



**U. S. Fish and Wildlife Service**

# **Inside Region 3**

*January 2014*



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## RD Corner

### Welcome Back As We Launch Toward Further Success in 2014

Welcome back from the holiday hustle and bustle. I am certain that 2014 will be yet another banner year of success from our U.S. Fish and Wildlife Service family and look forward to all that lies ahead for us to accomplish together. I'm thrilled to be heading into my 6th year here as Regional Director.

It's encouraging to see that Congress has sorted out some lingering questions for keeping our government running without a pause, this year. Although some issues remain, I am hopeful for a positive outcome in the weeks ahead. The lessons we've learned over the last couple of years and our "can do" attitudes will again help us to be successful in 2014.

As this year begins, I look forward to getting out to the field again to see the great things each of you do for our resources. Earlier this month I traveled to Missouri, making my first trip to Mingo NWR to see their new Visitor Center and the great staff who keep things running there. I also joined our staff at Neosho NFH and celebrated their receipt of the Department's Environmental Achievement Award for their Visitor Center, which has established itself as a model of sustainability. Finally, while in Missouri, I also met with our partners at the St. Louis Zoo to learn more about how we have partnered together to do great things for recovery of the endangered American burying beetles and hellbenders.

Although the cold of winter often makes the flurry of activity less visible, there always is so much that goes on behind the scenes that is vital to our success. We see some of the fruits of our labor



in the cold weather festivals and other public activities, such as ice fishing, spotting seasonal wildlife, plotting fresh paths in snowshoes or cross country skiing through our beautiful lands. I send out my thanks to the behind-the-scenes heroes, who do the work to make the public's enjoyment of our facilities possible.

Again, I thank each of you for the important work that you do and

challenge you to join me in making 2014 a year that exceeds our expectations! I wouldn't want to face these challenges with any other team of professionals.

Enjoy this month's issue of Inside Region 3.

T.O.M.

# Recapping the 2013 Sea Lamprey Control Field Season – Lampricide Control

The 2013 Sea Lamprey Control Program field season came to a finish with many successes and we would like to highlight the remarkable work accomplished by our staff. This year, sea lamprey control staff out of the Marquette and Ludington biological stations worked around the clock, many working 10 day shifts, to reduce the impacts of the invasive sea lamprey on the Great Lakes ecosystem and carry out their mission.



Matt Lipps and Rebecca Neely in a Bayer Analysis Trailer. The trailers serve as portable labs and can be taken into remote areas during lampricide treatments. Photo by: Jenna Tew/USFWS.

Our employees work in one of three program areas of sea lamprey control: larval assessment, lampricide control, and adult assessment and barriers. Each area has a different role in facilitating the decline of sea lampreys in the Great Lakes, but collectively, they work together to keep this voracious parasite at bay.

The lampricide control team is an important piece of the sea lamprey control puzzle. Employees in this team apply federally registered pesticides to streams that are infested with larval sea lampreys, particularly, those that contain large numbers of larvae that are at least four inches long. Our lampricide control team doesn't work your normal 9-5. Instead, they often work 10 days straight to complete a single treatment on one stream. The teams run their applications for 12 hours straight, working around the clock. This means a shift could start at 4:00 a.m. or 11:00 p.m. In the first few

days of treatment, employees travel to a stream, and begin collecting information that will allow them to determine how much TFM (a larval lampricide) they will need to apply in order to kill the larval sea lampreys. This information includes measures of water discharge, alkalinity and pH. When necessary, they will also estimate flow times and dilution rates by applying a dye directly to the water. The dye simulates how the lampricide will distribute throughout the stream and the time it will take to travel from point A to B. The team often works with local landowners to get access to private or remote areas of stream to treat sea lamprey infested waters.

### **By the numbers, here is just a brief glance at what the lampricide control team was up to during 2013:**

- Number of landowners we worked with in the 2013 field season: 298
- Number of streams treated with lampricide: 47

- Miles of streams treated with lampricide: 1,227
- Number of lentic areas treated: 8 (totaling 67 acres)
- Number of employees on the lampricide control teams: 23 from Marquette Biological Station and 17 from Ludington Biological Station
- Geographic area of coverage in the Great Lakes: 8 states
- Total miles traveled by staff

to conduct lampricide treatments: 842,472

The lampricide control team treats streams from northern Minnesota to the southern tip of Wisconsin, east to Buffalo, New York. All treatments happen during the short field season that lasts from April through October. In addition, we receive valuable assistance from Fisheries and Oceans Canada's Sea Lamprey Control Centre, whose expert staff often work directly with the Service to conduct treatments. Successful lampricide treatments are certainly a team effort and are the foundation of sea lamprey control in the Great Lakes, making this unit critical to the program's mission.

*By Joanna Gilkeson  
External Affairs*

# Rare Orchids Get a Boost in Illinois

The U.S. Fish and Wildlife Service's Chicago Field Office works with Chicago area volunteers and land managers to nurture and increase populations of a rare orchid that grows in wet prairies and sedge meadows: the eastern prairie fringed orchid. Habitat restoration work in northeastern Illinois has increased potential habitat for the orchid, and seed dispersal is intended to help grow populations and enhance their viability.

