



U.S. Fish & Wildlife Service - Midwest Region

# Fisheries & Aquatic Resources Program

# Fish Lines

**Making Lastings  
Connections**

**Saved By the River**

**Families Relocated from  
Isle Royal National Park**

**Delegates from  
Wisconsin Travel to  
China**



Vol. 7 No. 1  
October 2008



# Fish Lines

Fisheries & Aquatic Resources Program - Midwest 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.

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.

## Features

**4 Making Lasting Connections**  
Genoa NFH and Southern Bluffs Elementary School are well on their way to helping 28 fifth graders enjoy the benefits of nature for a lifetime.  
BY JENNY BAILEY AND DARLA WENGER, GENOA NFH

**5 Saved By the River**  
"Fishes of the Big Muddy" playing cards were developed through a partnership with North American Native Fishes Association.  
BY JEFF FINLEY, COLUMBIA NFWCO

**7 Families Relocated from Isle Royale National Park**  
Fish and Wildlife Service staff collected coaster brook trout from Isle Royale NP.  
BY GLENN MILLER, ASHLAND NFWCO

**8 Delegates from Wisconsin travel to China**  
Fish and Wildlife Service staff traveled to China as part of a Conservation Exchange forum.  
BY DOUG ALOISI, GENOA NFH



Zebra mussels attached to freshwater snails.

To view other issues of "Fish Lines," visit our website at:  
<http://www.fws.gov/midwest/Fisheries/library/fishlines.htm>

To submit suggestions or comments, e-mail  
david\_radloff@fws.gov

U.S. Fish & Wildlife Service, Midwest Region  
Fisheries & Aquatic Resources Program  
1 Federal Drive, Ft. Snelling, MN 55111  
Phone: 612/713-5111



-USFWS/Karla Bartelt  
Bayfield Marina, Wisconsin

**Fish Lines** is produced by the Fisheries and Aquatic Resources Program, Region 3, U.S. Fish & Wildlife Service, Ft. Snelling, Minnesota. Items included are selected from monthly reports submitted by Region 3 fisheries offices. Photos included are used by permission and may be copyrighted.

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

## Conservation Briefs ..... 9-22

- 9 **Jordan River NFH expands Partnership for “Imaginature” and “Baby Brookies” Programs**  
BY TIM SMIGIELSKI, JORDAN RIVER NFH
- 9 **Wanted: Un-wanted Pet Fish**  
BY MARK STEINGRAEVER, LA CROSSE NFWCO
- 10 **Helping Missouri Hatcheries boost Fish Production**  
BY MELISSA CHEUNG
- 11 **Predicting Pallid Sturgeon Catches on Trotlines**  
BY JOSHUA SCHLOESSER, COLUMBIA NFWCO
- 11 **Inspection Time!**  
BY JAMES ANDERSON, SULLIVAN CREEK NFH
- 12 **More Paddlefish than meets the Eye**  
BY BRIAN ELKINGTON AND JOANNE GRADY, COLUMBIA NFWCO
- 13 **Tough River Issues Tackled by High School Students**  
BY ROB SIMMONDS, CARTERVILLE NFWCO
- 13 **Sea Lamprey Decline observed in Several Great Lakes**  
BY MICHAEL FODALE, MARQUETTE BIOLOGICAL STATION
- 14 **Early Detection and Monitoring for Aquatic Invasive Fish Species on Lake Huron and the St. Marys River**  
BY ANJANETTE BOWEN, ALPENA NFWCO
- 15 **“Last Child in the Woods” Author Richard Louv visits Michigan**  
BY ANDREA ANIA, ALPENA NFWCO
- 15 **Lake Trout Retirement**  
BY JAMES ANDERSON, SULLIVAN CREEK NFH
- 16 **Networking to Create Better Programs for Children in Nature**  
BY MELISSA CHEUNG
- 16 **Walleye at DeSoto NWR get a Check-up**  
BY BRIAN ELKINGTON AND ADAM MCDANIEL, COLUMBIA NFWCO
- 16 **Jordan River NFH Volunteers contribute to Public Outreach**  
BY TIM SMIGIELSKI, JORDAN RIVER NFH
- 17 **Fish on the Move on the White Earth Reservation**  
BY SCOTT YESS, LA CROSSE NFWCO
- 18 **In with the New, Out with the Old**  
BY MELISSA CHEUNG
- 18 **SPIT is under Construction**  
BY FRANK STONE, ASHLAND NFWCO
- 19 **Columbia NFWCO meets with Innovative Net Solutions**  
BY ANDY STAROSTKA, COLUMBIA NFWCO
- 20 **Bratley Wetland Restoration Project**  
BY TED KOEHLER, ASHLAND NFWCO
- 21 **The Scramble before the Snow Flies**  
BY HEATHER RAWLINGS, ALPENA NFWCO
- 21 **Columbia NFWCO Travels to Fort Leavenworth**  
BY CLAYTON RIDENOUR, COLUMBIA NFWCO
- 22 **Dedicated Federal Employees mark 30 years of Service**  
BY MICHAEL FODALE, MARQUETTE BIOLOGICAL STATION
- 22 **Annual High School Career Expo Brings in Another Diverse Crowd in 2008**  
BY HEIDI KEULER, LA CROSSE NFWCO

Congressional Actions .....	23
Midwest Region Fisheries Divisions .....	24
Fisheries Contacts .....	25
Fish Tails .....	26

# Making Lasting Connections

BY JENNY BAILEY AND DARLA WENGER, GENOA NFH

Genoa National Fish Hatchery (NFH) and Southern Bluffs Elementary School are well on their way to helping 28 fifth graders enjoy the benefits of nature for a lifetime. These lucky students attended their first of three all-day sessions in the Outdoor Classroom, a place where nature is the teacher, wetlands are the guide, and plants, animals and imagination become playmates.

Learning about ecosystems, the water cycle, and the ecology of aquatic organisms while touching, feeling and experiencing them first-hand make the lessons stick. The school district's science curriculum for fifth graders includes these lessons, so making it stick with students is important. Exploring nature and discovering answers to questions on their own not only gives these kids a better understanding of science - it also benefits physical fitness, emotional health, development of social skills, problem solving strategies, spatial awareness, and increases the chances that they will acquire a love for nature that can increase overall health and well-being beyond adulthood.



-USFWS

**Students from the Southern Bluffs Elementary School study micro-organisms at Genoa National Fish Hatchery's Outdoor Classroom.**

nature conservation in America. Susan Houlihan of Southern Bluffs Elementary and Darla Wenger and Jenny Walker Bailey of Genoa NFH have worked hard to incorporate nature experience into the curriculum for fifth graders so that these students may excel in their classes and enjoy the other benefits nature can provide. Introducing these children to nature over a series of visits will help them connect with nature on a personal level that will stay with them as they grow into adults. Helping to create these connections is not just important for creating future conservationists in natural resource fields. It is also important for the future of conservation in new areas such as architecture, engineering, social psychology, art, law, medicine and science.

As these children grow into young professionals, it is hoped that with nature close to their hearts, they will become healthy, successful individuals that contribute to nature in ways that are only imagined today.

For further info about the Genoa NFH: <http://www.fws.gov/midwest/genoa/>

Beginning in February 2007, the Fish and Wildlife Service has made "Connecting People with Nature" one of its six top priorities. This priority was established to help ensure the future of conservation and to help people enjoy the benefits of nature for themselves, both of which contribute to the mission of the Fish and Wildlife Service, "To conserve, enhance and protect fish, wildlife, plants, and their habitats for the benefit of the American people."

The benefits are two-fold. Teaching conservation ethics in nature ensures the health of America's natural resources as well as the health of American people. Studies have shown that healthy Americans that have grown up with a strong connection to nature are likely to make substantial, positive contributions to



# Saved By the River

BY JEFF FINLEY, COLUMBIA NFWCO

The last card is dealt face down followed by a final round of betting. This “river” card is turned over to reveal a winning hand. This scene has been played out on the green velvet table at many a smoky poker game. Being “Saved by the River” is the phrase coined by card connoisseurs for “sucking out” or winning the hand by the last card; the river card. Now players can help “Save the River” with new “Fishes of the Big Muddy” playing cards developed through a partnership with North American Native Fishes Association (NANFA) and the Columbia National Fish and Wildlife Conservation Office (NFWCO).

