



Your Key to Discovering the *Natural Missouri*

February 2019, Volume 13, Issue 01



From
Our
President



Hopefully by now we have seen the last of Winter and Spring is just around the corner. Many of our projects will be getting started again, and springtime events like Wetlands for Kids will be looking for volunteers. Our Stream Team will be gathering data. And our Frog and Amphibian monitoring teams will be out at Hays listening and searching.

Our chapter has gained six new members from the MMN training class of 2018. We welcome them all and look forward to working together in the years to come.

Last year we celebrated the Lifetime Achievement award for Bob Coffing, who has dedicated many volunteer hours toward land restoration.

Alberta has turned the president's baton over to me, and I hope to continue with the dedication that she has brought to the chapter over her presidency in the last four years.

We have many new projects coming our way, and are counting on a new hoop-house to be erected at Quail Ridge Park in the future. Bob Lee, Phil Rahn and other members will certainly fill it with the many native pollinator plants that they are so resourceful in obtaining for us.

Our chapter meetings continue to educate us with many fine speakers. With all of our interesting projects, there is something for everyone. And if there isn't, we are open to additional project ideas. In fact, new members Jerry and Jeanice Kaiser have initiated a new project to incorporate native plants at a middle school in Wentzville. The GM project in the Wentzville area will begin seeding a bios wale, and volunteers are needed to prepare a solarization technique to eliminate invasives in the prairie at the University Extension demonstration gardens. Our many native gardens are always in need of volunteers. And don't forget potting days at Forest ReLeaf on Saturday, March 23rd.

*We are all stewards
of our environment*

Martha

Martha Hessler
President, Confluence Chapter

MISSOURI WILDFLOWER BLOOMING THIS SEASON



Bloodroot
Sanguinaria Canadensis

Flowers open before or just as the leaves start to unfurl. As it opens, 2 sepal fall off and 8-16 petals of uneven size and length descend to a horizontal position forming a flower that grows to 1 1/4 inch across.

Grows on rich, wooded slopes and valleys statewide except northeastern MO and southeast lowlands.

Sanguinaria, Latin, *sanguis*, "blood." Native Americans used the roots for a dye, thus "bloodroot."



A partnership of the [Missouri Department of Conservation](#) and [University of Missouri Extension](#)
To engage Missourians in the stewardship of our state's natural resources through science-based education
and volunteer community service.

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Meet Your Fellow Master Naturalists

By MN Lee Phillion

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Bob Lee

Few Master Naturalists bring “more to the party” than Confluence member Bob Lee, whose vision and leadership turned a desire to help monarch butterflies into a statewide organization.

In 2014, Bob became concerned about the declining population of eastern monarch butterflies. In 2015, he spearheaded the creation of *Missourians for Monarchs* and became a central figure in organizing a collaborative of public and private organizations across Missouri. Today, *Missourians for Monarchs* is widely recognized as a model for other states.

Results like this might be expected given Bob’s skill set. A retired Senior Vice President of Administration at Laclede Gas (now Spire), his tool bag also includes experience as a corporate lawyer and as a combat officer with the 3rd Marine Division in Vietnam. While his naturalist volunteer work hasn’t required him to parachute into the jungle or engage in under-

water bomb detection—he’s done both—his organization and leadership skills along with a drive for excellence have benefitted the Confluence Chapter.

A Texan by birth, Bob spent his childhood on a farm in La-Grange, Texas, which Bob likes to point out is the home of the famous “chicken ranch” upon which the Broadway play *The Best Little Whorehouse in Texas* was based.

When Bob was ten years old, his father accepted a job in St. Louis and moved the family to Normandy. After graduating from Normandy High School, Bob headed west to the University of Colorado for college, and then returned to Missouri for law school at Mizzou.

While in law school, Bob met Peggy. Their marriage took place just after Bob’s graduation and a few weeks before he reported to boot camp at the Marine Corps base at Quantico, Virginia. Bob and Peggy have two sons and five grandchildren.

