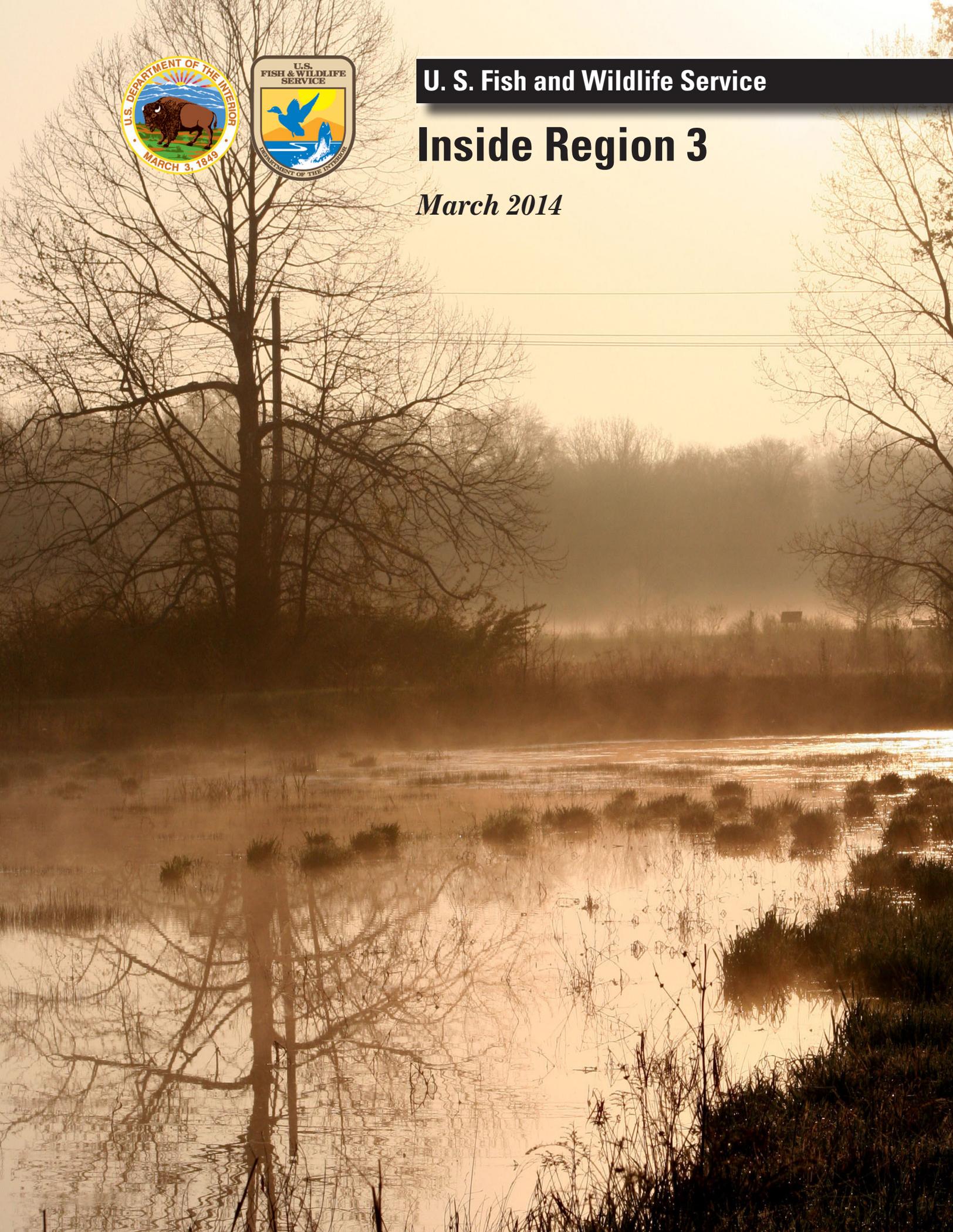




U. S. Fish and Wildlife Service

Inside Region 3

March 2014



RD Corner

Snow Melt

I was pleased to join Director Dan Ashe in his recent visit to the Midwest as he had the opportunity to tour and meet staff at Neosho National Fish Hatchery (NFH) in southwest Missouri. Established in 1888, it is the nation's oldest operational federal fish hatchery.

The hatchery raises endangered pallid sturgeon for recovery efforts in the lower Missouri River and also supports conservation of the endangered Ozark cavefish and restoration of native mussels. Its 9,200 sq. ft. visitor center accommodates more than 100,000 visitors per year, enhances environmental education and interpretation opportunities, and generates economic benefits for Newton County and surrounding areas. The visitor center is an energy-efficient, LEED-certified facility and features solar panels. The relatively newly built construction enhances community education about aquatic resources and generates local economic benefits in the form of enhanced tourism revenues and associated employment opportunities in southwestern Missouri.

With April in front of us on the calendar, the snow and ice are melting and will soon be gone. Before the spring weather takes hold, however, I encourage you to take advantage now of opportunities to get out onto our northern frozen lakes to enjoy the last few days of ice fishing. Remember to be safe... many of our areas offer public fishing opportunities such as the recent event at the Upper Mississippi River National Wildlife and Fish Refuge that you will see on page 15.

Also, the end of March is the advent of early arrivals of migratory birds. I'm looking forward to seeing some of these early migrants arrive in the Midwest.



Regional Director Tom Melius/USFWS.

Hopefully they will find that the area is losing a little bit of the white and cold that we've had for so long this winter and turning towards a spring that is conducive to their return. One good sign: this month Chautauqua National Wildlife Refuge, part of the Illinois River National Wildlife and Fish Refuge Complex, has seen one of its largest concentrations of spring migrants in some time. Take a look at the article on migration on page 20.

And last but not least, hopefully you've already seen the announcement we put out several weeks ago that our region received an award for Scientific Excellence. I would like to extend my personal congratulations to Dr. Lisa Williams who received the award in

recognition of her dedicated work. You can read more about Dr. Williams and her work on page four.

T.O.M.

