



U.S. Fish & Wildlife Service - Midwest Region

Fisheries Program

Fish Lines

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fish lines

July 1, 2015
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Fish Tails

"[Fish Tails](#)" refers to articles that are submitted by field staff that do not appear as a feature in the current edition of Fish Lines. These articles provide examples of the diverse work that the Service's Midwest Fisheries Program and partners perform on behalf of our aquatic resources and for the benefit of the American public.

Field Notes

"[Field Notes](#)" is an online searchable database that showcases hundreds of employee-written summaries of field activities and accomplishments of the U.S. Fish and Wildlife Service from across the nation.



Gill Netting:

Old World Fishing Technique for Modern “Big Muddy” Fish Monitoring

BY JONATHAN YONCE, COLUMBIA FWCO



Colby Wrasse and Gerry Jackson sampling sturgeon with gill nets on the Missouri River. Credit: USFWS

Each year on the lower 250 miles of the Missouri River several types of fishing gears are used by the Columbia Fish and Wildlife Conservation Office to monitor fish populations. One very successful gear that biologists use is the gill net. Many commercial fishers are familiar with gill netting; it has been a method commonly used to capture fish for thousands of years. Although banned in much of the world as a means to capture food fish, for some commercial, research and monitoring purposes it is still allowed but heavily regulated. This gill netting season began in November of 2014 and ended this April. With a season that stretches over six months we capture fish in a wide variety of environmental conditions and shifting behavioral patterns.

Archaeological findings throughout the world have shown that gill netting existed in ancient times. On the North American continent native fishers would use nets made of natural fibers such as cedar bark. Using stones as weights and wood planks as floats they fished gill nets in a similar fashion to today's techniques. Gill nets passively fish an area and

capture fish moving through over a period of time. These nets are a series of panels of mesh with a “foot rope” or lead line along the bottom, and a float line. The floats on top of the net stretch it vertically in the water column and the weights follow the contours of the waterbody's substrate. Once deployed fish swim into the net, push their head through the mesh but the rest of their body cannot fit through. Most fish have a gill plate that keeps them from backing out of the net because it catches on the mesh. Fish that are smaller than the width of the mesh can freely swim through without being captured. The selectivity of gill netting by using different size mesh helps biologist minimize unintended catch.

Gill netting is such a productive method it has become a means of fisheries exploitation in many areas of the world; this has led to its banning for recreational and commercial fisheries in certain localities. Modern introductions of synthetic fiber, such as nylon, have made it easier to mass produce gill nets and allowed them to be fished for longer periods without repair. These modern nets are less visible to fish and capture larger numbers in the same amount of time compared to traditional nets made of natural fiber. Due to the properties of the materials used in these nets they are highly resistant to abrasion and degradation and have the potential to last many years if they are not recovered. This has led to environmental concerns, particularly in commercial fishing operations in the oceans of the world. The United Nations General Assembly has called for the cessation of all “large-scale pelagic drift-net fishing” in international waters because of the high potential for fish harvest exploitation using this type of fisheries gear and lost nets harming sea life for years after deployment.

When managed responsibly, gill nets can provide biologists with a very useful tool to capture fish in riverine habitats and return them safely. Each gill net set is always a trove of piscine treasures; employees eagerly wait to see what scaly, slimy fluvial being will arise from the depths of the murky Big Muddy. This year 4,784 fish were captured using 247 gill net sets, deployed throughout the lower 250 miles of the Missouri River. Included in this catch total were 30 different species of fish found within the Missouri River system. During the 2015 gill net season 22 pallid sturgeon, one lake sturgeon, 3,205 shovelnose sturgeon, 279 blue suckers, 27 sauger and four paddlefish were caught. Gill nets have provided important data throughout the years of biological monitoring within the Missouri River and will continue to be a staple fishing gear for years to come.



