



Your Key to Discovering the *Natural Missouri*

August 2021, Volume 15, Issue 03



From
Our President

Greetings, all!

The dog days of summer have arrived... it's hot out there! But that hasn't stopped our chapter from doing its good works. I stopped by the Quail Ridge Garden this week and found several members taking a needed rest after weeding and doing other maintenance work on that garden. There were bluebirds, goldfinches, red wing black-birds, Eastern Tree Swallows as well as a number of butterflies and bees flying around—just what nature ordered for the survival of our native birds and pollinators.

Speaking of pollinators,

several of us visited the Green Trails Elementary school summer camp to do a hour long presentation on pollinators to several classes of 5-11 year old children. The kids (and us) had a great time—Jeanice Kaiser had her students so enthralled with her presentation that we had to pry her out of the classroom! She's a great addition to our group, along with her husband Jerry.

By the time you are reading this newsletter, the first class of the 2021 Missouri Master Naturalist training class will be over. There are a number of people from all three St. Louis area chapters who pushed to get this started and who are continuing to help as facilitators for the Zoom classes. The St. Louis area has such a dedicated group of Naturalists who work hard to make sure our part of the State is benefitting from our mission. I feel so blessed to be a part of this. We may still be calling on some of you to help with outdoor classes—stay tuned for emails about this.

The Tri-Chapter field day is on October 9, 2021 at Babler State Park. You will have the opportunity to camp

there for free on Friday and Saturday nights. On Saturday, we will have a number of service activities and advanced training sessions. Again, the sign up sheets should be sent out before you get this newsletter. It will be a fun time and also a chance to meet some of our new trainees.

Lastly, I want to thank all of our members who keep our chapter going. I told someone the other day that when I retired, I wanted to retire from being responsible. But I soon realized that I just needed to be responsible with something that made a difference to our communities—and I found our chapter. Here's to the Missouri Master Naturalist program!!

Alison

Alison Robbins
President, Confluence Chapter



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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Awards and Recognitions

Achieving their annual certification volunteer and advanced training hours:

Gary Wester cited the following members for achieving their annual recertification:

- Alberta McGilligan
- Beth Zona
- Glenn Bish
- Martha Hessler
- Val Geile

Donna Bourisaw has reached 500 volunteer hours!

Missouri
 Master Naturalist
 2021 Certification Pin
 Eastern Meadowlark
Sturnella magna



*Thank You
 Cliff Parmer
 Thirteen Years Leading
 Confluence Chapter
 Stream Team*



The Confluence Chapter has benefitted from Cliff Parmer's knowledge, leadership and fellowship for the past thirteen years. Cliff joined Missouri Master Naturalists in 2008 in order to "give something back." He wasted no time doing so. Cliff started Stream Team #3612 during his first

year as a MMN, and has monitored the Femme Osage Creek near Defiance since then. He has mentored countless other master naturalists, and has also served as chapter president.

Cliff moved to St. Louis from his hometown of Nashville in the late 1970s, and was introduced to Missouri's streams through organized canoe trips with a group of other architects and engineers. He soon purchased a solo canoe and joined another group that floated rivers all over the state.

"Those experiences were enhanced through the work of the Missouri Department of Conservation and fueled a desire to give back by sharing the wonders of the natural world that I love with others, especially young people," said Cliff.

His childhood experiences in the outdoors left an indelible impression on him. "I had miles of woods within walking distance of my home," he said. "My grandmother had a house on a lake, where my mom taught me to canoe and fly fish. I enjoyed a lot of solitary time outside as a youth, and even then, was intrigued with the interconnectedness of life."

A longstanding interest in Eastern philosophy underlies Cliff's deep connection to the natural world. Take fly-fishing. Cliff is an avid fly-fisherman. "Fly-fishing is a Zen experi-

ence if you do it well," he said. "It requires full concentration and a deep understanding of the environment the fish is in—the flora, fauna and water hydraulics. It's about intuition, intention and peace."

