U.S. Fish & Wildlife Service

Fish Lines

Region 3 - Great Lakes/Big Rivers

Leadership in Conserving, Enhancing, and Restoring Aquatic Ecosystems

Fiscal Year 2005
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Team Work and Coordination Key in Lake Sturgeon Restoration Project

-USFWS photos

Series of photos depicting Fisheries involvement in spawning lake sturgeon for a restoration project on the White Earth Reservation: (Lt. to Rt.) (Top Row) Large female sturgeon to be used for spawning; Tom McCully (White Earth Department of Natural Resources) secures a female fish for spawning; Eggs are gently "stripped" from a female; (Middle Row) Spawning a large female fish; A female is stitched up after a Caesarian Section; Extracting sperm (milt) from a male lake sturgeon; (Bottom Row) Extracting milt; Milt is "activated" by adding it to water; The milt/water mixture is added to eggs for fertilization.

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

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

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.

Inside this Issue

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

Great Lakes - Big Rivers Regional Fisheries Program

Feature Story - Team Work and Coordination Key in Lake Sturgeon Restoration Project

Lake sturgeon once inhabited Minnesota's Red River of the North and its tributaries. At the turn of the twentieth century, sturgeon populations in the Red River of the North and many other Minnesota rivers and lakes began declining as a result of over harvest, pollution and water development projects. In 1926, a lake sturgeon weighing 176 pounds was caught in White Earth Lake; the last record of a lake sturgeon in this area came from Lake Lida in 1957.

-USFWS photo by Robert Elliott

Lake Sturgeon

Lake sturgeon have much historical significance in the upper Midwest. Native American cultures were partially dependent on the availability of lake sturgeon, and Indian villages were often located near waters were sturgeon spawned. Early Europeans settled on Minnesota's Lake of the Woods because of commercial fishing for lake sturgeon when their caviar and fine flesh were known worldwide.

In 1997, the White Earth Natural Resources Department, assisted by the Fish and Wildlife Service, Rainy River First Nations (Canada), and Minnesota Department of Natural Resources (DNR), entered into an agreement to restore lake sturgeon in White Earth Lake and Round Lake on the White Earth Reservation.

The management plan the agencies developed calls for annual stocking of 8,000 fingerlings in White Earth Lake and 5,000 fingerlings in Round Lake. Prior to stocking fingerlings, a significant team effort takes place. One huge hurdle is to test the sturgeon for viral diseases prior to shipping the eggs. Last spring, it took a true team effort to accomplish this goal. First, Scott Yess, from the La Crosse Fishery Resources Office (FRO), traveled to Baudette, Minnesota, to collect fin clips from 30 Rainy River lake sturgeon held by Mike Larson's staff with the Minnesota DNR. Yess delivered the fin clips to Becky Lasee at the La Crosse Fish Health Center (FHC) on April 26. Results of the viral tests, which proved negative, were completed on May 11. On May 18, Randy Zortman and Tom McCully of the White Earth Natural Resources Department, along with Scott Yess, assisted Joe Hunter and his staff from Rainy River First Nations with spawning nine adult lake sturgeon. Rick Nelson, project leader at La Crosse FHC, delivered some 50,000 eggs to Genoa National Fish Hatchery (NFH) on May 22. In late summer, the resulting fingerling sturgeon will be tagged and stocked on the White Earth Reservation. This was an incredible team effort and thanks to all who participated.

-USFWS

Fingerling lake sturgeon are produced by Genoa NFH for restoration stockings in White Earth and Round Lake on the White Earth Reservation.

For additional information,
contact Scott Yess at the La Crosse FRO:
Phone 608/783-8432
E-mail Scott_Yess@fws.gov
or visit their website at:
http://www.fws.gov/midwest/lacrossefisheries/

Partnerships and Accountability

Genoa NFH Staff Leads Field Trip for National Mussel Symposium

At the end of the 2005 Freshwater Mollusk Conservation Society Symposium in St. Paul, Minnesota, staff from Genoa NFH led a group of the nation's top mussel biologists to the Higgins' eye pearlymussel culture site on Lake Pepin, Minnesota. The purpose of the symposium and the field trip were to share useful information to aid others in their efforts to protect and save the nation's natural resources. While the Genoa staff prepared to collect culture cages for display, a caravan from St. Paul was led to the site by Gary Wege of the Twin Cities Field Office and Mike Davis of the Minnesota DNR.

As the group gathered on the shores of Lake Pepin, divers brought up culture cages full of two-year-old Higgins' eye pearlymussels from the depths of the lake, and once the sediment in the cages was washed out, the group was amazed at the mussels they saw. By seeing the success of the mussel culture program in Region 3, biologists from around the country may be able to repeat our success and potentially save other mussel species from extinction.

Tony Brady, Genoa NFH

-USFWS

Genoa NFH staff open up a mussel culture cage to display two year old juvenile Higgins' eye pearlymussels. Onlookers are part of the 2005 Freshwater Mollusk Conservation Society Symposium.

Wild Fish Isolation Facility Clears Fish for Captive Brood Stock

More than 2,800 11-inch lake trout departed Genoa NFH's Region 3 wild fish isolation facility to be added to the ongoing captive brood stock program at Sullivan Creek NFH in the Upper Peninsula of Michigan. This is cause for some excitement at Genoa, as it is the first wild fish lot that has been collected and given a clean bill of health in a number of years. Wild fish lots must be carefully screened before releasing them to captive brood stock hatcheries, to safeguard existing stocks from diseases that may cause catastrophic fish losses and/or station depopulation and disinfection.

In the fall of 2003, Genoa Biological Technician Jeff Lockington traveled to Cayuga Lake, New York, to collect eggs from wild Finger Lakes strain lake trout for the isolation facility. This strain is used extensively in upper Great Lakes rehabilitation efforts because of its apparent ability to avoid invasive sea lamprey predation. The eggs were then hatched and reared for a period of 18 months, or three disease inspections. Genoa NFH and La Crosse FHC biologists carefully monitored the fish for viral and bacterial diseases and declared them "disease free" in May. Isolation fish were never in contact with other hatchery fish and mussel populations.

These fish will add a valuable year class to the existing captive brood line, ensuring that brood stock genetic variability is carefully maintained. Their progeny will make up some of the four million lake trout yearlings stocked in the upper Great Lakes annually. Many thanks go to the Pendills Creek NFH for interrupting their ongoing spring lake trout distribution to haul the fish to their new home in Michigan.

Doug Aloisi, Genoa NFH

-USFWS

Jeff Lockington (Lt.) from the Genoa NFH removes a lake trout from a gill net fished from Cayuga Lake, New York. Jeff assisted fisheries personnel from New York with their annual lake trout egg collection in exchange for a genetically diverse sample of eggs to develop a captive brood stock line in Region 3.

Biologist Attends Missouri River Conference

Biologist Jennifer Johnson from the Columbia FRO attended the ninth annual Missouri River Natural Resources Conference in Pierre, South Dakota. The conference provided a forum to exchange information, share perspectives and solve problems. Johnson participated in a short course on Methods for Riverine Habitat Assessment on Great Rivers, which provided an overview of physical habitat, habitat classification and methods of habitat assessment. She also presented a poster titled "Reproductive Development of Missouri River Chubs in Relation to Environmental Variables," which was awarded third place in the poster contest, and attended presentations on biology, habitat, and environmental assessment and monitoring programs.
Jennifer Johnson, Columbia FRO

-USFWS

Biologist Jennifer Johnson presented a poster titled "Reproductive Development of Missouri River Chubs in Relation to Environmental Variables" at the 9th Annual Missouri River Natural Resources Conference.

