



2022 A Year of Building and Recognizing Partnerships

At our December meeting and Holiday Party, we were honored to have Chad Smith from the MO Department of Conservation (MDC) join us to speak and present us with the Northeast Regional Partnership Award.

A.J. Campbell, MDC Recreational Use Specialist, submitted the nomination to recognize the Mississippi Hills Chapter of Missouri Master Naturalist.

Working together through partnerships is a central principle in conservation practices, and when we share a common commitment to protect and enhance Missouri's natural beauty and conservation values by promoting, supporting, and advocating for voluntary conservation--nature and our communities benefit. The main reason for forming partnerships is to enhance our ability to achieve our common goals, and when we work together to protect our nation's most important natural resources, we all win."

Bob Kendrick perhaps said it best-- "When I first became a member of the Master Naturalists, I was a little overwhelmed by the formidable problems presented to us; invasive species, poor habitat, white nose in bats, misinformation, climate considerations, destruction, problems, problems and problems.

As just one person looking at this, it can seem just a little daunting. Who am I in the face of this? Possibly the best asset that I discovered within our organization was friends. A conglomeration of like-minded people that could prop me up when needed as well as challenge me. No longer just I, but us working together and even having fun and enjoying doing it. Joining this group has helped me to become a wealthier person."

Partnership Award Continued

In 2022, we continued to build on our partnerships through many hours of volunteer work in our community. Our Annual Report will show the hours spent working with MDC, Army Corps of Engineers, Hannibal Parks & Recreation, FOREST (Friends of Recreation & Environmental Stewardship), the city of Clarksville, Shelby County, Pike County, Missouri Stream Team and so many other organizations that we have partnered with to help meet our mission to:

"...develop a corps of well-informed volunteers to provide education, outreach and service dedicated to the beneficial management of natural resources and natural areas within their communities for the state of Missouri."

As we take a moment to reflect on our mission and the work it takes to meet it, we recognize the value of working together and the importance of building and maintaining our partnerships. We thank our partners with the same level of appreciation as MDC has recognized and awarded Mississippi Hills Chapter of Missouri Master Naturalist with their Regional Partnership Award.

"The same goes for our group interacting and working with other groups.

Working together we can make a difference. We are."

THE NOMINATION DESCRIBING OUR CHAPTER

The Mississippi Hills Master Naturalist Chapter is active, growing, and expanding MDC's footprint in the northeast region. The sheer volume of work they do every year demonstrates their dedication to environmental education, community outreach, and resource management. In calendar year 2021, chapter members logged 2,862 volunteer hours and 559 advanced training hours.

MDC's Kathi Moore helped establish this chapter, and it expands her ability to reach people in the greater Hannibal area. In the last year, chapter volunteers helped MDC with outreach events, like Discover Nature Fishing at Huckleberry Park, and helped with many other outreach events, like the Clarksville Eagle Days and the annual Ben Sapp Shed Hunt. They reached more than 400 children and their families at these events, and these are just a few examples of their recent outreach work.

The chapter also restores prairies on public and private lands. They set a goal of establishing 7 new prairies a year for 7 years. In 2020, they met this goal; and in 2021, they exceeded it. One of these prairies is at the Hannibal Regional Airport. Chapter members gained the city's support, organized the effort, and implemented the management plan – and when the day came for the first prescribed burn, 30 people showed up to help.

They are also beginning to help MDC with our trails. A

chapter member walked the trails at Deer Ridge Conservation Area and used *Avenza* to map problem areas. The local resource manager will use this information to direct trail maintenance volunteers from the Back Country Horsemen of Missouri.

On November 23, 2021, this chapter graduated 20 new interns, and they have all been very busy. For example, one of them is using other interns to carry out resource management projects on her private property. She initially learned about prairie restoration and pollinator plots by reading the *Conservationist* and reached out to Jamie Ebbesmeyer, who helped her develop a plan.

As of March 31, 2022, the chapter had already logged 815 volunteer service project hours and 328 advanced training hours in 2022, and they are just getting started. Just recently, the chapter worked with MDC on two wildflower hikes at Steyermark Woods Conservation Area. Forty-five people, including chapter volunteers, showed up – and several discovered this special area for the first time. They also planted more than 1,000 trees at Ranacker Conservation Area and have been helping local staff with parking lot and shooting range maintenance.

The Mississippi Hills Master Naturalist Chapter is growing like the prairies they are restoring, and helping MDC deliver conservation in the northeast region every day.

Submitted by Stephanie Whaley

Stephanie Whaley and Dennis Honkomp attended the Missouri Department of Conservation (MDC) 2022 Partners Roundtable in Springfield, Missouri. This year's theme was, "Charting the Course for Conservation." Collin O'Mara, President and CEO of the National Wildlife Federation, was the keynote speaker and shared a very fast-paced and passionate description of how every single one of us shares the responsibility of conserving, preserving and restoring our natural environments. The emphasis is on "shares". Our efforts and energy are to be collectively harnessed to make a greater impact with a much more beneficial outcome for all people, animals, plants, and the environment.