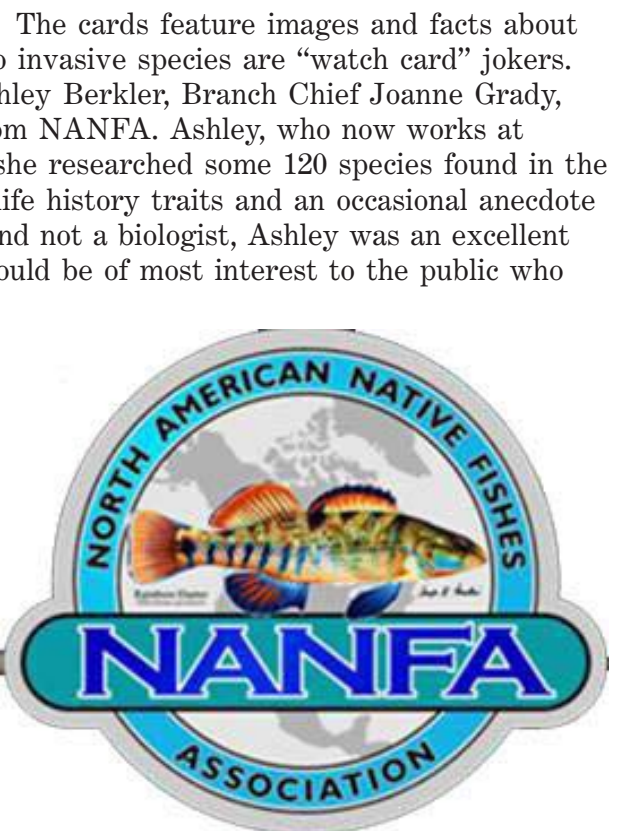


-USFWS


**“Fishes of the Big Muddy” playing cards were developed through a partnership with the North American Native Fishes Association and the Columbia National Fish and Wildlife Conservation Office, to educate people about fish found the Missouri River.**

52 different species of fish common to the Missouri River, and two invasive species are “watch card” jokers. Developing the cards was a combined effort between volunteer Ashley Berkler, Branch Chief Joanne Grady, biologist Andy Starostka, and myself, along with Chris Scharpf from NANFA. Ashley, who now works at Desoto National Wildlife Refuge in Iowa, collected “fun facts” as she researched some 120 species found in the Missouri River. The fun facts included colloquial names, habitats, life history traits and an occasional anecdote pertaining to this laundry list of fish. Being a journalism student and not a biologist, Ashley was an excellent candidate to accurately compile these facts and determine what would be of most interest to the public who may be unfamiliar with the River and its inhabitants. Joanne, having much experience in grant application, reviewed our application and provided excellent recommendations to its composition. Andy and I finalized the species we wished to highlight and organized them into suites. Well-known fish illustrator and NANFA member, Joseph Tomelleri, was contracted to provide discounted artwork on all of the fish except the snakehead. Susan Trammell generously provided the snakehead image in return for a few decks of cards. Chris meticulously edited the cards for content and accuracy. “Playing Cards R-Us” assisted with the layout and design for the cards and tuck box. The images for the card backs and box were aerial images of Lisbon Chute, a unit of the Big Muddy National Fish and Wildlife Refuge, on the Missouri River in Howard County, Mo.

This has been a long and involved process which began when biologist Andy Starostka of the Columbia NFWCO and member of NANFA forwarded a grant application to me. The \$1,000 Gerald C. Corcoran Education Grant was established in memory of the past NANFA president who stressed public education regarding our native fishes. NANFA is an organization dedicated to the study and conservation of North America’s native fishes. I had the idea to create playing cards highlighting Missouri River fishes similar to the Iraq’s Most Wanted playing cards used by American Forces in the Global War on Terrorism. The Corcoran grant turned out to be just the mechanism to bring this idea to reality.




**A**  
**♠ Pallid Sturgeon**  
*Scaphirhynchus albus*  
 This Federally  
 Endangered Species is  
 in danger of extinction!



The fossil record shows  
 this fish ~~once~~ swam when  
 dinosaurs roamed. Only in  
 the last 50 years have we  
 seen their populations  
 plummet.

**♥**  
**V**

**5**  
**♦ Red Shiner**  
*Cyprinella lutrensis*  
 Extremely active, it often  
 breaks the surface while  
 feeding.



The males turn bright blue  
 with red fins and females  
 often lay their eggs in the  
 nests of sunfish. They are  
 common in large creeks and  
 rivers throughout the  
 Midwest.

**♦**  
**5**

The entire process from conception to cracking open the first crisp deck of cards took over a year. Patience and perseverance on everyone's part has resulted in a quality product we are now able to use across a broad audience. School teachers use these cards for teaching math skills, like the game of 66, or to simply learn more about fish species from the River. College students are using them in their ichthyology classes to learn as they play. Adults seem to love these cards as well. Stashing a deck in places like the local dentist office beckons patients to shuffle through a deck and learn as they wait. Resource users are anxious to get a deck for their tackle box since even the most seasoned angler occasionally comes across a fish they can't readily identify. We

foresee the cards being sold at gift shops and distributed by Friends Groups. The use of these cards is seemingly limitless and we are hopeful the idea will spread to other applications as well. Invasive species, waterfowl, songbirds, endangered plants and animals, nearly any group of organisms can be used to increase awareness through playing cards.

The bottom line is this, outreach tools that work best are those with an alternative use; an item that people will pick up and vicariously learn while using it for its intended purpose. Creatively selecting media for outreach is a challenge, particularly when there is so much information about our natural world we have to share with our public.

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>

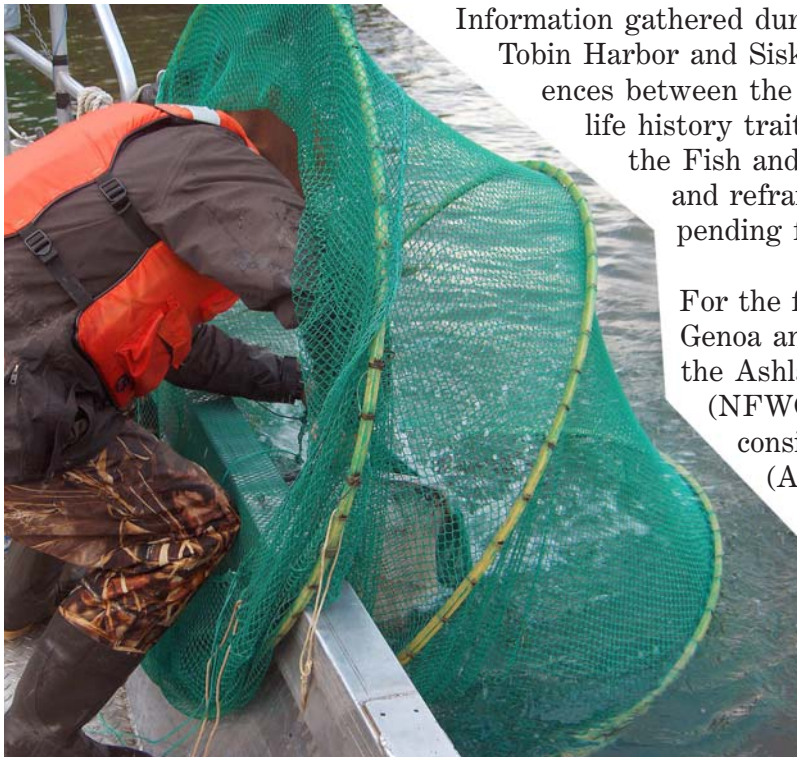


# Families Relocated from Isle Royale National Park

BY GLENN MILLER, ASHLAND NFWCO and NICK STARZL, GENOA NFH

Coaster brook trout were once abundant throughout the near shore waters of Lake Superior. Except for Isle Royale, Michigan, and perhaps the Salmon Trout River, Michigan, coaster brook trout are functionally extirpated in United States waters of Lake Superior.

In 1995, in anticipation of future rehabilitation needs and as a precaution to preserve the genetic diversity of coaster stocks of undetermined size at Isle Royale, the Fish and Wildlife Service led an effort to collect gametes for development and maintenance of a brood stock of the Isle Royale strain of coaster brook trout native to Lake Superior. Previous gamete collections occurred in 1996, 1998 and 2001.



Information gathered during gamete collection and assessment efforts in Tobin Harbor and Siskiwit Bay of Isle Royale indicated several differences between the two coaster stocks. The differences include both life history traits and genetic characteristics. These differences led the Fish and Wildlife Service to treat these stocks discretely and refrain from combining the two into a single brood stock pending further information.

For the fourth time since the development of the plan, the Genoa and Iron River National Fish Hatcheries (NFH) and the Ashland National Fish and Wildlife Conservation Office (NFWCO) collected gametes from Tobin Harbor. The crew consisting of Nick Starzl (Genoa NFH), Glenn Miller (Ashland NFWCO) and Anna Varian (research technician from Northern Michigan University in Marquette, Mich.) headed to Tobin Harbor, Isle Royale National Park, on the Ranger III.

Fish were collected by setting fyke nets in known areas that brook trout spawn. Six fyke nets were set for five consecutive nights from October 17 – 21. Fish were held the initial three nights in anticipation of the females being ripe for spawning. Milt from males was collected and refrigerated to preserve viability of the sperm. Ripe males and females from the last two days of netting were held for the spawning event the

-USFWS

**Nick Starzl of the Genoa National Fish Hatchery removes fish from a fyke net at Isle Royale National Park. Biologists collect eggs and milt from Lake Superior Isle Royale strain coaster brook trout to maintain a genetically diverse hatchery brood stock.**

morning of the October 22. A total of 17 new “families” were created from this effort. The eggs collected will be reared at Genoa NFH for a quarantine period, and then individuals for the new brood stock line will be delivered to the Iron River NFH for future spawning. Along with the new progeny for the recovery effort, 118 brook trout were handled in Tobin Harbor: 53 males, 49 females and 16 juvenile fish.

To date, brook trout of the Tobin Harbor strain have been stocked in the Keweenaw and Huron Bay areas in Michigan, Whittlesey Creek in Wisconsin, and Grand Portage, Minnesota. In the past, brook trout were stocked in the Pictured Rocks National Lakeshore near Munising, Michigan. This stocking was ceased due to potential presence of remnant stocks in area streams. The stocking in Whittlesey Creek is part of an effort to examine and compare the success of the two Isle Royale strains.

