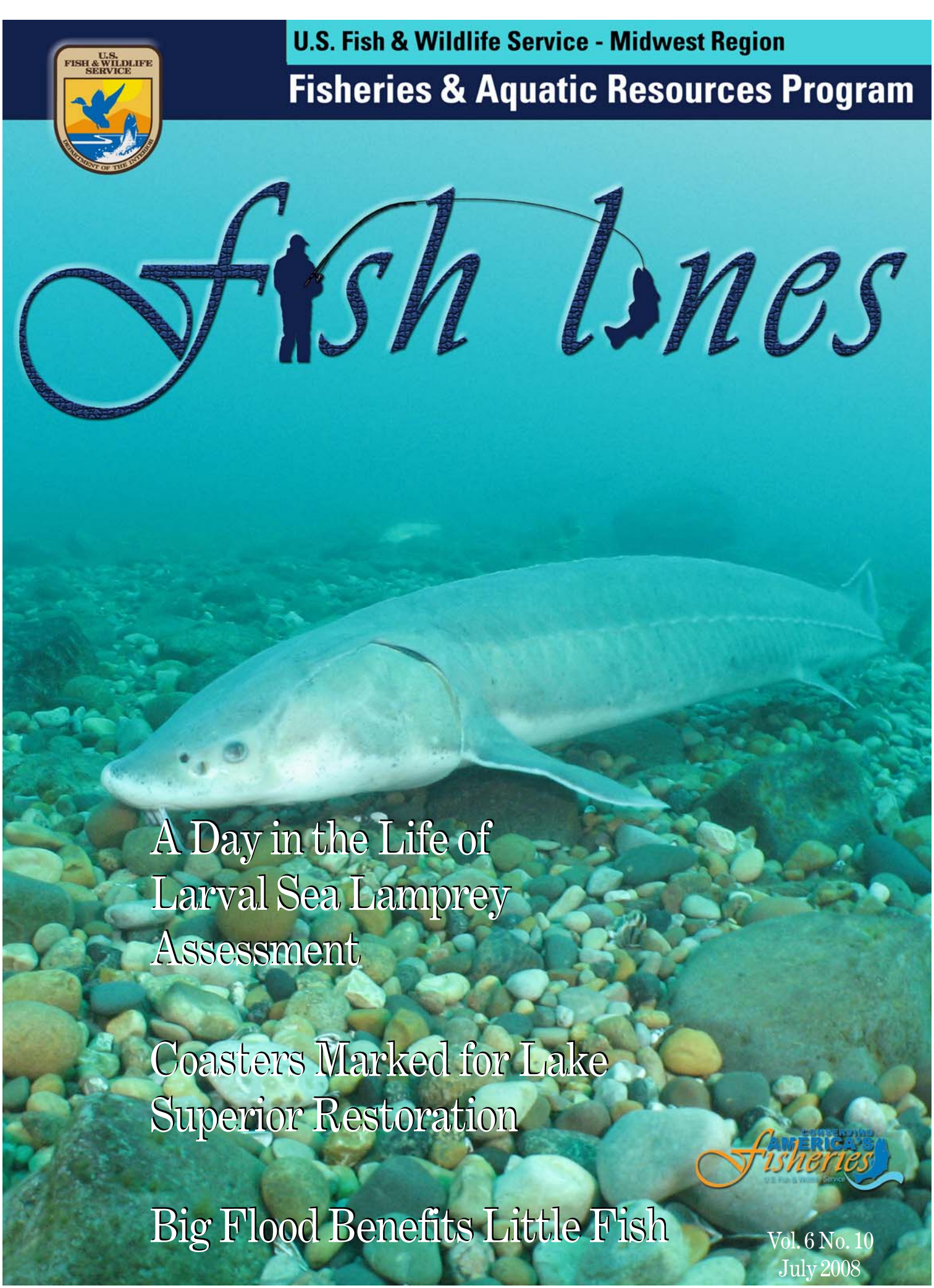
U.S. Fish & Wildlife Service - Midwest Region
Fisheries & Aquatic Resources Program

Fish Lines



A Day in the Life of Larval Sea Lamprey Assessment

Coasters Marked for Lake Superior Restoration

Big Flood Benefits Little Fish

Vol. 6 No. 10
July 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

-USFWS

This big brother watches closely as his sister attempts to catch "the big one."

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

Fish Lines

2008 Vol. 6 No. 10

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-IMAX/Adam Lintz

A lake sturgeon spawns in the St. Clair River

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.

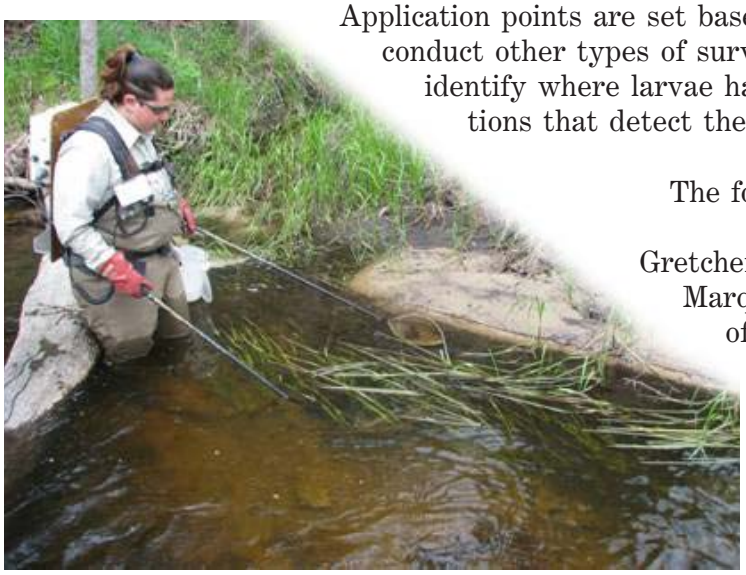
Conservation Briefs 8-20

A Day in the Life of Larval Sea Lamprey Assessment

BY SHAWN NOWICKI, MARQUETTE BIOLOGICAL STATION

On the road again, like a band of gypsies we go down the highway…" Willie Nelson couldn't have said it better when it comes to the life of Sea Lamprey Management personnel. From Minnesota to New York and throughout Ontario, Canada, we travel to locations around the Great Lakes to control the nuisance invader. To give you an idea of what an average working day consists of, I will explain a few of our objectives, what we encounter during a "normal" day, and how we manage various situations.

The Larval Assessment Unit is responsible for finding the geographic distribution, relative abundance and detection of new populations of larval sea lampreys in all Great Lakes tributaries. We do this work in partnership with the Great Lakes Fishery Commission and the data we collect are critical in implementing an effective sea lamprey control program in the Great Lakes. One of the most important jobs in larval assessment is setting the lampricide application points in streams for our Lampricide Control Unit. Application points are set based on the in-stream distribution survey results. We conduct other types of surveys such as treatment evaluations that specifically identify where larvae have survived a lampricide treatment and barrier evaluations that detect the presence of larvae above lamprey barriers.



-GLFC

A technician assesses a Great Lakes tributary stream for the presence of invasive sea lamprey larvae.

The following is a day in the life of larval assessment:

Gretchen Murphey and I began our 10-day trip traveling from Marquette to Manistique, Mich. One of the many objectives of this trip was to conduct treatment evaluation surveys in the Milakokia River tributary to Lake Michigan.

The Milakokia River was treated with lampricide during 2007 and we were here to find residual, or surviving, sea lampreys from the treatment. I made two phone calls this morning. The first was a call to the Carmeause Lime and Stone quarry to obtain permission to access the river through quarry property. Another call was made to a private landowner who told us to pick up a key to a gate along a trail to access the upper river. We picked up the gate key from the landowner and away we went. When private landowners and businesses cooperate with us, it makes our jobs much easier when it comes to gaining stream access.