Creating Memories

BY CURT FRIEZ, PENDILLS CREEK/SULLIVAN CREEK NFH



Pink was a lucky color for this young angler at the 7th Annual Friends of Pendills Creek Hatchery-Kids Fishing Day. Credit: USFWS

For the past seven years our hatchery has partnered with the Friends of Pendills Creek Hatchery, our local "Friends Group" to put on an annual Children's Fishing Event on Pendills Creek. These types of events have become more common place and occur at various locations throughout most states. The common theme among these types of events is getting children excited about the outdoors and outdoor activities, especially fishing. Fishing can be a treasured activity for many children; it's often a new experience for them as well as for their families. Novice anglers quickly realize it is a learned skill and fishing...doesn't necessarily mean catching.

However, after conducting numerous events of this nature and trying to enhance the experience of the participants, I have come to one conclusion that makes all of the hard work worthwhile. It is that we are creating memories for these children that most will keep with them their whole lives and that in itself makes the event worthwhile. Our hope is that these memories will eventually evolve into a true appreciation for the outdoors and the aquatic environment. Once this appreciation develops, the

aquatic environment then gains continued public support for conservation efforts that lasts a lifetime. The return on investment cannot be put into a dollar figure but is critical in the support of the aquatic efforts taken on by government agencies for habitat, conservation and enhancement activities.

In this age of electronic overload it is nice to see children appreciate something different that has a reality component to it. As with so many of us, this reality component of fishing, hunting or some other outdoor activity also serves a purpose for us to recharge our batteries and get us away from the grueling activities of modern daily life and get back to the primary reason most of us work for the Fish and Wildlife Service. Having the ability to reconnect with nature brings a sense of reality back into our abstract working lives situated in an office, away from the resources we are working with to conserve, protect and enhance.

Throughout life, once the memories are created an appreciation starts to cultivate and hopefully through time develops into an outdoor enthusiast, focusing on the true value to these natural resources and the natural world.

It is imperative that we all do as much as possible to make memories for children. As adults, they are the voting public; their support for natural resources will depend upon their outdoor appreciation to perpetuate the future significance of Fish and Wildlife Management or it will fade in relevance and importance in future generations.

Let us all strive to create memories for our nation's children!



Friends, Families, Fishing and making memories at Pendills Creek NFH. Credit: USFWS



Traveling the American Interstate River System

BY COLBY WRASSE, COLUMBIA FWCO

The interstate highway system in the United States is a vital conduit for nationwide commerce and travel. Linking the East Coast to the West Coast and most points in between, interstates allow for relatively quick and easy travel between states. Similarly, the Missouri River/lower Mississippi River system functions much like an aquatic highway linking the Rocky Mountains to the Gulf of Mexico. It is this American Interstate River System that allows fish and other aquatic organisms' quick passage across state borders. Some recent fish catches made by Columbia Fish and Wildlife Conservation Office (FWCO) on the Missouri River reminded us once again how interconnected our waterways are.

Last fall, we recaptured a shovelnose sturgeon initially tagged in the state of Mississippi. This particular sturgeon was recaptured more than 700 river miles from the initial capture site, having travelled through portions of at least six states. This marked the second shovelnose sturgeon we have recaptured that was originally tagged in the Magnolia State. Although 700 miles is a long way to swim, it pales in comparison to the long distance journey made by the American eel.



Species such as shovelnose sturgeon are known to travel great distances on open river systems. Credit: Colby Wrasse, USFWS

Born in the Sargasso Sea, in the Atlantic Ocean, the female American eel enters fresh water to live for several years, before returning to the ocean to spawn. Given the great distances from the Sargasso Sea to Missouri, we were pleasantly surprised to have captured two American eels this spring. Over the past decade, we have captured more than a dozen American eels that have traveled thousands of miles through oceans and rivers as part of their interesting and complex lifecycle.

However, there are obstacles on the Interstate River System. Dams on rivers can act like speed bumps, or all out road blocks. Diversion of water for human purposes can slow fish traffic to a crawl. Whatever happens on one part of the Interstate River System ultimately affects all travelers. While native migratory species, like sturgeon and eel, benefit from travel on the open rivers, so do unwanted travelers, such as invasive carps. Understanding the complexities inherent in a large, open river system is challenging. The interconnectedness of our waterways necessitates the flow of vital information among scientists and resource managers. Like those engineers who developed the Interstate Highway System, we must also work at a landscape scale.