For further info about the Ashland NFWCO: <http://www.fws.gov/midwest/ashland/>

# Delegates from Wisconsin travel to China

BY DOUG ALOISI, GENOA NFH

**P**am Thiel of the La Crosse National Fish and Wildlife Conservation Office (NFWCO) and Doug Aloisi of the Genoa National Fish Hatchery (NFH) traveled to China in October as part of a Conservation Exchange forum between the Fish and Wildlife Service and the People's Republic of China. The recent visit was to exchange methods and strategies for aquatic resource conservation in the face of continuing stresses of the aquatic resources of China and the United States. Nine Fish and Wildlife Service Fisheries program delegates from across the United States attended the meetings and site visits, which were planned and scheduled by the Chinese Ministry of Agriculture and the Fish and Wildlife Service Division of International Affairs.



-USFWS

**Chinese and American delegates exchange information in a wrap-up meeting in Beijing, China. Pam Thiel of the La Crosse National Fish and Wildlife Conservation Office and Doug Aloisi of the Genoa National Fish Hatchery traveled to China in October as part of a Conservation Exchange.**

locations in the United States in April of 2009. This visit will further conservation strategies in aquatic systems impacted by dams and other effects of development. Through these visits, it is hoped we are able to share experiences and challenges that are faced daily in the field of aquatic resource conservation. We hope to save some of the world's most unique and endangered aquatic species such as the Yangtze River dolphin, Chinese sturgeon and Yangtze finless porpoise by learning from each others experiences.

For further info about the Genoa NFH: <http://www.fws.gov/midwest/genoa/>

Included in the trip were presentations to the Chinese Academy of Fisheries Science, and site visits along the world-famous Yangtze River which included the Chinese Sturgeon Institute and the Laboratory of Freshwater Biodiversity Conservation and nature reserves. A presentation on the conservation status of rare and endangered fishes such as Chinese sturgeon, Chinese sucker, Chinese paddlefish and Dabry's sturgeon was included. The Chinese Academy of Fisheries Science also presented the history and development of Conservation Law in China.

A reciprocal visit is being planned with Chinese scientists visiting key Fisheries stations and recovery



## Jordan River NFH expands Partnership for “Imaginature” and “Baby Brookies” Programs

BY TIM SMIGIELSKI, JORDAN RIVER NFH

Mancelona Public Schools “Choose Success” program, together with Jordan River National Fish Hatchery (NFH) have been forging partnerships with many organizations and volunteers to deliver programs designed to get students out-of-doors and into nature. As part of the program, the students from Mancelona Elementary and Middle School have been raising brook trout at the hatchery.

The newest partner, Concord Montessori and Community School, is now fully engaged in the program. Concord has revised its educational philosophy to emphasize outdoor education and environmental studies. In



-USFWS

**Concord Montessori and Community School students celebrate the success of the “Baby Brookies” program after helping move their fish into a new tank at the Jordan River National Fish Hatchery. Students care for the fish until they are large enough to stock for children fishing events.**

For further info about the Jordan River NFH: <http://www.fws.gov/midwest/JordanRiver/>

## Wanted: Un-wanted Pet Fish

BY MARK STEINGRAEVER, LA CROSSE NFWCO

Reports of large, exotic fish caught by anglers, commercial fishers and fishery resource managers in public waters have become all too common across the country in recent years. The causes for most of these unexpected and environmentally troubling landings are hobbyists (aquarium owners and water gardeners) who can no longer care for their ornamental fish (e.g., pacu, koi) that grow to an unmanageable size and are purposely released into nearby surface waters as a quick solution. Pet owners should know that the release of these fish (and the disease pathogens that may infect them) could adversely impact native fishes with serious consequences for sport and commercial fisheries.

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.

October, the 4<sup>th</sup> and 5<sup>th</sup> graders from Mr. Eric Shupbach’s Outdoor Education Class helped staff with an inventory of the “Baby Brookies.” They also measured length and weight of their fish. The students toured the hatchery grounds and benefited from some unstructured exploration.

The brook trout will be cared for by the students until the fish are ready (catchable size) to be stocked for children’s fishing events. While tending to the trout during their visits to the hatchery over the coming years, the students will learn about brook trout biology and ecology, fish culture and hatchery operations. Curriculum components such as math, science and social studies are covered during their visits. If you are interested in volunteering for any of the “Imaginature” activities or just want to know more about this exciting new program, please contact Tim Smigielski of the Jordan River NFH at: 231/584-2461 or via email: [tim\\_smigielski@fws.gov](mailto:tim_smigielski@fws.gov).

Faced with a dilemma like this, fish hobbyists need to learn of approved alternatives to the illegal abandonment of their aquatic pets in the wild. One such option, now offered in Western Wisconsin, is a government-business partnership that was established in 2006 by the La Crosse National Fish and Wildlife Conservation Office (NFWCO). Several pet retailers in this region have agreed to accept and quarantine large, unwanted pet fish from owners who can no longer care for them. Because there is virtually no market for these businesses to resell such large fish to other pet owners, the La Crosse NFWCO will accept custody of these unwanted fish and humanely euthanize them at no cost.

Due to this unique partnership with local businesses, the Marineland Pet Center in Onalaska, Wisconsin, recently accepted five large hobby fish from owners who no longer wanted to care for them. On October 17, La Crosse NFWCO biologist Mark Steingraeber took possession of these tropical species which included four oscars (7 to 11 inches total length) and one tinfoil barb (12 inches total length). These fish were humanely euthanized with Finquel® (tricaine methanesulfonate), a U.S. Food and Drug Administration-approved anesthetic for aquatic cold-blooded vertebrates, and cryopreserved later that day. This brings the current tally of species turned-in to this program to four.

Since its inception in 2006, this unique partnership has prevented the possible release of 22 large, unwanted pet fish into Coulee Region surface waters. Several of these fish have been prepared by a taxidermist and are now part of an exhibit used at La Crosse NFWCO outreach events to increase awareness of potentially problematic pet fish and acceptable alternatives to the release of these animals into the wild.



-USFWS

These oscars grew too large for their owners to maintain and were briefly sheltered at the Marineland Pet Center in Onalaska, Wisconsin. The La Crosse National Fish and Wildlife Conservation Office later took possession of these unwanted pets to prevent their possible release into the wild.

For further info about the La Crosse NFWCO: <http://www.fws.gov/midwest/lacrossefisheries/>

## Helping Missouri Hatcheries boost Fish Production

BY MELISSA CHEUNG

Despite poor water quality and low production numbers elsewhere in Missouri, Neosho National Fish Hatchery's (NFH) rainbow trout are faring well. Neosho staff delivered 10,000 surplus trout to the Missouri Department of Conservation's (MDC) Roaring River State Park in Cassville. In addition, the Shepherd of the Hills State Fish Hatchery in Branson is currently experiencing warmer than average water temperatures and reduced water quality. Neosho NFH staff provided 18,000 surplus trout in hopes of helping Missouri buffer their low production.



-USFWS

Neosho National Fish Hatchery and Missouri Department of Conservation employees load rainbow trout onto a state fish distribution truck.

For further info about the Neosho NFH: <http://www.fws.gov/midwest/neosho/>



## Predicting Pallid Sturgeon Catches on Trotlines

BY JOSHUA SCHLOESSER, COLUMBIA NFWCO

Trotlines are an experimental gear used to catch the federally endangered pallid sturgeon on the Lower Missouri River by U.S. Fish and Wildlife Service and Missouri Department of Conservation crews. Fisheries biologists found that using trotlines can increase the catch of pallid sturgeon by setting hooks baited with night crawlers in areas sturgeon typically occupy. A trotline is simply a long main line, sometimes hundreds of feet long, with baited hooks that clip onto the main line. Trotlines have been used recreationally in rivers by catfish fisherman for years. Trotlines have also been used successfully to monitor lake sturgeon populations in the Great Lakes. So why not use them for monitoring sturgeon populations in the Missouri River.

When used and set correctly, trotlines can be a valuable tool for the Pallid Sturgeon Population Monitoring Program. It is a gear that can effectively increase our catch of pallid sturgeon with little harm to the fish. Catching sturgeon allows biologists to estimate survival of hatchery and wild fish, population size, fish health, growth, movement, and provides hatcheries with adult fish that are used as brood stock.

To successfully monitor population levels, it is important to be confident that sampling crews will catch a pallid sturgeon when a fish is present in the sampling area. Based on trotline sampling efforts during the spring of 2008, it was predicted at the 90% confidence level, that at least one pallid sturgeon could be caught by deploying 19 hooks per tenth of a river mile. Biologists sample the river according to bends in the river, which can range in length from one to six miles long. Therefore, if a bend six miles long is selected to be sampled, 1,140 hooks are set to be 90% sure of catching at least one pallid sturgeon in that bend. Most bends sampled in the Lower Missouri River are shorter than 2.5 miles and sampled with 500 hooks or less.

The next stage for the monitoring program is to implement and test this prediction to determine if the recommended 19 hooks per tenth of a mile can consistently catch pallid sturgeon. If trotlines prove to be as effective as expected, they should catch more pallid sturgeon than traditional gears such as gill nets, trammel nets, and otter trawls. The more information biologists collect on pallid sturgeon and their population levels, the more effective recovery efforts can be for the elusive pallid sturgeon.

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.

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Inspection Time!

BY JAMES ANDERSON, SULLIVAN CREEK NFH

The La Crosse Fish Health Center (FHC) performed their annual summer/fall fish health inspection at Sullivan Creek and Pendills Creek National Fish Hatcheries (NFH) in early August. This year, the FHC collected the normal fish samples from the Hatcheries along with wild fish samples from both hatchery water supplies.