Spring Sampling Conducted on Missouri River at Fort Leavenworth

Despite high water, Columbia FRO staff conducted spring sampling on the Missouri River near Fort Leavenworth, Kansas, in May, targeting the main stem of the Missouri River and the lower portions of tributaries, tributary mouths, and potential staging areas associated with these tributaries. Spring sampling included 22 drifted trammel nets, which captured 37 fish representing five species. Seventeen hoop nets, set overnight, captured 18 fish representing eight species, including a recaptured pallid sturgeon. The endangered sturgeon's identification tag indicated it was raised at Garrison Dam NFH and stocked in the Missouri River at Booneville, Missouri, on April 3, 2002.
Andrew Starostka, Columbia FRO

Fort Leavenworth Logo

Appreciation Dinner Held for Commercial Fishers

Biologist Adam Kowalski has begun preparations for the eighth annual Commercial Fishers Appreciation Dinner, hosted by the Alpena FRO to recognize Michigan state-licensed and tribal commercial fishers that assist the Fish and Wildlife Service with lake sturgeon work in Lake Huron. Kowalski reserved a site, hired a caterer, and ordered prizes and gifts such as life vests, rain gear, t-shirts, and coffee mugs; all purchased with volunteer funds.

Commercial fishers encounter lake sturgeon as by-catch during normal fishing operations for lake whitefish, yellow perch and channel catfish. The fishers volunteer their time by tagging and collecting biological information on lake sturgeon incidentally captured during fishing operations. Twelve commercial fishers who operate 19 boats currently participate in the study. Some 411 lake sturgeon have been tagged since the program began in 1995.
Adam Kowalski, Alpena FRO

Alpena FRO Assists with Coast Guard Training Exercises

Biologists Scott Koproski and Aaron Woldt recently assisted in training activities of the U.S. Coast Guard – Alpena Station to help prepare the Alpena Station for the 2005 boating season. Chief Petty Officer Brad Adams asked Alpena FRO to provide a crew and vessel to assist with training on search and rescue drills for guardsmen temporarily assigned to Alpena. The Alpena Station is the only post on Lake Huron between St. Ignace and Tawas, Michigan. Guardsmen execute more than 50 search and rescues annually, making this post vital in keeping the boating community safe in Northern Lake Huron.

For the exercises, Koproski and Woldt posed as vessel operators in distress on Thunder Bay. Radio communication took place between the Alpena Station base, the Alpena Station vessel and Alpena FRO's vessel during the training. Guardsmen performed a variety of towing exercises and Koprowski and Woldt presented a number of emergency situations. Each exercise was representative of search and rescue operations.
Scott Koproski, Alpena FRO

Acquisition Management Review Conducted at Jordan River NFH

Regional Office staff recently conducted an Acquisition Management Review at the Jordan River NFH. Lynn Kelley, Debby Peterson, and Vince Becker of the Contracting and Facilities Management office in Ft. Snelling, Minnesota, made the hatchery one of their five stops for the week while in Michigan.

Kelley reviewed all property maintained at the hatchery and verified that vehicles were properly marked with Fish and Wildlife Service emblems and license plates, while Peterson and Becker reviewed all purchase/delivery orders and credit card purchases for fiscal years 2004 and 2005. The review also gave the administrative staff a chance to ask questions about their areas of expertise (i.e. property, IDEAS, etc.) Since the three visitors mentioned that this was the first hatchery they had ever visited, they enjoyed a tour of facilities and a discussion of the lake trout rehabilitation program. They all agreed it would be a nice place to work.

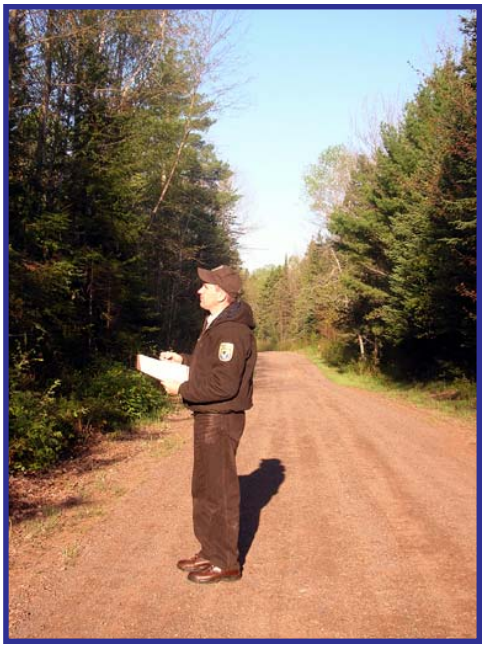
Clarice Beckner, Jordan River NFH

Biologist Participates in Mourning Dove Call-Count Survey

As part of the Fish and Wildlife Service's nationwide Mourning Dove Call-Count survey, Ashland FRO Biologist Ted Koehler surveyed Wisconsin Route #0060 in Ashland County. The Mourning Dove Call-Count survey was designed specifically for mourning doves and provides an annual index to population size. The total number of doves heard on each route is used to determine trends in populations and provides the basis for determining an index to population size during the breeding season. The resulting information on status and trends is used by wildlife administrators in setting annual hunting regulations.

The mourning dove is one of the most widely distributed and abundant bird species in North America. As part of their courtship behavior, mourning dove calling reaches a peak at sunrise and then diminishes gradually. The survey is conducted along a 20-mile route, and Koehler recorded all doves seen along the route, as well as those heard at stopping intervals. The results were then entered into the national Mourning Dove Call-Count database.

Ted Koehler, Ashland FRO



-USFWS

Ted Koehler surveys sites in Ashland County, Wisconsin, as part of the Fish and Wildlife Service's nationwide Mourning Dove Call-Count Survey.

Ashland Staff Help with Woodcock Singing-Ground Survey

As part of the North American Woodcock Singing Ground Survey, Ashland FRO biologists Ted Koehler and Gary Czypinski surveyed Wisconsin Route #001 in Northern Bayfield County, and #005, near the Bad River. This annual survey provides an index to the relative size of the woodcock breeding population and is the most important source of data used to guide the United States and Canadian woodcock programs. Male woodcock give vocal calls described as "peents" and perform aerial displays called "flight songs" shortly after sunset as part of their courtship behavior. The number of peenting males was recorded and the results entered into the national database.

Ted Koehler, Ashland FRO

-USFWS

This woodcock became part of the North American Woodcock Singing Ground Survey. Ashland FRO personnel participated by surveying sites in Northern Bayfield County, Wisconsin.

Aquatic Species Conservation and Management

Columbia FRO Collects Record Number of Sturgeon

Though their methods and sampling efforts have varied over the years, Columbia FRO has been searching for endangered pallid sturgeon since 1991. Various funding sources, project goals, and technological advancements, and an ongoing refinement of techniques, have kept the station actively involved in pallid sturgeon tracking and recovery efforts for more than a decade. Sampling techniques used during this time have included gill nets, trawling, trammel nets, hoop nets and set lines. Until recently, the station's annual record catch was 25 pallid sturgeon, in 2004. In May; however, the station shattered the old record by collecting its 30th pallid sturgeon with the sampling year only half over. The catch this year includes wild pallid sturgeon, recaptured previously tagged pallids, and hatchery stocked sturgeon. The hatchery recaptures were from 1994 and 1997 stocks reared by the Missouri Department of Conservation, and 2000 to present stocks reared by the Fish and Wildlife Service. All but one of these sturgeon were captured as part of the Pallid Sturgeon and Associated Fish Community Project. The other was captured during a survey at Ft. Leavenworth.

