U.S. Fish & Wildlife Service - Midwest Region

Fisheries & Aquatic Resources Program

Fish Lines

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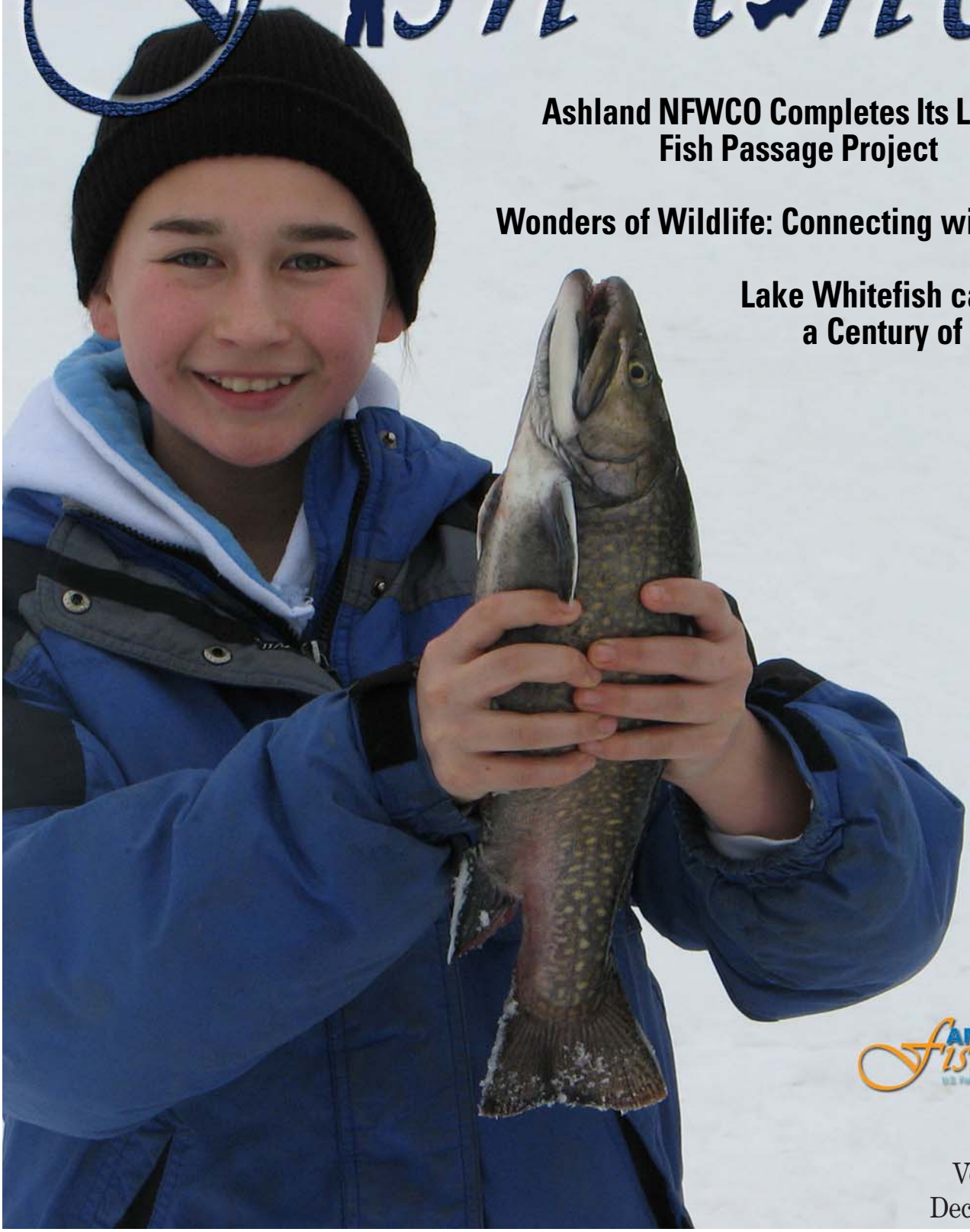
Wonders of Wildlife: Connecting with Nature

Lake Whitefish captured after a Century of Absence



Conserving America's Fisheries

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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

Columbia National Fish and Wildlife Conservation Office crew deploy a large trap net in a Missouri River back-water.

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Fish Lines

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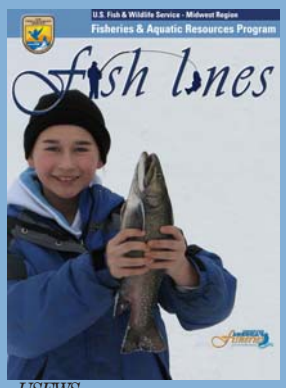

-USFWS
Tribal child shows off the catch-of-the-day.

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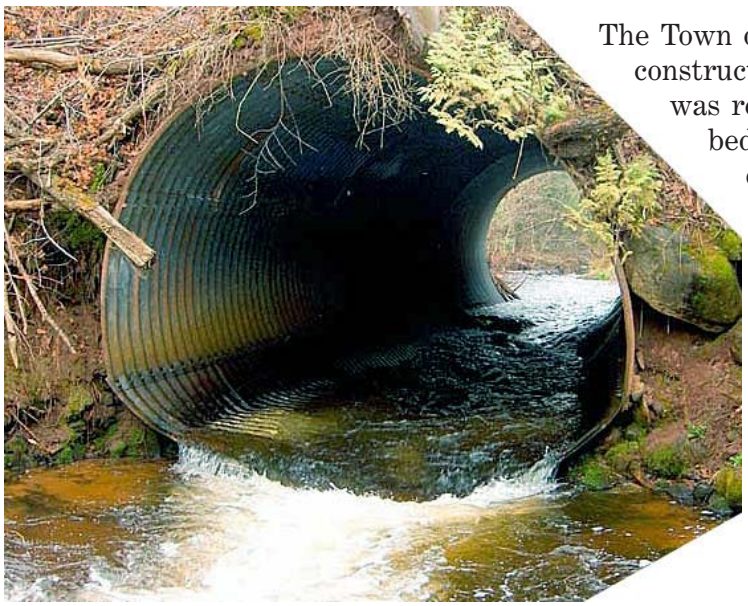
Ashland NFWCO Completes Its Largest Fish Passage Project

BY GLENN MILLER, ASHLAND NFWCO

The 18 Mile Creek is well known for its native brook trout and naturalized brown trout fishery. Our primary interest is in brook trout. Located near the town of Grandview, Wisconsin, the creek meanders through Central Bayfield County before joining the Long Lake branch of the White River in the Bibon Swamp, a designated state natural area.

The culvert at the crossing on North Sweden Road was perched at approximately 12 inches, with flows too strong for most life stages of fish. This culvert also blocked 16 miles of additional spawning and rearing habitat, was failing structurally, was not long enough to allow adequate slope coverage on the ends of the culvert, and was causing erosion to occur on the road edges.

The Ashland National Fish and Wildlife Conservation Office (NFWCO) met with town officials, Bayfield County Land Conservation Department (LCD) staff, and Wisconsin Department of Natural Resources (DNR) biologist Scott Toshner to discuss replacing the culvert. After completing the pre-construction survey for the hydraulics of the system, the Bayfield County LCD, with assistance from the Natural Resources Conservation Service designed the engineering plan.



-USFWS

This perched culvert on 18 Mile Creek near the Town of Grandview, Bayfield County, Wisconsin, was a velocity barrier to many life stages of fish, as evidenced by no substrate being deposited in the culvert.

The Town of Grandview contracted with K & D Excavating and construction took two days. Approximately six feet of road-fill was removed to uncover the old culvert. Along with the road bed covering the culvert, K & D dug a by-pass channel to divert the creek. It took two large excavators and a bulldozer to remove the old culvert. Once the old culvert was removed, ground elevations were taken to set the new culvert at the needed elevation. This is where the crew ran into a problem, as the old culvert was set on an old cement bridge foundation that no one knew was there.