It's a feeling Cliff tries to help others experience through his volunteer activities, which have included training stream team participants, teaching youngsters at Wetlands for Kids and at Discover Nature Fishing, and leading groups of school kids on nature adventures at the Litzsinger Road Ecology Center. He began volunteering at Litzsinger Road Ecology Center after retiring from his architecture career in 2012.

"My wife Carol and I don't have children, but we like kids," said Cliff, who has always served as the Funcler (fun uncle) to his sibling's offspring. "I try to get the kids at the Ecology Center to think about nature cycles and to fully experience what it's like to be an element of the natural world—and to find joy in being outdoors. That's the most important part."

Although he's not "hanging up his waders," Cliff recently turned over Stream Team leadership to Gary Wester. The Confluence Chapter salutes and thanks Cliff Parmer for thirteen years of excellence.

MN Lee Phillion





Schuette Prairie Dedication

On Sunday, May 23, Bruce Schuette, former naturalist at Cuivre River State Park and honorary member of the Confluence Chapter, cut the ribbon to a Missouri Prairie Foundation prairie named in his honor.

In November of 2020, Missouri Prairie Foundation purchased a 40-acre, original, unplowed prairie in Polk County, south of Bolivar. In 2021, an anonymous donor purchased naming rights to this property to honor MPF Vice President of Science & Management Bruce Schuette.

Bruce Schuette retired after 36 years as the park naturalist at Cuivre River State Park, where he was involved in natural resource management (prescribed burns, exotic species control, ecosystem management), natural resource inventory, collections, monitoring, working with researchers, and nature education.

He has served on the MPF board since January 2000, served as secretary 2005-2012, and is vice president of Science & Management and chairman of the Science & Management Committee.

Photo by Renee Benage of the Great Rivers Chapter
Article by MN Lee Phillion, Confluence Chapter

Targeted Cattle Grazing Quickly Contains Wildfires in the Great Basin

Using cattle grazing to create fire-breaks on landscapes invaded by cheatgrass has successfully contained three rangeland wildfires in four years in the Great Basin—the latest being the Welch wildfire near Elko, Nevada.

U.S. Department of Agriculture Agricultural Research Service (ARS) researchers are conducting a large study evaluating the technique, called targeted cattle grazing, for creating fuel breaks to help contain wildfire while not causing grazing-related damage to rangeland health.

Targeted grazing uses cattle in the early spring to eat extensive strips of highly flammable cheatgrass down to 2- to 3-inch

stubble in strategic places. This reduces the fuel load that can otherwise turn small rangeland fires into megafires in a matter of hours.

"These fuel breaks are intended to slow a fire's rate of spread, make it less intense, and provide time and space for firefighters to arrive and more safely attack and contain the fire," explained ARS rangeland scientist Pat Clark with the Northwest Watershed Research Center in Boise, Idaho, who directs the project.

Before it reached the targeted grazing fuel break, the Welch fire "generally had 2- to 4-foot high flames and was spreading at a rate of about 20 chains/hr. [1 chain=66 feet]," according to the fire report. After burning into the fuel break, flames dropped to less than 2 feet high and the fire's spread slowed to less than 5 chains/hr., which allowed time for resources to arrive and engage the fire. If the fuel break had not been there and windier condi-

tions had occurred, this wildfire could have escaped and burned several thousand to tens of thousands of acres within the South Tuscarora Range, the report said.

The ARS study is evaluating targeted grazing at nine sites throughout the northern Great Basin in Idaho, Oregon and Nevada.

The Agricultural Research Service is the U.S. Department of Agriculture's chief scientific in-house research agency.





Hays Home

August 10, 2021, the Confluence Chapter was treated to a private tour of the Hays home on the property of the Hays Matson St. Charles County Park.

Park Historian, Ben Gall led us through the homestead, both inside and out. We learned about the connections of the home to the Boone family (grandson of Daniel Boone). The home was started in about 1821 and finished probably in the early 1830's. The original homestead was about 400 acres. The county owns approximately 200 acres of the old homestead at this time.