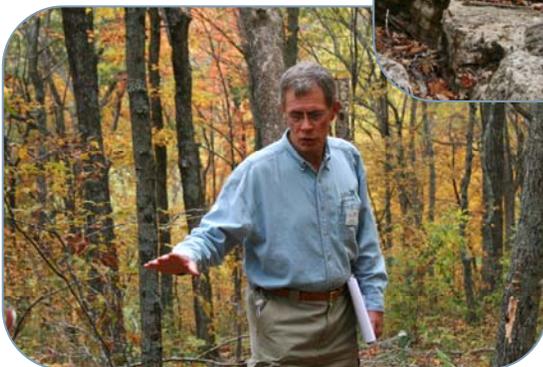
After retiring from Laclede, Bob chose to indulge a long-standing interest in gardening by becoming a Master Gardener. He followed that by becoming a Master Naturalist in 2009, whereupon *nature* became his full time job. Upon joining the Confluence Chapter, Bob vol-

unteered at every chapter project (and served as Advanced Training chair) before deciding to focus his time and effort on expanding prairies and native plant habitats.

Along with other Confluence members, Bob instituted a massive undertaking with St. Charles County Parks to establish a prairie, renovate woodlands and construct several vernal ponds near the historic 1830s Hays home located on property adjacent to Matson Hill Park near Defiance.

Since 2011, Bob and the rest of the “Hays team” have devoted a staggering number of hours to the project, which will be open to the public later this year.

Bob continues to energetically promote pollinators as a steering committee member for the statewide monarch collaborative and as leader of the partnership between Missouri Master Naturalists and Missouri Master Gardeners, which has been renamed Monarchs and Pollinators Network. The goal of this partnership is to enlarge pollinator habitat through small plot native plantings.





USDA

Raptor Relocation Program

MN Elaine Browning

On November 30, 2018 members of three local chapters of Missouri Master Naturalists, along with staff from the Missouri Department of Conservation, gathered outdoors at the Danville Conservation Area to hear about the USDA Raptor Relocation Program and witness the release of three captive raptors.



Steven Beza, USDA, gave a short presentation about the program and answered questions. He brought two different snares and demonstrated how they were used to safely capture the birds.

U.S. Department of Agriculture biologists work to prevent run-ins between birds and planes that can risk passenger safety at the St. Louis Lambert International Airport and other airports in Missouri.

Biologists set up traps all around the airport. When birds are caught, a metal tracking band is attached to their leg. They are then taken to wildlife areas more than 70 miles away. The goal is to get them released within 24 hours.

Beza reports that between 150 to 200 birds a year are captured

at Lambert Airport alone. And through the hard work and vigilance of biologists and USDA staff, the rate of recapture of raptors has dropped from 30% in 2015 to 10% in 2018.

Then, one at a time, Beza brought out two feisty Red-Tail Hawks and one fierce Great Horned Owl. He gave each bird a chance to get oriented to its new surroundings before letting them go.

It was awesome to get an up-close look at these beautiful birds and watch them take off to explore their new and, hopefully, safer habitat.



Birding Dictionary

All hobbies and activities have their own terminology, or jargon. Birding is no different. Here are a few commonly used birding terms that will make you sound like a pro!

LBJ – A beginner birder's worst nightmare, LBJ stands for "little brown job," referring to a drab brown sparrow or other songbird that is difficult to identify.

Example: I'm glad we have a guide with us – I never would have been able to identify that LBJ from such a quick glimpse!

Lifer – a bird species seen by a birder for the very first time.

Example: When Jeff came to Florida for the first time, he saw a ton of lifers!

Peeps – Small sandpipers such as the Least Sandpiper or Semipalmated Sandpiper.

Example: I wish I'd brought my scope – I can't identify any of those peeps out on that far away mudflat with just my binoculars!

Red-breasted nuthatches can often be spotted visiting bird feeders or foraging for overwintering beetles. In some parts of the country, beetles make up almost half of their diet! (I saw one in my garden last fall!)