It took an afternoon to break up this old abutment and remove the concrete chunks. Once the culvert had a foot of fill over it, the diversion channel was slowly opened, allowing water to flow into the new culvert. The stream bed immediately began filling the bottom of the culvert and within 24 hours had deposited 12 to 14 inches of fill in the culvert, which simulated a natural stream bed. Both ends of the culvert were armored with large boulders and rock to prevent erosion and the area was seeded and mulched.

Ashland NFWCO conducted pre- and post- construction fishery surveys. In discussions with the Wisconsin DNR, it was decided to survey the area above the culvert and mark all fish caught upstream. All trout over six inches were fin-clipped and moved below the existing perched culvert. It was felt that these fish wouldn't be able to pass through the old structure and would only be able to migrate upstream once the culvert was replaced. An electrofishing crew caught 172 trout on Aug. 30. Of these, 168 were brown trout and the other four were brook trout. Crews moved the 57 largest fish below the culvert.

-USFWS

The perched culvert on 18 Mile Creek was replaced by one which provides uninhibited fish passage and a natural stream-bed substrate.

On Oct. 11, after a good rain event finally occurred in the area, the Ashland NFWCO, with assistance from the fishery management class from Northland College, conducted a recapture run. This run netted 113 trout, 8 brook trout and 105 brown trout. No brook trout were recaptured, but a total of 26 brown trout were recaptured (upriver of the new culvert), for a 35 percent recapture rate. Everyone involved was very happy with the construction aspects of the project and the successful passage of these fish. The Ashland NFWCO is currently creating a video showing all aspects of the culvert replacement and fishery survey.

-USFWS

Ashland National Fish and Wildlife Conservation Office staff and Northland College students conducted a pre- and post-construction fishery survey on 18 Mile Creek, determining that there is successful movement of fish through the new culvert.

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

Wonders of Wildlife: Connecting with Nature

BY LEE ERICKSON, COLBY WRASSE, ANDY PLAUCK, ANDY STAROSTKA, TRACY HILL,NICK UTRUP, AND JEFF FINLEY; COLUMBIA NFWCO

The Fish and Wildlife Service has teamed up with Wonders of Wildlife (WOW) and other State of Missouri and Federal agencies to help combat "nature deficit disorder," an overall decrease in interaction between people and the environment.

In the Ozark hills of Southwest Missouri sits breath-taking Roaring River State Park. Each October, the park is home to the most successful WOW school. Columbia NFWCO has been a proud partner of this event, lending expertise to teach a wide range of outdoor classes for the past two years. Columbia NFWCO sent nine of its finest to help with the event. More then 230 students, ranging in age from 5 to 90 years old, participated.

Other WOW school locations in Missouri include Kansas City, St. Louis and Springfield. Each location varies the classes they offer; however, all emphasize the importance of safety, conservation, skills development and outdoor ethics. Every school provides the building blocks necessary for people to actively learn and enjoy local outdoor resources. Columbia NFWCO and the Missouri Ecological Services Field Office are working with WOW to host the first course in Columbia in 2008.

Introduction to Lake Fishing

The WOW *Introduction to Lake Fishing* class, held on beautiful Table Rock Lake in Southern Missouri, attracted a diverse group of 15 novice but eager anglers ranging in age from 6 to 66. Columbia NFWCO instructors Wyatt Doyle, Andrew Plauck and Colby Wrasse shared their combined 90 years of sport fishing experience with the group of would-be anglers. Most of the class participants had little or no fishing experience, so the course focused on the basics.

After a lively question and answer session, it was time to board three fishing boats captained by Columbia NFWCO instructors. On the water, students jumped at the opportunity to try out new equipment and lures. For many students, this was the first chance they had to use spinning and bait-casting reels. While on the lake, instructors pointed out different types of fish structure and cover available.

As participation in sport fishing continues to decline in the United States, it becomes increasingly important to introduce people, especially children, to the sport. Hopefully, the lessons and skills learned during this class will inspire students to become lifelong anglers and good stewards of our aquatic resources.

Hunting Whitetail Deer

Biologist Andy Starostka taught the WOW class titled *Hunting Whitetail Deer*, a "how to" course that emphasized principles and techniques of hunting with rifles and archery equipment. Much of the class-time was spent answering questions and discussing a wide range of topics of interest to participants. Handouts and other printed "take home" information covered in detail the many aspects of deer hunting. Experience levels of class participants ranged from limited to experienced, but everyone came away from the class with information to help them be more successful in their hunting endeavors.

-Andy Starostka
Nick Starostka poses with his first deer.

Field to Freezer

Project Leader Tracy Hill instructed a course titled *Field to Freezer*, which showed how big game animals—deer, elk, bear, moose or caribou—are processed and removed from the field in a standard backpack. The course also provides information on how to properly butcher and process the meat for freezer storage. Students seemed genuinely interested in the course and several acknowledged the value of attending.

-USFWS

Tracy Hill prepares folks for a hands-on demonstration of field dressing wild game for a Wonders of Wildlife presentation.

Advanced Lake Fishing

Advanced Lake Fishing picked up where *Introduction to Lake Fishing* left off. In fact, many students from the introductory class signed up for the more advanced class. Courtney Culler teamed up with Andy Plauck and Colby Wrasse to instruct.

Columbia NFWCO instructors delved into lure selection and presentation, discussing important lure characteristics such as size, speed, depth, vibration and color. Culler, Plauck and Wrasse gave a lakeside demonstration of how to work a variety of lures, providing a good visualization of the theories instructors had covered earlier.

-Courtney Culler

Courtney Culler poses with a largemouth bass.

Students peppered instructors with many excellent questions; the give-and-take conversation included advanced concepts such as lake stratification, spawning cycles, invasive species and angling ethics. The students' level of enthusiasm and interest was a promising indication that the conservation message is resonating with many people. Although no trophy fish were hooked that day, students were hopefully "hooked on fishing" for a lifetime.

Introduction to Stream Ecology

Biologist Nick Utrup and technician Brian Elkington taught the *Stream Ecology* class. This was the first year for the class and it was a resounding success with 19 students attending. We began the class on the banks of Roaring River, a cold-water spring-fed stream, and moved to Dry Hollow, a warm-water stream, comparing the two environments. Following our discussion of basic stream ecology concepts, each student was given a small container, a pair of forceps, and a small magnifying glass to hunt for aquatic insects. Many students in the class never realized there were so many neat bugs hanging out in these streams. Nick and Brian, with the help of a couple of volunteers from the class, used a backpack electro-fisher and beach seine to safely stun and capture fish.

-USFWS/Nick Utrup

Biologist Brian Elkington shows off some fish to students during a stream ecology class at Roaring River State Park near Cassville, Missouri.

-USFWS

Students of the "Wonders of Wildlife" course investigate aquatic insects.

Wade-Fishing Streams

Students in this course were told to "slip on a pair of old tennis shoes and swimming trunks, and leave the boat at home." Missouri offers many species of pan fish which are abundant in streams too small to canoe. Wade-fishing offers participants the opportunity to intimately explore the complex habitats in these streams and catch some of the most brilliant fish in the state.

We began with a 15-minute tailgate talk about habitat, food habits, techniques and fish identification. Fishing tackle, ultra light rods, disposable cameras and fish identification brochures were distributed on the way to the lower reaches of Roaring River. After some coaxing and encouragement, the family groups soon wandered up and down stream in search of quiet pools holding longear sunfish, smallmouth bass and bluegill. I walked from group to group, assessing their skill and offering alternative techniques. We collected crayfish, crickets and worms for bait.

-USFWS/Brian Elkington

Biologist Nick Utrup instructs a group of students about the different bugs and fish present in the Roaring River, near Cassville, Missouri.

