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

Fish Lines

"Let's Go Outside"
Projects Planned for Genoa NFH

Tons of Trucks Equals Tons of Fun

Sea Lamprey Program Applies New Treatment Strategy on Lake Erie Tributaries

Conserving America's Fisheries
U.S. Fish & Wildlife Service

Vol. 6 No. 7
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Fish Lines
Fisheries & Aquatic Resources Program - Midwest Region

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

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

Features

-USFWS
Adult lake sturgeon spawn in the rocks on the Wolf River in Eastern Wisconsin (some fish approach 6 feet in length and weigh over 200 pounds).

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

Fish Lines
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-USFWS

Top inset image is lake trout eggs. Bottom inset image and main image are lake trout sac fry. Pictures taken at the Iron River National Fish Hatchery

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

Conservation Briefs 8-20

"Lets Go Outside" Projects planned for Genoa NFH

BY JENNY WALKER, GENOA NFH

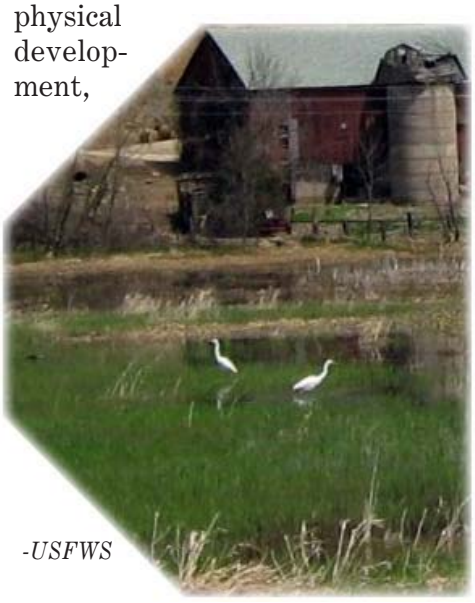
Genoa NFH plans to introduce its new "Wonders of Nature" Outdoor Education Program in the summer of 2008. The program will feature a variety of new opportunities that will enhance the environmental education and outdoor recreation activities currently in place at the Hatchery.

-USFWS

This youngster takes a closer look at life in one of Genoa National Fish Hatchery's fish-culture ponds.

The Hatchery annually hosts several activities such as a Kid's Fishing Day event in which participants (ages 6-12) learn about fish, fishing as a recreational sport, and boating safety on the Mississippi River. The event introduces kids to a healthy lifetime sport and increases their appreciation for conservation. The Hatchery also features a self-guided tour of the grounds, which has some of the best bird watching in the United States, and is open for guided educational tours throughout the year.

A closer look at the needs of children today has revealed that "connecting with nature" is part of a child's healthy growth and development - current research even shows that without repeated exposure to nature, children may fall behind in psychological and physical development, even to the detriment of emotional health. To increase a child's chances of "connecting with nature" in ways that meet school curriculum for science and health, Genoa has set aside 30 acres of a working wetland for discovery, exploration, nature observation and conservation education. The Sense of Wonder Discovery Wetland promises to be a safe haven for migrating birds, amphibians, turtles, fishes, wetland plants and nature lovers.



-USFWS

An outdoor classroom will be constructed at this wetland site as part of Genoa National Fish Hatchery's "Wonders of Nature" outdoor education program.

Genoa NFH will receive more than $95,000 in 2008 to enhance their visitor facilities as a result of the National Fish Hatchery System Volunteer Act of 2006, which local Representative Ron Kind (3rd District of Wisconsin) was instrumental in moving to the President's desk. Construction of a boardwalk with observation decks leading into the discovery area is scheduled to begin in July, 2008. The boardwalk will lead explorers through a natural wetland. Throughout the tour, there will be plenty of opportunities to stop and enter the wetland (off-trail) if explorers choose to do so. The boardwalk will be handicap accessible to make exploring the marsh available to everyone. One main observation deck

and two satellite observation decks will be constructed around the oxbow river channel that runs through the wetland. Each deck will feature seating and plenty of space for explorers to watch wildlife.

The main observation deck will double as the main stage for an outdoor classroom. Seating areas and the floor of the main deck will provide a flat, dry area for lectures and data collection. The marsh will provide a place for kids of all ages to learn sampling techniques, species identification skills, and recreation and conservation education.

In conjunction with the wetland boardwalk, a handicap accessible fishing dock will be a permanent addition to one of Genoa NFH's earthen ponds. The pond will be open to persons with disabilities hoping to catch "the big one." Hatchery staff will keep the pond stocked with rainbow trout, yellow perch, black crappie, bluegills, smallmouth bass, largemouth bass and walleye. Fishing will be open to persons with accessibility needs, and the dock promises to enjoy a lot of use because of its visibility from scenic Highway 35 which runs through the hatchery property. For those wishing to tour the hatchery, the parking lot for the self-guided tour is adjacent to the planned fishing dock. Future plans to increase visitor services include construction of a picnic pavilion where families can enjoy a picnic lunch.

This graphic depicts a proposed layout for the Sense of Wonder boardwalk planned for the 30 area wetland learning center at the Genoa National Fish Hatchery.

Genoa NFH encourages educational and responsible recreational use of these public lands, not only for the future of fish and wildlife conservation but for the simple enjoyment and pleasure of the people from the local communities and visitors to the area. Keep an eye open on our website for planned all-day youth camps and other educational and recreational opportunities throughout the year (http://www.fws.gov/midwest/genoa/)!

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

Sea Lamprey Program applies New Treatment Strategy on Lake Erie Tributaries

BY LISA CORRADIN, MARQUETTE BIOLOGICAL STATION

Sea lamprey control efforts began on Lake Erie in 1986, with every infested tributary being treated once within a 10 month period to eradicate invasive sea lamprey larvae. Reductions in parasitic sea lamprey abundance were obvious almost immediately, and abundance remained within or near target levels for eight years.