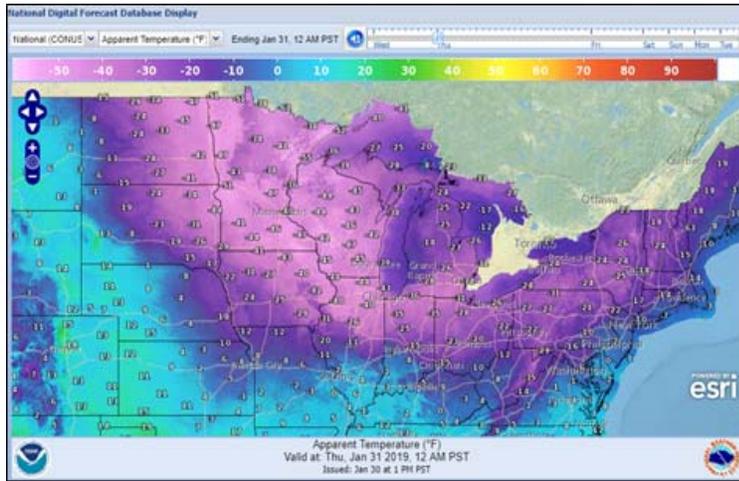


Photo: Red-breasted nuthatch eating courtesy of Jen Goellnitz/Creative Commons. <https://flic.kr/p/2ccwVvp>





"BABY, IT'S COLD OUTSIDE!"



Extreme cold from the polar vortex has affected millions in the Midwest and Great Lakes with cold temperatures that haven't been experienced in decades in many places.

The life-threatening temperatures have prompted several governors to declare emergencies. Transportation, businesses, schools, mail delivery, power, gas, and water lines have been impacted. Officials have warned people in the region to severely limit their exposure to the sub-zero cold. The National Weather Service (NWS) released regional wind chill

advisories, forecasting wind chills as low as -65 to -70 degrees F.

Chicago recorded its second lowest temperature in the 148-year period of record. Lake Michigan was covered with "sea smoke" as the extreme cold temperatures interacted with the lake water. In the NWS map above the "apparent temperature" is derived from the air temperature, humidity, and wind chill.

Open full report:

<https://www.wcc.nrcs.usda.gov/ftp/ref/support/drought/dmrpt-20190131.pdf>



MN Connie Campbell

My husband and I spent ten days touring and experiencing the Desert Southwest in early November. This area is a very special place, quite unlike our Missouri environment, and we enjoyed each day of activity.

I would like to thank Beth Zona, a recent Tucson resident, and Alison Robbins for helping me select where to go and what to do while we were there. We could not have had a better itinerary.

The most impressive lesson I learned during our vacation was how important volunteer guides are! I expect the destinations we visited could not afford a paid guide, and instead of a written description of the area, we were entertained and informed by volunteer guides. Each of the guides were passionate about their locale and brought the time in history or the area to life. The guides were informed, articulate, and interesting, AND they were able to enrich our experience exponentially.

Missouri Master Naturalists often have the opportunity to lead guided hikes or make presentations at some outdoor venue or visitor center. MMNs can truly make a difference in visitors' experience at each of these places. This is not just a frolic for us, but important work that will enhance others' lives.

WE MAKE A DIFFERENCE!

MDC seeks information in poaching case of two adult elk:

These are the fourth and fifth elk poaching cases since the restoration in 2011.

The Missouri Department of Conservation (MDC) seeks information in the case of two adult elk shot Friday, Feb. 8, near the Log Yard area of Shannon County. One of the elk was a 10-year-old bull, brought to Missouri from Kentucky in 2011. The other was an adult cow, born in Missouri.

Conservation agents note no parts of either animal were removed. As is the case with most poaching incidents today,

these actions had nothing to do with providing meat for a family.

Anyone with information that could help with this investigation is encouraged to call (573) 226-3616, ext. 226 and leave a detailed message with your contact information, or you may call the Operation Game Thief (OGT) hotline at 1-800-392-1111. The hotline is managed 24 hours a day and callers may remain anonymous. Rewards are available.

For more information about elk in Missouri, visit MDC's website at <https://bit.ly/2EvvwDK>





Master Naturalists in Action

Winter in the Woods Festival
Rockwood Reservation

Sugar on Snow booth



Stream Team #3612

Location: Defiance, MO

Here's the proposed schedule for the 2019 monitoring events. All dates are Saturdays.

April 27

June 29

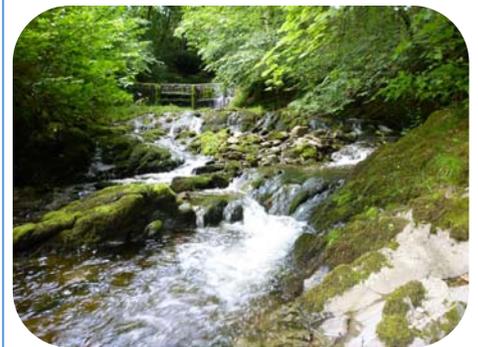
August 17

October 26

Please put these dates on your calendars, eventually they will show up on the Chapter calendar. As usual, I will send out an email a week or so beforehand.