The house has been restored to its original footprint (mostly) and is made of Missouri Limestone quarried off the property and black walnut along with other wood found on the property. The tree that we are standing under is a Black Walnut tree that is probably over 200 years old. At one time, it was the oldest known black walnut tree in Missouri, but an older tree has been found in the Ozarks.

Bob Coffing, who was one of the original members of the Confluence Chapter who worked to restore the prairie areas on the homestead and rid the property of a lot of unwanted cedar trees, came to see the finished home.

If you weren't able to make it to our private tour, the County offers tours on Saturday and Sunday. Check out the St. Charles County web page because they are going to have a Halloween Haunt at the home and it will also be a part of the Christmas lighting that the Daniel Boone home is known for.

MN Alison Robbins
President, MMN-Confluence Chapter



Photos by MN Jim Middleton

PINK ROYAL CATCHFLY

Allison Volk found a spectacular Native Prairie, pretty much right on the Wright Patterson Air Force Base near her. The Air Force helped with restoring it, and is doing burns on it, right next to the practice flight field that the Wright Brothers used just outside Dayton, Ohio.

“I learned that Wilbur Wright had been taken there by an 8th grade teacher to study native plants and draw them. I am seeking out all the wild places around me. I think I will try and work with the parks department here in my town. I am finding a lot of kid areas with fun trees and native plants around.”

“We found about 10 pink royal catchfly plants *Silene regia*, **Pink family (Caryophyllaceae)** mixed in among the prairie. Also of note was a few white bee balm plants among the violet varieties. The bees did not care much for the white version.”



MN Allison Volk
Speaking from the mighty state of Ohio, The Buckeye State.





ELK IN MISSOURI

MN Gerald W. Lindhorst

When camping in Colorado's Estes Park years ago, I was enthralled by the gigantic size and bugling of Elk roaming carelessly through the park and wondered why it



was Missouri did not have such magnificent creatures.

Two years ago, my wife and I took a trip to Missouri's enchanting Echo Bluff State Park with the intention of visiting several magnificent springs located nearby. While in the area, we also decided to visit the Peck Ranch Reservation Farm with the hope of spotting an Elk. In 2001, our state introduced Elk into the farm with more in 2012 and 2013 reaching a total of 108.

I warned my wife not to be too disappointed as visiting the farm did not mean we would spot an Elk, as they are most active at dawn and dusk when they move out of the forest and into glade areas and open fields. However, my wife is not an early-riser and I don't like driving the area's winding roads in the dark. Our 9:30 AM arrival at the farm did not improve our odds of seeing an Elk. After less than an hour, we were driving in a secluded area of the forest and were shocked when a bull Elk appeared casually crossing the road. I pulled out my phone and took a

shot hoping I was not too far away.

I drove slowly toward where the bull Elk had crossed the road and disappeared into the woods, and then my wife spotted four cows feeding in the woods. After posing for several photos, the females moved slowly away from us and disappeared into the forest.

Lewis and Clark reported seeing Elk in Missouri in 1804. By the mid-1880s, however, market hunting had erased any trace of Elk in Missouri. Today, MDC reports the herd is now moving into parts of Carter, Shannon and Reynolds counties. Our Bull Elks can weigh up to 700 pounds while females come in around 550 pounds.

Elk can be found in different size herds throughout the year. Males grow a new set of antlers each year so they can protect their lady friends. A set of antlers can weigh up to 40 pounds. Elk feed on anything from lots of different grasses, forbs, acorns and legumes.

MDC reports that its research projects help determine survival and reproductive rates of the restored elk population with a goal of growing the herd to 400-500 head.

Brainworm, also known as meningeal worm, is the leading cause of death in Missouri elk where the cause of death is known, according to MDC. Signs of brainworm in elk include isolation from other elk, weakness, uneasy gait, fearlessness, unusual head tilt, and emaciation.

My wife and I are returning to Echo Bluff State Park for several days this fall and will try to again see these magnificent creatures.



MN Paul Crombie

American Basket Flower (*Centaurea americana*) looks like a thistle but isn't. Great performing annual that teased well but does not take over... at least out here (at Paul's).

