

Your key to discovering the **Natural Missouri**



From
Our
President

Greetings to all.

While the Eclipse has been the big news for some time, I find that interacting with nature every day is much more satisfying. Each day as I watch my

little prairie bloom and see the butterflies and birds that come to visit I realize how lucky I am to live in a country that is blessed with so much in the way of outdoor beauty and opportunities to enjoy parks and nature centers of all kinds.

Recently I had opportunity to visit Mingo National Wildlife Refuge, Otter Slough Wildlife Refuge and the Missouri Conservation Center in Cape Girardeau. All interesting places and only a tiny sample of all the things available to us in Missouri. I hope the summer has allowed you to visit some new places, soak up some of the peace in those spaces and are refreshed for the busy fall season ahead.

The pace of volunteer opportu-

nities picks up in the fall so be sure and look at the emails coming from our Volunteer Committee Chair to take advantage of them. Also, a not to be missed is the Tri-chapter Field Day this year held on September 23 at Shaw Nature Reserve. A wonderful opportunity to pick up some Advanced Training and Volunteer hours and have a great time with members of the other St Louis Master Naturalist chapters.

Alberta

Alberta McGilligan
President, Confluence Chapter

Sweet Coneflower



Photo by Frank Dvorak, O'Fallon and St Charles County Volunteer At the MN O'Fallon Rain Garden Project



With Swamp Milkweed

Sweet Coneflower (*Rudbeckia subtomentosa*) is also called Fragrant Coneflower. It is more long-lived than two similar species,

Black-eyed Susan (*Rudbeckia hirta*) and Brown-eyed Susan (*Rudbeckia triloba*). Compared to the Black-eyed Susan, Sweet Coneflower is a taller plant with many deeply lobed leaves. The leaves of Black-eyed Susan lack lobes. Compared to Brown-eyed Susan, the flower heads of Sweet Coneflower are larger in size with longer and more abundant petaloid rays. Another species, Orange Coneflower (*Rudbeckia fulgida*), also lacks lobes on its leaves and it is a shorter plant. All of these species sometimes share the same habitats.

Many kinds of insects visit the flower heads for either nectar or pollen. These species include little carpenter bees, cuckoo bees, digger bees, leaf-cutting bees, wasps, flies, butterflies, and beetles. Among these species, bees are the most important pollinators. One bee species, *Heterosarus rudbeckiae*, is a specialist pollinator of *Rudbeckia* spp.



2017 Volunteer
Service Pin
Bumblebee.

*Because I cannot do everything,
I will not refuse to do
the something I can do...*



Edward Everett Hale,
American Author, 1822-1909

http://www.illinoiswildflowers.info/savanna/plants/sw_coneflower.htm



Milestones, Certifications, Annual Pins, and Other Recognitions

July 2017



Annual 2017 pins were awarded to Alberta McGilligan, Malcom Royce, Debora Weaver, Glenn Bish, Connie Campbell, Gail Gagnon, and Jean Harmon.



Lifetime Achievement bronze pins for 250 volunteer hours were awarded to Deborah Moulton, and Jim Middleton.



The Pewter Pin for 500 volunteer hours was awarded to Gail Gagnon and Lee Walters.

How to Break Up With Your Goldfish

Goldfish make cute, low maintenance pets, but out in the wild they can become the scaled harbingers of environmental mayhem.

It was love at first sight, but something has changed and you're ready to move on. Now it's time to break up with your goldfish. Like all break ups, separating from your aquarium pet is complicated.

Imagining an amicable parting of ways as you throw your finned friend into a nearby pond? Or perhaps a vengeful flush of the toilet? Either way, you're choosing the wrong path.

Many of the animal invaders in our country, such as lionfish and snakeheads, started out as a bad break up with a pet. Venomous fins and wicked teeth notwithstanding, your goldfish is no exception.

After you reenact Free Willy with your goldfish, you may be horrified to learn that under the right conditions it will survive and grow. And grow. Like, really BIG. Imagine a goldfish the size of a football and weighing four pounds.

From Lake St. Clair outside of Detroit to Lake Tahoe in Nevada, large goldfish found in public waters have made the news as they damage waterways with their voracious appetites and their tendency to carry parasites. In places like Teller Lake near Boulder, Colorado, the goldfish got frisky and multiplied like Tribbles on Star Trek. The result was the seemingly benign goldfish crowded out the native fish supposed to be there.