This is part of what we do at Columbia FWCO. As part of Pallid Sturgeon Population Assessment, we work with partners in Region 3, Region 6 and several state agencies to monitor fish populations along the 2,300 mile long Missouri River. Hopefully through these types of collaborative, landscape scale efforts, fish like the pallid sturgeon will continue to travel the American Interstate River System for millions of years to come.



Roots and Wings

BY PHILLIP ROGERS, CARTERVILLE FWCO

The Carterville Fish and Wildlife Conservation Office (FWCO) has been growing and expanding their work for the last several years. We have projects spread out over our entire area of responsibility which includes all of Illinois, Indiana, and Ohio, but have also been called upon by other regions to help out and do work in Kentucky, Tennessee, Alabama, West Virginia, and Pennsylvania. The driving forces for our expansion have largely been Asian carp problems, Environmental DNA analysis, and Ohio River watershed habitat projects. Even with our expanding horizons, there are a couple projects that have deep roots at Carterville FWCO and we take great pride in them.

National Wildlife Refuges

Working with our local National Wildlife Refuges (NWR) is one responsibility that can often be easy to overlook. With the many pressing Asian carp issues that seem to be never ending and always a priority, our staff time is stretched thin. Carterville FWCO cooperatively manages the fishery resources on Crab Orchard NWR with refuge staff and Illinois Department of Natural Resources (DNR). In recent years however, a shortage in staff has limited the amount of time we could spend supporting their management. In 2015 we were able to renew our full commitment to the management on the refuge. We were fortunate enough to increase the size of our staff which in turn allowed us to carve out the needed time to participate in all the activities.



Biologist Brian Bartos shows off a trophy bass collected from a pond on Patoka River NWR. Credit: Brad Rogers, USFWS



Employees of the Scott Air Force Base Pest Shop treat filamentous algae in one of the two ponds on base. Credit: Brad Rogers, USFWS

Some of the Crab Orchard NWR projects and activities we have been involved with so far in 2015 include a fish management coordination meeting, habitat improvement on Crab Orchard Lake, springtime sport fish sampling on Devil's Kitchen and Little Grassy Lakes, fish sampling for a Crawfish Frog habitat improvement project, and a Kids Fishing Derby. We are also coordinating the stocking of approximately 14,000 Largemouth Bass into Crab Orchard Lake and 25,000 Yellow Perch into Devil's Kitchen Lake. You can read more about most of these activities in other [FWS Field Notes](#) entries.

Crab Orchard NWR is a valuable resource to the people of Southern Illinois. All of us here at Carterville FWCO are dedicated to doing our part to conserve, protect, and enhance those resources for the enjoyment of all its current and future users.

Part of our expanding workload this year also included doing some work at the Patoka River NWR in southern Indiana. In October 2014, we wrote a Field Notes article about forming a new partnership with Patoka River NWR. On April 20, 2015 staff from Carterville FWCO headed back to Patoka to sample several ponds on a newly acquired parcel of land. The purpose of the trip was to evaluate the fish populations and create bathymetric maps of each pond. The lack of historic information on these water bodies made a fish sample necessary so that refuge managers can set regulations. The managers at Patoka River NWR also wanted the lakes mapped so they could identify hazards (deep drop offs), mark those hazards, and provide that information along with the maps to the public. The water bodies that we sampled are currently closed to the public but are scheduled to be opened in the fall of 2015.

