



U.S. Fish & Wildlife Service

Inside Region 3

December 2012



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Tom Melius • Regional Director
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Holidays With Family, Friends and our Extended Family...Our Partners

As we enter another holiday season with our families and the ones we love, we can look back on another year filled with milestones and successes to build upon in the year ahead. In this issue of Inside Region 3, we have highlighted a few recent examples that include our extended family, the many partners who work together with us toward the common goals that benefit the resources we manage and the people who enjoy them.

Our extended Fish and Wildlife Service family reaches across the country and around the world. I had the privilege of travelling to China in late October and early November to exchange knowledge and see the great conservation work going on there for natural resources. I was honored to lead a delegation of eight Service waterfowl and wetland biologists as part of our bilateral exchange program, to share our knowledge and experiences and to see firsthand the similarities in the successes and the challenges we are both working to meet.

I invite you to visit my [Travel Blog](#) to see some of the images captured and learn a bit more about this global partnership.

While my trip included adjusting to a 14-hour time change, I've also been pleased to visit many of our offices closer to home around the region this past year and witness the continual outstanding work by our Midwest region family. As this year winds down, I can't help but reflect on how fortunate we all are to have the abundance of landscapes and wildlife we treasure and share with the public each and every day.

As you gather together with family and friends this holiday season, I ask you to pause and reflect on the wonderful year we have had and our accomplishments with our partners that so very often set the standard throughout the Service. I know we will meet and exceed those in the coming year. In addition to the other interesting articles featured in this issue, our Safety Office has provided some helpful information on winter safety as a reminder for us all.

Happy Holidays to you and your families! Please enjoy them safely and join me in anticipation of another great year that is about to begin!



Thomas O. Melius

Tom Melius
Regional Director, Midwest Region



Inside Region 3

December 2012

In this Issue

Help the Hellbender	4
Cave River Valley Offers Hope to Indiana Bat	5
Patoka River's Columbia Mine Addition	6
Candidate Conservation in Action	7
Friends of St. Croix WMD National Take Pride in America Award	8
Friends of Hackmatack Honored	9
Fish Lines and Fisheries Websites	10
Submitting Surrogate Species Comments	11
Engaging Young Adults in Volunteer Opportunities	12
Big Muddy's Hidden Layers	14
Winter Safety Tips	18
The Midwest's Jurassic Park	19
MDNR Visits Regional Office	21



On the Cover

Friends of the St. Croix Wetland Management District pictured with their Department of Interior Take Pride in America Award. From left to right Brian Headlee (President), Nancy Refsnider, Missy Irle, Bob Goodlad (Vice President), Mike Reiter (Secretary), Warren Irle (Treasurer), Chuck Ennis, Jerry Rasmussen, Greg Scheder, Tom Kerr (District Manager). Caitlin Smith, USFWS.

Partners Work to 'Help the Hellbender'

By Lori Pruitt
Endangered Species
Coordinator Bloomington,
Indiana Field Office

"Help the Hellbender" is the name given to an effort to conserve the eastern hellbender (*Cryptobranchus alleganiensis*), North America's largest salamander, in Indiana. These giant salamanders can grow to 2 feet long, with flat green or brown bodies that have noticeable wrinkles on the sides. They live up to 30 years, living under flat rocks in rivers and streams across Appalachia, parts of the Midwest and the northern tips of several southern states.

But populations are declining in many portions of the range. The eastern hellbender is listed as state-endangered in five states, including Indiana, and protected or of special concern in many others.

Lori Pruitt, Endangered Species Coordinator for the Service's Bloomington, Indiana, Field Office, recently joined project



Eight young eastern hellbenders were released in Southern Indiana.
Lori Pruitt, USFWS.

partners Purdue University, the Indiana Department of Natural Resources, and The Nature Conservancy in the first hellbender release in Indiana.

The animals released were originally collected in West Virginia and subsequently moved to a zoo in Texas. Purdue University researchers traveled to Texas and brought back 18 of these juvenile hellbenders. Researchers reared them at Purdue until they were 4 years old and had reached about 12 inches in length, a size that made them less susceptible to predators.

Eight of these individuals were recently released in southern Indiana, and the others will find new homes in the coming months. Each of the hellbenders carries a radio transmitter to allow scientists to track their movements and help to gather information on their habitats, behaviors and survival. The fact that the hellbenders survived and thrived under the care of the researchers is a testament to the dedication and passion for their work.

The Service is currently conducting a status assessment on the species -- this is the process of

reviewing, summarizing and analyzing information to determine if the species should be considered a candidate for listing under the Endangered Species Act.

Eastern Hellbenders are found in perennial streams, especially those that are fast-flowing, cool and highly oxygenated. Destruction and degradation of habitat are primary factors in

hellbender decline. In 2011, the Service listed the Ozark hellbender, found in Missouri and Arkansas, as endangered.

To learn more about the Indiana effort to help the hellbender and the recent release, see <http://www.purdue.edu/newsroom/releases/2012/Q4/purdue-part-of-national-group-bent-on-saving-the-hellbender.html>. 🐸



Lori Pruitt, Bloomington Field Office, takes part in the historic release of eastern hellbenders in Southern Indiana.
Photo courtesy of Sarabeth Kleuh, Indiana DNR

Hopes for Indiana Bat Rise and Fall at Indiana's Cave River Valley

By Lori Pruitt
Bloomington ES Field Office

Four years ago, conservation partners in Indiana were celebrating the acquisition of a significant new property. The State of Indiana, using a federal grant under the Endangered Species Act and, with help from The Nature Conservancy, acquired Cave River Valley.

As the name implies, the 300-plus-acre property includes multiple caves, including Endless and River caves. Both are incredibly scenic and support significant cave resources, including several globally rare cave species.

The property also supports limestone glade remnants, a rare natural community in Indiana.

Particularly, the importance of the area for the federally endangered Indiana bat was a key incentive for the acquisition. Endless Cave was considered to have high potential by Indiana bat experts, but the site was heavily visited by people, even during the winter hibernation period. This disturbance was a threat to the resident bat population.

Endless Cave was gated in the summer of 2009, and expectations were high that eliminating the winter

disturbance would lead to recovery of the Indiana bat population. The cave was also one of the best sites in the state for hibernating little brown bats, which were also expected to benefit from the protection of the site.

Unfortunately expectations were dampened by the rapid spread of white-nose syndrome (WNS) – a disease of hibernating bats that has killed an estimated 5 to 6 million bats since 2006 (for more information see <http://www.whitenosesyndrome.org/>). In January 2011, WNS was confirmed in Endless Cave, the first cave in Indiana to have a documented case of WNS.

Despite the arrival of WNS at Endless Cave, partners involved in the property remain resolute to do everything possible to conserve bats at this site. Monitoring is underway at the site to help track the progression of WNS and to help understand and manage this deadly bat disease.