We pulled up to the limestone quarry and talked with the operations manager who gave us a pass through the quarry and told us the best route to the sites we needed to survey, to avoid quarry traffic. The employees there are very helpful and supportive of the sea lamprey management program. We spent a few minutes talking with them and explained how we survey for sea lamprey larvae, called ammocetes.

-GLFC

A biologist hikes through a cedar swamp to get to an isolated stream location.

Gretchen and I drove through the quarry to look for sites which may have lampreys. The first survey of the day was located at the confluence of Shoepac Lake Outlet and main Milakokia River. This was an easy site to access, only a short walk from the main road to the river. We donned our backpack electrofishing gear which consists of a direct current backpack electrofishing unit, two paddles (positive and negative electrodes), waders, buckets and rubber linemen gloves (for electrical safety). Some folks say that we look like something out of a Ghostbusters movie.

The mosquitoes were out in full force, so we applied a generous dose of bug spray before heading towards the water. We electrofished in type 1 habitat, preferred habitat of larval lampreys, which consists of sand, silt and detrius. We didn't catch any sea lampreys at this location so we moved on to survey a few more sites.

-GLFC

A larval sea lamprey is captured with a backpack shocker electrofishing paddle.

We finished our surveys of the Milakokia River and headed over to another tributary of Lake Michigan, Gulliver Lake Outlet, but not before disinfecting all our equipment with a bleach solution to guard against transferring any invasive disease such as viral hemmorrhagic septicemia (VHS). The best way to access the majority of this stream is by ATV. We loaded our vehicles with the electrofishing equipment, my trusty handheld GPS unit, and down the trail we went. For our last survey of the day, we had to walk through an area that had many fallen trees. A fair portion of our time is spent hiking through the woods or swamps to reach our survey sites. To quote a good friend of mine and coworker, "I'm not complaining…just explaining." All of us enjoy a challenge, that's why we love working where we do.

-GLFC

A sea lamprey larva, or ammocete, is measured as part of a stream assessment.

There wasn't enough time left in the day to complete another survey station so we finished our day by identifying and measuring the ammocetes captured from a previous station. (There are four species of lampreys native to the Great Lakes basin that are not considered harmful to fishes; only trained personnel can effectively tell the difference between the sea lamprey and native lamprey larvae). Tomorrow, we plan on driving over to the Sturgeon River, tributary to Lake Michigan, to conduct distribution surveys prior to the lampricide treatment scheduled later this summer. On the road again…

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

Coasters Marked for Lake Superior Restoration

BY DOUG ALOISI, GENOA NFH

A crew of four fin-clippers traveled from the Iron River National Fish Hatchery (NFH) to further coaster brook trout restoration efforts in the Lake Superior drainage by marking Genoa NFH's 2009 coaster brook trout production.

These fish are part of a joint stocking program with the Grand Portage tribe on the shores of Lake Superior. Coaster brook trout, a migratory form of the eastern brook trout that follow a unique life history and grow larger than traditional or stream resident brook trout, have declined in numbers and range since the late 1800s. Coasters migrate out of their natal streams and rivers after their 1st to 2nd year of life and move to the larger waters of Lake Superior to grow and mature. After reaching reproductive age of 3-5 years old, they return to their same birth stream to spawn. Many changes in habitat, fishing exploitation, species composition, and water quality have occurred throughout the Industrial Revolution, leaving just a few coaster populations considered viable in the United States waters of the Great Lakes.

-USFWS

These finclippers came to the Genoa National Fish Hatcher y (NFH) (courtesy of the Iron River NFH) to mark some of Genoa's brook trout as part of a stocking program for the Grand Portage tribe.

The Genoa NFH, Iron River NFH and the Ashland National Fish and Wildlife Conservation Office (NFWCO) in cooperation with the National Park Service are actively restoring coaster brook trout by developing captive brood stock strains of the two remaining populations at the Isle Royale National Park. These captive brood stocks are used to produce progeny that should exhibit the coaster brook trout's migratory habits as well as larger size, and are geographically adjacent to active restoration areas. Fish are marked yearly by alternating the removal of one or two of their fins, which give them a distinctive mark for each year of production. Iron River NFH currently maintains a highly trained cadre of clippers and taggers through their lake trout rehabilitation stocking program, and graciously offered the use of their services to further future assessment efforts involving Genoa NFH's coaster brook trout production.

A total of 12,000 four-inch fish were marked for release in the spring of 2009, when they should approach nine inches in length and be large enough to avoid most fish species in search of a fish dinner. Many thanks to Iron River NFH and the team spirit demonstrated to further aquatic resource conservation!

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

Big Flood Benefits Little Fish

BY COLBY WRASSE, COLUMBIA NFWCO

Corn fields and parking lots are not areas we typically sample for fish, but that is exactly where Columbia National Fish and Wildlife Conservation Office (NFWCO) sampled in early July. Due to prolonged periods of flooding throughout June and early July, we were unable to perform our standard sampling; however, the high water presented us with a unique opportunity to examine the fish community utilizing the floodplain. Over a three-day period from June 29 to July 2, we used a push trawl to sample fish on the Missouri River floodplain. The push trawl, originally designed for sampling shallow areas on the main channel of the Missouri River, was quite effective on the floodplain. After a short time of churning through the mud and dodging cottonwoods and willows, we collected thousands of fish. The majority of the samples were composed of young-of-the-year fish. Although we collected many different species, the most common fish were the invasive bighead and silver carps.

-USFWS/Brett Witte

Colby Wrasse and Chris Scheppers of the Columbia National Fish and Wildlife Conservation Office pilot a boat through the flooded gravel parking lot at Taylor's Landing on the Missouri River.

Research indicates that floodplain connectivity is important for the health of river ecosystems. Floodplains provide food, nutrients and habitat for spawning and rearing. Man-made changes to rivers across the world have reduced or eliminated floodplain habitat in many instances. Reduction of floodplain habitat has led to declines in many fish species. Our simple study once again underscores the importance of floodplains. The shallow, cover laden, slack water habitat areas of the Missouri River floodplain were ideally suited to sample for young-of-the-year fish. Our data also demonstrate the abundance of invasive Asian carp which, unfortunately, also utilize floodplains. The presence of Asian carps can confound habitat restoration efforts because these invasive species could also benefit. A greater understanding of how and when fish utilize floodplains will aid biologists and engineers when making decisions regarding habitat modifications.

-USFWS/Colby Wrasse

The fish captured most often in assessments in flood waters of the Missouri River floodplain in July were invasive bighead and silver carps. Three species of Asian carp were captured (from top: bighead carp, silver carp, and grass carp).

-USFWS/Colby Wrasse

This young-of-the-year paddlefish was one of the native fish species collected on the Missouri River floodplain.

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

Master Naturalists get Missouri River Experience

BY CLIFF WILSON, COLUMBIA NFWCO

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.

Columbia National Fish and Wildlife Conservation Office (NFWCO) assisted Big Muddy National Fish and Wildlife Refuge (NF&WR) and *Friends of the Big Muddy* with the large river component of the Master Naturalist Program. Project Leader Tracy Hill and biologist Cliff Wilson of the Columbia NFWCO with Park Ranger Tim Haller of the Big Muddy NF&WR provided big river ecology expertise to the trainees.

-USFWS/Cliff Wilson

Project Leader Tracy Hill of the Columbia National Fish and Wildlife Conservation Office discusses ongoing projects on the Missouri River with a group from the Big Muddy National Fish and Wildlife Refuge Master Naturalist Program.

The program started with Tim Haller explaining to the group how to use navigational markers to safely navigate large rivers. Cliff Wilson then provided the group hands-on experience with live shovelnose sturgeon and discussed the biology and concerns of native fish species in the Missouri River. Tracy Hill then discussed the various projects Columbia NFWCO is working on in the Missouri River and many issues that are now surrounding the river.

