U.S. Fish and Wildlife Service - Midwest Region

Fisheries & Aquatic Resources Program

Fish Lines

Frozen Fish

Chesaning Rock Ramp Monitoring
on the Shiawassee River

Midwest Coordinator Receives Vision Award

Vol. 9 No. 7
April 2011

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

Ryan Hooker of the Michigan Department of Natural Resources and Lindsey Leismeister of the Green Bay Fish and Wildlife Conservation Office search for lake sturgeon eggs in egg mats that were set in the Kalamazoo River.

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

Fish Lines
2011 Vol. 9 No. 7

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Chris Pierce from Conservation Resource Alliance collects geomorphological data, which includes longitudinal profiles and channel cross sections, on Manton Creek below Manton Dam, a tributary of Lake Michigan. .

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Conservation Briefs 8-20

Midwest Coordinator Receives Vision Award

BY RYAN ROBERTS, NFHAP COMMUNICATIONS COORDINATOR

The winners of the National Fish Habitat Action Plan (NFHAP) awards were honored for their extraordinary achievements at the Jim Range National Casting Call on Friday, April 15th on the grounds of the C&O Canal National Historic Park, along the banks of the Potomac River in Washington, DC.

-Ryan Roberts

Midwest National Fish Habitat Partnership Coordinator Maureen Gallagher receives a Vision Award for her fish habitat work at all levels of the organization.

Midwest Region NFHAP Coordinator Maureen Gallagher developed a committee of Midwest state Fish Chiefs to weigh in on large scale National Fish Habitat Action Plan issues. Through her vision and leadership, a Science Advisory Network was established including science expertise at all NFHAP levels. She worked with this group to fund and conduct basin-wide assessments to help Fish Habitat Partnerships (FHP) prioritize habitat efforts. This assessment effort was expanded to the Great Plains FHP.

On a national scale, Maureen helped develop the National Fish Habitat Action Plan through participation on several committees to develop guidance and provide recommendations to the National Fish Habitat Board. She provides technical expertise in partnership building, fundraising and strategic planning to Fish Habitat Partnerships nationwide. Maureen is well known as an advocate and spokesperson for the fish habitat partners and the National Fish Habitat Action Plan. Her thoughts and actions that relate to the Action Plan are always on target and in the long term interest of the success of this program and to all involved.

Congratulations Maureen!

For further info about the Regional Fisheries Program: http://www.fws.gov/midwest/Fisheries/

Frozen Fish

BY WYATT DOYLE, COLUMBIA FWCO

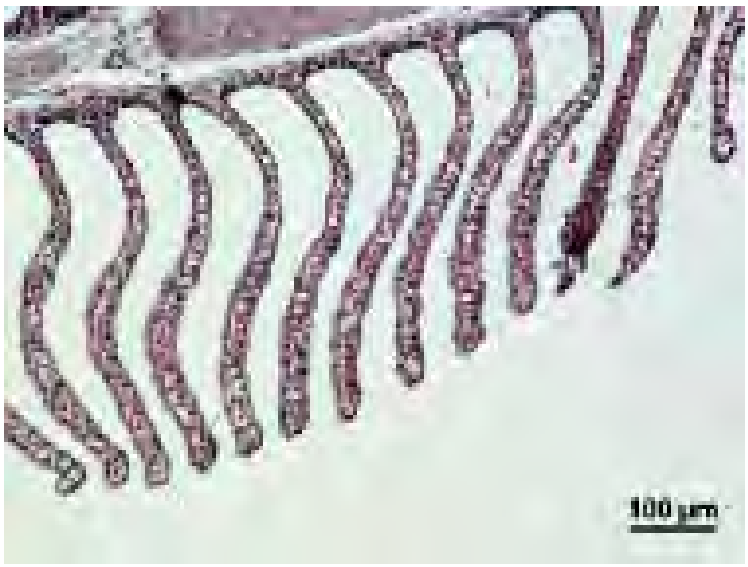
Columbia Fish and Wildlife Conservation Office (FWCO) biologist Wyatt Doyle worked with U.S. Geological Survey's (USGS) Dr. Diana Papoulias to determine whether sturgeon would be adversely affected while sampling under extreme cold weather conditions.

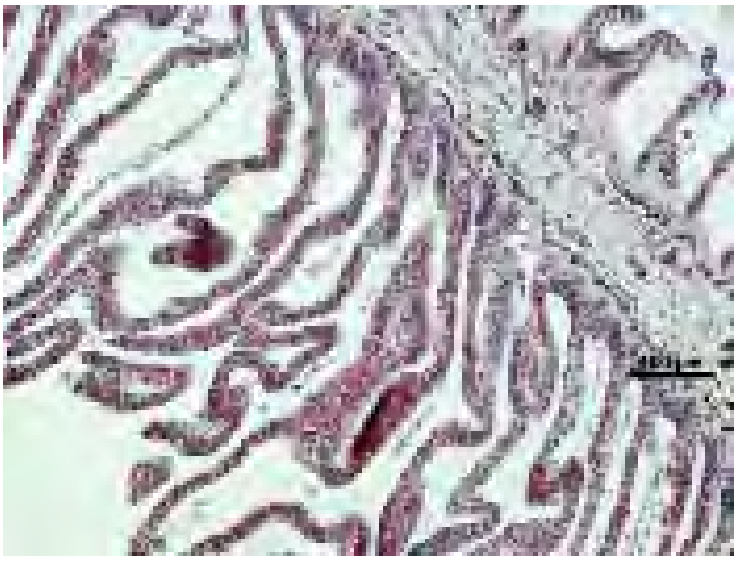
Two years ago, a hatchery manager expressed concerns about the long term damage to a pallid sturgeon's extremities that might occur during routine gillnetting throughout the winter, and protocols were immediately changed to prevent sampling during freezing temperatures. Sturgeon are routinely sampled during the winter months because they tend to congregate in overwintering habitats and are relatively unstressed through entanglement at low temperatures. The change in the handling protocol had affected our ability to sample during prime months and more information was needed to validate the concerns of tissue damage.

Our office has established a model relationship of collaboration and friendship with scientists at USGS by collecting field data for their research and sponsoring important grants for their work. It was this relationship that encouraged Dr. Papoulias to assist us in understanding the effects of freezing on sturgeon. She froze 12 shovelnose sturgeon at -15 degrees C for 15 minutes and a second batch for 30 minutes in a walk-in freezer and analyzed the tissue damage under a microscope. Her findings showed that all fish treated for 15 minutes survived for 24 hours with only minor tissue damage. She also provided a baseline of microscopic pictures of cell damage in fish frozen for 30 minutes that enabled us to understand the progression of cell damage.

