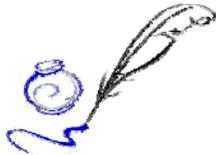


February 2018, Volume 12, Issue 01

Your key to discovering the *Natural Missouri*



From
Our President

February offers me a chance to spend time in Florida visiting wetlands and doing a lot of walking and thinking. As the requests for help come through my mailbox I realize how fortunate I am to be your President.

Our chapter is developing a great reputation for being reliable energetic stewards of our environment. Our new members have chosen to do some prairie restoration and build a demo garden in Broemmelsiek Park for their Capstone Project. They will be led by one of our experienced members, Phil Rahn. Any of you

other experienced members are invited to join them if you wish.

Many things to do as spring approaches. Watch for the Volunteer updates as they arrive in your mailboxes.

Thanks for your dedication and enthusiasm

Alberta

Alberta McGilligan
President, Confluence Chapter

I love to think of nature
as an unlimited
broadcasting station,
through which God speaks
to us every hour, if we will
only tune in.

~George Washington Carver



Missouri Master Naturalist
2018 Certification Pin
Mead's Milkweed
Aclepias meadii

This is the Year of the Bird...



Sandhill cranes are one of the oldest birds on the planet. Fossil records show that these cranes have been around for more than nine million years!

Sandhill crane in flight.
Photo by Jim Sinclair/USFWS



Milestones, Certifications, Annual Pins, and Other Recognitions

November 2017:

Pins were awarded to the following for Intern Completion: Jane Porter and Jean Crinean.

Annual Certification Award: Lee Phillion, Ann Finklang, Scott Barnes, Valerie Geile, Jerry Lindhorst, Joe Veras, Nancy Newcomer, Lee Holloway, Jim Middleton, Kathy Murray, Steve McCarthy, Phil Rahn, Jean Crinean, Ken Benson, Jane Porter, Paul Crombie.

Lifetime awards:

500 hours of service: Martha Hessler, Lee Walters.

1000 hours of service - Scott Barnes, Phil Rahn, Malcolm Royce



December 2017:

Acknowledgements, and Awards: Alberta thanked Tom Nagle, previous Vice President, and welcomed Rob Merriman to his role as our new Vice President. A thank you also to Martha Hessler, outgoing secretary, and a welcome to Jane Porter, our new secretary. Thank you to Jim Middleton, AT chair, and a welcome to Deborah Moulton, our new AT chair. Thank you to Glenn Bish, Volunteer Services Coordinator, and welcome to Ken Benson and Mark Williams, our new Volunteer Services Coordinators. A recognition went out to committee leads: Allison Volk, Deborah Moulton, Leslie Limberg, Gary Wester, Pam Walsh, Carmen Santos, and Alison Robbins. Thank you to all.

Top 2017 volunteer

hours went to Bob Lee for 1,497 hours, Bob Coffing for 700 hours, Malcolm Royse for 546 hours, and Tom Nagle for 342 hours.

Steve McCarthy was recognized as Stream Team Ambassador. Congratulations to all!



Steve McCarthy Receives Stream Team Ambassador Award



The Department of Natural Resources announced in July that Confluence Chapter's Steve McCarthy was named the 2017 Stream Team Ambassador Awardee for his 2016 con-

tributions. Karen Westin, who coordinates Stream Team monitoring for the Department of Natural Resources, presented the award to Steve in December.

Some of Steve's outstanding contributions in 2016 that led to the award include submitting data for an astounding thirty-four monitoring events, identifying and causing mitigation of a drinking water discharge into a local creek that was having a negative effect on aquatic life, and co-writing a front-page article for the Stream Team Newsletter, Channels, educating members about the dangers of drinking water discharge as a pollution source in local waterways (the chlorine used to produce drinking water for humans can be poisonous to aquatic life in high concentrations).

"Steve always submits the highest quality data and keeps staff on its toes concerning Quality Assurance and Quality Control issues," said Wes-

tin. Ambassador Awards are given to Stream Team members who best exemplify Stream Team goals of education, stewardship, and advocacy. "Steve hit the trifecta in 2016," said Westin.