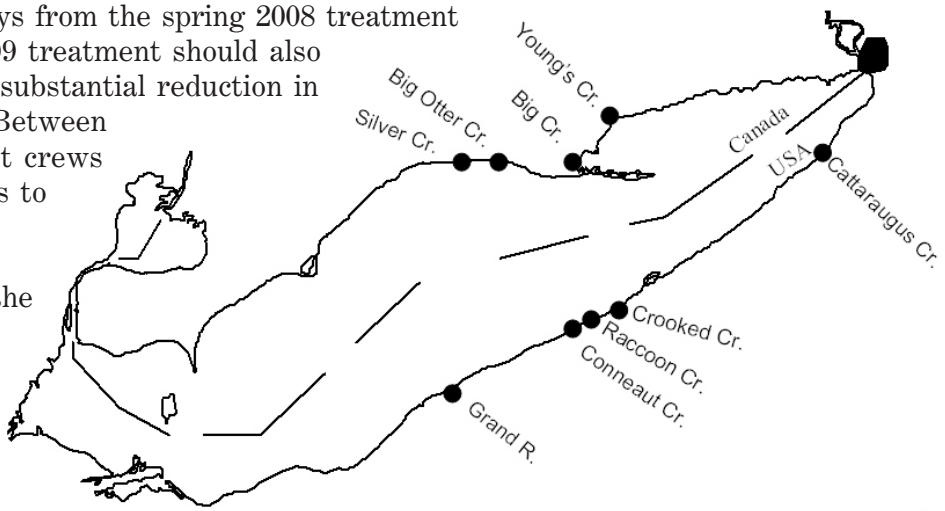
Adult lampreys attach to fish and feed on their body fluids, leaving a scar (mark) after detaching from the fish. Lake trout marking rates are tracked throughout the Great Lakes as an indicator of sea lamprey abundance. Unfortunately, parasitic sea lamprey abundance has been above the target level of 5 marks/100 lake trout in Lake Erie since 2005, and this increase has inhibited lake trout rehabilitation. In response, the Sea Lamprey Management Program is implementing a revised lampricide treatment strategy for infested Lake Erie tributaries. All major sea lamprey producing tributaries of the lake are being treated this spring and the treatments will be repeated during the fall of 2009. These streams include Cattaraugus Creek (New York), Crooked and Raccoon creeks (Pennsylvania), Conneaut Creek (Pennsylvania and Ohio), and the Grand River (Ohio), along with four Ontario tributaries.

-CORA

Invasive sea lamprey scars are evident on this native lake trout.

The "back-to-back", or "whole-lake", treatment scenario is based on ideas developed from fisheries managers during the 1985 "Workshop to Evaluate Sea Lamprey Populations". Typically, infested Lake Erie tributaries would be treated every 3 to 4 years depending on larval abundance, growth and size structure information from stream surveys. By treating infested streams in consecutive years, we hope to eliminate any surviving lampreys from the spring 2008 treatment during the fall 2009 treatment. The 2009 treatment should also remove the 2009 year class, creating a substantial reduction in spawning lampreys beginning in 2010. Between the consecutive treatments, assessment crews will use backpack electrofishing surveys to evaluate the effectiveness of the 2008 treatments and to determine upstream distribution of larval sea lampreys for the 2009 treatments.

We hope to be able to report good results from the "back to back" lampricide treatment strategy in Lake Erie beginning in 2010, with benefits to the fish community to follow.



These nine major tributary streams to Lake Erie will be treated this spring and again in the fall of 2009 to remove invasive sea lampreys, before the lampreys enter the Lake and become parasites on native fish.

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

Tons of Trucks equals Tons of Fun

BY COLBY WRASSE AND PATTY HERMAN, COLUMBIA NFWCO

What young child hasn't been awestruck by the massive size of a fire engine or the sheer power of a bulldozer? I remember the excitement that pulsed through my childhood neighborhood as a fire engine roared down the street. For young and old alike, there is just something cool about big trucks. This is the idea behind the annual "Tons of Trucks" event held in Columbia, Missouri. This one-day event gathers large trucks and equipment from across the community and displays them for young children and their families to experience. Children have an opportunity to sit behind the wheel, pump the gas pedal, and honk the horn (they really love to honk the horn). This type of direct experience is one of the best ways for children to learn about the world around them.

This was the first year that Columbia NFWCO has taken part in this great event. We polished up our 26 foot, 375 horsepower, big river trawl boat and displayed it for the community to experience. We also brought along live native fish. Children had a blast climbing around in the spacious trawl boat, shifting gears, shifting the throttle, and of course honking the horn. But the highlight of the event was the live fish display. The catfish and shovelnose sturgeon stole the show, intriguing both children and parents. For many, this was the first time they had seen these native fish.

-USFWS/PattyHerman

Colby Wrasse talks about the blue catfish to a crowd of onlookers at the "Tons of Trucks" event in Columbia, Missouri.

Despite a cool and rainy day, nearly 1,000 people participated in this year's "Tons of Trucks." The annual event is co-sponsored by Columbia Parks & Recreation and Parents as Teachers. While this was our first year, we hope to participate for many years to come. The enthusiasm for fisheries and conservation generated from this one event has been overwhelmingly positive and lasting. While in the grocery store after work (still in uniform) another customer and her young son cheerfully greeted us; "Hey, there's the sturgeon scientists!" She proudly informed us that she recently read a very interesting article on sturgeon. She also noted how the experience of seeing and touching sturgeon at "Tons of Trucks" focused her attention to the article. This event was a great opportunity for us to educate the public and spread our conservation message.

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

Ohio River Basin Habitat Partnership

BY ROB SIMMONDS, CARTERVILLE NFWCO

Partnerships are essential for effective fisheries conservation. Many agencies, organizations, and private individuals are involved in fisheries conservation and management, but no one can do it alone. Together, these stakeholders combine efforts and expertise to tackle challenges facing fisheries conservation. The success of these partnerships will depend on strong, two-way communications and accountability.

Where to begin…it has certainly been a very busy and exciting couple of months for the Ohio River Basin Habitat Partnership! Most exciting was our first major gathering as a partnership, held in Frankfort, Kentucky, in mid-April. This two-day meeting was attended by over 40 people interested in aquatic habitat. Most impressive was the diversity of interests represented. While we identified several additional entities that should be invited in the future, the 22 different agencies and organizations that were present was certainly a great start.

A major purpose for the meeting was to introduce the National Fish Habitat Action Plan and then to identify how we can come together as a group to accomplish aquatic habitat conservation and restoration projects in the Ohio River basin. Through some very healthy discussion, we arrived at a draft "identity" statement:

> *"The Ohio River Basin Habitat Partnership will focus our conservation, restoration, and enhancement efforts on habitat for fish and mussels in the watersheds of the Ohio River Basin where priority habitat can be protected and in watersheds where habitat restoration is feasible, especially when they connect to watersheds with priority habitat. For the benefit of…"*

While there are several comments to be considered on the draft as well as a number of thoughts on what constitutes "priority habitat," we did take a first step forward in identifying who we are. There will certainly be more discussion and likely several iterations before our "identity" becomes our vision or our mission statement. Fortunately, we will have opportunities to have those discussions as we move forward on development of our strategic plan.

But before getting into strategic planning, our April meeting also produced lists of folks that were interested in several interim committees, including our Steering Committee, Partnership Development/Maintenance Committee, Strategic Planning Committee, Science/Monitoring Committee, Outreach Committee, Implementation Committee, and we identified needs for additional committees such as Fundraising and possibly Policy. Rob Simmonds of the Carterville NFWCO was identified as interim coordinator.

With that many folks willing to step forward, we were excited to hear about the "More Fish" grant coming through. We were also very excited to hear that we will likely receive Fish and Wildlife Service funds to support work with The Nature Conservancy to develop our strategic plan. Now if we can just get funding (along with our fellow partnerships in the Midwest Region), to get rolling on our basin-wide assessment, we will have hit the trifecta!