Military Bases

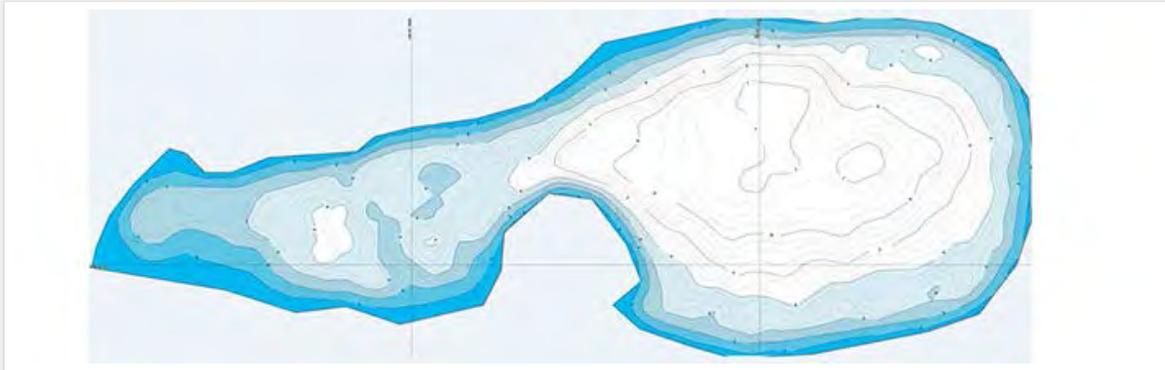
Managing fishery resources on military bases is another project we work on at Carterville FWCO.

We have provided fisheries assistance to Scott Air Force Base (AFB) in Belleville, Illinois and Naval Support Activity Crane (NSA Crane) in Crane, Indiana for over twenty years. Throughout those years we have managed to maintain excellent fishing opportunities on base for all the military personnel and their families. The issues we face with these fisheries vary widely. At NSA Crane the fisheries tend to be very stable and need little management. Each year we perform a standard night time electrofishing survey and evaluate the long term trends in our data. Typically no action is ever needed but occasionally improvements to the Largemouth Bass population are desired and we may change the regulations slightly to achieve the desired results. Creel and angler surveys show that the users of the lakes at NSA Crane are very pleased with the management of the water bodies.



Happy with his 1st crappie! Kids got an up close look at some fish during the Kids Fishing Derby at Crab Orchard NWR in 2015. Credit: Rob Simmonds, USFWS

Fish management at Scott AFB is a bit more complex. The lakes at Scott AFB are significantly smaller and more heavily used by base personnel than the lakes at NSA Crane. In the past, we have had to deal with over exploitation of fish, weed management, bucket biologists (unplanned fish stockings), and fish kills. The biggest issue we face currently is eutrophication (nutrient enrichment) of Scott Lake. The lake has filled in significantly with sediment from adjacent agriculture fields and allowed filamentous algae and duckweed to become serious problems. The problem is so severe that chemical treatments are becoming too costly to maintain. Carterville FWCO has been working with managers at Scott AFB to develop a plan to restore the lake and re-route the drainage ditches in order to provide a long term fix to the problem. Despite these challenges we have been able to maintain angler satisfaction on the base. We hope in the near future we will be able to help with restoration efforts on Scott Lake and provide a more enjoyable outdoor experience for the users.



A bathymetric (depth contour) map that was created as a result of surveys completed on one of the water bodies on Patoka River NWR. Credit: Brad Rogers, USFWS

While these projects may not be in the limelight, they are deeply rooted in our history. The areas we help manage have been providing countless people opportunities to enjoy the outdoors and fishing for many years. Carterville FWCO remains dedicated to its partners and the public and looks forward to serving both for many more years to come.



Summer Fishing Fun in Kansas City

BY KATIE STEIGER MEISTER, REGIONAL OFFICE-EXTERNAL AFFAIRS

On June 20, 2015, the U.S. Fish and Wildlife Service assisted Urban American Outdoors and Kansas City Parks with the 10th Annual Urban Kids Fishing Derby in Kansas City, Missouri.

The morning sun was out and the temperature creeping from warm to hot as more than 200 children and their families arrived at Spring Valley Park in Kansas City, Missouri ready for some summer fishing fun. Hosted by Urban American Outdoors and Kansas City Parks and



Hundreds of children participated in the The 10th annual Urban Kids Fishing Derby hosted by Urban American Outdoors in Kansas City, Missouri. Credit: Katie Steiger-Meister, USFWS

Recreation, the U.S. Fish and Wildlife Service was on-hand to assist. Director Dan Ashe, Midwest Regional Director Tom Melius and staff from Neosho National Fish Hatchery participated in the fishing derby and monarch butterfly activities.

