



Fisheries & Aquatic Resources Program

fish lines

**The Neosho
NFH Visitor
Center is Open for
Business**

**Ashland FWCO
Teams up
with Northland College**

**Work Begins on a
New Sturgeon
Rearing Trailer**

Fish Lines

Fisheries & Aquatic Resources Program - Midwest Region

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

The vision of the Service's Fisheries Program is working with partners to restore and maintain fish and other aquatic resources at self-sustaining levels and to support Federal mitigation programs for the benefit of the American public. Implementing this vision will help the Fisheries Program do more for aquatic resources and the people who value and depend on them through enhanced partnerships, scientific integrity, and a balanced approach to conservation.

Features

4 The Neosho NFH Visitor Center is Open for Business

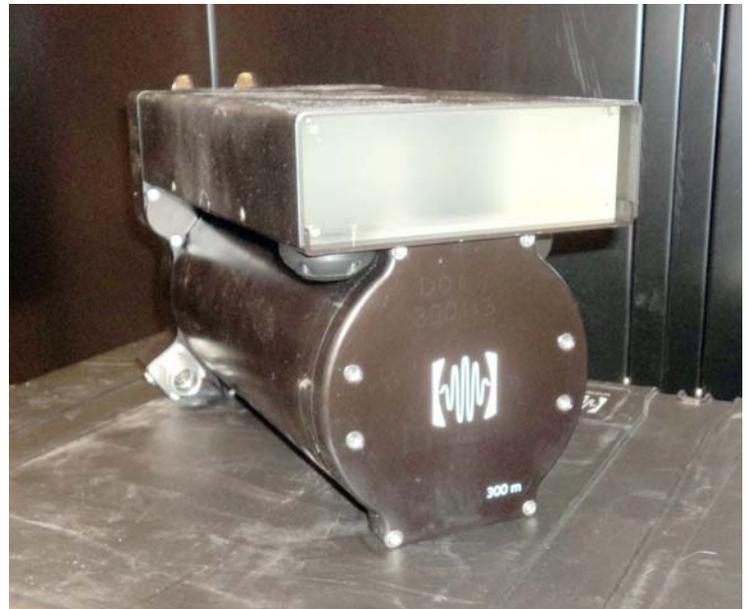
On December 9th, 2010, the doors to the new visitor center at the Neosho NFH were officially opened.
BY MELISSA CHEUNG, NEOSHO NFH

5 Ashland FWCO Teams up with Northland College

In the spring of 2004, a group started the formal process to gain recognition for a student subunit of the AFS.
BY GLENN MILLER, ASHLAND FWCO

6 Work Begins on a New Sturgeon Rearing Trailer

This winter we began construction on a non-traditional method of rearing lake sturgeon - a mobile lake sturgeon culture facility.
BY DOUG ALOISI, GENOA NFH



-USFWS

This Dual-Frequency Identification Sonar (DIDSON) unit is capable of producing video images of fish in low-light and turbid water conditions.

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

fish lines

2010 Vol. 9 No. 3

ASSISTANT REGIONAL DIRECTOR
Mike Weimer

To submit suggestions or comments, e-mail
david_radloff@fws.gov

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



-USFWS

Columbia Fish and Wildlife Conservation Office crew retrieves a trotline on the lower Missouri 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.

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



Conservation Briefs 7-18

- 8 **A Hatchery Hopeful from the Missouri River**
BY ANDREW PLAUCK & PATTY HERMAN, COLUMBIA FWCO
- 8 **Great River National Wildlife Refuge Gets a New CAP**
BY PATTY HERMAN, COLUMBIA FWCO
- 10 **The Long Goodbye: Klondike Strain Lake Trout Find a New Home**
BY CAREY EDWARDS, IRON RIVER NFH
- 10 **Freshwater Drum Harvested at Neosho NFH**
BY MELISSA CHEUNG, NEOSHO NFH
- 11 **New Larval Brook Trout Rearing Facility Completed at Genoa NFH**
BY JENNY BAILEY, GENOA NFH
- 12 **Asian Carp Monitoring Continues**
BY HEATHER CALKINS & ADAM MCDANIEL, COLUMBIA FWCO
- 12 **Congressman Karl Maple's Staff Talks Asian Carp Marketing**
BY SAM FINNEY, CARTERVILLE FWCO
- 13 **And They're Back on the Ice at Genoa NFH!**
BY ANGELA BARAN, GENOA NFH
- 14 **Columbia FWCO Outreach: A Year in Review**
BY COLBY WRASSE, COLUMBIA FWCO
- 15 **DIDSON: Keeping an Eye on the CAWS**
BY BRAD ROGERS, CARTERVILLE FWCO
- 16 **Along the Winding Road to Recovery-Bigger is Better**
BY MARK STEINGREABER, LA CROSSE FWCO
- 17 **Fishers Farmers Make "Waves of Hay"**
BY HEIDI KEULER, LA CROSSE FWCO
- 17 **Where in the Midwest Should We be Addressing Habitat?**
BY ROB SIMMONDS, CARTERVILLE FWCO
- 18 **Regional Dive Team Makes a Big Splash**
BY SCOTT YESS, LA CROSSE FWCO
- 18 **Recruiting for the Future**
BY WYATT DOYLE, COLUMBIA FWCO

Congressional Actions	19
Midwest Region Fisheries Divisions	20
Fisheries Contacts	21
Fish Tails	22

The Neosho NFH Visitor Center is Open for Business

BY MELISSA CHEUNG, NEOSHO NFH

On December 9th, 2010 the doors to the new visitor center at the Neosho National Fish Hatchery (NFH) were officially opened. Friends of the fish hatchery group members, volunteers, the Neosho mayor, Senator elect Roy Blunt, state representatives, political representatives and Fish and Wildlife Service staff joined the hatchery in welcoming the public into our new facility. The tent and patio heaters were in place, floral centerpieces carefully arranged, catered food prepared and three

gallon aquarium that sits at the center of the exhibit hall invites visitors to crawl under the tank and view the tank through a bubble. While pallid sturgeon yearlings and rainbow trout fingerlings reside in tanks flanking the main aquarium tank, the main tank is a source of pride for the hatchery. This marks the first time we have a place to display a Federally endangered adult pallid sturgeon. Within the main tank swims an eight year old adult female pallid sturgeon previously hatched at Gavins Point NFH, large rainbow trout, and 6+ year old freshwater drum. In addition, it also houses local aquatic species including channel catfish, largemouth bass and crayfish.



-USFWS

Neosho National Fish Hatchery's new visitor center is open for business.

sheet cakes cut. Over 600 visitors came out on that cold, windy day to celebrate with us. The attendance was a testament to the local support of this small, but dedicated community.

The new facility truly showcases the fish that are propagated here. Dating back to 1888, the exhibit hall highlights the rich history of this facility in a way that our previous hatchery building could not. The 2,800

In honor of the grand opening celebration, the hatchery gift shop made limited edition Christmas ornaments. The ornaments have an image of the new visitor center on the front and are stamped with the date of the grand opening. The gift shop, managed and run by the Friends group, is now open Monday-Friday from 10am-3:30pm. Their schedule may change depending on demand. The store sells the wares of local artists such as pottery, art work, weaving, soy wax candles, wood carvings and digital

imaging. The store also sells natural history books, historic books about local interests, and of course, *At this Place...A History of Neosho National Fish Hatchery*.