The field trip progressed as everyone boarded three boats to tour the Tadpole and California Island areas of the Missouri River near Huntsdale, Missouri. We viewed and discussed ongoing habitat projects including Tadpole Chute, a pilot chute constructed by the U.S. Army Corps of Engineers, and monitored by Columbia NFWCO. Several shallow water habitat projects were also visited and discussions ensued on various related subjects.

The Missouri Master Naturalist program is a community based natural resource education and volunteer program. Its purpose is to develop a corps of well-informed volunteers to provide education, outreach and service dedicated to benefit management of natural resources and natural areas within their communities for the State of Missouri.

The Missouri Master Naturalist program is a partnership of the Missouri Department of Conservation and University of Missouri Extension and local partners in each community. Both the Big Muddy NF&WR and the *Friends of the Big Muddy* are partners for the local Master Naturalist Chapter that is centered in Columbia. Previous classes have provided many volunteer hours for the refuge.

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

Pallid Sturgeon Meeting is a Success!

BY ANDY PLAUCK, COLUMBIA NFWCO

Columbia National Fish and Wildlife Conservation Office's (NFWCO) Jeff Finley, Andy Plauck and Clayton Ridenour traveled to Yankton, South Dakota, to meet with members of the Pallid Sturgeon Population Assessment Team. The Great Plains NFWCO, Missouri River NFWCO and Columbia NFWCO, as well as several state agencies are contracted by the U.S. Army Corps of Engineers (Corps) to sample the Missouri River for pallid sturgeon. Along with pallid sturgeon, thousands of other fish are collected and reported on every year. This group normally meets once a year, but proposed changes to the sampling design forced another meeting. The group deployed a new gear last summer, the push trawl, which we had hoped would replace the mini-fyke net as a standard gear. This gear would have cut down on travel time, fuel costs and variability in samples. Unfortunately, not every crew had success with the push trawl and the data did not show this gear to be an adequate replacement for the team.

This trial did force the team to go back and look at the objectives of the project and prioritize them. This prioritization led to more in-depth discussions concerning extra monitoring effort, and where it should be expended. The group came to a consensus that more effort should be expended to capture pallid sturgeon. The fish community of the Missouri River is an important part of the program, but the Federally endangered pallid sturgeon is the main reason that this team was assembled.

The program's coordinator also made an important announcement less than a week before the meeting. Mark Drobish of the Corps announced that he would be returning to the Fish and Wildlife Service as a hatchery manager at the Dworshak NFH. The group discussed the transition period while a new coordinator gets settled in.

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

M/V Togue Artifacts will be displayed at NCTC

BY AARON WOLDT, ALPENA NFWCO

Biologist Aaron Woldt of the Alpena National Fish and Wildlife Conservation Office (NFWCO) transferred artifacts preserved from the *M/V Togue*, the Fish and Wildlife Service's original Great Lakes stocking vessel, to historian Mark Madison of the National Conservation Training Center (NCTC), W. Va. Madison picked up the artifacts which included the following: pilot house chair, chart desk, compass, GPS, life raft case, fire hose, life jackets, life rings, immersion suits, fire axes, marine radio, binoculars, log books, fish tank aerator control panels, and other instruments. These artifacts will be preserved and used to create a display at NCTC documenting the *M/V Togue*'s historic importance to lake trout rehabilitation efforts in the Great Lakes. From 1989 to 2006, the *M/V Togue* stocked over 60 million lake trout fingerlings and yearlings in the upper Great Lakes in support of agency lake trout rehabilitation efforts.

-USFWS/Aaron Woldt

Life rings removed from the *retired M/V Togue* were transferred to the National Conservation Training Center in West Virginia and to regional lake trout production facilities for use in displays at visitor and interpretive centers.

In addition, the steering wheel was retained in Alpena and will be displayed near the pilot house on the *M/V Togue*'s replacement, the *M/V Spencer F. Baird*. In addition, some artifacts such as life rings, a fire ax, life jackets, an immersion suit, and a *M/V Togue* coffee cup were transferred to our regional lake trout production facilities (Iron River NFH, Jordan River NFH and Pendills Creek NFH) for display in the visitor/interpretive centers.

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

Pallid Sturgeon Recovery at Neosho NFH

BY CLIFF WILSON, COURTNEY CULLER AND ADAM MCDANIEL, COLUMBIA NFWCO

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.

During the week of June 30th, a crew from Columbia National Fish and Wildlife Conservation Office (NFWCO) traveled to Neosho National Fish Hatchery (NFH) to assist in marking and collecting data on juvenile pallid sturgeon. Data needed to be collected on approximately 2,500 pallid sturgeons, so our assistance was welcomed by the hatchery staff. The Columbia staff enjoyed participating in this effort due to the satisfaction of being a part of another chapter in the pallid sturgeon recovery effort. On top of that we also had beautiful weather, which helped made for a great week.

The young pallid sturgeons were spawned from brood stock that had been captured in the upper basin of the Missouri River. Before they could be stocked back into the upper basin, each fish is marked with a passive integrated transponder (PIT) tag and have a lateral scute (bony scale) removed. Each fish's length and weight was also recorded. All of this information will eventually be used when these fish are recaptured in the wild. These recaptures will provide insight into the biology of pallid sturgeons and will also demonstrate the effectiveness of marking with pit tags and scute removal. In efforts to gain more knowledge, these fish will be held for a length of time and stocked at different sizes and times of the year to see which provides the most successful stocking equation.

-USFWS/Cliff Wilson

A crew from the Columbia National Fish and Wildlife Conservation Office mark juvenile pallid sturgeons with passive integrated transponder (PIT) tags at the Neosho National Fish Hatchery.

Aside from assisting in the pallid sturgeon marking efforts, we also helped stock rainbow trout in Hickory Creek, a spring fed stream in Neosho, Mo. The fish were stocked for the town as part of a local Independence Day celebration.

The Neosho NFH staff showered (or rather drenched) us with hospitality from the beginning to the end. From five star meals to entertaining stories, we were left wanting for nothing. The staff's personalities were truly inspirational and anyone would benefit from spending time with them. They are a model of excellent service to the public.

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

St. Mary's River Lake Sturgeon: Hearing them is easy, but catching them is not

BY KATIE RENSHEN, ASHLAND NFWCO

The abundance of lake sturgeon in the St. Mary's River system and the Great Lakes in general, is relatively unknown. The Ashland National Fish and Wildlife Conservation Office (NFWCO) along with Lake Superior State University's (LSSU) Aquatic Research Laboratory have been assessing the St. Mary's River population in an attempt to refine management plans to better conserve this species.

During the week of July 7, NFWCO biologist Katie Renschen assisted Roger Greil and student employee Jessica Comben from LSSU's Aquatic Research Laboratory, in setting baited lines at various water depths and locations above the Soo Locks in Sault Ste. Marie, Michigan. During this week long period, no sturgeon were caught, and set lines were moved further west in hopes of finding fish. As of the end of July, there was still no sturgeon captured.

Lines will continue to be set through the end of the summer.

In previous years when sturgeon were caught, length, weight, and girth measurements were taken, along with fin samples for DNA and age analysis; sturgeon greater than 125 cm were also implanted with sonic transponder tags.

During the trip, Katie also assisted in tracking lake sturgeons implanted with sonic transponder tags in the lower part of the St. Mary's River. Tracking was done by boat using a hydrophone and receiver. Each sturgeon has a unique tag, and when a tag is heard, the location of the fish is recorded. These locations are used to track the movements of the lake sturgeon over time. All of the sturgeons that LSSU have tagged were found and locations recorded during the two day tracking period.

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

Salmon Trout River: Home of the Coaster Brook Trout

BY KATIE RENSHEN, ASHLAND NFWCO

Migrations and biological characteristics of the coaster brook trout in Lake Superior tributaries are being studied and assessed by the Ashland NFWCO, Michigan Technological University, and the Michigan Department of Natural Resources (DNR) in an ongoing effort to rehabilitate the native coaster brook trout in Lake Superior.

