back more than 30 years, Steingraeber described his life-journey as an urban youth who overcame an early fear of water and non-swimmer status, discovered the fascinating world of fishes, and followed an educational path that has led to a satisfying natural resource career in service to the nation. The importance of communication, information technology, math, and interpersonal skills was also stressed in whatever career the students may choose. Interested students were invited to examine this and other natural resource careers more closely by taking part in volunteer opportunities during the upcoming summer vacation season.
Mark Steingraeber, La Crosse FRO

-USFWS
Mark Steingraeber discusses his career as a fishery biologist at the La Crosse Fishery Resources Office with students from nearby Aquinas Middle School.

Managing the Workforce may involve Interagency Cooperation

Dan Traynor, a 23-year-old from Michigan's Upper Peninsula, began volunteering at the Jordan River NFH on April 10. Dan attended Pickford High School and recently earned a bachelor's degree in Fisheries and Wildlife Management from Lake Superior State University. Dan chose fisheries and wildlife as his area of study because he grew up in the country and loves working in the outdoors. His favorite hobbies include hunting, fishing, cutting firewood, and farming.

Dan's work experience reflects his love for working with fish and wildlife. His first job in this field was working for the Lake Superior State University Aquatic Research Laboratory raising Atlantic salmon and working on various fisheries research projects, including lake sturgeon and Chinook salmon studies. Dan has since conducted fisheries and wildlife research with Michigan DNR Hunt Creek Fisheries Research Station, University of Wisconsin-Steven's Point, Michigan State University, and Michigan DNR Charlevoix Fisheries Research Station. His career goal is to obtain a permanent position with the Michigan DNR Fisheries Division.

Dan volunteers as part of a cooperative effort between the Charlevoix Fisheries Research Station and Jordan River NFH to provide cost effective housing for short term workers. In return for volunteering, Dan is allowed to live in one of the hatchery's on-site houses free of charge. This is an exceptional deal for Dan because he enjoys living in the Jordan Valley, as well as working with the crews from the Charlevoix DNR Station and Jordan River NFH.
Dan Traynor, Jordan River NFH

-USFWS photo by Wayne Talo

Dan Traynor volunteers at the Michigan Department of Natural Resources Charlevoix Fisheries Research Station and the Jordan River National Fish Hatchery. As part of the cooperative effort, the hatchery provides cost effective housing for him in exchange for volunteer service.

Minorities in Agriculture Natural Resources and Related Sciences 21st Annual Conference

Project Leader Tracy Hill participated in the Career Fair that was held in conjunction with the conference of the National Society for Minorities in Agriculture, Natural Resources and Related Sciences, a unique organization that promotes and fosters the involvement of minorities in agriculture, natural resources, and related science fields and has chapters established at various colleges and universities throughout the United States. The Annual National Career Fair & Training Conference is designed to develop partnerships between minority students in agriculture and natural resources with professionals from academic institutions, government agencies and industry, by promoting professional development, networking, and career placement in a nurturing environment.

Dr. Hill and staff at the Columbia FRO polled field station managers from across the Fish and Wildlife Service to determine the number of employment opportunities that exist with the organization. These opportunities were described and made available at the Career Fair to approximately 1,000 students. To be as effective as possible when carrying out the mission of the Fish and Wildlife Service, it's imperative that hiring practices mimic society in the workforce, and employers must be flexible enough to adjust to changing demographics.
Tracy Hill, Columbia FRO

Columbia FRO Biologist Participates in the GIS Workshop

Columbia FRO biologist Nick Utrup attended the 2006 National GIS Workshop at the National Conservation Training Center from March 7-10. This biennial workshop was developed to provide continuing education, training, and professional networking to Fish and Wildlife Service staff and managers to efficiently and cost-effectively apply geographic information systems (GIS) technologies to agency applications. This year's workshop was a huge success and involved more than 150 Fish and Wildlife Service personnel representing all regions. Topics covered during this workshop included: Geodatabase development and management, tips and tricks while using ArcGIS tools, beginner and advanced remote sensing, software demonstrations, and various lectures on GIS use in the Fish and Wildlife Service as well as other agencies. In addition to the various lectures and workshops, there were five plenary sessions/keynote speakers, a poster session, and an open GIS steering committee meeting.

A common thread throughout the workshop was the immediate importance and future direction of GIS technologies. Former Wyoming Governor Jim Geringer addressed the workshop about the importance of GIS from a social, economic, and environmental perspective in Wyoming as well as

the rest of the country. Some of the most important and immediate uses of GIS technologies were addressed by the GIS Emergency Response Team (Kevin Winter, Miranda Miller, Sean Triplet, and Ken Bottle) when they discussed their role in the aftermath of hurricanes Katrina and Rita. Geographic information system technology played a vital role in the rescue operations in the Gulf Coast region and is continuing to play a pivotal role in the ongoing cleanup and restoration efforts.

The Fish and Wildlife Service is currently working with other agencies to (1) develop standards for data sharing, (2) reduce data redundancy and improve overall efficiency by working to provide proper documentation of all published GIS data, which is also mandated by Executive Order #12906, and (3) incorporating GIS technology in ongoing initiatives. A GIS is not an end unto itself, but a powerful tool to accomplish other tasks. Both the visual display of information as well as the analysis of data are essential to the management and preservation of our natural resources and the communication necessary for appropriate actions across political and expertise boundaries. Some of the major benefits that flow from these items are cost reduction by improving mapping and/or database management, effectiveness gains by applying state-of-the-art spatial analytical methods to existing operational activities, improved credibility by providing accurate spatial data to validate management actions and proposals, improved habitat and land based information, and improved communication with public and private organizations.
Nicholas Utrup, Columbia FRO

Helping with Pallid Sturgeon Monitoring

Over the past year the Carterville FRO has been assisted with fieldwork by the Columbia FRO during times when the Carterville office was understaffed. During April, the Carterville FRO was able to return the favor. Carterville FRO biologist Colby Wrasse spent four days helping Columbia during their busy field season. Wrasse assisted biologists Cory Lee and Andy Plauck with gill-netting on the Missouri River. The fieldwork was part of the Columbia FRO's ongoing pallid sturgeon monitoring. During the week, three Federally endangered pallid sturgeon were captured along with several state endangered lake sturgeon. The week of fieldwork wrapped up Columbia FRO's sturgeon gill-netting season. The Carterville FRO and the Columbia FRO have a long history of working together to accomplish their respective missions. The sharing of our workforce remains an excellent way to cross-train employees, which ultimately leads to a well-rounded and more capable workforce.
Colby Wrasse, Carterville FRO

Service Asset Maintenance Management System Training for Regional Fishery Resources Offices

Most Region 3 Fishery Resources Offices were represented at a two day Service Asset Maintenance Management System (SAMMS) training course held at the Regional Office in Fort Snelling, Minnesota. SAMMS is a web-based application that tracks Fish and Wildlife Service assets and maintenance expenses of nonsensitive items that are purchased for less than $5,000. This database will be used to track current maintenance cost and forecast long-term needs for Region 3 Fishery Resources Offices.
Frank Stone, Ashland FRO

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-Jerry French Postcard Collection; U.S. Fish Hatchery, Cape Vincent, New York

Windows in time

A Glimpse into our Proud Past

The Cape Vincent Fish Hatchery was located in Jefferson County in Upstate New York. It was situated on the last point of land in Lake Ontario, just as those waters drain into the Saint Lawrence River. The hatchery was established in 1894 and ceased operations in 1965 when it was transferred to the State of New York.

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