The FHC first started collecting samples at Sullivan Creek NFH from the lake trout brood stock while biologists Jaime Coffran and James Anderson headed upstream into Sullivan Creek with a backpack shocker to collect wild fish samples. In an hour, they collected 22 wild fish for the disease check-up. When fish health center staff completed sampling at Sullivan Creek NFH, they headed over to Pendills Creek NFH to collect samples from the lake trout production fish.

Fish Health Center staff sampled the production fish, while Anderson collected 29 fish from Videans Creek. Videans Creek is the main water supply for Pendills Creek NFH.

Now the waiting begins to see what the results will be on the samples collected by the Fish Health Center!

For further info about the Pendills Creek NFH/Sullivan Creek NFH: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/pendills.pdf>



-USFWS

The health of brook trout that live in the water supply for the Pendills Creek National Fish Hatchery are periodically checked, to ensure that serious diseases are not spread to cultured lake trout.

## More Paddlefish than meets the Eye

BY BRIAN ELKINGTON AND JOANNE GRADY, COLUMBIA  
NFWCO

**B**rian Elkington, Joanne Grady, Aaron Walker, Brett Witte and Marie Delatour from the Columbia National Fish and Wildlife Conservation Office (NFWCO) helped tag approximately 15,000 paddlefish over two October days. Columbia NFWCO assisted the Missouri Department of Conservation (MDC) at Blind Pony State Fish Hatchery near Sweet Springs, Mo. This was a “pulse” year for paddlefish production in Missouri with a targeted production of 65,500 fish. They actually produced and tagged 265,345 individuals, more than twice the anticipated production.



-USFWS

(Lt. to Rt.) Aaron Walker, Marie Delatour and Brett Witte of the Columbia National Fish and Wildlife Conservation Office help the Missouri Department of Conservation tag paddlefish.

It is impossible to know exactly how many fish have been produced at the hatchery until the ponds are drained and the fish harvested. This year, Missouri had a banner year for paddlefish, producing 265,345 individuals, more than four times their goal. Amazingly, all of them were tagged and released within three weeks, despite a few hiccups along the way.

While Missouri had purchased enough coded-wire tags (CWT) to tag their production goal, and placed rush orders for more tags, no one had anticipated this volume of fish. The agency faced the tough decision of either killing the excess fish, a terrible waste of resources, or stocking untagged fish, which would impact mark-recapture estimates in the Missouri River basin. Our office sent a call for help to the state and Federal partners in the MICRA Paddlefish Sturgeon Committee. We asked biologists with old fish tags and hatchery tags in excess of their 2008 production to send them into us. We decoded the tags and checked the database to verify no conflicts would

be created with fish already released into the wild. We received wild fish tags from Iowa, Kentucky, Minnesota and Wisconsin; and hatchery tags from Oklahoma, South Dakota, Tennessee and West Virginia. We also borrowed tagging machines from Kansas and South Dakota.

Additionally, our office and Neosho National Fish Hatchery (NFH) held more than 30 old spools of batch codes previously used to tag pallid and lake sturgeons. These tag numbers had never been used for paddlefish, and determined we could use them on paddlefish without negative impacts to the multi-state stock assessment database.

Federal Fisheries offices including the La Crosse NFWCO, Tishomingo (Oklahoma) NFWCO, Neosho NFH and Gavins Point (South Dakota) NFH all contributed to the cause. In the end, MDC was able to tag every one of the 265,345 fish that were stocked into the wild. It was a shining example of a group of people working in partnership for a common cause.

Working in teams of four, each paddlefish was injected with a small piece of stainless steel called a coded-wire tag, which is about the size of 0.05mm pencil lead. Each fish was then scanned with a detector to ensure the tag was successfully implanted. Every coded-wire tag has a unique number etched on it that will be read upon the fish's recapture. These tags, once entered into the database, allow us to compare important information such as growth and movement from their release to recapture.

This tagging effort is a part of the MICRA Paddlefish Stock Assessment project which covers the entire Mississippi River basin and involves biologists from 22 states. It is the largest freshwater fish tagging project in the world. The 15,000 paddlefish that the Columbia NFWCO staff tagged were released into the Lake of the Ozarks in Missouri and ranged from 8 – 14 inches long.

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>



## Tough River Issues Tackled by High School Students

BY ROB SIMMONDS, CARTERVILLE NFWCO

The Upper Mississippi River (UMR) Education Program was established in 2007 by representatives of the National Great Rivers Research and Education Center, Sierra Club, Southern Illinois University-Edwardsville and Prairie Rivers Network. Its goal is to introduce a comprehensive curriculum on the UMR in high schools along the Mississippi River. Several area schools are participating, using curriculum information developed by this committee. In addition, they spend a morning at Melvin Price Locks & Dam/National Great Rivers Museum where



-Jessica Pascoe, National Great Rivers Research and Educational Center

**Rob Simmonds (far Lt.) of the Carterville National Fish and Wildlife Conservation Office provides input to high school students about the invasive Asian carp issue on the Upper Mississippi River.**

included using a combination of biological or chemical controls, community fishing contests up and down the river on certain days, and developing processing plants for animal feed or export. It was great to see these students struggle through tough issues as they developed critical thinking skills and an appreciation for the complexity of community and environmental issues in their backyards.

For further info about the Carterville NFWCO: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/carterville.pdf>

## Sea Lamprey Decline observed in Several Great Lakes

BY MICHAEL FODALE, MARQUETTE BIOLOGICAL STATION

Stepped-up lampricide treatment efforts provided by the Great Lakes Fishery Commission may be showing evidence of a pay-off. The abundance of spawning phase invasive sea lampreys in some of the Great Lakes may be decreasing, according to the most recent lake wide population estimates made from a regression model used to indicate control program effectiveness by estimating the annual spawning population of sea lampreys. Sea lamprey population status charts, compiled annually, track

progress toward meeting Fish Community Objectives for each of the Great Lakes with respect to spawning phase sea lamprey abundance. The drop in abundance observed in 2008 is due to control efforts from 2006; lamprey populations are treated just prior to their parasitic-phase and the effect is measured as spawners, a span of about two years.

During 2004, the Lake Committees agreed to lake-specific target sea lamprey abundance levels that were calculated from historic data when wounding

### 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.

the students tour the facilities. They then spend an afternoon at a local venue where they work in a professional setting developing “river issue solutions.” This session mimics a real-world civic experience where students from two schools work together to form consensus, utilizing requested input from the experts in their critical thinking process, and then present their solutions to the group.

In our October session, project leader Rob Simmonds of the Carterville National Fish and Wildlife Conservation Office (NFWCO) participated as an invasive species “expert.” The 60 high school students were assisted by local river experts and college student facilitators, working together to develop possible solutions to some of the UMR’s most difficult environmental problems: Asian carp, floodplain connectivity and the Gulf of Mexico “dead zone.”

Some of the creative solutions to deal with Asian carp

from sea lampreys was considered to be insignificant (about 5 wounds per 100 lake trout). Historically, sea lamprey abundance has fluctuated, but long-term trends in the lakes indicated that we have been at or near target abundance in Lake Ontario much of the time and at target abundance only a few times in the four Upper Great Lakes. Control resources are not sufficient to treat all sea lamprey producing streams every year, so streams are treated on a ranking system that prioritizes treatments to minimize the number of these invasive parasites that migrate to the lakes.

Over the past 10 years, sea lamprey abundance and lake trout wounding have increased in most of the lakes. Reasons for the population increases have been unclear, with hypotheses ranging from reduced lampricide control effort to increased survival of juvenile feeding lampreys due to changes in the fish community. The Sea Lamprey Control program was reduced circa 1995. This was reversed beginning with Lake Michigan during 2001 when additional lampricide treatments were conducted on several streams. This trend of adding additional control resources annually

has continued through 2008 and includes the other lakes as well.

A quick look at the sea lamprey status charts indicates that this year, abundance in Lake Superior is estimated below the target level for the first time since 1994. The estimate of sea lamprey abundance for Lake Erie has decreased to below the target level for the first time in five years. Reducing the abundance of spawners in lakes Michigan and Huron continues to be a challenge while Lake Ontario is uncharacteristically above the target level after being within it for many years. Results in lakes Superior, Michigan and Erie are encouraging, but it is the trend-over-time of successive year reductions that need to be observed before fishery managers will agree that a population has stabilized and is at “target.”

The Fish and Wildlife Service continues to work in partnership with the Great Lakes Fishery Commission and Department of Fisheries and Oceans Canada to control populations of sea lampreys in the Great Lakes to protect the fishery and related economic activities in the basin (an estimated benefit of \$4-6 billion/year to the region).

For further info about the Marquette Biological Station: <http://www.fws.gov/midwest/marquette/>

## Early Detection and Monitoring for Aquatic Invasive Fish Species on Lake Huron and the St. Marys River

BY ANJANETTE BOWEN, ALPENA NFWCO

During October, the Alpena National Fish and Wildlife Conservation Office (NFWCO) conducted an annual survey to detect new populations and to monitor existing populations of invasive fish species. Bottom trawling gear is used during the survey to detect new populations of Eurasian ruffe and round goby, and to monitor existing populations of round goby at twelve shipping ports and rivers in United States waters of Lake Huron and the St. Marys River. No new populations of the invasive species were discovered; however, round goby continue to persist at seven of the twelve sampling locations.