From February 26, 1999, to May 9, 2005, biologists captured 78 pallid sturgeon between River Miles 0 and 250. These captures included coded-wire tagged fish stocked in 1992, 1997 and 2004, elastomer-tagged hatchery fish, wild fish, and pallids of unknown origin (fish that were not scanned for tags). Four of the pallids were captured twice.

Columbia FRO also captured 99 pallid/shovelnose hybrids. Biologists used Character Index (CI) values proposed for Middle Mississippi fish to classify these sturgeon. Field classifications were changed if CI values showed a different designation; however, in rare cases when we felt the index did not work, the biologist's classification was kept based on strong pallid-like characteristics of the fish.

Comparisons of known age 1992 and 1997 year class hatchery pallids (recaptured in 2005) to wild fish captured in 2005 suggests a successful spawning event occurred around 1997. An increase in size of the larger hybrids over the last six years may also add support for a spawning event around that time. Our ability to capture adult brood stock will increase as we identify spawning grounds, incorporate telemetry data, and identify seasonal opportunities related to habitat use. We are still refining sampling techniques to better target adult pallids.

Corey Lee and Nicholas Frohnauer, Columbia FRO

-USFWS

Biologist Joanne Grady holds a federally endangered pallid sturgeon that was captured in the Missouri River in 1999 above the Interstate 70 bridge, adjacent to the Overton Bottoms Unit of the Big Muddy National Fish and Wildlife Refuge.

Saginaw Watershed Lake Sturgeon Project Completed

In May, Project Leader Jerry McClain and biologists Scott Koproski, Adam Kowalski, Aaron Woldt, Susan Wells and James Boase from the Alpena FRO completed a lake sturgeon project in the Saginaw watershed. Funded through the National Fish and Wildlife Foundation (NFWF) and the Saginaw Bay Watershed Initiative Network (WIN), the project yielded anecdotal evidence suggesting that lake sturgeon use the Saginaw watershed. Still, very little is known about the importance of this watershed to the lake sturgeon population within Lake Huron.

This project required considerable coordination and cooperation by many groups and individuals. Partners included Michigan DNR, DOW Chemical, the city of Frankenmuth, WIN, Shiawassee National Wildlife Refuge (NWR) and local volunteers. In April and May, FRO staff deployed and retrieved egg mats and set lines in an attempt to document lake sturgeon use of this watershed. Staff deployed 24 egg mats on the Cass River at the Frankenmuth dam and 48 egg mats on the Tittabawassee River at the DOW dam. In addition, the crew fished two set lines at the confluence of the Saginaw and Tittabawassee Rivers and one set line at the confluence of the Saginaw and Cass River. They checked egg mats weekly and fished set lines daily. Alpena FRO staff examined the egg mats for the presence of lake sturgeon eggs and found no lake sturgeon eggs, but did see that non-target species had deposited eggs on the mats. No sub-adult or adult lake sturgeon

were caught using the set lines either, but a few non-target species were captured. Kowalski and volunteer Larry Dinsmore observed an adult lake sturgeon below the DOW dam in Midland on May 19th. He was unable to net this fish but it provides evidence that lake sturgeon are present within the system.

This project is funded for three years by the NFWF and WIN, and will conclude in 2007. By that time, Alpena FRO should be able to determine if lake sturgeon are using the Saginaw watershed for reproductive purposes.
Scott Koproski, Alpena FRO

-USFWS photo by Ed DeVries

Biologists sample for lake sturgeon using set lines in the Saginaw watershed, to determine how sturgeon use the watershed. The project is funded through the National Fish and Wildlife Foundation and the Saginaw Bay Watershed Initiative Network.

Large Lake Sturgeon Captured on the Missouri River

Biologists Cliff Wilson, Corey Lee and Andy Plauck from Columbia FRO captured a large lake sturgeon below Hartsburg, Missouri, near Missouri River Mile 153.3. The fish's fork length measured 53.1 inches and it weighed an estimated 50 to 55 lbs. Based on data from other lake sturgeon projects, we predict its age at 25 to 30 years. To date, this is the largest lake sturgeon captured by the Columbia FRO.

While recording routine data, biologists examined the lake sturgeon to determine whether it was hatchery reared or wild. No elastomer tags, pit tags, coded wire tags or remnant scars from tags were found, and the sturgeon was assumed to be wild. Damage was found on the left pectoral spine, possibly indicating prior capture and data collection. Biologists pit-tagged the sturgeon to allow future identification. Though they are known to get much larger in other areas, lake sturgeon over 35 inches are rarely seen in the Missouri River today.
Cliff Wilson, Columbia FRO

-USFWS photo by Andy Planck

Cliff Wilson holds a 53.1 inch, 50-55 pound lake sturgeon captured during a fishery assessment on the Missouri River near Hartsburg, Missouri. This is the largest lake sturgeon ever captured by the Columbia FRO.

Lake Trout Distribution Season Begins

The first truckloads of lake trout were released into Lake Michigan on April 7 from national fish hatcheries, marking the beginning of the 2005 fish distribution season. As of the end of May, 827,847 fish averaging 6.17 inches have been released. Thus far, approximately 89 percent have been released directly onto offshore rearing habitat via the Fish and Wildlife Service's Great Lakes stocking vessel, M/V *Togue*. This will be the last distribution season for the *Togue*, which is scheduled to be replaced by the M/V *Spencer F. Baird*. The M/V *Spencer F. Baird* is currently under construction and should be ready to launch this fall.
Wayne Talo, Jordan River NFH

Lake Trout Transferred to Pendills Creek NFH

In May, Jordan River NFH transferred approximately 830,000 lake trout averaging 2.32 inches to Pendills Creek NFH. This transfer is an annual occurrence, making use of the more abundant early rearing space at Jordan River and maximizing the number of fish produced for the Great Lakes Lake Trout Rehabilitation Program. The transfer included these strains: Lewis Lake Wild – 255,044; Superior Apostle Island Wild – 383,745; and Superior Isle Royale Wild – 195,686, for a total of approximately 830,000 fish.
Wayne Talo, Jordan River NFH

Northern Pike Program Underway at Genoa NFH

Shortly after the ice melts off the Upper Mississippi River in late March and early April, northern pike begin to congregate in the river's backwaters to spawn. At this time, the staff from Genoa NFH set 10 to 12 frame nets to capture, spawn, and then release enough northern pike to sufficiently meet all of its annual requests for fish and eggs. This spring, crews placed approximately 400,000 pike fry in hatchery ponds for further growth and stocked 800,000 at Horicon NWR as a predator species to control invasive common carp on the refuge.
Nick Starzl, Genoa NFH

Aquatic Invasive Species

Survey Finds No Invasive Ruffe East of Keweenaw Peninsula

As part of the Ruffe Control Program, Gary Czypinski from the Ashland FRO and Northland College student volunteer Justin Spring searched for Eurasian ruffe and other aquatic invasive species from the Keweenaw Peninsula to Whitefish Bay in Lake Superior. This survey is designed to provide early detection and range monitoring of ruffe expansion and other invasive species. Czypinski and Spring captured three adult ruffe from the Keweenaw Waterway, where ruffe were detected in 2002. They did not capture any ruffe east of the Keweenaw, including Marquette Harbor, where ruffe had been detected in 2004. Threespine stickleback was the only other invasive captured, in three locations east of the Keweenaw Peninsula, including one new location. Both ruffe and threespine stickleback compete for food and space and have the potential to become abundant, degrading the quality of sport fishing. Yellow perch in particular exhibit declining growth and abundance when ruffe are present.