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

Ashland FWCO Teams up with Northland College

BY GLENN MILLER, ASHLAND FWCO

The year 2010 marks the seven year anniversary for the Northland College American Fisheries Society (AFS) subunit and Ashland Fish and Wildlife Conservation Office (FWCO). Students from Northland College have been active in the Wisconsin Chapter of the American Fisheries Society for over ten years.



-USFWS/GlennMiller

Katie Renschen, 2008 past president of the Northland College American Fisheries Society subunit and former student employee at the Ashland Fish and Wildlife Conservation Office, analyses the stomach contents of a lake trout that was captured in a lake whitefish survey in Lake Superior off of Grand Marais, Michigan.

In the spring of 2004, a group of students, Professor and faculty advisor Andy Goyke, and Ashland FWCO biologist and professional mentor Glenn Miller started the formal process to gain recognition for the student subunit. Through a petition effort and development of bylaws, along with support from the Wisconsin Chapter of AFS, the student subunit was formally recognized by the Governing Board of AFS in April of 2006. Professor Derek Ogle took over the reigns as faculty advisor in the spring of 2006.

The subunit is very active, holding meetings twice a month and getting the members involved in a variety of activities with the different natural resource agencies in the Ashland, Wisconsin (WI) area and the community in general. Annual projects include: fin clipping at the Iron River National Fish Hatchery (Iron River, WI), Les Voigt State Fish Hatchery (Bayfield, WI), and Red Cliff Tribal Fish Hatchery (Red Cliff, WI), and a trip to the Grand Portage Tribal Fish Hatchery (Grand Portage, Minnesota) and the Lake Winnebago (WI) lake sturgeon winter spearing registration, to name a few.

The subunit developed an ice safety program (with the assistance of the Ashland Fire Department) and taught new students and community members over the last three years about the techniques for safely ice fishing on Chequamegon Bay and Lake Superior. The subunit also sponsors programs on the different management practices of the natural resource agencies by inviting speakers to the campus and the Northern Great Lakes Visitor Center, co-located on the Whittlesey Creek National Wildlife Refuge.

The students also get hands-on experience by volunteering with the agencies. Through tasks such as data entry, mending gill nets, stomach content analysis, ageing of scales and otoliths and assisting in spawning (egg takes) at various hatcheries, they are able to see all aspects of fisheries and natural resource management in the office and field. The interaction with the students has been very positive, and with the future biologists working with us at the Ashland FWCO, they bring new ideas and viewpoints to our office.

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

Work Begins on a New Sturgeon Rearing Trailer

BY DOUG ALOISI, GENOA NFH

It is always fun to look back at a project when it is finished and remember how it began. Staff at the Genoa National Fish Hatchery (NFH) has an opportunity to look directly at the front of a project this winter as we begin construction on a non-traditional method of rearing lake sturgeon - a mobile lake sturgeon culture facility. Lake sturgeon populations in Lake Michigan have shown through genetic tests to be very loyal in returning to their birth or natal rivers to reproduce. How and when they do this is still a mystery, which calls for revised rearing techniques to allow for small sturgeon to have the ability to imprint on the water chemistry of their home river.

constructed to allow sturgeon to be able to contribute to the population in hopes of one day returning to their natal streams to reproduce. Lake Michigan lake sturgeon populations are a fraction of what they once were in the 1800's, with some river specific populations being at the brink of disappearing.

Due to the Great Lakes Restoration Initiative (GLRI) being passed by the 11th Congress in 2010, Genoa NFH received funds for a special project to construct one of these mobile rearing units to be used at a river that is in great need of help, the Kalamazoo River in Michigan. Once construction is completed by our qualified and ambitious maintenance staff at

Genoa NFH, it will be towed to its new river home to be deployed on the east side of Lake Michigan. Eggs and fry from a remaining sturgeon population will be collected by setting egg and fry traps in April.

The resulting capture will then be used to produce juveniles in the new sturgeon rearing trailer that will be released at roughly 8 to 10 inches in size. Mortality from these larger sizes is much reduced from typical egg and fry mortalities. Release of larger sized lake sturgeon has the probability to multiply natural recruitment of juveniles by many magnitudes.

Work will continue on the construction of the trailer throughout the winter while the trailer site in Michigan is prepared. This restoration project is a cooperative effort with the Green Bay Fish and Wildlife Conservation Office, Michigan Department of Natural Resources, Gun Lake Tribe and the Kalamazoo Chapter of "Sturgeon for Tomorrow". Biologists and staff from these partners will be the main players in the egg and fry collection efforts in the spring, and are vital to the success of the trailer efforts. All of the partners and Genoa NFH look forward to bringing our act out on to the road this year, all in the name of lake sturgeon conservation.



-USFWS

This mobile lake sturgeon culture facility was built by staff at the Genoa National Fish Hatchery, and the unit will be used for streamside rearing of lake sturgeon on Lake Michigan rivers.

Another curiosity of lake sturgeon is that they usually migrate out of their home rivers at a fairly young age, sometimes as soon as five months after hatching. This phenomenon of imprinting on natal streams and returning to spawn over a decade later is described as a "homing" response. In order to develop this homing response and at the same time increase juvenile numbers or recruitment into the population, specialized mobile rearing systems are being con-

struction of the trailer throughout the winter while the trailer site in Michigan is prepared. This restoration project is a cooperative effort with the Green Bay Fish and Wildlife Conservation Office, Michigan Department of Natural Resources, Gun Lake Tribe and the Kalamazoo Chapter of "Sturgeon for Tomorrow". Biologists and staff from these partners will be the main players in the egg and fry collection efforts in the spring, and are vital to the success of the trailer efforts. All of the partners and Genoa NFH look forward to bringing our act out on to the road this year, all in the name of lake sturgeon conservation.

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

An Early Holiday Gift for Grooming Iron River NFH

BY SHAWN SANDERS, IRON RIVER NFH

The Iron River National Fish Hatchery (NFH) welcomed a “white holiday season” with near record snowfall in the Northland. This early snowfall bodes well for local recreational skiers and also means that trail grooming season has arrived.

In the past, the hatchery has employed a 1971 Ski-Doo Elan along with a 2004 Yamaha RX-1 which was



-USFWS

This Ski-Doo Alpine was acquired from an excess property list and will be used to groom three miles of trail for skiers at the Iron River National Fish Hatchery.

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

Volunteer Group Helps Complete Mussel Cage Repairs

BY NATHAN ECKERT, GENOA NFH

A group of eleven volunteers from two Friends group organizations (*Friends of Pool 9* and *Friends of the Upper Mississippi Fisheries Services*) assisted with repairs and renovation of the Genoa National Fish Hatchery (NFH) mussel cage inventory in preparation for the 2011 production season. The group riveted new screen onto cage tops, replaced worn cage bottoms and removed river debris from used cages. Repaired cages will be used for the propagation of over 10 freshwater mussels during 2011 with each cage holding up to 30 host fish inoculated with freshwater mussel larvae. A total of 70 cages were either repaired or cleaned by the volunteers who were treated to an appreciation cookout by the Genoa NFH staff.

obtained on excess property from United States Border Patrol in 2009.

Trail grooming equipment was home-made until South Shore School District out of Port Wing, Wisconsin, loaned the hatchery its commercial equipment for the 2009-2010 ski season. The machines were usable and the trails were groomed as needed by hatchery staff and volunteers.