Contact Cliff Parmer
for more information:
clfhanc@aol.com

*Thanks for your interest in our
Stream Team.*



New Project

MN Jeanice and Jerry Kaiser recently received approval from the Executive Committee for a new project. They presented their plans for restoring the Outdoor Classroom at Frontier Middle School in Wentzville, MO. This spring they will be working with students, teachers, and Missouri Master Naturalists to plant plugs of native perennial pollinators, plant a tree on Arbor Day, install a birdbath, and rid the area of invasive honeysuckle.





Chronic Wasting Disease

Submitted by MN Elaine Browning
from The Wildlife Society



A compound in soil could play an important role in combating chronic wasting disease by degrading the prions that cause the lethal disease in cervids, researchers found.

CWD has infected and killed deer, elk, moose and caribou throughout North America and has even been detected in South Korea and northern Europe. But researchers have had no luck finding a cure and continue to manage for the disease by attempting to stop its spread. Efforts to combat the disease have been further challenged by the ability of the prions to bind to soil and remain in the environment for years.

But scientists may be one step closer to understanding how soil plays a role in fighting the disease. In a re-

cent study researchers found that high levels of major compounds in soil organic matter — humic acids — degrade CWD prions. When prions in soil were exposed to high concentrations of humic acids, researchers found lower levels of them. They also noted lower levels of infectivity in mice that were exposed to soil with higher levels of humic acids.

CWD prions can be spread between cervids as well as through the environment including decaying carcasses, infected urine, feces and saliva. Knowing about how different soil compounds can bind and degrade prions is important to understanding the disease, the researchers say.

“CWD is a significant emerging and fatal disease of deer, elk and moose,” University of Alberta professor Judd Aiken, the study’s lead author, said in a press release. “Given it is shed from infected animals into the environment where it can serve as a source of infection, it is essential that we understand the impact of soil and soil components on this unusual infectious agent.”

<http://wildlife.org/compound-in-soil-fights-chronic-wasting-disease/>

<https://journals.plos.org/plospathogens/article?id=10.1371/journal.ppat.1007414>



Hares are cannibals and eat meat, surprising photos reveal

In an ironic twist, the mammals also dine on carcasses of their main predator, the Canada lynx, a new study says.

During summer months, the mammals feed on vegetation, but when snow blankets the landscape and temperatures plunge to 30 below, hungry hares scavenge other hare carcasses, as well as several species of birds.

And, in an ironic twist on natural selection, hares also dine on dead Canada lynx—their main predator, says Michael Peers, a Ph.D. candidate in ecology at the University of Alberta in Edmonton, who led a new study on the phenomenon in Bio One Complete.

Source: National Geographic, Feb 2019

https://www.nationalgeographic.com/animals/2019/01/snowshoe-hares-carnivores-cannibals-photos-yukon/?cmpid=org=ngp::mc=crm-email::src=ngp::cmp=Editorial::add=Animals_20190117::rid=637519392



Significant Soil

The **Tantalus Soil** series isn't extensive by any means. It only covers about 2,235 acres, which by any measure is quite small compared to the other 23,000+ named soils in the United States. But this soil holds

a special significance to us.

This soil isn't particularly distinct, but it is interesting. It formed from weathered volcanic ash and cinders and receives over 100 inches of rainfall a year. It doesn't grow any crop of consequence. In fact, it has very little agronomic importance, but it is one of the most significant soils to us.

So why is this soil significant to us? The Tantalus Soil is significant because it is the soil that overlays the area known to Hawaiians as the “Punch Bowl Cemetery.” The Punch Bowl Cemetery is where over 13,000 U.S. soldiers and sailors are interred. Some of those 13,000 are those that gave their lives at Pearl Harbor in 1941.

To those who have served and those who are serving, we give our utmost thanks—we are eternally grateful.





Photo by
MN Paul Crombie

The beautiful Io moth, *Automeris io*, is one of our most recognizable moths. It is distinctive because of its prominent hind wing eye-spots. The Io moth, like many of the other saturniid moths, is less common now in parts of its range. With the exception of Cape Cod and some of the Massachusetts islands, it is now rare in New England where it was once common, and its populations have declined in the Gulf States (with the exception of Louisiana) since the 1970s. The attractive Io moth caterpillar is also well-known because of its painful sting.