Gary Czypinski, Ashland FRO

USFWS

Eurasian Ruffe

Ashland FRO staff searched for invasive ruffe from the Keweenaw Peninsula to Whitefish Bay in Lake Superior as part of the Ruffe Control program. No Eurasian ruffe (above) were detected east of the Keweenaw Peninsula. Invasive threespine stickleback (below) were captured in three locations east of the Keweenaw Peninsula, including one new location.

Threespine Stickleback

Alpena FRO Gives Presentation on Aquatic Invasive Species in Northeastern Michigan

Biologist Angie Bowen provided a presentation titled "Aquatic Invasive Species in Northeastern Michigan" to a group of 20 interested fishermen and water users at the Alcona Township Hall in Alcona County, Michigan. The presentation was advertised in the *Alcona CountyReview* and with posters at area businesses. Bowen's goal was to provide public education about invasive species found in Northeastern Michigan — including how to identify them, trends in their abundance, what can be done to prevent their spread and what should be done if they are captured. Literature on various invasive species was available and the public could view preserved specimens.

Anjanette Bowen, Alpena FRO

-USFWS photo by Anjanette Bowen

This is an invasive round goby captured in the Thunder Bay River. Alpena FRO biologists conduct numerous presentations to educate the public about invasive species found in the Great Lakes.

Public Use

American Legion and Fish and Wildlife Service Sponsor 15th Annual Fishing Tournament at Tomah VA Medical Center

For more than 50 years, Fish and Wildlife Service employees from the Genoa NFH have raised a variety of game fish species for stocking in public waters, including the American Legion Fishing Pond at the Tomah Veterans Administration (VA) Medical Center. Angling is a very popular activity at the medical center and provides VA clients with many hours of outdoor recreational opportunities. Since 1991, local American Legion members and Fish and Wildlife Service staff and volunteers from Genoa NFH, La Crosse FRO, and La Crosse FHC have helped sponsor a hospital-wide fishing tournament at the pond.

The 2005 fishing tourney was held in May and approximately 50 veterans attended. Several members of the Friends of the Upper Mississippi River Fishery Services and Tomah Middle School were on hand to assist Fish and Wildlife Service staff and veterans. Anglers caught rainbow trout, largemouth bass, bluegills and crappies. Successful anglers registered their catches—both large and small—to win prizes awarded by partners. Popularity of this annual event — complete with a lunchtime fish-fry prepared and served by Fish and Wildlife Service staff — has grown into a highly anticipated and rewarding springtime event for all who participate.

Heidi Keuler, La Crosse FRO

The American Legion and Fish and Wildlife Service offices in the La Crosse, Wisconsin area sponsored the 15th Annual Fising Tournament at Tomah Veterans Administration Medical Center. Volunteers from the Friends of the Upper Mississippi River Fishery Services and Tomah Middle School participated by assisting anglers and frying fish!

Recreational Fishery Enhanced on Big Muddy National Fish and Wildlife Refuge

Columbia FRO worked collaboratively with Big Muddy National Fish and Wildlife Refuge (NF&WR) staff and a private landowner to electrofish and transplant 1,000 largemouth bass and 300 red-ear sunfish from an overpopulated privately owned lake to two refuge-owned lakes. Refuge lakes are created by flooding events on the Missouri River and contain a variety of big river fish that recreational anglers generally do not find appealing. This stocking effort is the beginning of a plan to enhance the recreational value of these fisheries. Additional removal of unwanted river species and shoreline enhancement will allow these lakes to provide better fishing opportunities in coming years. This generous donation of mature fish by an individual underscores the public's support of the Fish and Wildlife Service in our goal to provide fishing opportunities for the next generation.

These mature sport fish will quickly provide recreational fishing opportunities for the public. Increased interest in these lakes will generate increased interest in the Big Muddy NF&WR and Columbia FRO. Collaborative work between Refuges and Fisheries offices enhances our ability to do more for the public. Working with private land owners will bring us closer to the people we serve and provide an opportunity to share our vision.

Wyatt Doyle, Columbia FRO

-USFWS

Biologists Nick Frohnauer and Corey Lee transplant largemouth bass to Big Muddy National Fish and Wildlife Refuge waters to enhance the recreational fishery.

Columbia FRO Participates in Missouri River Relief Clean Up

Biologists Geno Adams and Louise Mauldin took part in the Missouri River Relief clean-up day May 14 at Cooper's Landing in Columbia, Missouri. The event was one of four Missouri River clean up days planned during 2005, all of which are sponsored by Missouri River Relief. The event brought together multiple agencies and retailers, including the Missouri Department of Conservation (DOC) and Bass Pro Shops, along with more than 150 volunteers who spent the morning picking up trash along the river. Columbia FRO provided two boats to shuttle

volunteers to and from trash collection sites.

This event provided an opportunity for Adams and Mauldin to discuss Missouri River issues and the role the Fish and Wildlife Service plays in managing the river. More specifically, their participation allowed them to meet the Fish and Wildlife Service's objectives of the recreational fishing goal: Working with partners to identify and implement outreach and education activities regarding the concept, value, and importance of responsible recreational fishing to the American public.
Geno Adams, Columbia FRO

-USFWS

Geno Adams and Louise Mauldin from the Columbia FRO participated in the Missouri River Relief clean-up day by providing two boats to shuttle volunteers to trash collection sites.

Smiles Indicate Genoa Fishing Day is a Big Hit

More than 150 children and their parents attended the Genoa NFH Annual Fishing Day on Saturday, May 28. Participants were able to bait a hook and catch a rainbow — rainbow trout that is! Members of the Friends of the Upper Mississippi River Fishery Services co-sponsored the event and volunteered their time to help the young anglers bait their hooks and instruct the kids on good fishing techniques.

Prior to the first cast, the children visited four learning stations staffed by crew from the hatchery, La Crosse FRO and La Crosse FHC, covering boating safety and regulations, fishing tackle and techniques, fish identification, and "What does the inside of a Fish look like!" Also helping sponsor the event were McDonalds of Viroqua, Gander Mountain, and the Falling Rock Walleye Club. A great time was had by all who participated in this event, whether as an angler, volunteer or staff member.
Darla Wenger, Genoa NFH

-USFWS

The smile must indicate that this young fisherperson is enjoying herself at the Genoa National Fish Hatchery Annual Fishing Day.

Columbia FRO Participates in Missouri River Relief Education Day

Biologists Geno Adams and Jeff Finley took part in an educational event sponsored by Missouri River Relief at the Columbia Bottom Conservation Area in St. Louis. The Columbia FRO provided a station entitled "Live River Fish," which allowed kids to get up close and personal with Missouri River fish such as longnose gar, freshwater drum, shovelnose sturgeon, river carpsucker, smallmouth buffalo, blue sucker, and channel, blue and flathead catfish. Other presenters included the Missouri DOC, University of Missouri, Watershed Institute of Kansas City, and Friends of the Big Muddy. More than 700 fifth graders from St. Louis Public Schools attended the event, which brought together friends of the Missouri River to increase awareness of issues currently threatening the river. This event gave biologists a chance to educate attendees on general life history characteristics of river fish and what role they play in the river ecosystem, while strengthening the bond between the Fish and Wildlife Service and the public through our outreach program.
Geno Adams, Columbia FRO

-USFWS photo by Jeff Finley

Geno Adams shows a longnose gar to 5th grade students from St. Louis area schools as part of Missouri River Relief Education Day.