Service and state biologists recently visited Cave River



Scott Johnson, Indiana DNR, and Lori Pruitt, U.S. Fish and Wildlife Service, prepare to clear debris at the gate to the entrance of Endless Cave. Photo courtesy of Cassie Hudson, Indiana DNR

Valley to perform some needed maintenance on the Endless Cave gate and to check on monitoring equipment at the site. It was a beautiful October day and the scenery as we hiked into the valley was nothing short of spectacular. We were reminded of all the reasons we had to conserve this property and all it has to offer to visitors.

The State has plans to expand recreational opportunities at

this site, including camping and picnicking, as funding becomes available. Visitors are sure to enjoy what they find there. Project partners are pleased that the public will have the opportunity to enjoy this beautiful natural treasure. Bat surveys this winter will tell us what toll WNS has taken on the bats that inhabit these caves. We remain hopeful that bats will continue to take refuge in the caves of Cave River Valley. 🦇



A cave salamander in Endless Cave. Photo courtesy of Cassie Hudson, Indiana DNR

A Family of Partners Celebrates Columbia Mine Addition at Patoka River NWR

By Georgia Parham
External Affairs

In early October, conservation partners gathered in southern Indiana to celebrate the acquisition of a keystone tract of land that ties together two large tracts at Patoka River National Wildlife Refuge in southern Indiana. This puts the refuge at over 8,000 acres of managed lands.

Patoka National Wildlife Refuge came into being after years of debate, hope, disappointment, hard work, perseverance, and partnership. The addition of the Columbia Mine tract followed a similar path as Refuge Manager Bill McCoy, his staff and partners worked through a maze of funding challenges to acquire the former mine from Peabody Energy.

A 2009 settlement from a federal court PCB case in Bloomington, brokered in part by the Service's Environmental Contaminants Program, brought \$1.5 million to the table to be used for land



Regional Director Tom Melius and Patoka River NWR Manager Bill McCoy celebrate Refuge Appreciation Day. Georgia Parham, USFWS.

acquisition. This settlement and funding from the Land and Water Conservation Fund set the stage, and Indiana conservation group Sycamore Land Trust stepped up and agreed to accept the indemnity conditions that prevented the government from purchasing the land.

The Friends of the Patoka River National Wildlife

Refuge then negotiated the development of a conservation easement. Ducks Unlimited, through mitigation funds for a court settlement, received approval from Duke Energy to make a donation of \$365,200 to Sycamore Land Trust. Further funding came through in the form of a grant from the Indiana Bicentennial Nature Trust, to protect,

in Indiana Governor Mitch Daniels' words, "our most precious natural spaces."

Amazingly, all the pieces of this complex puzzle have fallen perfectly into place. In May of this year, Sycamore Land Trust turned to their members and came up with the funding to purchase the land. On September 14, 2012, the Service purchased

the conservation easement and completed what refuge manager Bill McCoy likes to call the "mother of all land protection negotiations."

On a sunny day in early October, Regional Director Tom Melius joined representatives from the Indiana DNR, Ducks Unlimited, Sycamore Land Trust, and Friends of the Refuge for Refuge Appreciation Day and to celebrate their work. During the celebration, the Friends group presented a "Friends of the Refuge" award to Larry Ordner, aide to Indiana Senator Richard Lugar, a longtime supporter of the refuge. 🐦



Regional Director Tom Melius talks with Larry Ordner, aide to Senator Richard Lugar, a supporter of the Patoka River NWR. Georgia Parham, USFWS.

Snake, Rattle & Restore...

Candidate Conservation in Action

*By Kraig McPeck
Rock Island Field Office
Former Ohio Private Lands
Biologist*

Strong conservation partnerships are key to any successful initiative. Such is the partnership among the Ohio Private Lands office and our conservation partners in northeast Ohio. This partnership is playing a critical role in delivering results for the conservation of the eastern massasauga rattlesnake in the Grand River Lowlands in northeast Ohio. The eastern massasauga is a candidate for listing under the Endangered Species Act.

There are many beautiful places in the state of Ohio. But there are few as great as the wetland complexes of northeast Ohio, specifically the areas of northern Trumbull and southern Ashtabula counties known as the Grand River Lowlands.



Farmed areas like this adjacent to eastern massasauga habitat have been restored in northeast Ohio. USFWS.

These areas are intricate complexes of wet mesic meadow fields bordered by river sloughs. They are dynamic, ever-changing wetland complexes, as beaver move and rebuild dams.



After restoration, many restored areas now support massasaugas. USFWS.

For the last several years, the Service's Ohio Private Lands office has been building relationships and working with partners to identify and implement strategically placed habitat restoration projects on private property near known locations of the eastern massasauga rattlesnake.

Many of these properties had experienced successional transition from open/mesic grassland meadows to scrub/shrub and even young forest habitat. In other cases, the properties were being farmed.

Using GLRI funds, the Ohio Private Lands office is restoring these open meadows by hiring local contractors to clear shrubs and other woody vegetation. Encroaching woody vegetation not only lessens the suitability of the habitat for the eastern massasauga, but also creates perching areas for aerial predators. Crop fields are restored using a variety of seed mixes and natural regeneration of the local seed bed. Work to restore massasauga habitat is done during the winter months, when the snakes are typically hibernating in crayfish burrows. Work that is not performed in the winter must be accomplished by hand crews during the summer.

In total, the Ohio private lands office and our partners have restored or enhanced more than 15 properties totaling 200 acres of eastern massasauga habitat. These restorations targeted land adjacent to known occupied areas and have been successful in expanding habitat for the snake. Of course, none of this was possible without assistance from our partners in the Ohio Department of

Natural Resources, Western Reserve Land Conservancy, The Nature Conservancy and Mr. Greg Lipps, a professional herpetologist. Having studied the snake for many years, Mr. Lipps has been instrumental in conducting surveys and providing suggestions on physical habitat alterations that benefit the snake.

The hard work is paying off. During the spring and early summer of 2012, adult snakes have been positively identified using six properties that have been restored. In total, 23 snakes have been captured in 2012 at restoration sites. Our efforts are enhanced as we learn more about the eastern massasauga and the habitat types they encounter.

In addition to standard measurements taken from these snakes, each individual is pit tagged for future identification.



An eastern massasauga uses restored habitat in Ohio. USFWS.

One individual that was captured at a restoration site was pit tagged six years earlier at a location over 6 miles away. In the spring of 2012, two individuals (one male and one female) were surgically implanted with radio transmitters (9g Holohil SI-2 units) by a veterinarian from the Toledo Zoo. By tracking these two individuals, we are learning new ways that the snake utilizes habitat and more about their diurnal movements through various habitat types. This information has been critical in helping the Ohio Private Lands office and our partners implement adaptive management to better our habitat restoration techniques and protection efforts.