Steve's pre-retirement career as a chemist with the Anheuser-Busch Technical Center prepared him well for his stream team work, but Steve is no stranger to volunteering. Most weeks he can be found volunteering at Forest ReLeaf's nursery along with preparing and restoring donated bicycles at "St. Louis Bike Works." The bikes will go to youngsters in need (if you have a bike to donate, go to bworks.org or call Steve at 314-489-2760).

On top of all that, Steve has run twenty marathons over the last eleven years, including the New York and Chicago marathons.

Steve and his wife Jane have been Confluence Chapter members since 2013.





- ✧ Free and easy to use tools
- ✧ Quantifies tree structure, threats, and benefits globally
- ✧ Built upon peer-reviewed, public-domain science

i-Tree is a state-of-the-art, peer-reviewed software suite from the **USDA Forest Service** that provides urban and rural forestry analysis and benefits assessment tools.

The i-Tree Tools help communities of all sizes to strengthen their forest management and advocacy efforts by quantifying the structure of trees and forests, and the environmental services that trees provide.

Since the initial release of the i-Tree Tools in August 2006,

thousands of communities, non-profit organizations, consultants, volunteers and students have used i-Tree to report on individual trees, parcels, neighborhoods, cities, and even entire states. By understanding the local, tangible ecosystem services that trees provide, i-Tree users can link forest management activities with environmental quality and community livability.

Whether your interest is a single tree or an entire forest, i-Tree provides baseline data that you can use to demonstrate value and set priorities for more effective decision-making.

i-Tree Tools are in the public domain and are freely accessible. We invite you to explore their site to learn more about how i-Tree can make a difference in your community or forest.

<http://www.itreetools.org/>

Note: If you decide to download the i-tree software, keep in mind

that depending on your computer/i-pad/etc., it might take a long time to download.

The program is easy to use, very detailed, but time consuming.

Don't Top your TREE
Think of it as a
really, really
bad haircut...
which could kill you.



Developing a Preventative Pruning Program: Mature Trees

<http://edis.ifas.ufl.edu/pdf/EP/EP31600.pdf>

<http://gardeningolutions.ifas.ufl.edu/care/pruning/pruning-and-maintaining-trees.html>



Mead's Milkweed *Aclepias meadii*

A nonwoody, erect plant with a smooth stem and milky sap, and 2-6 pairs of opposite, narrow, tapering leaves. This perennial plant blooms from late May to mid-June, producing 1-2 clusters of flowers at the top of its stem. Each cluster has 5 to 14 (less than 20) flowers. The flowers are yellow-green or greenish-cream and are often tinged with purple. Individual flowers have five tubular hood-shaped structures with a slender "horn" extending from each one.

Size: Height: 1 to 2 feet.

Habitat and Conservation:

Habitats include mesic to dry tallgrass

and upland prairies with sandstone or chert bedrock, prairie hay meadows, railroad rights-of-way, prairie remnants, virgin mesic silt loam prairies, and igneous glades. Conservation efforts include delaying haying until September, periodic burning of prairies, and rotational grazing.

Distribution in Missouri:

Historically, Mead's milkweed ranged throughout much of Missouri. It is presently found in the Osage Plains region and the St. Francois mountains region of the Ozarks.

Status:

A Species of Conservation Concern: Listed as **Endangered** by the Missouri Department of Conservation and as **Threatened** by the



Photo by Mike Redmer

U.S. Fish and Wildlife Service. Destruction of native prairie habitat is the cause for its decline. Many populations contain genetically identical plants (having reproduced only via root division) and, lacking nearby plants with different genetics with which to cross-pollinate, do not produce viable seed.

Ecosystem Connections: The sap of most milkweeds is toxic and prevents the plants from being eaten. Some insects, however, can eat milkweeds and thus become unpalatable to predators themselves. Meanwhile, many insects sip freely of milkweed nectar, which is not toxic to them.

Human Connections: Milkweeds, with the remarkable chemicals present in their sap, had many medicinal uses for Native Americans. The fibrous stems also yielded material for cordage and weaving, and the silky hairs on the seeds have had various uses over the years.

<https://www.fws.gov/midwest/Endangered/plants/meads/index.html>





Master Naturalists in Action

Maple Sugar Festival—Feb 3, 2018. Over twelve confluence members participated in the event.