Alpena FRO Participates in Scout Fest 2005

Alpena FRO had a role in annual Scout Fest activities held in May in Alpena, Michigan. More than 200 Boy and Girl Scouts and their families from across Northeastern Michigan attended the event. Biologists Heather Enterline and Anjanette Bowen provided hands-on educational games and information to teach Scouts about native fish species and their habitats. They also provided information on invasive species and the problems associated with them. The Fish and Wildlife Service booth was popular and well visited. Many other organizations attended the event to educate and allow Scouts to experience community activities.
Anjanette Bowen, Alpena FRO

Many Enroll in Catfish 101 for Good Eats... er, Instruction

Columbia FRO biologist Jeff Finley recently assisted as the Missouri DOC held an introductory course on catfishing in the Missouri River. The course—aptly named Catfish 101—began in 2003 with only a handful of applicants in an effort to promote awareness of the Missouri River's recreational fishing opportunities. Finley was an instructor for the course in 2004 while employed with Missouri DOC. A need for assistance with the 2005 course was identified when an overwhelming 33 applicants signed up. Missouri DOC contacted Finley at the Columbia FRO office to enlist staff support and expertise on Missouri River catfish.

On the evening of the first day, participants took classroom courses on catfish species identification, management, regulations and safety. They also enjoyed a hefty sample of delicious fried catfish provided and cooked by Finley and Columbia FRO Project Leader Tracy Hill. After the tasty break, participants attended a block of instruction on gear construction and were given materials, provided by the state, to make their own trot lines, bank poles and throw lines.

The next morning, course instructors from the Missouri DOC and Columbia FRO set sample gear at the Overton Bottoms Unit of the Big Muddy NF&WR for students to check that evening. At 6 p.m., the participants arrived with their own gear, and boarded boats to check the previously set gear and set their own. Biologists Wyatt Doyle, Geno Adams and Finley each guided a crew, setting trot lines, bank poles and throw lines. The crews then fished late into the night using rods and reels, and discussed the finer points of Missouri River management and the adjacent mitigation projects on the Big Muddy NF&WR.

Participants returned the following day to check and pull their lines, attend a fish-cleaning class, take pictures and swap stories. The 2005 Catfish 101 course was an overwhelming success, bringing people who normally do not participate in fishing or river related activities to discover a deeper appreciation of the Big Muddy - the Missouri River.
Jeff Finley, Columbia FRO

-Missouri DOC photo by Brian Flowers
A few of the participants from Catfish 101. Geno Adams, Jeff Finley, and Wyatt Doyle (Columbia FRO) served as instructors for the course in cooperation with the Missouri Department of Conservation.

La Crosse Biologists Give Shocking Demonstration at River Education Days

On May 10 and 11, 600 fifth grade students from nine Wisconsin counties and four Minnesota counties participated in the second annual River Education Days at Trempealeau NWR. The four event themes were wetlands, wildlife, habitats, and river history, and topics at 18 stations included duck identification, forestry, archeology, geology, aquatic creatures, birds of prey, invasive species, fish and invertebrates, and many others.

La Crosse FRO biologists Scott Yess and Heidi Keuler made a presentation titled "How about a Shocking Experience?," teaching students about the careers of biologists and how they sample fish using the electrofishing technique. Not only did students see the equipment, but they also saw Keuler and Yess using a backpack electrofisher along the shoreline of the refuge. The fifth graders had lots of fun identifying several species of flopping fish sampled near the shoreline.
Heidi Keuler, La Crosse FRO

Water Watch Student Congress Held in Traverse City

Jordan River NFH participated in the 10th annual Water Watch Student Congress in Traverse City, Michigan, this spring. The workshop focuses on water uses and issues across the Great Lakes. The students at the Congress come from nine schools in the Traverse Bay Area Intermediate School District. Students from grades 6 to 12 chose the class they wanted to attend. Each class ran for an hour and twenty minutes and was presented in the morning and afternoon. This year, Rick Westerhof and Paul Haver from Jordan River NFH teamed up to provide an overview of the hatchery program and a lesson in Fish Dissection 101. The fish dissection was a last minute addition, so the kids were surprised to learn they would be dissecting yearling lake trout. In the morning class, we had two kids out of 27 that were looking a little pale and in the afternoon class we had one kid out of 25 that left just before the dissection began. Under Haver's direction, the rest of the kids had a great time finding all the fish parts.

Participating agencies at the Congress included OMI Waste Water Treatment Plant, Grand Traverse County Health Department, Traverse City Light & Power, Richard Forrest Artist and Fly Fisherman, Michigan DNR, Grand Traverse Conservation District, Adams Chapter Trout Unlimited, Wings of Wonder, Inland Seas Education Association, Grand Traverse Bay Watershed Center, Traverse City Area Public Schools - West Senior High School, Great Lakes Maritime Academy, Grand Traverse County Resource Recovery, and Traverse City Water Treatment Plant.
Rick Westerhof, Jordan River NFH

-photo by Tom Wessels

Students from the Traverse Bay Area Intermediate School District prepare to dissect a lake trout as part of the 10th Annual Water Watch Student Congress. The workshop focuses on water uses and issues across the Great Lakes.

FRO Gives Fish CPR (Consider Proper Release) and Equipment Demo

Ashland FRO's Jonathan Pyatskowit assisted staff from the Whittlesey Creek NWR in giving a demonstration of catch and release practices and demonstrating and describing different types of fishing equipment to a group of high school students in the Washburn High School physical education Lifeskills class. This class is designed to give students activities outside of standard physical education curriculum that they can use throughout their lives. A video provided by Trout Unlimited gave background information on Consider Proper Release (CPR) techniques, and then fish mounts were handed out to the class for hands-on practice. Catch and release is an important part of efforts to restore coaster brook trout on the refuge, and by teaching proper catch and release, post-release fish mortality rates will decrease. After the demonstration, the class fished in a pond at the Northern Great Lakes Visitor Center, where they caught and released trout. Agency staff from the refuge then gave a hands-on knot tying exercise and a filleting demonstration.
Jonathan Pyatskowit, Ashland FRO

Students Learn About the Importance of Biodiversity

Marquette, Michigan, area fifth-grade students gathered for a three-day educational and fun program at Bay Cliff Health Camp. Fish and Wildlife Service personnel presented information on the importance of biodiversity and the effects of sea lamprey and other aquatic invasive species on the health of the aquatic ecosystem and the economy of the Great Lakes. More than 100 students learned how aquatic organisms have evolved into specialized body shapes with specialized appendages over time, and how adaptations complemented the existence of each type of organism in specific habitats within the aquatic community.
John Weisser, Marquette Biological Station

-GLFC

Greg Baldwin explains the importance of biodiversity to students at Bay Cliff Health Camp, Marquette, Michigan.

-Collette family album

Ben, Sam, and Nick enjoy competing for the largest fish on a Twin Cities lake.

-USFWS photo by Clarice Beckner

Kindergarten students prepare to tour the Jordan River NFH.

-USFWS photo by Anjanette Bowen

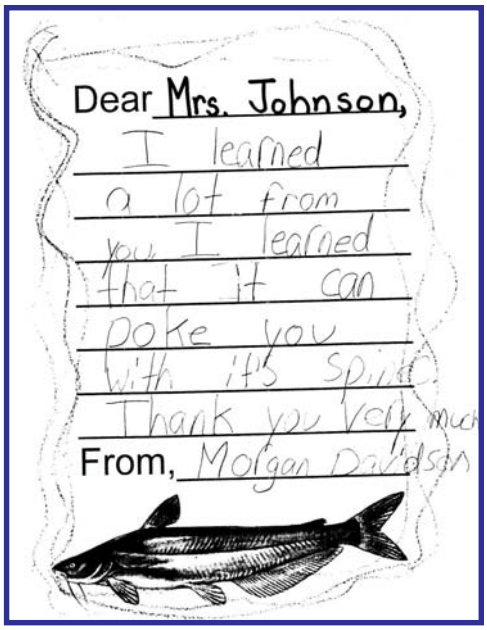
Alpena FRO staff demonstrate fish seining to a group of Linclon Elementary students during an overnight retreat at Camp Chicigamee.