Watching the proud parents taking pictures of their children's catch and hearing the squeals of delight at hooking another fish made this course worthwhile. At the end of the class, with their cameras filled with memories of the day, participants realized you don't need a boat or stringer of trophy fish to have a great time.

Rappelling

Technician Lee Erickson led four sessions of the very popular rappelling class for 45 WOW participants. The class began with a discussion of safety equipment, the importance of gear selection and the dangers of rappelling. The students then geared up and prepared to step off a 50-foot cliff. Everybody had some sense of anxiety rappelling for the first time; after all, humans don't have wings. After conquering their first descent, almost every participant got in line for their next turn. A few participants did decide that rappelling wasn't for them; however, they still enjoyed cheering on their friends and family.

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

Lake Whitefish captured after a Century of Absence

BY JIM BOASE, ALPENA NFWCO

Biologists James Boase and Jim McFee, in conjunction with United States Geological Survey (USGS), completed a third year of pre-assessment lake whitefish survey work on the Detroit River. Sampling was conducted from mid-October through early December in both United States and Canadian waters, focusing on areas near Fighting Island and at the mouth of the Detroit River where it empties into Lake Erie. The location near Fighting Island will be the site of an artificial spawning reef to be built in 2008.

The first whitefish adults were captured in the river in Fall 2005. We were unable to capture adults in the river in 2006 despite an increase in sampling effort. During the same period, biologists collected lake whitefish eggs throughout the river using a combination of egg mats and sucking the eggs off the bottom using a diaphragm pump. In the spring of 2006 and 2007, larval whitefish were collected after they hatched from eggs and began drifting in the water column. These findings helped identify locations in the river to focus effort to capture more adults last fall; and as a result, we were able to capture 13 spawning adult lake whitefish.

-USFWS/Karen Boase

(left to right) Dr. Ed Roseman of the U.S. Geological Survey, Congressman John Dingell, and James Boase from the Alpena National Fish and Wildlife Conservation Office participate in the 2007 lake whitefish release event on the Detroit River.

All eggs and larvae captured each year have been incubated and reared by researchers at the USGS Great Lakes Science Center. In the fall of 2006 and 2007, the resultant fish were released back into the Detroit River. Ceremonies commemorating the stocking and the positive changes that have taken place on the Detroit River have been attended by U.S. Congressmen John D. Dingell and John Conyers, Member of Canadian Parliament Jeff Watson, and Canadian Consul General Robert Noble, along with many local, state and municipal officials.

Whitefish are currently the most sought-after commercial species in the Great Lakes, and at one time they were harvested in huge numbers in Lake Erie. Until nearly a century ago, the Detroit River supported a large spawning population of lake whitefish because of its many braided, shallow channels composed primarily of limestone bedrock, rock and gravel; these habitats are needed for successful spawning by not only whitefish but also many other species of native fish such as lake sturgeon and walleye. The fishery collapsed primarily because of spawning habitat loss and pollution.

Construction of the artificial reef at Fighting Island is one of the first international efforts directed at replacing some of that lost habitat. The amount of pollution has slowly declined since the Clean Water Act and United States – Canada Great Lakes Water Quality Agreement were signed in 1972. Ultimately, the goal is to clean up the river and provide adequate habitat that will lead to the re-establishment of species like whitefish and lake sturgeon.

Funding for the research has been provided, in part, by the Science Support Program, Cost Share Challenge Grant Program, Coastal Grant Program, Michigan Wildlife Conservancy, National Fish and Wildlife Foundation, Environment Canada, and the Essex Region Conservation Authority. The goal of the project is to identify fish use of recently created and historical spawning habitats in the Detroit River and to provide insight about re-creating habitats that were once abundant in the Detroit River.

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

Fish and Wildlife Service Represented at Midwest Fish and Wildlife Conference

BY TONY BRADY, GENOA NFH AND GLENN MILLER, ASHLAND 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.

Genoa NFH and Ashland NFWCO participated in the 68th annual Midwest Fish and Wildlife Conference in Madison, Wisconsin, in December. Hatchery Manager Doug Aloisi spoke about the role of hatcheries in recovery and restoration programs. Genoa NFH has one of the largest lake sturgeon programs in the nation and provides fish for three states and two tribal nations in the Midwest. Genoa has also been partnering with Iron River NFH for the past decade to produce coaster brook trout for restoration efforts in the waters around Isle RoyaleNational Park.

Most recently, the hatchery stepped outside the box to work with endangered freshwater mussels, and Mussel Propagation Biologist Tony Brady delivered a presentation during a special session sponsored by the Freshwater Mollusk Conservation Society. The highlight of Brady's presentation was the announcement that the hatchery and its partners had recently stocked out more than 18,000 three and four year old endangered Higgins' eye pearlymussels at four locations in four different states.

Biologist Glenn Miller from the Ashland NFWCO was part of the planning committee. Glenn and John Noble (fish biologist – Fort McCoy) were co-chairs for the Tradeshow and Exhibit Hall. With 25 commercial and non-commercial vendors, the Tradeshow allowed conference participants to see many items useful in their fields of work. The Midwest Region was a participant in the Tradeshow area, along with other government agencies such as the U.S. Forest Service and the Wisconsin DNR. The Tradeshow area also hosted the poster session, breaks and the infamous Big Game Social Night and raffle.

-USFWS

Rachel Levin from the Regional External Affairs office hosts the Fish and Wildlife Service booth at the 68th Midwest Fish and Wildlife Conference held in Madison, Wisconsin.

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

Alpena NFWCO Initiates Planning for Second Conservation Grant Workshop

BY JERRY MCCLAIN, ALPENA NFWCO

Alpena NFWCO Project Leader Jerry McClain met with Don Brown, director of community outreach for U.S. Rep. Candice Miller, to initiate planning for a Conservation Grant Workshop in Southeastern Michigan. A similar event was held in Northwest Michigan two years ago at the request of U.S. Senator Carl Levin's staff, and is an opportunity for the Fish and Wildlife Service to explain its programs to local citizens and conservation groups in the area.

Brown has requested presentations focusing on habitat restoration and ongoing fisheries programs in the area. The Fish and Wildlife Service will provide information on its Coastal, Fish Passage and Partners for Fish and Wildlife programs, as well as a summary of Alpena NFWCO activities in the Huron-Erie Corridor. The Natural Resource Conservation Service will also participate in the program.

Since the initial meeting with Brown, McClain has coordinated with Craig Czarnecki (East Lansing Field Office) and Jim Hudgins (Michigan State Partners Coordinator) to develop an agenda for the March 3 event.

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

Saving the Pallid Sturgeon – On Your Local News

BY ANDY PLAUCK, COLUMBIA NFWCO

Having a major university in Columbia NFWCO's backyard gives our staff a chance to help mentor students in the natural resources field as well as promote local conservation activities. Ryan Gladstone, a photo-journalism student at the University of Missouri, wanted to do a story about the pallid sturgeon. He had learned of the fish's plight from local news shows and through some of our office's outreach efforts.

Ryan met Andy Plauck, Cliff Wilson and Joe McMullen as they prepared to head out for a day of pulling gill nets on the Missouri River. After a brief safety talk and lesson on how to get into a survival suit, the crew motored to the first net. Ryan snapped pictures of the action as soon as the first shovelnose sturgeon was pulled into the boat. About halfway through the day, the crew pulled in a small, hatchery-reared pallid sturgeon. It was a great opportunity for Ryan to get some pictures of this endangered fish.

-USFWS/Andrew Plauck

Ryan Gladstone films Jeff Finley and Lee Erickson as they remove fish from a gill net. Ryan was filming for his article entitled *Struggling Sturgeon*.

The next net gave the entire crew a real treat: Wilson and McMullen hoisted a six-pound pallid sturgeon into the boat. No hatchery markings were found on this fish. It was taken to Neosho NFH, where it will be spawned with other wild fish. Hopefully, its offspring will one day be stocked back into the Missouri River. Ryan completed his memorable trip by photographing the crew placing the rare fish into a truck-mounted hauling tank.