Eastern prairie fringed orchid seed capsules are moved from one site to another following a predetermined seed dispersal plan. Criteria used to determine from which site seed capsules are harvested (donor site) and to which site the seed capsules will be dispersed (receptor site) include matching similar plant communities (prairie with prairie or sedge meadow with sedge meadow), sites being no more than 50 miles from each other, and that the seed dispersal should contribute to recovery. For example, the highest priority seed receptor sites are those that have the best likelihood to increase that population's viability from

moderate to high if the site had a larger number of blooming orchids and with an upward trend.

many parts of the recovery efforts for this species. Volunteer monitoring, data recording and hand pollination also drive efforts to recover the

eastern prairie fringed orchid. You can find out more at [www.fws.gov/midwest/endangered/plants/epfo/index.html](http://www.fws.gov/midwest/endangered/plants/epfo/index.html)

*By Cathy Pollack  
Chicago Field  
Office*



Seed capsules are tied to anything that is higher than the prairie canopy, but within the appropriate habitat, to take advantage of the wind dispersing the seed. (Photo Courtesy of Scott Kobal, Forest Preserve District of DuPage County.)

Because the seed is wind dispersed naturally, this year, rather than simply sowing the seed by hand into the receptor site, we tied seed capsules with thread to something within the habitat that is higher than the prairie or sedge meadow canopy. For example, we used the dried stalk of prairie dock, a dogwood bush, and even a wooden stake.

Seed capsule dispersal is only one of

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# For the Birds: Migratory Bird Stopover Sites are Important for Economic and Ecological Diversity in the Great Lakes



A Michigan birder enjoys a sunny day of spotting in a coastal wetland habitat. (Photo Courtesy of Michael DL Jordan)

The Nature Conservancy, in partnership with the Upper Midwest and Great Lakes LCC, recently launched the Great Lakes Migratory Bird Stopover Portal, an online database available to natural resources managers across the Great Lakes that identifies and projects important migratory bird stopover habitat for landbirds, shorebirds and waterfowl. The portal was developed through a comprehensive study identifying and scoring attributes of areas that serve as and project important stopover sites within 15 of the shorelines of Lakes Michigan, Huron, Erie, and Ontario, and connecting water bodies in the U.S. and Canada.

The Great Lakes, particularly coastal and near-shore areas, provide globally important stopover sites for waterfowl, shorebirds, songbirds, hawks, owls and water birds, such as loons. Much of the Great Lakes coastal aquatic and terrestrial landscapes that once supported migrating birds has been lost or degraded, yet the region supports hundreds of millions of migrants during both spring and fall migration. In turn, the migrants attract more than 68,000 bird watchers each spring, to Ohio alone, from around the world where they contribute nearly \$40 million annually to the local economy. Birders also flock to Point Pelee, Ontario; Whitefish Point, Michigan; and Tawas Point, Michigan among many other locations.

In the words of Jon Dunn, a leading North American birder, author and ecotourism leader, “my favorite place to bird in all of North America, is Tawas Point... on Lake Huron. This is one of the best-kept secrets in North America, but no doubt there are dozens of other spots along the lakeshores which must be nearly as good [for migration].”

The online portal is available to land-use planners, policy makers, land managers, conservationists and ecotourism entrepreneurs to call attention to and protect the hundreds of bird species that migrate through the Great Lakes region. Learn how corporations, non-governmental organizations and governmental agencies are already helping protect these important stopover sites by reading the case studies highlighted on the Great Lakes Migratory Bird Stopover Portal Web site.

*By Ashley Spratt  
External Affairs*

# A New Kind of Playground

Nature is an important component of life, especially for our youth. Richard Louv pioneered this line of thought with his book, *The Last Child in the Woods*. Instead of splashing in streams, building forts and digging in the dirt, more and more kids are glued to their television, laptop, or video game console.

The TogetherGreen Youth program is a national leadership program offering college students the chance to become mentors, sharing their care for and knowledge of the environment with the next generation. The program is funded by the Service's "Youth in the Great Outdoors" initiative and promotes conservation career opportunities for future generations. A portion of the funding from the 2011 program went to the Columbus, Ohio, Ecological Services Field Office to hire Nicole Haas, a student majoring in Forestry, Fisheries and Wildlife at The Ohio State University, in July of 2011.

Nicole's TogetherGreen Youth project aimed to engage children in pre-school or kindergarten, where they can experience nature on a nearly daily basis and in a safe setting. Nicole selected a school in an urban and residential neighborhood of Columbus, Ohio, to provide a natural experience in an area where other opportunities are limited. With help from the school community, local businesses and families, Nicole designed, planned and built a natural playscape. Instead of concrete and man-made play-sets, a natural playscape is composed of trees, shrubs, hills, dirt, rocks, and trails. It mimics a natural environment such as a stream or forest and promotes unrestricted creative play.

Nicole built her playscape at the Mary Evans Child Development Center, attended by 72 students, from infant to age 6. Nicole and the school came up with design that includes a woodland hollow and a play stream. These are connected by a trail that meanders through the area. The soil excavated from the trail was used to build four small hills and one large hill. The trail runs through the hills, and tree trunk slices meander throughout the hills as "stepping-stones" to encourage access and exploration.

The woodland area is with native



The playscape, once a mowed grass field, now invites kids to explore a stream, hills, trail and plants. Photo by Nicole Haas/USFWS.

trees, shrubs, selected for their interesting characteristics that kids could experience with all their senses: spice-bush's scented leaves to smell, tulip poplar's iridescent leaves to look at, red-mulberry's berries to taste, and hackberry's lumpy bark to feel. The other main aspect of the playscape is the play-stream, which begins at the end of the main hill, meanders, and terminates at a catch basin. It is about

5 inches deep and filled with gravel, medium and large river rock, and drift wood. Large boulders were embedded into the sides and provide seating.