The event began with Wayne Hubbard, host of Urban American Outdoors, welcoming participants and partners. As part of the opening remarks, Bob Kendrick, President of the Negro Leagues Baseball Museum, presented honorary Kansas City Monarch jerseys to Dan Ashe, Wayne Hubbard and Assistant to the Director of Kansas City Parks, Mark Bowland. A handful of lucky participants were then chosen to help the new honorary Monarchs plant a butterfly garden by the fishing derby pond. By 9:00 a.m. the plants were in the ground and the first hooks were in the water as kids got down to business and started fishing. By 9:05 a.m. the first fish was being pulled from the water and screams of shock and delight from children could be heard echoing across the pond.

Staff from Neosho National Fish Hatchery and members of their friends group were a pivotal part of the day, stocking the pond with channel catfish from Tishomingo National Fish Hatchery in Oklahoma and bringing dozens of fishing rods and boxes of bait to share with participants. Project Leader Dave Hendrix, fishery biologist Roderick May, education specialist Bruce Hallman, maintenance mechanic Raymond Villa and members of their friends group helped introduce numerous kids to the fun of fishing.

Monarch Watch also participated in the event. Executive Director Chip Taylor and a handful of staff and volunteers set up a tent where kids and their families could see live monarch butterflies, caterpillars and pupas. They also provided seed packets for participants interested in starting their own butterfly gardens.

Whether it was a catfish on their hook or caterpillar on their hand, the event helped hundreds of Kansas City children experience the thrill of being outdoors. With downtown Kansas City only minutes away, the event underscored that kids don't have to go far to start playing in nature.

Check out photos from the day at <https://flic.kr/s/aHskewE67o>



Midwest Region Fisheries Divisions

National Fish Hatcheries

The Region's National Fish Hatcheries (NFH) focus on native species recovery and restoration. Primary species include: lake trout, endangered pallid sturgeon, and endangered, threatened, and native mussels. Other major programs include coaster brook trout and lake sturgeon restoration, fulfilling tribal trust responsibilities for native aquatic species, and cost reimbursed rainbow trout production for recreational fishing. Hatcheries also provide technical assistance to other agencies, provide fish and eggs for research, and develop and maintain brood stocks of various species and strains.



Fish and Wildlife Conservation Offices

Fish and Wildlife Conservation Offices (FWCO) conduct assessments of fish populations to guide management decisions, play a key role in targeting and implementing native fish and habitat restoration programs; perform key monitoring and control activities related to aquatic invasive species; survey and evaluate aquatic habitats to identify restoration/rehabilitation opportunities; work with private land owners, states, local governments and watershed organizations to complete aquatic habitat restoration projects under the Service's National Fish Passage Program, National Fish Habitat Partnerships, 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. The Whitney Genetics Lab serves as a leading edge genetics laboratory and conducts environmental DNA (eDNA) sample processing for early detection of invasive species.

Whitney Genetics Lab

The Whitney Genetics lab provides environmental DNA (eDNA) surveillance for the early detection of invasive Silver and Bighead carp as part of the Asian Carp Regional Coordinating Committee's plans to detect, monitor, and respond to the threat of invasive carp in the Great Lakes. The lab also provides analysis for determining the ploidy of wild-caught Black and Grass carp, two more invasive carp species.



Midwest Region Fisheries Contacts

Regional Office

5600 American Blvd West
Bloomington, MN 55437
Todd Turner (todd_turner@fws.gov)
612-713-5111

Alpena Fish & Wildlife Conservation

Office

480 W. Fletcher Street
Alpena, MI 49707
Scott Koproski (scott_koproski@fws.gov)
989-356-5102
Area of Responsibility (MI, OH)

Ashland Fish & Wildlife

Conservation Office

2800 Lake Shore Drive East
Ashland, WI 54806
Mark Brouder (mark_brouder@fws.gov)
715-682-6185
Area of Responsibility (MI, MN, WI)

Carterville Fish & Wildlife

Conservation Office

9053 Route 148, Suite A
Marion, Illinois 62959
Rob Simmonds(rob_simmonds@fws.gov)
618-997-6869
Area of Responsibility (IL, IN, OH)