A very interesting session presented was titled, "One Health and Three Perspectives: Wildlife Health, Mental Health, Nature Prescriptions. According to www.epa.gov, while the Covid 19 pandemic upended life as we once knew it, the MDC was busy designing and implementing the concept of One Health as a central focus to guide their efforts into the future. Reflecting on the impact of the pan-

demic, Jason Sumners, the Science Branch Chief for the MDC and one of the plenary panel speakers said, "As more people went outside, there was a collective shift in focus toward understanding the human/animal interface. We saw this as an opportunity to harness the renewed interest in the outdoors while keeping people, animals, and the environment healthy."

One Health is a holistic, interdisciplinary approach that recognizes the interdependence of people, animals, plants, and the environment. It is a collaborative approach that explicitly unites experts from across a wide spectrum of disciplines—doctors, veterinarians, public health officials, and ecologists and other environmental scientists—to advance the goal of optimal health outcomes, such as preventing the emergence and spread of diseases from animals to people (www.epa.gov).

Another highlight, was hearing Sarah Kendrick, Migratory Bird Biologist for the U.S. Fish and Wildlife Service, present her expert knowledge about birds. Sarah's quick talking, fact-filled presentations seasoned with a little wit are always a delight.

Submitted By Dennis Honkomp

On September 28-29, 2022, I had the pleasure of attending the 2022 Missouri Conservation Partners Roundtable— "Charting the Course for Conservation", sponsored by Missouri Department of Conservation (MDC). The conference was held at White River Conference Center in Springfield and was attended by folks representing government agencies, private organizations, and universities.

The keynote speaker was Collin O'Mara, President of the National Wildlife Federation, America's largest wildlife conservation organization. Collin praised Missouri for being at the forefront of the conservation movement. He has testified before Congress on behalf of the Recovering Americas Wildlife Act (RAW), which is co-sponsored by Senator Roy Blunt. The bill, which has passed the House and awaits action by the Senate, would provide dedicated funding for endangered species. Dedicated funding correlates with increased wildlife populations. The bill has 86% support among the American people. Collin also stated that to solve many of our problems, we should look to nature's solutions as well as technological ones.

The next speaker was Jason Sumners, Deputy Director of Resource Management at MDC. Jason is co-editor of the Fish and Wildlife Relevancy Roadmap, a guide to help agencies enhance their conservation efforts through engagement with broader constituencies. He addressed the One Health-Parks RV concept. MDC research shows the health benefits of nature. We can enhance learning by taking it into nature. Being outdoors is good for our physical, mental, and spiritual health.

Next was Kelley Myers, JD, Senior Landscape Conservation Advisor for U.S. Fish and Wildlife Service Region 3. Kelley coordinates the Midwest Landscape Initiative, a collaboration of several agencies working to develop solu-

Conservation Partners Roundtable Continued

for functioning ecosystems in the Midwest. They are working across boundaries to conserve our shared nature and identify "regional species of greatest conservation need". The Midwest Conservation Action Plan will identify projects, prioritize funding, measure value, bring partners together and provide a forum for information.

Andrew McKean, an independent outdoors journalist was the next speaker. Andrew is a native of northern Missouri who lives on a ranch in Glasgow, Montana. He was a reporter and editor for a number of newspapers across Montana before becoming editor in chief of "Outdoor Life". He also served as Information and Education Officer for Montana Fish, Wildlife and Parks. Andrew is an avid hunter and fisherman and is a leader in the national movement to retain and recruit hunters and anglers. This involves not only mentoring young people but must include adult education. It is important to reach a more diverse audience as the number of "traditional outdoorsmen" decreases and the country becomes more urbanized. State agencies can do this by using online licensing and outreach.

The final speaker was Steve Jester, Executive Director of Partnerscapes, a national landowner organization working to sustain people and natural resources on working landscapes. Steve has worked for land trusts in Texas and Wyoming as well as state fish and wildlife agencies in Florida and Texas. He stressed the need for private landowners, local communities and public-private partnerships in sustaining working landscapes that provide the majority of wildlife habitat. Only 10% of Missouri is public land, so private landowners are key to providing habitat for flora and fauna. He said that people coming together with different perspectives for a common goal is necessary to achieve success.

The next day was dedicated to break-out sessions that were broken into four central themes—Healthy Lands, Healthy Animals, Healthy People; Habitat, Species and Landscape Conservation; Recreation & Engagement; Working Lands. I chose to attend the three sessions under the Habitat, Species and Landscape Conservation theme.