Her research, specifically performed to aid our monitoring decisions, helped provide confidence to biologists that, "Under mild freezing temperatures, there is little danger of negatively affecting fish during a short processing time on the boat."

We value our partnerships with USGS, and as an established research partner for the Fish and Wildlife Service, their scientists have been invaluable to our pallid sturgeon recovery efforts.





-USGS photos

A study to determine the effects of sampling pallid sturgeon during freezing temperatures showed minor damage would occur to the gills after 15 minutes of exposure at -15 degrees C. (left), while 30 minutes of exposure to freezing temperatures (right) may lead to significant gill damage.and survivability.

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

Chesaning Rock Ramp Monitoring on the Shiawassee River

BY JOSEPH GERBYSHAK, ALPENA FWCO

On March 3rd, Alpena Fish and Wildlife Conservation Office (FWCO) biologists Joseph Gerbyshak, Andrea Ania, Jim Boase and Justin Chiotti met with Jim Baker and Joe Leonardi of the Michigan Department of Natural Resources (DNR), Dr. Brent Murry of Central Michigan University (CMU) and Cyndi Rachol of the U.S. Geological

-USFWS

Partners are investigating the efficacy of rock ramps on fish communities in the Saginaw Bay/River watershed such as the Chesaning Rock Ramp which restored connectivity to 37 miles of the Shiawassee River.

Survey to coordinate sampling efforts for the upcoming field season in the Saginaw Bay/River watershed.

One of the monitoring sites is the recently constructed rock ramp at the former Chesaning dam site. Chesaning dam was the first dam on the Shiawassee River upstream from Lake Huron. The 147 year old structure was severely degraded, and the dam was considered a significant impediment to the restoration of walleye in both Saginaw Bay and Lake Huron because it was a barrier to upstream migration for spawning fishes. The rock ramp structure was primarily constructed to facilitate aquatic species passage and to restore connectivity to 37 miles of the Shiawassee River. The rock ramp was constructed at the Chesaning dam in the summer/fall of 2009. It spans the width of the river and approximately 150 feet downstream. Rock ramp monitoring efforts are being conducted primarily by the Michigan DNR, CMU, and Michigan State University (MSU).

All of the agencies in attendance at the meeting are interested in investigating the efficacy of rock ramps on fish communities in the Saginaw Bay/River watershed.

Coordinated sampling efforts overcome obstacles such as redundant data collection, incomplete data sets and logistical problems such as travel distances and equipment needs. As a result, the coordinated sampling saves time and money.

Primary objectives to be answered from data collected from this and future field seasons are: 1) Does the rock ramp structure pass fish? 2) Are fish that pass the rock ramp spawning above the structure? 3) How do the fish that pass the structure affect the upstream communities? 4) Will the addition of the rock ramp structure benefit the Saginaw Bay walleye population?

Dr. Brent Murry is the primary investigator addressing these objectives. He will be analyzing fish movement in numerous rivers by tagging several hundred fish, primarily suckers and walleye. Dr. Murry has selected a spatial design for his study, where four rivers will be the focus, all with varying levels of connectivity. The rivers in his study will consist of the Shiawassee River, which currently has a rock ramp structure; Cass River, where a rock ramp structure will be constructed in 2012; Flint River, which is free flowing; and the Tittabawassee River, which is dammed. There will be two graduate students working with Dr. Murry, one from CMU and the other from MSU.

Preliminary data collected by the Michigan DNR in the spring of 2010 indicate that suckers are able to pass over the rock ramp. Few walleye, the species of primary interest, were collected above the rock ramp indicating that walleye passage may be limited. Walleye are considered to be weaker swimmers than suckers, and the spring of 2010 had water levels well below normal, making passage even more difficult for walleye. Walleye may have passed the rock ramp, but went undetected by the sampling gear because electrofishing can be ineffective in deep habitat that is commonly preferred by walleye; however, based on the number of walleye found below the rock ramp this spring, it seems unlikely they are moving upstream undetected. Alpena FWCO biologist Joseph Gerbyshak will be using a Sontek river survey to create a 3D Doppler profile of the currents in the rock ramp to ensure that flows are adequate for walleye to pass during spawning season.

All cooperating partners are interested in evaluating the effectiveness of the rock ramp structure and agreed that interagency cooperation will be an effective way to accomplish goals.

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

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.

Walking the Environmental Walk and Talking the Talk

BY JENNA TEWS, LUDINGTON BIOLOGICAL STATION

Recycling is nothing new at the Ludington Biological Station. When sea lamprey treatments started back in the 1960s, the lampricide containers consisted of 7-gallon steel drums. Those containers were cleaned and sold to scrap metal recyclers. Today the lampricide containers have evolved into heavy-duty five-gallon polyethylene plastic for liquid lampricide and 5-gallon buckets for granular formulations. These are triple rinsed and taken to a recycling facility in Grand Rapids, Michigan. Since 2007, the Ludington Biological Station has recycled more than 50,000 lbs of plastic. That's 50,000 lbs kept out of landfills in just the last 5 years! The station also recycles paper, batteries, pallets, and organic food waste, as well as comingled metal and plastics.

-USFWS/MikeCalloway

Brian Bartos adds to the pile of lampricide containers to be recycled at Padnos recycling center in Grand Rapids, Michigan.

For further info about the Ludington Biological Station: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/ludington.pdf

Lake Charlevoix Watershed Partners

BY RICK WESTERHOF, GREEN BAY FWCO

Heather Rawlings of the Alpena Fish and Wildlife Conservation Office (FWCO) and Rick Westerhof of the Green Bay FWCO attended the Lake Charlevoix Watershed Project meeting in Charlevoix, Michigan. Heather provided an overview of the Partners for Fish and Wildlife (PFW) program and how it could help the Lake Charlevoix Watershed Project partners implement activities that benefit fish and wildlife resources in their watershed management plan. This program has restored, protected and enhanced many fish and wildlife resources in other watersheds throughout Northern Michigan.