-USFWS

Project Leader Tracy Hill shows a sturgeon to students from Paxton-Keeley.

-USFWS photo by Ed DeVries

Anjanette Bowen provides fishery education for Saginaw High School students at the Shiawassee NWR.



-USFWS

This group of Northland College students were honored with a volunteer picnic. They donated over 400 hours of volunteer service to the Ashland FRO.

Our Fish and Wildlife Service employees recognize the importance of public outreach. All of our offices are interacting with the public through organized events along with day-to-day personal conversations. Over the last couple of years, we have been reaping the benefits of Fisheries Friends Groups. Iron River NFH is in the final stages of developing a Friends Group which means that 5 out of our 6 National Fish Hatcheries in this Region directly benefit from Friends Group involvement.

Cooperation with Native Americans

Largemouth Bass Transferred to Lighthouse Pond for Tribal Fishery

Frank Stone from the Ashland FRO recently completed a fish transfer for the Keweenaw Bay Indian Community (KBIC). Using a boat electrofishing system and with the help of KBIC staff members Evelyn Ravindran and Gene Mensch, Stone collected 50 largemouth bass (12-16 inches) and transferred them from Sandy Lake into Lighthouse Pond. The KBIC provided a fish hauling tank complete with an aeration system that ensured the fish arrived at Lighthouse Pond in excellent condition.

The KBIC and Tribal Biologist Todd Warner are interested in developing Lighthouse Pond into a family-oriented largemouth bass fishery. Currently, the surrounding area is used for picnicking and numerous tribal activities, including a yearly Pow-Wow. Because of the proximity of the lakes to this recreation area, the KBIC has initiated management plans with the Fish and Wildlife Service and the Michigan DNR to enhance this fishery. Lighthouse Pond is subject to winter kill conditions and options for enhancing the angling potential are limited. The option now being developed is to manage the lake as a catch and release fishery for children and elders.
Frank Stone, Ashland FRO

-USFWS

Biologists from the Keweenaw Bay Indian Community transfer largemouth bass to Lighthouse Pond to develop a family oriented fishery near a picnicking and meeting area.

Genoa NFH Assists Tribes in Fisheries Management Programs

Spring means more than having to get out the lawnmower again. At Genoa NFH, spring also means that fish distribution season collides with a number of different fish and mussel reproductive cycles. Through all of this, hatchery staff also cultured more than 27,000 coaster brook trout, rainbow trout and lake sturgeon to assist five Midwestern tribes with two restoration programs and three recreational fishing programs.

Lake sturgeon was historically important to Midwestern tribes, both culturally and as a food source, during the spring spawning migration. Through habitat restoration and restocking, lake sturgeon are making a comeback on two tribal waters where they have been absent for nearly 100 years. Dam construction was a major reason for sharp declines in sturgeon populations. Sturgeon use rivers as spawning and nursery habitat, and require access to these areas to reproduce successfully.

Coaster brook trout were once abundant on the south shore of Lake Superior, but as a result of habitat destruction, over-fishing and the introduction of invasive sea lampreys, entire stream populations of brook trout were extirpated. Genoa is currently stocking two different life stages of coaster brook trout for the Grand Portage reservation in Northern Minnesota to determine the optimum stocking size to maximize survival. The hatchery supplied surplus rainbow trout, initially being raised for the Department of Army, to three area tribes to increase recreational fishing opportunities on tribal waters. Fishery resources offices play a large role in acting as a liaison between the Fish and Wildlife Service and the tribes, and incorporate fishery management plans on all stocking requests to ensure sound biology.
Doug Aloisi, Genoa NFH

Alpena FRO Assists Huron Potawatomi with Wildlife Management Planning

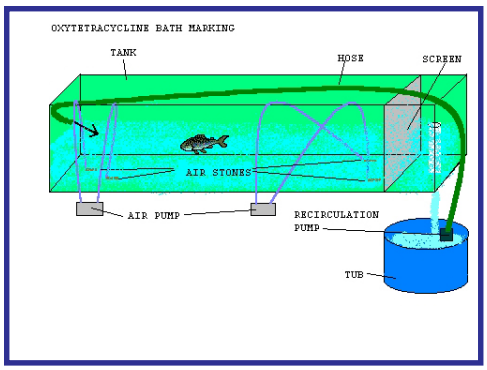
Biologist Ben Skarp, with the Huron Potawatomi Tribe in Southwest Michigan, contacted the Alpena FRO for assistance. Skarp received funds through the Fish and Wildlife Service's Tribal Wildlife Grant program to develop a tribal wildlife and habitat management plan for the Tribe. Project Leader Jerry McClain provided verbal guidance and electronic links to existing fish and wildlife management plans that will help Skarp develop his planning documents. Alpena FRO is Region 3's lead field station for assistance to the Huron Potawatomi Tribe and Skarp was given McClain's name by John Leonard, Region 3 Native American Coordinator.
Jerry McClain, Alpena FRO

Leadership in Science and Technology

Oxytetracycline Used to Mark Coaster Brook Trout Fry

The Iron River NFH, with assistance from Frank Stone of the Ashland FRO, has completed the marking of production coaster brook trout fry for 2005 stockings. The purpose of these stockings is help biologists determine the best way to initiate the restoration of a naturally reproducing population of coaster brook trout in its native waters. The crew administered the oxytetracycline mark in lieu of a fin clip mark because the fish were too small—less than one inch in length—to accurately clip. Biologists mark fry by exposing them to a 700 parts per million oxytetracycline solution for eight hours in a recirculation bath treatment.

The fishes' absorption of oxytetracycline makes a permanent yellow mark on their bones. As the fish grows and adds new bone, the yellow spot or ring will remain. If a biologist catches that fish later, they can extract the otolith (inner ear bone). When the otolith is exposed to ultraviolet light, the oxytetracycline mark will glow yellow. The presence of this mark distinguishes a wild fish from a hatchery fish. The marked fish will be stocked into selected tributaries on Lake Superior.
Nick Grueneis, Iron River NFH



This diagram shows the recirculation bath system used at the Iron River NFH to mark coaster brook trout fry with oxytetracycline. The absorption of the chemical by the fish makes a permanent mark on their bones which allows for future identification.

Brook Trout Study Underway in Whittlesey Creek

A coordinated effort is currently underway in Lake Superior to chart a shared direction for future research and management of brook trout in the lake. A key objective of this lake-wide effort is to advance the scientific understanding of coaster brook trout rehabilitation. The Ashland FRO and Wisconsin DNR are conducting an experiment to determine whether a migratory population of brook trout can be established in Whittlesey Creek, by stocking two strains of fish with a known lake life history.

The experiment will compare survival and behavior of the Siskiwit Bay and Tobin Harbor strains of coaster brook trout being stocked in the stream. In April and May, biologists from Ashland FRO and Iron River NFH surgically implanted radio transmitters in 19 adult brook trout reared at Iron River. The transmitter tagged fish were part of the 50 adults stocked in May and will be tracked by land, water, and air to examine migratory behavior and habitat usage. A stationary receiving unit, placed at the mouth of the creek, will detect movement in and out of the stream over the next year.