Are you ready to move on without inadvertently causing environmental mayhem? Here's how to take the high road when breaking-up with your aquarium pet:

Help your fish find a home with someone who will care for them. Fish adoption is a real thing! Donate your fish to a pet store, school or learning institution, or advertise that you will give your fish away for free. You can also check out online forums dedicated to the adoption of unwanted pets. Some of them include fish. Through local and regional aquarium hobbyists clubs you may find an opportunity to

trade animals as well.

Send your fish to the great blue beyond. Reach out to your local veterinarian or pet retailer to learn how to humanely dispose of your aquarium pet. It may seem cruel, but take a moment to think about what the life of your goldfish could be in the wild. A stranger to our waters, they could end up diseased, starved, or eaten by predators.

If you're reluctant to let go of the romanticized vision of your fish swimming in the wild, consider this next point. Hell hath no fury like a goldfish scorned. When pet releases go sideways, someone has to come in and clean up the mess. It is estimated that each year invasive species, some of them sitting in your aquarium, incur \$120 billion in damages to our country. Billions of additional dollars are spent on prevention, detection, control, management, outreach and habitat restoration.

The loving feeling you once had for your aquarium fish might be gone, but you still have the chance to do the right thing for you, your pet and the environment.

Looking for more guidance? Check out Habitattitude U.S. and Habitattitude Canada for more information on how to be an environmentally responsible aquatic pet parent. U.S. Fish and Wildlife Service www.fws.gov.



When conditions are right, a pet goldfish released into the wild can grow to the size of football and weigh up to four pounds. Voracious eaters and the carriers of parasites, their presence in our waters is bad news for native fish. Photo courtesy of Eugene Braig/Ohio Sea Grant.



After more than two decades, **Big Muddy National Fish and Wildlife Refuge** in Missouri has a place to call home on the bluffs above the Missouri River floodplain. Staff and supporters from the local community celebrated the grand opening of the new refuge headquarters and visitor contact station on August 3, 2017, and enthusiasm ran high.

This event marked the completion of the largest Maintenance Action Team project in the history of the U.S. Fish and Wildlife Service!

The refuge encompasses more than 18,000-acres of riverine habitat along the Missouri River and for more than twenty years, refuge staff were housed in a trailer more than twenty miles from the refuge. In their new location, staff will be able to interpret the ever-changing habitats along the Missouri River in context. Now visitors will be able to better connect the lush bottomland forest with the people who work to protect it. **New Location: 18500 Brady Lane, Boonville, MO 65233; 573-672-2806**

https://www.fws.gov/refuge/big_muddy/
OR

<https://www.fws.gov/nwrs/threecolumn.aspx?id=2147561503>



BE LIKE THE BIRDS— SING AFTER EVERY STORM





Common Poisonous Look-Alikes

By MN Deborah Moulton

I've noticed some bad, bad plants invading the area. They are hard to tell apart as they are all members of the carrot family (Apiaceae). All of them except Water Hemlock (wetlands; riparian corridors) are present in our local prairies and yards. Thanks to some bird, I had to eradicate some poison hemlock from my backyard the last two years.

For safety's sake, we should know the difference if we encounter them outdoors. These are found in prairies, riparian corridors, roadsides and backyards:

- Queen Anne's Lace is non-poisonous
- Poison Hemlock is poisonous if brushed and will kill if ingested (poor Socrates!); often confused with Queen Anne's Lace
- Water Hemlock will kill if brushed; requires immediate medical attention
- Wild Parsnip will cause severe

burning and blistering when brushed; very serious & requires medical attention

Queen Anne's Lace: Wild Carrot



Poison Hemlock:
How to ID Poison Hemlock vs. Queen Anne's Lace
<http://www.ravensroots.com/blog/2015/6/26/poison-hemlock-id>

Water Hemlock ID



<http://www.dot.state.mn.us/adopt/documents/wild-parsnips.pdf>

Wild Parsnip



http://www.illinoiswildflowers.info/weeds/plants/wild_parsnip.htm
<http://www.dot.state.mn.us/adopt/documents/wild-parsnips.pdf> Forward to anyone you think may need it. Stay

Update on Lake Saint Louis Butterfly Garden

MN Ann Finklang

Last fall many volunteers came together to plant over 700 native flowers friendly to butterflies and bees. This spring we were rewarded with 90% of the plants surviving the winter (and, of course, many weeds). Once the weather broke we pulled the big weeds and mulched around the native plants.