It is truly an exciting time for the Ohio River Basin Habitat Partnership as we look forward to a very productive year!

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

Keeping Informed

BY BECKY LASEE, LA CROSSE FHC

On March 27, Becky Lasee (La Crosse FHC), Pam Thiel (La Crosse NFWCO) and Doug Aloisi (Genoa NFH) met with regional U.S. Congressional staffers Karri Jackelen (Congressman Ron Kind), John Medinger (Senator Herb Kohl), and Matt Nikolay (Senator Russ Feingold). The briefings included discussions of serious aquatic invasive species (including viral hemorrhagic septicemia virus), restoration and recovery programs, National Fish Habitat Action Plan (e.g., Driftless Area Restoration Effort), Kid's outdoor programs (e.g., Children and Nature Program) and Fish and Wildlife Service student employment programs.

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

Conservation Workshop hosted by Congressman Candice Miller

BY JIM BOASE, ALPENA NFWCO and RICK WESTERHOF, GREEN BAY NFWCO

On March 3, Congresswoman Candice Miller hosted a Conservation Workshop at the Huron Pointe Sportsmen's Association in Lenox Township, Michigan. The Fish and Wildlife Service teamed up with the Natural Resources Conservation Service (NRCS) to present funding programs available to constituents in Miller's district.

Jim Hudgins, state coordinator for Partners for Fish and Wildlife, presented the Fish and Wildlife Service habitat restoration and Fisheries program overview. The habitat programs included the Coastal Program, Partners for Fish and Wildlife, and Fish Passage Program, while the Fisheries program included native species restoration. Garry Lee, state conservationist for NRCS, presented the Wildlife Habitat Incentives and Environmental Quality Incentives programs.

-USFWS/BobKavetsky

Congresswoman Candice Miller and biologists from the Fish and Wildlife Service and Natural Resources Conservation Service listen as Michigan Department of Natural Resources biologist Ernie Kafcas presents information about Federal funds used to restore St. Johns Marsh.

After the presentations, there was a question and answer session where experts from the Coastal Program (Bob Kavetsky, East Lansing Ecological Services Field Office), Partners for Fish and Wildlife (Michelle Vander Haar, Shiawassee NWR), Fisheries (Jim Boase, Alpena NFWCO) and Fish Passage Program (Rick Westerhof, Green Bay NFWCO) were available to field questions. Other Fish and Wildlife Service employees in attendance included Jerry McClain (Alpena NFWCO) and Craig Czarnecki (East Lansing Field Office).

Jim did a great job with the overview presentation and the expert staff from both agencies did a wonderful job answering questions and explaining the various missions of the Fish and Wildlife Service. Most importantly, this forum provided an excellent opportunity for Fish and Wildlife Service personnel to interact with more than 100 people and demonstrate our valuable programs.

For further information regarding each of these Fish and Wildlife Service programs, please contact:

Coastal Program, 517-351-5293, bob_kavetski@fws.gov
Partners for Fish and Wildlife, 989-777-5390 (ext 12), michelle_vanderharr@fws.gov
Fisheries, 248-894-7594, james_boase@fws.gov
Fish Passage Program, 989-356-3052 (ext 16), andrea_ania@fws.gov
Midwest Region Public Affairs, 612-713-5313, charles_traxler@fws.gov

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

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

La Crosse FHC hosts Annual Fish Health Biologist Meeting

BY KEN PHILLIPS, LA CROSSE FHC

Ken Phillips of the La Crosse FHC arranged the annual Fish Health Biologist Meeting which was held in Brookfield, Wisconsin. The meeting brings together biologists from nine National Fish Health Centers and the Washington Office coordinator to discuss fish health policies, invasive disease outbreaks, budgets, operational needs projects, investigational new animal drugs, and the National Wild Fish Health Survey.

Terry Ott, Corey Puzach, Eric Leis and Becky Lasee of the La Crosse FHC represented the Midwest Region at the meeting. Corey participated in the Wild Fish Health Survey database training. An informative part of the meeting was a tour of the veterinary services facility at the Milwaukee County Zoo.

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

Laboratory Testing Services provided to State Partners

The La Crosse Fish Health Center provided laboratory testing services in March to the Illinois Department of Natural Resources (Little Grassy and Jake Wolf Fish Hatcheries) and the Ohio Division of Wildlife (from St. Mary's River).

Ashland NFWCO assists with Western Great Lakes Region Owl Monitoring

BY PAM DRYER, ASHLAND NFWCO

Increasing concern about the distribution, population status and habitat loss for nocturnal raptors have prompted partners of the Wisconsin and Minnesota Bird Conservation Initiative to begin monitoring owl populations. Birds of prey occupy the top of the food chain and may be susceptible to environmental toxins and contaminants, making them important to monitor as indicators of environmental health.

Due to their nocturnal behavior and time of breeding, owls often go undetected when using traditional methods to monitor bird populations such as Breeding Bird Survey routes. In 2005, a large scale, long-term survey to monitor owl populations was implemented in the Western Great Lakes region (Wisconsin and Minnesota). Volunteers were solicited to run one or two standard routes after dark and count the number and species of owls they hear.

Pam Dryer of the Ashland NFWCO and volunteer Ellie Williams conducted a survey in early April as part of this effort. The ten mile route followed along less traveled roads in and near Hayward, Wisconsin. Volunteer efforts to monitor easily recognizable species are often cornerstones of bird monitoring in our nation. Pam and Ellie hope to continue their route each year.

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

Missouri River Crews cash-in on Pallid Sturgeon Brood Stock

BY WYATT DOYLE, COLUMBIA NFWCO

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

The confluence of the Osage River with the Missouri River has long been known as a prime spring fishing hole for recreational anglers. Columbia's NFWCO targeted this well known area in hopes that it would also serve as a pallid sturgeon staging area. Over the course of a week, crews worked with staff from the Big Muddy National Fish and Wildlife Refuge (NF&WR) and U.S. Geological Survey Columbia Environmental Research Center to soak over 4,000 trotline hooks in search of pallid sturgeon brood stock for the hatchery program. Unknown to the crews, dam operation at Bagnell Dam had ceased two days before fishing started, thereby creating perfect conditions for sturgeon that may be seeking refuge from high debris loads in the flooding Missouri River. For two days, our crews captured more adult pallid sturgeons per day than anytime in our 9 year history of sampling. In total, 4 wild adult fish ranging from 5-9 pounds were captured along with 3 adult hatchery-stocked fish in the first two days of effort. Crews continued working for 3 days after flows resumed in the Osage River, but the fish were gone. Sometimes everything works out and this was one of those times. Nebraska Game and Parks Commission efforts about 400 miles upstream of the Osage River collected a staggering 38 adult wild fish during the same week.

-USFWS

Cody Luebbering of the Columbia National Fish and Wildlife Conservation Office holds a brood stock pallid sturgeon captured in the Osage River near the confluence of the Missouri River.