This past fall, Clark Bartelt of the Iron River NFH located a Ski-Doo Alpine. The Alpine is a twin-tracked workhorse used by groups for all types of work from grooming trails to Antarctic expeditions. The Alpine was listed as excess property in Munising, Michigan, from our sister agency the National Park Service at Pictured Rocks National Lakeshore. Clark acquired the snow machine and picked it up for the hatchery. Hats off to Clark for going above and beyond, helping Iron River NFH provide recreational opportunities to the public.

On December 22nd and 23rd, we put the machine on the trails and packed the base for the public, providing three miles of packed trail.

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.



-USFWS

Volunteers from two local Friends groups assisted with repairs of Genoa National Fish Hatchery's mussel cages in preparation for the 2011 native mussel production season.

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

A Hatchery Hopeful from the Missouri River

BY ANDREW PLAUCK AND PATTY HERMAN, COLUMBIA FWCO

We all know that recovery of an endangered species can be a complicated process. One step in that recovery process is the addition of individuals to the population via a supplemental stocking program. The pallid sturgeon recovery program has placed a priority on capturing wild fish for use as brood stock in their propagation program. Capture of these wild fish is dependent on many state and federal agencies sampling the Missouri and Mississippi rivers. Catching the rare, wild fish is the first critical step in the long process. Columbia Fish and Wildlife Conser-

vation Office (FWCO) has been increasing efforts to capture these rare fish during the last several years. While an intensive targeted effort is planned during the spring (when the fish are migrating), we also take advantage of any large fish we catch during our standard sampling efforts.

On December 2nd Columbia FWCO field crews were pulling gillnets as part of the standard monitoring for the pallid sturgeon population assessment program. At the very end of the fifth net, a ghostly white fish was just barely caught in the net. After examining the fish for tags or signs of previous capture, we determined that this fish might potentially be wild. This fish was definitely large enough to send to the hatchery and arrangements were quickly made to transfer this fish to Neosho National Fish Hatchery. While spawning at the hatchery may seem like the complicated part, the ordeal begins on the river – as the fish needs to get to the hatchery alive! Because Missouri Department of Conservation is one of our dedicated partners in this endeavor, Blind Pony State Fish Hatchery (SFH) was called to aid in the transfer of the pallid sturgeon. Blind Pony SFH staff met us at the boat ramp with their large hauling tank, when we were done pulling our gear for the day. Currently, this pallid sturgeon is thriving at the hatchery and is awaiting an endoscopic procedure to determine if it will be a viable progenitor in the 2011 propagation program.



-USFWS

Randi Preece holds a wild pallid sturgeon that was captured in the Missouri River. The fish was transported to the Neosho National Fish Hatchery for use in the broodstock program.

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

Great River National Wildlife Refuge Gets a New CAP

BY PATTY HERMAN, COLUMBIA FWCO

To be perfectly honest, I never expected to use the knowledge I gained from my thesis research project again. However, this summer an opportunity was presented to me by Dave Mosby, the environmental contaminants specialist with the Columbia Ecological Services Field Station, to do a Phase I evaluation of contaminant threats to Great River National Wildlife Refuge (NWR). I was excited to dust the cobwebs out of that portion of my brain and revisit my contaminants background - so I eagerly accepted the challenge. Much like my thesis project, the Contaminant Assessment Process (CAP) analysis presented challenges at every turn resulting in a very deliberate and systematic evaluation of contaminant issues and

threats to Great River NWR – and a great learning experience for me.

Great River NWR was established to conserve and enhance the quality and diversity of fish and wildlife and their habitats in the Mark Twain Reach of the Mississippi River. The Refuge complex of properties includes: Clarence Cannon NWR, Delair Division, Long Island Division and Fox Island Division, along the Mississippi River both in Missouri and Illinois. Great River NWR, located in the heart of the Mississippi Flyway, provides critical habitat for migratory birds. All of the Divisions are located within and adjacent to the Upper Mississippi River System (UMRS). This 1,300 mile section of the Missis-

Mississippi River supports a tremendous range of uses for an estimated 30 million people. These uses include: commercial navigation, recreation, industry, municipal water supplies, hydropower, power plant cooling and waste water assimilation. Industrialization of the Mississippi River Valley has come at a price, rendering the river one of the most contaminated rivers in the United States. Contaminants are introduced to the system through point source, non-point source, air emissions, wastewater discharges and accidental spills, among other vectors. The Upper Mississippi River basin drains nearly 190,000 square miles, including large parts of the states of Illinois, Iowa, Minnesota, Missouri and Wisconsin. Congress has even recognized the UMRS as a nationally significant ecosystem as well as a nationally significant navigation system. The “Mighty Miss” supports more than 127 species of fish and 30 species of freshwater mussels. Nearly 300 species of birds migrate through the river valley during spring and fall. Interestingly, the Mississippi Flyway is used by more than 40 percent of the migratory waterfowl traversing the United States. The CAP for Great River NWR evaluated existing information from regulatory agency databases to identify documented and potential contaminant issues which may affect Refuge property and resources. The analysis also provides recommendations for further evaluations and actions to be considered within the context of Refuge management goals and objectives.

An estimated 70 to 85 million tons of cargo are shipped annually on the Mississippi River between Minneapolis and the confluence with the Missouri River near St. Louis. Commodities transported on the river run a full range from corn to coal to chemicals, and the potential for spills or leaks from these vessels are a valid concern. Given the importance of the river for navigation, many industries are situated within the floodplain and utilize the river for transportation of goods. Not only are these industries major sources of point source pollution as by-products of manufacturing, but the potential for accidental spills is also present at loading docks throughout the basin. Other transportation vessels, such as trains and trucks, hauling materials overland are also a concern. Additionally, many pipelines cross the Mississippi River and its tributaries, transporting natural gas, crude oil and petroleum products. The potential for accidental or deliberate rupturing of these pipelines is notable.

Non-point source pollution is also a major contributor to the contamination of the river and its

floodplain. Over 60 percent of the UMRS basin is cropland or pasture. Erosion of farmland soils as well as direct rainfall runoff can introduce fertilizers and a variety of pesticides, including organochlorine compounds, into the bottomland ecosystem. These substances may be toxic both through direct exposure as well as through bioaccumulation in the food chain with secondary effects on reproduction and behavior.

Exploration of the Refuge properties revealed some minor contaminant concerns. Flooding remains the most prevalent mechanism for the deposition of contaminants in the Refuge. It was not uncommon to find household and urban garbage floating in the waters or washed up on shore. Brief searches of the Refuge yielded the discovery of numerous potentially hazardous substances transported by the 2010 extended high water events on the Mississippi River and previous years’ flooding. Some of the usual suspects included: plastic and steel drums, compressed gas cylinders, household appliances and containers of oil, hydraulic fluid and other potentially hazardous substances. Despite the trash, Candy Chambers, Dave Mosby and I were witnesses to a bizarre and wonderful sight – a swimming Great Horned Owl! As we motored up the Fox River to explore the southern boundary of Fox Island Division, we saw something thrashing about in the water. Upon closer inspection, we discovered an owl “swimming” up to the bank. After about ten minutes, we determined that the raptor was uninjured as the rather cross-looking owl’s soaked feathers had dried enough that it could fly up into the low branches of the trees.