Our efforts were rewarded as several caterpillars were seen on the milk weed plants. However, it was before the heavy rains that drenched the area, and so I don't know if they became adults.

The second mulching day took place before the celebration of Zachary's playground Tenth Anniversary (located also in Hawk Ridge Park). The informational sign and a statue of a butterfly was installed.

The visitors to the area are enthusiastic about the butterfly garden. It is located just south of a walking trail around a pond. Walkers keep an eye on the native plants blooming and the visits from the bees and butterflies.





Master Naturalists in Action

O'FALLON PUBLIC WORKS NATIVE FLOWERS
AND RAIN GARDEN MN PROJECT

Two Fine People
MN Leslie Limberg and
MN Jerry Lindhorst
By Allison Volk

Baby Ruby-throat Hummingbirds being cared for at Wild Bird Rehabilitation Center in Overland. Confluence members Deb Grupe, Jean Harmon, Sue Stevens volunteer here during the busy season of spring through summer.

Submitted
by MN Deb
Grupe



❖ Here is the schedule for the next Advanced Training programs at Weldon Springs:

- September 12: Glade Restoration, James Trager
- October 10: Photosynthesis, Chris Kirmaier

❖ Lend Your Voice to 2018 AT Programs

Advanced Training is looking for members to serve on its committee. This is your chance to influence the programs we will present in 2018. We will meet September 12, 2017, at 5:00 p.m. before the regular meeting at Weldon Spring. Additional meetings will be scheduled as needed. Contact Deborah Moulton at 314-283-2328 or deborahmou@sbcglobal.net.

By MN Allison Volk

Direct from the Egret Rookery across from Boone Bridge, the new fliers are heading out with parents to the Missouri River canal to feast on what appears to be fish from the last river overflow. In the fall as you drive over the Boone Bridge towards Chesterfield, look to your right and see all the nests high up in the tree tops. According to National Audubon Society Field Guide, they are here to breed for the summer and will head all along the southern coast of the US for winter. They will nest next to herons as well.

Photo courtesy of MN Allison Volk





Gifford Pinchot

"Conservation means the wise use of the earth and its resources for the lasting good of men."



Gifford Pinchot was born on August 11, 1865. Until his death in 1946, Pinchot championed conservation throughout the country. He served as Chief of the Forest Service, Governor of Pennsylvania and finally as an inspiration to all those conservationists who followed him.

Gifford Pinchot is often called the "Father of American Forestry." His life and legacy shaped American con-

servation and our public lands. Check out his story:

<https://on.doi.gov/Pinchot>

Gifford Pinchot established the modern definition of conservation as a "wise use" approach to public land. Conservationists believe in using land sustainably to preserve it for future generations, rather than allowing it to be exploited and lost forever. Pinchot's conservation theory has often been conflated with John Muir's idea of preservation. Muir believed that human actions could harm our nation's landscapes and therefore should be avoided, sharply restricting access to these lands.

Pinchot's ideas paralleled those of President Theodore Roosevelt and together the two led a national conservation movement. Today, Pinchot's

philosophy of multiple use continues to influence the mission of federal agencies like the U.S. Forest Service and Interior's Bureau of Land Management.



Mount St. Helen's National Volcanic Monument in Gifford Pinchot National Forest -- one of two public lands named after Gifford Pinchot. Photo by Tom Hamilton

Office of Surface Mining Reclamation and Enforcement

Celebrating the 40th Anniversary of the Office of Surface Mining Reclamation and Enforcement

On August 3, 1977, the Surface Mining Control and Reclamation Act established the Office of Surface Mining Reclamation and Enforcement, one of nine bureaus that make up the Interior Department. For forty years, OSMRE has worked in cooperation with states and tribes to ensure two things: the balance of the nation's need for domestic coal production with protection of the environment, and the restoration of abandoned mines—a win for local communities.

On the reclamation front, OSMRE's innovative Abandoned Mine Land Reclamation Program helps to address the hazards posed by mines that were abandoned

before the surface mining act was signed into law. Mine reclamation has been shown to stimulate job growth and economic development in local communities that once had active mines.



Over the course of its history, OSMRE has restored over 35,000 acres of streams and land across the nation, and in the past two years alone, it has planted 84,671 trees. Re-establishing forests is a key aspect of transitioning the Appalachians back into usable land.