Thank You, Master Naturalist Gail Gagnon and Sarah Pitzer for your outstanding contribution to our chapter while educating our members on all matters related to birds. Sarah is a student at Webster University and an honorary member of our chapter.



Allison V, Malcolm, and Paul joined a few others at Meramac State Park for a Karst hike lead by Danny McMurphy of the Miramigua chapter on Dec 2nd. It was a six hour hike over six miles of the developed and undeveloped park land. We learned about sink-holes, the mining in the areas and the cave system.

To All Project Leaders

Mr. Jerry Smith, Chief Park Ranger for St. Charles County Parks, would like to be contacted when Master Naturalists are doing volunteer work at St. Charles County Parks.

They have had incidents where they can't identify a person or a vehicle in a park or park in reserve. It concerns a Ranger when they come upon an incident and they have no knowledge of them

having permission to be operating in that capacity.

Mr. Smith is a former Master Naturalist and a member of first class trained in the Confluence Chapter. He requests that you or a member of your group send him an email or give him a phone call a day or two in advance of the work. You may also call the ranger duty phone at 314-713-4394 and let them know they are going to be doing some

work at one of the parks.

Mr. Smith's email is JSmith@sccmo.org

Jerry A. Smith
Chief Park Ranger
St. Charles County Parks
560 Interstate Dr.
Wentzville, MO 63385
636-949-1822





Year of the Bird!



National Geographic, National Audubon Society, BirdLife International, and more than 100 organizations have declared 2018 the Year of the Bird, coinciding with the centennial of the Migratory Bird Treaty Act's ratification (MBTA).

The MBTA is a law that protects birds from people. When Congress passed the MBTA in 1918, it codified a treaty already signed with Canada (then part of Great Britain) in response to the extinction or near-extinction of a number of bird species, many of which were hunted either for sport or for their feathers. According to the U.S. Fish and Wildlife Service (USFWS), the MBTA provides that it is unlawful to pursue, hunt, take, capture, kill, possess, sell, purchase, barter, import, export, or transport any migratory bird, or any part, nest, or egg or any such bird, unless authorized under a permit issued by the Secretary of the Interior.

The USFWS issues permits for otherwise prohibited activities under the act. The Act was one of the first federal environmental laws.

OWLS FOR PEACE

Owls for peace: How conservation science is reaching across borders in the Middle East.

Ornithologist Yossi Leshem launched a program in the Middle East to control rodents with barn owls in the hopes that farmers would use less of a pesticide that is deadly to birds. An unexpected benefit of the project has been the trust built between Arab and Israeli scientists at a time of increasing political tensions. "Birds have the power to bring people together, because they know no boundaries," says Leshem.

"Other natural predators of rodents, including kestrels, foxes, jackals and storks, also come in when rodenticide isn't used," he says. "But the best evidence that the barn owls are effective," says Yoram Yom-Tov, a zoologist at Tel Aviv University, "is that farmers — who care about their earnings per acre — choose to use them rather than spray chemicals."

Israel, Jordan and the Palestinian territories are not the only places where barn owls have been used to control pests, although they are home to the only cross-border program. Farmers in Malaysia have used barn owls since 1988 to control rodents in palm-oil plantations..

In California, some farmers have started using barn-owl and kestrel boxes to protect citrus orchards, walnut trees, vineyards and other crops. The notion of birds as biological controls dates back to the nineteenth century in the United States, as part of a field called economic ornithology — then defined, according to an 1899 review, as "the study of birds from the standpoint of dollars and cents." But once pesticides became widespread, the idea died out. Now, the

practice is slowly being revived, largely by word of mouth.



A barn owl with a captured vole.
Credit: Amir Ezer

https://www.nature.com/articles/d41586-018-01388-5?utm_source=briefing-dy&utm_medium=email&utm_campaign=20180130
Used by permission.