Eurasian ruffe and round goby are two invasive fish species that are thought to compete with native species for food and habitat. They are native to Eurasia and invaded the Great Lakes area of North America. Eurasian ruffe have been found in lakes Superior, Huron and Michigan, but are thought to be absent from Lake Huron. Round goby have been found in each of the five Great Lakes and are also in the Mississippi River system. Although both species have been found in the Upper Great Lakes, only round goby has been detected in the St. Marys River, the connecting waterway between Lake Superior and Lakes Huron and Michigan. Round goby were captured in the St. Marys River for the first time during the summer of 2008 by anglers.

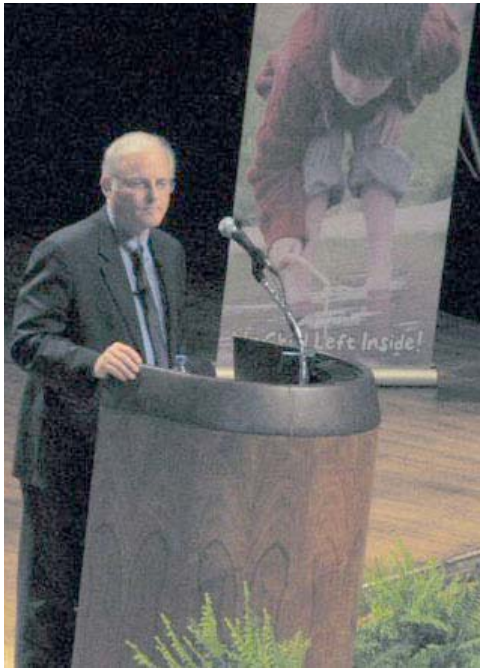
For further info about the Alpena NFWCO: <http://www.fws.gov/midwest/alpena/index.htm>



## “Last Child in the Woods” Author Richard Louv visits Michigan

BY ANDREA ANIA, ALPENA NFWCO

Alpena National Fish and Wildlife Conservation Office (NFWCO) biologists Anjanette Bowen, Heather Rawlings and Andrea Ania attended a special presentation by nationally acclaimed author Richard Louv. The event was held at Michigan State University and hosted by the Kalamazoo Nature Center. Louv used examples from his book, *Last Child in the Woods: Saving our children from nature-deficit disorder* to illustrate how children benefit mentally and physically from exposure to nature. The event was attended by more than 1,000 people, which can be attributed to the galvanizing effect his book has had on educators, parents, health care providers and natural resource professionals.



-USFWS/HeatherRawling

**Author Richard Louv gives a presentation at Michigan State University, Lansing, Michigan. Louv wrote the book titled *Last Child in the Woods: Saving our children from nature-deficit disorder*.**

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.

The Alpena NFWCO is continuing to develop their Children and Nature program with Wilson Elementary School. This program involves class visits, sharing knowledge about nature and experiences in nature, and providing access to nature on the school property through a native butterfly garden. Over time, the Alpena NFWCO will continue to work with Wilson School to expand the Children and Nature program.

For more information on the growing body of knowledge and opportunities to re-connect children to nature visit the “Michigan No Child Left Inside Coalition” at: <http://www.naturecenter.org/Home/MichiganNCLICoalition/tabid/426/Default.aspx> and the “Children and Nature Network” at: <http://www.childrenandnature.org/>.

For further info about the Alpena NFWCO: <http://www.fws.gov/midwest/alpena/index.htm>

## Lake Trout Retirement

BY JAMES ANDERSON, SULLIVAN CREEK NFH

Sullivan Creek National Fish Hatchery (NFH) partners with the Michigan Department of Natural Resources (DNR) to locate inland lakes which have the essential habitat base and depth required for our large lake trout brood stock to survive.

On September 3, Sullivan Creek NFH stocked out 125 excess fish from its 2001 year class of Seneca Lake wild lake trout brood stock. The lake trout averaged 27 inches in length with an average weight of 9 pounds. The stocking site was Perch Lake which is located north of Newberry, Mich., just off Luce County Road 407. The brood stock were released into Perch Lake by biologists Jaime Coffran and James

Anderson. Perch Lake is also home to a state campground, so these excess lake trout will provide some excellent recreational fishing opportunities for anglers.

The next day, staff stocked an additional 100 fish from this group. The stocking site was Sporley Lake which is located west of Skandia, Mich., adjacent to the old K.I. Sawyer Air Force Base. Sporley Lake is surrounded by residential homes and cabins. The lake also has a public access site that is maintained by the Michigan DNR, so these excess lake trout will provide another excellent fishing opportunity for eager anglers looking to hit the water and catch a big fish.

For further info about the Pendills Creek NFH/Sullivan Creek NFH: <http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/pendills.pdf>

## Networking to Create Better Programs for Children in Nature

BY MELISSA CHEUNG

Assistant Manager Roderick May was invited to the Aquatic Resources Education Association conference in Corpus Christi, Texas, from October 17-21. The forum was created to allow state, Federal and private organizations to discuss ideas and experiences to get children back in touch with nature. Meeting with outreach coordinators from across the United States, Rod was able to share his knowledge base and experience working with children. The

For further info about the Neosho NFH: <http://www.fws.gov/midwest/neosho/>

feedback and networking he gained will contribute to Neosho National Fish Hatchery's (NFH) educational programs with local school districts and visitors. Rod plans to develop a summer program based around an outdoor classroom at the hatchery and is working with the Joplin School District on nature-based curricula. He is also looking forward to sharing nature-based programs at the Neosho, Mo., library.

## Walleye at DeSoto NWR get a Check-up

BY BRIAN ELKINGTON AND ADAM MCDANIEL, COLUMBIA NFWCO

Brian Elkington and Adam McDaniel from the Columbia National Fish and Wildlife Conservation Office (NFWCO), along with Steve Van Riper from DeSoto National Wildlife Refuge (NWR) and Mark Boucher and Bryan Hayes from the Iowa Department of Natural Resources (DNR) teamed up to electro fish DeSoto Lake in October. Sampling was completed as part of a long-term monitoring and management program started in the 1970s. The sampling consisted of four 30-minute night time electro fishing runs that targeted walleye. The biggest walleye captured was 27 inches long and weighed 8 pounds! Data collected will be analyzed and incorporated into the annual DeSoto Lake Management Plan. Our team of inter-jurisdictional biologists can then make management decisions to help improve DeSoto Lake recreational fishing.

The lake and refuge around it draws large numbers of visitors each year. Recreational fishing is an important part of DeSoto NWR.



-USFWS/BrianElkington

Adam McDaniel displays the largest "catch of the night" during a walleye assessment on DeSoto Lake.

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Jordan River NFH Volunteers contribute to Public Outreach

BY TIM SMIGIELSKI, JORDAN RIVER NFH

Once again, the Northland Sportsmen's Club Family Hunting and Fishing Expo was well attended. The Expo was held at the sportsman's club Sunday, September 7. About 1,000 children were registered for the event, and an estimated 500 adults enjoyed the beautiful day and the wonderful, well-organized activities. The day featured the always popular trout fishing pond, BB gun range, wild game snacks and of course the Jordan River National Fish Hatchery

(NFH) display. Volunteers Chuck and Nancy Proper did an outstanding job promoting the hatchery and Fish and Wildlife Service programs. The Proper's, veteran volunteers and excellent grand parents, are just great with kids! This is the fifth year in a row that Jordan River NFH has been asked to attend the Expo. This event is an ideal environment to tell our story. Thanks to Chuck and Nancy for representing us well!

For further info about the Jordan River NFH: <http://www.fws.gov/midwest/JordanRiver/>



## Fish on the Move on the White Earth Reservation

BY SCOTT YESS, LA CROSSE NFWCO

A fish passage structure was installed below the dam at Many Point Lake on the White Earth Reservation. This project was a fantastic partnership between the White Earth Department of Natural Resources (DNR), Fish and Wildlife Service, Boy Scouts of America and Minnesota



(above) Dam at Many Point Lake on the White Earth Reservation before fish passage improvement; (below) Rock and boulders were placed in the river below the dam to elevate the bottom and create a 4% slope which allows fish to pass over the dam.



-USFWS

For further info about the La Crosse NFWCO: <http://www.fws.gov/midwest/lacrossefisheries/>

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.

Department of Natural Resources. Rock and boulders were placed in the river below the dam to

elevate the bottom and create a 4 percent slope which allows fish to pass over the dam. Three weirs were added utilizing large boulders which create shallow pools and help dissipate energy. Boulders were also placed along the banks for stabilization. In addition, the banks were planted with willow and reseeded.

This project was funded by a Fish and Wildlife Service Grant to the White Earth DNR. The grant was applied for by Randy Zortman with a focus on lake sturgeon management. Lake sturgeon are stocked in Round Lake which is connected to Many Point by the Ottetail River. We expect lake sturgeon to move into Many Point Lake from Round Lake now that the passage structure has been completed.

Luther Aadland from Minnesota DNR assisted in the planning and dimensions of the passage structure. Special thanks to Minnesota DNR biologists Neil Haugerud, Dave Friedl and Amy Childers for their expertise on the actual construction of the structure. The Boy Scouts were extremely positive on all aspects of the project and provided site access. Racer Construction did a fantastic job with the heavy lifting. At the end of the second day of construction, this project was reality and a true partnership that will provide fish passage for many years.