The first session was Changing Trajectories for the Diamonds in the Rough: A Spotlight on Missouri's Rarest Natural Communities and focused on how numerous natural resource partnerships are working to protect, restore and manage our states rarest natural communities. These include prairies, streams/rivers, and wetlands--according to Rhonda Rimer, MDC, these are home to 2000 plant and 400 bee species. There were once 15 million acres of prairie in the state, but only 150,000 acres remain. There are 35 different aquatic community types that face threats from non-point source pollution, urbanization, runoff, and excessive water withdrawal. There are also 12 wetland community types that are home to 200 species of conservation concern.

The Missouri Prairie Foundation, which became land trust in 2021, is one of the natural resource partners working for our prairies by acquiring original, unplowed prairies in our state. They are also home to the Missouri Invasive Plant Council

and the GrowNative program. Holly Neill, The Nature Conservancy, touted their Resilient Land Mapping Tool to identify potential targets for protection. She also discussed their Levee Playbook, a guide for levee setbacks and other nature based solutions to enhance flood resiliency. Holly also talked about re-engineering low water crossings to allow for passage of aquatic organisms. Ducks Unlimited is another important partner focused on restoring wetlands in the Mississippi Flyway through their lives along the flyway. Kyle Steele, U.S. Forest Service, spoke about Fen Wetlands in the Ozarks. The Missouri Ecological Classification System should help address the need for better inventory and mapping.

The next session was Birds, Bees, Butterflies and Bivalves: Canaries in the Prairies, which focused on recovering grassland birds, mussels, and pollinators. Sarah Kendrick, U.S. Fish and Wildlife Service, said there has been a 57% decline in grassland birds since 1970. The North America Bird Conservation Initiative is a partnership, including agricultural partners, working on a targeted recovery of species. Missouri grassland bird species benefit from CRP. Stephen McMurray, MDC, described mussels as natural filters, fish food and water quality indicators with economic and conservation significance. Crayfish and mussels are Missouri's most endangered fauna. Threats to mussels include channel alteration, impoundments, water quality, mining, sedimentation and invasives. There are currently species surveys on 20 river basins. Show-Me Snails (MO Stream Team) is in year three of a five-year study. There are also artificial propagation programs. Steve Buback, MDC, discussed insect conservation. Missouri has 475 bee species. We have the same number of species of grasshoppers as reptiles. The Missouri Bumble Bee Atlas aims to address the American Bumblebee decline. Dr. Chris Barnhart, Missouri State University, has been raising Regal Fritillary caterpillars for release on native prairies. He said butterflies are flagships for conservation. They provide ecological services as pollinators and as a food source (as caterpillars). Regals are prairie specialists and are candidates for ESA listing.

The final session was Conservation at Scale: Challenges and Opportunities of Landscape Conservation Across Missouri and Beyond, which addressed the Missouri Comprehensive Conservation Strategy. Michael Bill, MDC, spoke about Missouri Priority Geographies which are key landscapes that hold high potential for conserving crucial habitat. These landscapes make up just 23% of the state's land base. Dr. Thomas Bonnot, University of Missouri, discussed Missouri Conservation Opportunity Areas and Midwest Conservation Blueprint, a depiction of priority areas across the region. Megan Buchanan, MDC, spoke of the role of partnerships in landscape conservation from broad scale priorities to site specific actions.

The closing session was with MDC Director, Sara Parker Pauley. There was overwhelming consensus that the event has real value because it brings together voices from so many conservation organizations. From the breakout sessions, the Partner Reception, and the breaks in between, there were many opportunities to network.

Dragonflies under the Autumn Moon

By Ann Humphreys

The Autumn Moon Festival has special significance: my daughter, Marcia Ann's, Chinese name is associated with it (Her name is 爱娥, and she shares the second character with 嫦娥, pronounced Chang'e, the woman who flew to the moon to gain immortality. It is a famous mythical tale, and if you wish, there are many articles and YouTube videos you can view); my trip to China to adopt her was delayed until after the holiday that year; and during her middle school years we traveled to San Francisco to enjoy the festival there, where we met wonderful new friends and connected with family.

As its name suggests, the date varies year to year, coinciding with the full moon. This year it was early. Late Saturday afternoon, September 10, I sat playing the piano in my upstairs music room at the farm, waiting for nightfall. My music room has windows facing north and east and an exterior door with glass panels facing west, opening onto the landing of the outside stairs to the second floor of the house. As I played, my peripheral vision caught flashes of something flying outside the nearest window. This is cluster fly season, the bane of century–old homes like mine, so I continued playing.