Ultimately, these lessons learned, restoration actions taken, and our strong conservation partnerships are helping us to achieve candidate conservation. 🐍

Friends of the St. Croix Wetland Management District Win National Take Pride in America Award

By Tom Kerr, District
Manager, St. Croix WMD

Assistant Secretary of the Interior Rhea Suh presented the 2012 Take Pride in America National Awards to five outstanding federal land managers and five volunteer conservation partnerships representing more than 20,000 volunteers who contributed their service on public lands.

On October 11, 2012, the Friends of the St. Croix Wetland Management District received the Take Pride in America Award for the Non-profit Organization Category. Take Pride in America is a national partnership program authorized by Congress to promote the appreciation and stewardship of public lands, including parks, refuges, forests, historic sites and schools. The Friends Group was one of five volunteer conservation partnerships that received an award in 2012. A panel of judges selected the recipients from hundreds of qualified nominations from across the country.

“These recipients represent the best of everything their awards signify-the patriotic volunteer spirit that helps conserve America’s national parks, wildlife refuges, national forests and other public lands” said Assistant Secretary of Interior Rhea Suh.

As an organization that is only two years old, the Friends Group is already playing a crucial role in helping the U.S. Fish and Wildlife

Service at the St. Croix Wetland Management District to connect with the local community in western Wisconsin. The Friends are active partners in many events, educational programs and community outreach efforts. Notable among these are the Conservation Day on the WPA event, Friends and Neighbors Night Out, prairie plug program, ducks on a stick traveling exhibit, waterfowl pair counts, winter ecology walk and support for habitat restoration.

According to St. Croix Wetland Management District Manager Tom Kerr, “Many of these events would not be possible without the tremendous support from the Friends Group.”

“These recipients represent the best of everything their awards signify-the patriotic volunteer spirit that helps conserve America’s national parks, wildlife refuges, national forests and other public lands.”

The purpose of these events is to engage the community in the stewardship of their public lands.

As an example, at the Conservation Day on the WPA event, over 450 scouts, parents and community volunteers removed seven acres of

buckthorn and invasive species from the Oak Ridge Waterfowl Production Area. Removal of these invasive plants ties in with the District’s mission to restore the prairie, wetlands and oak savanna historically found in this area. Events such as Conservation Day on the WPA help improve breeding habitat for many species of waterfowl and grassland nesting birds, but more importantly it provides an opportunity for local community members to experience their public lands.

Friends member Warren Irle reflected on his involvement with the Friends Group, “Living next to federal lands for 35 years, I have seen the opportunities they

in America award is an honor to receive; one needs only stand on one of these federal grasslands and watch a Bobolink that flew from South America to nest to see their importance.”

The Friends Group was presented the award at the Conservation Day on a WPA event on Saturday, Oct. 6, 2012 in Washington, D.C. As an event that is based on partnerships and community involvement, it was a fitting venue for the award presentation.

According to Friends Board member Mike Reiter, “The Friends Group is honored to receive such a prestigious award. It is very rewarding to be involved in a group that has accomplished

Rhea Su, Assistant Secretary of Interior

so much in such a short period of time.”

Reiter continued, “Members can look back on past accomplishments while setting goals for the future. Having fun while making a difference is what the Friends Group is all about!”



[Click here to learn more about the St. Croix Wetland Management District Friends Group.](#)

[For more information on the St. Croix WMD, click here.](#)

[Or, to check us out on Facebook for up-to-date information on programs or District activities, click here.](#)

Friends of Hackmatack National Wildlife Refuge Partnership Honored by DOI

By Tina Shaw
External Affairs

The Friends of Hackmatack National Wildlife Refuge Partnership was honored by Deputy Secretary of the Interior David J. Hayes on October 18, 2012, as part of the Department of Interior's 2012 Partners in Conservation Awards in Washington, D.C.

The Partners in Conservation Awards, established by Secretary Ken Salazar in 2009, recognizes partnerships that promote conservation of America's treasured landscapes, preserve natural and cultural resources, bring innovative approaches to resource management, and that engage diverse entities and youth in accomplishing the Department's mission. Over the past three years, Secretary Salazar has presented this prestigious Departmental honor to a number of organizations and individuals who have established the broadest and most inclusive efforts to honor our heritage, protect our resources and expand our understanding of the world around us.

The Midwest Region of the U.S. Fish and Wildlife Service nominated the 26-member team that made up the Friends of Hackmatack National Wildlife Refuge Partnership. The nomination aimed at recognizing the group's outstanding grassroots

conservation initiative, which blended citizens together with a diverse mix of nonprofit and governmental organizations at the local, state and federal level. This group focused on one goal, to create a national wildlife refuge that complements existing conservation lands and provides significant grassland and wetland wildlife habitat – this is Hackmatack National Wildlife Refuge.

The partnership effectively incorporated sound biological science with the need to reconnect people and nature, as well as the needs of declining grassland birds, and created a long-term vision for people and nature to coexist in a rapidly urbanizing area.

The Secretary's 2012 Partners in Conservation Awards were presented in the Sidney R. Yates Auditorium at the Main Interior Building. The 2012 awards celebrated the conservation achievements of 17 outstanding partnerships involving more than 700 diverse organizations and individuals from across our nation.

These awardees and their projects exemplify the spirit of public-private partnerships. Such collaborations reflect the deep commitment of our partners and communities to our mission and allow us to more effectively and efficiently meet our conservation and preservation goals. 🐦



Deputy Secretary of the Interior David J. Hayes announced the honor of the Partners in Conservation Award and U.S. Fish and Wildlife Service Director Dan Ashe was on hand, along with 18 of the 26 member Friends of Hackmatack National Wildlife Refuge Partnership, to mark the occasion. Tami Heilemann, USFWS.

The following organizations were recognized for their outstanding efforts:

- Friends of Hackmatack National Wildlife Refuge Partnership, nominated by the U.S. Fish and Wildlife Service.
- Global Explorers - Natural Sounds and Night Skies Partnership, nominated by the National Park Service.
- Everglades Cooperative Invasive Species Management Area, nominated by the National Park Service.
- Southern Nevada Agency Partnership: Interagency Law Enforcement Team, nominated by the National Park Service.
- The Glacier National Park Ice Patch Archeology and Paleoecology Project, nominated by the National Park Service.
- Alaska Environmental Literacy Plan Working Group, nominated by the U.S. Fish and Wildlife Service.
- Central Umpqua-Mid Klamath Oak Habitat Cooperative Conservation Partnership Initiative, nominated by the U.S. Fish and Wildlife Service.
- Everglades Headwaters National Wildlife Refuge and Conservation Area Partnership, nominated by the U.S. Fish and Wildlife Service.
- Phoenix District Youth Initiative, nominated by the Bureau of Land Management.
- Ute Learning Garden, nominated by the Bureau of Land Management.
- Iditarod National Historic Trail Centennial Partnership, nominated by the Bureau of Land Management.
- The Office of Surface Mining/ Volunteers in Service to America Teams, nominated by the Office of Surface Mining.
- Appalachian Regional Reforestation Initiative, nominated by the Office of Surface Mining.
- Multi-Agency Rocky Intertidal Network (MARINE), nominated by the Bureau of Ocean Energy Management.
- Hart Mine Marsh Restoration Project, nominated by the Bureau of Reclamation.
- Colorado River Basin Water Supply and Demand Study, nominated by the Assistant Secretary – Water and Science.
- Border Security and Environmental Conservation Partnership, nominated by the Office of the Deputy Assistant Secretary for Public Safety, Resource Protection, and Emergency Services.