Peregrine Falcons

This is one of nature's swiftest and most beautiful birds of prey. Its name comes from the Latin word peregrinus, meaning "foreigner" or "traveler." This impressive bird is famous for its speed and aerial skills. Feeding primarily on songbirds, ducks and pigeons, the peregrine falcon flies high above its prey, diving in



for a quick and graceful kill. Scientists have estimated the speed of a diving peregrine to be close to 200 miles per hour! Removed from the endangered

species list in 1999, this bird is an excellent example of a successful recovery of a threatened species. Favoring cliffs and elevated views, the peregrine falcon can be seen at Grand Canyon National Park in Arizona and Red Rock Canyon National Conservation Area in Nevada.





Local Wildlife Videographer

By Master Naturalist Cori Westcott
Great Rivers Chapter

Wouldn't it be delightful if your next-door neighbor was a friendly naturalist? The two of you could stand at your property edge, and say, "Watch the birds bathing in a stream." She could share tidbits of avian behavior that you would eagerly digest like a grebe swallowing his latest catch. Complete, with entertaining metaphors!

What's a grebe, some of you may ask. Jo Alwood can show and tell you in one of her 150-plus wildlife mini-documentaries (search her name in www.youtube.com. Subscribe to her channel so all 150 movies are available for viewing).

She packs a lot in her two to four-minute films; crystal-clear videos, delightfully well-matched music and always the witty and informative narration that seems casually executed.

You do indeed have such a neighbor! Jo Alwood lives with her husband Connie (short for Cornelius) and two cats within the northern edge of St. Louis County. When I discovered her YouTube channel, I wanted to share the discovery with all my friends. Jo graciously accepted being interviewed and shared a recent Saturday morning with me.

Connie and Jo are both retired secondary English teachers. Connie became a Master Gardener in 2004. Jo insists he's the true birder in the home. As he followed a keen interest in the relationship between plant and bird, he has shared his findings by giving presentations.

Five years ago, Jo stopped political blogging when she became very ill. The correct diagnosis was slow in coming. She was seriously ill for at least a year. Her recovery not only restored her energy but surpassed her energy levels prior to the illness. She felt better than she had in years. She had all this energy and no direction. That's when Connie suggested making films about what

birds his audiences might see in their gardens seasonally. She was unsure she would be able to film moving subjects. Connie kept saying, "What else have you got to do?" That was the beginning.



Jo Alwood

To this date, the seasonal movies Connie requested have yet to be completed. But, Connie's primary objective was met. His wife had found something to do. And, Jo was driven!

"But he's paid for giving me something to do," Jo explained. "If you start adding it all up, it's expensive. Plus, I want to travel now, because I've done all the easy footage here. If I go to new places, I can get new birds. That's why California was so much fun. To get a dipper... that was such a thrill!" I'd never heard of the dipper until that video.

Our conversation continues and Jo relates how Connie tried to get her interested in birds for decades. And, her reaction was—"Yeah, they're nice." She continues, "But, I was not a birder. And, I'm still not a birder. I will freely confess that. I know a lot about the things I film and not much about anything else. There are these huge gaps in my knowledge. I need to start to get down to Riverlands at dawn and see if I can find some ducks before the traffic has scattered them. They're there and they might be close to shore if I get there first thing. But even if I do, I may not know what I'm looking at. I know some of the

grebes. I know what a bufflehead is. I know what a ruddy duck is. I know a few of them but I'm not like a birder. My husband has been doing this thirty-five years. He can look at one, way out there and if he can see even a little bit, he'll say, 'Well, that's a blah, blah, blah.' I'll say, 'You couldn't possibly know that!' But, if you've been around birders, you know they do!"

She adds, "Because Connie started me on that, I am now doing what I wish I could have been doing all of my life! It only took me until I was seventy-one years old to find my niche in life. But I feel like I have."

Besides finding new bird species for subjects, Jo would like to explore using her new macro lens. Are you paying attention, all you amateur entomologists out there? Jo is eager for suggestions on insect subjects.

I'm sure there are people like me out there who would say that watching her videos are some of their favorite online times.

My objective in writing this article is to make you aware of Jo Alwood's movies. Find her channel at https://www.youtube.com/channel/UC-Q-eORu_VVtkbmOgaSpH7A.