After an hour I took a break to stretch my legs and rub my shoulders. I went to the window and saw birds. A lot of birds. They were barn swallows. (I looked up the collective noun referring to a large group of swallows. It is flight, just as a group of geese is a gaggle, and a group of owls is a parliament.) I knew these barn swallows well, almost personally. Forty of them regularly line up on the power line to my farmhouse. Until last year, they lived in



the farm's barns, sheds, and outbuildings, all of which I took down. They relocated a quarter mile east to the barn of my nearest neighbor, within sight of my two ponds. They frequently return to my farm during the late afternoon, catching insects mid-air above the water and surrounding grasslands. This spring, a pair of barn swallows even built a nest inside the open porch next to my downstairs bedroom, within range of my Ring doorbell camera. I watched the feeding, fledging, and flying of three chicks, who were now probably among the multitudes rocketing, cartwheeling, diving, zigzagging, banking, and swooping outside my second-story windows. It was an astonishing display of aerial acrobatics; I think barn swallows must be the top guns of the bird world!

With my tablet, I unsuccessfully tried to take a video; it shows my yard with black streaks running through it. I opened the door and stepped onto the landing of the exterior stairs for a better look. I had the unusual vantage point of being level with, and in some cases above, the flying swallows. I realized I had only seen a small part of what was happening. Between the ground and a height of about 10 feet were dragonflies. I went back inside and downstairs, looking out every window and glass paned door to get a better view of the situation. My house was in the center of a swarm of dragonflies! (I'm estimating—a thousand. I could see hundreds on every side of the house.) No wonder the barn swallows were excited!

These are huge insects for us here in Missouri, easily three inches wing tip to wing tip, a feast for birds fattening for fall migration. Dragonflies spend most of their lives in freshwater in an earlier stage of development, metamorphosing into the flyers we humans recognize to mate and lay eggs in the final month of their lives. Even then they usually remain close to fresh water. The mystery was, why were they now around my house instead of above the farm ponds?

I did not see how this all began, but here is my speculation. If I were a swarm of dragonflies being decimated by a flight of swallows in open air space, I would head for cover. Buildings, a fence, trees, and a forest of birdfeeder poles would provide that. Undeterred, the barn swallows followed. Returning to my outside upstairs observation deck, it seemed to me that the swallows had agreed among themselves to fly in a clockwise circuit. Gathering in the open grasslands south of the garage and house, they spaced themselves out, then flew up the west side of the garage, past the fence, and between the house and the young trees in the backyard, and out into the open grassland north of the house. They then turned and flew down the east side of the house, between the low branches of mature oaks and through the slalom course of birdfeeder poles, past the garage, to the southern grasslands, to turn and to start the run again.

Fossil records suggest dragonfly-like creatures have

been around for 300 million years. Fast and unpredictable, they stayed low to the ground and close to obstacles. I watched the aerial offensive and defensive strategies of these well-matched flyers for over an hour, but I was not the only observer. Evenly spaced on the ridge of the roof of my garage sat a row of finches. Normally talkative, they were silent and unmoving. To me, they seemed unhappy. I imagined them thinking: When is this going to stop?! We can't get to the birdfeeders!!! Forget the insects – there's birdseed right there! And when it runs out, a servant brings more! At last, darkness fell, and everyone went home. (The British Dragonfly Society has a lovely video about dragonflies on their website.)

The full moon peeked above the eastern horizon, the soft color of the blush on a peach, and slowly floated upward in the blue/black sky. The silhouette of a small, fast-moving cloud twisted and shape-shifted across its face and then flew off. Far, far away in the southeast, light-ning flashed in a towering thunderhead, like a flickering candle in a paper lantern. I sat in the dark, in a rocking chair on the front porch of my farm, sipping jasmine green tea from a china teacup painted with a red dragon.

Happy Autumn Moon Festival! Happy Mother-Daughter Day! Happy Thanksgiving! Merry Christmas! Happy New Year! Happy Chinese New Year! From our family to yours. Zaijian!

Three Member Requests for the new year -

- 1. Our **Membership Dues** for 2023 are pending. **Dues are \$20.** Because MUE does not accept cash, dues must be paid **by check** made out to: **MARION COUNTY MUE**
- 2. This year we are also required to sign the **Hannibal LaGrange release of liability** form in order to use their facility. **(see email from Vanessa Laatsch sent on January 12, 2023)** The form can also be found on our website under **Chapter Documents,** but must be printed out and signed before returning to Theresa Casey.

HLGU Release of Liability and Code of Conduct

Please Mail both check and form by January 24th to:

Theresa Casey

3. We need to sign the **MUE Volunteer Code of Conduct** for 2023 This year the process has been improved to make it easier to complete online. All you have to do is log-in to our website—

https://www.hills.missourimasternaturalist.org/

You will immediately be presented with the **2023 Annual Code of Conduct** form which you should Read, Click on Agree and Submit. Your Member Profile will automatically be updated with your Agreement.

If you do not have computer access to our website, hard copies of the MUE Code of Conduct from will be available for members at the next meeting to sign and turn-in. For assistance please contact Anne Coleman.



The Audubon 123rd CBC for the Mark Twain Lake (MOMT) circle was held on Saturday, December 17, 2022. A total of six teams with fourteen people participated this year. The weather was a little cold with some west wind. However, everyone was strong and endured the weather conditions.