Director Visits Neosho National Fish Hatchery

Thanks to the suggestion of the Midwest Regional Director Tom Melius, the Neosho National Fish Hatchery had the honor of welcoming Dan Ashe, the Director of the U.S. Fish and Wildlife Service, to greet, meet, eat and see what we're all about. Arriving right as the noon bell rang, Mr. Ashe was greeted immediately upon entering the visitor center by about 40 people – guests, volunteers and staff members. On hand were representatives from U.S. Senators Claire McCaskill's and Roy Blunt's offices, as well as Congressman Billy Long and the Mayor of Neosho, Richard Davidson and his wife. Always one with a smile, handshake and a hug, hatchery Manager David Hendrix officially announced our guest to the crowd, and invited everyone to mingle and introduce themselves.

As exciting as it was to welcome our distinguished visitors, another powerful presence was in the air. Thanks to the generous support from our fabulous Friends group, the smell of barbecued brisket began to dominate the room, and thankfully it was time for lunch to begin. After an invocation by Mr. Hendrix, everyone helped themselves to the tasty food, catered by a local market, and enjoyed fellowship with each other. A magnificently decorated cake, donated by the local Walmart, capped off the meal in style.



L to R: Director Dan Ashe, Neosho National Fish Hatchery Manager David Hendrix and Midwest Regional Director Tom Melius. Bruce Hallman/USFWS.

After appetites were satisfied and conversations died down, those that remained were encouraged to introduce themselves and say a word or two. Despite having no prepared speech, the Director then addressed the group with some important points. He was quick to point out the power of partnerships, both with the U.S. Fish and Wildlife Service as a whole, and also on the local level here at the hatchery. Pointing out the wonderful hosting help the Friends Group provided, Mr. Ashe emphasized that the jobs we all do are made more efficient and more effective by uniting causes with other organizations.

In a display showing the work on our current visitor center, Mr. Ashe reiterated its headline that the hatchery, and indeed the whole Service, is “not about the past, but about the future.” He stressed the importance of bringing up the next generations of conservationists and encouraging their input and contributions to make our country's fine resources even better.

He also brought up the current Farm Bill and how it is highlighting the importance of water quality and the restoration of our aquatic resources – both topics that directly influence this, the oldest operating federal hatchery still serving the country.

To conclude the visit, a walking tour of the grounds ensued. We stopped by the endangered mussel room, the pallid sturgeon brood and young buildings, the trout ponds and saw our newest plans for raising endangered Topeka shiners. Director Dan Ashe left after his three hour visit in good spirits. He called the Neosho National Fish Hatchery a real “jewel” in Missouri and for the Service, and considered it to be a “core asset” with its beautiful setting, community support, growing endangered species recovery work and rainbow trout program.

By Bruce Hallman, Environmental Education Specialist, Neosho National Fish Hatchery

Lisa Williams Wins USFWS Science Leadership Award!

Dr. Lisa Williams, the Branch Chief of Environmental Contaminants at the East Lansing Ecological Services Field Office in Michigan, is the 2013 recipient of the U.S. Fish and Wildlife Service's Science Leadership Award. The national award recognizes a Service employee's outstanding practice and support of scientific activities that improve the bureau's knowledge and management of fish and wildlife resources.

"Dr. Lisa Williams is a scientist, leader and mentor," said Midwest Regional Director Tom Melius. "She infuses her work with a contagious passion for conservation. We are proud she has received national distinction for her accomplishments in the environmental contaminants field."

Dr. Williams served as the Assistant Deputy Branch Director for Wildlife Response - Houma Sector of the Deepwater Horizon Spill and as Branch Director and Deputy Branch Director for Wildlife and Environmental Assessment for the Michigan Enbridge Line 6B Pipeline Spill, the nation's largest inland oil spill. During those crises, Dr. Williams used ecologically, scientifically sound and acceptable practices and principles leading to effective and efficient response measures for both spills.

"Lisa stands out because she promotes science in the Service not only through her own actions, but in the actions of her staff and colleagues," said Midwest Assistant Regional Director of Science Applications, Craig Czarnecki. "She



Dr. Lisa Williams in the field. Steve Kahl/USFWS.

has a natural ability to mentor and inspire."

Dr. Lisa Williams regularly mentors, guides and advises staff at the East Lansing Field Office, along with staff at other Ecological Services Field Offices in the Midwest Region. She is always willing to assist in developing future biologists and ensures that Service biologists are analyzing and presenting scientific results relevant to important Service issues. Williams regularly works one-on-one with staff in the Midwest and other regions as both mentor and coach in Natural Resource Damage Assessment and Restoration proceedings. Her mentoring has included providing advice on water quality permits, fish passage risk assessments, as well as advising the Great Lakes Restoration Initiative Contaminants of Emerging Concern team and coaching Midwest Region biologists on writing technical documents.

A consummate professional, Dr. Lisa Williams is an exemplary employee whose hard work, dedication, and above all else, nurturing spirit makes her the U.S. Fish and Wildlife Service's national science leader of the year.

The U.S. Fish and Wildlife Service's Office of the Science Advisor's Science Awards were established to recognize that effective wildlife management and conservation is founded on innovative scientific inquiry and principles. As the Service faces increasingly complex challenges, the value of current scientific information is rapidly increasing. The awards are meant to recognize the outstanding efforts of the agency's scientists and

technical staff. To learn more about the awards and the nomination process, please visit <http://www.fws.gov/science/awards.html>.

By Katie Steiger-Meister and Georgia Parham

Archaeological Survey Conducted for Riverbank Planting Project in the Rifle River Watershed

Riverbank planting projects are typically thought of as beneficial from a biological perspective. Native vegetation along a riverbank creates a protective buffer between the land and water. The plants provide fish and wildlife with food and cover, control stream bank erosion, reduce water pollution and minimize impacts from flooding. However, such projects also need to be evaluated from an archaeological perspective to ensure significant historic resources are protected.

Projects that receive federal funding must be reviewed under the National Historic Preservation Act (NHPA of 1966, as amended [USC Sec. 470-470t]) to ensure significant historical and archaeological sites in the country are preserved. Thus, all habitat projects that involve any type of ground disturbance must be reviewed for potential impacts. In the Midwest Region, James Myster is the Regional Historic Preservation Officer and reviews projects for potential effects.



Jeffrey Sommer, curator of Archaeology at the Historical Society of Saginaw County, Inc. conducts a shovel test at the project site. All sediment was screened through quarter inch mesh hardware cloth/USFWS.