Here are some of her movies:

<https://www.youtube.com/watch?v=PKWXdKJgNA> (American Dipper Movie)

<https://www.youtube.com/watch?v=qjyDh8Nbu98> (Grebes)



Dipper

Here is the entire interview:

<https://drive.google.com/drive/folders/111dlH9QGhxrqDFxi71LBPU3DovFcYSD>

You can contact Cori Westcott at corikeys@aol.com





FROM THE WILD AND NATURAL SIDE



Wooo! This bald eagle at Crab Orchard National Wildlife Refuge in Illinois is cheering on America in the Winter Olympics. You can easily spot the massive nests of eagles in the bare trees during winter at the refuge. They also make their presence known with daring dives, wide wing spans and screaming calls.

Photo by U.S. Fish and Wildlife Service.

Did you know that wolf spiders are great moms? Check out the dozens of newly hatched babies riding on her back. Good thing they're tiny! Photo: Wolf spider carrying her babies by Megan Seymour/USFWS.



Meet the **Blanchard's cricket frog**. It is an endangered species found throughout the central and southeastern United States. They have not been recorded in southwest Minnesota since 1967 due to habitat loss and pollution. We are happy to announce that after a fifty year absence, several Blanchard's cricket frogs were again found in southwestern Minnesota.

Photo: Blanchard's cricket frog on a finger tip courtesy of the Minnesota Department of Natural Resources



The long-tailed Weasel in its winter coat. Sometimes called an Ermine, although that name technically only applies to a Short-tailed Weasel in winter coat. Long-tailed weasels may be cute, but they're also fearless hunters capable of taking down prey much larger than themselves! She may look cute, but these guys are feisty, sometimes called "hair trigger mouse traps with teeth."

Photo: Long-tailed weasel courtesy of Bryant Olsen/Creative Commons. <https://flic.kr/p/91K3fP>



Northern flickers can be spotted across much of the country year round. Eastern populations are known for their burst of yellow, while western population sport red instead.

Photo: Northern flicker courtesy of Mark Moschell/Creative Commons. <https://flic.kr/p/jH1eqc>

It won't be long until you hear birds spring singing again! Northern cardinals and black-capped chickadees both start singing spring songs in January.



Photo: Northern cardinal by Nathan Rathbun/USFWS



Armadillo photographed at Quail Ridge Park. Its range that extends as far east as South Carolina and Florida, and as far north as Nebraska and central Indiana. Their

range has consistently expanded in North America over the last century due to a lack of natural predators.

Photo by Beth Zona, MN, Confluence Chapter, Feb 2018





Success Story

Canada lynx by Stephen Torbit

The U.S. Fish and Wildlife Service is announcing the completion of a scientific review of the Canada lynx in the contiguous United States.

The review concludes that the Canada lynx may no longer warrant protection under the Endangered Species Act (ESA) and should be considered for delisting due to recovery. This recommendation is the result of an extensive review of the best available scientific information and almost twenty years of working in partnership with state, federal, tribal, industry and other land managers on the conservation of this species.

As a result of this status review, the Service will begin development of a proposed rule to delist the species.

https://www.fws.gov/mountain-prairie/pressrel/2018/01112018_Status_Review_Indicates_Canada_Lynx_Recovery_inLower48.php

MDC's Black Bear Research Website Gets an Upgrade

The new webpage will offer black bear research project summaries, project updates, bear den photos, videos, future story maps and much more.



The Missouri Department of Conservation (MDC) is updating their black bear research webpage with enhanced features and information on Missouri's native black bear population. The new webpage will offer black bear research project summaries, project updates, new research photos, videos, interactive story maps and much more.

One of many new web features on the black bear research website will be an interactive story map. Story maps combine maps and geography with narrative text, images, and multimedia content to better share the story about black bears in Missouri. The black bear story map will launch this spring on the website.

MDC will also be updating the bear reports webpage with a map of bear reports throughout the state. To learn more about black bears in Missouri, including research information, ongoing project updates, bear research photos and videos, and future story maps, go to <http://bit.ly/2CUgZiE>. To view the new map of bear reports in Missouri or to report a bear sighting, visit <http://bit.ly/2CGFixc>. For information about being bear aware while hiking or camping, visit <http://bit.ly/2fwaWUA>.

Another Success Story



Burrowing Owl Surfaces After the Fire

Don Brubaker (USFWS) was checking over the recent burn damage and dousing a smoldering fence post, when a burrowing owl flew around him and landed in the ash.