All had a great time and we counted 2,382 total birds comprising 41 different species. A great effort and success. Most of the observations were made from trucks and cars due to the colder weather, but we did get some observation time on foot.

This was the third count for this circle. Please find below highlights from the count.

Bird Species	Total Count	Bird Species	Total Count
Bald Eagle	31	Cedar Waxwing	9
Herring Gull	1	Northern Harrier	1
Ring-billed Gull	275	Mourning Dove	14
Red-Headed Woodpecker	3	American Kestrel	7
Red-bellied Woodpecker	27	Red-shouldered Hawk	2
Downy Woodpecker	6	Broad-winged Hawk	1
Hairy Woodpecker	1	Red-tailed hawk	18
Northern Flicker	20	House Sparrow	47
Pileated Woodpecker	6	American Tree Sparrow	11
Blue Jay	191	Gadwall	16
American Crow	307	Ruddy Duck	1
Black-capped Chickadee	15	Hooded Merganser	18
Tufted Titmouse	36	Mallard	16
White-breasted Nuthatch	25	Redhead	11
Eastern Bluebird	7	Bufflehead	4
Northern Cardinal	144	Rock Pigeon	16
American Goldfinch	20	Wild Turkey	1
European Starling	236	Northern Bobwhite	8
Red-winged Blackbird	300	White-crowned Sparrow	30
Dark-eyed Junco	329	White-throated Sparrow	3
Canada Goose	168		
Total # Species Observed		41	
Total Birds Counted		2382	
Total Hours Observation		30.5	
# Miles		319.5	
# Participants		14	

OUR PRAIRIES

Seven Prairies Per Year For Seven Years

The following article was published in the

Northeast Area News

A publication of the

Missouri Department of Conservation
on October 11, 2022

MDC and partners work to establish and maintain prairies in northeast Missouri

Mississippi Hills chapter of the Missouri Master Naturalist program continues to work with public and private landowners to maintain Missouri's prairies.

By Maddie Est

MONROE CITY, Mo. – Missouri's natural history is greatly entangled with the history of native prairies as one third of the Show Me State was prairie land before European settlement. In the centuries since European settlement, many of Missouri's natural prairies have been reduced or wiped out entirely.

The Missouri Department of Conservation (MDC), Missouri Master Naturalists and partner organizations are working to restore prairies in Missouri. Originally, native prairies were primarily found north of the Missouri River and in the western portion of the state. Because of this, prairie restoration areas have been heavily focused on these regions.

In the northeast portion of the state near Kirksville and Hannibal, members of the Mississippi Hills chapter of the Missouri Master Naturalists have dedicated themselves to establishing seven prairies every year for seven years. These prairies are established on both private and public lands and range in size from less than an acre to several acres. Already, many prairies have been restored with more acreage set to be restored in the next year.

Establishing a native prairie is no small task. The first step to restoring native prairie species is the removal of invasive plants in the area. Prescribed burns along with the use of herbicides in the established prairie lands allows native species to grow without competition. Continued maintenance and a watchful eye over the area as the native plants begin growing can aid in their success.

Bob Kendrick, a board member of the Mississippi Hills chapter of the Master Naturalists, shared the mantra of establishing a prairie,

"Weep, creep, and leap." The first year of planting a prairie will not be beautiful and can cause one to weep, but the second year will show some plant life creeping into the area. The third year, or the "leap" portion of the saying, is when a prairie will typically begin to flourish.

Reestablishing native prairies to Missouri not only adds a layer of beauty to the landscape but also provides habitat for native insects and animals. Some native prairie animal and insect populations can adapt and live in various grassy environments, but many other species are unable to survive without the presence of certain plant species, communities, or environmental conditions that can only be found in prairies.



Master Naturalists Al Davis and Barb Holmer spread native plant seeds over the site of a future prairie at Indian Creek Recreation Area.

Prairies Continued

"We are losing prairie-chickens in Missouri because we have lost nearly all of our native prairies," Kendrick stated, "but if we can start prairies, we will be saving more than we even know."

Examples of species that are tied to prairies for survival are fritillary butterflies, prairie mole crickets, pink katydids, eastern tiger salamanders, northern crawfish frog, western narrow-mouthed toad, bullsnake, northern harrier, upland sandpiper, horned lark, Henslow's and grasshopper sparrows, bees, and greater prairie-chickens. By reintroducing habitat for helpful insects, benefits can be felt all over.

Prairie restoration does not need to be done on a grand scale; every parcel of prairie restored equals more habitat for native species. The Missouri Master Naturalist program encourages landowners who are passionate about conservation to contact them to establish prairies on their land. For more information on the Mississippi Hills chapter of the Missouri Master Naturalists, go to Missouri Master Naturalists - Mississippi Hills Chapter.