Nicole is developing pamphlets for teachers with lesson plan ideas and ways to effectively use the area for education and recreation (for example: exploring your five senses, food webs, butterflies and birds). She is also developing a plant identification handout for teachers. Many partners contributed to the project. Compost, rocks, sand, trees and shrubs were donated or provided at a discount from local businesses. A local sustainable design contractor helped Nicole design and implement the plan. Local businesses donated materials or sold them at a reduced price. Parents at the school provided additional funding, and parents, students at The Ohio State University, and coworkers at the U.S. Fish and Wildlife Service donated their time and energy to build the playscape.

More information on the Together Green Youth program can be found at: <https://www.youthgo.gov/news/togethergreen-youthgrowing-next-generation-conservation-leaders>

To view similar opportunities, projects and other online resources related to jobs in the federal government go to: <https://www.youthgo.gov/>

*By Megan Seymour  
Columbus Ohio Field Office*

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# Service Responds to Mississippi River Spill

Midwest Region personnel mobilized over the Thanksgiving holiday and weekend to keep large numbers of migrating diving ducks from encountering oil from a spill on the Upper Mississippi River. A sinking, northbound tow, the Stephen L Colby, ran ashore to save the crew after it struck a submerged object and began taking on water. The vessel, carrying 91,000 gallons of fuel, began to discharge diesel fuel into the river. The City of LeClaire, Iowa, was able to deploy booms out and around the sunken tow within 50 minutes of the incident, greatly reducing the size of the emergency response. But it wasn't over yet.

Following the spill, contaminants biologist Mike Coffey met with the U.S. Coast Guard, which led the incident command team. Use of the incident command system is standard practice for emergency oil spill responses. As fuel continued to leak from the tow, Coffey organized the command's wildlife branch and began to address the diesel fuel accumulating behind the existing booms. The wildlife branch also set up wildlife deterrents and made plans to capture and rehabilitate oiled wildlife if necessary. It was quickly determined that the oiled river habitat was not within the National Wildlife Refuge System, and federally listed species were not at the site. .

This reach of the river in late November and early December is a popular stopover location for tens of thousands of diving ducks during fall migration. There were also a number of mallards from the local area. The wildlife deterrent plans were designed

to keep the mallards out of the diesel fuel and keep diving ducks out of the area. Additional plans were made to haze rafts of diving ducks while the responders removed oil from behind the booms and from the vessel before lifting it out of the water with large cranes. We dubbed these contingencies as Operation Canvasback. The plan was to use a flotilla of boats to keep pushing the waterfowl to safe areas along the river.

The only oiled birds found during the spill response were two mallards and one Canada goose. All of these birds were found dead or died shortly afterwards. There was evidence of previous debilitating conditions in the birds based on their behavior, wounds, or emaciation.

Ed Britton from the Savanna District supervised the wildlife reconnaissance and relieved Coffey as the Wildlife Branch director the response. See page eight for more.

Their primary tasks were to monitor the movement of diving ducks into the area and be prepared to haze them away to prevent exposure to the diesel fuel while the responders removed the oil from the river and salvaged the vessel.

Other offices near the spill site were the Savanna District of the Upper Mississippi River National Wildlife Refuge and Port Louisa National Wildlife Refuge. Biologists from the refuge offices and additional staff from the Ecological Services field conducted shoreline searches for oiled wildlife. Service participants included Drew Becker, Eric Tomasovic, Russ

Engelke, Bob Clevestine and Ron Knopic. In addition, volunteers from the river cleanup group known as Living Lands and Waters supported the responsible party in patrolling areas in boats with high city duck use. The Iowa Department of Natural Resources and the U.S. Coast Guard also provided personnel for the wildlife branch.

*By Mike Coffey  
Rock Island Field Office*

# Towboat Sinking Averted Environmental Disaster



Diesel fuel spewing from the sunken towboat is contained by booms. Photo courtesy of Aaron Yetter/ Illinois Natural History Survey.

Upper Mississippi River National Wildlife and Fish Refuge  
At 4:30 a.m. on November 25, the towboat Stephen L. Colby was motoring upriver carrying 90,000 gallons of diesel fuel and 1,000 gallons of lube oil when it struck an underwater object and began sinking in the Upper Mississippi River main channel, at LeClaire, Iowa. Fortunately, the towboat was able to reach the shoreline allowing the nine crewmembers to escape. The partially sunken vessel began spewing diesel fuel into the river and catapulted one of the greatest environmental rescue efforts ever conducted on the Upper Mississippi River.

Rescue crews from the LeClaire Fire Department, the towboat company, city, county, state and federal agencies were immediately mobilized to the accident scene. The leaking fuel turned the surface waters red and its smell saturated the air. The towboat sinking could not have come at a worse time, as tens of thousands of waterfowl were migrating through the area. Fortunately, the spill did not occur upriver, where an intricate system of backwaters are present within the Upper Mississippi River National Wildlife and Fish Refuge.

The Mississippi River was immediately closed to all boat traffic to prevent any additional accidents due to the potential for an underwater navigation hazard.

The Corps of Engineers conducted sounding surveys and found no underwater obstruction and the river reopened.

The sunken boat was surrounded with floating containment and sorbent booms to capture the diesel fuel that was flowing from the crippled vessel. Divers had to feel their way in the murky waters along the vessel's hull to find and seal ventilation shafts that were leaking fuel. Rescue crews in boats searched the swift flowing waters to locate fish or wildlife that were being impacted. Sitting 26 miles north of the fuel spill, there were more than 50,000 waterfowl (mostly canvasbacks) on the refuge. Ice had formed in the backwaters and pushed the birds to the main channel where they were staging to migrate south. These birds follow the trailing edge of ice and 2,000 canvasbacks had already moved to within one mile of the leaking vessel. Bald eagles were also migrating, following the waterfowl, and vigilantly watching for any signs of a slow moving or crippled duck. If ducks were to get oiled and couldn't fly, eagles would immediately take advantage of the bounty feast and also be impacted.