During the weeks of June 9th and June 16th, Katie Renschen of the NFWCO assisted Dr. Casey Huckins from Michigan Tech University and Dr. Edward Baker from the Michigan DNR in backpack electrofishing sections of the Salmon Trout River in the Huron Mountains northwest of Marquette, Michigan. The Salmon Trout River is the site of the last known remnant population of coaster brook trout on the south shores of Lake Superior.

The goal of this survey was to assess and collect data on the population of resident brook trout in the river. Specifically, we were looking for brook trout greater than 200 mm. In theory, these fish would be resident brook trout, and not coasters. Coaster brook trout at this size are thought to have already moved out of the river and into Lake Superior. By collecting data and genetic samples on resident brook trout, genetic analysis can be done between resident brook trout and coaster brook trout in hopes of finding genetic differences between the two.

-USFWS

Ashland National Fish and Wildlife Conservation Office teamed up with Michigan Technological University and the Michigan Department of Natural Resources to perform a brook trout assessment on the Salmon Trout River.

During the two weeks of sampling, over five river miles were covered; however, the number of resident brook trout captured was minimal. Only five fish greater than 200 mm were captured. There were several "questionable" resident brook trout caught ranging from 160-180 mm, and genetic samples were taken on them as well.

Studies and assessments on the Salmon Trout River are ongoing. Recently, a weir and camera were also set in place on a section of the river to further monitor the movements of coaster brook trout.

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

Acoustic Telemetry Project underway in St. Marys River

BY JESSICA DOEMEL, MARQUETTE BIOLOGICAL STATION

The Fish and Wildlife Service assisted researchers from the Department of Fisheries and Oceans and the University of Guelph, Ontario, in conducting an acoustic telemetry project on the St. Marys River, Lake Huron, during July 2008. The study was designed to examine the migratory behavior of invasive sea lamprey up to, and in the vicinity of, sea lamprey assessment traps located on the downstream side of U.S. Army Corps of Engineers powerhouses in the St. Marys River.

-GLFC

Fish and Wildlife Service personnel assist in placement of hydrophones in the St. Marys River, Lake Huron, just downstream of the U.S. Army Corps of Engineers powerhouses.The study is designed to examine the migratory behavior of invasive sea lamprey up to, and in the vicinity of, sea lamprey assessment traps.

Several hydrophones, sometimes referred to as "underwater microphones," were placed in the channel downstream of the powerhouses that were used to track the movements of lamprey once they entered the channel. Radio tags were also implanted into several sea lampreys to determine the depth at which they were moving.

Fine-scale movements at the assessment traps were also monitored through the use of passive integrated transponder (PIT) tag technology and video equipment. Several hundred lampreys were implanted with PIT tags and streamer tags (for visual identification of a tagged lamprey). Antennas were placed around a trap at the downstream powerhouse to determine whether or not the lamprey entered the trap, lamprey behavior once inside the trap, and to monitor for escapement. An underwater camera was also mounted on the trap to support and enhance the information gathered from the PIT tag technology.

The U.S. Army Corps of Engineers and local recreational anglers were cooperators in the project. The results will be used to enhance the effectiveness of alternative control methods such as trapping and barriers by designing and placing structures that take advantage of sea lamprey movement patterns.

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

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.

Aquatic Invasive Fish Species Awareness on Lake Huron

BY ANJANETTE BOWEN, ALPENA NFWCO

The Great Lakes harbor a number of aquatic invasive species that are detrimental to the health and economy of the state. To help protect our waters from aquatic invaders, Michigan's Governor Jennifer Granholm declared June 1 through 8, 2008 as Aquatic Invasive Species Awareness week in Michigan. In early July, the Alpena National Fish and Wildlife Conservation Office (NFWCO) made efforts to raise public awareness about aquatic invasive species along the coast of Lake Huron through the distribution of WATCH identification cards for round goby, Eurasian ruffe, and bighead and silver carp.

In Lake Huron, both round goby and Eurasian ruffe have been found. They are considered invasive species because they compete with native species for food and habitat resources, and they grow and reproduce more rapidly than their native counterparts. Bighead and silver carps have not become established within the Great Lakes, but are within approximately 50 miles from Lake Michigan in the Illinois River

system. The carp are thought to jeopardize the long term sustainability of native species by competing for food and habitat.

Alpena NFWCO biologist Anjanette Bowen distributed aquatic invasive species WATCH identification cards to over 39 bait and fishing license vendors along the coast of Lake Huron from Sault Ste. Marie to Bay City, Michigan, from July 7 to 9, 2008. Cooperation with bait and tackle dealers is the key to getting the word out to the public who frequent these shops for fishing and boating supplies. Over 6,200 aquatic invasive species educational materials were distributed.

Alpena NFWCO education efforts are focused on increasing public recognition of invasive species and providing information on what precautions should be taken to prevent the spread of these species. The ultimate goal is to prevent or slow the spread of aquatic invasive species to inland waters and new areas. Citizens can prevent the spread of unwanted aquatic invasive fish species by learning to recognize them, reporting any unusual fish to your local conservation office, disposing of unwanted live bait in the trash, and never releasing fish from one body of water into another.

For more information on aquatic invasive species and how to protect your waters, visit the Protect Your Waters web site at http://www.protectyourwaters.net/. For more information on Michigan's Aquatic Species Awareness week, visit the Michigan DEQ web site at http://www.michigan.gov/deq/0,1607,7-135-3313_3677_8314-191392—,00.html.

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

Hunting for a Killer in Ohio

BY ANDY STAROSTKA AND ADAM MCDANIEL, COLUMBIA NFWCO

Andy Starostka and Adam McDaniel visited eastern Ohio to assist the La Crosse Fish Health Center (FHC) with collecting fish tissue samples to test for viral hemorrhagic septicemia (VHS). VHS is a contagious and deadly fish disease that can kill both native and game fish species. VHS had earlier been confirmed in two muskellunge that were collected at nearby Clear Fork Reservoir. This was the first confirmed case of the disease outside the Great Lakes watershed in wild fish populations. This current effort is intended to determine the range of VHS within the watershed.

Fish were captured by Ohio DNR field crews from several sites throughout the Clear Fork drainage and transported on trucks from Castalia State Fish Hatchery to Woodbury Wildlife Area where crews had assembled to collect samples. Personnel from the Lamar FHC, Ohio DNR and Department of Agriculture were involved in this collaborative effort to monitor for this debilitating fish disease.

Following is a website of a newspaper article containing more about this effort: http://www.dispatch.com/live/content/local_ news/stories/2008/06/30/fishkiller.ART_ ART_06-30-08_A1_LEAJR1M.html?sid=101.

-USFWS/Andy Starostka

Corey Puzach (Rt.) from the La Crosse Fish Health Center and Adam McDaniel with the Columbia National Fish and Wildlife Conservation Office collect tissue samples from freshwater drum to test for viral hemorrhagic septicemia (VHS) and bacterial pathogens.

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

Genoa NFH partners in the First Mississippi River Adventure Day

BY TONY BRADY, GENOA NFH

The Mississippi River Adventure Day is a "kids in nature" initiative by the McGregor District of the Upper Mississippi River National Wildlife and Fish Refuge and the *Friends of Pool 9*.