In addition, biologists stocked 20,000 spring fingerlings split 50:50 between the two strains. These fish will need to adapt to their new environment and compete with other salmonines in the stream to survive and contribute to a migratory population. The spring fingerlings are one of four life stages being stocked, along with eggs, yearlings, and adults. In September, Ashland FRO and Wisconsin DNR, with assistance from Whittlesey Creek NWR and Trout Unlimited, will conduct an annual survey to determine size and abundance of salmonines in the stream. They will collect tissue samples from brook trout and send them for analysis to determine the strain of origin. This information will allow biologists to evaluate survival and growth of each strain stocked. Eventually, data collected from this experiment will contribute to the scientific knowledge of coaster brook trout rehabilitation in Lake Superior.
Henry Quinlan, Ashland FRO
Nick Grueneis, Iron River NFH

-USFWS
Biologists stock adult coaster brook trout into Whittlesey Creek, Wisconsin. Nineteen of the adults contain a surgically implanted radio transmitter. Information from the transmitter will be used to examine migratory behavior and habitat use.

Columbia FRO Attends Fish and Wildlife Research Exposition

Biologist Jennifer Johnson of the Columbia FRO presented a poster titled "Reproductive Development of Missouri River Chubs in Relation to Environmental Variables" at the second annual Fish and Wildlife Research Exposition, held at the University of Missouri's School of Natural Resources as part of the Annual Cooperators Meeting of the Missouri Cooperative Research Unit. The Cooperative Research Unit program is a working partnership between the U.S. Geological Survey, state natural resource agencies, host universities, the Wildlife Management Institute, and the Fish and Wildlife Service.

The poster presentation provided a valuable opportunity to interact with other graduate students as well as scientists and decision makers from federal and state agencies to answer questions regarding Jennifer's research and provide information to interested parties. Johnson took comments and suggestions from guests that can be used to improve current research.

Jennifer Johnson, Columbia FRO

Fish and Wildlife Service Biologists Present at International Association for Great Lakes Research

The 48th annual conference of the International Association for Great Lakes Research (IAGLR) was held in May in Ann Arbor, Michigan. Biologists Aaron Woldt from Alpena FRO and Tim Smigielski from Jordan River NFH presented at the session entitled "Use and Misuse of Tagging Data in the Great Lakes." Woldt discussed lake trout movement patterns based on coded wire tag (CWT) returns and survival of enhanced quality lake trout in Lake Huron based on CWT returns. Smigielski presented an overview of the CWT tagging program in the National Fish Hatchery System in lakes Huron and Michigan.

Tim Smigielski, Jordan River NFH

Sturgeon Issues Discussed at Missouri River Conference

Project Leader Tracy Hill and biologist Andy Starostka of the Columbia FRO participated in the ninth annual Missouri River Natural Resources Conference (MRNRC) in Pierre, South Dakota. Hill presented results of "Microhabitat use of shovelnose and pallid sturgeon in the Lower Missouri River," the culmination of a collaborative effort with Dr. Craig Paukert (Assistant Unit Leader of the Kansas State Cooperative Unit) and Biologist Wyatt Doyle (Columbia FRO) to give biologists new information on the habitats used by big river sturgeon.

Starostka presented "Dispersal of hatchery reared pallid sturgeon from a stocking site on the lower Missouri River." Information in this presentation was derived from the Sturgeon Monitoring Program, and the presentation included data provided by Nebraska Game and Parks Commission on recaptured sturgeon from the upper portion of the channelized river and hatchery reared pallid sturgeon stocked at Booneville, Missouri. Fish from this stocking effort were captured up to 400 miles upstream near the Platte River, while the farthest downstream fish was captured less than 100 miles from the stocking site. Concerns from some managers that hatchery reared fish would be "flushed" downstream appear to be unfounded at this time. Fish from multiple year classes and various hatcheries have been recaptured indicating that all stocking efforts are making contributions to the population.

More than 300 biologists and researchers from Montana to Missouri attended the MRNRC meeting, which reflected an intense effort to bring new information to the forefront of Missouri River recovery efforts. This type of new information will allow other biologists to refine their efforts in collecting information related to the biology of the federally endangered pallid sturgeon.

Tracy Hill and Andrew Starostka, Columbia FRO

-USFWS

Green and red elastomere marks can be seen inside the rostrum of this hatchery reared pallid sturgeon. Hatchery pallids are marked to allow field biologists to readily differentiate wild and hatchery produced fish.

Aquatic Habitat Conservation and Management

Road-Stream Crossings Training to Benefit Threatened Niangua Darter

Joanne Grady of Columbia FRO attended the U.S. Forest Service's Aquatic Organism Passage Inventory and Assessment of Road-stream Crossings course in St. Louis. The goal of the course was to provide participants with the skills necessary to prioritize road-stream crossings to eliminate the adverse effects of crossings on the physical, chemical, and biological components of stream-riparian ecosystems. Grady delivered a presentation on Region 3's Fish Passage Program and sat on panels to discuss partnering to fund crossing replacement projects. Columbia FRO and Missouri Department of Conservation staff will use the skills acquired during the training course to prioritize road crossing replacement projects to benefit the threatened Niangua darter. *Joanne Grady, Columbia FRO*

-USFWS photo by Columbia Field Office

This is a low water crossing in Hickory County, Missouri which inhibits passage by federally threatened Niangua darters. Columbia FRO and Missouri Department of Conservation staff attended a course to help them prioritize road crossing replacement projects to benefit this fish species.

Spring Electrofishing Conducted on Missouri River Side Channels

This spring, the Columbia FRO conducted an electrofishing survey across nine side channels in the Lower Missouri River to examine species richness and assemblage similarity within and among side channels. This is the second year of a two-year survey. The uppermost side channel sampled was located at Baltimore Bend near River Mile 301, and the lowermost at Johnson Island near River Mile 42. Selected side channels represented the wide array of large secondary channels present in the lower river. Few studies have addressed fish community structure and their relationships in side channels along the Lower Missouri River. These side channels play an important role in the lower river ecosystem, providing off-channel habitat for various native fishes. Freshwater drum, river carpsucker, and smallmouth buffalo were common among early spring samples. Shortnose gar, common carp, and catfish were increasingly common as water temperatures increased. This study should provide a baseline understanding of which species are using the various side channels and how the assemblages are changing throughout the spring as fish move toward feeding, staging, and spawning areas. *Louise Mauldin, Columbia FRO*

Partners for Fish and Wildlife Presents to Life-Long Learners

Biologist Heather Enterline gave an overview of the Partners for Fish and Wildlife program to 60 members of the Life-Long Learners Club in Alpena, Michigan. The Life-Long Learners is a group of retired individuals in Alpena and surrounding towns who meet monthly for a lecture and social gathering. The lectures cover a wide variety of topics from arts to history to environmental issues. Enterline's presentation covered wetland, grassland, endangered species habitat, and riverine restoration in Michigan through the Partners for Fish and Wildlife program. The talk was well-received with many good questions and several requests for site visits on members' private property. *Heather Enterline, Alpena FRO*

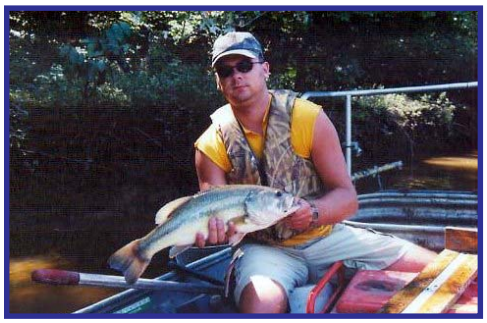
Workforce Management

Columbia FRO Welcomes New Biologists

Biologists Andrew Plauck and Nick Utrup joined the staff at the Columbia FRO in May. Plauck is a 2001 graduate of Southern Illinois University (SIU), where he earned a Bachelor's of Science in zoology. He then moved to the Fish and Wildlife Service at the Carterville FRO and worked as a biological technician on the Illinois and Mississippi rivers. After a short time with the Fish and Wildlife Service, he returned to SIU to pursue a Master's degree. As part of the "River Team" at SIU, Plauck worked on the Ohio River studying winter habitat use of fish and on the Mississippi River working with shovelnose and pallid sturgeon. His interest in large river fish species will be beneficial to the Columbia FRO as he works on the Missouri River Pallid Sturgeon Project. Plauck is looking forward to having a "big time" gaining valuable experience at the Columbia FRO and working with the knowledgeable staff.