Myster reviewed a proposed riparian planting project planned for spring 2014 in Arenac County, Michigan and determined that an archaeological survey would be required. The project site is located in the Rifle River Watershed, an area used by Native Americans. In November of 2013 the Historical Society of Saginaw County, Inc. conducted a Phase I Archaeological Survey of the Proposed Stoddard Landing Riparian Planting Project site along the Rifle River. The project area includes

two Areas of Potential Effect (APE) totaling 3.3 acres. Fieldwork consisted of surface inspection of exposed ground in each APE and shovel-testing of a single transect in each APE. The Phase I report indicated that “No significant archaeological material were found or collected at the site, and there were no catalogued or accessioned artifacts associated with the project.”

Historic review of projects ensures responsible stewardship and compliance with state and federal laws. This contributes toward the “Partnerships and Accountability” priority of the Service’s Fisheries Program Vision for the Future.

By Andrea Ania and James Myster



This site plan shows the locations of the proposed plantings in the Rifle River Watershed. Courtesy of USDA Farm Service Agency.

Students Learn to Plant the Seeds of Conservation at Genoa National Fish Hatchery

Genoa National Fish Hatchery has renewed a partnership with the La Crosse Garden Club in an effort to connect children with nature, and beautify the hatchery's grounds. From asters to zinnias this group provides an unmatched knowledge base about plant types, planting conditions, and what simply looks good. The only thing that this group is lacking is able bodied youngsters to share their knowledge with.

To address that problem, we turned to the Summit Environmental Elementary School in La Crosse, Wisconsin. Together we have laid out the framework for a multi-year planting exercise that will enlist the fifth graders from the classes of Erica Rasmussen and Marty Maus. The plan is to have each spirited student plant and nurture seeds from two vegetables and two native prairie plants in their classroom. Then on Earth Day, April 22, they will come to the hatchery and cultivate their plants in either a vegetable garden or native prairie garden on the hatchery grounds.

Following cultivation, maintenance and upkeep will be done by hatchery staff until fall harvest. Any production in the vegetable garden will be distributed to the new incoming fifth grade class at Summit. This year we have decided to try our hand at planting tomatoes and peppers in the vegetable garden, and sunflowers and coneflowers in the native prairie garden.

Hopefully the native prairie gardens will reseed themselves and continue to grow from year-to-year, resulting in beautiful prairie gardens around the hatchery. The vegetable gardens will show the importance of planning



La Crosse Garden Club members working in Genoa National Fish Hatchery's pollinator garden/USFWS.

something for the future. Just as students enjoyed the fresh vegetables when they started school, they can leave the same gift for the next fifth grade class. From there the lesson can expand and teach the students to protect and preserve nature and wild places so that it can be enjoyed by the future, just as they are currently enjoying it today. This is a goal that Genoa National Fish Hatchery, La Crosse Garden Club and Summit Elementary can commit to.

By Jorge Buening

The Future of the Northern Forests: Climate Change Impacts and Forest Management



The Nature Conservancy (TNC) recently began a new initiative using these research recommendations in portions of northern Minnesota. Species expected to respond well to a changing climate were planted. To learn more about TNC's climate-informed forestry practices in Minnesota's northwoods visit: <http://www.nature.org/ourinitiatives/regions/northamerica/unitedstates/minnesota/howwework/adaptation-forestry-nemn-factsheet.pdf>

Mark White from TNC notes that, "Linking insights from simulation models into on-the-ground planning decisions is essential to successful conservation."

Expanding forest reserves such as those found along river corridors may provide refuge to threatened species. Courtesy of Matthew Duveneck.

How will forests change as the climate warms? Is biodiversity an important component for forest management? What options are available for resource managers to assist in management decisions?

These are some of the questions that Upper Midwest and LCC grantees from Portland State University set out to answer. Their research has made a substantial contribution to both the science of climate change effects and the management of northern Great Lakes forests.

Using a forest simulation model to assess climate change and management effects in Minnesota and Michigan,

the researchers explored a range of carbon emission scenarios, examining how climate change might affect the relationship between diversity and forest productivity. At the same time, the researchers examined a variety of management options under potential climate change scenarios.

Although the high emission climate change scenario largely outweighed management effects, researchers found positive effects to climate-adapted management approaches.

For example, expanding forest reserves increased at-risk tree species such as balsam fir while planting climate suitable species increased productivity and diversity under climate change.

"More information on this project may be found in the Ecological Society of America's Ecosphere Journal at the following link: <http://www.esajournals.org/doi/pdf/10.1890/ES13-00370.1>

By Matthew Duveneck and Ashley Spratt



Partners in Natural Resources Conservation and Management Celebrate a Year of Continued Growth and Progress: Learn How LCCs are Bringing Value to the Conservation Community

The U.S. Fish and Wildlife Service, in partnership with more than 60 natural resource agencies and organizations across the Midwestern U.S. and portions of Canada, is proud to release 2013 Year in Reviews representing the highlights and accomplishments of Landscape Conservation Cooperatives (LCCs) in our region.

Our 2013 Year in Reviews are a compilation of stories from our partners about collective success and progress in promoting effective conservation through collaboration and sound science across the northern Great Plains, Prairie Pothole Region, upper Midwest and Great Lakes, and the agricultural and urban communities of our nation's heartland.

“The success of conservation in the 21st century depends on the conservation community's willingness and ability to form strong alliances, engage non-traditional allies and make improbable connections probable,” said Tom Melius, USFWS Midwest Regional Director. “Through our LCC partnerships, we are focused on providing scientific information and tools that will help resource managers across jurisdictions make informed decisions that benefit fish, wildlife and people.”

By Ashley Spratt



2013 LCC Year in Reviews.

To learn more about how LCCs are working in your area, check out the 2013 LCC Year in Reviews:

Plains and Prairie Potholes LCC

<http://www.plainsandprairiepotholeslcc.org/news/2013yearinreview/>

Upper Midwest and Great Lakes LCC

<http://greatlakeslcc.org/news/2013yearinreview/>

Eastern Tallgrass Prairie and Big Rivers LCC

<http://www.tallgrassprairielcc.org/news/2013yir/>

First Bat Proposed as Endangered Due to White-nose Syndrome

Not surprisingly, the Service received a petition to list two bats as threatened or endangered due to potential impacts of white-nose syndrome. White-nose syndrome is a devastating disease that has killed millions of bats in the northeastern United States and is spreading into the Southeast and Midwest. A map documenting the spread can be seen at <http://www.whitenosesyndrome.org/resources/map>. Since finding evidence of white-nose syndrome in 2006, biologists have feared the consequences – and each year their worst fears have been realized.