Originally planned for June of this year, the event was postponed until July allowing flood waters to recede in the river. Even after waiting an extra month, the first Mississippi River Adventure Days was a huge success. This event was a great example of how partners can come together and provide opportunities for kids to connect with nature. Biologists and staff from the U.S. Army Corp of Engineers, Fish and Wildlife Service, Wisconsin and Iowa DNR's, National Audubon Society, Allamakee County Conservation Board, Clayton County Conservation Board, Vernon County Land and Water Conservation Department, and 30 members of the *Friends of Pool 9* came together to provide this chance for 185 local kids to get out on and in the Mississippi River. Eight stations were set up on islands in the River or in the River itself. At these stations, kids learned about frogs, turtles, birds, trees, fish and mussels. Genoa NFH's mussel biologist Tony Brady talked to the kids about mussels and their way of life in the river. After a short presentation, the kids got to get in the water and "pollywog" (run their fingers through the sand) for freshwater mussels.

-USFWS

A budding biologist proudly places her catch into the "mussel bag" at Mississippi River Adventure Day.

Once every child found at least one mussel, everyone gathered back on shore to see what was found. The mussels were identified and the kids got to ask questions about mussels, before being asked to return their catch back to the river. At the end of the day, everyone had fun and enjoyed their time on the Mississippi River.

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.

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

Curt's Smoked Chicken is Bearly Irresistible!

BY CURT FRIEZ, PENDILLS CREEK NFH

Pendills Creek National Fish Hatchery (NFH) has been having an unwanted after hours visitor. The staff was surprised to find trash scattered around next to the large hatchery dumpster. It seems our unwanted guest was a creative black bear that actually opened a plastic sliding door on the back side of the dumpster to gain access to refuse. The bear must have spent a significant amount of time going thru the trash, finding everything edible. After the mess was cleaned up, it took our unwanted visitor about two weeks to return and dumpster-dive again. After cleaning up this mess once again, the crew thought it would be fun to put a trail camera up and possibly get some photos if the bear were to return.

Unfortunately, the bear decided something smelled better in the residential garbage, so about a week later an early morning phone call alerted me that the bear was out next to the residential garbage dumpster. I grabbed my camera and proceeded outside in the direction of the dumpster, only to stop in the next yard behind a pine tree in order to try and get a few photos. At first, the bear was lying beside the dumpster and it looked to be fairly small like the size of a small yearling, but that changed in a hurry when the bear decided to stand up and look my direc-

tion. The bear stood about the height of the dumpster. I slowly proceeded backwards towards my home. The bear certainly had no fear of humans and I became concerned since there was a small child in the neighborhood, so I grabbed my shotgun and proceeded outside and fired two shots into the air. The bear slowly wandered off. Twenty minutes later, I was informed that the bear had returned, so I went out and fired another shot in the air and the bear finally disappeared into the woods.

After this visit, I decided to contact the Michigan DNR and they sent out Luke, their bear trapper in this area. Luke gave me some cracker shells to fire towards the bear if he returned in daylight once again. The bear returned about a week later to the same residential dumpster. This time, the bear had climbed up on top and had jumped on the plastic lids forcing them into the dumpster in order to get at the goodies. Of course, the bear decided to spread trash all over once again.

-USFWS

Fish biologists at the Pendills Creek National Fish Hatchery had to go to the "wildlife" side and deal with a large, potentially dangerous black bear that took a liking to their refuse container.

After this incident, I called the DNR once again, and Luke decided to bring out a live trap for bears. In this case, it was a barrel trap on wheels. Luke and I set the trap in place about 3:00 pm and used some smoked chicken for bait. Well, the bear decided to return and entered the trap before 9:00 pm that same night. I contacted Luke with the news and he stated he had never caught one that quickly before and that he would be out the following morning to haul the bear away. Luke arrived the following morning and upon looking at the bear, he thought it was a large male probably over 200 pounds. Luke told me that he was going to haul the bear down to a swamp in the Cedarville area on state land. He was also hoping to get a couple of pictures for me upon releasing the bear, but had no luck since the bear bolted out of the trap too fast. Luke did tell me that the bear was actually over 250 pounds. It is our hopes that the bear doesn't find its way back to the Hatchery and takes to making a living in the woods.

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

DeSoto Refuge Fest is a Success

BY BRIAN ELKINGTON, COLUMBIA NFWCO

On June 7, Brian Elkington from Columbia National Fish and Wildlife Conservation Office (NFWCO) and volunteer Marie Delatour took part in Refuge Fest at DeSoto National Wildlife Refuge (NWR). Refuge Fest, initially started in 2001 to encourage fishing at DeSoto Lake, is a great outreach and education opportunity. Working together with the DeSoto NWR staff, Pottawattamie County Conservation Board, U.S. Army Corps of Engineers, American Family Insurance and many more organizations, this event was a huge success. Bass Pro Shops and Tracker Boats gave educational excursions and clinics ranging from archery to boating and fishing. They also donated prizes for the carp fishing contest. Raptor Recovery Nebraska offered the chance to see and learn about raptors from the region. *Friends of Boyer Chute and DeSoto NWR* provided concession stands and live bluegrass music.

This event is held annually the first Saturday in June. Refuge Fest is a great chance to talk to the public about what we do. We had sampling nets, a measuring board and scale, and *Louweeza*, our electrofishing boat onsite to explain our role in fisheries conservation. Live fish were also available for adults and children alike to handle. There were many flyers and handouts, as well as a fish identification puzzle for families to enjoy. We also discussed the plight of the pallid sturgeon and recovery efforts.

There was an excellent turnout of approximately 700 participants at the 8th annual Refuge Fest. As opposed to last years fest, the rain held off and it was a beautiful day. The Columbia NFWCO looks forward to participating in this event for years to come.

-USFWS/Brian Elkington

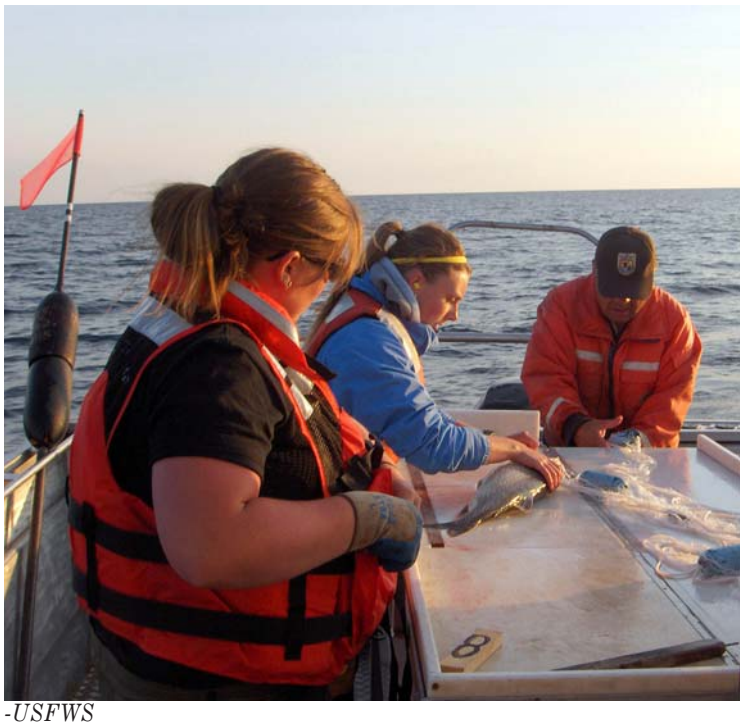
This adventurous boy was excited to hug a catfish at Refuge Fest.

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

Lake Whitefish Population Assessment near Grand Marais, Michigan

BY GLENN MILLER, ASHLAND NFWCO

The Ashland NFWCO conducted Lake Whitefish assessments out of Grand Marais, Mich., during the period of July 24 –31. Volunteer Hannah Edwards of the Jordan River National Fish Hatchery (NFH) and Ted Eggebraaten of the Green Bay National Fish and Wildlife Conservation Office (NFWCO) assisted with the assessments. These surveys are coordinated by the Technical Fisheries Committee (TFC) of the 2000 Consent Decree for 1836 Treaty waters of Lake Superior. Cooperators on this effort include the Bay Mills Indian Community, Chippewa-Ottawa Resource Authority, Michigan DNR, Pictured Rocks National Lakeshore and Grand Marais Coast Guard Auxiliary.