## In with the New, Out with the Old

BY MELISSA CHEUNG

Neosho National Fish Hatchery (NFH) is trying a new way to feed pallid sturgeon. The old system consisted of a five gallon bucket containing water and a frozen slab of adult brine shrimp. The food was administered to the tank once the slab thawed. This system worked well



-USFWS

**This 12"x18" feeding tray is made with a PVC frame and a ¼ inch mesh screen bottom. The floating cage allows for rapid thawing of feed and decreases the time involved for multiple feedings a day which is critical for pallid sturgeon culture.**

For further info about the Neosho NFH: <http://www.fws.gov/midwest/neosho/>

## SPIT is under Construction

BY FRANK STONE, ASHLAND NFWCO

The Ashland NFWCO is developing an Internet web site where fishery agencies within the Lake Superior basin can share important passive integrated transponder (PIT) tagging information. As the use of PIT tagging technology increases in Lake Superior, researchers will need to identify captured fish that may have been marked from other areas. The intent of the **Salmonine Passive Integrated Transponder (SPIT)** web site is to provide an on-line searchable database containing tag numbers (PIT-tagged salmonines in Lake Superior), points of contact, assessment information to facilitate tracking of tagged fish and information sharing among contributing fishery resource agencies. Partners for this project include Red Cliff, Grand Portage and Bad River Indian Reservations, Ontario Ministry of Natural Resources, Department of Fisheries/Oceans-Canada, University of Guelph-Canada, National Park Service and Northern Michigan University.

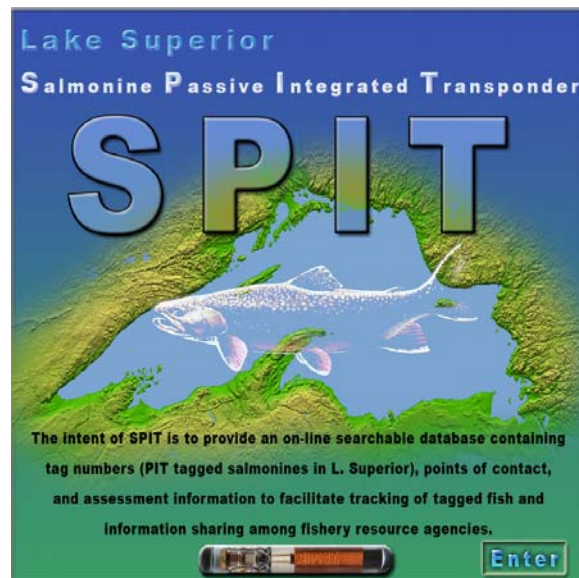
PIT tags, also known as microchips, allow researchers to permanently mark fish internally without altering their external appearance and have been used for over 20 years to permanently identify individual animals. Although the SPIT web site database is still in the developmental stages, you can preview the introduction pages at: <http://www.fws.gov/midwest/LakeSuperiorSPIT>.

For further info about the Ashland NFWCO: <http://www.fws.gov/midwest/ashland/>

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.

during the summer months when air and water temperatures are warmer; however, during the winter months, the method was inefficient. The extended amount of time required for the slab of food to thaw created a challenge for us because we need to provide three feedings per day to the young sturgeon.

The new system is a very simple floating cage constructed of a PVC frame (12"x18") with a plastic, ¼ inch mesh screen bottom. The new floating cage allows us to use the entire radiant heat of the 6'x 24' tank, rather than a five gallon bucket. This system allows for rapid thawing of the feed and decreases the time involved for multiple feedings a day. The food falls directly into the water, drifting with the micro-currents in the re-circulating tanks.





## Columbia NFWCO meets with Innovative Net Solutions

BY ANDY STAROSTKA, COLUMBIA NFWCO

Biologist Andy Starostka from the Columbia National Fish and Wildlife Conservation Office (NFWCO) met with Master Net Maker Greg Faulkner at his shop in Milton, La. Columbia NFWCO has worked with



-USFWS/AndyStarostka

**Milton, Louisiana, is the home of Innovative Net Solutions.**

include our standard 16 foot sapphire otter trawl, a small mesh 16 foot otter trawl designed to sample young of the year fishes, the push trawl and a very large experimental trawl specifically geared to capture invasive Asian carp.

INS is currently the only net maker that will design, modify and manufacture custom trawls specifically for scientific work and meet the specific requirements of each project. In addition to touring INS facilities, the visit included a tour of a local crayfish trap manufacturing facility, some discussion on the development of new sampling gears and savoring some true Cajun home cooking. The continuation of a strong relationship with INS will assist in the future development of sampling gears to meet specific and challenging needs required by scientific projects.

Innovative Net Solutions (INS) for several years to develop sampling gears specific to large rivers. INS is a small, family owned net shop that started building commercial shrimp trawls for use in the Gulf of Mexico. After working on numerous projects around the globe, INS has specialized in building nets for research and monitoring projects worldwide. Mr. Faulkner is known globally for designing trawls for wide-ranging applications to capture numerous species of fishes and crustaceans.

Trawling in large rivers has many technical difficulties unique to these systems. Some concerns include high velocity current, numerous large woody snags and undulating bottom contours. Columbia NFWCO has worked with INS on several gear development projects including several otter trawl designs for sampling sturgeon and other benthic fishes. These



-USFWS/AndyStarostka

**Master Net Maker Greg Faulkner builds a net at his shop in Milton, Louisiana.**

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Bratley Wetland Restoration Project

BY TED KOEHLER, ASHLAND NFWCO

The Bratley wetland restoration project was recently completed. The area restored lies adjacent to the Wisconsin Department of Natural Resources (DNR) Sioux River Fishery Area in Bayfield County, Wis.

This high priority state natural area consists of a blue ribbon trout stream and a large complex of Lake Superior coastal and inland wetlands. Substantial runs of migratory fish from Lake Superior inhabit the Sioux River, and its wetlands are home to many species of migratory waterfowl and songbirds. The project was closely coordinated with the Wisconsin DNR because of its proximity to this high profile public resource. Because wildlife does not respect artificial boundaries, the habitat restoration efforts undertaken by this private landowner will have a positive impact on the neighboring public land.



The Bratley wetland restoration project restored four wetland sites totaling two acres, and took place on formerly drained agricultural land. Pictured is one of the sites during construction (above) and shortly after project completion (below).



-USFWS photos

For further info about the Ashland NFWCO: <http://www.fws.gov/midwest/ashland/>

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.

Species benefiting from the habitat restoration and protection project include migratory waterfowl such as wood ducks, mallards and American black ducks, as well as migratory songbirds such as sedge wrens and song sparrows. Grey wolves frequently travel the Sioux River corridor and bald eagles perch in the towering white pines. The landowners have been actively managing their entire 80 acre farm for wildlife and the restored wetlands will help enhance the entire property for Federal trust wildlife species.

The project restored four wetland sites totaling two acres, and took place on formerly drained agricultural land. A Habitat Development Agreement was signed to protect the restored area for a period of 10 years. Partners on the project included the landowner, Bayfield County Land Conservation Department, Ducks Unlimited and the Ashland National Fish and Wildlife Conservation Office (NFWCO). Funding from the Fish and Wildlife Service was provided through the Partners for Fish and Wildlife Program.



## The Scramble before the Snow Flies

BY HEATHER RAWLINGS, ALPENA NFWCO

The fall months are typically the busiest for the Partners for the Fish and Wildlife (PFW) Program at the Alpena National Fish and Wildlife Conservation Office (NFWCO), and this year was no exception. October flew by with the final construction projects of the year wrapping up, landowner site visits for potential 2009 projects, and the scramble to get all potential projects surveyed before winter. Six potential 2009 wetland sites were surveyed in Emmet, Cheboygan, Otsego and Alpena counties, and two visits were made to potential stream restoration sites in Antrim and Emmet counties. Four inspections were made to wetland sites that were either in the construction process or had been completed.



-USFWS/HeatherRawlings

**An Antrim County, Michigan, wetland is under construction and almost finished. Pictured are the contractor, Mel Guntzville (left), and the landowner, Jim King (right). Work needs to be completed on the front slope of the wetland, and the site needs seed and mulch.**

In addition to field work, biologist Heather Rawlings assisted station Fish Passage Coordinator Andrea Ania in writing two fish passage proposals that were submitted for work in the Upper Black River watershed (Montmorency County, Michigan), and began preparing proposals for the PFW Program's Fish Habitat Restoration request for proposals due in November.

For further info about the Alpena NFWCO: <http://www.fws.gov/midwest/alpena/index.htm>

## Columbia NFWCO Travels to Fort Leavenworth

BY CLAYTON RIDENOUR, COLUMBIA NFWCO

Project Leader Tracy Hill, Missouri River Branch Chief Wyatt Doyle, and biologist Clayton Ridenour traveled to Fort Leavenworth, Kan., this October to meet with Fort Leavenworth Military Base officials to discuss Missouri River restoration adjacent to fort land. Fort Leavenworth forester Matt Nowak accompanied the group, pointing out likely restoration sites as they toured the seven mile reach of the Missouri River that borders the base.

Columbia NFWCO previously supported construction of a side-channel chute and backwater area on Fort Leavenworth land to benefit Federally endangered pallid sturgeon and other imperiled native fishes. The group submitted a proposal to monitor the fishes in these newly constructed habitats to measure their success as restoration sites. This partnership represents an important milestone to restore Missouri River habitats and recover pallid sturgeon because side-channel and backwater fish habitat are significantly lacking in the reach of river near Fort Leavenworth.