They observed mortality rates of up to 90 to 100 percent at hibernacula in the Northeast and documented newly affected caves and mines as the disease spread from state to state; and the high mortality rate seems to be maintaining as the disease spreads.

Species petitioned for Endangered Species Act protection were the northern long-eared and eastern small-footed bats. In response to the petition to list these bats, Jill Utrup from the Minnesota-Wisconsin Ecological Services Field Office compiled information and conducted an analysis of threats for the northern long-eared bat, while Melinda Turner from State College, Pennsylvania, Ecological Services Field Office did the same for the eastern small-footed bat. Based on their work, a final decision was made that the eastern small-footed did not warrant listing but the northern long-eared bat should be proposed as endangered.



While surveying a mine in Illinois, Joe Kath of the Illinois DNR examines a northern long-eared bat with symptoms of white-nose syndrome. Steve Taylor/University of Illinois;

The northern long-eared bat is one of the bats most affected by white-nose syndrome; its numbers have declined by 99 percent in northeastern caves and mines where it hibernates (collectively called hibernacula). Summer surveys have confirmed this level of decline at 93 to 98 percent. Also, although some bat populations have stabilized post-white nose syndrome (albeit at drastically reduced levels), we have no evidence that this is the case for the northern long-eared bat. For example, each of 14 populations surveyed in New York, Vermont, Connecticut and Massachusetts became locally extinct within two years due to disease, and no population remained 5 years after white-nose syndrome.

In contrast to the northern long-eared bat, white-nose syndrome did not significantly reduce numbers of hibernating eastern small-footed bats. Interestingly, eastern small-footed bats appear less susceptible to white nose syndrome, possibly because of their hibernating behavior. They are among

the last bats to enter hibernacula in fall and the first to emerge in spring, and during mild winters they may not enter caves and mines at all. More time spent outside of caves and mines means less time for the fungus to grow. Within hibernacula, eastern small-footed bats tend to hibernate in drier areas with greater temperature fluctuations – less ideal conditions for fungal growth. In contrast, northern long-eared bats enter hibernation earlier in fall, leave later in spring and they

tend to hibernate in the most humid areas.

The northern long-eared bat is found in 39 states (including the District of Columbia) as well as in all Canadian provinces from the Atlantic coast west to the southern Northwest Territories and eastern British Columbia. Despite this large range, the population decline in the Northeast is of particular concern because the East was considered the core of its range, where it was most common before white-nose syndrome. It has always been less common to rare in the southern and western edges of its range.

While northern long-eared bats hibernate in caves and mines during winter, they spend summer in wooded areas. During the day they roost alone or in small colonies underneath bark, in cavities or in crevices of both live trees and snags. At dusk they emerge from roosts to fly through the

Continued on the next page.

Habitat Conservation Plan Finalized for Fowler Ridge Wind Farm

Work was completed on a habitat conservation plan that will provide long-term conservation for endangered Indiana bats at Fowler Ridge Wind Farm in northwestern Indiana. The Fowler Ridge Wind Farm currently includes 355 wind turbines in Benton County, with plans for up to 94 additional turbines. Two occurrences of Indiana bat mortality have been discovered and reported by Fowler Ridge during surveys at the facility.

The plan accompanies an application by Fowler Ridge for an incidental take permit. Under the Endangered Species Act, companies like Fowler Ridge may obtain a permit that allows limited take of threatened or endangered animals, provided an approved habitat conservation plan is in place to offset the loss of protected species and provide long-term conservation. To receive an incidental take permit for Indiana bats at its project, Fowler Ridge must follow the approved habitat conservation plan designed specifically to reduce impacts to the Indiana bat.

Also completed was an environmental impact statement. The environmental impact statement evaluated measures for reducing Indiana bat mortality at the Fowler Ridge Wind Farm. Among those measures are feathering the turbine blades below a specified cut-in speed (the wind speed at which the turbines begin to generate electricity). Feathering causes the turbine blades to be motionless, or nearly so, below these wind speeds, reducing impacts to bats flying through the facility. The measures would be implemented on a nightly basis from sunset to sunrise, adjusted for sunset/sunrise time weekly, from Aug. 1 to Oct. 15 annually.

In addition to efforts to avoid and minimize Indiana bat mortality, the



Endangered Indiana bats are the focus of the recently completed Fowler Ridge Wind Farm Habitat Conservation Plan. Andrew King/USFWS.

habitat conservation plan includes measures to coordinate, fund and monitor the protection and restoration of both summer and winter habitat for the bat.

Under the approved habitat conservation plan, Fowler Ridge will preserve and restore summer maternity habitat near existing Indiana bat maternity colonies in Putnam County, Tippecanoe County, Vermillion County or Warren County, Indiana. Fowler Ridge will also protect winter habitat by installing a new bat gate near the entrance of an important hibernaculum – a cave used by Indiana bats during winter for hibernation.

More information about the plan can be found at <http://www.fws.gov/midwest/endangered/permits/hcp/FowlerRidge/index.html>

By Georgia Parham

White-nose Syndrome Continued

understory of forested hillsides and ridges feeding on insects.

Although white-nose syndrome threatens the existence of this bat, because it is a proposed endangered species, all sources of mortality and harm are being evaluated.

By Kim Mitchell, Ecological Services

Degrading Barriers – A Risk to the Great Lakes Fishery

Barriers are an important component of the Sea Lamprey Control Program of the U.S. Fish and Wildlife Service. Many barriers, such as dams, were constructed around the turn of the century in tributaries of the Great Lakes. Originally many of these barriers were not built to control invasive sea lampreys or block the sea lampreys from reaching upstream spawning migration, but ultimately, they have served this purpose. Other barriers were built specifically to control sea lampreys to effectively block the sea lamprey spawning migration and limit the amount of spawning and rearing habitat available.