-USFWS

Fish and Wildlife Service staff and volunteers conduct a lake whitefish population assessment near Grand Marais, Michigan, on Lake Superior.

The areas surveyed by the Fish and Wildlife Service included Grand Marais, Blind Sucker Creek and Deer Park. Gill nets were set along six randomly selected transects that run perpendicular to the shoreline. Nets were set on the bottom in water depths set in two different depth strata ranging from less than 100 feet and greater than 100 feet. Four 900' gangs were strung together (3,600'), with each gang containing 9 – 100' panels that ranged in size from 2 "– 6" stretch (by the ½") and 6' deep.

The information obtained is used by agencies to manage the commercial and recreational harvest of Lake Whitefish, evaluate abundance and fish health, and to gain a broader understanding of the lake whitefish ecological role in Lake Superior. Biological data collected by species caught included length, weight, sex, sea lamprey marks, ageing material and stomach (diet) samples.

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.

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.

Freshwater Mussels: Rocks with Guts or Superheroes in Disguise?

BY TONY BRADY, GENOA NFH

Mild-mannered freshwater mussels or clams as most people refer to them, when seen in a river, are not thought of as very heroic; however, for a second year, freshwater mussels produced by Genoa National Fish Hatchery (NFH) are being tested as a means to protect countless citizens against potentially harmful chemicals or environmental factors, where drinking water sources originate from surface water sources. Due to their relative immobility in aquatic systems, and their need to filter large volumes of water, and possibly pollutants in the quest for food, mussels make ideal organisms to test river water quality. In 2007, a bio-monitoring system using freshwater mussels was installed at the Minneapolis Waterworks to monitor raw water by the Environmental Protection Agency (EPA). These mussels were supplied Mississippi River water from the Waterworks treatment plant influent while being connected to sensors that would send a signal to a computer. If the mussels show coordinated shell closure activity, it is an indication of poor water quality. Waterworks' personnel would then receive an alarm and further test the safety of the water.

-USFWS

Black sandshell mussels are wired to a monitoring system. Coordinated shell closure activity indicates poor water quality, prompting further testing of water quality by public water systems staff.

This year, Genoa NFH shipped 144 black sandshell mussels to St. Cloud, Minn., where they were used to start up two additional bio-monitoring sites, one located at the St. Cloud Waterworks and the second at the Excel energy plant in Sherburne County, Minn. Genoa NFH is one of a very few select mussel culture facilities that can supply mussels greater than two inches in size to be used in monitoring systems such as these. With the addition of these two new monitoring sites, the EPA is testing the mussels' abilities to monitor water quality in over 60 miles of the Upper Mississippi River. So I ask: rocks with guts or superheroes in training? You decide.

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

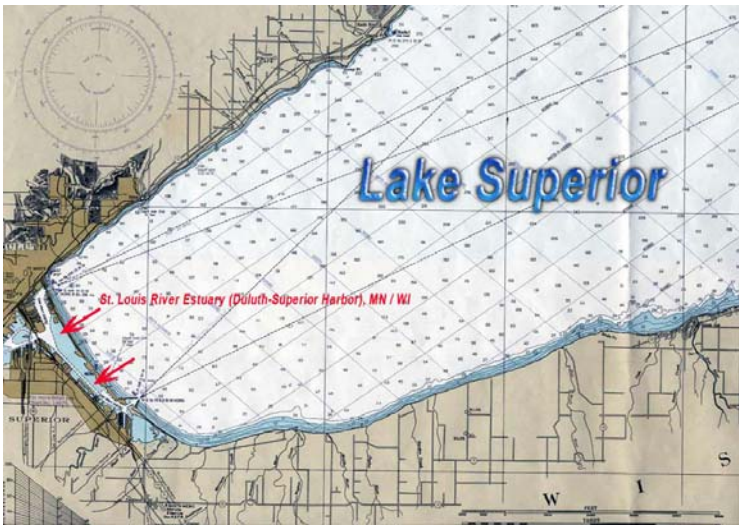
Implementation of an Invasive Fish Early Detection Monitoring Design

BY GARY CZYPINSKI, ASHLAND NFWCO

The Ashland National Fish and Wildlife Conservation Office (NFWCO) met with the National Health and Environmental Effects Research Laboratory of the Environmental Protection Agency (EPA), to begin coordination in implementing an invasive fish early detection monitoring design for the St. Louis River Estuary (Duluth-Superior Harbor), Minnesota/Wisconsin, Lake Superior waters. The invasive fish design is part of a larger design that also includes aquatic invertebrates, currently in the final stages of development by the EPA Lab. The EPA Lab presented three design types that were being analyzed for optimum efficiency and effectiveness. Analysis of three years of research has shown that a minimum of 20-30 sampling locations were required to capture 95% of the known fish species in the estuary. Further analysis demonstrated that in order to capture a majority of the available fish species in the most efficient manner, sampling methodology should consist of fyke netting, electrofishing, and bottom trawling, with more emphasis on the shallow water (surface to two meters) gear, fyke netting and electrofishing.

Under the direction of the EPA Lab, the Ashland NFWCO will begin training in the implementation of the design during late August, 2008. Results from this

training event will be used by the EPA Lab for further analysis of the invasive fish portion of the design. The Ashland NFWCO is planning to use the EPA design to conduct early detection monitoring for invasive fish in the St. Louis River Estuary on an annual basis. Data collected in future years will be shared with the EPA Lab for continued refinement of the design.



-USFWS

Ashland National Fish and Wildlife Conservation Office is coordinating with the Environmental Protection Agency to implement an invasive fish early detection monitoring design for the St. Louis River Esturary.

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

Isle Royale Brook Trout sporting New PIT Tag Technology

BY GLENN MILLER, ASHLAND NFWCO

There are a few brook trout residing in the Washington Harbor area of Isle Royale National Park that have moved into the newest technology for tracking of tagged fish. The Ashland National Fish and Wildlife Conservation Office (NFWCO) office has been surveying Washington Harbor and Washington Creek and inserting passive integrated transponder (PIT) tags into brook trout caught during the surveys. A PIT tag station has also been installed on Washington Creek to monitor the movement of brook trout in Washington Creek.

The brook trout in Washington Harbor were collected during electrofishing surveys of the Harbor in June of 2008. During this period, the crew also installed the PIT tag station consisting of a solar panel and batteries for power, two antennae that will record the tagged fish passing over the antennae, and a data recording station that logs the PIT tags as they pass.

Diagram of a passive integrated transponder (PIT) tag.

Washington Creek was also surveyed at this time with backpack electrofishing equipment; however, due to a heavy thunderstorm the night before and a rain event that dumped up to five inches of rain, the creek came up too high to survey completely. Another crew went out again to Washington Creek in July and tagged 55 brook trout in the lower stretch of the creek. Again, Mother Nature decided to dump several inches of rain on the island and the crew was unable to survey the upper stretch of Washington Creek. This rain event did; however, send a few of the PIT tagged fish up the creek and they were logged on the recorder. The interpretative staff at the Isle Royale Windigo Ranger Station are downloading the PIT tag station information and emailing it to the Ashland NFWCO. Plans are being made to make several more trips to Washington Creek and tag more brook trout in this system.

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

Nyra Wildlife Habitat and Whittlesey Creek Watershed Restoration

BY TED KOEHLER, ASHLAND NFWCO

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.

Nine acres of a hay field on private land within the boundaries of Whittlesey Creek National Wildlife Refuge (NWR) were restored to native forest in the spring of 2008. This project was a joint effort between the landowner and the Whittlesey Creek NWR and Ashland National Fish and Wildlife Conservation Office (NFWCO). Funding was provided by the Partners for Fish and Wildlife Program with in-kind labor and equipment contributed by the landowner. Approximately 1,000 trees were planted and the native species consisted of red pine, white pine and white spruce.