An outstanding example of the work that OSMRE does is the

project "Reclaiming a Company Town" completed in Pennsylvania. This project successfully transitioned 6.4 billion tons of coal mining refuse on an abandoned mine site into a community recreation

center. The area now supports hiking, soccer, baseball and many other activities that were once unavailable to Mather and Greene County citizens. This project is just one of many OSMRE has recognized through its AML Reclamation Awards program.

Learn more about the Office of Surface Mining Reclamation and Enforcement's work at

<https://www.osmre.gov/programs/rcm.shtm>.

I will work to make a difference where I can— and do the something I can do

Susan Kamprath, Director of Project Support at Earth Island Institute





Blazing Stars

Excellent native pollinator plants, blazing stars grow from a tube-like corm and will often tolerate poor soil conditions. The spikes bloom from the top down for several weeks. Scientists at the Xerces Society and native seed nursery partners are investigating the role of chemical cues in attracting monarch butterflies to blazing star from considerable distances away.

This Monarch was around this plant and my flowerbeds for a long time. Hopefully it will visit my milkweed.

Recommended Species or Varieties:

- Meadow blazing star (*Liatris ligulistylis*) deserves special note as a monarch butterfly magnet.
- The towering prairie blazing star (*L. pycnostachya*), the smaller cylindrical (*L. cylindrica*), marsh (*L. spicata*, and rough (*L. aspera*) are all excellent selections.

Notable flower visitors:

Attracts hummingbirds, long- and short-tongued bumble bees, and butterflies.



Meadow Blazing Star



Prairie Blazing Star

On August 3, the United States Postal Service celebrated pollinators by issuing a set of five forever stamps with the theme **Protect Pollinators** at the American Philatelic Society Stamp Show in Richmond, Virginia. More than 200 people attended the ceremony to learn about the importance of pollinators and how they can help conserve monarchs.



Scruffy Cardinals!

Have you noticed that your cardinals look a bit worse for wear at this time of year? What's up with that? Well, bird feathers are not that different to our nails and hair, and as a result they are subject to wear and tear, and are easily damaged. Feathers are 'dead' structures and cannot heal themselves, so birds shed or drop them and grow new ones. This process is called **molting** (<https://www.allaboutbirds.org/the-basics-feather-molt/>) and all birds go through it. Cardinals, and other songbirds in our area typically go through this process once a year in late summer, which is why they're looking a bit scruffy right now. Don't worry though, they'll be looking sharp again in a few weeks.

Northern cardinal by Andy Wraithmell

The most extensive study to date on neonicotinoid pesticides concludes that they harm both honeybees and wild bees.

Researchers said that exposure to the chemicals left honeybee hives less likely to survive over winter, while bumblebees and solitary bees produced fewer queens.

The study spanned 2,000 hectares across the UK, Germany and Hungary and was set up to establish the "real-world" impacts of the pesticides.

The results **are published in Science**. <http://science.sciencemag.org/content/356/6345/1393>

Abstract

Neonicotinoid seed dressings have caused concern world-wide. We use large field experiments to assess the effects of neonicotinoid-treated crops on three bee species across three countries (Hungary, Germany, and the United Kingdom). Winter-sown oilseed rape was grown commercially with either seed coatings containing neonicotinoids (clothianidin or thiamethoxam) or no seed treatment (control).

For honey bees, we found both negative (Hungary and United Kingdom) and positive (Germany) effects during crop flowering. In Hungary, negative effects on honey bees (associated with clothianidin) persisted over winter and resulted in smaller colonies in the following spring (24% declines). In wild bees (*Bombus terrestris* and *Osmia bicornis*), reproduction was negatively correlated with neonicotinoid residues. These findings point to neonicotinoids causing a reduced capacity of bee species to establish new populations in the year following exposure.

<http://www.sciencemag.org/about/science-licenses-journal-article-reuse>

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FROM THE WILD AND NATURAL SIDE

At fifteen years old, BO:X,g, also known as **Old Man Plover**, was the oldest Great Lakes piping plover to return to its breeding grounds. (Featured on our May 2017 newsletter.)