With time, barriers experience wear and tear. They degrade and require repair or replacement. Without attention and repair, adult sea lampreys will eventually find a route around, through or over the “leaky” barrier. Breaches of degrading barriers often result in large increases of sea lampreys as they access new spawning and rearing habitat in the tributaries. Left uncontrolled, these voracious parasites will eventually end up in the Great Lakes where they feed on and kill valuable sport and commercial fishes.

The Harpersfield Dam, located near Ashtabula, Ohio on the Grand River, currently acts as a barrier to the upstream migration of adult sea lampreys, blocking access to 462 miles of river that could contain ideal spawning and larval habitat for sea lampreys. Like many dams in the Great Lakes region, the Harpersfield Dam, built in 1913, is in poor condition. If this dam deteriorates and adult sea lampreys migrate upstream



Harpersfield Dam Grand River, Ohio showing signs of deterioration under normal stream flow. John Stegmeier/USFWS.

of the dam, sea lamprey production will likely increase dramatically as additional habitat will be available. Costs to replace this dam are estimated at about eight million dollars. Therefore, it is critical to understand what the habitat suitability on the Grand River is for sea lampreys upstream of the barrier. This information is necessary to accurately assess the cost-benefit of restoring the dam.

During October 2013, a team of Service biologists and technicians traveled to Ohio to conduct habitat and larval lamprey surveys in the Grand River upstream of Harpersfield Dam. The team surveyed 42 locations in the mainstem and associated tributaries. At each location they measured and classified larval and spawning habitat and conducted electrofishing surveys for native lampreys. Finding native lampreys in the river indicates that sea lampreys would survive in these

locations as well. Our findings will be used to estimate the production potential of sea lampreys in portions of the Grand River located upstream of the Harpersfield Dam and will be useful in estimating the cost and benefit of repairing the Harpersfield Dam.

The Program continues to work closely with partners to control populations of sea lampreys in tributaries of the Great Lakes to protect the fishery and related economic activities in the Great Lakes basin. This is an estimated annual benefit of more than \$7 billion/year to the region. The Service delivers a program of integrated sea lamprey control in U.S. waters of the Great Lakes in partnership with the Great Lakes Fishery Commission.

By Alex Gonzalez

Charges Filed in Wisconsin Wildlife Poisoning Investigation

John W. Vaudreuil, United States Attorney for the Western District of Wisconsin, announced the filing of information and plea agreements in U.S. District Court in Madison February 12, 2014, charging Alvin C. Sowinski, 65, and Paul A. Sowinski, 46, both of Sugar Camp, Oneida County, Wisconsin, with illegal possession of bald eagles. The men each face a maximum penalty of one year in prison and a \$100,000 fine.

The charges are the result of a cooperative Federal and State investigation of the use of the highly regulated pesticide Carbofuran to kill as many as six eagles and other wildlife (more than 70 animals total) on the Sowinski property in Oneida County between 2007 and 2010. The Bald and Golden Eagle Protection Act, 16 U.S.C. § 668, prohibits the possession or taking of eagles and provides criminal penalties for such acts.

While the sentencing judge will determine the amount of any prison time or fines for the defendants, the plea agreement calls for the pair to pay \$100,000 in restitution and lose all rights and privileges to hunt, fish and trap for at least 5 years. Under that agreement, prosecutors reserved the right to seek a longer revocation of these privileges. U.S. Magistrate Judge Stephen Crocker scheduled the guilty plea hearings for May 8, 2014, at 1:00 p.m. for Alvin Sowinski and 1:30 p.m. for Paul Sowinski.

Alvin and Paul Sowinski, father and son, live in Oneida County, where the family owns some 8,000 acres, which include farm fields as well as prime habitat for both wildlife and hunting. The elder Sowinski baited multiple sites on the property with wildlife carcasses or processed meats treated



Poisoned eagle, bobcat and bear documented/USFWS.

with Carbofuran, hoping to attract and kill bobcats, coyotes, wolves, fishers and other species that prey on the deer and game birds that he and his son routinely hunted on their land.

During the first four months of 2010, Federal and State officers documented Sowinski's placement of poison-laced bait at least nine sites and the nearby deaths of 24 federally protected migratory birds and other species. Investigators also found the remains of two bald eagles and a rough-legged hawk on another part of the property near the location of a deer stand used the previous winter by Paul Sowinski. Tests conducted by the U.S. Fish and Wildlife Service National Wildlife Forensics laboratory confirmed that many of the animals recovered by

investigators had died from ingesting Carbofuran.

The execution of Federal search warrants in May 2010 yielded more evidence of wildlife poisoning. Carcasses recovered from seven different sites on the Sowinski property included those of three additional bald eagles.

Paul Sowinski admitted knowing that his father was setting out poisoned bait but was not aware of the chemical being used. He told investigators that he had found and discarded the two eagles that were recovered near his deer stand in 2010 and acknowledged that he destroyed a third carcass to conceal it from authorities.

Continued on the next page.

Charges Filed in Wisconsin Wildlife Poisoning Investigation Continued

Law enforcement officers first became aware of potential poisoning of wildlife on the Sowinski property in the spring of 2007 when a State warden recovered a dead eagle and three other animals within 100 yards of a deer carcass. Both the wildlife and deer tested positive for Carbofuran.

United States Attorney Vaudreuil stated, "Wisconsin is a special place to live, in large part because of our clean environment and our wildlife. The criminal actions of these two defendants - poisoning the land, killing bald eagles and numerous other animals and birds - simply for their own selfish reasons, attack the very core of what this state stands for. Investigating and prosecuting this type of conduct is, and will always be, a high priority for this office and the U.S. Department of Justice."

"Indiscriminately targeting wildlife predators with poison to improve hunting opportunities is not only unethical, it is illegal. Such use of systemic poisons kills non-targeted species, such as our national symbol, and causes environmental contamination," said U.S. Fish and Wildlife Service Special Agent in Charge Gregory Jackson.

"We are pleased with the outcome of this case and with the strong investigative effort from our partners in the Wisconsin Department of Natural Resources and the Environmental Protection Agency," continued Jackson.

"The defendants had in their possession a bald eagle which was killed by a pesticide that one of the defendants admits using improperly," said Randall K. Ashe, Special Agent in Charge of EPA's criminal enforcement program in

Wisconsin. "Product labels are designed to ensure the safe use and application of pesticides. Using pesticides for purposes other than their registered use is illegal and puts people, animals and the environment at risk of exposure. Today's action shows that individuals who misuse these products and kill protected wildlife will be prosecuted."