This project comprises part of an overall restoration approach for the Whittlesey Creek watershed and will benefit migratory fish and birds. The creek supports native brook trout and large runs of migratory fish from Lake Superior. Studies have shown that deforestation in the area has contributed to the degradation of habitat in Whittlesey Creek and other streams. In the past, the shading effect of the forest allowed for a gradual spring runoff period and lower peak flows. Now, with snowmelt occurring much faster in a more open landscape, the spring melt occurs very quickly, eroding banks and sending large amounts of sediment into critical fish spawning areas. The restoration project will also benefit migratory birds such as the Canada warbler, olive sided flycatcher and American woodcock. As outlined in Best Management Practices developed for the area, reforestation is critical to restoring the health of Wisconsin's Lake Superior tributaries, and this project adds another piece to the Whittlesey Creek restoration puzzle.

Habitat Assessment and Monitoring Program 2007

BY ANDY STAROSTKA AND CLAYTON RIDENOUR, COLUMBIA NFWCO

The 2007 Habitat Assessment and Monitoring Program (HAMP) annual report was completed and delivered in July, 2008. HAMP monitors the aquatic component of constructed habitat improvement sites on the channelized portion of the Missouri River (Big Muddy). Many sites are shallow water areas constructed by the U.S. Army Corps of Engineers, intended to benefit the Federally endangered pallid sturgeon and increase diversity of Missouri River aquatic habitats.

The Missouri River is currently lacking specific habitats that seem critical to these relic fish whose direct ancestors swam amongst dinosaurs. The river ecosystem was, and continues to be, significantly changed since the early part of the 20th century when construction began on six large dams on the upper half, followed by channelization and flood protection levels along the lower half of the River. These dams are large. Together, they represent one of the largest capacity engineered water storage systems on Earth. Unfortunately, they also block historic fish migration routes while flood levees supported by rock-armored banks cut off fish from historic floodplains important to spawning. The good news is that biologists and engineers are working together to restore, or in some cases supplement, river habitats to benefit native species that have called the Big Muddy home for thousands of years. Biologists study how these fish relate to river habitats and then communicate their results to engineers who design improvement projects.

The biological sampling was conducted by the Columbia National Fish and Wildlife Conservation Office (NFWCO) in cooperation with other Federal and state partners throughout the Missouri River basin. During the 2007 field season, Columbia NFWCO sampled from June to October and captured 109,043 fish from a total of 2,317 trawl runs on 18 river bends. Channel catfish (21,291) and freshwater drum (16,325) were the most frequently collected species, but we also landed at least 77 other species. Results of the 2007 HAMP sampling season and how these fish relate to habitat improvement projects are summarized (and detailed) in two recently completed 2007 annual reports.

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

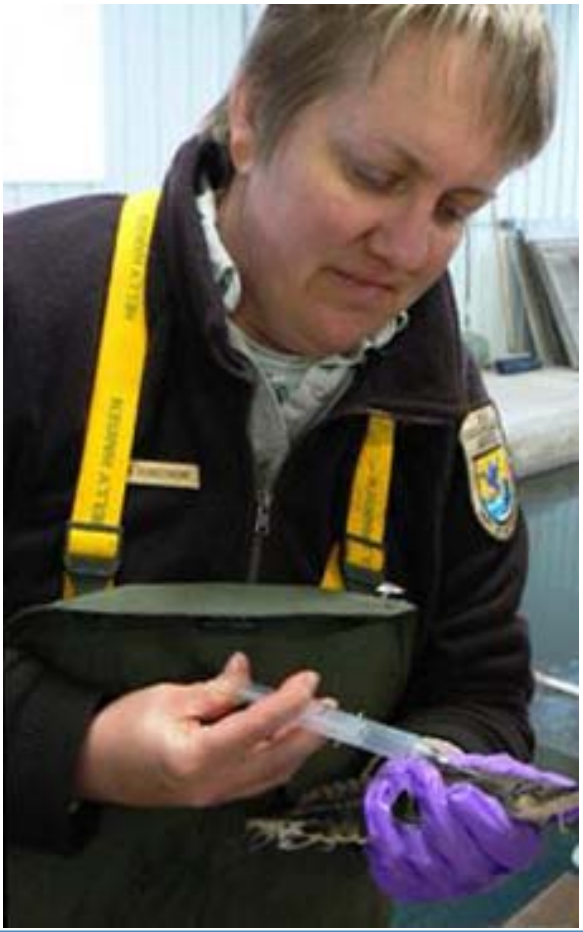
Blood-borne Pathogens Training

BY MARK STEINGRAEBER, LA CROSSE NFWCO

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 Fish and Wildlife Service's Emergency Procedure Policy requires that each work activity (i.e., office, work site, field crew) have at least one person trained in First Aid and Cardio-Pulmonary Resuscitation. Trained individuals who may suddenly be called upon to provide these types of emergency medical care have an increased risk of exposure to infectious blood-borne agents that may cause a life threatening disease (e.g., hepatitis B, hepatitis C, acquired immunodeficiency syndrome). Employees who handle sharp objects, or who are likely to be bitten by vectors (e.g., ticks, mosquitoes) that may transmit agents of serious diseases (e.g., West Nile, Lyme, encephalitis), also have an increased risk of exposure to blood-borne pathogens.

To help reduce health risks, Fish and Wildlife Service offices are required to offer annual blood-borne pathogens training to employees. A total of twelve employees from two fishery offices (La Crosse NFWCO, La Crosse FHC) and one refuge office (Upper Mississippi River National Wildlife and Fish Refuge - La Crosse District) attended a blood-borne pathogens training course held June 10 at the Fish and Wildlife Resource Center in Onalaska, Wisconsin. Presented by Dennis Waller, a full-time emergency medical technician and part-time volunteer for the Scenic Bluffs Chapter of the American Red Cross, this American Red Cross training program introduced employees to the Occupational Safety and Health Administration blood-borne pathogens standard (29 CFR part 1910.1030) and emphasized universal precautions, personal protective equipment, and workplace practices that should be used to reduce the likelihood of blood-borne disease transmission. Each of these employees later received a certificate recognizing their successful completion of this training which is valid for one year.



-USFWS

(Lt.) A biologist cautiously uses a scalpel to surgically implant a transmitter into the body cavity of an Asian carp; (Rt.) A biologist uses a syringe and hypodermic needle to implant a tag in a juvenile lake sturgeon.

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

Congressional Actions

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]

S. 2191 (rs) To direct the Administrator of the Environmental Protection Agency to [Reported 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]

H.R. 1495 (eas) [Engrossed Amendment Senate]

H.R. 6186 (ih) To direct the Administrator of the Environmental Protection Agency to [Introduced in House]

S. 3036 (pcs) To direct the Administrator of the Environmental Protection Agency to [Placed on Calendar Senate]

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. 2419 (eas) "(B)(vii)..... 10". [Engrossed Amendment 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]

H.R. 6165 (ih) To amend the Internal Revenue Code of 1986 to assist individuals confronting high gasoline and diesel fuel costs in commuting to work by allowing a refundable credit against income tax based on the business standard mileage rate for commuting miles, and for other purposes. [Introduced in 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]

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]

Source is http://www.gpoaccess.gov/bills/index.html
Searched database by keyword = "fish"