The National Fish Passage Program (NFPP) and Great Lakes Fish and Wildlife Restoration Act (GLFWRA) were briefly discussed by Rick. Several organizations (Conservation Resource Alliance, Tip of the Mitt Watershed Council and Antrim Conservation District) were familiar with the NFPP and either submitted proposals or received funding for projects in other watersheds. The Tip of the Mitt Watershed Council is very active in the Lake Charlevoix watershed and is leading the effort to update the watershed plan and raise funds. One of the most useful tools for the group was a two page handout that provides information (who can apply, website and funding limits) on Fish and Wildlife Service Voluntary Conservation Programs. The programs covered in the handout include: PFW, NFPP, GLFWRA, Coastal, North American Wetland Conservation Act Grants, National Coastal Wetland Conservation Act Grants, and Great Lakes Basin Fish Habitat Partnership. It was the first time that the Fish and Wildlife Service attended one of their meetings and we look forward to be a more active participant in the future.

The Lake Charlevoix Watershed partners include: Tip of the Mitt Watershed; Conservation Resource Alliance; Antrim Conservation District; Grand Traverse Band of Ottawa and Chippewa Indians; Antrim County Road Commission; Little Traverse Bay Band of Odawa Indians; Charlevoix Conservation District; Charlevoix County Board of Commissioners, Planning, and Road commissions; Charlevoix County Land Conservancy; Cities of Boyne City, Charlevoix and East Jordan; *Friends of Boyne River*; *Friends of Jordan River Watershed*; Michigan Departments of Environmental Quality and Natural Resources; Michigan State University Extension; Natural Resource Conservation Service; Little Traverse Conservancy; Lake Charlevoix Association; Grand Traverse Regional Land Conservancy; Keep Charlevoix Beautiful; and numerous drain Commissioners, townships and local businesses.

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

Breaking Ground on Getting Back to Nature

BY WYATT DOYLE AND JEFF FINLEY, COLUMBIA FWCO

Getting kids back to the outdoors has become more than an idea for Bass Pro Shop's founder, Jonny Morris. Mr. Morris created a pilot program using the Wonders of Wildlife (WOW) classroom some 15 years ago. WOW has become a staple outdoor outreach event throughout the State of Missouri, bringing their Conservation and Outdoor Recreation School to five different cities. Columbia Fish and Wildlife Conservation Office (FWCO) initiated and has cooperatively led the program's school in Columbia for the last four years. This effort has been in concert with the Columbia Field Office, Big Muddy National Fish and Wildlife Refuge, State natural resource agencies such as Missouri Department of Conservation, Missouri State Parks, Columbia Parks and Recreation, Missouri State University, University of Missouri, Bass Pro Shops and other local business.

-USFWS

An instructor from Bass Pro Shops talks about compound bows during the youth archery class at the 2010 Columbia "Wonders of Wildlife" school.

Given the success of these programs along with a full-time conservation charter school in Springfield, Missouri, Mr. Morris has begun building an entire complex in Springfield, incorporating his original retail store and National Museum with the sole purpose to introduce kids to conservation and the outdoors. Jeff Finley and Wyatt Doyle of the Columbia FWCO attended an invitation dinner along with other agency and key partners of Bass Pro Shops, to brainstorm on new ideas for the WOW Educational Center. Subject matter experts were surrounded by 30 bright students representing one of WOW's charter classes (Wonders of the Ozarks Learning Facility) who eagerly grasped the opportunity to share in how they would design their future classroom.

The new WOW classroom will allow selected students to attend the class full-time while being surrounded by a natural setting created specifically to prepare children to enjoy the outdoors. The students will continue basic curriculum, while having an enhanced opportunity to learn about hunting, fishing and conservation. The facility will attract other Missouri schools to bring their students for day long courses on the outdoors throughout the year.

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

Semi-annual Ohio River Basin FHP Meeting- Short but Sweet!

BY ROB SIMMONDS, CARTERVILLE FWCO

The last thing most folks want is to go to another meeting! However, the Ohio River Basin Fish Habitat Partnership (FHP) realizes that one benefit is the sharing of information and the occasional gathering to discuss progress and discuss next steps. Our spring meeting was via phone and web conferencing, so while short for a meeting, four hours was long for a call. The sweet part is the amount of progress that was made.

First, our Partnership and Outreach Committee unveiled several potential logos, and the group selected a winner. They also walked the group through our draft website (coming very soon). Good progress notwithstanding, there was recognition that we need a good outreach plan before we get any further in developing outreach tools. Our Science and Monitoring Committee provided an update on the excellent habitat assessment that is underway. Results of assessment efforts of all FHPs in the Midwest will be posted at: www.MidwestFishHabitats.org so check the site regularly for the latest information (results will begin to be posted in early autumn, 2011). Continued improvements in our Strategic Plan have gotten us to a "final draft." Here the plan will remain until our assessment is completed this summer, since the assessment could very likely lead to at least some changes to our strategy. Overall, the partnership continues to make steady forward progress.

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

PIT Tag Tracking – Will it Work for Us?

BY PATTY HERMAN, COLUMBIA FWCO

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.

A couple of weeks ago, I got an e-mail from a former Columbia Fish and Wildlife Conservation Office (FWCO) colleague, Andy Starostka. He was pretty excited about some new technology being implemented out West using Passive Integrated Transponder (PIT) tags to track fish. A PIT tag is a small radio transponder that contains a unique code which allows individual fish to be identified by a 10 digit alphanumeric identification number.

-USFWS

A passive integrated transponder (PIT) tag, with a 10-digit unique identifier, is injected into each pallid sturgeon that the Columbia Fish and Wildlife Conservation Office captures in the Missouri River.

Currently, researchers tracking fish on the Missouri River are using acoustic and radio tags that actively send out a signal that can be picked up by antennas. These tags are large, require surgical implantation of the tag and are relatively short-lived due to battery limitations. Conversely, PIT tags are small, injectable and are "passive" (meaning that the tags do not require a battery). Rather than the tag transmitting a signal, a PIT tag reader sends out a radio frequency and when a tag is within range, it will relay the identification code back to the receiver. The lack of a battery is the greatest advantage of the PIT tag, resulting in a very small tag that can be used in small fish and won't impede natural fish behavior. The tag is encapsulated in glass and is expected to last decades – perfect for long-lived fishes like pallid sturgeon and lake sturgeon. As a tagged fish swims past an antenna, the tag is activated and transmits the unique identification number to a receiver that logs the code, as well as environmental conditions, onto a computer. Pass-over tracking antennae can be suspended above or anchored across a stream bed, and pass-through antennae can be used in deeper, swifter water.