Fish Lines is Now Online!

By Katie Steiger-Meister
External Affairs

Fish Lines, a monthly publication produced by the Midwest Fisheries Program, has made the jump from print to the virtual world.

The stories in Fish Lines, written exclusively by U.S. Fish and Wildlife Service field staff, offer an insightful look into the hard work the Fisheries program is undertaking throughout the Midwest Region. 🐟

Check out the latest edition of Fish Lines at:
<http://www.fws.gov/midwest/fisheries/fishlines/index.html>

Field Focus
Ashland, WI Fish and Wildlife Conservation Office
Understanding Lake Trout Population Diversity at Lake Superior's Isle Royale ...[Read More](#)

2012 Issues
Current Edition PDF
Vol. 10 No. 11 - Oct 2012
Vol. 10 No. 10 - Sept 2012
Vol. 10 No. 8 - August 2012
Vol. 10 No. 7 - July 2012
Vol. 10 No. 6 - June 2012
Vol. 10 No. 5 - May 2012
Vol. 10 No. 4 - April 2012
Vol. 10 No. 3 - March 2012
Vol. 10 No. 2 - February 2012
Vol. 10 No. 1 - January 2012

Fish Tails
Fish Tails refers to articles that are entered by field staff in the U.S. Fish and Wildlife Service's Field Notes website, but are not published in the current edition of Fish Lines. These articles provide examples of the diverse work that the Service's Midwest Fisheries Program and partners perform on behalf of our aquatic resources and for the benefit of the American public. To view these articles, click on the links below. Enjoy!

- It's Time to Look for Winged Mapleleaf
- Silver Creek Super Project Completed
- A Day Stern Trawling on the Missouri
- Sturgeon at the Extremes
- Hatchery Fall Fest at Jordan River NFH

A Day Stern Trawling on the Missouri
The morning started off grand, a beautiful sunrise with promise of a great day of trawling for larval fish...[Read More](#)

2012 2011 2010 2009 2008
2007 2006 2005 2004 2003

The new online look of Fish Lines, USFWS

Midwest Fisheries Program: New Websites for All

By Katie Steiger-Meister
External Affairs

What do six national fish hatcheries, six fish and wildlife conservation offices, two biological research stations and one fish health center have in common? New websites!

In an era of tablet computers and smart phones, the internet has become one of the U.S. Fish and Wildlife Service's most dynamic platforms to teach the American public about who we are.

To help share their story, the Midwest Fisheries Program recently undertook the challenge of revamping not one, but all 15 of their field offices' websites.

With assistance from External Affairs, the new field office websites are now up-to-date reflections of the high caliber work taking place. 🐟

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- Rx lake-bass nears 4,000 U.S. sites
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- Saving the best to last!

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U.S. Fish and Wildlife Service Midwest Region
1,925 likes

U.S. Fish and Wildlife Service Midwest Region shared Seney National Wildlife Refuge's photo. The spiders at Seney National Wildlife Refuge went all out on decorating for Halloween.

Consistent look, easy navigation and federal web compliance are just a few of the many benefits found in the web site updates. USFWS

How to Share Your Comments on Surrogate Species Technical Guidance

By Ashley Spratt
External Affairs

To enable effective and efficient fish and wildlife conservation, the U.S. Fish and Wildlife Service (Service) has developed draft technical guidance to help employees and partners establish biological outcomes at defined landscape scales.

This guidance describes a standard process and criteria for defining biological outcomes using a surrogate species approach, reducing the burden of addressing the requirements of many species individually.

The application of this guidance represents an opportunity for the Service to participate with partners in advancing understanding of surrogate species science and refining application of the Strategic Habitat Conservation (SHC) framework to our conservation activities.

This fall, the Midwest Region hosted a series of Surrogate Species Technical Guidance Workshops with regional and field office staff to build an understanding of surrogate species and their relationship to SHC. The workshops also shared information on how employees and partners can provide informed feedback on the draft technical guidance.

Comments may be submitted on behalf of the Midwest Region, individual employees, partners and the public by January 31, 2013. 🐦



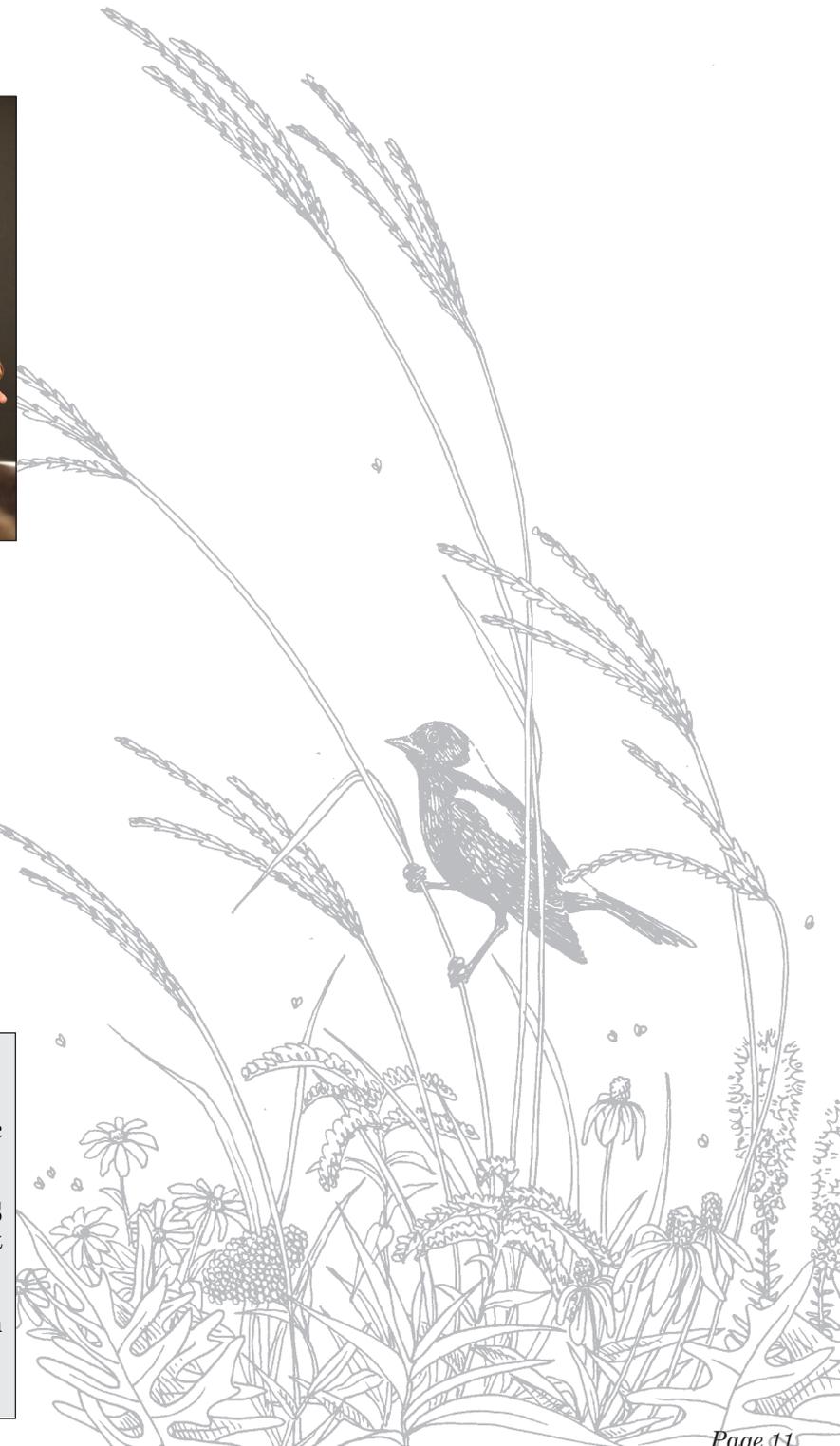
Craig Czarnecki, Assistant Regional Director for Science Applications, welcomes more than 40 field office staff and partners to a surrogate species workshop in St. Louis. Workshops were held in Bloomington, MN., St. Louis, MO., and Angola, IN.
Ashley Spratt, USFWS.