Twice daily briefings were held to update and coordinate the rescue efforts. The U.S. Coast Guard sent in the Sector Commander from St. Louis to oversee the operation. The U.S. Fish and Wildlife Service provided a contaminant specialist and several wildlife biologists to identify and assess wildlife damages. Iowa Department of Natural Resources coordinated assessment of water pollution and fishery impacts. A lightering boat trekked from St. Louis to siphon fuel from the sunken towboat. Continued on next page.

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## Youth Art Contest : Help Spread The Word About Endangered Species



Missouri kindergarten student Ava Bribiesco designed this 2013 prize winning image of American burying beetles. Photo courtesy of the Endangered Species Coalition.

The Midwest Region is home to some remarkable young artists. Students from Missouri and Minnesota took top honors in the national Endangered Species Youth Art Contest for the past two years. In 2012, Sky Waters, a fifth grader from Eagan, Minnesota, won the grand prize with his watercolor of a woodland caribou; and last year, St. Louis, Missouri, kindergarten student Ava Bribiesco matched Sky's success with her depiction of American burying beetles.

This nationwide contest is organized by the U.S. Fish and Wildlife Service, the Endangered Species Coalition, the Association of Zoos and Aquariums, and the International Child Art Foundation. The contest provides K-12 students with an opportunity to learn about endangered species and express their knowledge and support through artwork.

All of the basic information students need to participate in the contest can be found at:

<http://www.endangered.org/campaigns/endangered-species-day/saving-endangered-species-youth-art-contest/>

Artwork should highlight one or more species currently listed as federally threatened or endangered – lists can be found at [www.fws.gov/endangered](http://www.fws.gov/endangered) For information on Midwest species, go to [www.fws.gov/midwest/endangered](http://www.fws.gov/midwest/endangered) This is a great opportunity for students to learn more about endangered species in the Midwest and around the country, so encourage young artists to enter!

*By Georgia Parham  
External Affairs*

### Tow Boat Continued.

The amount of diesel fuel that spilled into the river probably will never be determined. All fuel in the water had been removed as of December 5 with more than 130,000 gallons of fuel contaminated water siphoned and 50,000 gallons of petroleum product recovered. Incredibly, minimal environmental impacts have been identified, so far. Living Lands and Waters placed colorful streamers along the shoreline to deter wildlife use. A week after the spill, only two mallards and one Canada goose had been recovered from within the spill area and the ducks had injuries related to hunting. No fish mortality has been identified.

The 154-foot-long, 600-ton towboat was lifted out of the water. A 30-inch x 12-inch L-shaped hole was gouged into the center underside hull. The towboat sinking occurred in an area known as the Rock Island Rapids where rock formations are prevalent and dynamite had to be used to clear the original 9-foot channel. An NTSB investigation is underway to determine the cause. We depend upon our river to provide a gateway for transportation of millions of tons of commercial products. We often take for granted the functionality, richness, and beauty of our river. It is a nationally important commercial navigation route, overlaid by a nationally significant recreation area, surrounded on both shores by national scenic byways, and is a national wildlife refuge. This near catastrophic event reminds us of the dynamic environment we live in and fragile nature of its many components.

*By Ed Britton, Wildlife Refuge  
Manager*

# Notes from the Trail: Unexpected Tracking Made Youth Hunt Memorable

November 2, was the opening day of youth rifle deer season in Missouri. While checking hunters along the river bottoms on the Overton Bottoms North unit of the Big Muddy National Fish and Wildlife Refuge, I came across a youth hunter and her older brother walking back to their vehicle. The youth hunter told me that she shot a big buck but they lost the blood trail. After listening to their story, it sounded like the deer had been gut shot.

The 11-year old youth hunter said, "This is the first deer I've ever shot." I asked the two to bring me back to where they last found blood. After looking at the deer's tracks and knowing the experience and memories that go along with shooting your first deer, I wanted to do everything I could to find this buck for this young hunter.

I told them that I was very familiar with these river bottoms and asked if they would mind if I tracked the deer for them. With wet boots and all, the youth hunter smiled and said, "Okay!" With that, the three of us started tracking this wounded buck.

Long story short, more than a mile through the river bottoms, over a railroad track, across a creek and onto a neighboring property, we found her buck.

You think this youth hunter will ever forget this hunting experience? How awesome is that!

*By Wesley Verrill  
Refuge Law Enforcement Officer  
Big Muddy National Fish and Wildlife Refuge*

## Sign Up For Endangered Species Daily

For the past year, people around the country have received a daily bat fact, courtesy of the Indiana Bat Calendar created by Bloomington Field Office biologist Lori Pruitt.

Daily bat facts helped spread the word about the importance of bats, the threats they face, and the efforts by many partners to conserve them. The year of bat facts has ended, but the idea lives on in Endangered Species Daily.

Subscribers receive a daily e-mail with a fact about imperiled species in the Midwest, throughout the country or around the world. To sign up for Endangered Species Daily, go to <http://www.fws.gov/midwest/ESdaily.html> Facts aren't limited to Ecological Services ideas, so if you or someone in your field station has an idea for an interesting endangered species fact, please contact Georgia Parham at [Georgia\\_Parham@fws.gov](mailto:Georgia_Parham@fws.gov).

*By Georgia Parham  
External Affairs*



Knowledge of the landscape, animal behavior and evidence of the animal helped Law Enforcement Officer Wes Verrill track at Big Muddy National Fish and Wildlife Refuge. USFWS photo.