Utrup comes to Columbia from Stillwater, Oklahoma, where he received his Master's degree in Wildlife and Fisheries Ecology from Oklahoma State University. His Master's research dealt with developing rapid bioassessment protocols for sampling and assessing fish assemblages in large prairie rivers of the Southern Great Plains. Utrup received his Bachelor's degree in Zoology from Ohio State University in 2002. He has worked as a research assistant at the Aquatic Ecology Laboratory in Columbus, Ohio, as a teaching and research assistant at F.T. Stone Laboratory (Ohio State's biological field station on Lake Erie), and as an assistant fish biologist for the Ohio Environmental Protection Agency. Utrup has a diverse background in monitoring and assessing fish assemblages in large rivers, lakes, and small streams and is skilled at using statistics and geographic information systems to analyze and interpret data.

Andy Plauck and Nicholas Utrup, Columbia FRO



Columbia FRO welcomes two biologists to their staff. Andrew Plauck (top) will be working on the Missouri River Pallid Sturgeon project. Nick Utrup (bottom) is skilled at using statistics and geographic information systems to analyze and interpret data.

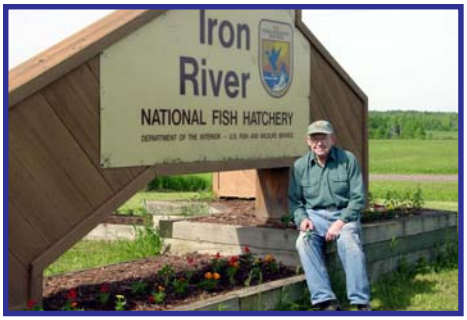
-USFWS photos

New Members Join Iron River NFH Team

Duane Simpson began working at Iron River NFH in May through a program called Experience Works. Funding is provided by the State of Wisconsin Senior's program, previously known as the Green Thumb Program. Simpson will average 20 hours a week. He has made a full circle from past to present: his parents owned the land that later became the Iron River NFH, and Simpson spent much of his early life on the property. He has been assisting with fish culture duties and helping staff get ready for the summer's tourists. We are hoping that he will share stories of the past, so the entire staff will become knowledgeable historians.

In addition, sixteen-year-old Katie Jardine joined the staff in June for the summer. Funding for her position is provided by the State of Wisconsin through a program that teaches young people good work ethics and employment skills. She will be working 40 hours each week for 11 weeks before returning to South Shore High School in the fall. She has been assisting with fish culture duties and helping staff get ready for the summer's tourists.

Laurie Gucinski, Iron River NFH



Duane Simpson (top) and Katie Jardine (bottom) joined the staff at the Iron River NFH. Duane is employed through a Wisconsin Senior program while Katie is employed through a Wisconsin experience program.

-USFWS photos

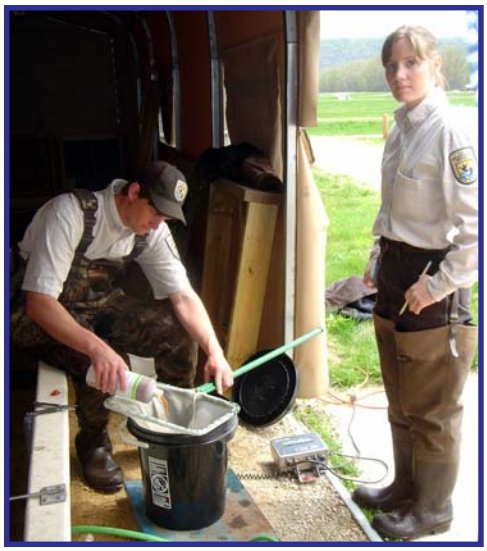
Iron River NFH Partners with Bayfield County

An agreement with the Bayfield County Sheriff's Department allows the Iron River NFH to function as a work site for persons required to perform community service. In March and April, the hatchery provided two individuals an opportunity to complete a total of 150 hours of community service work. All manner of tasks were assigned, and successfully completed. Specific tasks included all types of cleaning, organizing storage areas, yard maintenance, window washing, and general labor. This has been a very successful partnership to date. The hatchery benefits from the free labor while the county has an additional work site to send folks to complete their community service requirements. The hatchery plans to accept additional community service worker assignments as available.
Kurt Schilling, Iron River NFH

New Student Career Employment Program Student Clocks In

Jennifer Walker, a Master's student at the University of Wisconsin-La Crosse, recently came on board at Genoa NFH as a SCEP (Student Career Employment Program) enrollee. Walker is working on her Master's degree in Fishery Biology with an emphasis on Fish Parasitology. She will complete her graduate studies in July.

Walker has already been hard at work at two Region 3 fisheries field offices. She began working with the La Crosse FHC in 2004, and came to Genoa NFH in the summer of 2004 to work with the mussel recovery and lake sturgeon restoration programs. She was hired under STEP (Student Temporary Employment Program) previously. Students benefit by conversion to the SCEP program, by being able to enter career status as soon as they successfully complete their degree requirements and 640 hours of on-the-job training.
Doug Aloisi, Genoa NFH



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Jennifer Walker recently came on board at the Genoa NFH as an enrollee of the Student Career Employment Program. She is a Master's student at the University of Wisconsin/La Crosse.

Columbia FRO Bids Farewell to a Biologist

Biologist Colby Wrasse left the Columbia FRO after seven months of service, returning to Illinois to work on a Master's degree in Education with aspirations of becoming a high school science and biology teacher. Wrasse, a 2001 graduate of Southern Illinois University, started his career with the Carterville FRO investigating the effects of dredge spoil placement on fish communities on the Mississippi and Illinois rivers. For the past two years, he has conducted research on pallid sturgeon in the Mississippi and Missouri rivers. During his career with the Fish and Wildlife Service, Wrasse has also provided sport fish management assistance for federal lakes and ponds. His positive attitude, friendly smile, and pleasant demeanor will be missed. On behalf of the Columbia FRO, we wish Colby the best of luck.
Jeff Finley, Columbia FRO

-USFWS

Biologist Colby Wrasse decided to leave the Columbia FRO and pursue a Master's Degree in Education with aspirations of becoming a high school science and biology teacher. Colby proudly displays a pallid sturgeon captured during an early spring assessment.

Leading, Lifetime, Learning Program Comes to Jordan River NFH

Two students from Mancelona High School participated in the Leading, Lifetime, Learning Program at Jordan River NFH. Administered by the Traverse Bay Area Intermediate School District, the program allows special need kids a chance to learn new skills in the workplace.

From April 4 to May 23, Chris Palmer and Joey Heinze assisted at the hatchery every Monday for two hours. They helped with loading the feed truck, cleaning fish tanks, washing windows, organizing the metal building, and cleaning the visitor's center. Evaluations were completed on both kids that included several actions items for them to work on.
Rick Westerhof,Jordan River NFH

Great Lakes - Big Rivers Regional Fisheries Offices

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A Glimpse into our Proud Past

Stocking fish at the Tomah VA Hospital near Tomah, Wisconsin; 1969

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