"This is a disturbing case involving the reckless poisoning of wild birds and animals," said Todd Schaller, chief DNR warden. "To place poisoned baits out into the environment, lethally threatening any and all wildlife in the area, is not only illegal it is unconscionable and not something the citizens of this state will tolerate."

"Wildlife poisoning cases are one of the most egregious violations we come across and are among the most difficult criminal natural resource investigations to conduct," said Brian Ezman, DNR investigative unit supervisor. "Collecting evidence, conducting surveillance and working around highly toxic insecticides – which were being used indiscriminately – required a heightened sense awareness to protect the safety of investigators, the public and our wildlife and natural resources."

"This investigation was successful as a result of the teamwork and positive working relationships shared between several law enforcement agencies (Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, The Great Lakes Indian Fish & Wildlife Commission, U.S. Environmental Protection Agency, Oneida County Sheriff's Department)," said Brian Ezman, Wisconsin Department of Natural Resources Investigative Unit Supervisor.

The charges against Paul and Alvin Sowinski are the result of a joint investigation conducted by the

Wisconsin Department of Natural Resources, U.S. Fish and Wildlife Service, Oneida County Sheriff's Department, and Environmental Protection Agency. The prosecution of this case has been assigned to Assistant U.S. Attorney Peter M. Jarosz.

You are advised that a charge is merely an accusation and that a defendant is presumed innocent until and unless proven guilty.

By Tina Shaw

Vision Quickly Becoming Practical Reality

Conserving the Future: Wildlife Refuges and the Next Generation is rapidly moving from the theoretical vision phase of the past few years into the practical implementation phase.

U.S. Fish and Wildlife Service employees across the National Wildlife Refuge System should “be on the lookout for the resources that are coming out of the implementation teams,” says Conserving the Future coordinator Anna Harris. “These products were developed by our colleagues to provide details and direction to sustain healthy wildlife and habitats, and remain relevant in a changing world.”

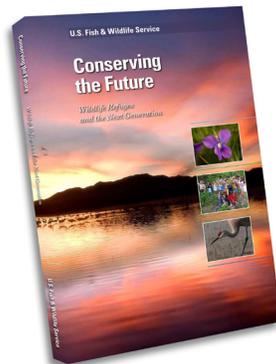
In the months immediately after the July 2011 ratification of the Conserving the Future vision for the Refuge System, nine implementation teams were chartered to put the vision into practice.

Today three of those teams have “formally graduated,” says Harris, meaning they have fulfilled everything in the blueprint laid out in their work plan, had their products approved by Refuge System leadership, and disbanded. Six of the original teams are operating, and, in response to internal and external suggestions, a new team is being formed.

In a recent interview, Harris outlined the accomplishments of the three graduated teams.

One result from the Strategic Growth implementation team’s work is that “for the first time we have a strategic growth policy for the Refuge System,” says Harris. “That’s huge.” The Service has been moving toward such a policy for decades, and in late January a draft was published in the Federal Register.

The principles set forth in the Planning implementation team’s report, A Landscape Scale Approach to Refuge System Planning, “basically revolutionized the planning paradigm we’re moving forward with,” says Harris. “We’re not going to do CCPs



Conserving the Future/USFWS.

[comprehensive conservation plans] the way we’ve done them in the past.”

The Community Partnerships implementation team produced strategic plans for Friends, volunteers and community partnerships; revamped the Friends mentor program; added relevant elements to 14 existing staff training courses offered at the National Conservation Training Center (NCTC); and identified a web tool to help track volunteers and their hours.

The new team—being assembled this spring and expected to complete its work this year—will address Conserving the Future Recommendation 18, which reads: “Support and enhance appropriate recreation opportunities on national wildlife refuges by partnering with state fish and wildlife agencies, other governmental bodies, conservation organizations and businesses; and by updating relevant policies and infrastructure.” This team, which was split from the Hunting, Fishing and

Outdoor Recreation implementation team, will examine the big six priority public uses of refuges and beyond. It also will consider refuge accessibility and community engagement, including reaching urban audiences.

The six other original teams—Communications; Interpretation and Environmental Education; Hunting, Fishing and Outdoor Recreation; Leadership Development Council; Science; and Urban Wildlife Refuge Initiative—are proceeding apace. Over the next six months Harris expects final or close-to-final strategies on interpretation, environmental education, quality hunting and fishing, urban refuge standards and climate change.

She also expects practical applications from the Leadership Development Council that will enhance “information sharing between employees about opportunities in the Service,” including online forums regarding available job swaps and details.

Overall, Harris says, “the teams have put together the policies, the strategies, the web resources and the best management practices to streamline efficiencies and lay out a path forward.” Now, she says, the key is communication—from refuge leadership, regional chiefs and project leaders—about why the products “were developed, and where they came from, and how they provide a clear vision for the next decade.”

To see the Conserving the Future implementation teams’ work progress and products, go to <http://www.fws.gov/refuges/vision>

By Bill O’Brian, Republished Refuge Update March / April 2014

Refuge Highlights

Mentoring the Next Generation of Firefighters

The Midwest Region Torch Award has been passed on to another well-respected individual in the wildland fire profession. Morris Wetland Management District Range Technician Phil Millette was recognized as the recipient of this year's Torch Award in mid-February.

The Torch Award recognizes staff dedication to the conservation of wildlife habitat utilizing safe hazard fuel and prescribed fire reduction techniques. Millette follows in the footsteps of past honorees: Dave Jones of Big Oaks National Wildlife Refuge, Chris Mursu of Sherburne Refuge, Mike Belsky of Necedah Refuge, Erik Acker of Port Louisa Refuge, Ben Halverson of Leopold Wetland Management District and Eric Nelson of Agassiz Refuge.