### Endangered Species Daily by Email

Enter your email address:

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#### Verify your subscription

After subscribing, please confirm your subscription by clicking the link in the email message from FeedBurner. This message may end up in your spam folder. You will not receive email updates until you confirm your subscription.

#### Note for USFWS employees

You will receive an error message if you attempt to sign up using Google Chrome while signed into your BisonConnect account. To avoid this error, open this page in Internet Explorer or another available browser.

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# From Rubble to Conservation: The 3M Flat Branch-Hinkson Creek Wetland Project

Missouri Private Lands Office Conservation in an urban setting is not always an easy task to accomplish. More often than not, urban conservation involves multiple stakeholders with different ideas of what conservation should entail. This can especially be true when lands owned by a municipality are involved.

The 3M Flat Branch-Hinkson Creek Wetland Project in Columbia, Missouri is an example of just such a project, but it was the stakeholder and partner involvement that made the project a success, clearing many hurdles along the way.

In 2009, the City of Columbia Parks and Recreation Department approached the Service Partners for Fish and Wildlife Program, through the Missouri Private Lands Office, with the idea of a wetland restoration project on the site of a former wastewater treatment facility - Sewer Plant #2.

Sewer Plant #2, in operation from 1956 until 1983, was built adjacent to both Flat Branch and Hinkson Creeks, two of Columbia's larger watersheds and

was located along the old Missouri-Kansas-Texas railway, now the MKT Nature Trail used extensively by Columbia's citizens. The concept of restoring a wetland complex and, better yet, the potential for wetland outreach and education had its appealing qualities.

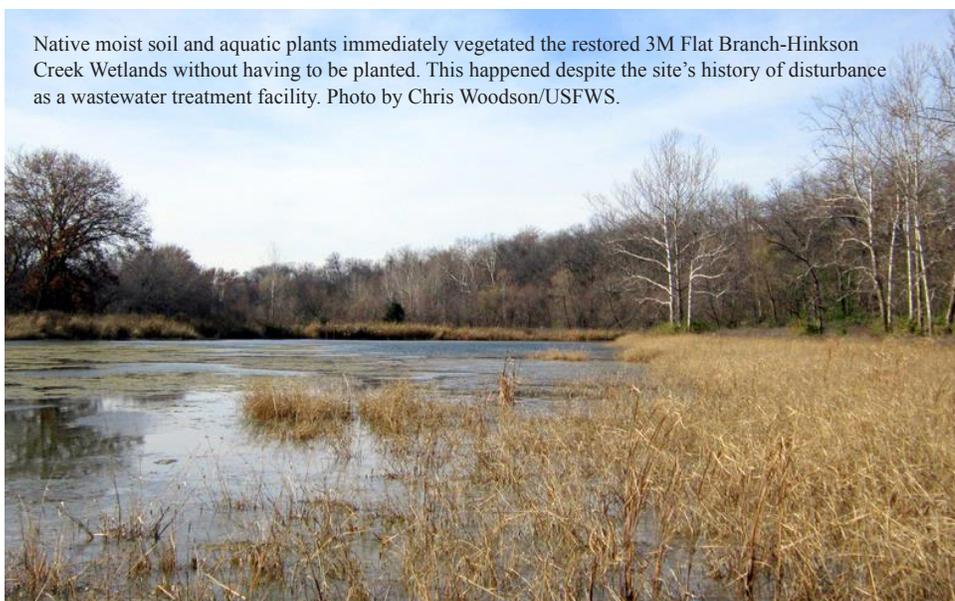
Staff of the Missouri Private Lands Office was not initially optimistic regarding the feasibility of the City's project idea. The site had been extremely altered from its original floodplain habitat. In addition to having several tons of fill material added to the site over the years, Sewer Plant #2 still had much of its former infrastructure remaining. The truth of the matter was simply that restoration of the site to its former wetland habitat was thought to be too costly of a task to undertake. Talk of wetland restoration at Sewer Plant #2 began again just one year later, but this time there was more to discuss than just wetland restoration. Storm water runoff had become a hot topic in Columbia with recent rainfalls swelling Hinkson Creek out of its banks, flooding many low-lying areas including the MKT Trail. The City

was under increasing pressure, not only from local citizens concerned about flooding, but also from the U.S. Environmental Protection Agency, to address storm water runoff in the Hinkson Creek watershed.

With this increased awareness of watershed issues, there came a renewed interest in wetland restoration at Sewer Plant #2. Could the project alleviate excessive storm water runoff and simultaneously restore wetland habitat? Costs associated with the project still remained an issue; however, with the increased awareness also came new partnerships. One of the those partners included the 3M Corporation who awarded the City a \$40,000 grant for urban ecological restoration, just the financial start the project needed to get it off the ground.

With 3M's initial start-up funding in place, the City went to work removing Sewer Plant #2's remaining infrastructure. First on the list was an abandoned pump house that looked more like the backdrop of an apocalyptic movie scene than a municipal facilities building. Bars had been welded on to broken windows for public safety and walls were covered with graffiti. Structural engineers inspected the building from a demolition perspective and quickly informed project planners the structure would be extremely expensive to remove.

At first glance, the pump house looked like a relatively small building, but in reality it was several stories of thick concrete, most of which was buried deep below the surface. Again, the project was facing a cost prohibitive roadblock based on the site's history as a wastewater treatment facility. Continued on next page.



Native moist soil and aquatic plants immediately vegetated the restored 3M Flat Branch-Hinkson Creek Wetlands without having to be planted. This happened despite the site's history of disturbance as a wastewater treatment facility. Photo by Chris Woodson/USFWS.