Commonly called American starthistle or American basketflower, is an annual native to the southern central United States and northeastern Mexico. Its common name comes from the underside of the inflorescence, which has a basket weave pattern on it and on the flower buds.

The pink petals look somewhat like a thistle with a cream-colored center. Blooms are 4" in diameter and are held from May until June. The plant can reach 5-6' tall and has rough 4" long lance-shaped leaves.

Even if you are on the right track, you'll get run over if you just sit there.



Will Rogers





If You Build It... They will Come

Carmen

It was a very hot afternoon in June, eleven years ago ...

I had been summoned by Bob Lee to meet him at Quail Ridge. Those of us who have been around for a while, know that when Bob Lee summons you, one has to move fast (not just fast but as fast as you can).

I moved as fast as I could, and met him on a trail South of the Horseshoe Museum in front of this "area" and he said to me, "I want you to take care of this place."

I looked at the "place" and was speechless, and had to breath deep not to faint—I almost did. He does not know this. The "place" was in dire need of loving care.

I accepted the "instructions" and started pulling weeds the next day.

Like in the movie "Field of Dreams", Confluence Master Naturalists "appeared out of thin air" and started pulling weeds with me.

Over these eleven years we have had many contribute to the upkeeping of the Quail Ridge

Prairie Demo Area, as they lovingly tended then and tend now, to Missouri Native Wildflowers.

Many Master Naturalists have come. Some have left for other ventures, others to other states to be with family, and some left after been promoted to garden in Heaven.

All are loved and will be cherished forever.

And then there is the Sycamore tree—the never-say-die tree.

This tree found its way to the garden on its own. Nobody knows how. Every year someone would pull it up, chop it down, and try to intimidate it. The tree would stare back and seemed to say, I dare you!

We finally got the message, and left it alone. The tree has thrived and now it keeps company to "Henry's Oak".

"Henry's Oak" is right next to the Leopold Bench and it was planted in honor of Henry L. Stealy "who loved the land where Quail Ridge is now, and chose to share it with all of us".

The place where the oak and the Leopold Bench is located is called "The Lookout Point." Legend has it that Henry loved to stop at the site and enjoy the view of the land. The tree was dedicated by Henry's wife, Janet C. Stealy.

We continue tending Missouri native wildflowers to this date and "The Place" is thriving...

...Eleven years ago ...
It seems like yesterday ...



A Leopold Bench



Henry's Oak, Surrounded by Cliff Goldenrod, Prairie Drop Seed And Beebalm



Sycamore, Platanus Occidentalis, surrounded by Bear Tongue, Prairie Coreopsis, and Stiff Goldenrod





Master Naturalists in Action



Alison Robbins calls the August meeting to order of the Confluence Chapter of Missouri Master Naturalists at Matson Hill Park, Defiance, MO

Photo by James Middleton

Water Quality Monitoring

Cliff Parmer and Gary Wester measuring stream flow; and MN Jean Crinean conducting a biological sampling of Macroinvertebrates.



Photos by MN Joann Shew



MN Leslie Limberg at the de-weeding project at Progress South Elementary School Garden. Photo by MN James Middleton



Frank Dvorak and Beth Zona Working at the Quail Ridge Prairie Demo Garden

MN Beth Zona at the O'Fallon Project

Photo by MN Frank Dvorak





From Our Members



Monarch Butterfly Eggs on Milkweed unopened bloom. MN Scott Barnes



Four bumbles on this Common Milkweed and a peculiar orange bug. MN Karen Sue Stevens



Enlarge the picture and find the Hummingbird.

MN Elaine Browning



Adult Smallmouth Salamander—New addition at the MU Extension Native Habitat Garden—St. Peters. MN Leslie Limberg



Adapted from MN Frank Dvorak's "Friendly Talks"

"I went for a short walk in the park and even the birds were seeking a shady spot to hang out. The profile of the heron is easy to see, and there are several ducks hidden in the shadows."





From Our Members



MN Elaine Browning



We Got Bees!
(Mountain Mint)
MN Elaine Browning



These two pictures from MN Jane Porter's yard.