Columbia Fish & Wildlife

Conservation Office

101 Park Deville Drive, Suite A
Columbia, MO 65203
Acting Wyatt Doyle (wyatt_doyle@fws.gov)
573-234-2132
Area of Responsibility (IA, MO)

Genoa National Fish Hatchery

S 5689 State Road 35
Genoa, WI 54632
Doug Aloisi (doug_aloisi@fws.gov)
608-689-2605

Green Bay Fish & Wildlife

Conservation Office

2661 Scott Tower Road
New Franken, WI 54229
Mark Holey (mark_holey@fws.gov)
920-866-1717
Area of Responsibility (IL, IN, MI, WI)

Iron River National Fish Hatchery

10325 Fairview Road
Iron River, WI 54847
Nick Starzl (nick_starzl@fws.gov)
715-372-8510

Jordan River National Fish Hatchery

6623 Turner Road
Elmira, MI 49730
Roger Gordon (roger_gordon@fws.gov)
231-584-2461

LaCrosse Fish Health Center

555 Lester Avenue
Onalaska, WI 54650
Acting Terry Ott (terrance_ott@fws.gov)
608-783-8444

LaCrosse Fish & Wildlife

Conservation Office

555 Lester Avenue
Onalaska, WI 54650
Acting Scott Yess (scott_yess@fws.gov)
608-783-8434
Area of Responsibility (IA, IL, MO, MN, WI)

Ludington Biological Station

229 S. Jevity Drive
Ludington, MI 49431
Scott Grunder (scott_grunder@fws.gov)
231-845-6205

Marquette Biological Station

3090 Wright Street
Marquette, MI 49855
Kasia Mullett (katherine_mullett@fws.gov)
906-226-6571

Neosho National Fish Hatchery

520 E Park Street
Neosho, MO 64850
David Hendrix (david_hendrix@fws.gov)
417-451-0554

Pendills Creek National Fish Hatchery

21990 W. Trout Lane
Brimley, MI 49715
Curt Friez (curt_friez@fws.gov)
906-437-5231

Sullivan Creek National Fish Hatchery

21200 West Hatchery Road
Brimley, MI 49715
Curt Friez (curt_friez@fws.gov)
906-437-5231

Whitney Genetics Lab

555 Lester Avenue
Onalaska, WI 54650
Acting Terry Ott (terrance_ott@fws.gov)
608-783-8444



July 2015 Neosho NFH Update



Everyone enjoyed the Seniors and Disabled Fishing Derby at Neosho NFH.
Credit: USFWS

the registration, rods & reels, bait, catching and cleaning for this busy day. Thanks to Boeing, the kids all received an attractive t-shirt and so many kids had great time fishing – some for the very first time. A week later, about 300 came for our final derby of the year, and once again our volunteers helped to make it all a great success for everyone.

Also in May and June, hatchery staff attended fishing events for city youth in Kansas City Kansas AND Missouri. These were the product of *Urban American Outdoors*, a weekly reality show for the urban sportsman. The adventures and features of this weekly show are geared toward multicultural viewers, but are also for every outdoor sportsman. Since its initial airing in August 2003, the show has developed a loyal and growing following, and the founders Wayne Hubbard and Candice Price enjoy putting on these types of events for youth. The Service began partnering with them for last year's Missouri fishing day, and this year, Service Director Dan Ashe and many others attended to show support and help out where needed. The Neosho National Fish Hatchery (NFH) provided 160 rods and reels, and the Friends group bought bait for the kids to use. Neosho NFH also transported several hundred rainbow trout for the Kansas event, and several hundred channel catfish and bluegills (donated from the Tishomingo NFH in OK) for the Missouri day. Many hundreds of kids and family members had a great time and all the various partners worked together seamlessly.

BRUCE HALLMAN, NEOSHO NFH

Now that July has come, and with it the heat and humidity, we are in the height of operations and projects at the hatchery.