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# From Rubble to Conservation: The 3M Flat Branch-Hinkson Creek Wetland Project

During initial inspections however, the pump house was found to still have water-holding capabilities despite being inactive for nearly 30 years. Thoughts of demolition quickly turned into thoughts of renovation. The lower floors of the pump house were retrofitted to collect and hold storm water runoff, providing more than 300,000 gallons of gray water storage and a secondary water source for wetland management. Walls were removed from the above ground first floor and the remaining open space converted into a viewing platform overlooking the wetland. Literally topping things off, the Missouri Department of Conservation provided funding for a native green roof adding to the aesthetics of the newly renovated pump house.

The pump house wasn't the only infrastructure challenge for project planners related to Sewer Plant #2's past history. As the City began building wetland pools it encountered more buried infrastructure than what was indicated in the original site plans. Yet again, the City turned a problem into a solution, recycling an estimated 20,000 pounds of steel removed from the site that generated nearly \$3,900 in additional funding for the project. Even with successful renovation and removal of infrastructure, there was still a problem beneath the ground of Sewer Plant #2 that wasn't as obvious. Former waste water treatment facilities often have heavy metals hidden within the soils which can pose a threat to wildlife and possibly present health concerns for people. With this in mind, the City and the Missouri Private Lands office enlisted the aid of contaminant specialists from the Columbia Ecological Services Field Office to conduct a site survey for potential hazards. As was

suspected, soils from Sewer Plant #2's former settling ponds contained elevated levels of metals that exceeded thresholds of concern for wildlife. With recommendations from Field Office staff and approval by the Missouri Department of Natural Resources, the City was able to develop a hazard remediation plan involving the removal and encapsulation of contaminated soils. Further testing by Field Office staff following remediation efforts found the site to be free of its original heavy metal hazards, making the wetland project and downstream watershed safe for both wildlife and people.

Actual wetland design and restoration efforts seemed quite simple after working through the initial challenges left behind by Sewer Plant #2. The Missouri Department of Conservation, Natural Resources Conservation Service Wetland Emphasis Team volunteered their time and resources to conduct a topographic survey of the site. From this survey, the City Public Works Department successfully developed a design capable of sequestering storm water runoff from 142 acres of urban watershed while simultaneously providing wetland habitat in the Flat Branch and Hinkson Creek floodplains. Columbia Parks and Recreation staff coordinated every aspect of the project, which included obtaining a \$25,000 National Fish and Wildlife Foundation - Five Star Restoration Grant that provided funding for wetland pool construction, erosion control and native plantings.

The Missouri Private Lands Office provided \$9,000 in cost share through the Partners for Fish and Wildlife Program for the purchase of new pipe and water control structures to manage the newly restored wetlands. A noteworthy feature of pipe utilized by

the City for the wetland project was that it was made from 40% recycled material. Furthermore, Forest ReLeaf of Missouri donated 1,000 native trees and shrubs to the project while Columbia Aquatic Restoration Project volunteers and TreeKeepers volunteers donated their Saturdays to planting the trees and shrubs provided by Forest ReLeaf. The complete list of stakeholders and partners ultimately included:

- 3M Corporation
- Columbia Parks and Recreation
- Columbia Public Works
- Boone County Public Works
- Columbia Water and Light
- U.S. Fish and Wildlife Service
- Missouri Department of Conservation
- Natural Resources Conservation Service
- Missouri Department of Natural Resources
- National Fish and Wildlife Foundation
- Missouri Conservation Heritage Foundation
- Columbia Audubon Society
- Forest ReLeaf of Missouri
- Missouri River Relief
- National Association of Counties Research Foundation
- Missouri Native Plant Society
- Recreational Trail Program
- Columbia Aquatic Restoration
- Project volunteers
- TreeKeepers volunteers.

Without the successful collaboration of these stakeholders and partners to overcome the challenges presented by Sewer Plant #2, the 20-acre site would not have become what is proudly known today as the "3M Flat Branch-Hinkson Creek Wetlands."

*By Chris Woodson*

# Midwest Region Receives Funding to Support Science in the Service

Every year the U.S. Fish and Wildlife Service's Midwest Region collaborates with the U.S. Geological Survey's Science Support and Quick Response program. The program fosters partnerships between the Service and USGS that target priority research needs. This past year over \$380,000 in funding was available to emphasize cooperative problem solving in the Service.

"This program allows us to maintain a strong working collaboration with our USGS partners in the Midwest Region and across the country," said Tom Melius, Midwest Regional Director. "It is particularly good to witness the cooperative problem solving occurring between Service field offices and local USGS scientists as they identify and address our collective conservation challenges using the best available science."

New Midwest Region projects that

received funding through the Science Support Program are:

- Missouri Cooperative Fish and Wildlife Research Unit in collaboration with Cypress Creek National Wildlife Refuge and in partnership with the Ozark - Central Recovery Unit will receive \$148,467 over three years for the identification of summer habitat of the federally endangered Indiana bat (*Myotis sodalis*) and three other bat species of special concern. Research findings will have application for landscape distribution use.
- Great Lakes Science Center – Hammond Bay Biological Station in collaboration with the Marquette Biological Station will receive \$97,465 over two years to determine the origin of invasive sea lampreys in the Cheboygan River, Michigan.
- Wisconsin Cooperative Fishery Research Unit in collaboration with the Green Bay Field Office will receive \$72,528 over two years for the

development of eDNA techniques for the detection of the endangered Purple Cat's Paw Pearlymussel and Snuffbox mussel.