Io moth larva, *Automeris io*, fourth instar.
Credit: Donald W. Hall, University of Florida

<https://edis.ifas.ufl.edu/pdf/files/IN/IN106500.pdf>



Native Purple Top (*Tridens flavus*) poking through 14" of snow. Flocks of what appeared to be Phoebe hopped up on the seed heads bending them down and feed on them.

This photo by MN Paul Crombie on his prairie.



Photo: Purpletop *Tridens flavus cupreus* Grass family (Poaceae)
<http://illinoiswildflowers.info/grasses/plants/purpletop.htm>

TALL THISTLE

"Cirsium altissimum grew in my prairie this year. You can tell if it's a native thistle if you can give a hug, and its white underside of leaves."

MN Paul Crombie

Cirsium altissimum, Aster family (Asteraceae)

Description: This wildflower is a biennial or short-lived perennial. During the 1st year, it consists of a low rosette of leaves spanning about 1' across. During the 2nd year and thereafter, it develops stems with alternate leaves and becomes about 3-8' tall. These stems are usually sparingly branched. The central stem and side stems are light green to reddish brown, terete with several longitudinal ridges, and pubescent-woolly. The alternate leaves are up to 9" long and 3" across, becoming gradually smaller as they ascend the stems. These leaves are lanceolate, oblanceolate, or elliptic in shape; their margins are entire, slightly dentate, or shallowly

lobed. At the pointed tip of each lobe or dentate tooth, there is usually a spine. The upper surface of each leaf is green with appressed white hairs, while the lower surface is covered with a dense mat of white-woolly hairs. The base of each leaf is sessile or clasps its stem slightly. The basal leaves of 1st year plants are similar to the alternate leaves, except they are often more deeply pinnatifid. As the common name suggests, this thistle can become quite tall. It resembles *Cirsium discolor* (Pasture Thistle) and other common thistles, except that its leaves are less pinnatifid and spiny.
http://www.illinoiswildflowers.info/savanna/plants/tall_thistle.htm





FROM THE WILD AND NATURAL SIDE



Porcupines have about 30,000 quills. These modified hairs not only help them defend against predators, they help porcupines stay warm.

Photo: Porcupine in tree courtesy of David Mitchell/Creative Commons. <https://flic.kr/p/24xb4sm>



During cold winter nights, black-capped chickadees purposefully lower their body temperature. By entering this regulated hypothermia, they can save energy and live in the coldest parts of the country. USFWS Midwest Region



Upon spotting a fish, bald eagles will swoop down and grab it with their strong, sharp talons. Their grip is 10 times stronger than an adult human hand! USFWS Midwest Region



“Nothing breaks like a heart” may be a new hit song with Miley Cyrus, but Sandhill cranes won’t have to sing about heartbreak because they mate for life!

Photo: A pair of greater sandhill cranes by Tom Koerner/USFWS



Moose lie in the snow on warm winter days to stay cool. Moose are well-insulated against the cold and can feel uncomfortable in winter temperatures above 23 degrees Fahrenheit.

Photo: Moose laying in snow courtesy of Rob Baird/Creative Commons. <https://flic.kr/p/4QFUtG>

Ice turtles



Have you ever seen a turtle swimming under the ice? Some freshwater turtles can absorb oxygen through their skin, mouth and cloaca. This allows them to spend the winter under the ice of a frozen pond!

Photo: Snapping turtle under the ice by Bruce Hallman/USFWS.



While you won’t see one of these guys in the Midwest anytime soon, watch for painted buntings if you head south for the winter. Wintering grounds are typically shrubby habitats in Florida and Central America.

Photo: Painted bunting courtesy of Alan Schmierer. <https://flic.kr/p/fbEt4B>



Rodents make up a big part of the red fox diet, but they’ll also eat birds, opossums, reptiles and even porcupines! When a fox has more food than necessary, it will bury the leftovers under snow and leaves for later. <https://flic.kr/p/qTJSPB>

Information and pictures from the USFWS, Midwest and Mid Atlantic Regions





The National Bioengineered Food Disclosure Standard.