This spicebush swallowtail was spotted on Paul Crombie's farm feasting on a blazing star. Spicebush swallowtails lay eggs exclusively on plants in the Lauraceae family (which include spicebush or sassafras) and depend on these host plants for their survival. This butterfly is found mostly in woodland areas, swamps, stream banks, and gardens. Spicebush swallowtails are large black butterflies with iridescent bluish hindwings in females or greenish in males. There are usually light spots near the edge of the forewings and orange spots on the underside of the hindwings. This butterfly is one of four swallowtails in Missouri: black swallowtail, pipevine swallowtail, and the black form of the female eastern tiger swallowtail.
MN Jean Harmon





The Crombie Acres Report

MN Connie Campbell

On Tuesday, June 15, 7 MMN were treated to a tour of Paul Crombie's creative and carefully cultivated acres.

MMN present were Paul Crombie and his daughter Kate, Alison Robbins, Martha Hessler, Tom and Colleen Holt, Mark and Jill Zupec, and Connie Campbell. What a delight the morning was!

First, it was a June day with a bright blue sky and quite bearable humidity. The temperature in the sun was a tad warm for some of us, but what a beautiful day! Second, Paul was very generous with his time, knowledge, experience and iced tea!

He bought 200 acres from a farmer near Marthasville in Warren County, but quite close to the western edge of St. Charles County 26 years ago. It was a settlement farm from the early 1830s with a double-pen cabin barn until a fire destroyed that four months after they bought it.

The farm had been used for cash crops and hay fields. Paul's goal is to help the land to return to its normal, pre-settlement state, as much as possible. He has worked closely with the MDC and its TSI (Timber Stand Improvement) program. He is trying to convert his property into the oak/hickory forest it once was.

He also has some cedars, quite a few persimmon and walnut trees, and a few pecan trees. Paul has used fire to help him clear what he does not want, but was quick to point out certain issues with that. His whole

reestablishing experience has been a learning experience.

Paul has tried to eliminate lespedeza, Johnson grass, crab grass, and other invasive grasses. He bought \$1,000 worth of seed and has planted many wildflowers, such as blazing star, coneflowers, sunflowers, coreopsis, columbine, and more. His short stature prairie was a new concept for me, and one that my neighbors might appreciate me adopting.

Paul pointed out that the acreage really belongs to the deer and anything planted has to make it through the deer test. The insect activity at his place is amazing, compared to the insect activity in suburbia. Butterflies were constantly fluttering by, and a future trip of identifying butterflies would be greatly appreciated by me and others. We saw many types of bees and wasps, as well.

Paul says that the place is an experiment to see what Missouri might or should look like in modern times. He would be honored if MMNs want to investigate and use it as a test ground to see what works... and seed collec-

tion this fall should be awesome for anyone interested in gathering.

Paul kept up a running commentary of what was growing, what had worked well, what his errors had been, and what he hoped to gain. What a fountain of knowledge is in that man's head!

Finally, after being sunbaked, we wandered back to Paul's back porch, where very refreshing iced tea was served in vintage glasses from a vintage pitcher. What a delightful morning!

Thank you, Paul!



"Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. There is something infinitely healing in the repeated refrains of nature - the assurance that dawn comes after night, and spring after winter."

—Rachel Carson

- ☞ Perhaps the finest nature writer of the Twentieth Century, Rachel Carson (1907-1964) is remembered more today as the woman who challenged the notion that humans could obtain mastery over nature by chemicals, bombs and space travel than for her studies of ocean life.
- ☞ American marine biologist, author, and conservationist whose influential book *Silent Spring* and other writings are credited with advancing the global environmental movement.





Tiger Swallow Tail Puddling Getting Nutrients From Wet Soil Snake Road, Southern Illinois

It is believed that butterflies congregate on mud and other such substances primarily for salts. The salts and amino acids absorbed during mud-puddling play various roles in butterfly ecology, ethology and physiology. Males seem to benefit more from the sodium uptake as it aids in reproductive success, with the precious nutrients often transferred to the female during mating. This extra nutrition helps ensure that the eggs survive.