-USFWS/ClaytonRidenour

**Pictured is a potential site for a constructed backwater area on Fort Leavenworth land which would benefit native Missouri River fishes.**

For further info about the Columbia NFWCO: <http://www.fws.gov/midwest/columbiafisheries/>

## Dedicated Federal Employees mark 30 years of Service

BY MICHAEL FODALE, MARQUETTE BIOLOGICAL STATION

Michael Twohey and Stephen Dagenais of the Sea Lamprey Management Program based in Marquette, Mich., recently celebrated 30 years of dedicated Federal civil service. Dagenais, born and raised in Marquette, has dedicated his career to supporting field personnel who manage sea lamprey populations in the Great Lakes by providing industrial facilities management at the Marquette Biological Station on Wright



-GLFC

**Michael Twohey (Lt.) and Stephen Dagenais of the Marquette Biological Station celebrate 30 years of dedicated Federal service.**

For further info about the Marquette Biological Station: <http://www.fws.gov/midwest/marquette/>

## Annual High School Career Expo Brings in Another Diverse Crowd in 2008

BY HEIDI KEULER, LA CROSSE NFWCO

Approximately 2,000 high school sophomores and juniors from 28 school districts in the La Crosse area attended the La Crosse Center's Career Expo on October 7. The expo was a joint effort of the Greater La Crosse Area Chamber of Commerce, Western Wisconsin Technical College, Wisconsin Education Fair and area high schools.

There were 50 different booths which focused on six career clusters including: Agri-Business Science Technology & Natural Resources; Arts, Humanities & Communication; Business Management, Administration & Marketing; Health Care; Human Services & Education; and Industrial Science & Manufacturing Technologies.

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.

Dagenais supervises the shop facility, manages the grounds and storage facilities, maintains a substantial motor vehicle fleet and trains employees in the safe use of tools and equipment used to fabricate and repair equipment needed to control sea lampreys at remote field sites. Twohey, who earned both his bachelors and masters degrees from Northern Michigan University, currently leads a team of biological staff to implement innovative alternative control programs that are key to reducing sea lampreys in the Great Lakes. Twohey has been previously recognized with the Albert S. Hazzard Award of Excellence in 1990 for fisheries research (Michigan Chapter, American Fisheries Society) and the prestigious Vernon C. Applegate Award in 2000 for outstanding contributions to sea lamprey control (Great Lakes Fishery Commission).

Heidi Keuler from the La Crosse National Fish and Wildlife Conservation Office (NFWCO) spoke to approximately 80 students about a biologist career. Students viewed a video of jumping silver carp and interviews of biologists from the Fish and Wildlife Service La Crosse Resource Center, that received national coverage. This video as well as a slide show sparked a discussion in which students asked questions during an informal discussion. Budding biologists also got up-close-and-personal with a mounted invasive silver carp and a preserved small lake sturgeon which sparked even more interest. In addition, the young adults gained insight from photos taken of biologists in the field. Many students were very interested in career and volunteer programs.

For further info about the La Crosse NFWCO: <http://www.fws.gov/midwest/lacrossefisheries/>



# Congressional Actions

H.R. 7150 (ih) To conserve the United States fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the people of the United States, and for other purposes. [Introduced in House]

S. 3552 (is) To conserve the United States fish and aquatic communities through partnerships that foster fish habitat conservation and improve the quality of life for the people of the United States, and for other purposes. [Introduced in Senate]

S. 2907 (rs) To establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes. [Reported in Senate]

S. 2907 (is) To establish uniform administrative and enforcement procedures and penalties for the enforcement of the High Seas Driftnet Fishing Moratorium Protection Act and similar statutes, and for other purposes. [Introduced in Senate]

H.R. 1495 (enr) To provide for the conservation and development of water and related resources, to authorize the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes. [Enrolled bill]

S. 1248 (pcs) To provide for the conservation and development of water and related resources, to authorize the Secretary of the Army to construct various projects for improvements to rivers and harbors of the United States, and for other purposes. [Placed on Calendar Senate]

H.R. 6316 (ih) To reduce global greenhouse gas emissions through the creation of a domestic carbon market and international trade measures, and to direct the revenue therefrom to public interests. [Introduced in House]

S. 3280 (is) To increase refining capacity and the supply of fuel, to open and preserve access to oil and gas, and for other purposes. [Introduced in Senate]

H.R. 4455 (ih) To authorize the Secretary of the Interior to provide international wildlife management and conservation programs through the Wildlife Without Borders Program in the United States Fish and Wildlife Service, and for other purposes. [Introduced in House]

H.R. 3891 (rh) To amend the National Fish and Wildlife Foundation Establishment Act to increase the number of Directors on the Board of Directors of the National Fish and Wildlife Foundation. [Reported in House]

S. 3366 (is) To protect, conserve, and restore native fish, wildlife, and their natural habitats at national wildlife refuges through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative plant species, and for other purposes. [Introduced in Senate]

H.R. 6421 (ih) To direct the Secretary of the Interior to establish and implement a [Introduced in House]

S. 3213 (pcs) To designate certain land as components of the National Wilderness Preservation System, to authorize certain programs and activities in the Department of the Interior and the Department of Agriculture, and for other purposes. [Placed on Calendar Senate]

H.R. 6384 (ih) To provide a comprehensive plan for greater American energy independence. [Introduced in House]

H.R. 2764 (enr) Making appropriations for the Department of State, foreign operations, [Enrolled bill]

H.R. 2764 (eah) This Act may be cited as the "Consolidated Appropriations Act, 2008". [Engrossed Amendment House]

S. 2758 (is) To authorize the exploration, leasing, development, production, and economically feasible and prudent transportation of oil and gas in and from the Coastal Plain in Alaska. [Introduced in Senate]

H.R. 3891 (eh) To amend the National Fish and Wildlife Foundation Establishment Act to increase the number of Directors on the Board of Directors of the National Fish and Wildlife Foundation. [Engrossed in House]

H.R. 3891 (ih) To amend the National Fish and Wildlife Foundation Establishment Act to increase the number of Directors on the Board of Directors of the National Fish and Wildlife Foundation. [Introduced in House]

H.R. 767 (rh) To protect, conserve, and restore native fish, wildlife, and their natural habitats at national wildlife refuges through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative species, and for other purposes. [Reported in House]

H.R. 767 (ih) To protect, conserve, and restore native fish, wildlife, and their natural habitats at national wildlife refuges through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative species, and for other purposes. [Introduced in House]

H.R. 6001 (ih) To rebalance the United States energy portfolio, to increase and utilize the Nation's domestic energy resources and supply, to strengthen energy security and independence, and for other purposes. [Introduced in House]

S. 3669 (is) To reduce gas prices by promoting domestic energy production, alternative energy, and conservation, and for other purposes. [Introduced in Senate]

H.R. 767 (eh) To protect, conserve, and restore native fish, wildlife, and their natural habitats at national wildlife refuges through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative species, and for other purposes. [Engrossed in House]

H.R. 3891 (rs) To amend the National Fish and Wildlife Foundation Establishment Act to increase the number of Directors on the Board of Directors of the National Fish and Wildlife Foundation. [Reported in Senate]

S. 3222 (is) To promote the energy security of the United States, and for other purposes. [Introduced in Senate]

H.R. 1533 (ih) To provide for the establishment of a national mercury monitoring program. [Introduced in House]

S.J.Res. 17 (rs) Directing the United States to initiate international discussions and take necessary steps with other Nations to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean. [Reported in Senate]

S. 2958 (is) To promote the energy security of the United States, and for other purposes. [Introduced in Senate]

S. 2973 (pcs) To promote the energy security of the United States, and for other purposes. [Placed on Calendar Senate]

S. 843 (is) To provide for the establishment of a national mercury monitoring program. [Introduced in Senate]

H.R. 767 (rfs) To protect, conserve, and restore native fish, wildlife, and their natural habitats at national wildlife refuges through cooperative, incentive-based grants to control, mitigate, and eradicate harmful nonnative species, and for other purposes. [Referred in Senate]

Source is <http://www.gpoaccess.gov/bills/index.html>

Searched database by keyword = "fish"

# Midwest Region Fisheries Divisions

## 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.

## National Fish and Wildlife Conservation Offices

National Fish and Wildlife Conservation 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 fisher-