Employees: Staff may submit their comments by clicking here.

Partners and public: Input from our partners is also critical. Partners and members of the public can submit comments by clicking here.

Background materials: [Click here](#) for additional information on the Midwest Region InsideFWS Functional Landscape Web site. [Click here](#) for information on the national strategic habitat conservation Web site.

[Click here to learn more](#) about why the Service is using the SHC framework and focusing on biological outcomes to measure success.





Missouri School of Journalism students with U.S. Fish and Wildlife Service Fisheries and External Affairs staff on the Missouri River. USFWS

Reaching Young Adults

Using Communications Expertise from the Missouri School of Journalism to Engage Young Adults in USFWS Volunteer Opportunities

*By Ashley Spratt
External Affairs*

The U.S. Fish and Wildlife Service, the nation's premiere agency dedicated to the protection, conservation and manage-

ment of fish, wildlife and our natural resources, faces an unprecedented challenge of engaging a generation of tech-savvy, highly diverse, and highly influential young adults between the ages of 18-24.

This fall, students from the University of Missouri School of Journalism, the nation's top-ranked academic institution in the field of communications, are working alongside USFWS staff to inform

and support the agency's mission to connect with this non-traditional young adult audience. Their goal is to develop a comprehensive communications campaign that encourages natural resource stewardship and

volunteerism among 18 to 24 year-olds.

"This age range holds a significant stake in the current and future health of our nation's natural resources," said Charles Traxler, USFWS Assistant

Regional Director of External Affairs. “That’s why it is so important for our agency to grasp their language and know how to communicate with them effectively.”

USFWS is partnering with Mojo-Ad, the School of Journalism’s professional-services, student-staffed communications agency. The agency is made up of seniors and graduate students competitively selected to work with clients seeking strategic communications campaigns to reach the young adult market.

Stephanie Padgett, Mojo-Ad’s Director of Media and Research, says, “Mojo-Ad staff are all part of the demographic they are working to target. That’s the difference we provide. We offer a fresh perspective on how to communicate to 18-24 year-olds, straight from the horses’ mouth.”

Mojo-Ad annually produces a comprehensive State of the YAYA Report (6.6 MB PDF), with market insights on the 18-24 audience, including their behaviors, attitudes and interests. This report helps

inform the development of communications campaigns targeting young adults.

“By utilizing highly-specialized communications specialists to inform how we talk with the youth and young adult market, we are positioning our agency to reach this emerging and important constituency,” said Traxler.

As part of the group’s primary research, Mojo-Ad staff members are spending time with USFWS field staff representing national wildlife refuges, fisheries, ecological services and external affairs.

Jestin Clark, wildlife biologist with Big Muddy National Fish and Wildlife Refuge, and Ashley Spratt with USFWS External Affairs, took more than 30 Mojo-Ad staffers on a three-mile hike through the refuge’s Overland Bottoms unit, showcasing ongoing projects by volunteers including educational kiosks,

invasive species removal, tree plantings, and trail construction.

USFWS Columbia Fish and Wildlife Conservation Office staff (Anna Clark, Heather Calkins, Hilary Meyer, Colby Wrasse, Jeff Muchard and Jeff Finley) led an outing for Mojo-Ad staffers on the Missouri River, giving

a juvenile shovelnose sturgeon in their hands, and dodging jumping silver carp were all first-time experiences. At the end of the day, they really understood why conserving fisheries matters.”

Several Mojo-Ad staff members also participated in National Public Lands Day, volunteering alongside

“This age range (18-to-24) holds a significant stake in the current and future health of our nation’s natural resources.”

Charles Traxler, USFWS ARD, External Affairs

hands-on demonstrations of volunteer opportunities with fisheries biologists. Students assisted in trammel netting, push trawling and electrofishing. “Many of the students had never been on the Missouri River before,” Clark said. “Being on a boat, holding

USFWS staff and other conservation partners to plant trees and prairie cordgrass in a conservation area near St. Louis.

Mojo-Ad staff are using this hands-on experience, in addition to secondary research about USFWS

volunteer programs, to build their strategic communications campaign. The agency aims to identify what values or activities related to natural resource conservation resonate with the target market, and identify how USFWS can generate good will, support or advocacy for natural resources issues, and encourage volunteer participation through USFWS programs.

“This partnership with Mojo-Ad can lead us in the right direction to educate and inform young adults about the mission of our agency and why our work matters,” Traxler said. “They can help us engage young adults in the conservation conversation, and guide our efforts to utilize social media and other communications tools to encourage a call to action through volunteerism.” 🐾



Specialists in all things young

Uncovering the Hidden Layers of Big Muddy

Understanding Hydrogeomorphic History to Restore, Manage and Protect the Lower Missouri River

By Ashley Spratt

External Affairs

The lower Missouri River, the largest free-flowing river reach in the United States, encompasses nearly 1.5 million acres of bottomland habitat for fish, wildlife and plants, while providing commercial transportation and recreation opportunities for communities across our nation's heartland.