Photos by MN Scott Barnes

A Quiet Spring

We all searched for comfort during the stress of 2020. Many people found it in the spring songs of migrating and nesting birds. I was not sure how the pandemic shutdowns would affect the number of birds brought to our center. At first, I thought that since people would not be traveling around their communities, they would not see the injured and orphaned birds.

It appears the exact opposite happened. 2020 was the busiest year in Wild Bird Rehabilitation's 30 years of operation. People were obviously more aware of their surroundings and had more time to observe wildlife.

Scientific observations varied during the U.S. shutdown. Many studies were put on hold, but some studies looked closer at habitats which normally had significant human infringement, such as beaches and national parks. According to Science Magazine one study showed that many songbird songs recovered acoustic qualities that were missing for a decade while our cities were considerably quieter. While we stayed home and factories shut down, birds did

not have to be as loud. Some birds reduced their volume 30% last summer, yet they could communicate with each other twice as far as the previous years. Birds use their songs to deter rivals and communicate with their mates. With decreased noise pollution some birds nested quicker and had fewer territorial disputes, because their rivals heard their claims and didn't accidentally approach their area. Thus, there was less energy spent on fighting and more on breeding.

Many cities (have) started a "lights out" program during migration to limit the window strikes of night time migratory birds. I propose we consider a "silent spring initiative" during late spring and early summer when birds have been found to be the most verbally active.

If we could all quiet down and listen, we might fight less and put more of our energy toward the things we love.

Joe Hoffman, Executive Director
Wild Bird Rehabilitation

From *Wild Bird Chatter*
Used by Permission
Submitted by MN Karen Sue Stevens



Red Shouldered Hawk—At MN Elaine Browning's backyard. Hunting for squirrels?





Four Nutrients in Flower Pollens Improve Honey Bee Gut Health

For the first time, four nutritional compounds found in different flowers have been directly proven to enhance gut health of honey bees, boosting their immune system and increasing lifespan, based on a study by U.S. Department of Agriculture’s Agricultural Research Service scientists.

“We found that feeding caffeine, kaempferol, p-coumaric acid or gallic acid—all nutritional compounds found in the nectar and pollen of various flowers—improved the abundance and diversity of bacteria in the honey bees’ gut,” explained entomologist Arathi Seshadri. She is with the ARS Invasive Species and Pollinator Health Research Unit in Davis, California.

Seshadri chose these four nutrients to test because they are naturally present in flowers favored by honey bees, and they had already been shown to improve honey bee lifespan and tolerance to a common pathogen, *Nosema ceranae*. Caffeine, for instance, also has been shown by researchers to make bees better learners and improve their memory of rewarding floral scent and nectar quality. This study is the next step in more specifically defining how some nutrients in flower pollen can help bees by showing a connection through improving the gut microbiome.

The gut microbiome is the total amount and species of all the microorganisms and all of their collective genetic material present in the gut.

“The beneficial impact of these nutrients, found in a wide variety of flowers, has implications for healthier

hive management through designing better dietary supplements. It also reemphasizes the need for flowering habitats that can provide bees with access to a rich diversity of pollen and nectar sources,” Seshadri said.

While the mechanism is not known for how these four nutrients enhance honey bees’ gut microbiome, p-coumaric acid has been suggested by other researchers to alter gut microbiome diversity by increasing the activity of honey bees’ immunity genes. This perturbs the growth of pathogens acquired while foraging.

Example flower sources for these nutrients include: caffeine: citrus and coffee; gallic acid: mint, raspberry, sunflowers and apples; kaempferol: petunias, asters, canola and poppies; and p-coumaric acid: buckwheat, roses, and clover.

While caffeine had the single greatest impact, all the four nutrients resulted in the increase in abundance of *Commensalibacter*, *Snodgrassella* and *Bombella* bacteria, all of which are considered important core bacteria for a healthy honey bee gut.

Changes in the honey bees’ microbiome were seen immediately, just three days after they received the supplements.