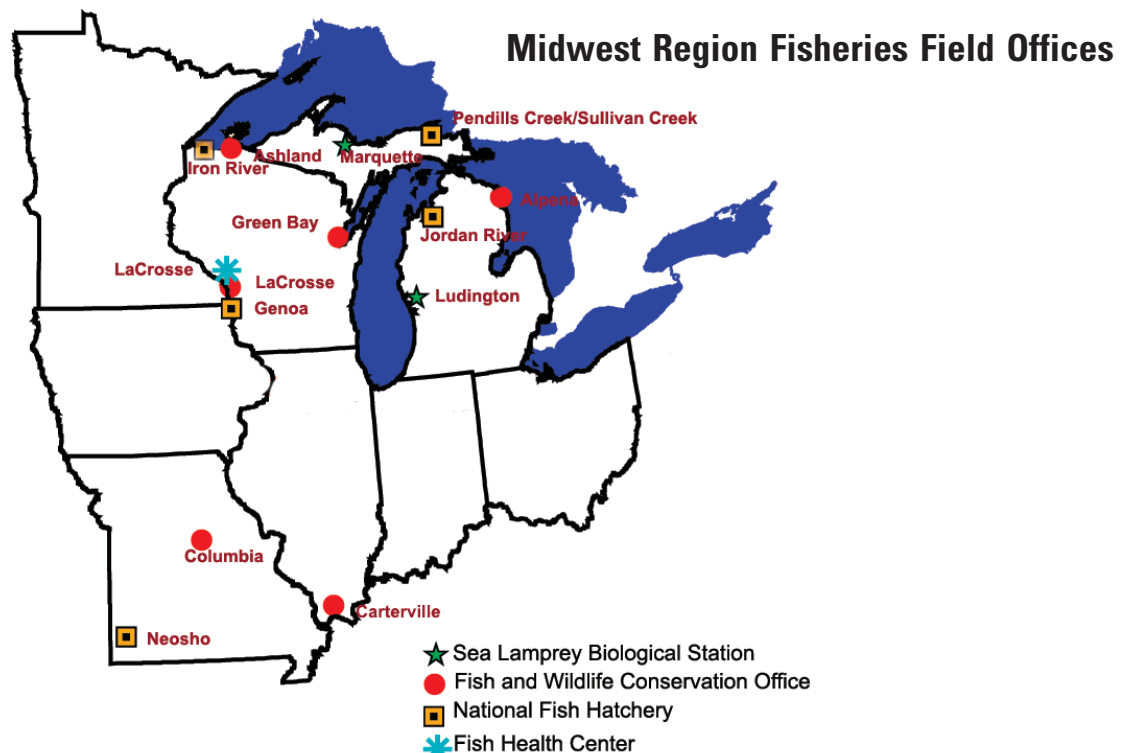
ies databases; provide technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydro-power operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

## Sea Lamprey Biological Stations

The Fish and Wildlife Service is the United States Agent for sea lamprey control, with two Biological Stations assessing and managing sea lamprey populations throughout the Great Lakes. The Great Lakes Fishery Commission administers the Sea Lamprey Management Program, with funding provided through the U.S. Department of State, U.S. Department of the Interior, and Fisheries and Oceans Canada.

## Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state and tribal hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health; 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.





# Midwest Region Fisheries Contacts

Mike Weimer ([mike\\_weimer@fws.gov](mailto:mike_weimer@fws.gov))

## Michigan

Alpena National Fish and Wildlife Conservation Office  
Federal Building; 145 Water Street  
Alpena, MI 49707  
Aaron Woldt ([aaron\\_woldt@fws.gov](mailto:aaron_woldt@fws.gov))  
989/356-3052  
Area of Responsibility (Michigan, Ohio)

Jordan River National Fish Hatchery  
6623 Turner Road  
Elmira, MI 49730  
Roger Gordon ([roger\\_gordon@fws.gov](mailto:roger_gordon@fws.gov))  
231/584-2461

Ludington Biological Station  
229 South Jebavy Drive  
Ludington, MI 49431  
Dennis Lavis ([dennis\\_lavis@fws.gov](mailto:dennis_lavis@fws.gov))  
231/845-6205

Marquette Biological Station  
3090 Wright Street  
Marquette, MI 49855-9649  
Katherine Mullett ([katherine\\_mullett@fws.gov](mailto:katherine_mullett@fws.gov))  
906/226-1235

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

## Missouri

Columbia National Fish and Wildlife Conservation Office  
101 Park Deville Drive; Suite A  
Columbia, MO 65203  
Tracy Hill ([tracy\\_hill@fws.gov](mailto:tracy_hill@fws.gov))  
573/234-2132  
Area of Responsibility (Iowa, Missouri)

Neosho National Fish Hatchery  
East Park Street  
Neosho, MO 64850  
David Hendrix ([david\\_hendrix@fws.gov](mailto:david_hendrix@fws.gov))  
417/451-0554

## Illinois

Carterville National Fish and Wildlife Conservation Office  
9053 Route 148, Suite A  
Marion, Illinois 62959  
Rob Simmonds ([rob\\_simmonds@fws.gov](mailto:rob_simmonds@fws.gov))  
618/997-6869  
Area of Responsibility (Illinois, Indiana, Ohio)

## Wisconsin

Ashland National Fish and Wildlife Conservation Office  
2800 Lake Shore Drive East  
Ashland, WI 54806  
Mark Brouder ([mark\\_brouder@fws.gov](mailto:mark_brouder@fws.gov))  
715/682-6185  
Area of Responsibility (Michigan, Minnesota, Wisconsin)

Genoa National Fish Hatchery  
S5689 State Road 35  
Genoa, WI 54632-8836  
Doug Aloisi ([doug\\_aloisi@fws.gov](mailto:doug_aloisi@fws.gov))  
608/689-2605

Green Bay National Fish and Wildlife Conservation Office  
2661 Scott Tower Drive  
New Franklin, WI 54229  
Mark Holey ([mark\\_holey@fws.gov](mailto:mark_holey@fws.gov))  
920/866-1717  
Area of Responsibility (Michigan, Wisconsin)

Iron River National Fish Hatchery  
10325 Fairview Road  
Iron River, WI 54847  
Dale Bast ([dale\\_bast@fws.gov](mailto:dale_bast@fws.gov))  
715/372-8510

LaCrosse Fish Health Center  
555 Lester Avenue  
Onalaska, WI 54650  
Becky Lasee ([becky\\_lasee@fws.gov](mailto:becky_lasee@fws.gov))  
608/783-8441

LaCrosse National Fish and Wildlife Conservation Office  
555 Lester Avenue  
Onalaska, WI 54650  
Pamella Thiel ([pam\\_thiel@fws.gov](mailto:pam_thiel@fws.gov))  
608/783-8431  
Area of Responsibility (Illinois, Iowa, Minnesota, Wisconsin)

# Fish Tails

“Fish Tails” includes articles that are included in field station reports that are not published in the “Conservation Briefs.” These articles are categorized by focus area and includes the article title, author and field station. The website link, where the full article can be viewed, is highlighted in blue type.

## **Partnerships and Accountability**

- A Well Deserved Makeover
  - Melissa Cheung, Neosho NFH
- Annual Operating Plan (AOP) Public Meetings Held in Missouri
  - Tracy Hill, Columbia NFWCO
- Ashland NFWCO 2008 Accomplishment Reports Are Now On the Internet
  - Frank Stone, Ashland NFWCO
- Columbia Presents Fish Playing Cards at NANFA Annual Conference
  - Andy Starostka, Columbia NFWCO
- Jordan River NFH Adopt a Highway Clean Up Completed with Help from Volunteers and Friends
  - Tim Smigielski, Jordan River NFH
- Missouri Interpreters get a Unique Missouri River Experience
  - Andy Starostka, Andy Plauk and Jeff Finley, Columbia NFWCO

## **Aquatic Species Conservation and Management**

- Coded Wire Tagging (CWT) Project Completed at Jordan River NFH
  - Tim Smigielski, Jordan River NFH
- Endangered Pallid Sturgeon Brood Stock Arrive
  - Melissa Cheung, Neosho NFH
- First Stocking of the 2009 Fiscal Year Mitigation Commitment
  - Melissa Cheung, Neosho NFH
- Fish Health Inspection at Neosho
  - Melissa Cheung, Neosho NFH

- Jordan River NFH Staff Assist Brood Stock Stations with Egg Takes
  - Tim Smigielski, Jordan River NFH
- Lake Trout Excursion
  - Joe McMullen, Cliff Wilson and Chris McLeland, Columbia NFWCO
- Squeezing Fish – Wisconsin Style
  - Colby Wrasse and Patty Herman, Columbia NFWCO
- Thirty Families Relocated from Isle Royale National Park
  - Nick Starzl, Genoa NFH

## **Aquatic Invasive Species**

- Silver Carp Manuscript
  - Mark Steingraeber, La Crosse NFWCO
- Students Learn About Zebra and Quagga Mussels
  - Anjanette Bowen, Alpena NFWCO

## **Public Use**

- Columbia NFWCO provides outreach at Desoto NWR
  - Adam McDaniel and Brian Elkington, Columbia NFWCO
- Genoa National Fish Hatchery Talks Environmental Issues with Waukon Junior High
  - Tony Brady, Genoa NFH
- Halloween at the YMCA
  - Melissa Cheung, Neosho NFH

- Michigan Alliance for Environmental and Outdoor Education Annual Conference
  - Anjanette Bowen, Alpena NFWCO
- Natural Resource Class from Boyne City Schools Visits Jordan River NFH
  - Tim Smigielski, Jordan River NFH
- Spending Time with the Local Community Rain or Shine!
  - Melissa Cheung, Neosho NFH
- Wonders of Wildlife Connects Missourians with Nature
  - Chris McLeland, Columbia NFWCO

## **Cooperation with Native Americans**

## **Leadership in Science and Technology**

## **Aquatic Habitat Conservation and Management**

## **Workforce Management**

- Annual High School Career Expo Brings in Another Diverse Crowd in 2008
  - Heidi Keuler, La Crosse NFWCO
- Carterville National Fish and Wildlife Conservation Office has a new Assistant Project Leader/Fish Biologist
  - Rob Simmonds, Carterville NFWCO



-Jerry French Postcard Collection; San Marcus Fish Hatchery (circa 1910)

## *Water Under the Bridge*

### **A Glimpse into our Proud Past**

*The San Marcos Fish Hatchery was located near the city of San Marcos in Hays County, Texas. Its property adjoined that of Southwest Texas State University. The Hatchery was established in 1897 and ceased operations in 1965 when it was transferred to the University. A new fish hatchery, also known as San Marcos National Fish Hatchery was established nearby in 1974.*