- Upper Midwest Environmental Sciences Center in collaboration with the La Crosse Fish and Wildlife Conservation Office will receive \$30,246 over two years to determine the potential isotopic and trace element otolith markers for application in identifying Asian carp spawning and rearing habitats in the Upper Mississippi River System above Lock and Dam 19.
- Midwest Region projects that received funding through the Quick Response Program are:
  - Northern Prairie Wildlife Research Center in collaboration with the Fergus Falls HAPET office will receive \$12,862 to design optimal conservation strategies for multiple Federal trust bird species at the tallgrass prairie eco-regional and Wetland Management District scales.
  - Minnesota Cooperative Fish and Wildlife Research Unit in collaboration with the Regional Office of the Fish and Wildlife Service will receive \$21,829 to delineate Sandhill Crane populations in Minnesota.

The Science Support and Quick Response program allows the U.S. Geological Survey to work collaboratively with the Service to address priority research needs. The SSP is supported by approximately \$4 million nationwide each year. The QRP is supported annually by \$350K. Each year, Headquarters and Service research coordinators from every region issue a call for research proposals. Local Service sponsors and USGS scientists collaborate in writing proposals for studies to address the Service's mission-critical science needs.

Continued on next page.



Science Support funding will be used for a project to identify summer habitat of the federally endangered Indiana bat (pictured here) and three other bat species of special concern within the Ozark – Central Recovery Unit. Photo courtesy of Megan Harris/ USFWS.

# Fawnsfoot Mussels Arrive At Genoa National Fish Hatchery In Time For Deer Season

Apologies to the deer hunters out there, but this article is about freshwater mussels. At Genoa National Fish Hatchery, in Wisconsin, we were able to raise a new species of mussel this year, with the help of our streamside, mussel rearing trailer.

Our first fawnsfoot mussels, a declining species regionally, were recovered from one of the rearing tanks in the trailer this fall. The trailer has proved to be a valuable tool for rearing yearling mussels to a size suitable for stocking. This year, nearly 2,000 yearling mussels reached stocking size after spending the summer in the trailer. Over the last two years we've found that the trailer can also be effective in rearing young of the year mussels past their sensitive early life stages. This year, we recovered nearly 700 young of the year Higgins' eye from our culture trials in the trailer, along with 18 fawnsfoot. While 18 is not a staggering number, it was a welcome sight considering that we only started with a total of 364

individuals in the tank. Restoration efforts often start with small steps and for these individuals the next step is to spend the winter at Genoa National Fish Hatchery. Next they will go back in the trailer this summer to grow to a size suitable for stocking. At that point they will be placed in the Mississippi River in Pool 15 as part of an ongoing restoration project.

Next year, we plan to make another attempt at raising fawnsfoot, and with what we learned this year, we hope for more success next time around.

By Nathan Eckert

## Midwest Region Receives Funding to Support Science in the Service Continued.

The representatives from the regions and Headquarters review, prioritize, and recommend projects based on the funds available. Once Service and USGS leaders approve the projects selected, SSP funds are distributed to USGS Science Centers and Cooperative Research Units to support the studies identified. Service sponsors and USGS scientists work closely together to complete projects and implement results.

For more information on the Science Support and Quick Response programs, please visit <http://www.usgs.gov/ecosystems/ssp/index.html>

*By Katie Steiger-Meister  
External Affairs*

*Mike Olson  
Science Coordinator for Prairie  
Plains and Potholes LCC*

These adult fawnsfoot mussels were photographed at Genoa National Fish Hatchery, Wisconsin. USFWS photo.



# Neosho National Fish Hatchery Wins DOI Environmental Achievement Award



Midwest Regional Director Tom Melius presents the Department of the Interior Environmental Achievement Award to Neosho National Fish Hatchery's Manager, David Hendrix. Service photo.

In January, Midwest Regional Director Tom Melius and Midwest ARD of Fisheries Todd Turner visited Neosho National Fish Hatchery in Missouri to present staff with a Department of Interior Environmental Achievement Award. Earlier in the month Assistant Secretary Rhea Suh announced that Neosho National Fish Hatchery was a recipient of the 2013 award. A model of sustainability, the Visitor Center was nominated in the "Building the Future" award category.

Awards recognize departmental employees and partners who have attained exceptional achievements under Executive Order 13514 "Federal Leadership in Environmental, Energy,

and Economic Performance" and for cleaning up contaminated land. The Award categories are: Sustainability Hero; Green Innovation; Lean, Clean and Green; Good Neighbor; Green Dream Team; Building the Future; and Environmental Remediation.

An interdisciplinary panel of reviewers from the Department's bureaus and offices evaluated nominations to recommend Award recipients and honorable mentions. The panel is chaired by the Office of Environmental Policy and Compliance.

Neosho National Fish Hatchery was established in 1888 and is the oldest operating federal fish hatchery. The hatchery encompasses approximately

18 acres in the heart of the town of Neosho, Missouri, due to availability of excellent-quality spring water. It raises endangered pallid sturgeon for recovery efforts in the lower Missouri River and rainbow trout for stocking in Lake Taneycomo. It supports conservation of the endangered Ozark cavefish and restoration of native mussels. Now more than 20 years after the hatchery's centennial, this new high-performance 9,839 square-foot Visitor Center, which is the first Service building to earn a Leadership in Energy and Environmental Design (LEED) Gold rating officially from the U.S. Green Building Council (USGBC), opened in December 2010. Energy efficiency strategies used throughout the building include a cool roof, day lighting, low-e glazed windows, energy-efficient lighting and a 31.13 ton geothermal heat pump. The Visitor Center is architecturally designed to mimic the original headquarters from 1888, which featured similar onion dome and witches hat roof styles.

*By Katie Steiger-Meister  
External Affairs*

## Want to know how to take a better photo?

Have a question about Facebook or our other official social media communication tools? Check out the social media hub for tutorials, best practices and links to Service feeds:

<http://www.fws.gov/home/socialmedia> (USFWS image).