The growth spurt in the gut microbiome reached a plateau by six days after supplementing the diet with each of the floral nutrients and the levels reset to the original baseline levels when supplements were discontinued.

“This fast response shows how much of an impact manipulating honey bees’ diet may have on their microbiome and reiterates the need for diverse flowering plants that can provide bees with ready access to these nutrients,” Seshadri said.

The study was published in the *Journal of Applied Microbiology*

This Morning

This morning the redbirds' eggs have hatched and already the chicks are chirping for food.

They don't know where its coming from, they just keep shouting,

“More! More!”

As to anything else, they haven't had a single thought. Their eyes haven't yet opened, they know nothing about the sky that's waiting.

Or the thousands, the million trees. They don't even know they have wings.

And just like that, like a simple neighborhood event, a miracle is taking place.

Poem by Mary Oliver from a book of poetry entitled “Felicity”. Submitted by MN Joann Shew

Mary Jane Oliver (September 10, 1935 – January 17, 2019) was an American poet who won the National Book Award and the Pulitzer Prize. Her work is inspired by nature, rather than the human world, stemming from her lifelong passion for solitary walks in the wild. It is characterized by a sincere wonderment at the impact of natural imagery, conveyed in unadorned language. In 2007 she was declared to be the country's best-selling poet.





Thank you to all of you that have taken the time to gather pictures and topics for this newsletter. You are all gifted photographers and writers!

- MUE advisor, Justin Keay, for getting our new member training classes up and running. He is managing the zoom classes as well as the field trips.
- Steve McCarthy for providing us with minutes to our monthly meetings that are great fun to read.
- Terri Sallee for taking over as our Snack Czar.
- Elaine Browning and Leslie Limberg for proofing this newsletter.



Discover the Watercolors of a Gifted Artist

Deborah Griscom Passmore (1840-1911), a professionally trained artist and teacher, worked 19 years for the U.S. Department Agriculture, Division of Pomology. She became the leader of the division's staff artists in 1892, her first year with the Department, and went on to paint thousands of pomological watercolors.

Passmore also painted in her personal time, which is evident in her unpublished work Wildflowers of America. She signed many of the watercolors and Edward Lee Greene, a well-known botanist, added scientific names. The album was donated to the National Agricultural Library in 1924 and is part of Special Collections. Enjoy Passmore's stunning wildflower watercolors. Link:



[Deborah Griscom Passmore watercolor album : Passmore, Deborah Griscom 1840-1911 : Free Download, Borrow, and Streaming : Internet Archive](#)

Our Leadership

- President—Alison Robbins
- Vice President—Stephen Baldwin
- Secretary—Steve McCarthy
- Treasurer—Jean Crinean
- Advanced Training—Deborah Moulton
- Volunteer Coordinator—Alberta McGilligan
- Membership Services— Tom Holt
- Web Site— Gail Gagnon
- Newsletter—Carmen Santos, Peg Meyer, Leslie Limberg and Elaine Browning

Advisors

- UMO Extension, Justin Keay, justin.keay@Missouri.edu

Project Leaders:

- Confluence Chapter Stream Team #3612—Gary Wester
- Babler State Park—Alberta McGilligan and Bob Coffing
- 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 and Tom Holt
- Birding Club—Gail Gagnon
- Main Street Garden Martha Hessler and Tom Nagle
- Daniel Boone Hays—Bob Coffing
- Matson Hill Park—Bob Coffing
- Cuiivre River and Don Robinson State Park—Bob Coffing
- Outdoor Classroom, Frontier Middle School—Jeanice and Jerry Kaiser

- Amphibian Monitoring—Steve Teson
- Wetlands for Kids—Glenn Bish and Rob Merriman
- Native Seed Collection & Distribution Phil Rahn and Leslie Limberg
- Native Flower Potting & Distribution Alberta McGilligan
- Past Presidents

Scott Barnes,
Connie McCormack
Jerry Lindhorst
Leslie Limberg
Cliff Parmer
Alberta McGilligan
Martha Hessler



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/>