He was a legend, at least in terms of piping plovers. After tens of thousands of miles migrating between Michigan and South Carolina, 15 breeding seasons and raising 36 chicks, BO:X,g, also known as Old Man Plover, finally disappeared this season. It was inevitable; the Old Man likely finally fell to one of the many plover predators. But when he disappeared, the wheels of the Great Lakes Piping Plover recovery effort kicked into high gear. Monitors at Sleeping Bear Dunes National Lakeshore alerted the Service that BO:X,g's nest may have been abandoned.

However, with the help of the zookeepers at the station, one of his eggs went on to hatch, the chick survived and fledged. The chick was banded Of,B/OO:X,G as an homage to old BO:X,g. The plover was released just a short distance from where BO:X,g had nested so successfully for a decade and a half. Upon release the plover flew and ran out of the transport carrier and onto the beach of Lake Michigan, experiencing for the first time the wind and waves of the Great Lakes.



Stay up to date on [recovery efforts for the piping plover](https://www.fws.gov/midwest/endangered/pipingplover/index.html) (an endangered species) by the U.S. Fish and Wildlife Service. <https://www.fws.gov/midwest/endangered/pipingplover/index.html>



A Gunnison prairie dog eats a bait laden with the sylvatic plague vaccine. Prairie dogs in the wild are less likely to succumb to plague after they ingest peanut-butter-flavored bait that contains a vaccine against the disease.



Photo Credit: Tonie Rocke, USGS. Public domain



With fluffy feathers, large eyes and dramatic facial expressions, these birds of prey have long been fan favorites. There are 150 species of owls worldwide and 19 that call North America home, providing plenty of opportunities to spot these birds on public lands or in your backyard.



Be sure to check out more owl photos – they're a real hoot!
<https://on.doi.gov/owls>



This isn't a squirrel-chipmunk hybrid, it's a thirteen-lined ground squirrel! These squirrels stand up to survey their territory and call loudly to alert burrow mates of nearby threats. Have you seen any lately?

Photo courtesy of Kelly Colgan Azar/Creative Commons.



Bats in the Midwest eat insects, but some western species, like the lesser long-nosed bat, feed on nectar. Some even take advantage of hummingbird feeders!

Photo: Lesser long-nosed bat courtesy of Alan Schmierer/Creative Commons.



Did you know young skunks don't stink? They don't develop their musk until later in life, but they'll still use the defensive position to scare you off!

Photo: Young striped skunk courtesy of Kevin VanGorden/Creative Commons.



Young Killdeer leave the nest as soon as three hours after hatching. They learn how to feed themselves as they move with their parents. USFWS, (Steve Gifford)





Accounting for individual Animals in the Anthropocene

by Brandon Keim, Aug 9, 2017

When land is converted to human use, the environmental impacts are typically measured in terms of pollution and populations and species. Unless they're endangered, the fate of individual animals doesn't enter the discussion. They're practically invisible. Given the vast scale of human development and the care given to domestic animal welfare, it's a big inconsistency.

Development's consequences are not limited "to impacts on the environment and biodiversity," says Hugh Finn, an environmental law professor at Australia's Curtin University. "The concept of harm should include harm caused to the welfare of individual wild animals." [Writing in the journal *Wildlife Research*](#), Finn and Nahiid Thomas, a wildlife pathologist at Murdoch University, call for animal welfare to be included in environmental impact statements.

These assessments became routine procedure in the 1970s, when the idea of animals as thinking, feeling beings was still scientifically verboten, and still reflect that era's sensibility. Science and society have changed, though. Evidence for animal intelligence, emotions and self-awareness

is overwhelming — and not just in obviously brainy, charismatic creatures, like cetaceans and apes, but throughout the animal kingdom. Such insights have informed public awareness of animal welfare, which for pets, livestock and lab animals receives more attention now than ever before.

The welfare of wild animals, however, is still a niche issue, though not for the animals themselves. As Finn and Thomas point out, animals are frequently killed by machinery, earth-moving and vegetation-clearing. Those who survive often find themselves without homes, competing in a radically transformed landscape that's been stripped of food and laid open to invasion. They experience physical pain and psychological distress. In the Australian states of Queensland and New South Wales alone, Finn and Thomas estimate that converting habitat to human use kills 50 million mammals, birds and reptiles each year. Globally those numbers hit the billions.

By the standards applied to domestic animals, these are clearly welfare issues, and ignoring that "is an act of willful blindness," write Finn and Thomas. They urge governmental bodies "to require decision-makers to take animal welfare into account when assessing land clearing applications."