The Refuge was established to conserve and enhance the quality and diversity of fish and wildlife and their habitats along the Mississippi River. The parcels acquired to date have begun to accomplish this mission with minimal contaminant interference. Very little can be done to alter regional agricultural practices or the negative impacts of massive urban areas; however, the intention of the CAP is to establish a baseline for the Refuge that it can be better prepared to mitigate the effects of future accidental spills on and near refuge lands. Because the potential for contamination transported both by the river and the other sources remains high, we concluded that baseline contaminant sampling be conducted on most units to supplement the spill contingency plan already in place.

This has been a mutually beneficial opportunity for three programs to work together in an effort to protect and enhance habitat for fish and wildlife.

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

The Long Goodbye: Klondike Strain Lake Trout Find a New Home

BY CAREY EDWARDS, IRON RIVER NFH

Finally! Iron River National Fish Hatchery (NFH) has successfully stocked its first production Klondike strain lake trout. It has been a long time in the making. The Klondike strain lake trout entered the hatchery system in 1995 and originated from wild gametes collected from lake trout captured on Klondike Reef in northeastern Lake Superior. They are considered a “humper” strain as they live in water greater than 600 feet and come up to the reef to spawn. Hatchery stockings of this strain have been documented to perform well in deep water areas of shallow Great Lakes such as Lake Erie.

Currently, Iron River NFH has two captive lines that were created in 2003 (A and B). These fish were spawned for the first time in 2008 and did not produce a viable brood stock or production line. Three months of hard work and not a thing to show for it. When the 2009 spawning season arrived, Iron River staff once again attempted to create a viable brood stock and production line. The brood line did not succeed, but we finally had our first dab of production eggs, which

eventually hatched and started on feed. Consequently, 2010 found Iron River staff looking for a home for 39,000 fall fingerlings.

The Region 5 Fisheries program gladly agreed to accept these long awaited fish and plans were made to mark and transport them to Erie, Pennsylvania, for Lake Erie waters. Stepping up to help Iron River NFH make the 920 mile journey was Jordan River NFH. Fish were loaded in Iron River, Wisconsin, and transported to Gaylord, Michigan, by Iron River NFH staff. There, Jordan River NFH personnel took over the wheel and continued the trip to Erie, Pennsylvania. Staff from the Pennsylvania Game Commission helped with the twilight stocking. And thus we have it...the first stocking of a Klondike strain of lake trout production from Iron River NFH!

The Fisheries Program maintains and implements a comprehensive set of tools and activities to conserve and manage self-sustaining populations of native fish and other aquatic resources. These tools and activities are linked to management and recovery plans that help achieve restoration and recovery goals, provide recreational benefits, and address Federal trust responsibilities. Sound science, effective partnerships, and careful planning and evaluation are integral to conservation and management efforts.

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

Freshwater Drum Harvested at Neosho NFH

BY MELISSA CHEUNG, NEOSHO NFH

At the beginning of December, we harvested some freshwater drum for the first time in over four years. Although Pond 20 is always full of water and freshwater drum are present, we do not raise these fish for large scale propagation. We hold the drum for partners like Missouri State University who use these fish as hosts for their native mussel programs. Dr. Chris Barnhart and his four graduate students took 35 drum back to their lab at Missouri State University (MSU). An interesting side note is that an otolith (boney structure used to age fish) sample was obtained from one of the smaller drum by a MSU graduate student. The fish was aged at 4 years old and was 155 mm long. In addition, four large drum were placed

in the big aquarium in our new visitor center at the Neosho National Fish Hatchery (NFH). These fish are over a foot long (230 mm) and are thought to be 6.5 years old based on the original stocking date.



-USFWS

Freshwater drum are held in a pond at the Neosho National Fish Hatchery as a source of host fish for mussel culture.

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

New Larval Brook Trout Rearing Facility Completed at Genoa NFH

BY JENNY BAILEY, GENOA NFH

Healthy fish are an integral part of any restoration program. Healthy fish are especially important for the Great Lakes coaster brook trout program because “coasters”, as we call them, have experienced such severe declines in the wild that very few are left to help reestablish populations.



-USFWS

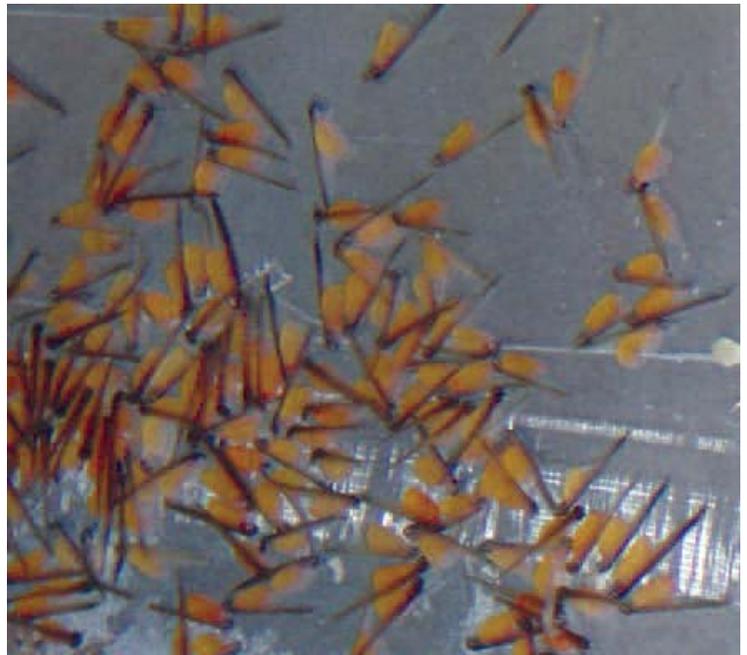
Dan Kumlin of the Genoa National Fish Hatchery installs plumbing to a new brook trout fish culture tank.

Genoa National Fish Hatchery (NFH) provides 10,000 coasters each year for release into Grand Portage Bay (Lake Superior) in support of the program. Biologists have spent years at Genoa perfecting culture methods for this species to provide the healthiest fish possible and lend to the program’s success. To accomplish this task, proper rearing facilities are essential. Water quality parameters, hatching, feeding and care regimes have now been established, and this winter a facility designed to meet these requirements has been constructed. New 15-foot tanks were settled into place in the Coldwater Culture North building next to twin 30-ft raceways that had previously served as a fingerling rainbow trout rearing facility. Early larval rearing tanks will streamline brook trout rearing and minimize the risk of exposure to pathogens by allowing brook trout to remain in a single culture facility from the egg stage

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

to stocking at one year of age. By eliminating the stress of transfer to new buildings at small and large fingerling sizes, growth and overall health of the coasters will be enhanced. Prior to construction of this facility, coasters were transferred to new facilities at the beginning of the feeding stage, a time when fry can succumb to stress quite easily, and again at the large fingerling size. Fingerlings also shared rearing facilities with rainbow trout and yearling coasters that could harbor harmful pathogens if transferred to young fish.

Water quality has been enhanced in the new larval rearing tanks by a low head oxygenation system that increases dissolved oxygen levels and decreases iron and non-desirable gasses in the water. This water will be carried over with young fish when they are transferred to raceways in the building, so fingerlings will have optimal resources through all life stages while at



-USFWS

Facilities have been upgraded at the Genoa National Fish Hatchery to provide enhanced culture conditions for coaster brook trout.

Genoa NFH. With a new larval brook trout rearing facility as part of the coaster brook trout program for the Great Lakes, restoration of this important species is even more likely to be successful.