The National Bioengineered Food Disclosure Law, passed by Congress in July of 2016, directed USDA to establish this national mandatory standard for disclosing foods that are or may be bioengineered. The Standard requires food manufacturers, importers and certain retailers to ensure bioengineered foods are appropriately disclosed.

USDA's Agricultural Marketing Service (AMS) developed the [List of Bioengineered Foods](https://www.ams.usda.gov/rules-regulations/be) <https://www.ams.usda.gov/rules-regulations/be> to identify the crops or foods that are available in a bioengineered form throughout the world and for which regulated entities must maintain records.

The final rule was published in the Federal Register on December 21, 2018. Following publication of this rule, USDA will provide outreach and education to inform regulated entities and the public about the new disclosure terms. **The entire record of the rulemaking is available at** www.federalregister.gov/documents/2018/12/21/2018-27283/national-bioengineered-food-disclosure-standard.

Backyard Oasis

Did you know that one of the best ways to attract birds to your yard is to plant native species that create habitat and provide food? Hummingbirds love to drink from beautiful nectar-rich flowers, and birds such as cardinals, buntings, chickadees, doves, grosbeaks and more will gobble up seeds from native wildflowers. Plants also provide habitat for insects that will attract less common backyard birds, such as migrating warblers! In addition to providing a refuge for birds, planting native species in your backyard can attract beautiful butterflies and important pollinator species. On top of all these benefits for wildlife, a backyard landscaped with native plants is a beautiful sanctuary for you and your family!



Photo by Bill Buchanan, USFWS

Biodiversity Thrives in Ethiopia's Church Forests



A protective wall surrounds the Mekame Selam Kolala Meskel church's forest in South Gonder, a region of northern Ethiopia.

Ecologists are working with the nation's Tewahedo churches to preserve these pockets of lush, wild habitat.

If you see a forest in Ethiopia, you know there is very likely to be a church in the middle, says Alemayehu Wassie. Wassie, a forest ecologist, has spent the past decade on a mission: preserving, documenting and protecting the unique biodiversity in pockets of forest that surround Ethiopia's orthodox churches.

These small but fertile oases — which number around 35,000 and are dotted across the country — are some of the last remaining scraps of the tall, lush natural forests that once covered Ethiopia, and which, along with their biodiversity, have all but disappeared.

Much of the nation's forestland has been sacrificed to agriculture to feed the country's mushrooming population — at more than 100 million, it is the

world's 12th largest. Deforestation was particularly encouraged during the country's period of communism, in 1974–91, when the government nationalized the land, including the large estates of the church, and distributed it to people who converted swathes to farmland. Just 5% of the country is now covered in forest, down from 45% in the early twentieth century.

In the past few years, small international research programs have started to document the depleted biodiversity. Wassie, who has long championed conservation work in the northern highlands of the country where he grew up, has forged an unusual collaboration with the Ethiopian Orthodox Tewahedo Church to try to save the forests.

The project is a work in progress, says Wassie. But now, local residents, along with their priests, are helping to slow attrition of their church forests.

Alison Abbott
Photography by Kieran
Dodds/Panos Pictures

https://www.nature.com/immersive/d41586-019-00275-x/index.html?utm_source=Nature+Briefing&utm_campaign=aafdf211cc-briefing-dy-20190130&utm_medium=email&utm_term=0_c9dfd39373-aafdf211cc-43307925 Used by permission.





This and That ...



Overwintering Frogs
How do frogs survive the winter?

They hibernate! Frogs typically burrow into mud at the bottom of lakes and ponds where they can stay safe and get plenty of oxygen.

Photo: American bullfrog courtesy of Will Brown/Creative Commons. <https://flic.kr/p/2abaLXH>



In the remote Pacific Ocean, low-lying atolls and islands are critical havens for seabirds and marine wildlife. Protected places, like Midway Atoll National Wildlife Refuge, provide a safe place for seabirds and seals alike to raise their families and rest from their long voyages foraging at sea.

Photo of an endangered monk seal and Laysan albatross hanging out on the beach by Dan Clark, U.S. Fish and Wildlife Service.



Who is a fan of birds?