This coordinated effort by over 100 staff and volunteers throughout the 800 miles of river resulted in the collection of over 40 wild adult pallid sturgeons in one week. This compares to about a dozen fish collected in over 4 months preceding this effort. This is the first time enough local brood stock have been collected to meet the needs of the hatcheries in the Lower Missouri River and will provide a template for future collection efforts by our crews.

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

Region 3 Hatchery sets Production Record AGAIN!

BY JAMES LUOMA, GENOA NFH

The National Fish Hatchery System (NFHS) produces a wide range of fish, amphibian, and freshwater mussel species in support of multiple fishery management goals. Whether producing animals for endangered species recovery, restoration of imperiled populations, supporting cooperative management initiatives with tribal, Federal and state cooperators, or providing and enhancing recreational fishing opportunities on National Wildlife Refuges or other Federal lands, the NFHS faces many challenges. One of the challenges faced is the ability to produce adequate numbers of disease-free, genetically sound fish and eggs to meet production goals. This challenge is exacerbated when hatcheries use wild or free-ranging populations.

Genoa NFH faces this challenge annually in order to meet its goals for egg, fry, fingerling and yearling production for cool-water fish. The Hatchery pro-

duces walleye, sauger, and northern pike to meet management objectives for endangered mussel recovery, cooperative management programs, and tribal trust responsibilities across much of the United States.

The egg sources for these programs are wild stocks of fish located in Pool 9 of the Upper Mississippi River, within the confines of the Upper Mississippi River National Wildlife and Fish Refuge (NW&FR). The need to collect wild fish in a system as large and dynamic as the Mississippi River offers special challenges to hatchery crews. The migratory nature of riverine fishes, highly fluctuating river levels, and natural population variability all affect the annual success of this operation. Despite these and other challenges, the Hatchery crew was able to collect in excess of 3.8 million northern pike eggs and 54 million walleye eggs to support fishery management plans. The resulting eggs and fish from these operations will be transferred to other cooperators in five states over the coming year to meet a wide range of fishery needs. Additionally, this year's egg take was conducted using strict and robust bio-security and disinfection measures to limit any potential disease transmission from the wild stocks into the Hatchery. This year's harvest represents a record production and bodes well for America's fisheries.

-USFWS

Genoa National Fish Hatchery personnel spawn a male walleye to fertilize a pan of eggs during spring netting and spawning operations in the Upper Mississippi River.

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

La Crosse FHC conducts Fish Health Inspections at National Fish Hatcheries

BY ERIC LEIS AND SARAH BAUER, LA CROSSE FHC

March is a busy month for the La Crosse FHC. Eric Leis and Sarah Bauer performed a routine fish health inspection on seven lots of lake trout and coaster brook trout at the Jordan River NFH in Elmira, Michigan. Corey Puzach, Eric Leis and Ryan Katona inspected 17 lots of warm-, cool- and cold-water fish at the Genoa NFH in Genoa, Wisconsin.

Viral and bacterial samples were collected from kidney and spleen tissues of fish and tested for "certifiable pathogens." The hard tissues of the fish heads are examined for the spores of *Myxobolus cerebralis* which causes whirling disease. Inspection services benefit hatcheries by certifying that healthy and disease-free fish stocks are available for recovery and restoration programs.

-USFWS

Sarah Bauer examines a lake trout at the Jordan River National Fish Hatchery during a routine fish health inspection.

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

Ruffe Control Program – Celebrate Success

BY GARY CZYPINSKI, ASHLAND NFWCO

While ruffe were first detected in the Duluth-Superior Harbor (Minnesota/Wisconsin) in 1986, they almost certainly arrived some years prior. By 1990, ruffe had established themselves as the most abundant member of that fish community based on bottom trawl captures.

It took 20 years for ruffe to expand across the south shore of Lake Superior from the Duluth-Superior Harbor (Western Lake Superior) to Whitefish Bay (Eastern Lake Superior). Based on projections by the U.S. Geological Survey, ruffe expansion across Lake Superior progressed at a pace similar to what would be expected for an unassisted migration rate. In Lake Huron, ruffe have not expanded outside of Thunder Bay River where they were initially detected in 1995, and no ruffe have been reported captured from Lake Huron since 2003. In Lake Michigan, it has taken five years (2002-2007) for ruffe to expand a distance of 88 km (55 miles), and no ruffe have been reported captured in Lake Michigan outside of Green Bay. Ruffe remain undetected in the Lower Great Lakes (Lakes Erie and Huron), as well as in all inland lakes and streams within the Great Lakes basin.

Five elements of the Ruffe Control Plan are likely to have contributed to delay the spread of ruffe in the Great Lakes and prevent their spread into inland waters. They include voluntary ballast water management, bait fish management, education, population reduction and surveillance, along with unfavorable habitat and inter-specific interactions. The success of the these elements of the Ruffe Control Program can be attributed to outstanding cooperation between Federal, state, tribal and provincial agencies; the Great Lakes Maritime Industry; the Great Lakes Sea Grant Network; Great Lakes bait fish associations; universities; media; sport anglers; and Great Lakes commercial fishing operations.

Aquatic Invasive Species

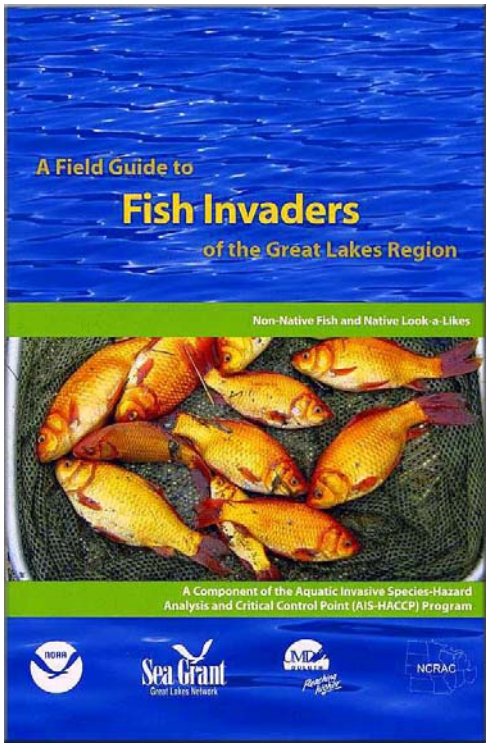
Aquatic invasive species are one of the most significant threats to fish and wildlife and their habitats. Local and regional economies are severely affected with control costs exceeding $123 billion annually. The Fisheries Program has focused its efforts on preventing introductions of new aquatic invasive 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 Ashland NFWCO: http://www.fws.gov/midwest/ashland/

Ashland NFWCO plans Invasive Fish Outreach

BY GARY CZYPINSKI, ASHLAND NFWCO

The Ashland NFWCO plans to purchase and distribute 1,000 copies of the aquatic invasive species publication "A Field Guide to Fish Invaders of the Great Lakes Region." This 20-page pocket-sized booklet, produced by Minnesota Sea Grant, contains color illustrations of invasive fish in the Great Lakes and distinguishes them from native fish of similar appearance. During implementation of the control plan for the invasive Eurasian ruffe, many of the ruffe discoveries were reported by anglers; therefore, the Ashland NFWCO plans to distribute this informative invasive fish booklet to bait shops along the north and south shores of Lake Superior for free distribution to anglers. This helpful tool will equip anglers to assist with implementation of early detection monitoring of invasive fish in Lake Superior and adjacent inland waters. Early detection monitoring is followed by appropriate levels of rapid response activities used in the management and control of invasive fish. A detailed description of the field guide is available at the Ashland NFWCO home page at:



http://www.fws.gov/midwest/ashland/
and also at:
http://www.seagrant.umn.edu/publications/X105.