Two weeks later, Ryan returned to the river with another gill-netting crew to get video footage. Unfortunately, elusive pallid sturgeons were not encountered on that cold December morning; however, Ryan was able to get boat and shore footage of the crew pulling in gill nets. Andy Plauck was interviewed on camera, answering questions about pallid sturgeons and our monitoring project. This story will air on the local news channel during the next two months.

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

Learning More about Blue Suckers in the Lower Missouri River

BY COLBY WRASSE, 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.

The Missouri River contains some of North America's most unique and ecologically important fish species. For good reason, the endangered pallid sturgeon and paddlefish receive most of the attention. But the little-known blue sucker is a fascinating and important species in its own right.

-USFWS/ColbyWrasse

This 13 lb blue sucker was one of the largest captured in 2007 by the Columbia National Fish and Wildlife Conservation Office. Historical records indicate that 20 lb blue suckers were once common, but fish that large are rare today.

The blue sucker has spent eons shadowed in the murky waters of America's large rivers. Rarely seen or discussed, blue suckers remain somewhat of a mystery. Scientists are taking small steps towards unlocking the secrets of this curious creature.

The Missouri Department of Conservation lists blue sucker as "vulnerable," indicating it is potentially vulnerable to extinction. Historical records indicate that this species was once far more common and supported a commercial fishery in the early 1900s. Overfishing, dam construction and habitat degradation are thought to have reduced the abundance of blue suckers. They are mostly found in free-flowing portions of the Mississippi and Missouri rivers and are often captured in swift channels over sand, gravel or rock substrates. Pallid sturgeons and blue suckers often use similar habitats, which has led biologists to include blue suckers as a target species in the Pallid Sturgeon Population Assessment Program for the Missouri River. Columbia NFWCO and our partners collect length, weight and age data for blue suckers, along with detailed physical descriptions of their habitats.

Because of the blue sucker's penchant for swift currents in the open river, collecting this streamlined fish can be challenging. We discovered that a suite of gears, including stationary gill nets, drifted trammel nets and stern trawling, is most useful for collecting blue suckers. The results of our sampling over the past five years suggest that the blue sucker population in the Lower Missouri River is fairly stable. The 2007 capture of several young-of-year fish was an especially promising sign. Furthermore, presence of these fish, along with large classes of other young-of-year fish, suggests that high waters during spring may have triggered successful spawns for many species.

Our long-term monitoring on the Missouri River will further contribute to our understanding of blue suckers. This information will aid us in conserving this unique species for future generations.

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

Iron River Spawning is a Success

BY KURT SCHILLING, IRON RIVER NFH

Iron River NFH is a combination brood stock and production facility tasked to raise lake trout and coaster brook trout to restore depleted Great Lakes populations. This fall, 728 mature lake trout from three different strains (Apostle Island, Traverse Island and Klondike Reef) produced 3.4 million green eggs. Of these, 2.56 million reached the eyed egg stage with 1.6 million to be raised to the fingerling and yearling stages and 200,000 to be transferred to Pendills Creek NFH. The remaining eyed eggs were shipped to Federal, state and tribal partners. This year's lake trout spawning season ran from October through early November, peaking in mid-October. Larger fish such as lake trout are air-spawned using compressed oxygen injected into the body cavity to gently force the eggs out with minimal stress to the fish. A modified one-on-one spawning method is used to insure maximum genetic diversity in the offspring.

-USFWS

Air-spawning a lake trout at Iron River National Fish Hatchery. Note the tube that intoduces oxygen into the upper body cavity, which gently pushes eggs out of the abdomen.

Nearly 1,600 coaster brook trout spawned from late October through early December and produced 2.4 million green eggs. Of these, 1.7 million reached the eyed egg stage. Eyed eggs where shipped to Genoa NFH, Whittlesey Creek National Wildlife Refuge (NWR), Iowa DNR, Purdue University, Keweenaw Bay Indian Community, North Carolina Eastern Band of Cherokee Indians and Grand Portage Indian Community. More than 480,000 eggs were kept at the hatchery to provide fry and fingerlings for restoration programs.

Both strains of coaster brook trout, Siskiwit Bay and Tobin Harbor, were developed from populations in Isle Royale National Park. The brook trout are spawned by hand-stripping the adults and are mated using the one-on-one spawning method. As an added fish health precaution, all eggs shipped out of the Great Lakes basin are disinfected with iodophor iodine and rinsed with well water. This is done as part of our Hazard Analysis Critical Control Point program to prevent accidental distribution of fish diseases.

For further info about the Iron River NFH: http://www.fws.gov/midwest/ironriver/

La Crosse FHC Examines Lake Herring in Lake Superior

BY COREY PUZACH, LA CROSSE FHC

Corey Puzach of the La Crosse Fish Health Center (FHC) preformed a Wild Fish Health Survey on 60 lake herring from Lake Superior. The center is working with Greg Fischer at the University of Wisconsin Stevens Point Aquaculture Demonstration Facility and the Red Cliff Tribal Fish Hatchery in Red Cliff, Wis. The aquaculture facility is undertaking a lake herring project dealing with egg disinfection, egg incubation and fish feed types.

The survey is required by the Wisconsin Department of Agriculture Trade and Consumer Protection which is responsible for plant and animal health in agriculture in the state. Any time fish are imported, exported or brought onto hatchery grounds from a wild source, a fish health inspection must be preformed. This is required to prevent the spread of fish pathogens.

The La Crosse FHC took tissue samples from the kidney, spleen and swim bladder from the lake herring. They will be screened for harmful bacteria and viruses. These samples are also part of a larger study on lake herring. Lake herring were a very important part of the forage base in the Great Lakes until their declines in the 1960s. Their declines are blamed on factors such as overfishing, habitat degradation, and interactions with invasive species such as rainbow smelt, alewives and sea lampreys. The La Crosse FHC is looking at differences in the parasite composition, viral pathogens and bacterial pathogens at different sites in the Great Lakes.

For further info about the La Crosse FHC: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/lacrosse-fhc.pdf

Ashland NFWCO Proposes New Aquatic Invasive Species Plan for Lake Superior

BY GARY CZYPINSKI, ASHLAND NFWCO

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 Ashland NFWCO unveiled four components that it will propose to its partners as its new aquatic invasive species (AIS) plan, (exclusive of sea lamprey control since they are covered under other control plans), addressing high risk locations on the south shore of Lake Superior. These components include early detection monitoring and rapid response for new invasive fish introduced into the Duluth-Superior Harbor (Minnesota/Wisconsin); fish community monitoring of indigenous, non-indigenous, and invasive fish in three major Lake Superior embayments, where non-indigenous and invasive fish are already established, present, or potentially could exist; early detection monitoring for invasive zebra and quagga mussels in high risk locations; and, investigation of any potential threat relating to non-indigenous and invasive species. These AIS activities are advocated in the Lake Superior Lakewide Management Plan, the Lake Superior Fish Community Objectives, the Ruffe Control Plan, and have undergone testing in past AIS experiments and control operations.

The Duluth-Superior Harbor (St. Louis River Estuary) has become a single collection point for virtually every invasive fish in the Great Lakes due to its stature within the maritime shipping industry. Many commercial ships arrive here with ballast water, and expel the ballast water into the harbor in order to take on cargos of grain or taconite. Due to its importance, complexity, and size, the St. Louis River Estuary has also been identified as a "focus point" for habitat management and preservation by the Fish & Wildlife Service. The Ashland NFWCO plans to implement the fish component of an AIS early detection monitoring model being developed by the U.S. Environmental Protection Agency Mid-Continent Ecology Division, located in Duluth, Minnesota. The Ashland NFWCO is interested in monitoring and exploring the resiliency of Huron Bay to invasive fish, and Huron Bay would also serve as an invasive free control embayment to compare with Chequamegon and Whitefish bays.