Because we have PIT tagged and recorded biometrics on every pallid and lake sturgeon our office has captured on the Missouri River, PIT tag tracking would be an excellent method for capturing long-term movement data. Andy and I realized pretty quickly that this passive tracking approach could be particularly useful on fish passage projects, specifically on the Osage River at Lock & Dam #1 (L&D#1). L&D #1 is a steel and concrete lock and dam structure from the 1920's – a remnant of steam boat commerce on the Osage River. Data supporting the idea that this lock structure is a barrier to fish may provide some motivation for funding the removal or modification and stabilization of this relic from a bygone era.

The lower Osage River is affected by a hydroelectric dam and can be "flashy" - depths at the lock structure can range anywhere from 8 feet to 40 feet depending on discharge from Bagnell Dam. The Osage River can also be impacted by the Missouri River (12

-USFWS

The ability to track fish with passive integrated transponder (PIT) tags will assist biologists to determine whether fish can pass through barriers such as the plunge pool in the lock structure of Lock & Dam #1 on the Osage River.

miles downstream) when flows are high - causing the river to back-up and overtop the dam. Sampling at the structure can be difficult due to the degradation - a lot of rubble, re-bar and steel framing are strewn about the river bottom. In a nutshell, sampling at this location can be dangerous. A passive sampling design would be a tremendous asset at this location.

When we found out about PIT tag tracking, we thought that this would be the ideal spot for utilizing this technology. Last year three pallid sturgeon, one hybrid sturgeon and numerous lake sturgeon were captured at the base of L&D #1. Given this, we know that sturgeon are utilizing the lower open section of the Osage River. I thought that if a pass-through antenna array could be designed to fit the lock chamber opening (upstream side of dam), we could determine if the L&D #1 is indeed a barrier to sturgeon.

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

Old Habits Are Hard To Break

BY CURT FRIEZ, PENDILLS CREEK NFH

Known to most as a common crow, it was recently discovered here at Pendills Creek National Fish Hatchery (NFH) that our resident crow is definitely not common, at least by the behavior exhibited. For the past three years, construction work has been underway at Pendills Creek NFH, first with raceway replacements of sixteen 8 x 80 foot raceways and then construction of a clear span metal building covering all of the new raceways. During the construction phase, numerous forest inhabitants, including the common crow, made daily visits to our facility. Not to admire the fish but to feast on a lake trout meal.

-USFWS

The daily visits by a common crow to the trout production raceways at the Pendills Creek National Fish Hatchery for a lake trout meal came to an end when doors were added to the fish shelters as part of an ongoing construction project.

One of the staff's happiest days occurred when the large garage doors were finally installed in the building, essentially ending this buffet that so many creatures had once enjoyed. Predation of our hatchery reared lake trout basically came to an end in late summer to early fall of 2010. Several instances of critter tracks were apparent in dirt and snow surrounding the building; but to no avail, they were unsuccessful in any attempt to get a free meal. That was until fish distribution occurred in the spring of 2011. Having to drive large distribution trucks into the building for loading fish allowed enough time for our extraordinary crow to take advantage of the open doors, quickly flying into the building and obtaining a lake trout meal and then quickly exiting before the doors were once again closed.

I guess the real check for this uncommon crow will occur next spring, to see if once again "old habits are still hard to break." Quite the positive reinforced learned behavior.

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

Early Success for Streamside Rearing on the Kalamazoo River!

BY KEVIN MANN, GREEN BAY FWCO

The collaborative project between the Fish and Wildlife Service and the Michigan Department of Natural Resources (DNR) rearing lake sturgeon on the Kalamazoo River, Michigan, had its latest success by capturing eggs for rearing in the facility. Staff for the two agencies spent countless hours deploying egg mats and drift nets during both days and evenings to capture the small, but significant offspring.

In early April, based on previous DNR research, biologists finalized the locations where they sampled for the wild produced eggs and larvae in the Kalamazoo River. Egg mats were deployed the second week of April and checked vigorously for

weeks. The lake sturgeon spawning grounds were covered with mats and over 150 cinder blocks were put on the river bottom. Crews from both agencies pulled mats, checked for eggs and re-deployed the gear on a daily basis. Dozens of fertilized eggs were collected off the mats and relocated to the streamside rearing facility (SRF). While egg mats continued to be monitored and eggs developed in the SRF, drift nets were also put in place during the evenings to collect drifting larval lake sturgeon. While the primary goal of the nets was to collect larval sturgeon, they were also successful in capturing viable sturgeon eggs. The eggs captured from the evening sampling led to hundreds of sturgeon hatching in the SRF.

The collaborative partners included the Michigan DNR, Sturgeon for Tomorrow-Kalamazoo Chapter, and Match-e-be-nash-she-wish Band of Pottawatomi Indians, as well as others have helped to collect the sturgeon that are currently in the streamside rearing facility. Without the assistance of all the partners, streamside rearing on the Kalamazoo River would not be as successful as it is today.

-USFWS

Kevin Mann of the Green Bay Fish and Wildlife Conservation Office searches for lake sturgeon eggs in an egg mat that was set in the Kalamazoo River.

For further info about the Green Bay FWCO: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf

Spawning Time!

BY JORGE BUENING, GENOA NFH

At the Genoa National Fish Hatchery (NFH), winter has loosened the strangle hold that it has had on us for so many months. When that happens, it means that it is time to take to the Mighty Mississippi River because northern pike, walleye and sauger will be starting their spawning seasons. During those first few weeks of "warmer" weather, the staff at Genoa was out every day checking fyke and hoop nets in order to collect eggs from ripe females.

When the females are ripe, or ready to release their eggs, the eggs are stripped out and collected in a container. The eggs are then fertilized by males, which are also caught in the netting operations. Next, a clay solution is added to the eggs in order to make them less sticky. Sticky eggs will clump together in our holding jars and result in some of the eggs not being properly oxygenated. Eggs are then disinfected in an iodine solution and brought from the river to the hatchery. Finally, the eggs are housed in egg jars until they develop enough to be shipped around the country.

This year, a total of over 20,000,000 eggs were shipped across the country to places like New Mexico, West Virginia and Colorado. There, the eggs will be hatched out and used to sustain recreational fishing in their respective states. The Fish and Wildlife Service also wants to maintain the wonderful fishery that has been established in the Upper Mississippi River system; therefore, nearly 3,000,000 eggs or hatched fry were stocked back into the Mississippi River. Through proper management and responsible practices, we can maintain this wonderful resource and also share a piece of it with the rest of the country.

-USFWS

Genoa National Fish Hatchery staff use hoop nets to target spawning walleyes each spring, but capture a variety of Mississippi River fish species.