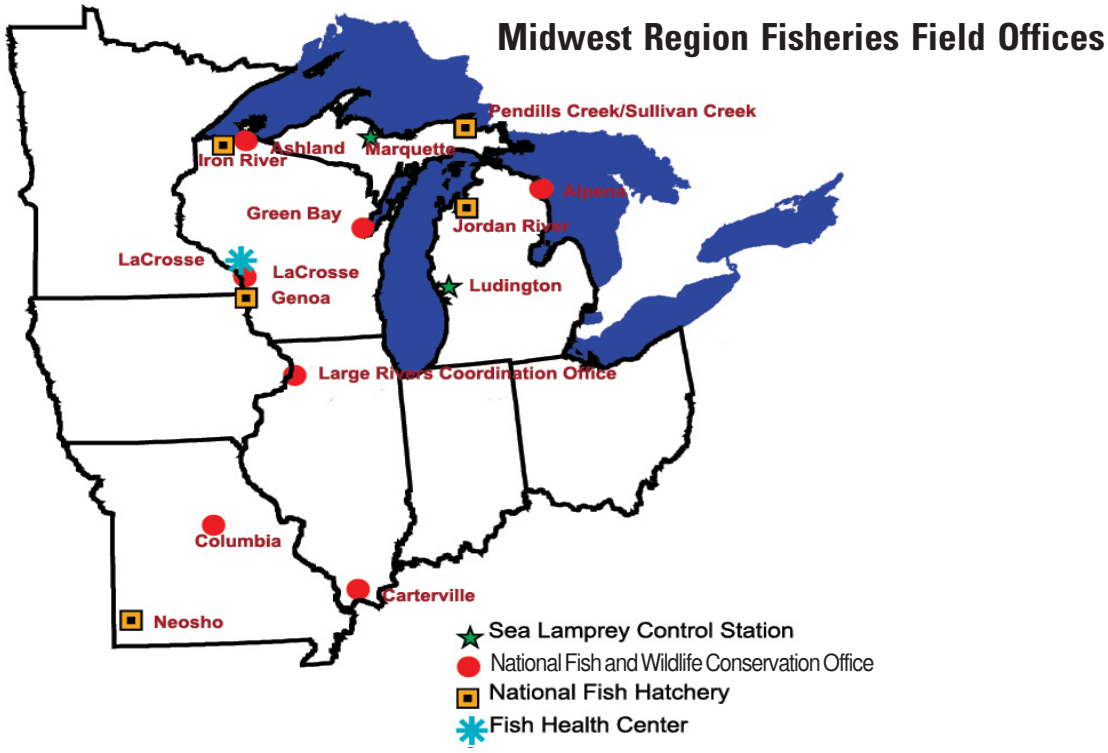
Midwest Region Fisheries Divisions

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 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.

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, tribal and private 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.



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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

- Cooperative Partnerships Work to Benefit the Pallid Sturgeon
  - Wyatt Doyle, Columbia NFWCO
- Similarity of Appearance Briefing at Midwest Association of Fish and Wildlife Agencies Director's Meeting
  - Tracy Hill, Columbia NFWCO
- Northern Wisconsin Grassland Conference
  - Ted Koehler, Ashland NFWCO
- Swan Lake Expands from 3,000 to 10,000 Acres, Overnight!
  - Patty Herman, Columbia NFWCO
- Missouri River Summit 2008
  - Tracy Hill, Columbia NFWCO
- MICRA Executive Board Meeting
  - Tracy Hill, Columbia NFWCO
- Friends Group Protects Black River
  - Mark Steingraeber, La Crosse NFWCO
- Great Lakes Basin Partnership – Steering Committee Roundup
  - Pam Dryer, Ashland NFWCO
- *M/V Baird* Enters Dry-Dock
  - Aaron Woldt, Alpena NFWCO
- Hungerford's Crawling Water Beetle Workshop
  - Heather Rawlings, Alpena NFWCO

Aquatic Species Conservation and Management

- Assess Fish Community along Lakeshore Margins of the Apostle Islands
  - Frank Stone, Ashland NFWCO

Aquatic Invasive Species

- Are we Transporting Exotics Species?
  - Brian Elkington, Columbia NFWCO

Public Use

- Swan Lake Fishing Clinic a Success!
  - Brian Elkington, Columbia NFWCO
- Missouri River Relief to Host a Watershed Learning Festival
  - Brian Elkington and Chris McLeland, Columbia NFWCO
- The United Special Sportsman Alliance believes EVERY child should have a chance to experience nature
  - Tony Brady, Genoa NFH
- Alpena's Brown Trout Festival - Kids Fishing Day
  - Anjanette Bowen, Alpena NFWCO
- Racers Bring Awareness to the Mighty MO
  - Brian Elkington, Columbia NFWCO
- Hatchery Assists Corps of Engineers Blackhawk Park with Kids' Fishing Day 2008
  - Nick Starzl, Genoa NFH
- Successful Kid's Fishing Day at Northern Great Lakes Visitor Center, Ashland, WI
  - Pam Dryer, Ashland NFWCO
- Arcadia Dunes Visit
  - Heather Rawlings, Alpena NFWCO

Cooperation with Native Americans

Leadership in Science and Technology

Aquatic Habitat Conservation and Management

- Bay City Creek Estuary Enhancement Project
  - Ted Koehler, Ashland NFWCO
- Stream Crossing Surveys on the Big River
  - Brian Elkington, Zac Beussink and Joanne Grady, Columbia NFWCO
- Stream Crossing Surveys in the LaBarque Creek Watershed
  - Shelley Banks, Columbia NFWCO
- Columbia NFWCO inventories low water crossing in the Meramec River Basin
  - Mark Corio, Columbia NFWCO
- Locust Creek Restoration Project Site Visit
  - Joanne Grady, Columbia NFWCO and Rick Hansen, Missouri Ecological Services FO
- Missouri Department of Transportation to Modify Bannister Road to Benefit Threatened Niangua Darter
  - Joanne Grady, Columbia NFWCO and Rick Hansen Missouri Ecological Services FO
- Hungry Canyons Alliance Meets in Oakland, Iowa
  - Brian Elkington, Columbia NFWCO
- Moving the Needle in the Meramec River
  - Joanne Grady, Columbia NFWCO
- HAMP conducts report template and data needs meeting
  - Clayton Ridenour and Andy Starostka, Columbia NFWCO
- 13th Annual Rifle River Watershed Restoration Committee Meeting
  - Andrea Ania, Alpena NFWCO

Workforce Management

- Fishing with Power!
  - Colby Wrasse, Columbia NFWCO
- High Water Grounds Columbia NFWCO River Crews
  - Courtney Culler, Columbia NFWCO
- Up or Down, Dr. Hardy says "No Difference"
  - Jeff M. Finley, Columbia NFWCO
- Project Leader Academy
  - Joanne Grady, Columbia NFWCO
- Columbia NFWCO Welcomes Joshua Schloesser and Aaron Walker
  - Joshua Schloesser and Aaron Walker, Columbia NFWCO
- End of Summer Fishing Trip for Student Workers
  - Andrew Plauck and Patricia Herman, Columbia NFWCO

Water Under the Bridge

A Glimpse into our Proud Past

Exert from "*A Sand County Almanac*"

"But this, we now remembered, was a stream of parts. High up near the headwaters we had once seen a fork, narrow, deep, and fed by cold springs that gurgled out under its closed-hemmed walls of alder. What would a self respecting trout do in such weather? Just what we did: go up. In the fresh of the morning, when a hundred whitethroats had forgotten it would ever again be anything but sweet and cool, I climbed down the dewy bank and stepped into the Alder Fork. A trout was rising just up stream. I paid out some line—wishing it would always stay thus soft and dry—and, measuring the distance with a false cast or two, laid down a spent gnat exactly a foot above his last swirl. Forgotten now were the hot miles, the mosquitoes, the ignominious chub. He took it with one great gulp, and shortly I could hear him kicking in the bed of wet alder leaves at the bottom of the creel. Another, albeit larger, fish had meanwhile risen in the next pool, which lay at the very 'head of navigation,' for at its upper end the alders closed in solid phalanx. One bush with its brown stem laved in the middle current, shook with perpetual silent laughter, as if to mock at any fly that gods or men might cast one inch beyond it outermost leaf." - Aldo Leopold