MDC encourages all landowners to contact their local conservation office to speak with a private land conservationist to establish healthy land use practices. For more information about local MDC contacts by county, go to <u>Local MDC</u> <u>Contacts | Missouri Department of Conservation (mo.gov)</u>

ADVISOROR'S CORNER

Missouri Department of Conservation



Kathi Moore

As I sit down to write this, with the promise of big snow and a white Christmas, I appreciate winter as a time of reflection and looking forward.

The Mississippi Hills Master Naturalist Chapter has accomplished great things in the last five years. You have planted pollinator plots, prairies, and trees. You have advocated for your passions about nature to thousands of people. You have taken people to hunt, hike, fish, and recreate in the outdoors. You are a force. Each year, we deepen our relationships with each other and become a family connected by nature.

As with every family, we have experienced our share of loss. Mark Saunders, John Bursewicz, and this year Toni Black-Blackman. My prayers and condolences to their families and to their friends. Each of these members made an impact in our chapter.

As I look forward, I see some incredible things the chapter is planning. The seven prairies in seven years project is a huge success. MDC administration is seeing the impact the chapter is making and the Conservation Commission took an interest when Regional Administrator Danny Hartwig highlighted it in a presentation. Upcoming events, including Clarksville Eagle days and the Birds and Blooms hike in May, will engage local nature enthusiasts and promote outdoor recreation in our area. Hosting another summer core training class will help grow the chapter. Please keep logging hours. This is just a small sample of what will be coming it the next year.

It is a pleasure for me to watch this chapter grow and extend its circle of influence in the local community. I am humbled to be around so many talented nature and conservation minded people. Thank you for all you share with me and with others.

Yours in Nature,

Kathi

Two privately donated American Beautyberry bushes planted on either side of the pollinator sign at Becky's Garden in memory of *Toni Black-Blackman*.





Photo taken at Broadway Minigarden in Hannibal. Toni spent many hours tending to this native garden .

Thanks to Kristy Trevathan for both photos



MEET Vanessa Laatsch

By Bella Erakko

If there was a word more naturepassionate than Master Naturalist, Vanessa Laatsch probably qualifies.

She grew up in a 600 sq. foot cabin in northern Michigan which housed her, two brothers, her parents, a wood-burning stove, and yes, indoor plumbing. She lived so far north that when dating a New York guy, she gave him this navigational guidance ... "When you think these directions are a bad joke, go one more mile."

Unlike most children, who consider their city or suburban homes to be their safe place, for Vanessa, the forest was her safe home, and her cabin, unsafe. Outdoors kept her away from abusive parents. So from dawn to dusk, she lived outside. The forest was her safe place.

The backwoods of Michigan was a flat, swampy, unfarmable, mosquito-infested place. But after June, the mosquito season ended, and Vanessa ran barefoot outdoors from dawn to dusk with her older brother, whom most mistook as her twin. She climbed trees, picked berries and mushrooms, lived off venison, argued over the "best" Christmas tree to cut, watched foxes, snow shoe'd, skied, and read ... outdoors.

She was, as she says, "a forest girl." "Trees," she explains, "are kind of my thing, but I don't define nature as a tree. Everything interacts. If you isolate, you are not doing anyone any favors." When doing

an educational booth with fellow member Bridget, they came up with the adage, "Don't see the Forest; BE the Forest!"

Married to an engineer until two years ago, Vanessa lived in several places where her husband was employed—North Dakota, Missouri, Illinois among other places. Though degree'd in Industry and Technology, she focused on raising her children. She wanted to have a healthy family—as she says it, "like a healthy forest."

Vanessa owns her own business, "Western Illinois Martial Arts." Under this business title, she taught Tai Kwon Do for nearly 30 years. She's a 5th degree Black Belt Master Instructor, and pretty much outranks every martial artist in our region and has had several opportunities to be trained by Olympic Gold Medalist Myong Sam Chang. Locally, Vanessa has occasionally taught Kick Boxing or Tai Chi at John Wood and QU, and for interested Master Naturalists, she currently teaches Tai Chi at Quincy Senior Center.

For her, perhaps, trees carry the same soul as

strong martial artists.

They are rooted, strong, confident denizens of the forests. Finding a forest-home to match her professional skills took Vanessa time.



Getting to Know You Continued

But find it she did...

In 2011, she signed the contract on her paradise— 110 acres of nature's silence. She checked to make sure the land lay outside the noise of interstates or railroads. People ask her, "How can you live so far from town." But to her, towns are high stress; forests offer comfort. When selling her father's 300 acres, she quipped, "It was as close to being in Canada without actually traveling there."

Being the daughter of minimalist parents, she thrives on a self-sufficient lifestyle. She laughs, "I grew up with bears. I made snow shoes and skis in college. I can go out any time on my land to pick berries and mushrooms. I hunt deer and process them. I have fish in my own pond. I pick apples from my trees."