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

Creating a Foundation

PATTY HERMAN, COLUMBIA FWCO

Randi Preece and Patty Herman of the Columbia Fish and Wildlife Conservation Office (FWCO) completed the initial research of 50 non-native (exotic) species as part of the larger Rapid Risk Assessment project. The goal of the Rapid Risk Assessment is to create a user-friendly and easily accessible exotic and/or invasive species reference tool for land managers and stewards throughout the United States. Research documents include information such as biology and life history strategies, potential impacts, documented introductions, and areas of the country at risk for invasion. This year Columbia FWCO, as well as Fisheries offices in both Region 3 and Region 5, evaluated over 300 invasive plant and animal species for inclusion in the reference database. Ultimately, the intention is to have baseline information for nearly 30,000 exotic species available for government and public use.

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.

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

-Tennessee Wildlife Resources Agency/Bill Reeves

(Top to bottom) Silver carp, grass carp and bighead carp

An Arkansas fish farmer brought silver carp, *Hypophthalmichthys molitrix*, to the United States from Asia in 1973 to control phytoplankton and apparently as a food fish. The silver carp escaped in the early 1980's into the Mississippi River basin.

Bighead carp, *Hypophthalmichthys nobilis*, were brought from eastern China to Arkansas in 1972 by a private fish farmer to control plankton in his culture ponds. The species escaped into the Mississippi River basin in the early 1980's.

The grass carp, *Ctenopharyngodon idella*, also known as the white amur, was imported into Alabama and Arkansas, from eastern Asia in 1963 to control aquatic vegetation. The grass carp has been reported to eat 45 kg (99.2 lbs) of vegetation a day!

Thousands Flock to "Tons of Trucks"

BY COLBY WRASSE, COLUMBIA FWCO

On a pleasant April evening, a crowd of 5,000 people gathered in Columbia, Missouri, for "Tons of Trucks", an annual event meant to increase awareness of different careers through direct experience. At Tons of Trucks, children have the opportunity to sit behind the wheel of a fire truck, a police car, a cement mixer, or even a Fish and Wildlife Service research boat. This year, Columbia Fish and Wildlife Conservation Office (FWCO) was represented by Jeff Finley, Joanne Grady, Patty Herman and Colby Wrasse. We assisted children as they climbed aboard our large boat and took the helm. We also displayed live fish, which was a giant hit. Children seemed to get a big kick out of feeling the "slimy" catfish and marveling at the shovelnose sturgeon's prehistoric appearance.

-USFWS

Patty Herman of the Columbia Fish and Wildlife Conservation Office talks about shovelnose sturgeon with a family at the 2011 Tons of Trucks event.

We had several repeat visitors who remembered us from the previous year and commented on how much they learned about these fish. This was the fourth year we have participated in this community event. Tons of Trucks has allowed us to spread our message to a large audience and has opened up other outreach venues within Columbia. We look forward to strengthening our relationship within the community and reaching even more people with our message.

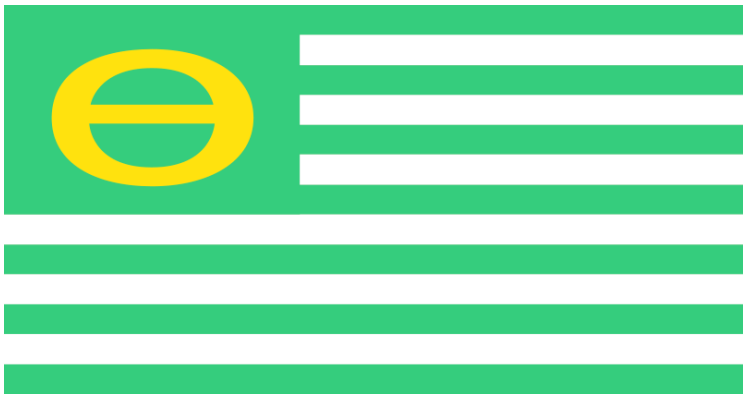
As the population in the United States continues to grow, the potential for adverse impacts on aquatic resources, including habitat will increase. At the same time, demands for responsible, quality recreational fishing experiences will also increase. The Service has a long tradition of providing opportunities for public enjoyment of aquatic resources through recreational fishing, habitat restoration, and education programs and through mitigating impacts of Federal water projects. The Service also recognizes that some aquatic habitats have been irreversibly altered by human activity (i.e. - dam building). To compensate for these significant changes in habitat and lost fishing opportunities, managers often introduce non-native species when native species can no longer survive in the altered habitat.

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

Earth Day: Green or White?

BY HEIDI KEULER, LA CROSSE FWCO

Biologist Heidi Keuler from the La Crosse Fish and Wildlife Conservation Office (FWCO), Randy Hines from the U.S. Geological Survey, and Kurt Brownell from the U.S. Army Corps of Engineers participated in Sparta Middle School's annual Environmental Day on April 19th . In keeping with the times and "Going Green", the three different agency folks went "Green" by car-pooling to the event. Here, they presented topics on aquatic invertebrates, fish habitat and ecology, and forestry to about 100 students. During the invertebrate session, the "Spartans" learned about water quality, discovered a possible summer hobby, and enjoyed getting wet, dirty hands. The kids learned a lot from all three of the hands-on activities and agency folks learned that being flexible with a planned outdoor event is key because it is never too late for a blizzard in Wisconsin. What was to be a "Green" day ended up being "White"!



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

Diagnosis: Furunculosis at the Keweenaw Bay Tribal Fish Hatchery

BY KEN PHILLIPS, LA CROSSE FHC

The La Crosse Fish Health Center (FHC) was contacted by the Keweenaw Bay Indian Community in March regarding a significant disease outbreak in brook trout at their hatchery in L'Anse, Michigan. Hatchery biologists express-shipped 10 brook trout to the La Crosse FHC for examination. Upon arrival at La Crosse FHC, the brook trout were necropsied and tissue samples were collected for pathogen screening. Staff diagnosed the brook trout with the bacterial infection *Aeromonas salmonicida*, which causes the disease furunculosis. This was the first detection of *A. salmonicida* in the hatchery.

-USFWS/KenPhilips

Brook trout exhibit exopthalmia (pop-eye) during an *Aeromonas salmonicida* infection, *which causes the disease furunculosis.*

Immediately following the diagnosis, Ken Phillips of the La Crosse FHC conducted a fish health inspection at the Tribal Fish Hatchery (TFH) to determine if *A. salmonicida* was present in other lots of fish at the hatchery. Ken traveled to the hatchery on March 9th, observed conditions at the hatchery, and collected tissue samples for pathogen screening.