Two centuries ago the lower Missouri River, nicknamed the Big Muddy, provided up to a mile-wide braided channel of riverine and floodplain habitat. But more than 200 years of urban development, flooding, agricultural expansion, and human exploitation for navigational, recreational and commercial use have permanently altered the river's character.

Conservation forces across federal, state and non-governmental agencies and organizations are committed to uncovering layers of Big Muddy's past to set a course for future restoration and management of this regulated, yet untamed river system.

The method uses hydro-geomorphologic

characterization, a landscape-scale analytical technique that has been applied across major North American river systems including portions of the Colorado, Arkansas and Mississippi rivers, to help land managers preserve existing and restore potential fish and wildlife habitat. Now, researchers aim to use the process to inform more effective conservation and

management across 670 miles of the Missouri River from Decatur, Nebraska to St. Louis, Missouri, as part of the Lower Missouri River Hydrogeomorphic Restoration and Management Project. Natural resource researcher and private consultant Dr. Mickey Heitmeyer is leading the effort to pull together quantitative data on the hydro-geomorphic



The Jameson Island unit of Big Muddy National Fish and Wildlife Refuge occupies a large bend of the Missouri River floodplain in Saline County. The unit consists of 1,871 acres of bottom land forests including cottonwood, willow, box elder and other floodplain species. USFWS.

attributes of the lower Missouri River prior to European settlement.

“We want to know how the Missouri River was formed, its shape, characteristics of the floodplain, and how that has changed over time,” Heitmeyer said.

Today, the lower Missouri River is highly influenced by upstream reservoirs and water control that affect the river’s physical and ecological functions. These alterations pose significant challenges for those that live and make their livelihood along the river, as well as for the maintenance and protection of wildlife habitat.

Engineers and ecologists are working alongside Heitmeyer to analyze both historic and contemporary information about physical features of the lower Missouri River, ranging in scale from site-specific tracts on national wildlife refuges to large watersheds and floodplains.

“We are gathering the data in layers, piecing together the geology, soil structure, topography, and finally,

the hydrology of the river. What was the nature of the river before it was altered, including its dynamics, and seasonal and long-term patterns?” Heitmeyer said.

Conservation Cooperative (LCC) and Plains and Prairie Potholes LCC to co-fund the project. The Division of Biological Resources provides

and we feel reflects the overlap of landscape scale conservation priorities between the National Wildlife Refuge System and the LCCs,” said Josh

“We want to ensure the Big Muddy remains home to vibrant and diverse fish and wildlife species, while continuing to benefit future generations of river communities,” said Rick Nelson, coordinator of the Plains and Prairie Potholes LCC. “By bridging the science behind the lower Missouri River landscape with all types of land managers, we can work toward more objective and scientifically sound conservation of this dynamic natural resource and the fish, wildlife and people it supports.”

Nelson and Eash agree that taking a landscape scale approach to conservation efforts and management decisions is crucial to addressing long-term natural resource challenges, from impacts of climate change to shifts in agricultural practices. Through this collaborative effort, land managers within the lower Missouri River floodplain can visualize the river in its pre-settlement state to help set conservation and management objectives for the future.



Diana Scour surrounded by fall splendor: Overton Bottoms North Unit. Barb Moran, USFWS

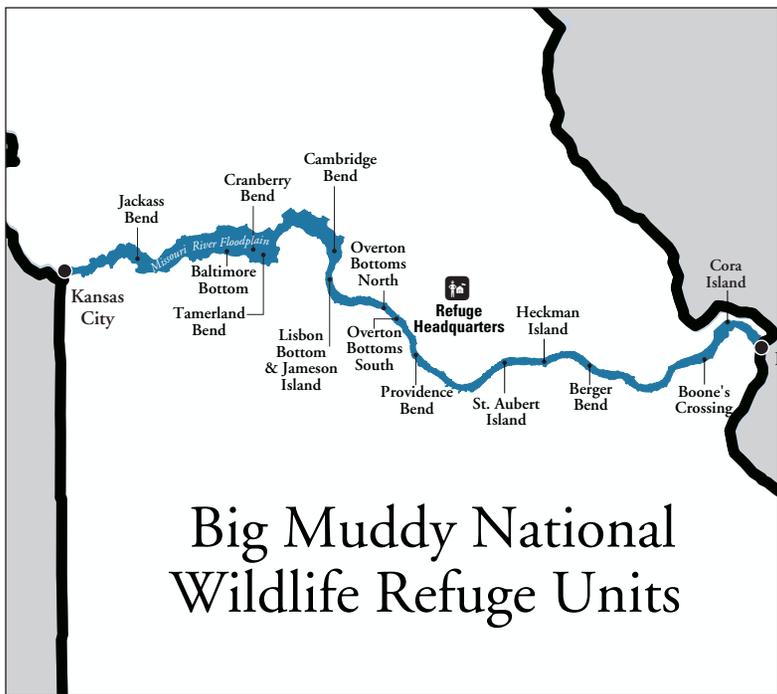
“Once we have that data, we map it, layer over layer, and compare it to current day conditions.”

The U.S. Fish and Wildlife Service’s (USFWS) Division of Biological Resources partnered with the Eastern Tallgrass Prairie and Big Rivers Landscape

robust, defensible and transparent scientific information assistance to the National Wildlife Refuge System, while LCCs are partnerships that seek to bridge the gap between science and natural resource management. “This is a partnership that we are very proud of

Eash, USFWS regional refuge hydrologist.

The research will not only benefit refuge managers, but will also provide valuable data that can be used by managers across a broad spectrum of publicly and privately owned lands throughout the floodplain.



landowners sold more than 16,000 acres of floodplain for permanent protection to the federal government. The USFWS has approval through Congress to acquire up to 60,000 acres of floodplain and adjacent land on the Missouri River between St. Louis and Kansas City.

“We have the opportunity to get ahead in our strategic planning for restoration and acquisition of lands for the refuge, rather than learning by trial and error as we have done in the past,” said Bell.

Heitmeyer said that managers at national wildlife refuges and wetland management districts will be able to zoom into specific tracts of land to visualize historic hydrogeomorphic traits and overlay that visual with present-day conditions. “By visualizing the historic vegetation, natural resource managers can also determine, by default, the animal communities that were historically supported there,” he said.

Tom Cox, refuge manager at DeSoto National Wildlife Refuge, which straddles the

Iowa-Nebraska border; said Missouri River refuges are home to a broad spectrum of floodplain-dependent fish and wildlife species.

“That’s why science-based decisions about land acquisition, and restoration and management is critical to how we do business in the future,” Cox said. Cox plans to use the results of the Hydrogeomorphic Restoration and Management Project to help plan restoration activities that benefit existing wildlife populations on the refuge, and have the potential to augment habitat for species in decline.