So how did she discover Master Naturalists?

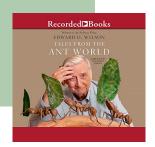
Wyatt Miller invited her to hear a lecture on feeding wild animals just before Covid hit. Where she had been exploring Master Gardeners, she immediately realized SHE was a Naturalist. She joined the 2nd class. With new like-minded friends, she invited members to enjoy her land this Fall by participating in outdoor experiences from chain sawing to cooking, archery to hiking.

As incoming President of our Northeast Chapter, Vanessa wants things to flow as organically as nature itself. Her goal? "Just keep it moving, smoothly."



Bv Bella Erakko

TALES FROM THE ANT WORLD. **EDWARD O. WILSON**



This is just a fun book, written by a Pulitzer Prize winning author who made his fame on ants, thousands of them. I share just two stories which remain in my mind even months after reading this book.

There is one species of ant (I can't remember which) that has a survival mechanism which is nothing less than awe inspiring. If an ant colony is facing a flood that will surely destroy their home, the worker ants use their bodies to build a raft. Then they put the queen ant in the middle of the raft and shove off into the raging waters in the desperate hope that their body-made raft will find land.

Humans should be so noble...

Second story. Wilson was being filmed for a documentary. He was talking about fire ants, with which he had plenty of experience. Prolific in the southern hemisphere, they aren't called fire ants for nothing as anyone who has been bitten by one or more knows.

Well, Wilson decided to stick his whole arm into an ant fire colony while he was being filmed, so he could talk vividly about the experience. In went his arm. His observation? "It was like sticking your arm in kerosene and lighting a match."

He introduces you to nice ants, mean ants, arctic ants, desert ants. After reading it, I found myself stooping low to the ground to watch—anytime, anywhere—those denizens of planet Earth.

Spotlight on Species

The Beaver Nature's Engineer

By Carolyn Trower

Beavers are an essential part of Missouri's aquatic ecosystems. Many conservationists consider their engineering skills to be unrivaled in the animal kingdom. As an "ecosystem engineer" the beaver can alter the landscape so that entire ecosystems are created. Beavers are aided in their endeavors by their ability to harness and channel water. Their engineering can change the water's course to split a stream or slow water down enough to prevent bank erosion.

As the largest rodent in North America, beavers create teeming watery habitats for other mammals, fish, amphibians, birds, and insects. When they dam streams, the flooded basin turns into productive wetlands. Freshwater wetlands are one of the world's most valuable ecosystems. Nearly half of North America's endangered and threatened species rely on wetlands for survival. The beaver's sculpting of its habitat makes them second only to humans at changing the landscape.



Native Americans regard the beaver as the "sacred center" of their land. Many tribes have myths featuring beavers including how the beaver got his tail and one on how a giant beaver caused the earth to flood. A Blackfoot legend told how the beaver taught the people to plant tobacco. The Blackfoot also have myths that warn against killing beavers.

Wildlife biologists have found beavers to be gentle and reasoning creatures. Adult beavers can weigh over 40 pounds; and while they stay in the confines of their pond with dam and lodge, they are relatively safe. However, they do have predators when on land. Dogs and coyotes will tackle the adult beavers and the young have been attacked by large birds of prey.

The beaver's unique tail aids in its defense. Its versatility acts as a rudder and also gives the beaver a sudden burst of speed to dive out of sight. If you've ever walked along a stream bank or seen a beaver lodge in a fork of the river, you've probably heard the sharp slap of the beaver's tail warning the others that danger is near.

In the late 1800's beavers were almost hunted to extinction in North America, Europe and Asia. The demand for their pelts for the fashion of the day bolstered the fur trading industry but depleted the beavers' numbers drastically. Further depletion of their numbers continued through the years as their wetlands were drained for agriculture. Conservation efforts begun in the mid 1900's have allowed the beaver to reach a sustainable population.

Beavers mate for life and share the care of one to four kits born in the spring. The kits remain with their parents for two years before seeking a mate. The yearlings often act as babysitters to the kits born the following spring. Favorite foods consist of water lily tubers, apples, and the leaves and bark from the aspen tree. The beavers' pruning stimulates willow, cottonwood, and aspen trees so that the trees regrow bushier each succeeding spring. The wood left after being stripped of nutrients is used to build the dams and lodges.

Over 80% of Missouri's wetlands have been lost to human activity. In recent years construction of beaver dams and creation of wetlands attest to the ability to add diversity and to heal Missouri's landscape.

MDC Wildlife Damage Biologist Joe DeBold says, "I consider them a keystone species. So many organisms are attracted to a beaver pool; it's just beneficial to have." Efforts to maintain a healthy relationship between beaver and human continues with programs manned by state conservationists and naturalists.

Source: Missouri Department of Conservation

Missouri Master Naturalists at Work...