By Tina Shaw



2013 Torch Award winner Range Technician Phil Millette and Regional Director Tom Melius. Joanna Gilkeson /USFWS.

Youth Fishing Event at Upper Mississippi



Ice fishing on a Mississippi River backwaters of the Upper Mississippi River National Wildlife and Fish Refuge on a sunny February day is awesome! Winona District staff and 25 volunteers welcomed 35 youth for the annual Youth Ice Fishing event that is cosponsored by the Friends of the Refuge Headwaters. See the full photoset: <http://flic.kr/s/aHsjRReSGb>

Lead exposure in bald eagles in the Upper Midwest

During winter, bald eagles congregate in high numbers along the Upper Mississippi River and other large waterways in the states of Illinois, Iowa, Wisconsin and Minnesota. Biologists with the U.S. Fish and Wildlife Service, including myself, Contaminants Biologists Sarah Warner and Mike Coffey, and Wildlife Biologist Drew Becker, began a study in 2011 on lead exposure in bald eagles that inhabit the Upper Midwest Region including the Upper Mississippi River National Wildlife and Fish Refuge.

Thousands of bald eagles winter and hundreds of eagles nest on the Refuge annually. On December 11, 2013 Refuge staff counted 1,100 bald eagles at one location near Fulton, Ill.

Each year, dead bald eagles are found throughout the Region and are subsequently turned in to federal and state conservation offices. These offices ship the eagles to the National Eagle Repository in Denver, Colorado, where the feathers are distributed to Native American tribes for religious ceremonies. We sent a note to neighboring conservation offices inquiring if they would send us dead eagles for a research project on bald eagle mortality and we would send the carcasses to the Repository.

Fifty-eight bald eagles were collected as a result of our inquiry. Most of these eagles came from Iowa and Wisconsin and one from Minnesota. We necropsied each eagle and the livers were harvested and then were analyzed for lead concentration by U.S. Geological Survey's National Wildlife Health Center in Madison, Wis. The liver analysis showed



The necropsy of 58 bald eagles showed that 38% had lethal lead concentrations /USFWS.

that 60 percent of the eagles had detectable concentrations of lead. More significantly, 38 percent had liver lead concentrations within the lethal range for lead poisoning and most had corresponding clinical signs consistently found in lead exposure cases.

Our external examination of the carcasses showed only one eagle with green bile staining around the vent, a classic symptom of lead poisoning. The others had fair to good body condition with no other visual external signs of lead poisoning. However, the internal examination of organs showed clinical signs and gross lesions of lead poisoning that included distended and bile engorged gallbladders.

The high concentrations of lead (as much as 10 times the lethal dose)

indicated that many eagles had acute exposure. In these acute cases, liver levels had become elevated prior to exhibiting some of the typical clinical signs of lead poisoning and most of the eagles probably died within a few days of ingestion. This is important to note because field biologists typically examine eagle carcasses for external characteristics to hypothesize cause of death. In our study, only one eagle exhibited external signs of lead poisoning.

The high percentage of eagles having lethal liver lead concentrations prompted an investigation into the potential sources of lead in the environment. The bald eagle's diet is primarily fish, however, during winter months when the waterways are frozen, eagles rely on carrion

Lead exposure in bald eagles in the Upper Midwest Continued

as a primary food source, especially deer carcasses and offal (gut piles) left in the field after hunting events. This fact led us to focus on lead ammunition used in deer hunting as a source of lead available to eagles.

The Refuge extends 261 miles through the states of Illinois, Iowa, Wisconsin and Minnesota, with more than 200,000 acres open to public hunting. Non-toxic shot ammunition is required on the Refuge but does not include rifle bullets and shotgun slugs used for deer, squirrel and non-game such as coyote or crow. Thousands of hunters participate annually in these activities with many using lead ammunition. During the 2012-13 hunting season, there were 645,317 deer reported harvested with firearms in the states of IL, IA, WI and MN. Lead bullets were used by many hunters and often fragment inside a deer, especially when bone is hit.

The Refuge's Lost Mound Unit in northwest Illinois conducts managed deer hunts for youth and disabled adults that provided an opportunity to investigate the prevalence of lead in offal piles. Fifty-seven white-tailed deer were harvested during the managed hunts held in 2012 and 2013.

Offal piles from 25 deer shot with lead ammunition were collected and radiographed. The radiographs showed that 36 percent of the offal piles, which would have been discarded on the Refuge, contained lead ranging from 1-107 fragments per offal. These results indicate that



Deer carcasses and offal piles left in the field after hunting events are an important food source for bald eagles in winter/Courtesy of Peter Eyerhalde.

bullet fragments embedded in deer offal are very likely a pathway for lead exposure in bald eagles.

This study is continuing with an additional 115 bald eagles currently being necropsied at the National Wildlife Health Center. Most of these eagles were collected in Wisconsin with the remainder from Illinois and Iowa. Liver lead analysis is being conducted and full body scans are being taken on each eagle to collect any lead fragments that may be present in the intestines.

By Ed Britton

**April is
Safety
Month.**

Operation Canvasback: Canvasbacks and Diesel Fuel Don't Mix

The fall migration of canvasbacks was underway on the Upper Mississippi River National Wildlife and Fish Refuge on November 25, 2013, when the towboat Stephen L. Colby struck a submerged object and began spilling diesel fuel into the Mississippi River at Le Claire, Iowa. The towboat was carrying 90,000 gallons of diesel fuel and 2,000 gallons of lube oil when it began to sink.

Fifty thousand waterfowl, mostly canvasbacks, were staging for migration just 26 miles north of the fuel spill and 2,000 canvasbacks had moved to within one mile of the spill. It was critical that a massive effort, dubbed Operation Canvasback, be launched immediately to avert a catastrophic disaster that could impact tens of thousands of waterfowl.

Hundreds of bald eagles were also present as they vigilantly followed the migrating waterfowl. And to complicate response actions further, hundreds of local non-migratory Canada geese and mallards frequented the spill area. If any ducks or geese were to get oiled and couldn't fly, eagles would take advantage of the bounty feast and also be impacted.

The crippled towboat had lost power in the navigation channel due to water pouring into its hull. Miraculously, another towboat was close by and pushed the floundering Colby to shore at Le Claire's waterfront. This location was only a few blocks from the Fire Department that deployed booms around the sunken vessel within 50 minutes of the incident, greatly reducing the volume of diesel fuel spilling downriver. Fortunately, the spill did not occur upriver, where an intricate system of backwaters is



Eric Tomasovic and Russ Engelke conducted boat patrols to locate and haze any waterfowl that wandered into the fuel spill area/USFWS.

present within the Upper Mississippi River National Wildlife and Fish Refuge.