Tissue samples were collected from coaster brook trout brood stock (1 lot), brook trout yearlings (3 lots), brook trout fry (3 lots), lake trout yearlings (1 lot), and lake trout fry (1 lot). The tissue samples were screened for bacterial pathogens (*A. salmonicida*, *Renibacterium salmoninarum*, and *Yersinia ruckeri*), viral pathogens (infectious hematopoietic necrosis virus, infectious pancreatic necrosis virus, and viral hemorrhagic septicemia virus), and a parasitic pathogen (*Myxobolus cerebralis*) at the La Crosse FHC's laboratory facilities in Onalaska, Wisconsin. *Aeromonas salmonicida* was detected in two of the three yearling lots of brook trout, all of which were being held in the main building at the hatchery. Fish in an "isolation" building, which included valuable brook trout brood stock, tested negative for *A. salmonicida*. None of the other targeted fish pathogens were detected in the samples collected during the inspection. Several antibiotics are available for the treatment of fish with furunculosis. Upon making the diagnosis, biologists at the La Crosse FHC conducted drug sensitivity testing to determine which antibiotic would provide the most effective treatment.

Based on sensitivity testing and availability, the La Crosse FHC recommended that all fish in the main building at the facility be fed medicated feed containing the antibiotic Romet® for five days, in accordance with Food and Drug Administration guidelines. Following the initial 5-day treatment with Romet®, biologists at the Keweenaw Bay TFH reported that mortality in the infected lots had slowed, but had not completely stopped. Based on this information, a

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.

-USFWS

Ken Phillips of the La Crosse Fish Health Center collects tissue samples during the Keweenaw Bay Tribal Fish Hatchery fish health inspection.

second 5-day treatment with medicated feed containing Romet® was recommended. Keweenaw Bay TFH biologists reported the mortality and clinical disease associated with furunculosis were no longer present following the second treatment with Romet®.

Tribal fish hatcheries in the Midwest Region rear numerous species of fish for stocking into both tribal and public waters, including walleye, muskellunge, brook trout and lake trout. As part of the Fish and Wildlife Service's partnership with tribal natural resource agencies, the La Crosse FHC provides inspection and diagnostic services to these hatcheries, including the Keweenaw Bay facility.

For further info about the La Crosse FHC: http://www.fws.gov/midwest/LaCrosseFishHealthCenter/

VHS Training Course Provided for Staff of the Native American Fish and Wildlife Society

BY SARAH BAUER AND COREY PUZACH, LA CROSSE FHC

Viral Hemorrhagic Septicemia virus (VHSV) has become a pathogen of major concern to hatchery and fisheries managers in the Midwest Region over the past seven years. This is due to the mortality events associated with the virus in numerous fish species and the detection of VHSV in waters outside of the Great Lakes drainage. For these reasons, surveillance for the virus has increased among federal, state and tribal agencies. The Native American Fish and Wildlife Society (NAFWS) is a national tribal organization with a mission to assist Native American and Alaskan tribes with conservation, protection and enhancement of their fish and wildlife resources. NAFWS staff will be assisting tribes in the Midwest Region by conducting wild fish health surveys for VHSV in tribal waters.

In March, Corey Puzach and Ken Phillips of the La Crosse Fish Health Center (FHC) conducted an informal VHS training course to two members of NAFWS. Lectures included signs of different fish pathogens, background information on VHSV, how to ship samples and disinfection techniques. Members also received hands-on training for aseptic techniques for collecting tissue samples from fish for virology testing, and they were shown which organs to sample and the proportion of tissue sample required. NAFWS is planning on taking VHSV samples in the Great Lakes basin. They will ship these samples to the La Crosse FHC for VHSV screening. Funding for the sampling will be provided by the U.S. Department of Agriculture – Animal and Plant Health Inspection Service.

-USFWS

Viral Hemorrhagic Septicemia virus (VHSV) has become a pathogen of major concern to hatchery and fisheries managers in Region 3 over the past 7 years, due to mortality events associated with the virus in numerous fish species, including yellow perch.

For further info about the La Crosse FHC: http://www.fws.gov/midwest/LaCrosseFishHealthCenter/

Restoration of the North Branch Manistee River and the Flowing Well Property

BY RICK WESTERHOF, GREEN BAY FWCO

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.

Conservation Resource Alliance (CRA) is leading the effort to restore the North Branch of the Manistee River and the Flowing Well Property (FWP). The North Branch of the Manistee River begins in Kalkaska County, Michigan, and runs through the 1,720 acre FWP. The river continues southwest and finally empties into Lake Michigan at the town of Manistee. The FWP is an abandoned trout farm recently acquired by the Grand Traverse Regional Land Conservancy and transferred to the State of Michigan in 2008. The old trout farm consists of dilapidated raceways and a series of seven small dams impounding the rivers, diverting the natural stream channel, trapping sediments and artificially warming water temperatures which reduces water quality, blocks nutrient transport, and inhibits fish passage. Plus, there are numerous beaver dams on the property causing extensive damage to the river channels and banks.

-CRA/JillRowley

Staff from the Michigan Department of Natural Resources, Conservation Resource Alliance and Fish and Wildlife Service team up to move a large log in the North Branch of the Manistee River.

On May 5, CRA staff, Michigan Department of Natural Resources (DNR) personnel and Rick Westerhof from the Green Bay Fish and Wildlife Conservation Office (FWCO) spent the day removing beaver dams and clearing logs jams and debris from the original channel of the North Branch of the Manistee River and the upper end of the artificially created channel that diverted water to the hatchery rearing ponds. The crew started in the lower end of the North Branch River and worked part of the way up river removing logs and debris and placing them strategically along the bank to prevent further erosion. One large beaver dam was dismantled stick by stick to open up the channel for additional water when the upstream diversion dam is completely removed. In the artificially created channel, a recently constructed beaver dam was removed to slowly drain the large pond adjacent to the original stream channel. The large pond was created years ago by constructing an earthen berm between the artificial and original stream channel for supplying water to the raceways.

The weather was perfect, the company outstanding and the prospects of restoring the river to benefit fish and wildlife resources were excellent. Given the amount of restoration necessary on the North Branch of the Manistee River and the FWP, there will be more opportunities to assist with the removal of beaver dams, log jams, diversion dams and tree plantings for years to come.

Funding for the restoration of the North Branch of the Manistee River and FWP has been provided by the National Fish and Wildlife Foundation, Sustain Our Great Lakes Stewardship grants, and the Fish and Wildlife Service's Great Lakes Basin Fish Habitat Partnership.