For people who already see environmental impact statements as a bureaucratic hassle too easily exploited by foes of development, that's likely an unwelcome

prospect. And it's certainly not realistic to demand that human activity never harm or inconvenience a wild animal. To this objection, Finn and Thomas counter that considering their welfare isn't about stopping development. It's a matter of transparency and thorough cost-benefit accounting.

Accounting for individual animals "doesn't prescribe any particular outcome," says Finn. "It just adds those concerns to the issues that decision-makers need to regard." Some developments might be halted. Others would still proceed, but with an eye to minimizing harms. If a good Anthropocene recognizes that humans share a planet with other thinking beings, our impacts on them ought to be measured. Source: Hugh Finn and Nahiid S. Stephens. "[The invisible harm: land clearing is an issue of animal welfare.](#)" *Wildlife Research*, 2017; used by permission.



Image: Matt Reinbold / Flickr.

This map shows that commercial beekeepers transport the insects thousands of miles around the country every year to pollinate crops when they are in bloom. According to the Department of Agriculture, one-third of the food in the U.S. diet relies on bees and other pollinators.



Pollination





QUAIL RIDGE BEAUTIES



Leslie,
Elaine, and
Jane Ready
for Work

The golden tortoise beetle (*Charidotella*) is a species of beetle in the leaf beetle family Chrysomelidae. It is native to the Americas. There are two subspecies: ssp. *bicolor* and ssp. *Sexpunctata*.

Commonly known as "goldbugs" they sometimes attract the attention of gardeners when they feed on plants. Although these insects are occasionally abundant enough to cause serious levels of defoliation, they are mostly a curiosity.

http://entomology.ifas.ufl.edu/creatures/veg/potato/golden_tortoise_beetle.htm



Common Buckeye Butterfly
Junonia coenia
Resting on Rattlesnake
Master flowers
Photo by MN Jane Porter

The common buckeye, *Junonia coenia*, named for its conspicuous target-shaped eyespots, is one of the most distinctive and readily-identifiable North American butterflies. It inhabits a wide variety of open, sunny landscapes including old fields, roadsides, utility corridors, gardens, parks, yards, fallow agricultural land, scrubs, pine savannas, and weedlots.

The Rattlesnake Master plant's name comes from the fact that some Native Americans used its root as an antidote for rattlesnake venom. The species name *yuccifolium* "yucca-leaved" was given because its leaves resemble those of yuccas. Fibers of rattlesnake master have been found as one of the primary materials used in the ancient shoe construction of Midwestern Native Americans.



Spicebush Swallowtail
And Monarch
both on Rosinweed flowers





Thank You!

♥ To the O'Fallon and Quail Ridge project teams for their dedication and hard work: Ann Finklang, Leslie Limberg, Beth Zona, Joe Veras, Frank Dvorak, Elaine Browning, Janet Porter, Scott Barnes, Carmen Santos, and Tara Wallace

♥ Glenn Bish: For his dedication & contribution to our chapter and his volunteering as chairman of Volunteer Services Committee for the past 3 years. A great job & excellent volunteer,

♥ Pat Burrell Standley for jumping to the call of phenology at Cuivre River

♥ Allison Volk — What a photographer!

♥ Lee Walters — Great chef—his meatballs rock!

♥ Donna Johnson a volunteer with awesome Bluebird empathy.



Chapter Master Naturalists Photos By MN Elaine Browning



Red Shouldered Hawks visiting Elaine's Purple Martins House.

The **red-shouldered hawk** (*Buteo lineatus*) is a medium-sized hawk. It inhabits a broad array of North American forests, but favors mature, mixed deciduous-coniferous woodlands, especially bottomland hardwood, riparian areas, and flooded deciduous swamps.

This hawk generally hunts from a perch, waiting for its prey to reveal itself and then swooping down to snatch it from the ground or water surface.

Our Leadership



- President—Alberta McGilligan
- Vice President—Tom Nagle
- Secretary—Martha Hessler
- Treasurer—Alison Robbins
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Glenn Bish
- Membership Services—Allison Volk
- Communications—Leslie Limberg
- Web Site—Rick Gray
- Photography—Don Moyer
- Newsletter—Carmen Santos
- Peg Meyer 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



The Confluence Chapter was founded in 2005 as the fifth Master Naturalist chapter in Missouri. The chapter was formed by 24 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/>