The Ashland NFWCO proposes to initiate *Dreissena* monitoring by examining vessel hulls in dry-dock after they have spent the open water season parked in marina slips. Early detection of *Dreissena* on vessel hulls would then lead to increased monitoring activity and other potential control activities.

Rainbow smelt is also a non-indigenous fish and are suspect in limiting abundance of native lake herring in Lake Superior by possible predation on lake herring larvae. The Ashland NFWCO will assist with this investigation by collecting smelt for diet analysis, when larval lake herring are available (May).

These AIS issues are what the Ashland NFWCO envisions as important to the Lake Superior fishery. A more detailed plan will be sent to partners for their review and comment. The Ashland NFWCO desires to implement a Lake Superior AIS plan that best serves the needs of the managing jurisdictions within the abilities of our office.

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

Combating "Nature Deficit Disorder"

BY COLBY WRASSE, COLUMBIA NFWCO

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.

Twenty-five years have passed since the day my father first took me fishing, but the memories of that day are still vivid. In a tiny, muddy creek that lazily trickled through an Illinois cow pasture I rejoiced in catching pint-sized bullheads and crayfish. I remember the magic of discovering life that abounded below those murky waters. Shortly thereafter, I started fishing for larger fare, namely redhorse and carp. Armed only with a four-foot Zebco rod and reel, I battled those leviathans of the deep. With my father's tutelage and his seemingly supernatural ability to untangle fishing line, I quickly developed a passion for fishing and an understanding of nature. When I was a little older, I was turned loose to explore the surrounding woods and streams unsupervised. The lessons learned from those early outdoor experiences helped shape my character and instilled in me a healthy respect for the Earth and all its creatures.

-USFWS

Colby Wrasse makes sure children have an opportunity to touch a live shovelnose sturgeon.

During my youth, the time I spent outdoors was shrouded in mystery and filled with awe. Around every river bend and beneath every unturned stone, an adventure waited. Sadly this connection to nature, which was once so commonplace, is becoming a thing of the past. Over the past several decades participation in sport fishing and hunting has declined, as fewer young people are taking up these sports. Likewise, participation in non-consumptive outdoor activities such as camping and hiking has also declined.

This alarming trend is highlighted in Richard Louv's landmark book *Last Child in the Woods*. Louv coined the term "nature deficit disorder" to describe this growing disconnect between children and the natural world. Louv documents many personal, societal and environmental problems associated with nature deficit disorder. His research links childhood obesity and attention deficit hyperactivity disorder (ADHD) to nature deficit disorder. While the situation may seem grim, there are ways that we can combat this problem.

One of the necessary first steps is to introduce children to the outdoors. Over the past year, Columbia NFWCO has spearheaded many efforts to do this. Many times, just seeing and touching animals is enough to spark a child's interest. As we participate in educational outreach events across Missouri, we often display live fish. These fish generate great interest and enthusiasm from children and adults alike. Many children have never seen big river fish species, so the opportunity to see and touch these creatures is a memorable and educational experience – often the highlight of a child's day. Looking at pictures in a book or watching nature programs on television is good, but it can never match the experience of holding a live animal. As one young student said, "I liked feeling the catfish. It was really slimy."

Beyond seeing live fish, children need to learn about habitats where these fish dwell. Columbia NFWCO has organized many education trips on the Missouri River. Although the office is only a couple miles from the Missouri River, many people have only seen the river from their car, as they speed by on the I-70 bridge. Getting people on the water is the best way to combat misconceptions and fears of the Missouri River. Some memorable events from this year include a Cub Scout trip on the Missouri River and

a trip to a local stream to collect aquatic invertebrates and fish. For children to have a true connection to nature they need to get outside and get their hands dirty and feet wet.

Hunting and fishing have always been among humankind's strongest links to the natural world. Anglers and hunters often have a deep understanding of nature and usually have strong conservation ethics. We feel it is important that these proud sporting traditions are continued by future generations. This year, Columbia NFWCO participated in Missouri's Free Fishing Days. Staff helped children bait hooks, cast and catch fish. The kids had a blast, and hopefully they will be "hooked on fishing" for a lifetime.

Columbia NFWCO has also become involved with the Wonders of Wildlife (WOW) school, which hosts outdoor education events throughout the year, offering a variety of classes. This year, Columbia NFWCO attended the weekend WOW event held at Roaring Rivers State Park in Southwest Missouri. Columbia NFWCO staff members taught classes on stream ecology, whitetail deer hunting, lake fishing, small stream fishing, rappelling and field dressing/processing wild game. Columbia NFWCO will host a WOW event in Columbia, Missouri, that will reach thousands of people and further our educational mission.

During the past year, Columbia NFWCO has taken part in 41 different outreach events, many tailored for children who had limited or no interactions with nature. Educating children and getting them to participate in outdoor activities is part of the Columbia NFWCO mission. We could never accomplish this task on our own, which is why we work so closely with a variety of partners. The long list of partners includes Big Muddy National Fish and Wildlife Refuge (NF&WR), Columbia Ecological Services Field Office, Missouri Department of Conservation, De Soto NWR, USGS, Boy Scouts, Girl Scouts, Bass Pro Shops, WOW and many local school districts. With this collaborative approach, we hope to convert as many children as possible into nature lovers who will also be good stewards of our Earth.

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

Lights, Camera…: Filming the Big Muddy

BY ANDY PLAUCH, JEFF FINLEY AND NICK UTRUP, COLUMBIA NFWCO

Award-winning outdoor videographer and producer Dave Hargis of Vantage Point Productions enjoys filming America's waterways. Among his accolades, Hargis has received the prestigious Telly Award for two of his films. *Waters of the Wilderness* highlights the boundary waters of Canada and Northern Minnesota, and *Ozark Waterways* features several scenic rivers in the heart of Missouri's Ozarks.

Columbia NFWCO contracted with Hargis in 2006 to produce a short video documenting the development of our Missouri River trawling efforts. Since then, we've enjoyed an excellent working relationship. Hargis's current project chronicles the lower 400 river miles throughout the seasons. He has ridden with us several times to film the river and was able to get footage of the endangered pallid sturgeon this fall.

This winter we partnered with Hargis to meet our mutual needs. He needed winter footage and we wanted to make a short video showing the safety and ease of our trot line system. Hargis filmed our field crew deploying and retrieving trot lines, and he got some great winter footage of ice-covered tributaries and majestic bald eagles for his own project.

Within a few days, the river was choked with ice, allowing biologist Jeff Finley to narrate the video in the comfort of Hargis's studio. The finished film is another outstanding production, suitable for many audiences. We've already shared it with other partners sampling sturgeon on big rivers. As with any partnership, it is great when both sides benefit. We gained from Hargis's expertise and he acquired footage for his new film! We look foreword to helping him collect spring footage of the river. His film should be ready in the fall of 2008.

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

Annual Toy Drive a Success for Ashland NFWCO

The Ashland NFWCO, along with the National Park Service Great Lakes Network Office and USGS Lake Superior Biological Office, teamed up and collected toys for the annual Ashland, Wisconsin, Firefighters Toys for Tots and Teens program. This is the sixth year the offices have contributed to this worthy program. Toys collected are distributed throughout the surrounding Ashland – Bayfield - Iron counties area. This toy drive is in its 25th year and the program gives presents to between 500 and 700 kids each year.

National Scoring of the 2008 Tribal Wildlife Grants Program

BY FRANK STONE, ASHLAND NFWCO

Ashland FRO biologist Frank Stone assisted Regional Tribal Liaison John Leonard in scoring the 2008 Tribal Wildlife Grants. This was a national scoring process, conducted in Washington D.C., of resource proposals submitted by tribes located throughout the United States. A total of 22 proposals totaling $2.5 million were reviewed. Project topics ranged from conservation of Yellowstone cutthroat trout and eastern Olympic elk, status of freshwater mussels, riparian restoration to increasing subsistence opportunities on tribal lands.