He snapped the photo above. Brubaker is the Refuge Manager of Antioch Dunes, Marin Islands, and San Pablo Bay. When he took this photo, he was on the 222 acre portion of Sears Point Unit of San Pablo Bay National Wildlife Refuge that was burned during the 1,660 acre 37 Fire of October 9, 2017.

Photo by Don Brubaker, USFWS

Not So Fast!

A California court has halted a state program allowing pesticide spraying at schools, organic farms and backyards across California. The court rejected the program's provision allowing pesticide spraying anywhere in the state, anytime, without further environmental review or input from the public. The court also ruled that the California Department of Food and Agriculture relied on "unsupported assumptions and speculation" regarding the dangers of pesticides to bodies of water.

The ruling halts the program until the state develops a program that provides adequate notice and protection for the public. This decision also opens the door for the public to have an opportunity to learn about and comment on new pesticide treatments and treatment sites approved under the program, which could previously have been approved without public scrutiny or notice.

https://sustainablepulse.com/2018/01/10/california-court-stops-state-pesticide-spraying-program-to-protect-public/?utm_source=newsletter&utm_medium=email&utm_campaign=gmos_and_pesticides_global_breaking_news&utm_term=2018-02-07#.Wnsz4MuWyXI





SURPRISINGLY SOPHISTICATED LIVES-OF RATS

by Brandon Keim



No creatures are so ceaselessly persecuted as Norway rats — scientifically known as *Rattus norvegicus*, commonly called brown rats, and often referred to with a scream and a call to the exterminator.

To people who study them, though, rats are remarkable animals. In recent years scientists have described their possession of traits long thought unique to humans and a few extra-smart creatures: empathy, self-awareness, complex memories, rich communication systems, and a social system founded on cooperation mediated by commodity trade.

That rats could have systems of exchange — you clean my back, and I'll clean yours — isn't so surprising. But exchanging different goods and services, such as grooming for food or vice versa, and keeping track of who owes what, is considered to be a highly sophisticated and cognitively demanding behavior. It's the sort of trading that's fundamental to human society — and as described in a study published in *Current Biology* and authored by behavioral ecologists Manon Schweinfurth and Michael Taborsky of the University of Bern, rats do it too.

Their study involved lab-conducted experiments that allowed them to carefully control variables and record in precise, cause-and-effect detail the exchanges of food and grooming between thirty-seven pairs of Norway rats. The setting was important: other researchers have made such claims for rats and various other species, but except for primates, those claims were based on

observations that left doubts as to whether other, non-cooperative principles were involved.

"The prevalence of reciprocal cooperation in non-human animals" other than primates has thus been "hotly debated," write Schweinfurth and Taborsky, but their results were coolly clear. The rats were in fact engaged in reciprocal, mutually beneficial, rule-based trade of different types of favors.

The implications are many. "This capability is thus not limited to primates but may have originated much earlier in vertebrate evolution," write Schweinfurth and Taborsky; complex trading of goods and services "might be widespread in nature," involving not just food and grooming but territory, assistance in conflicts, help with infants, and whatever else is important to the animals involved.

That possibility — that sense of other animals engaged in social relationships not so different from our own — adds new layers to our appreciation of the nonhuman world. It also comes at an opportune moment: among the discussions catalyzed by the concept of the Anthropocene, an age of ubiquitous human impact, is whether people will continue to see humans as standing apart on life's tree or sharing characteristics we value in ourselves with many other beings.

As for rats, whose resilience to human persecution might be partly rooted in the cooperative sophistication described by Schweinfurth and Taborsky, perhaps we'll eventually learn to see them in a new light. "My studies highlight that these are socially aware individuals who individually recognize others, show emotional contagion, learn from each other, help each other," says Schweinfurth. "All this needs to be considered when we keep them in labs, as pets or when we try to get rid of them in cities."

<http://www.anthropocenemagazine.org/2018/02/the-surprisingly-sophisticated-lives-of-rats/>

Used by permission.