For a three-week span in May and June, we hosted some of our biggest annual outreach events. For the second year, we were the hosts for the Neosho Music Fest – an all-afternoon event with bands, booths, silent auction, concessions and other activities to raise money for the Wounded Warrior project. The manager of the local Walgreens started the Music Fest three years ago, and it meshes well with our park-like environment. We hope to continue hosting this Memorial Day weekend event for many years to come. Approximately 600 people spent time at the hatchery because of our hospitality.

The other two big events followed on the first two Fridays of June – our fishing derbies. The Kids day is always the first Friday of June, and the Seniors/Disabled derby is the second Friday. Roughly 800 kids and their family members came to our Kids Derby – a day with great weather and lots of rainbow trout caught. We are so thankful for our Friends group and other volunteers that help with



Young pallid sturgeon explore their new surroundings at Neosho NFH.
Credit: USFWS

On a different note, our mussel program took an exciting new turn this spring. For the first time, breeding behavior was observed in our fatmucket mussels. Swollen egg pouches were seen in a March examination, and shortly after, lure production and displays followed. After a manual glochidia (larval mussels) extraction, we tried our hand at implantation in freshwater drum and rainbow trout. Despite what looked like a big success, no larval mussels ever were recovered after that point. We used the fish we had on hand, but these mussels use bass for their host fish and that led to our lack of results. But it was very encouraging to get this far in the process, and we're



Neosho National Fish Hatchery, Neosho Missouri. Credit: USFWS

sunfish. As of this writing, we have yet to recover any fry of either species from the gravel nests, but we are anxiously watching and waiting.

May and June were also busy for us with our other big program – working with the federally endangered pallid sturgeon. May is the month for spawning these majestic creatures, and even though our female sturgeon released no eggs this year, last year's crop is looking great. We hosted a tagging day with the help of Service workers from the Columbia Fish and Wildlife Conservation Office and state conservation staff from Warsaw, Missouri. We were able to tag over 2600 yearlings that were at least nine inches in length with PIT tags, and we are soon to release them into the Missouri River for them to live out the remainders of their hopefully long and productive lives. We also just received hundreds of pallid eggs from Gavins Point NFH where we will study their growth and development in spring water versus well water. Certain water sources have been shown to produce fin curl in young sturgeon, and we hope to clarify things with this batch of sturgeon.



Topeka shiners found a new home at Neosho NFH. Credit: USFWS

Even though routine seems to be the frequent word of the day, there is still some pretty exciting and innovative work going on here. We have three YCC youth and one regular volunteer that are helping greatly in our summer chores, and they are keeping the place in tiptop shape. Our visitation is at its peak, and so many groups and families are enjoying seeing what we do, why we do it and how it benefits us all. We are proud of our history – being the oldest operating federal fish hatchery in the country – but we are also pushing forward to break new ground and help our agency to fulfill its mission of conserving, protecting and enhancing fish and other aquatic life for the benefit of everyone.

hopeful for bigger and better things next year with appropriate changes to the program.

Other breeding news pertains to our newest federally endangered species project – the Topeka shiners. We received 200 of the minnows from a partner state hatchery in Missouri back in March. They have been living happily in their assigned raceway, and have shown activity in their breeding boxes along with their commensal partners, the orange spotted



Fish Tails

Articles submitted by field staff that do not appear as a feature within Fish Lines. These articles provide examples of the diverse work that is performed on behalf of aquatic resources.

From River to Conference Room

BY COLBY WRASSE, COLUMBIA FWCO

Conferences provide biologists with great opportunities to present important scientific findings, learn about their colleagues' work, and collaborate on new ideas. At the Columbia Fish and Wildlife Conservation Office (FWCO) the Missouri River Natural Resources Conference (MRNRC) is one of favorite conferences to attend, because of its relevance to the office's work and the high quality presentations given. This year's conference was held in Nebraska City at the beautiful Lied Lodge, and Columbia FWCO was fortunate enough to send several employees. Columbia FWCO staff collaborated on two poster presentations and one oral presentation for the conference. These presentations represented the culmination of several years of field work and data collection. Columbia's presentations tackled a variety of Missouri River Issues as they related to species such as: Pallid Sturgeon, Lake Sturgeon, Sickle fin Chub and Sturgeon Chub. Columbia FWCO was pleased with the positive feedback they received on their presentations and the interesting conversations that followed. Conferences such as these are important for the advancement of Missouri River science. Columbia FWCO is looking forward to next year's MRNRC.