For further info about the Green Bay FWCO: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf

One Man's Trash Could be a Fish's Worst Nightmare

BY COLBY WRASSE, COLUMBIA FWCO

I have always been fascinated by how fish interact with their environment, and in many bodies of water, this environment includes a good deal of manmade debris (i.e. trash). In some of our large rivers, sunken boats, refrigerators and plastic bottles are as much a part of the aquatic environment as gravel bars and weed beds. In my life, I have been witness to several instances where fish meet trash.

-USFWS

Staff from the Columbia Fish and Wildlife Conservation Office have captured dozens of shovelnose and pallid sturgeon which have rubber bands or canning jar seals wrapped around their body. Fortunately for this pallid sturgeon, the canning jar seal was removed before any major trauma occured.

From my youth, I have fond memories of fishing the "barrel" in our local river. The "barrel" was actually an old hot water heater which was half buried in the substrate. This particular piece of trash created a nice current break which attracted bass, panfish and catfish, and provided the Wrasse brothers with years of good fishing. On another occasion, while wading a lake, I came across a large truck tire that had something shiny inside. On closer inspection, the shiny object was a large grass carp which had become trapped inside. After wrangling the tire to shore, my dad helped me pry the fish out of the tire, and with the exception of a few scrapes the fish appeared to be in good shape. Unfortunately not all fish - trash interactions are as innocent.

While sampling this winter, we captured a federally endangered pallid sturgeon which had become entangled in a rubber canning jar seal. Sadly, this was not a big surprise. In the four years I have worked on the Missouri River, we have captured dozens of shovelnose sturgeon which have rubber bands or canning jar seals wrapped around their body. Many times these fish have been entangled for several years, and the fish actual begins growing around the rubber band (like an oak tree growing around a barbed wire fence). Eventually the rubber band cuts into the flesh creating open wounds which are often infected. In extreme cases, the rubber band will actually cut into the body cavity, exposing internal organs. Entangled sturgeon are usually emaciated and less vigorous than unaffected sturgeon. It is a testament to the hardiness of these fish, that at least some individuals can survive such trauma, but we will never know how many didn't survive the ordeal. When we capture a sturgeon with a rubber band, we cut the rubber band and remove it as carefully as possible. The number of sturgeon we capture bearing the trademark scars of past rubber band trauma is a promising sign that some of these fish can survive and thrive once the rubber band is removed.

-USFWS

A particularly bad wound is caused by an embeded rubberband to this sturgeon, that was captured during an assessment by the Columbia Fish and Wildlife Conservation Office.

On the bright side, over the last couple years we have noticed a decrease in the number of rubber band sturgeon we catch. Perhaps the large river cleanups organized by Missouri River Relief (MRR) have made the Missouri River a safer environment for sturgeon. Furthermore, because of organizations like MRR, the people of the Missouri River Valley are becoming more environmentally conscious and better stewards of their river. This increased awareness and ownership of the Missouri River will mean a cleaner river for future generations of people and fish.

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

Lake Michigan Forum and Watershed Academy Meetings

BY PATRICK FORSYTHE, GREEN BAY FWCO

Green Bay Fish and Wildlife Conservation Office (FWCO) biologist and Lake Michigan Lake-wide Management Plan (LaMP) coordinator Patrick Forsythe attended the Lake Michigan Forum and Watershed Academy meetings held at the Blue Harbor Resort and Conference Center in Sheboygan, Wisconsin, in April.

In general, the Lake Michigan Forum (http://lakemichiganforum.org/about) is a representative group of public stakeholders that provides input to the U.S. Environmental Protection Agency (EPA) on issues related to the goals and objectives of the LaMP. The purpose of the Lake Michigan Watershed Academy (http://lakemichiganacademy.org/) is to instruct regional planning commissions on environmental issues and challenges facing Lake Michigan, particularly those with connection to the LaMP. Around 50 individuals representing the EPA, Fish and Wildlife Service, Wisconsin Department of Natural Resources, local and tribal governments, as well as universities, advisory groups and non-governmental organizations attended this joint meeting.

The main topics discussed during the Forum and the Academy included: Land Cover Analysis and Quantification of Impervious Surfaces, Conservation Development and Ecological Storm Water Management, the Great Lakes Restoration Initiative 2012, the Lake Michigan Water Trail, delisting projects and targets for the Sheboygan River Area of Concern, options for Ecological Separation of Lake Michigan, and the Nature Conservancy Biodiversity Conservation Strategy for Lake Michigan. The Lake Michigan Technical Coordinating Committee also convened briefly during this time and discussed the goals and objectives of the Biodiversity Conservation Strategy and the 2011 State of Lake Michigan Conference to be held at the Stardust Event Center and Blue Chip Hotel, September 26 –28 in Michigan City, Indiana.

For further info about the Green Bay FWCO: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf

Great Lakes Basin Fish Habitat Partnership

The international Great Lakes Basin is a unique and biologically diverse region containing the largest surface freshwater system in the world, with sport and commercial fisheries valued at over $7 billion annually. The fishery and aquatic resources of the Great Lakes have suffered detrimental effects of invasive species, loss of biodiversity, poor water quality, contaminants, loss or degradation of coastal wetlands, land use changes, and other factors.

The Basin includes all of Michigan; portions of New York, Pennsylvania, Ohio, Indiana, Illinois, Wisconsin, and Minnesota in the United States, and Ontario and Quebec in Canada. It covers 295,710 square miles, including 94,250 square miles of surface water and 201,460 square miles of land in the United States and Canada.

The Great Lakes and connecting waters have over 11,000 miles of coastline.

Green Bay FWCO Fisheries Presents at Careers on Wheels

BY TED TRESKA, GREEN BAY FWCO

Green Bay Fish and Wildlife Conservation Office (FWCO) biologist Ted Treska presented the role of the Green Bay FWCO at the "Careers on Wheels" event held in Sturgeon Bay, Wisconsin. Over 500 3rd, 4th and 5th graders from Door and Kewaunee counties participated in the event, which featured almost 30 professionals outlining their careers ranging from public utility workers to county sheriffs, helicopter medevac to veterinarians.