Asian Carp Monitoring Continues

BY HEATHER CALKINS AND ADAM MCDANIEL, COLUMBIA FWCO

Columbia Fish and Wildlife Conservation Office (FWCO) did not hesitate to lend a hand when the Illinois Department of Natural Resources crew, that was scheduled for fixed site sampling, was called to a sampling event in Lockport, Illinois. Adam McDaniel and Heather Calkins traveled to the Chicago area the week of November 15 and assisted Matt Shanks and Shawna Herleth-King from the U.S. Army Corps of Engineers (USACE) Chicago District in completing Asian carp fixed site sampling in the Chicago Area Waterway System (CAWS).

The USACE crew provided not only an electrofishing boat, but also an extra hand. Frigid temperatures coupled with overcast skies made for a chilly trip, but the mission was accomplished with no visual sign of the invasive species. Interesting catches from this trip included several Chinook (or king) salmon, a few nice walleye and one fat yellow perch. This trip concluded the fixed site sampling for the year due to adverse weather conditions. Sampling is scheduled to resume in March, 2011.

Two weeks later our crew was back in Chicago, but for a different type of sampling. Tracy Hill and Heather Calkins traveled to Joliet, Illinois, at the end of November looking for Asian carp environmental DNA (eDNA) in the Chicago Sanitary and Shipping Canal (CSSC). The sampling excursion was again a collaborative effort among agencies, but this time a life scientist from the U.S. Environmental Protection agency (EPA) joined the Columbia crew. The EPA's Mari Nord assisted in water sample collection in the Lockport Pool and acted as a sample courier for the trip. The crew was grateful for the EPA's willingness to contribute as it reduced exposure to freezing weather and allowed them to avoid the dreadful

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

Congressman Karl Maple's Staff Talks Asian Carp Marketing

BY SAM FINNEY, CARTERVILLE FWCO

The Carterville Fish and Wildlife Conservation Office (FWCO) has definitely become known as "Asian Carp Central." That is a good thing. Word got out to Congressman Jerry Costello (D, IL-12) and his staff, and when they needed information on Asian carp, they knew the right place to come. Karl Maple, a staff assistant for Mr. Costello and another associate from the district, paid the Carterville office a visit on Thursday November 18, 2010. They wanted to

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

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.

Chicago traffic. Sampling for Asian carp eDNA occurred weekly at different areas in the CAWS and is directed to very specific locations based on positive identifica-

tions from the previous week. The samples were filtered by the USACE at the Chicago EPA lab and sent to the Engineer Research and Development Center lab in Vicksburg, Mississippi, for processing.

A total of 1,498 eDNA samples have been taken in the CAWS as of December 14 with 1,140 processed and 24 of them being positive for Asian carp DNA. There have been a similar amount of positive 'hits' above and below the electric barrier with most being positive for silver carp DNA. The most recent positive 'hits' were from samples taken on November 15 in the North Shore Channel.

The eDNA sampling has also halted for the year and will continue in the spring. Columbia FWCO staff has become quite familiar with Chicago and its waterways. They have made many trips to the "Windy City" assisting in rotenone events, routine fixed site electrofishing, directed sampling efforts and most recently getting involved in the weekly eDNA sampling. The office anticipates returning to the big city and will continue to support sampling efforts as the risk for Asian carp invasion remains.

You can find the eDNA sampling results at: http://www.lrc.usace.army.mil/Asian_Carp/eDNA.htm.

know about Asian carp, more specifically about the issues plaguing the separation of the Great Lakes and the Mississippi River basins, and the possibility of marketing Asian carp in the United States and southern Illinois. Carterville staff spent an hour with the two gentlemen and sent them on their way with a better understanding of the issues, some relevant information and additional contacts, and the instilled knowledge that they have Carterville FWCO to rely on for Asian carp and other fishery issues in Illinois.

And They're Back on the Ice at Genoa NFH!

BY ANGELA BARAN, GENOA NFH

Genoa National Fish Hatchery (NFH) has geared up for the 3rd Annual Kids Ice Fishing event on February 5th. The event will run from 8:30 am to 12:00 pm on one of Genoa's frozen ponds stocked with hungry rainbow trout! The staff and volunteers will conduct a short seminar on ice safety and ice fishing techniques before turning the eager fishers loose. Last year, over 200 children (ages 6-12) spent the afternoon learning to fish with their parents, and for some of these children (and parents!), it was their first experience fishing. We are expecting even greater numbers for this year's event; the hatchery has been receiving phone calls for information from area teachers and school groups.

This kids fishing event is sponsored by the *Friends of the Upper Mississippi Fisheries Services*, a group of dedicated volunteers from the surrounding areas

that support the Genoa NFH, La Crosse Fish and Wildlife Conservation Office (FWCO) and La Crosse Fish Health Center (FHC). The sponsors and staff from La Crosse FWCO and FHC along with Genoa

NFH will be on hand to help teach fishing techniques, provide bait and fishing poles and a light snack and warm drinks.

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.



-USFWS photos

The 3rd Annual Kids Ice Fishing event is set for February 5 at the Genoa National Fish Hatchery.

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

Columbia FWCO Outreach: A Year in Review

BY COLBY WRASSE, COLUMBIA FWCO

We at the Columbia Fish and Wildlife Conservation Office (FWCO) take outreach and education seriously, which is why we spend so much time working on this aspect of our mission. During the 2010 fiscal year, we performed outreach at 27 scheduled events, speaking to more than 6,700 people. That number doesn't include the people we meet at gas stations and boat ramps – people who are always curious as to what we are doing with “those big boats.” The outreach we perform takes many different forms, but the goal is always the same – to educate people about the work we do and the resources we protect.



-USFWS
Aaron Walker of the Columbia Fish and Wildlife Conservation Office displays a fish's anatomy to excited students.

One of the highlights from last year's outreach was the Wonders of Wildlife (WOW) school. This weekend-long school gives participants hands-on experience in a variety of outdoor skills such as: fishing, hunting, canoeing and much more. The WOW school requires the work of dozens of volunteers and a couple trailers full of equipment; however, other outreach events we participate in are low key, requiring only a couple of hours to talk to a group of Boy Scouts or to show families at the local library some live fish. Outside-the-box thinking is always helpful

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

when delivering outreach. Some of the venues we utilize aren't traditional fisheries outreach venues. For example, Tons of Trucks is an event meant to gather large trucks from varying occupational fields for the purpose of educating the community about different professions. Instead of a truck, we bring a boat and live Missouri River fish, and we are a huge hit every year. This single event draws over 3,000 people annually and has allowed us to greatly expand our outreach within the Columbia, Missouri, community.

Much of the education and outreach work we do is geared towards young children. Often times, reaching people while they are still young is the greatest way to make a lasting impression. In that vein, we work closely with local public schools to deliver education that fits the school's curriculum, while educating children about their local natural resources. In addition, many of our events are family oriented allowing us to educate the children and their parents. But not all our outreach efforts are directed towards children. We work with the University of Missouri to teach college students about Missouri River fish sampling techniques, and also offer students volunteer opportunities. We assist hunters with disabilities in an annual deer hunt, and we help Missouri River Relief cleanup the river we work on.

Everywhere we look, we see opportunities for outreach. While much of our outreach is local, one event in particular, the Missouri River 340, has received international recognition. The Missouri River 340 is the world's longest non-stop canoe and kayak race. The event gathers paddlers and media outlets from all over the world. We assist by staffing one of the checkpoints and answering many questions.