Each Fish and Wildlife Service region had a review team score all of its proposals, then forwarded top ranked proposals—scored at or about the top 70 percent—to the national panel. The Tribal Wildlife Grant program will provide new funding opportunities to tribes for activities that protect and restore habitats that will benefit fish and wildlife species of tribal significance. The program also supports tribal efforts to develop or augment the capacity to manage, conserve or protect fish and wildlife species of concern through additional funding and technical support.

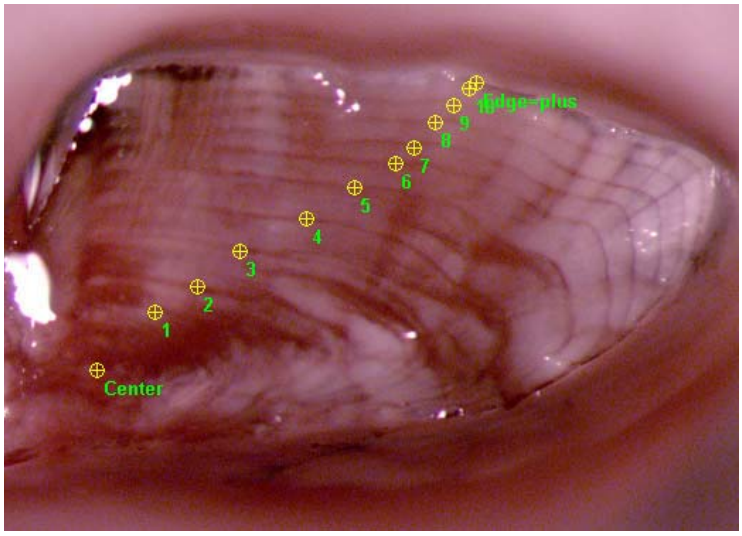
Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations 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/

Aging Complete for 2007 Lake Whitefish Survey

BY SCOTT KOPROSKI, ALPENA NFWCO

Biologists Scott Koproski and Adam Kowalski finished aging samples collected during the 2007 fishery independent lake whitefish survey. As a signatory of the 2000 Consent Decree, the Fish and Wildlife Service is responsible for working with state and tribal agencies to establish safe harvest limits for lake whitefish and lake trout in 1836 Treaty waters. Alpena NFWCO fulfills the Service's responsibilities in Northern Lake Huron by assessing lake whitefish populations in two management units. The study sampling design was established by the Modeling Subcommittee of the Technical Fisheries Committee. Data collected from each lake management unit is used to establish safe harvest limits using catch-at-age models.



-USFWS/ScottKoproski

Otoliths are used to age lake whitefish by counting the growth rings - growth rings are identified in this image.

In 2007, Alpena NFWCO fished 24 gangs of gill nets in the two lake management units. We collected more than 700 fish and removed aging structures from 300 of them. Biologists collected scales and otoliths from all lake trout and lake whitefish, scales from all round whitefish, and scales and dorsal fin rays from all percids encountered. Koproski and Kowalski assigned ages to each structure.

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

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.

Larval Sturgeon Health gets Booster Shot with New UV

BY NICK STARZL, GENOA NFH

A new high intensity ultraviolet (UV) sterilizer was installed in the lake sturgeon building at the Genoa NFH this last December. Since 2004, the sturgeon building has been the main facility on the hatchery for rearing up to 40,000 lake sturgeon annually for Federal, state and tribal commitments in the Midwest. The building receives fresh solar heated water from a nearby hatchery pond; however, an outdoor pond will naturally harbor many ubiquitous fish pathogens including parasites, bacteria, fungi and viruses.

-USFWS

The new ultraviolet unit at the Genoa National Fish Hatchery will be used to sterilize lake sturgeon culture water.

The UV unit installed at Genoa NFH is rated to inactivate bacteria, fungi and most viruses at a high flow rate of approximately 250 gallons per minute with an intensity of 30,000 microwatts per second per square centimeter. It will also inactivate problem parasites such as ichthyophthirius tomites and trichodina species at a lower flow rate which is crucial during the early stages of sturgeon culture (up to 2 inches).

Sturgeon fry are susceptible to common-place pathogens such as columnaris infections and bacterial gill disease. With this new prophylactic water treatment system, disease treatments of fish should decrease due to the reduced bacterial exposure. The installation of the new system was completed by maintenance man Dan Kumlin. It is hoped that the UV will provide the hatchery with healthier fish while reducing the use of therapeutic chemicals. It is yet another example of the Service using best management practices to support recovery and restoration efforts for aquatic species throughout the country.

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

How Old are the Fishes from the Missouri River?

BY PATTY HERMAN, COLUMBIA NFWCO

Columbia NFWCO collected spines and scales from 132 fish as part of the 2008 Sturgeon Season Age & Growth Sampling. Aging structures, such as pectoral fin spines and scales, were collected from blue sucker, sauger and shovelnose sturgeon until ten fish in each ten millimeter size class were represented or the end collection date was reached. These structures were sent to designated offices participating in the Pallid Sturgeon Population Assessment project.

Typically any bony part on a fish will deposit annual growth rings similar to growth rings in a tree. When prepared correctly, annuli (ring) counts of spines and scales can be an accurate method for estimating a fish's age. Scales have traditionally been the structure of choice due to the ease and the non-invasive nature of collection; however, as fish reach maturity, somatic growth slows and scale annuli become less distinct, producing under-estimates of

-USFWS/Patty Herman

A dorsal fin spine is removed from a sauger. The spine will be used to age the fish.

age. Spines are not commonly used due to the labor-intensive nature of preparation methods; however, when non-lethal sampling is required, spines are a very useful tool for aging fish.

Each spine is thinly sectioned using a slow speed saw. Cross-sections are then mounted to a glass slide and viewed with transmitted light to enhance the growth rings. The translucent bands are counted to estimate the age of the fish. Scales are cleaned with an ultrasonic machine and mounted to glass slides or an impression is extruded on acetate slides. Scales are viewed under a microscope and annuli rings are counted.

We eagerly await the release of 2005-2007 Age & Growth reports for these target species.

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

Coasters Find New Turf

BY KURT SCHILLING, IRON RIVER NFH

On Dec.19 and Jan. 16, eyed coaster brook trout eggs produced by the Iron River NFH were placed inside hatching boxes in Whittlesey Creek, a tributary to Lake Superior and part of the Whittlesey Creek NWR. The eggs were from two strains, Siskiwit Bay (SSW) and Tobin Harbor (STW), which originated from Isle Royale National Park.

-USFWS

Coaster brook trout eggs are placed on a layer of Astroturf. Astroturf bundles will be placed into artificial egg boxes and the eggs will incubate in the natural stream water.

The eggs were packaged inside bundles of Astroturf and then into coolers at the hatchery. On Dec. 19th, 24,140 (19,120 SSW and 5,020 STW) eyed eggs were stocked. On Jan. 16, 25,860 (19,980 STW and 5,880 SSW) eyed eggs were stocked. At the stream, the Astroturf bundles were placed inside hatching boxes that were staked to the stream bed at suitable sites along the creek. The eyed eggs represented all year classes and all eight weeks of the spawning cycle to ensure a complete genetic component reached the stream. Ashland NFWCO will monitor the progress and hatching success of each artificial egg box over the next several months. These stocking events represent one part of an overall plan to determine which life stage of coaster brook trout is best suited to use for re-establishing a migratory brook trout population in Whittlesey Creek.

-USFWS

Biologist Henry Quinlan and student employee Scott Stipetich place an Astroturf bundle containing brook trout eggs into an egg box. Eggs will hatch naturally in the stream environment.