Record Waterfowl Count Along Mississippi Flyway

Each week during fall migration, biologists from the Illinois Natural History Survey fly over the Illinois and Mississippi Rivers to count the number of waterfowl in the Mississippi Flyway. This year, waterfowl counts were particularly impressive. This is the third largest count at this location since the start of surveys back in 1948 and is the largest count of northern pintail and ring-necked ducks ever recorded on the refuge.

These counts are more than impressive numbers - they help define general trends in the number of waterfowl resting and feeding at Two Rivers and other neighboring national wildlife refuges. Survey results are used by managers, hunters and bird-watchers to monitor the progress of migration. Counts also give biologists a sense of how healthy refuge habitats are and how restoration work is benefiting birds. Check out the latest waterfowl numbers from the Illinois Natural History Survey and plan your visit to Two Rivers National Wildlife Refuge today!

<https://www.dnr.illinois.gov/hunting/waterfowl/surveys/Pages/MRAerialSurveys.aspx>

Northern pintail on the water. Photo by Mick Thompson/Creative Commons





Thank You!



-  Linda Leong for her proposal work to the Department of Energy for a bluebird trail
-  Paul Crombie for his life commitment to bluebirds & finding materials for a new bluebird trail
-  Phil Rahn for his commitment to our regional ecosystem and for his leadership in another prairie seeding.
-  Martha Hessler for her on-going commitment to our chapter, to our amphibians & our native flowers
-  Vice President Rob Merriman for his continued chapter leadership



Our Leadership



- President—Alberta McGilligan
- Vice President—Rob Merriman
- Secretary—Jane Porter
- Treasurer—Alison Robbins
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Ken Benson and Mark Williams
- Membership Services—Allison Volk
- Communications—Leslie Limberg
 - Web Site—Rick Gray
 - Photography—Dave Lemoine
 - Newsletter—Carmen Santos
 - Leslie Limberg and Elaine Browning

Advisors

- University of Missouri Extension, Rich Hoormann, hoormannr@missouri.edu
- MDC, Colleen Scott, Colleen.Scott@mdc.mo.gov

Project Leaders:

- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuivre River and Don Robinson State Park—Bob Coffing
- Confluence Chapter Stream Team #3612—Cliff Parmer
- Babler State Park—Alberta McGilligan and Bob Coffing
- Lewis & Clark Boathouse and Nature Center— Leslie Limberg
- Quail Ridge Prairie Demo and Rain Garden—Carmen Santos
- Bluebird Monitoring - Connie Campbell and Leslie Limberg
- Nature Explore Classroom Education—Connie Campbell
- O'Fallon Public Works Project—Carmen Santos
- Missourians for Monarchs—Bob Lee
- Birding Club—Gail Gagnon
- Cuivre River Flower Phenology—Pat Burrell-Standley
- Schulze Woodland Restoration—Ken Benson
- Capstone Broemmelsiek Park Prairie Seeding—Phil Rahn
- Wildlife Rescue Center Projects—Pam Walsh, Martha Hessler, Leslie Limberg
- Past Presidents—Connie McCormack, Jerry Lindhorst, Leslie Limberg, Cliff Parmer

Ants Rescue and Heal Wounded Comrades

In the first known example of an animal other than a human giving medical care to others, Matabele ants have been observed rescuing nest-mates that have lost legs in battle and licking their wounds. Almost all ants treated in this way survived, compared to an 80 percent death rate for wounded ants that weren't tended to. The ants also demonstrated that they could tell which injured soldiers were worth saving, could "ask" for help by releasing

a pheromone and could "fake" more-severe injuries in the hope of being carried home.



Injured ant being carried back to the nest

Photo: Creative Commons Attribution-Share Alike 4.0 International license.

The Confluence Chapter was founded in 2005 as the fifth Master Naturalist chapter in Missouri. The chapter was formed by twenty-four individuals from St. Charles County, St. Louis County, and St. Louis City after completing the Missouri Master Naturalist™ training program. We share a common interest in nature and in volunteering to help protect, preserve and restore Missouri's natural heritage. Most of our members live in the region west of the Missouri-Mississippi Confluence and from both north and south of the Missouri River. We operate according to the bylaws and operating handbook of the Missouri Master Naturalist Program developed by the Missouri Department of Conservation and University of Missouri Extension. Visit us at <http://www.mmncconfluence.org/>