“When I came to DeSoto we were looking at serious declines in waterfowl numbers, a drop as much as 75 percent over historic long range numbers,” Cox said. “We have thousands of acres of hydric soils, so we are using wetland restoration as a key tool to bring back the ducks, and a host of other species from secretive marshbirds to shorebirds.”

Floodplains are also important spawning sites for numerous native big river game and non-game

fish species, including the federally endangered pallid sturgeon. Natural and man-made channels also benefit resident and migratory shorebirds and waterfowl, including the federally listed piping plover and interior least tern, which utilize sandbars for nesting, breeding and foraging.

Cox explains that shifts in agricultural practices over time on surrounding refuge lands have changed the diversity of wildlife on the refuge. “We know that we will never be able to restore the natural ecosystem as it existed in the past because of artificial manipulation of water levels, so we have to be more strategic and creative in our wetland restoration efforts,” he said. “The hydro-geomorphic study can open our eyes and give us a range of options for restoration activities.” Wetland restoration on the refuge has contributed to a four-fold climb in waterfowl populations over the past decade.

Refuges that adjoin stretches of the river are also common destinations for visitors from the Midwest and across the U.S. Birders, wildlife

“If we know the geology, the soils, elevations, and flooding patterns, then we can get a sense of what plant communities were historically there, what attributes caused them to be there, their distributions, and what physical features caused them to be sustained over time,” Heitmeyer said. Refuge managers like Tom Bell of the Big Muddy National Fish and Wildlife Refuge in Missouri, are anxious to use results from the project to help inform restoration and acquisition actions for the refuge.

“This research will allow us to look at subsurface maps of ancient Missouri River features within the floodplain,” said Bell. “We will physically be able to see where surface topography will either promote or hinder wetland restoration, so we’ll be able to make better decisions on restoration activities and locations.”

Big Muddy National Fish and Wildlife Refuge, with units dotting portions of the Missouri River from St. Louis to Kansas City, was established following the flood of 1993 when private

photographers, nature enthusiasts and hunters and anglers alike, frequent Missouri River refuges during spring and fall bird migrations and hunting and fishing seasons.

“Our management decisions on the refuge impact more than just wildlife. Our job is to help sustain fish and wildlife populations and protect habitat for declining species, but, we also recognize the economic and intrinsic value of these natural resources,” Cox said. “Healthy habitats for fish, birds and other wildlife contribute to local economies by providing outdoor recreation activities enjoyed by many people.”

Boyer Chute National Wildlife Refuge in eastern Nebraska and Squaw Creek National Wildlife Refuge in northwest Missouri, also positioned along the lower Missouri River corridor, will also be able to use mapping tools developed by the Hydro-geomorphic Restoration and Management Project to inform acquisition and restoration activities in relation to contemporary flood control, reservoir regulations, policies, and other

management considerations impacting refuge and surrounding lands.

The reality, as Heitmeyer, Bell and Cox attest to, is that returning river habitat to pre-settlement condition is simply not feasible under these current environmental conditions and stressors.

“So the final step in the process is evaluating management or restoration options in the current, real-world environment,” Heitmeyer said. “We have forests, ditches, levees, roads and other impediments to restoration that land managers must consider, in addition to the economic considerations of land-use.”

Despite the dynamic changes experienced by the Big Muddy over the last two centuries, project partners are optimistic about the restoration and management potential of this landscape approach to data collection and research. By bridging the gap between science and natural resources management along the Big Muddy, land managers can more successfully



Baltimore Bottom Unit during 2007 flood. USFWS

protect, manage, conserve and restore portions of this biologically diverse, economically significant, and ever-changing river system.

“This is really where the rubber meets the road. We are forming a template for refuge managers to make decisions about restoration projects and species conservation efforts in light of historical and contemporary conditions,” Heitmeyer said. “By doing

this from St. Louis to Omaha we are thinking about the entire system and will get a sense of an entire stretch of river at a landscape scale. Our job is to put the refuge in the right context relative to the whole region.”

The lower Missouri River Hydro-geomorphic Restoration and Management Project received \$100,000 in funding from the Plains and Prairie Potholes LCC and Eastern Tallgrass Prairie

and Big Rivers LCC, and, an additional \$150,000 from the USFWS Division of Biological Resources. The project is anticipated to take 2.5 years to complete.

For additional stories about landscape conservation, visit the [Plains and Prairie Potholes LCC](#) and [Tallgrass Prairie and Big Rivers LCC](#) web sites. 🐦

Keeping Safe for the Holidays... and Entire Winter Season

By Jan Dalton
Safety Specialist

I was almost four the first time I ventured out on the ice to fish with my dad and two brothers. While I happily pursued that hobby until moving to Hawaii, some 15 years later, it never occurred to me what a wildly dangerous activity it can be.

Consider this statistic: According to the Minnesota Department of Natural Resources (DNR), there are approximately five ice related deaths each year. Although the mode of entry varies from snowmobile, motor vehicle, or on foot, one aspect remains constant—the mishaps are 100 percent preventable.

It's so easy to follow the advice of the professionals: Never walk on ice less than four inches thick. Don't snowmobile on less than five inches or drive your car on less than eight inches of new clear ice. Factors that affect the strength of ice vary, such as the age of the ice, outside temperature, and distribution of the load on the ice, but what affects it the most lies beneath the surface. Water depth, size of the body of water, its chemistry and currents from rivers and river outlets all impact its strength. Currents, for example, affect ice by eroding it—even though there is no indication of weakening on the surface.

Be aware of these hazards, prepare for an emergency, and have a recovery plan in the event you do fall through the ice. The DNR advises to never drive on the ice at night, avoid pressure ridges and areas with a current.

If you do choose to drive, **roll your windows down and leave doors partially open** to avoid becoming trapped if your car breaks through, and carry ice picks or two large nails to use as ice picks to pull yourself out if you fall through thin ice. **Ice picks**, also known as ice rescue claws, can be purchased at any outdoor recreation or sporting

goods store. If they aren't connected, it is advisable to connect with a string.

You can also make your own ice rescue claws using two nails and two dowels. The dowels serve as the handle and nails as the ice pick. If you do go through the ice, remember the following: try not to panic, turn towards the direction you came, place hands and arms on the unbroken surface, kick your feet and dig in your ice picks to work your way onto solid ice. Once lying on the ice, do not stand up, but instead roll away from the hole.

Watch for frostbite and other symptoms of cold-weather exposure. Frostbite causes a loss of feeling and a white or pale appearance in extremities such as fingers, toes, tip of nose and ear lobes. If symptoms are detected, get medical attention immediately. Do not rub with snow or ice - this does not help the condition and, in fact, will make it worse. The best treatment for frostbite is rewarming of affected tissue.

Drink plenty of fluids, but avoid alcohol because, despite what you may think, alcohol does not warm the body. Not only will

alcohol mask the symptoms of frostbite, but it will dehydrate you, and that puts you at a greater risk.