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

Eldon High School has Earth Day Field Trip on the Missouri River

BY ANDY STAROSTKA, ANDY PLAUCK AND CLAYTON RIDENOUR, COLUMBIA NFWCO

A sunny day in April provided a great setting for an outdoor education day on the Big Muddy NF&WR for some high school students from Eldon, Missouri. Columbia NFWCO biologist Andy Starostka spent the morning talking with the advanced biology class and biology club students about large river systems, specifically the Missouri River as part of an Earth Day field trip. Thirty students and instructors broke up into groups and rotated between Starostka, Tim Haller and Wedge Watkins (Big Muddy NF&WR), and staff from Missouri River Relief, a non-profit organization that promotes river education and clean-up projects on the Missouri River.

Haller discussed ecology of turtles and other animals that make the Refuge their home. Watkins gave a presentation on butterflies and other insects found on the Refuge. Missouri River Relief staff discussed aquatic invertebrates and had preserved examples on hand. They also discussed upcoming Missouri River clean-up projects. Starostka discussed fisheries work conducted by the Columbia NFWCO, high-lighting work with sturgeon and habitat alterations to the river to meet human needs, persistent environmental contaminants and pharmaceuticals in the environment, and commercial harvest of shovelnose sturgeon for caviar.

Live sturgeons were on display to show students these unique and ancient fish. The live shovelnose sturgeons were a big hit because few of the students had ever seen or touched one. One brave girl wanted to hold the fish when all of her classmates were afraid of the primitive-looking creature.

Opportunities such as this are great for future generations of biologists. These high school students were already taking college level biology, indicating their interest in the field at a young age. A few expressed interests in a natural resources career while some just enjoyed being outside in the spring air. Partnering with the Refuge for outreach and education events provides an ideal opportunity to introduce young adults to the natural resource field.

The Fish and Wildlife Service acknowledges that providing awareness and educating others remains crucial to our efforts to conserve, protect and enhance our nation's aquatic resources. Many of the students were interested in the life history of river fishes and our monitoring efforts on the Missouri River. The students were encouraged to volunteer with us or other natural resources agencies to gain first-hand exposure and experience.

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

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.

Columbia helps to clean-up the Big Muddy in Hartsburg!

BY CHRIS MCLELAND, COLUMBIA NFWCO

Technicians from the Columbia NFWCO assisted the Missouri River Relief team, as well as a group of 150 volunteers, to clean-up a five mile stretch of the Missouri River near Hartsburg, Missouri. Technicians Chris McLeland and Cody Luebbering along with several other professionals from the Missouri Department of Conservation served as captains by shuttling volunteers to their pre-assigned clean-up sites. The River Relief team holds around five clean-up events annually along the entire length of the River from Nebraska to St. Louis, Missouri. The events are great successes due to the hard work of many dedicated volunteers.

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

School is in for Genoa NFH Biologists

BY TONY BRADY, GENOA NFH

Yogi Berra, former New York Yankee skipper, once said, "I think Little League is wonderful. It keeps the kids out of the house." "Out of the house" is where the Fish and Wildlife Service's Kids in Nature initiative wants to steer today's youth. One way Genoa NFH participates in this initiative is by accepting invitations for staff biologists to give presentations to local middle- and high- schools. Biologist Jenny Walker presented a river ecology lesson to the environmental studies class at the DeSoto High School located south of the Hatchery in Wisconsin. This class is offered to high school students who have an interest in a career in natural resources conservation. On the following day, the class joined Jenny for a tour of the Hatchery where they saw first-hand the type of work that goes on at a fish hatchery and the abundant nature that surrounds the Genoa facility. A second invitation was offered for mussel biologist Tony Brady to be the closing speaker for Waukon Middle School's Mississippi River curriculum unit. Waukon Middle School is located 30 miles southwest of the hatchery in Waukon, Iowa. A total of 105 seventh graders were rotated through in three shifts to hear the river ecology presentation. In addition to river ecology, the students learned about freshwater mussel life history and what it takes to become a professional biologist - good grades and lots of school.

-USFWS

Mussel biologist Tony Brady of the Genoa National Fish Hatchery gives a presentation to 7th graders at Waukon Middle School, Iowa.

Outreach efforts such as these are bringing excitement to students that will motivate them out of the house and into nature.

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

What Happened to all the Vegetation?

BY BRIAN ELKINGTON, COLUMBIA NFWCO

For the past few years, aquatic vegetation has been declining at DeSoto Lake, which in turn means less fish habitat. All that is left of a once thriving and diverse vegetation bed is a few patches of water lilies. The lake and NWR around it draw large numbers of visitors each year, estimated at upwards of 26,000 with recreational fishing being an important part of the DeSoto NWR. At the annual DeSoto Lake management meeting, discussions always include aquatic vegetation loss and the possible causes. Most of our hypotheses blame the presence of invasive common carp for reducing the vegetation, but with this year's experiment we may finally get an answer.

-USFWS/Brian Elkington

Marie Delatour and Brian Elkington complete a carp exclusion plot in DeSoto Lake at the DeSoto National Wildlife Refuge to determine if carp are the cause of declining aquatic vegetation in the lake.

The last week in April, Brian Elkington and Marie Delatour from the Columbia NFWCO, along with staff from DeSoto NWR, teamed up to construct 12 experimental plots in DeSoto Lake. The plots are 6 foot by 6 foot fenced off areas designed to keep common carp out; it is hypothesized that common carp are restricting vegetation growth due to their destructive feeding behavior. Our experiment will try to protect small test areas of the lake from carp and thereby provide vegetation the opportunity to grow. If vegetation grows inside the plots, then we can conclude that excessive numbers of common carp are the probable cause for aquatic vegetation losses. The team of biologists can then make management decisions based on these findings to help improve DeSoto Lake vegetation growth and ultimately the fish community that inhabit it.