Ashland NFWCO coordinated the efforts with assistance from Iron River NFH, Whittlesey Creek NWR, local volunteers, the Wisconsin DNR and Trout Unlimited

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

Hickory County Road 200 Crossing Replacement Benefits Niangua Darter

BY JOANNE GRADY, COLUMBIA 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.

The Hickory County Road 200 crossing over the Little Niangua River was replaced to improve passage for the threatened Niangua darter. This fish only occurs in eleven counties in the Osage River basin in Missouri. Decline of the species is attributed to habitat loss from reservoir construction and stream channelization. Current threats include isolation of the remaining populations by low-water road crossings hampering fish passage. Improving road crossings to facilitate intra-population movements and seasonal migrations has been identified as a management and recovery goal to protect existing populations of the Niangua darter.

-USFWS photos

Photos depict the Hickory County Road 200 crossing over the Little Niangua River before fish passage improvements (left) and the new low-water crossing (right) which provides uninhibited fish passage to 16.9 miles of stream.

A total of 16.9 miles of stream were opened above this project site, including 2.8 miles of Little Niangua River upstream to the next barrier, a low-water crossing on Prosperity Road; 8.5 miles of Thomas Creek upstream to the low-water crossing on Howard Chapel Road; and 5.6 miles of Cahoochie Creek upstream to a low-water crossing on Bower Road.

A standardized Niangua darter monitoring site existed downstream of the existing structure and an additional monitoring site was established upstream of the site. Both sites were monitored before and after the crossing were replaced to document the effects of the project on movement. Stream morphological survey data in the form of a longitudinal profile has already been collected from the site. Additional survey data will be collected to document changes in stream channel morphology and sediment transport functions. Monitoring is intended to continue until a state of dynamic equilibrium is established.

Two things aligned to significantly improve the project and its timeline. First, the adjacent landowner was willing to donate a corner of his farm field to the right-of-way when he asked the county to remove a bend in the road. Second, Dura-Kast Concrete Products of Springfield, Missouri, was able to deliver 45-foot pre-cast road deck spans at the same cost of 30-foot spans previously purchased from a Nebraska firm. This improved the project design as it provided increased conveyance, as well as the ability to use a pile driven-pile cap abutment, reducing the amount of in-stream work and impact to in-stream habitat.

We're excited this project is complete and have high hopes it will benefit Niangua darters and other aquatic organisms. Heartfelt thanks and congratulations are extended to recovery team leader Craig Fuller of the Missouri Department of Conservation.

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

Road Crossing Repaired on the Au Sable River

BY HEATHER RAWLINGS, ALPENA NFWCO

Michigan's Au Sable River is a Federally designated Natural and Scenic River and, in its upper reaches, a state-designated Blue Ribbon Trout Stream. Crapo Creek is a tributary of the North Branch of the Au Sable River in Southeast Otsego County. Alpena NFWCO Partners for Fish and Wildlife Program coordinator Heather Rawlings has provided leadership on a project to replace an ageing concrete bridge at the Lovells Road/Crapo Creek crossing with a single-span bottomless aluminum culvert.

The former crossing was a crumbling concrete bridge with a concrete support beam that bisected the creek. This crossing was a low point on the road so precipitation run-off flowed directly into the creek, carrying with it road contaminants and tons of silt each year. The bridge had a six-ton weight restriction, and could only accommodate a single lane of traffic. In the interest of public safety, as well as natural resource concerns, a decision was made to replace the bridge with a wider, single-span structure. Conservation partners, by contributing funds to the Otsego Road Commission and Huron Pines, were able to raise this project as a higher work priority for the road commission, and provide a safe and environmentally sound solution.

-USFWS/Heather Rawlings; Inset - Huron Pines/Kris Bruestle
The old degraded bridge (inset) on Crapo Creek on the North Branch of the Au Sable River was replaced with a bottomless culvert.

Replacement of the deteriorated bridge with a 16'x 4'3" x 31.5'aluminum bottomless culvert was completed on Oct. 26. In addition to the new structure, road approaches to the bridge were re-graded and paved, and proper ditches and sediment basins were installed. The road was raised two feet at the crossing to direct precipitation run-off to an upland area well away from the creek. These actions should eliminate sediment loading at the road crossing site and, over time, will dramatically improve coldwater fisheries habitat in Crapo Creek. Through natural river processes, the riffles and pools that had been previously filled by sediment will be restored as the sediment moves downstream, creating feeding and spawning habitat for the primarily brook trout fishery. Brook trout, a Region 3 priority conservation species, along with other aquatic species and recreational users of the Au Sable River, will benefit from the habitat restoration.

This project involved funding and/or services from Huron Pines, the Headwaters and Vanguard Chapters of Trout Unlimited, Otsego County Road Commission, Au Sable River Watershed Restoration Committee, Otsego Wildlife Legacy Society, North Branch Property Owners Association and Muskegon Development. This project was made possible because this consortium of partners, with different interests but a common goal, pooled resources to get the work done. Rawlings was a key part of the team that identified the problem and a solution, secured necessary funding, and implemented the restoration project.

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

Fiorio Wetland Restoration Project Completed

BY TED KOEHLER, ASHLAND NFWCO

A Partners for Fish and Wildlife Program wildlife habitat restoration project was completed on the Fiorio Brothers Farm in November. This area of agricultural land south of the City of Ashland, Wisconsin, is a focus for local restoration efforts to restore watershed health in the Chequamegon Bay area. The project also falls within the Lake Superior watershed focus area for the Partners for Fish and Wildlife Program. The project consisted of two wetland restoration sites totaling four acres. Also included was the enhancement of 36 acres of upland grass waterfowl nesting cover through a deferred haying/grazing agreement. A Habitat Development Agreement was signed to protect the restored area for 10 years.

The restoration took place on former agricultural land. This newly restored and protected wetland and grassland complex will provide ideal resting and nesting conditions for many species of migratory songbirds and waterfowl. Species benefiting from the habitat restoration and protection project include migratory waterfowl such as wood duck and American black duck, as well as migratory songbirds such as sedge wren and Le Conte's sparrow.

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

Only the Shadow Knows…Genoa Hosts Job Shadow Student

BY DOUG ALOISI, GENOA NFH

Jacob Menne, a junior at Seneca, Wisconsin, High School, joined the Genoa NFH staff for a day in December to explore a conservation career and learn about the inner workings of a fish hatchery. Jacob and his family are very familiar with being at the beck and call of live animals, as both his grandparents and parents own and operate local dairy farms. Due to a delayed construction project at Genoa NFH, he also had an opportunity to experience some of the physical challenges of working at a fish hatchery, as the station was in the middle of fall minnow harvest.

This entails transporting full pails of minnows up a long set of stairs. Jacob was not content to sit back and watch the fun, but was an active participant in the festivities. At the end of the day, he returned to his family's farm with refined skills in animal husbandry at the ready, and a new appreciation of the time and energy needed to conserve and protect our nation's natural resources.

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

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.

What Do Biologists Do in Winter?

BY ANDY STAROSTKA, COLUMBIA NFWCO

Most fisheries projects consist primarily of summer field seasons. This is the time when we are seen and have interaction with the public. On those prefect summer days when the temperature is 85 degrees and there isn't a cloud in the sky, we have been told that we have the perfect job, and we do.

But what about the other half of the year when most field work is completed? What are the biologists doing? While some field projects continue year round, for others it is a time to regroup for the next field season that comes too quickly and at the same time not soon enough. We all enjoy the summer field work, but there is much more to be done.

The field season continues through the winter months for the pallid sturgeon monitoring project. Winter can be a lonely time on the Missouri River with short and cold days. Many river access points are unusable due to low water or ice. Winter is complete with snow and hazardous ice flows on the river. Normally under these conditions field work is suspended, but there have been occasions when conditions have turned inclement and nets needed to be retrieved in less than ideal conditions.