Keep yourself and your clothes dry. Change wet socks and all other wet clothing as quickly as possible to prevent loss of body heat. Wet clothing loses all of its insulating value and transmits heat rapidly.

Enjoy the holiday and winter season both indoors and out. But give some thought to how you can keep yourself safe when enjoying the many outdoor activities such as snowmobiling, skiing, hunting and ice fishing. 🦋

“...there are approximately five ice-related deaths each year. Although the mode of entry varies from snowmobile, motor vehicle, or on foot, one aspect remains constant—the mishaps are 100 percent preventable.”

Minnesota Department of Natural Resources

Wild About the Midwest's Jurassic Park



Photo courtesy of The Wilds

By Katie Koch, Marquette Biological Station and Valerie Rose Redmond, External Affairs

In late September, U.S. Fish and Wildlife Service Migratory Bird Biologist Katie Koch embarked on a safari-like excursion through “The Wilds,” a reclaimed strip mine about two hours outside



Henslow's Sparrow.
David Cree, USFWS

of Columbus, Ohio, home to 31 rare and endangered species from throughout the world and a surprisingly large population of grassland birds, including Henslow's Sparrows. The Wilds offers safari tours in open-air vehicles through open-range animal areas where visitors see rhinos and the Mid-Sized Carnivore Conservation Center:

With rhinos roaming freely and birds that share a close ancestral relationship to dinosaurs, The Wilds can be somewhat reminiscent of a certain movie set. “I have to admit that I felt a little like I was in the movie Jurassic Park, as staff from The Wilds drove

us through gates and large fenced-in paddocks containing zebras, giraffes, red-crowned cranes, and Persian onagers,” said Koch.

Jurassic Park was one of the movies that reinforced Koch's desire to become a biologist at an early age. “We even spotted a few migratory grassland birds and still-flowering native forbs amidst the herds of exotic mammals,” she said.

In addition to endangered species conservation, the area is being managed to restore ecological communities and maximize biodiversity. Some grassland bird research has also taken place there in recent past.

Grassland bird conservation is one of the Midwest Migratory Bird Program's highest priorities, and the Service has formed a working group through the Midwest Coordinated Bird Monitoring Partnership to advance grassland bird conservation and monitoring in a coordinated manner.

At the invitation of Amanda Conover, the Ohio Bird Conservation Initiative Coordinator, Koch traveled through rolling terrain and the Appalachian foothills to The Wilds. She also met with Ohio bird conservation partners.

The OBCI coordinates the diverse skills and resources of its voluntary partners to deliver the full spectrum of bird conservation in Ohio. “I was really impressed with how much progress

they have made in their first year,” said Koch. Several highlights include public awareness projects such as Lights Out Columbus, Little Miami Display and Bird Feeding Station, as well as guiding conservation partners through the All Bird Conservation Plan.

Koch also visited with Ohio Division of Wildlife staff to learn more about their bird monitoring programs. She briefed them on the Midwest Coordinated Bird



Photo courtesy of The Wilds



Muskingum researcher Dan Ingold, mist netting grassland birds at the Wilds. USFWS.

Monitoring Partnership and identified new opportunities for collaboration. In addition to grassland bird conservation, they have also helped pilot the National Secretive Marshbird Monitoring protocol and sampling design, conducted off-shore aerial surveys for non-breeding waterbirds to inform of wind power development around western Lake Erie, digitized and ground-truthed all of their Breeding Bird Survey route locations, and developed a land manager's guide for Cerulean Warblers and other young forest birds.

There was also discussion about the [Midwest Avian Data Center](#) and how partners could contribute data, what decision support tools are readily available, and how they could continue to develop this web application.

Koch concluded her visit at the [Grange Insurance Audubon Center](#) in Columbus, Ohio, a LEED-certified enterprise that brings hands-on conservation and nature-based learning to a major American city (and a

designated Important Bird Area). There she met with several Audubon staff to learn more about their local and statewide efforts in bird conservation and education and to identify ways to connect them with the Midwest Coordinated Bird Monitoring Partnership and Midwest Migratory Bird Program.

[For more information about The Wilds visit http://www.thewilds.org/.](http://www.thewilds.org/) 🐦

Minnesota Department of Natural Resources Visits the Regional Office

By Valerie Rose Redmond
External Affairs

The first in a series of brown bag seminars, presented by the Wildlife and Sport Fish Restoration Program in celebration of its 75th anniversary, took place on October 24 at the Regional Office. Casey Nelson and Nancy Stewart, Minnesota Department of Natural Resources, addressed regional office employees about the Minnesota's Public Water Access and Aquatic Invasive Species Programs.

The Minnesota DNR, as well as the other seven states in the region, interface regularly with the U.S. Fish and Wildlife Service as both federal and state organizations have a vested interest in getting people out onto the water and giving them access to our water resources.

While this year celebrates the Pittman-Roberts Act, the WSFR program is also celebrating the success of the Dingell - Johnson Act

(also known as the Sport Fish Restoration Act and Wallop-Breaux Act), which is specifically for sport fish restoration activities.

“I am very pleased with the successful partnership that the Service has had with the Minnesota DNR and our other state partners. Project implementation and success is a critical component in our cycle of success.”

Jim Hodgson, USFWS WSFR Chief

Public access and programs like the Clean Vessel Act and Boating Infrastructure Grant, (both of which fall under the Fish Restoration Act) are programs that are funded by the excise tax on fishing equipment and marine gas sales. Boating access is one component of that, which Nelson addressed at length. “For about the last 29 years we have received funding specific to boat access,” she said, “And what we’ve really done with this funding is we’ve made sure that it augments and enhances our program.”

There is an array of funding utilization and implementation among the eight states in the region. Some concentrate on operational maintenance, while others focus on salaries for crews. What the Minnesota DNR does is acquire land and develop on existing land. And they’ve

been very successful in their efforts, having acquired over the last 29 years, 469 public water access sites and over 1050 acres of lakeshore land through WSFR funding, despite the rise in lake shore property values. They have also developed over 650 public water access sites.

“I am very pleased with the successful partnership that the Service has had with the Minnesota DNR and our other state partners,” said Service WSFR Chief Jim Hodgson. “Project implementation and success is a critical component in our cycle of success.”

Stewart had an array of expertise, but concentrated her presentation on the Aquatic Invasive Species Program (AIS). The AIS program helps to limit the spread and dangerous effects of species that are not native to Minnesota, such as zebra mussels and New Zealand mudsnails. Both

can have adverse impacts on economy, humans and/or the environment.

Afterwards, Regional Director Tom Melius and class participants went outside to see one of the portable Aquatic Invasive Species Decontamination Units. Inspectors Nate Beaver and Tyler Richter demonstrated the watercraft inspection process and the decontamination unit, which is used as a tool for preventing the spread of AIS. 🦃