We could not possibly accomplish all this outreach on our own. We work with a diverse group of partners (too many to list here), who are also committed to educating people about our natural resources. Looking forward to 2011, we hope to continue our outreach efforts in even more creative and effective ways.

DIDSON: Keeping an Eye on the CAWS

BY BRAD ROGERS, CARTERVILLE FWCO

Asian carp are an all-too-common topic of discussion around the conference room table at the Carterville Fish and Wildlife Conservation Office (FWCO). For the past two years, it seems there hasn't been much else to talk about. Whether we're at the office, in the field, or at an outreach event, the carp or the topics related to them are not far behind.

Most of our Asian carp work has been focused in the Chicago Area Waterway System (CAWS) with funding provided by the Great Lakes Restoration Initiative (GLRI). So far we have tagged, tracked, shocked, netted, chased, and used rotenone on these pests. Now we are going to put the boat in idle and take some time to make observations.



-USFWS/BradRogers

A non-conductive fish cage constructed of PVC piping and polypropylene netting is equipped with a mounting system that allows for vertical and horizontal adjustments, to capture quality video of fish behavior within an electric barrier.

On June 22, 2010 a bighead carp was captured in Lake Calumet in Chicago, Illinois. Many questions have been raised about how that fish was able to reach Lake Calumet because of its location above the electric barrier in the Chicago Sanitary and Ship Canal (CSSC). Positive Asian carp eDNA hits above the electric barrier also show up from time to time. Questions and concerns about where this DNA is coming from have been raised as well. These are questions that often spark lengthy debates involving,

at times, wild speculation and for the most part are impossible to answer.

However, one thing that is certain is that only one connecting channel between the Mississippi River basin and the Great Lakes exists. In that channel lies the multi-million dollar electric barrier designed to keep fish from passing from the Mississippi basin side to the Great Lakes side. While we will probably never know how that one bighead carp made its way to Lake Calumet or how many other Asian carp are above the barrier producing those positive eDNA results, one thing we can do is to make sure, to the best of our ability, that the electric barrier is functioning the way it was designed to and that no additional carp make their way to the lakes.

Carterville FWCO is taking advantage of some newly acquired sonar equipment and is constructing a plan to study the efficacy of the electric barrier on the CSSC. The Dual-Frequency Identification Sonar (DIDSON) is a sonar camera capable of producing high quality video images in low light and turbid water conditions; a perfect tool for observing fish behavior in the CSSC. The basic objectives of the DIDSON study are to observe and record fish behavior in and around the electric barrier. We want to observe natural behavior of fish near the barrier as well as record how fish behave while they are physically moved into and through the barrier by means of a live cage. We feel that much can be learned by watching a fish move through the electric fields. Lab studies replicating the electrical field produced by the barrier have tested the effects on fish, but no actual field testing has been attempted.

To date, a draft proposal of work has been submitted to the United States Coast Guard to obtain the proper permitting to work in the regulated navigation area that contains the electric barrier. A non-conductive live cage has been constructed and a mounting system to hold the live cage in place alongside the work boat has been designed and fabricated. A trial run will be performed to ensure everything is functioning as it was designed, before a sampling trip is planned. The first sampling event is tentatively scheduled to take place early in 2011.

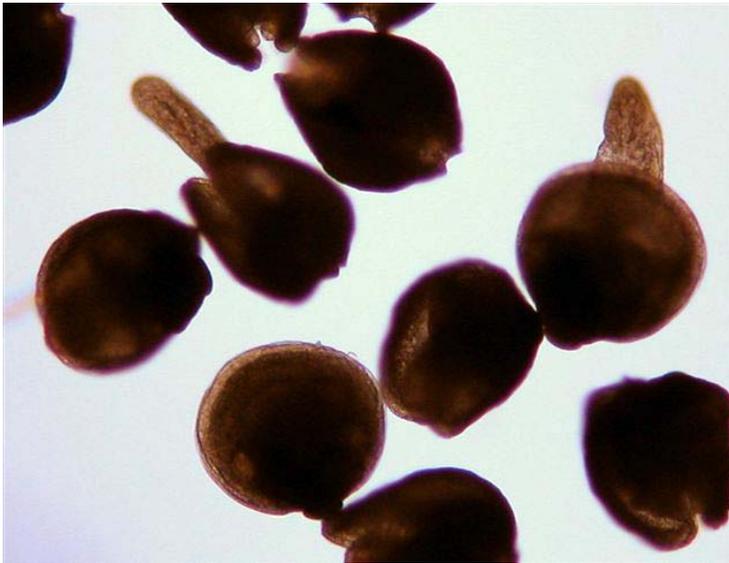
Science and technology form the foundation of successful fish and aquatic resource conservation and are used to structure and implement monitoring and evaluation programs that are critical to determine the success of management actions. The Service is committed to following established principles of sound science.

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

Along the Winding Road to Recovery...Bigger is Better

BY MARK STEINGREABER, LA CROSSE FWCO

During the past decade, State Highway 35 that runs along the Mississippi River in western Wisconsin has become a well-traveled route for biologists venturing down the unmarked road to recovery for the winged mapleleaf mussel. Thus, I found myself driving through yet another morning blanket of fog beside “Old Man River” last fall, following sinuous bends in the Great River Road down-

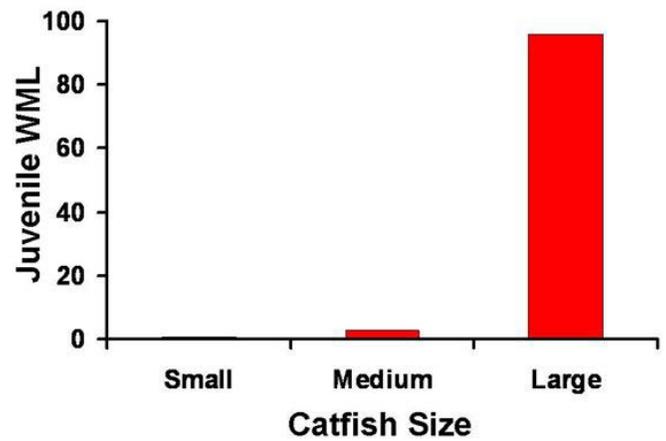


-USFWS

These juvenile winged mapleleaf mussels required a cannel catfish as its host during the embryo (glochidia) life stage.

stream to the Clam Palace, the mussel propagation building at Genoa National Fish Hatchery. After a brief meeting there with mussel biologist Nathan Eckert, I was behind the wheel again. I was feeling like an expectant father driving 30 miles up the road to the U.S. Geological Survey’s Upper Midwest Environmental Sciences Center in La Crosse to make the long awaited delivery of a flask containing thousands of winged mapleleaf embryos (glochidia). Successive years of autumn laboratory preparations were about to pay off, now that there is finally enough of these tiny, elusive parasites to infest groups of channel catfish and evaluate the influence of host-fish size on successful transformation into juvenile mussels.