Field collection of biological data, while most visible, is just one portion of a project. Data by itself is of little use if it is not disseminated to others. A large portion of the "off-season" is spent analyzing the previous seasons' field data. Much of this analysis is done by office staff although some complex analysis has been performed with assistance of universities, partner offices and USGS. We provide annual reports to our funding agencies. This allows the funding agency to see how their money was spent and whether progress is being made to answer the project objectives. Oral and written presentations are another avenue for the dissemination of information. Getting presentations to look "just right" is a time-consuming challenge.

-USFWS

Biologists run winter gill nets for a Missouri River fishery assessment.

Reports and presentations get information to local or regional audiences. Professional journal articles are a good vehicle to distribute what we have learned around the globe.

Although much of the work that a biologist does during the winters' off season is "behind the scenes," it is just as important as the field work during summer where we are seen by the public. What are we doing during winter? We are finishing the work we started during the summer field season.

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

Congressional Actions

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. 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. 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. 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. 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. 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. 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]

H.R. 767 (rcs) 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. [Reference Change Senate]

S.J.Res. 17 (es) 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. [Engrossed in Senate]

S.J.Res. 17 (is) 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. [Introduced in Senate]

S.J.Res. 17 (rcs) 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. [Reference Change Senate]

S.J.Res. 17 (rfh) 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. [Referred in House]

H.R. 3663 (ih) To amend the Fish and Wildlife Act of 1956 to establish additional prohibitions on shooting wildlife from aircraft, and for other purposes. [Introduced in House]

H.R. 2830 (rh) To authorize appropriations for the Coast Guard for fiscal year 2008, and for other purposes. [Reported in House]

H.R. 1495 (eh) 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. [Engrossed in House]

H.R. 1495 (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. 3227 (ih) To direct the Secretary of the Interior to continue stocking fish in certain lakes in the North Cascades National Park, Ross Lake National Recreation Area, and Lake Chelan National Recreation Area. [Introduced in House]

H.R. 1495 (ih) 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. [Introduced in House]

H.R. 1495 (rh) 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. [Reported in House]

S. 1766 (is) To reduce greenhouse gas emissions from the production and use of energy, and for other purposes. [Introduced in Senate]

S. 2302 (pcs) To provide for the continuation of agricultural programs through fiscal year 2012, and for other purposes. [Placed on Calendar Senate]

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

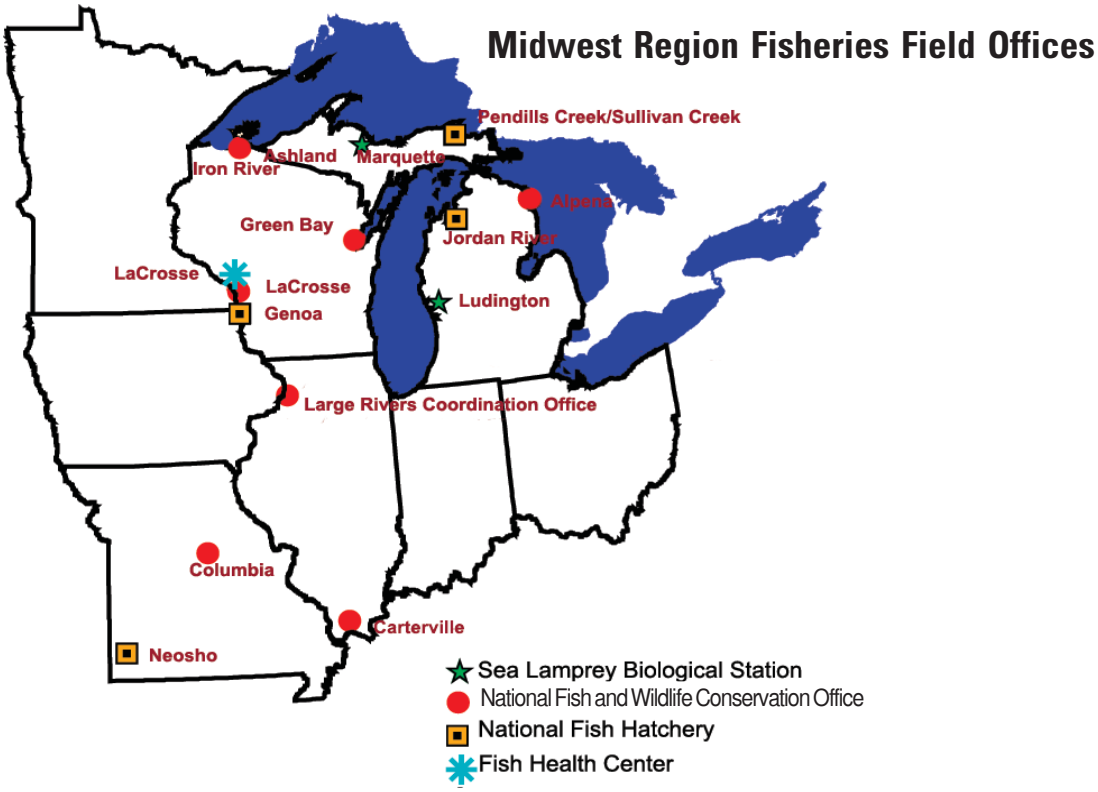
Midwest Region Fisheries Divisions

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 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

- Time well spent on the MICRA Paddlefish Database
  - Brian Elkington, Columbia NFWCO
- St. Marys River Fishery Task Group Meeting
  - Anjanette Bowen, Alpena NFWCO
- Mitigation Program Coordination Meeting
  - Tracy Hill, Columbia NFWCO

Aquatic Species Conservation and Management

- Pallid Sturgeon Stocked in the Missouri River
  - Tracy Hill, Columbia NFWCO
- Gill Net Sampling = Gill Net Mending
  - Cliff Wilson, Columbia NFWCO
- Autumn Sampling Reveals Promising Pallid Sturgeon Captures in the Lower Missouri River
  - Nick Utrup and Wyatt Doyle, Columbia NFWCO
- Columbia NFWCO Completes Missouri River Fish Community Sampling
  - Andy Plauck, Columbia NFWCO
- Fisheries Sampled at Overton Unit of Big Muddy National Fish and Wildlife Refuge
  - Cliff Wilson, Columbia NFWCO

Aquatic Invasive Species

Public Use

Cooperation with Native Americans

- Another Edition of the MTAN Goes to Print
  - Frank Stone, Aahland NFWCO
- Red Lake Walleye Restoration Effort
  - Frank Stone, Ashland NFWCO
- Alpena Gillnet Repair
  - Adam Kowalski, Alpena NFWCO

Leadership in Science and Technology

- Columbia NFWCO Implements New Datasheet Chain-of-Custody Process
  - Patty Herman, Columbia NFWCO

Aquatic Habitat Conservation and Management

- Final Barrier on Trout Brook is Removed
  - Glenn Miller, Ashland NFWCO
- Sturgeon River Watershed Tour
  - Andrea Ania, Alpena NFWCO
- Cooper County interested in Fish Passage
  - Joanne Grady, Columbia NFWCO
- Five Price County Wisconsin PFWP Habitat Restoration Projects Completed in 2007
  - Ted Koehler, Ashland NFWCO
- Dam Removal Evaluation Course
  - Joanne Grady, Columbia NFWCO

Workforce Management

- New Habitat Chief for the Ashland NFWCO
  - Pam Dryer, Ashland NFWCO
- AED Training
  - Anjanette Bowen, Alpena NFWCO

-Jerry French Postcard Collection; U.S. Fish Hatchery at Neosho, Missouri (circa 1905)

Water Under the Bridge

A Glimpse into our Proud Past

The Neosho Fish Hatchery is located in Newton County in the southwestern corner of Missouri. The Fish Hatchery was established in 1888 and continues operations today.