Whether you are a beginner or a veteran birder, you can find a wondrous variety of birds in Saguaro National Park in Arizona. From birds that are adapted to the extremes of the desert, to birds that prefer the tall pines of the mountains, over 200 species of birds live in or migrate through the park. This owl family looks quite at home in the crook of a large saguaro. Photo courtesy of Jeremy Johnson



In recent Dutch study, researchers asked participants to complete a stressful task, then split them into two groups. One group read indoors and the other gardened outdoors for 30 minutes. The group that read reported that their mood "further deteriorated", while the gardeners not only had lower levels of the stress hormone cortisol afterwards, they also felt "fully restored" to a good mood.

Australian researchers following men and women in their 60s found that those who regularly gardened had a 36% lower risk of dementia than their non-gardening counterparts. A sense of connection to other people is important, but so too is the individual connection to nature. One Harvard University study showed that people who were surrounded by lush greenery lived longer, with a lower chance of developing cancer or respiratory illnesses.

Hellooo, Quail Ridge Gardens!!!



Avoid bread and sugar sponges.

Providing bread to birds can be detrimental to their health. Bread and sugar sponges can quickly introduce harmful bacteria and mold, causing respiratory issues and disease, sometimes resulting in death. Birds easily fill up on bread, leaving little room for the more nutritious foods they need. Just like people, animals can suffer from metabolic bone disease if they don't get the proper nutrients. Even with treatment, this disease is often irreversible. In the wild, animals may starve to death or be unable to escape predators

Salt can be toxic to birds, sometimes resulting in death in less than an hour. Birds may experience reduced reaction time and lose the ability to perch or fly. Salt water can also be dangerous to deer, squirrels and any other creatures that may be looking for a drink. The effects of salt are particularly dangerous in the winter when animals are less hydrated and fresh drinking water is difficult to find.

For the safety of birds and other animals, salt should never be added to birdbaths

Do not a product called "Ice Melt." According to the Wild Bird Rehabilitation, it makes birds very sick.

It's important to remember that birds are well adapted and get by just fine without human intervention. If you want to help provide nesting materials, focus on things birds would naturally find. You can gather twigs, leaves, seeds, mosses, lichens and untreated grass clippings. These nesting materials can be piled on the ground or placed in clean suet cages.

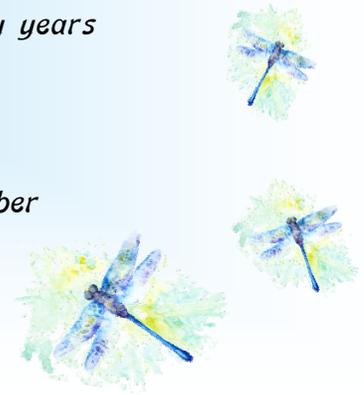




Thank You!



- ☞ *Jill Zupec* for her love of plants and gardens, and her readiness to play.
- ☞ *Sue Stevens* for her devotion to birds and for supporting *Wild Bird Rehabilitation*.
- ☞ *Ann Finklang* for creating our newsletter and her many years as newsletter editor
- ☞ *Gail Gagnon* for organizing our bird education
- ☞ *Larry Markley* for continuing as a *Confluence* member
- ☞ *Sandy Oldfield* for her party hearty attitude



Our Leadership

- President—Martha Hessler
- Vice President—Rob Merriman
- Secretary—Jane Porter
- Treasurer—Alison Robbins
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Alberta McGilligan
- Membership Services— Tom Holt
- Communications—Leslie Limberg
- Web Site—Rick Gray
- Photography—Dave Lemoine
- Newsletter—Carmen Santos, Peg Meyer, Leslie Limberg and Elaine Browning

Advisors

- MDC, Colleen Scott, Colleen.Scott@mdc.mo.gov
- UMO Extension, Justin Keay

Project Leaders:

- 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
- Monarchs & Pollinators Network—Bob Lee
- Birding Club—Gail Gagnon
- Capstone Broemmelsiek Park Prairie Seeding—Phil Rahn
- Main Street Garden Martha Hessler and Tom Nagle

- Wild Bird Rehabilitation Sue Stevens
- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuiivre River and Don Robinson State Park—Bob Coffing
- Outdoor Classroom, Wentzville, MO—Jeanice and Jerry Kaiser
- Past Presidents—Scott Barnes, Connie McCormack, Jerry Lindhorst, Leslie Limberg, Cliff Parmer, Alberta McGilligan



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.mmnconfluence.org/>