Following a well-designed study plan, Dr. Teresa Newton and I systematically exposed replicate groups of four small (102 mm), medium (154 mm), and large (211 mm mean fork-length) channel catfish to similar numbers of glochidia on September 23. During the next 60 days of observation, we quantified the



The number of live juvenile mussels recovered from host-fish was positively correlated with fish size and varied as much as two orders of magnitude among treatments.

number of transformed (living) and sloughed (dead) mussels recovered from each replicate group of fish. These results should be used to help guide annual winged mapleleaf propagation efforts by culturing and selecting only larger sized catfish as glochidial hosts to maximize juvenile mussel production. Near the conclusion of the study, I hit the road daily to return most of the nearly 800 juvenile mussels back to more appropriate nursery surroundings at the Clam Palace. Here they were carefully maintained by hatchery staff in water recirculation systems and continuously offered microalgae preparations to try to meet nutritional needs for continued early life survival of this endangered species. About 20% of these individuals survived for up to 60 days but died soon thereafter; just another bend in the long and winding road to winged mapleleaf recovery.

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

Fishers Farmers Make “Waves of Hay”

BY HEIDI KEULER, LA CROSSE FWCO

The Fishers & Farmers Partnership (FFP) for the Upper Mississippi River basin has been hard at work the past couple of months working on a national fish habitat assessment review, editing their Charter, planning a GIS project, and attending a steering committee meeting. The FFP welcomed three new members during their annual steering committee meeting in Dubuque, Iowa, on November 3-4, 2010. These new members are Matt Mitro of the Wisconsin Department of Natural Resources, Steve Sodeman of the Minnesota Corn Growers Association, and Chris Vitello of the Missouri Department of Conservation. Fishers and Farmers are very excited to work with these new members from both agricultural and natural resource organizations. Many great things were accomplished during the two-day steering committee meeting in Dubuque, including the discussion and ranking of three habitat projects that the FFP will be working on in 2011.

The three projects in the order of ranking include Seven Mile Creek in Minnesota, Boone River in Iowa, and the Meramec in Missouri. Actions will include

stream bank stabilization, oxbow restoration, fenced creeks, better watering systems and more. The three projects will add value to farms while restoring aquatic habitat. Steering committee members also discussed the signing process of the Fishers & Farmers Charter. They decided to gather signatures of leaders from their respective organizations over winter and then will have a media event in the spring announcing the completion of the FFP Charter.

On October 1, 2010, biologist Heidi Keuler of the La Crosse Fish and Wildlife Conservation Office (FWCO), stepped up as the new FFP coordinator, and Ken Lubinski, the former coordinator, became the science and assessment team leader for the FFP. We thank Ken for his leadership and dedication to FFP during its formation and growth. Heidi is currently working with the Nancy North, the communications team leader, on several projects that will help the Fishers & Farmers make more “waves of hay.”

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.

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

Where in the Midwest Should We be Addressing Habitat?

BY ROB SIMMONDS, CARTERVILLE FWCO

This is the question that the fish habitat partnerships in the Midwest sought to answer when they contracted with Downstream Strategies to conduct a habitat assessment. This assessment will be a combination of GIS and modeling to help determine what variables are driving condition of habitat and the presence, absence, or in some cases condition of fish or mussels in the watersheds of the Midwest.

The effort will be valuable on many levels. First, it will give us a good sense of where we have important habitat that is in a condition that should be protected. Second, it will help us determine what areas are important for enhancement. One important feature of the model will be a tool that allows us to adjust for future condition (i.e., manipulate certain variables). This will help us determine for example, what would happen if we increased the number of forested acres by 10%. In cases where a reasonable amount of

change in one of our variables result in substantially better conditions for fish or mussels, BINGO, we have a place where enhancement efforts are likely to pay off.

In December, members of fish habitat partnerships in the Midwest gathered with our Regional National Fish Habitat Action Plan coordinator and Downstream Strategies to discuss progress on this project. The meeting certainly piqued our interest in the project, when we viewed a draft model for brook trout in the Great Lakes basin. It also left us a bit “wide eyed” when we discussed how much fish or mussel data still needs to be acquired, and on what timeline. Both Downstream Strategies and fish habitat partnerships will be very busy as the data is gathered, assembled and models are constructed throughout the remainder of 2011.

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

Regional Dive Team Makes a Big Splash

BY SCOTT YESS, LA CROSSE FWCO

On January 6th, the Region 3 Dive Team met in La Crosse, Wisconsin, to address diving skills and safety. Nick Rowse, Regional Dive Officer for the last ten years, scheduled the meeting. Eight divers from



-USFWS

Periodic training exercises insure the safety of the Fish and Wildlife Service's dive team members.

four offices were present including Tam Smith and Rowse of the Twin Cities Ecological Services Field Office (ESFO); Jorge Buening and Nathan Eckert (Genoa National Fish Hatchery); Andy Roberts and

Bryan Simmons (Columbia ESFO); and Ann Runstrom and Scott Yess of the La Crosse Fish and Wildlife Conservation Office (FWCO).

Hand signals, mask clearing, water entry, buddy breathing, tired diver rescue, gear removal/retrieval and buoyancy control skills were practiced in a local pool. Discussions covered dive activities at each office, safety issues, training and reporting.

Mussel projects dominate most of the work conducted by the Region 3 Dive Team. These include zebra mussel monitoring, endangered mussel recovery, mussel relocation, habitat monitoring and mussel inventories. Because much of this work takes place in large rivers located in a temperate northern climate, team members are specialists at diving in moderate currents, low visibilities and cold temperatures. Other recent dive team projects have included: filming lake sturgeon and inspecting the *M/V Spencer F. Baird* hull, Eurasian water milfoil removal, and thermograph retrieval.

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.

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

Recruiting for the Future

BY WYATT DOYLE, COLUMBIA FWCO

Columbia Fish and Wildlife Conservation Office (FWCO) teamed up again with Lincoln University in Jefferson City, Missouri, to talk about biodiversity related to their course and career opportunities for the school's environmental studies class. Our office has a cooperative agreement with the University in an effort to increase diversity in the Fish and Wildlife Service's ranks. Every summer, we have been fortunate to employ one of Lincoln's students in the Student Temporary Experience Program and have had some of our best prospects come from this school. Wyatt Doyle teamed up with Missouri Department of Conservation's Chris McLeland to present the state and federal opportunities available while in school and after graduation. These types of educational events are the result of proactive professors like Lincoln's Dr. Adrian Andrei and long-term partnerships set in place to ensure opportunities are available to everyone interested in conservation.



-USFWS

2010 student employee Brandon Baumhoer of Lincoln University catches his breath between electrofishing runs.

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

Congressional Actions

S. 52 (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. 352 (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.Con.Res. 15 (ih) Expressing the sense of the Congress that the United States Fish and Wildlife Service should incorporate consideration of global warming and sea-level rise into the comprehensive conservation plans for coastal national wildlife refuges, and for other purposes. [Introduced in House]

H.R. 49 (ih) To direct the Secretary of the Interior to establish and implement a competitive oil and gas leasing program that will result in an environmentally sound program for the exploration, development, and production of the oil and gas resources of the Coastal Plain of Alaska, and for other purposes. [Introduced in House]

H.R. 521 (ih) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically engineered fish. [Introduced in House]

S. 230 (is) To amend the Federal Food, Drug, and Cosmetic Act to prevent the approval of genetically engineered fish. [Introduced in Senate]

H.R. 520 (ih) To amend the Federal Food, Drug, and Cosmetic Act to require labeling of genetically engineered fish. [Introduced in House]

S. 351 (is) To authorize the exploration, leasing, development, and production of oil and gas in and from the western portion of the Coastal Plain of the State of Alaska without surface occupancy, and for other purposes. [Introduced in Senate]

S. 229 (is) To amend the Federal Food, Drug, and Cosmetic Act to require labeling of genetically engineered fish. [Introduced in Senate]