# U.S. Fish & Wildlife Service

## Social Media

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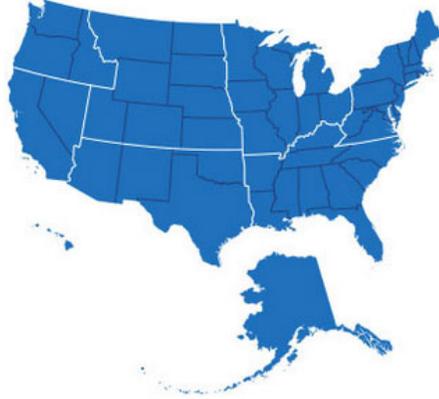
### Social Media in the U.S. Fish and Wildlife Service

We are the U.S. Fish and Wildlife Service, the premiere federal agency charged with protecting and enhancing America's treasured fish, wildlife, plants, and their habitats. We work for the perpetuation of diverse and abundant wildlife because biodiversity is essential to maintaining the health of our environment, our families, and our economy. We maintain a network of public lands totaling upwards of 150 million acres. In order to best serve the needs of wildlife and people, we are split into eight geographic regions and nearly 700 field stations, with our headquarters located in Arlington, Virginia.

#### Our strategy

Our approach with social media takes cues from our agency structure and translates it into the digital space. In the interest of allocating our resources carefully and effectively, we have developed a strategic approach to social media wherein we choose which platforms we use based on how well they help us accomplish our mission. This website provides as a hub for all of our social media policies and best practices, along with contact information and links to individual social media presences.

#### Connect With Us Around the Country



Choose a region to learn more, or check out the [full list of social media sites](#).

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- [Southwest](#)

#### Tweets from USFWS accounts

**OfficialUSFWS**  
Tweets from a list by US Fish and Wildlife  
*List of official USFWS accounts on Twitter*

**USFWS Refuge System** @USFWSRefuges 13m  
How do animals survive Minnesota winter? Film Fest, 12/7, 1:30 pm  
Minnesota Valley #Refuge  
[1.usa.gov/1eA9Hfk](http://1.usa.gov/1eA9Hfk)

**Nelson Mandela** @Mandela\_Quote 11h  
"I know my cause will triumph"  
#Mandela  
Triumph He Did! Rest In Peace Madiba. [pic.twitter.com/XzlkhS5Bvg](http://pic.twitter.com/XzlkhS5Bvg)  
Retweeted by Red Wolf Recovery



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"The worst part was seeing the tiny tusks."  
Jan Vertefeuille, head of campaigns for the World Wildlife Fund, describes what it was like to attend our #Ivorycrush last month.



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## Regional Director Gets Up Close Look at Hellbenders, Beetles

Regional Director Tom Melius braved early January's polar vortex and toured captive breeding and rearing facilities for endangered Ozark hellbenders and American burying beetles at the St. Louis Zoo. On hand from the Columbia Field Office to provide the Service perspective were biologists Trisha Crabill and Scott Hamilton, who joined St. Louis Zoo staff for the tour.

The Ron Goellner Center for Hellbender Conservation is part of the St. Louis Zoo WildCare Institute, which focuses on conservation of endangered species and their habitats. RD Melius talked with Chawna Schuette about how the zoo takes precautions to prevent transmission of amphibian chytrid fungus, a serious threat to Ozark hellbenders. He also got a look at where eggs are hatched and young are reared. The facility is currently rearing more than 4,500 Ozark hellbenders for eventual release; about 700 young hellbenders from the zoo's propagation program have already



Chawna Schuette, St. Louis Zoo, Tom Melius, and Service biologists Trisha Crabill and Scott Hamilton talk about Ozark hellbenders. USFWS Photo by Rick Hansen.

been released into the wild. The captive propagation program at the zoo is being used to stabilize wild populations until threats are better understood and can be addressed. Partners include the Missouri Department of Conservation, the U.S. Fish and Wildlife Service,

and Arkansas Game and Fish Commission, among many others.

Another tour stop was the zoo's Insectarium, where zoo staff are working on recovery of the American burying beetle. Melius met with Bob Merz, zoological manager for the zoo, who explained the zoo's captive rearing program and gave a behind-the-scenes look at the Insectarium. The zoo houses the beetles individually, and detailed information on each beetle is recorded so that the captive colony maintains genetic diversity. American burying beetles from the zoo have been used in reintroductions in Missouri the past two years.

*By Trisha Crabill and Scott Hamilton, Columbia Missouri ES Field Office*



St. Louis Zoo's Bob Merz explains the issues involved in captive rearing of American burying beetles to Tom Melius. Boxes containing the endangered beetles can be seen in the background. USFWS Photo by Rick Hansen.

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## Midwest Region Video Links

**For the Bobcat video on our Field Notes page:**

<http://www.fws.gov/midwest/InsideR3/January14Story16.htm>

**Link to Video on its host site:**

<http://www.flickr.com/photos/steve-gifford/10671444456/>

**For the Fire On Ice Hockey Tournament video on our Field Notes page:**

<http://www.fws.gov/midwest/InsideR3/January14Story17.htm>

**Link to the Video on its host site:**

<http://www.youtube.com/watch?v=S-pcULpLZeE>

**For the 3M Flat Branch-Hinkson Creek video on our Field Notes page:**

<http://www.fws.gov/midwest/InsideR3/January14Story11.htm>

**Link to Video on its host site:**

<http://www.youtube.com/watch?v=g6pKUGzyzv4>



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<http://www.fws.gov/midwest/>

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