Montreal Riverbank Stabilization and Fish Habitat Project

BY TED KOEHLER, ASHLAND FWCO

Working with the private land owner, Iron County Land and Water Conservation Department and the State of Wisconsin, the U.S. Fish and Wildlife Service's Ashland Fish and Wildlife Conservation Office helped stabilize an eroding bank and provide in-stream fish habitat on the Montreal River. The work primarily benefits brook trout and other fish which inhabit this interstate section of the river. The Montreal River at the project location is the border between the States of Wisconsin and Michigan. The river provides important angling opportunities for residents of each state.

The project involved the stabilization of a highly eroding bank that threatened a railroad line and private land access. Five stream barbs were constructed to deflect in-stream flows into the center of the channel and large rock was strategically placed to provide habitat for brook trout and other fish. The habitat improvements will reduce sediment to the river and Lake Superior, provide habitat for aquatic invertebrates as well as slack water resting and feeding habitat for fish.

Lake Sturgeon Get Up Close and Personal at Blue Water Sturgeon Festival

BY ANDREW BRIGGS, ALPENA FWCO, WATERFORD, MI - SUBSTATION

The Blue Water Sturgeon Festival has been an annual affair in Port Huron, Michigan since 2013. The event is a way to celebrate and raise awareness about lake sturgeon and show pride in Port Huron and the surrounding community. The area near Port Huron and the Blue Water Bridges that connect the United States and Canada is home to the largest free ranging spawning population of lake sturgeon in the Great Lakes. This year the festival took place on May 30th and was held at the Great Lakes Maritime Center, located along the St. Clair River.

Every year the Blue Water Sturgeon Festival has added something new to attract more people. This year the event added a 5K race and 1K fun run entitled "Run with the Sturgeon." As in previous years, patrons could participate in "Sturgeon Cruises" (1.5 hour boat cruises on the St. Clair River featuring a live video feed of the river bottom as seen by SCUBA divers), attend workshops given by scientists, eat birthday cake dedicated to lake sturgeon, visit booths of area vendors, and view and touch live lake sturgeon. This year's event was also showcased on the Michigan Out of Doors TV series (<https://www.michiganoutofdoorstv.com/shows.cfm>).

Fish biologists from the Alpena Fish and Wildlife Conservation Office – Waterford Substation provided the two live lake sturgeon for the festival. The two adult sturgeon were caught the morning of the event while conducting annual lake sturgeon surveys to estimate the population size in this area. While at the event the U.S. Fish and Wildlife Service (Service) biologists and biologists from the Michigan Department of Natural Resources Lake St. Clair Fish Research Station discussed lake sturgeon life history, ecology, restoration, and helped willing attendees touch the two sturgeon. The attendees came away impressed by the size of the lake sturgeon and the amount of lake sturgeon that reside in the area.

In order to make this event possible, the Service collaborated with many agencies and groups. Collaborators included the St. Clair County Health Department, Gregory AD (Absolute Diving), St. Clair-Detroit River Sturgeon for Tomorrow, DTE Energy, Cargill, SEMCO Energy, St. Clair River Bi-national Public Advisory Council, Michigan Department of Natural Resources, Friends of the St. Clair River, Michigan Sea Grant, U.S. Geological Survey, Great Lakes Fishery Commission, and many others. The Blue Water Sturgeon Festival has grown in each year of its existence, with approximately 1,200 attendees in 2013, 2,400 in 2014, and over 4,000 this year.

For more information of the Blue Water Sturgeon Festival and this years' event, please visit:

<http://www.sturgeonfestival.com/>

<http://www.thetimesherald.com/story/news/local/2015/05/30/blue-water-sturgeon-festival-celebrates-huge-fish/28223713/>

<http://www.voicenews.com/articles/2015/06/05/news/doc5571abcd4cc19708781104.txt>