An Incident Command Team led by the U.S. Coast Guard was immediately mobilized. Rock Island Ecological Services contaminants biologist Mike Coffey was the Team's Wildlife Branch Leader. Coffey immediately requested assistance from additional staff at the Ecological Services office, Upper Mississippi River National Wildlife and Fish Refuge, and Port Louisa National Wildlife Refuge. The Iowa Department of Natural Resources and U.S. Coast Guard also provided personnel for the Wildlife Branch.

A dramatic response effort was conducted during the next 10 days with over 100 personnel on site daily during the critical response period. The

primary tasks were to monitor the movements of migrating and local ducks and geese 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 600-ton vessel.

Strong river currents, howling winds, and freezing river conditions challenged the response activities. The spilled fuel turned the Mississippi River surface waters red and a diesel stench saturated the air. The Wildlife Branch conducted daily boat patrols and made plans to capture and rehabilitate oiled wildlife, if necessary. Volunteers with Living Lands and Waters placed colorful streamers along the shoreline to deter wildlife use and assisted with boat patrols. Extensive shoreline

Continued on the next page.

Operation Canvasback: Canvasbacks and Diesel Fuel Don't Mix Continued

searches were conducted in boats, vehicles, and on foot looking for oiled wildlife.

The hard work of the Incident Command Team and Wildlife Branch was rewarded as the migrating canvasbacks took to the sky and avoided the spill area. Two mallards were recovered from within the spill area and both had injuries related to hunting. One Canada goose was found dead by a hunter who reported that it was covered in oil. No fish or mussel mortality was identified. Additional mussel surveys may be conducted in spring.

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. The NTSB investigation determined that the towboat struck a rock resulting in multiple holes on the underside hull. The exact amount of diesel fuel that spilled into the river will never be determined. Incredibly, the spill site and adjacent areas were minimally impacted, as best can be determined, due to the quick response actions of the Incident Command Team and the dilution of fuel by the strong river currents along this relative narrow channel area. Operation Canvasback was deemed a grand success and provided closure to one of the largest fuel spills ever experienced on the Upper Mississippi River.

By Ed Britton



The rainbow sheen of diesel fuel stretched for miles along the Mississippi River shoreline/Courtesy of the U.S. Coast Guard.

University of Minnesota St. Paul Campus Outreach Event

Service representatives from the Division of Diversity and Civil Rights (Mandy Wise), the Division of Human Resources (Michael Townley), and External Affairs (Joanna Gilkeson) attended the University of Minnesota, St. Paul Campus Environmental Internship and Career Fair in St. Paul, Feb. 5.

The event was open to all students and recent graduates of University of Minnesota, St. Paul Campus. Approximately 500 students and 51 private and public sector organizations participated in the event.

Service representatives provided them with information on the mission of the Service, career opportunities, application filing procedures, the Pathways Program, and minimum qualification requirements established for mission critical occupations.



Amanda Wise with an attendee/USFWS.

2014 Rusty Blackbird Spring Migration Blitz Could Lead To Important Migration Data To Help Counter Population Declines

The rusty blackbird is an unassuming but unique blackbird species that occurs throughout the Midwest region, and is the subject of much concern due to a rapid and troubling trend of population decline. This Spring, you can play a big part in the early steps to reverse that trend.

A lack of knowledge about rusty blackbird biology complicates attempts to combat their population declines. To help address this need, the International Rusty Blackbird Working Group is initiating a Rusty Blackbird Spring Migration Blitz in 2014, a follow-up to the 2009-2011 Winter Blitz.

The objectives of this new effort include: identifying major migration stopover sites for rusty blackbirds, assessing the timing of migration and consistency of their use of stopover sites, and increasing the overall awareness of the rusty blackbird's situation, engaging conservation partners in rusty blackbird conservation.

Participating in the survey is a fun and easy way to contribute to the conservation of this enigmatic species. The survey in the Midwest region runs roughly from early March through mid-April, depending on your home state. To learn more about the survey and find out how to participate in your state, visit the Rusty Blackbird Working Group website at <http://www.rustyblackbird.org>

Rusty blackbirds are similar in size and structure to the abundant Red-winged Blackbird, but are closer in appearance to the Common Grackle. Their pale eyes distinguish them from Red-winged Blackbirds, and their shorter tails and smaller, thinner bills separate them from their grackle cousins. During the nonbreeding season (roughly late summer through early spring), males and females both have a varying amount of rusty edging on their feathers, which gave them their name. During the summer, males are a dull, slightly glossy black and females are a slaty, grayish color overall. Their call is also somewhat "rusty", often described as resembling the sound of a hinge in need of grease.

Upper Peninsula of Michigan, where breeding is rarely recorded. However, they are a fairly common migrant and winter resident throughout much of the region. Bottomland forests along major waterways or wetland complexes usually hold the highest numbers of birds during migration and winter. Unlike other blackbirds, rusty blackbirds rarely venture away from wooded habitats – you are not likely to see any significant numbers of them in the massive mixed-species blackbird/starling/cowbird flocks that are seen feeding in agricultural areas during the colder months, although they will sometimes roost in the same areas at night. Their somewhat retiring nature, drab appearance, and preference for remote habitats during the summer make the rusty blackbird one of our least well-known birds in the region, despite being fairly common in some areas.

Sadly, their populations appear to be sharply declining. Data from the North American Breeding Bird Survey and Christmas Bird Count indicate an 85-95% decline since the early 1900's. The contributing factors to this startling drop in numbers likely include degradation of breeding season habitat due to drier conditions, loss of wintering habitat, mercury contamination, indirect effects of control efforts targeted at other blackbird species, or possible competition for food resources with other blackbird species during the non-breeding season.

By Andy Forbes



Rusty blackbird courtesy of Lloyd Spitalnik.

Rusty blackbirds are the most northerly breeder among blackbirds in North America, breeding in remote forested bogs, swamps, beaver ponds and other wet forested habitats north through Alaska, all the way east along the tree line to northern Labrador. In the Midwest, we reach the extreme southern extent of their breeding range in northern Minnesota and the



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**Thank you for entering your journal reports and photographs
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