Treska pulled the station's 23 foot work boat up to the event on the sunny Tuesday morning and laid out equipment to show how staff collects fish and other physical and chemical data. Covering activities ranging from trawling to pulling gillnets, boat safety to data collection in a nine minute presentation to a group of up to 25 energetic youngsters proved daunting, but it soon became obvious that the hands-on parts were what really got them involved. Feeling the Gumby (survival) suit, trying on the float coat, climbing in the boat and looking at all the lifting equipment were the hits of the day, and kids could hardly wait to get in the boat. Some lucky participants even got to take home a lake trout or lake whitefish scale or desiccated lake trout egg found on the boat as a souvenir.

The event went very well and was expertly coordinated. The fickle spring weather of northern Wisconsin cooperated to make it a success. It is certain that we have seeded the interest of future scientists.

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.

-ColleenElliott

Biologist Ted Treska and future fish biologists try out fishery assessment gear during the "Careers on Wheels" event held in Sturgeon Bay, Wisconsin.

For further info about the Green Bay FWCO: http://www.fws.gov/midwest/Fisheries/library/StationFactSheets/greenbay.pdf

Welcome Aboard!

BY MARK STEINGRAEBER, LA CROSSE FWCO

Ashley Kast is the newest addition to the La Crosse, Wisconsin, fisheries program team in La Crosse, Wisconsin. Ashley grew up in Sparta, Wisconsin, and recently graduated with honors from Western Technical College in La Crosse. She is both excited and extremely appreciative to start her career as an Office Support Specialist at the La Crosse Fish Health Center. Beside FHC duties, Ashley also provides office support for the La Crosse Fish and Wildlife Conservation Office (FWCO). In addition to performing work that is largely behind the scenes, Ashley recently joined us in the field at the Tomah Veterans Administration fishing day event where she snapped photos and measured fish. Ashley brings a youthful perspective and cheery personality to our offices.WELCOME ABOARD!

-USFWS

Ashley Kast is starting her career with the Fish and Wildlife Service as the office support specialist at the La Crosse Fish Health Center.

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

Congressional Actions

S. 1201 (is) To conserve fish and aquatic communities in the United States through partnerships that foster fish habitat conservation, to improve the quality of life for the people of the United States, and for other purposes

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

S. 651 (is) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in Senate]

H.R. 1160 (ih) To require the Secretary of the Interior to convey the McKinney Lake National Fish Hatchery to the State of North Carolina, and for other purposes. [Introduced in House]

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]

S. 632 (is) To amend the Magnuson-Stevens Fishery Conservation and Management Act to extend the authorized period for rebuilding of certain overfished fisheries, and for other purposes. [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]

H.R. 1646 (ih) To amend the Magnuson-Stevens Fishery Conservation and Management Act to preserve jobs and coastal communities through transparency and accountability in fishery management, and for other purposes. [Introduced in House]

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

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

Midwest Region Fisheries Divisions

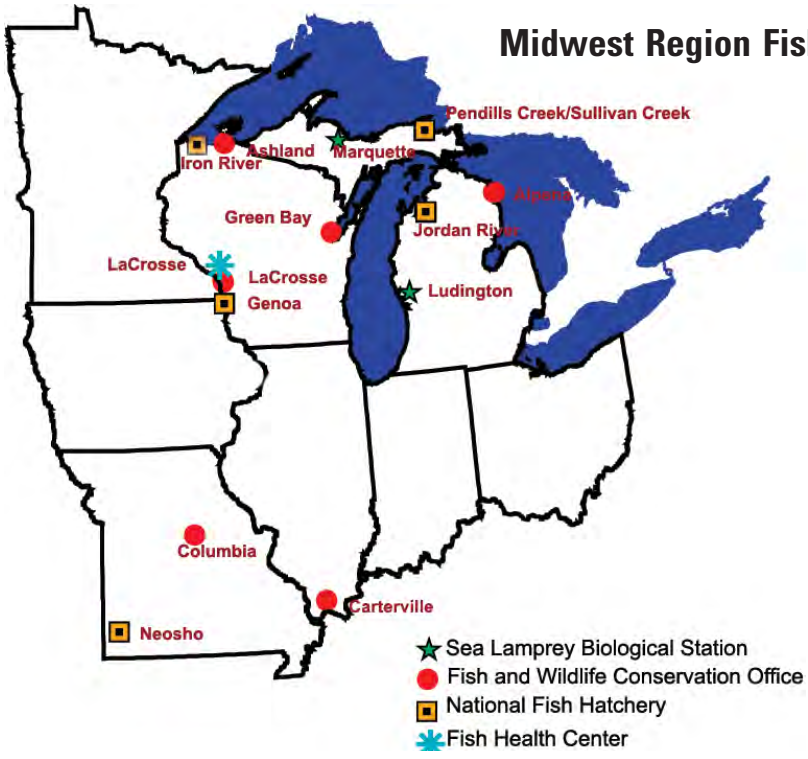
National Fish Hatcheries
The Region's National Fish Hatcheries primarily focus on native fish restoration/rehabilitation by stocking fish and eggs, such as pallid and lake sturgeon and by developing and maintaining brood stocks of selected fish strains, such as lake trout and brook trout. Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, stock rainbow trout in fulfillment of federal mitigation obligations and assist with recovery of native mussels and other native aquatic species.

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 Field Offices



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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.

Ashland FWCO Fish Biologist Receives "Resource Professional Award"

On February 5, 2011, in Stevens Point, Wisconsin, the Wisconsin Trout Unlimited State Council presented Ashland Fish and Wildllife Conservation Office's senior biologist Henry Quinlan with their "Resource Professional Award." Below is the narrative submitted by Henry's colleagues to Wisconsin Trout Unlimited on Henry's behalf:

"Henry has been a fisheries biologist with the U.S. Fish & Wildlife Service in Ashland since 1996. As a "fed", Henry does not have the management authority of his state counterparts. So to conserve, protect, and enhance depleted coaster brook trout populations, Henry has worked over 15 years to foster cooperation between the various resource parties involved. Henry has worked with state, federal, tribal, academic, and non-governmental partners to accomplish the following:

- ***He cooperated in the establishment of a coaster brood stock management plan and the start of two coaster brook trout brood lines.***
- ***He spearheaded the stocking of coasters at four locations in Wisconsin, Minnesota, and Michigan.***
- ***He developed the innovative, solar-powered, PIT-tag technology being used on Whittlesey Creek to better understand coaster movement between tributaries and Lake Superior.***
- ***He has authored or co-authored many papers and reports that have expanded our understanding of coaster brook trout.***

Henry will say that he doesn't have all the answers for what it will take to ensure coaster brook trout rebound for future generations. But Henry's dedication, commitment, and professionalism will surely help others figure out the answers."

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