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

La Crosse FHC conducts Fish Health Inspections at Red Cliff Tribal Fish Hatchery

BY COREY PUZACH, LA CROSSE FHC

On March 4, Corey Puzach of the La Crosse FHC performed a fish health inspection at the Red Cliff Tribal Fish Hatchery in Red Cliff, Wisconsin. The Red Cliff hatchery has developed a Lake Nipigon strain of Lake Superior coaster brook trout brood stock. The health inspection consisted of observing the hatchery facilities and collecting tissue samples from the five lots of coaster brook trout present at the hatchery. The tissue samples are being screened for bacterial (*Aeromonas salmonicida*, *Edwardsiella ictaluri*, *Renibacterium salmoninarum*, *Yersinia ruckeri*), viral (infectious pancreatic necrosis virus, infectious hematopoietic necrosis virus, viral hemorrhagic septicemia virus) pathogens, and parasitic (*Myxobolus cerebralis*) pathogens at the La Crosse FHC's laboratory facilities in Onalaska, Wisconsin. Brook trout that are free of these pathogens are stocked into Lake Superior and tributary streams in support of restoration plans.

Conserving this Nation's fish and other aquatic resources cannot be successful without the partnership of Tribes; they manage or influence some of the most important aquatic habitats both on and off reservations. In addition, the Federal government and the Service have distinct and unique obligations toward Tribes based on trust responsibility, treaty provisions, and statutory mandates. The Fisheries Program plays an important role in providing help and support to Tribes as they exercise their sovereignty in the management of their fish and wildlife resources on more than 55 million acres of Federal Indian trust land and in treaty reserved areas.

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

2009 Tribal Wildlife Grant Program

BY FRANK STONE, ASHLAND NFWCO

The Ashland NFWCO recently mailed announcements to our tribal contacts alerting them to the opening of the 2009 Tribal Wildlife Grant Program (TWG). Our intent was to insure that tribal resource managers and biologists were alerted of this resource funding opportunity and to remind them to contact the Ashland NFWCO for any technical assistance they may require.

The TWG funds will be available for grants that will benefit fish and wildlife and their habitats, including species that are not hunted or fished. Although matching funds will be considered as an indicator of tribal commitment to a project, they are not required. The maximum individual award under this program is $200,000.

During the first six years of the tribal grant program, Midwest Region tribes were awarded 56 grants totaling $9,135,276. These grant programs also support the efforts of tribal governments to develop or augment the capacity to manage, conserve or protect fish and wildlife species of concern through the provision of funding and technical support.

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

Opening Day of the 2008 Endangered Higgin's Eye Pearlymussel Inoculation Season

BY TONY BRADY, GENOA NFH

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.

April is a special month in the Upper Midwest in many ways. Spring breaks-free from the grip of winter, birds return from their southern vacation destinations, and we have "opening day." Most people think of Major League Baseball's opening day, but at Genoa NFH, April brings the opening day to the endangered Higgin's eye pearlymussel inoculation season.

-USFWS

A Higgin's eye pearlymussel displays its lure which is used to attract a potential host fish. When a fish approaches, the mussel expels larvae which attach to the gills of the fish during this early parasitic life stage.

The 2008 mussel season opening day was scheduled for April 21, but was postponed due to high river waters until April 28. Continued flooding in the Upper Mississippi River basin threatened to again push back opening day. Thanks to divers from the Minnesota DNR, who despite the high water levels and low water temperatures in the St. Croix River, saved the opener day when they hit a home run the week before by collecting ten female mussels. Eight staff from the Midwest Region's Fisheries and Endangered Species programs, Wisconsin DNR, Exelon Energy, and a retired professor from the University of Iowa joined Genoa NFH's mussel biologist Tony Brady to field a nine person team to take on the task of inoculating 700 largemouth bass with the mussel larva (glochidia) from the ten Higgin's eye pearlymussels.

For most of the volunteers, this was their first time assisting with an inoculation event. Their enthusiasm and excitement showed despite a cold, windy, and snowy day. This year's inoculation was special because mussels from this year's propagation effort will meet the target goals for the Mussel Coordination Team's (MCT) efforts for production of sub-adult mussels. With the target goals met, the focus of the MCT will switch from propagation to monitoring of the new Higgin's eye pearlymussel populations that have been established over the past five years from mussels propagated through previous mussel infestation events at Genoa NFH. Future propagation of this species will be contingent on the Fish and Wildlife Service's determination of a need for propagation as a tool in the recovery of this endangered species. The knowledge and techniques learned from the MCT's work have loaded the bases that could result in a grand slam of down-listing or even delisting the Higgin's eye pearlymussel from the Endangered Species List.

-USFWS

Kim Mitchell and Mike Hoff (background) inoculate largemouth bass with endangered Higgin's eye pearlymussel larvae called glochidia, as Genoa National Fish Hatchery's mussel biologist Tony Brady checks the intensity of an inoculation.

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

Habitat Assessment and Monitoring Program completes 2007 Field Season

BY ANDREW STAROSTKA AND CLAYTON RIDENOUR, COLUMBIA NFWCO

Loss and alteration of aquatic habitats are principal factors in the decline of native fish and other aquatic resources and the loss of biodiversity. Seventy percent of the Nation's rivers have altered flows, and 50 percent of waterways fail to meet minimum biological criteria.

Field work for the Habitat Assessment and Monitoring Program (HAMP), conducted by the Columbia NFWCO, concluded for the 2007 season on October 31, 2007. Work in 2007 was concentrated on 18 selected river bends on the Lower Missouri River located between St. Louis and Kansas City. HAMP is based on a "Before and After Control Impact" (BACI) experimental design intended to provide both general monitoring information and data to answer specific questions related to the effect of habitat construction. With the BACI design, we can ask questions about fish communities "Before and After," and compare to a "Control" reference condition, in response to an "Impact" (i.e., habitat construction).

-USFWS

Biologists examine a trawl sample as part of the Habitat Assessment and Monitoring Program on the Lower Missour River.

Both the biological and physical portions of HAMP are intended to monitor shallow water habitat that is currently being constructed by the U.S. Army Corps of Engineers on the channelized portion of the Missouri River. These projects are intended to provide aquatic habitat diversity to this portion of the Missouri River. The Bank Stabilization and Navigation programs have highly modified the river, and fish habitat diversity was lost due to these modifications. Although the underlying intent of HAMP and other mitigation projects is to recover the pallid sturgeon, it is recognized that improved aquatic habitat will be beneficial to many other species, including those sought by anglers.

2007 was the third field season for the biological portion of HAMP and Columbia NFWCO has a sound sampling design in place. An independent science review panel reviewed the program in 2006 and provided recommendations that were used to refine the program in 2007. All HAMP data sheets have been sent to the Missouri Department of Conservation for electronic entry and the data should be available for analysis during 2008. Field effort for Columbia NFWCO's portion of HAMP is an estimated 2,713 samples that yielded 109,043 fish. Memorable fish captures for the season include seven pallid sturgeons including one adult with a telemetry tag from a U.S. Geological Survey tracking study, and a flathead chub (*Platygobio gracilis*). Flathead chubs historically were an abundant species in the Lower Missouri River, but now are seldom captured. Other uncommon fish HAMP collected in the Missouri River included several species of darters (family Percidae) and young-of-the-year skipjack herring (*Alosa chrysochloris*). These results will lead to our vision in leadership in science to recover an endangered species and protect sensitive communities.