S. 268 (is) To sustain the economic development and recreational use of National Forest System land and other public land in the State of Montana, to add certain land to the National Wilderness Preservation System, to release certain wilderness study areas, to designate new areas for recreation, and for other purposes. [Introduced in Senate]

H.R. 501 (ih) To provide for the implementation of the recommendations of the National Commission on the BP Deepwater Horizon Oil Spill and Offshore Drilling, and for other purposes. [Introduced in House]

S. 357 (is) To authorize the Secretary of the Interior to identify and declare wildlife disease emergencies and to coordinate rapid response to those emergencies, and for other purposes. [Introduced in Senate]

S. 238 (is) To amend the Magnuson-Stevens Fishery Conservation and Management Act to require that fishery impact statements be updated each year and for other purposes. [Introduced in Senate]

S. 205 (is) To amend the Outer Continental Shelf Lands Act to require that oil produced from Federal leases in certain Arctic waters be transported by pipeline to onshore facilities and to provide for the sharing of certain outer Continental Shelf revenues from areas in the Alaska Adjacent Zone. [Introduced in Senate]

S. 97 (is) To amend the Federal Water Pollution Control Act to establish a grant program to support the restoration of San Francisco Bay. [Introduced in Senate]

H.Res. 80 (ih) Expressing support for the goals and ideals of National Marine Awareness Day. [Introduced in House]

H.R. 56 (ih) To provide for restoration of the coastal areas of the Gulf of Mexico affected by the Deepwater Horizon oil spill, and for other purposes. [Introduced 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.

Fish and Wildlife Conservation Offices

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

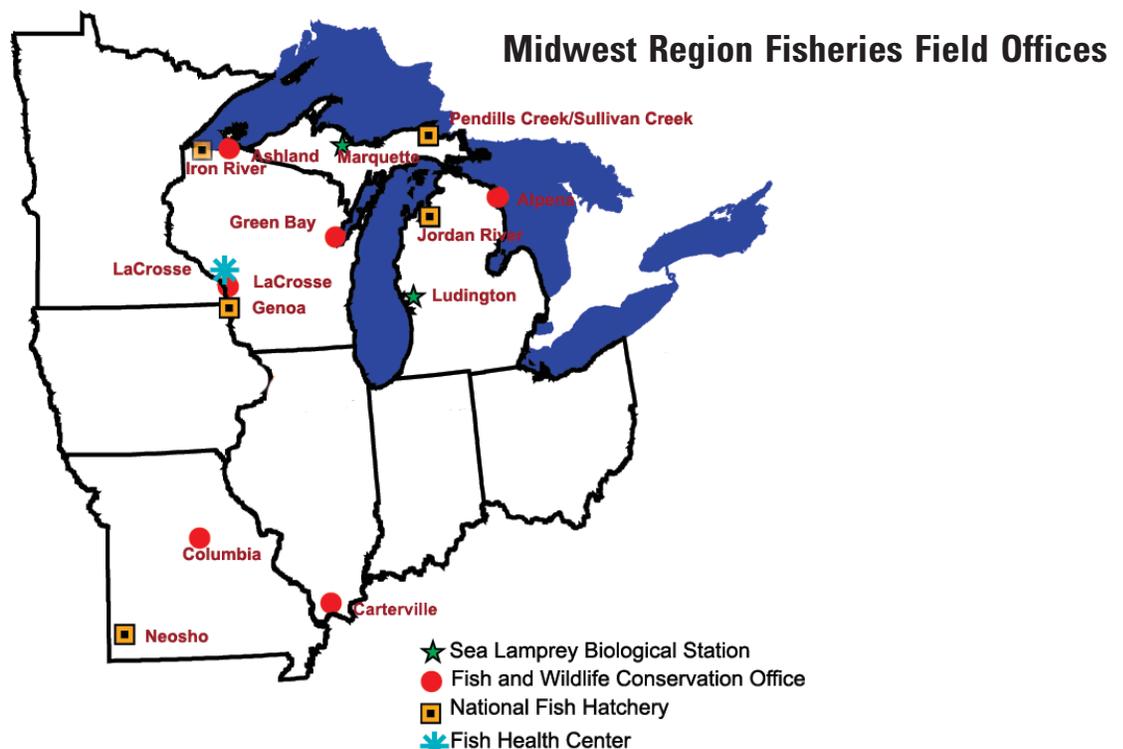
technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydro-power operation and relicensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

Sea Lamprey Biological Stations

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

Fish Health Center

The Fish Health Center provides specialized fish health evaluation and diagnostic services to federal, state and tribal hatcheries in the region; conducts extensive monitoring and evaluation of wild fish health; examines and certifies the health of captive hatchery stocks; and, performs a wide range of special services helping to coordinate fishery program offices and partner organizations.



Midwest Region Fisheries Contacts

Mike Weimer (mike_weimer@fws.gov)

Michigan

Alpena Fish and Wildlife Conservation Office
480 West Fletcher St.
Alpena, MI 49707
Scott Koproski (scott_koproski@fws.gov)
989/356-3052
Area of Responsibility (Michigan, Ohio)

Jordan River National Fish Hatchery
6623 Turner Road
Elmira, MI 49730
Roger Gordon (roger_gordon@fws.gov)
231/584-2461

Ludington Biological Station
229 South Jebavy Drive
Ludington, MI 49431
Jeff Slade (jeff_slade@fws.gov)
231/845-6205

Marquette Biological Station
3090 Wright Street
Marquette, MI 49855-9649
Katherine Mullett (katherine_mullett@fws.gov)
906/226-1235

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

Missouri

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

Neosho National Fish Hatchery
East Park Street
Neosho, MO 64850
David Hendrix (david_hendrix@fws.gov)
417/451-0554

Illinois

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

Wisconsin

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

Genoa National Fish Hatchery
S5689 State Road 35
Genoa, WI 54632-8836
Doug Aloisi (doug_aloisi@fws.gov)
608/689-2605

Green Bay Fish and Wildlife Conservation Office
2661 Scott Tower Drive
New Franken, WI 54229
Mark Holey (mark_holey@fws.gov)
920/866-1717
Area of Responsibility (Michigan, Wisconsin)

Iron River National Fish Hatchery
10325 Fairview Road
Iron River, WI 54847
Dale Bast (dale_bast@fws.gov)
715/372-8510

LaCrosse Fish Health Center
555 Lester Avenue
Onalaska, WI 54650
Becky Lasee (becky_lasee@fws.gov)
608/783-8441

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

Fish Tails

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

Partnerships and Accountability

Aquatic Species Conservation and Management

- [Spawning Season Begins and Ends](#)
 - Carey Edwards, Iron River NFH
- [New Production Season Kicks Off](#)
 - AJorge Buening, Genoa NFH

Aquatic Invasive Species Public Use

Cooperation with Native Americans

Leadership in Science and Technology

Aquatic Habitat Conservation and Management

Workforce Management



-USFWSGreg/Klingler

This newly completed sea lamprey trap is located on the Tippy Dam on the Big Manistee River.

Installation of the sea lamprey trap at Tippy Dam on the Big Manistee River was completed during December. The project will be considered complete following minor landscaping in the spring. The trap insert will be fabricated this winter and will be ready to accept the numerous sea lampreys clamoring for residence in the Tippy Sea Lamprey Hotel this spring. The trap will be operated from mid-April through mid-June.