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

Whittlesey Creek Cozy Corner Project

BY PAM DRYER, ASHLAND NFWCO

Whittlesey Creek has been a symbol of hope for watershed restoration for many years. It's cold, constant flow has helped spawn and nurse trout and salmon. Its landowners have taken on restoration and management practices to improve stream health and the Barksdale Town Board has restored fish passage and reduced sediment inputs at road crossings.

The Cozy Corner Road culvert project will restore fish passage to the entire Whittlesey Creek system this summer. A bottomless arch culvert will

replace the 150 foot long damaged culvert that prohibits fish movement up or down the North Fork of Whittlesey Creek.

The Fish and Wildlife Service and its partners were successful in obtaining numerous grants this spring to keep the project alive. The project is large, especially for a town road, so assistance from many partners was needed. The most recent funding commitments are $40,000 from the Fish and Wildlife Service's Great Lakes Coastal Program, $30,000 from the Wisconsin DNR's Great Lakes Protection Fund, and $40,000 from the Fish and Wildlife Service's Fish Passage Program. With these commitments, Bayfield County Land Conservation Department can finalize the project design and bid the project for summer construction. The Town of Barksdale is also making significant in-kind and material contributions to make it happen.

Fish passage barriers, in general, fragment aquatic habitat for many native fish species and for several naturalized salmon species. In an intact watershed that is free of fish passage problems, fish are free to use the entire stream system as habitat. After a road interrupts stream continuity, fragmented populations are forced to survive independently. Over a short time, smaller populations are more likely to die of chance events, but over the long-term, genetic homogeneity and natural disturbances may extirpate larger populations. That is why this project could have major implications on the genetic integrity of coaster brook trout restoration in Whittlesey Creek.

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

Bad River Watershed Association Fish Passage Workshop

BY TED KOEHLER, ASHLAND NFWCO

The Bad River Watershed Association (BRWA) hosted a fish-friendly road crossing workshop on April 15 at the Town of Morse town hall in Mellen, Wisconsin. At this training, local professionals were brought together to present an overview of fish-friendly culvert installation for road crews and contractors within the Bad River watershed. It focused on reading and implementing engineering designs for fish-friendly road stream crossings. Approximately 45 people were in attendance at the workshop which consisted of presentations in the morning and a field trip to project sites in the afternoon. Michele Wheeler from the BRWA organized the event. John Simonson of the Wisconsin DNR talked to the group about the permitting process. Mike Pero from the Ashland County Land and Water Conservation Department spoke on designing fish-friendly crossings. Ted Koehler of the Ashland NFWCO talked about impacts of crossings and sediment on native species such as brook trout and naturalized species such as brown trout and rainbow trout.

This training is part of the BRWA's overall watershed/landscape approach to dealing with the issue of fish passage in the Bad River watershed. The BRWA Culvert Program includes conducting an inventory of all crossings in the Bad River watershed, identifying problem crossings with respect to fish passage and sedimentation, and working with towns and other local agencies to fix problem sites. Five sites for crossing work have been strategically selected for restoration this summer. Two are in the Town of Grand View on tributaries to the White River, two in the Town of Ashland on Billy Creek, and one in the Town of Anderson on Montreal Creek. The BRWA, Fish and Wildlife Service and the Wisconsin DNR will purchase pipes and/or provide funding for installation of fish-friendly crossings for these sites. The respective county Land and Water Conservation Departments will provide survey and design assistance and the Towns will directly install or assist with the installation at the project sites. The great working partnership developed in the Bad River Watershed serves as an example for other efforts around Lake Superior and the Great Lakes.

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

Hatchery Manager honored in Neosho, Missouri

BY KAY HIVELY, FRIENDS OF NEOSHO NFH (The Post)

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.

David Hendrix, manager of the Neosho National Fish Hatchery, is well known for his big friendly smile. It is so much a part of his appearance that it might be tempting to say it is actually painted on his face.

But while Dave's smile is genuine, there is a new version of Hendrix that is, indeed, "painted on" and will last for years to come.

In a magnificent tribute to this 30-year veteran of the U. S. Fish and Wildlife Service, nationally renowned artist, Anthony Benton Gude, chose Hendrix as a model for a new historic mural which now hangs in the Neosho (MO) City Hall.

Gude, after accepting a commission to do a 22-foot mural for the City of Neosho, made his first visit to the community in 2007. As he toured the town, he visited the Neosho National Fish Hatchery, with Hendrix as his guide.

Later, when the artist met with the local mural committee, he asked for a photograph of Hendrix as a young man. With the cooperation of Pam Hendrix, wife of the manager, a college graduation photograph was sent to the artist. Using this image, Gude depicted a young David Hendrix feeding fish at the hatchery.

Serving as a model for a mural of this magnitude is an honor, but it is perhaps even greater in this instance. Hendrix is the only citizen of the town who was selected to be in the mural.

The new mural, which reflects the history of Neosho during the decades of the 1950s and 1960s, is special in another very important way.

The artist, Anthony Benton Gude, is the grandson of the world-famous muralist Thomas Hart Benton who was born and raised in Neosho. And there is a strong relationship between Mr. Benton and the Neosho National Fish Hatchery. The hatchery was established in 1888 and the late Mr. Benton was born in Neosho the following year.

As a youngster, Thomas Hart Benton spent many hours playing at the hatchery which was near his childhood home. Numerous photographs survive showing Thomas Hart Benton on the grounds of the hatchery with several young friends after the artist returned from studying in Europe.

Even though Thomas Hart Benton created murals all over the nation, including the Truman Presidential Library and in the State Capitol Building in Jefferson City, he never created a mural for his hometown.

Now, that oversight of never getting a Benton mural is compensated with this new mural created by Anthony Benton Gude, grandson of Neosho's most famous citizen. And, anchoring the left side of the mural is young David Hendrix feeding rainbow trout.

-Kay Hively

David Hendrix, manager of the Neosho National Fish Hatchery, can't hold back his big friendly smile as he views the new mural in Neosho, Missouri, City Hall. Artist Anthony Benton Gude included Hendrix in the 22 foot mural as a young employee of the Fish and Wildlife Service.

For months, Hendrix was unaware that he would be in the mural, but shortly before the work was finished, it became necessary to take some current photographs which let the cat out of the bag.

At the dedication of the mural on May 2, Hendrix saw the mural for the first time and was able to meet the artist once again.

Needless to say, David Hendrix was humbled by the honor, but during the dedication ceremony that smile got bigger and bigger and bigger.

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

Congressional Actions

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

H.R. 2419 (enr) To provide for the continuation of agricultural programs through fiscal year 2012, and for other purposes. [Enrolled bill]

H.R. 6124 (eh) To provide for the continuation of agricultural and other programs of the Department of Agriculture through fiscal year 2012, and for other purposes. [Engrossed in House]

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

(enr) Directing the United States to initiate international discussions and take necessary steps with other Nations to negotiate an agreement for managing migratory and transboundary fish stocks in the Arctic Ocean. [Enrolled bill]

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

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

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

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

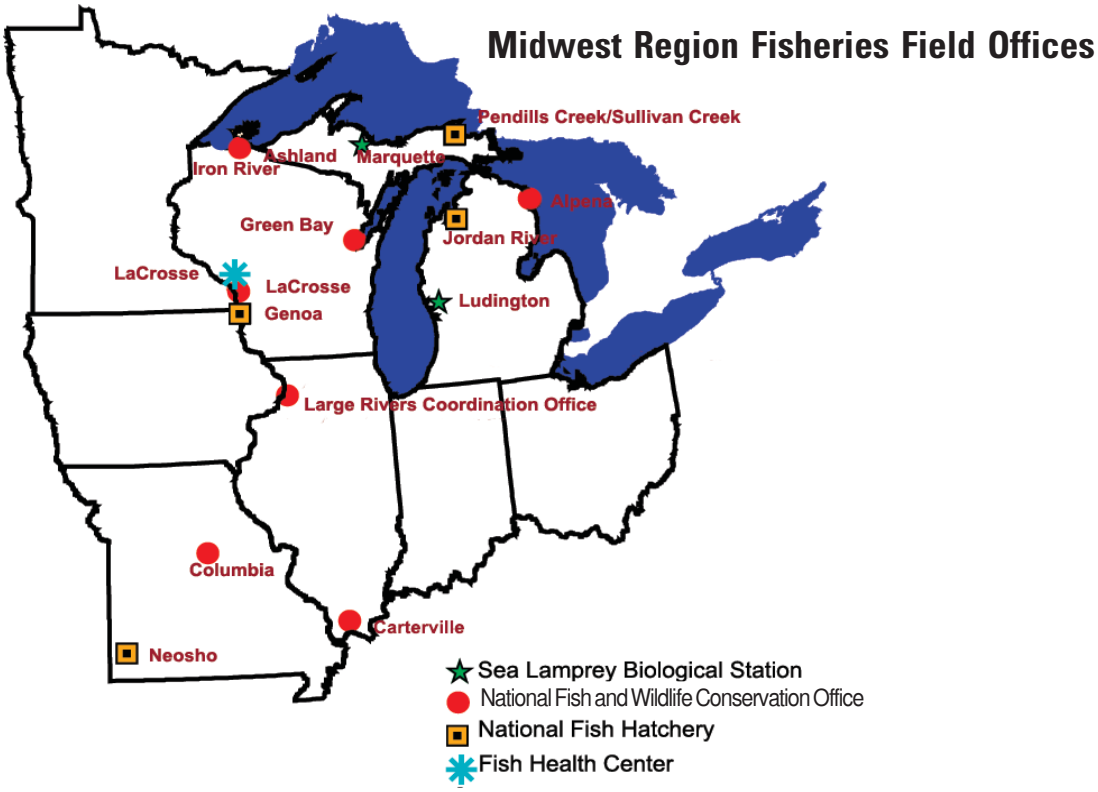
Midwest Region Fisheries Divisions

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

National Fish and Wildlife Conservation Offices
National Fish and Wildlife Conservation Offices conduct assessments of fish populations to guide management decisions, perform key monitoring and control activities related to invasive, aquatic species; survey and evaluate aquatic habitats to identify restoration/rehabilitation opportunities; play a key role in targeting and implementing native fish and habitat restoration programs; work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's Partners for Fish and Wildlife and the Great Lakes Coastal Programs; provide coordination and technical assistance toward the management of interjurisdictional fisheries; maintain and operate several key interagency fisheries databases; provide technical expertise to other Service programs addressing contaminants, endangered species, federal project review and hydropower operation and re-licensing; evaluate and manage fisheries on Service lands; and, provide technical support to 38 Native American tribal governments and treaty authorities.

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

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



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Fish Tails

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

Partnerships and Accountability

- Columbia NFWCO's Annual Report
  - Andrew Plauck and Nick Utrup, Columbia NFWCO
- Woodcock Singing-Ground Surveys – Ashland NFWCO 2008
  - Ted Koehler, Ashland NFWCO
- Osage River Lock and Dam 1
  - Tracy Hill, Columbia NFWCO

Aquatic Species Conservation and Management

- Sturgeon Spawning begins anew with Advent of Spring
  - Doug Aloisi, Genoa NFH

Aquatic Invasive Species

Public Use

Cooperation with Native Americans

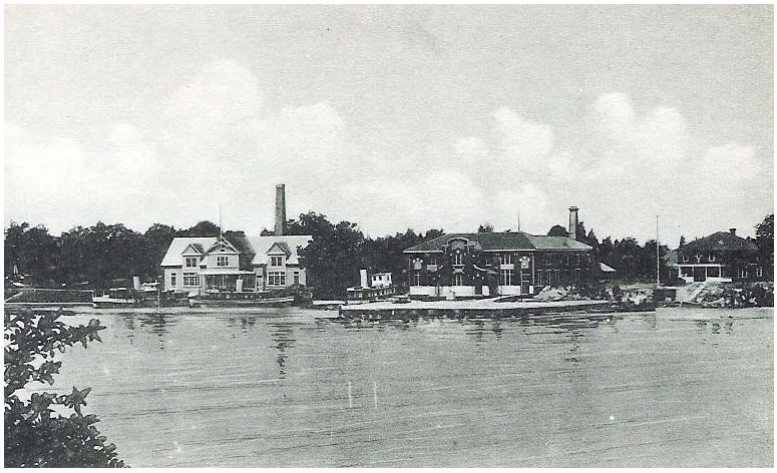
Leadership in Science and Technology

Aquatic Habitat Conservation and Management

- Missouri River Mitigation Project: Reporting 2007, Beginning 2008, and Catching Pallid Sturgeon along the Way
  - Zac Beussink, Joe McMullen and Jeff Finley, Columbia NFWCO
- Bad River Watershed Association receives 2008 Volunteer Stream Monitoring Award
  - Glenn Miller, Ashland NFWCO

Workforce Management

- Columbia FRO Biologists participate in HAMP Field Training
  - Andrew Starostka and Clayton Ridenour, Columbia NFWCO
- Administrative Professionals Day
  - Tracy Hill, Columbia NFWCO
- Anything is Better than a Sharp Stick in the Eye
  - Jeff Finley, Columbia NFWCO



-Jerry French Postcard Collection; U.S. Fish Hatchery near Port Clinton, Ohio (circa 1920).

Water Under the Bridge

A Glimpse into our Proud Past

The Put-In-Bay Fish Hatchery was located on South Bass Island on Lake Erie, just northeast of Port Clinton, Ohio. This U.S. Fish Hatchery was established in 1889 and was transferred to the State of Ohio in 1941.