November 1, 2022 Turkey booth at the Boudreaux Visitor Center at MTL. "Beautiful day to be out at the lake. We wore our camo for turkey hunting and listened to turkey calls and info on prairies and grasslands."

—George Wisdom



Controlled burn October 29, 2022 at Honeywell Conservation Area with MDC staff along with eight Mississippi Hills chapter members.



Controlled burn at one of our Prairie Projects—Miller's Prairie (private property).







...at Study and Team Building...

Vanessa Laatsch hosted **Private Land Management Field Day** for our chapter on October 8, 2022. Members had a full day of learning with many activities including a talk on Private Land Management by John Pinkowski, archery, native herbs, invasive control, chainsaw techniques and more. The Dutch Oven class with Kathi Moore was a favorite, and it provided part of a very tasty potluck lunch. Team building at its finest. Thanks for hosting, Vanessa!











...and at Play! **Winter Celebration 2022**

The Mississippi Hills Chapter held their Winter Celebration on December 13, 2022 at the Hannibal Arts Council facility. While the highlight of the evening was our speaker Chad Smith, MDC, presenting us with the Northeast Regional Partnership Award, the dinner shared with friends and family was delicious and rewarding. Our gift theme: "Native to Missouri " made for a special gift exchange. Much joy was shared by all!

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Congratulations to our new officers elected that evening: Vanessa Laatsch, President; Kristy Trevathan, Vice President; Theresa Casey, Treasurer; and Janet Golian, Secretary.























OUR ENVIRONMENTAL HEROES

By Theresa Casey

"The beauty of the living world I was trying to save has always been uppermost in my mind — that, and anger at the senseless, brutish things that were being done. I have felt bound by a solemn obligation to do what I could — -if I didn't at least try I could never be happy again in nature."

-Rachel Carson, Silent Spring

Rachel Carson was born in Springdale, Pennsylvania, on May 27, 1908, the youngest of three children. Her mother taught her a reverence for the world of nature that became a driving force throughout her life. She began her writing career at the young age of ten with an article in *St. Nicholas* magazine, "A Battle in the Clouds." As a young girl, she was attracted to the oceans although she had never visited them in person. Her love for marine life grew from the poetry that she read and would shape her career as an adult.

In retrospect, her life took twists and turns that led her to her destiny of becoming the "mother of the modern environmental movement." She was educated at Pennsylvania College for Women with the intention of becoming a writer. After taking a biology class as a sophomore, she changed her major and graduated with honors in Biology in 1929. She pursued her master's degree at Johns Hopkins University in Zoology.

Due to family financial constraints, she decided to apply with the United States Bureau of Fisheries and became the first woman to take the civil service exam and accept a position in this area. In her post with the Bureau of Fisheries, she was able to explore the ocean that she had envisioned as a child and bring the wonders of the seas to listeners across the U.S. in a radio show entitled, "Romance Under the Waters". During her fifteen-year career with the U.S. Fish and Wildlife Service, she penned, *The Sea Around Us, Under the Sea-Wind* and *The Edge of the Sea*. The success of these books gained her status and respect as a gifted science writer.

While at the Fish and Wildlife Service, she had become aware of various studies on DDT and the effect it had on the environment. DDT, first discovered in Germany in 1874, was used heavily during W.W.II for controlling

insect-born diseases such as typhus and yellow fever. Popularity of DDT after the war was due to its potency, low cost, and ease of manufacture for use in pest control for crops and livestock.

However, DDT builds up in the fatty tissues of animals and is passed along in the food chain and concentrated in higher animals. In birds, a thinning in eggshells resulted in lower numbers of surviving offspring. The bald eagle, peregrine falcon, and California brown pelican suffered because of this and were close to extermination. Robins were poisoned by eating earthworms contaminated with DDT. Some insects like the housefly became resistant to DDT and their populations grew unchecked while natural predators were wiped out by DDT. Since DDT is stable in aquatic environments, it is absorbed into the groundwater and runs off into rivers and streams. This resulted in contaminated groundwater and fish kills. In humans, DDT has been linked to cancer, birth defects, respiratory ailments, neurological disorders, and reproductive problems.

In 1957, Olga Owens Huckins contacted Ms. Carson to inform her of the aerial sprayings of DDT as part of a mosquito control program had affected her bird sanctuary in Massachusetts. Rachel was horrified that "man was approaching earth not with humility, but with arrogance." Her remaining years were spent on her next book -- a crusade to challenge man's belief that "humans could master nature."

Her final book was published in 1962, as a three-part serial in the New Yorker magazine, and then in book form, where it became a best-seller almost immediately. In this book titled *Silent Spring*, Rachel Carson began by painting a picture of a mythical town much like in a fairy tale or Disney movie.

Environmental Hero Continued

The colorful landscape of the seasons intertwined with the variety of wildlife noisily and visually capturing an observer's attention. Until the evil spell is cast on the countryside.

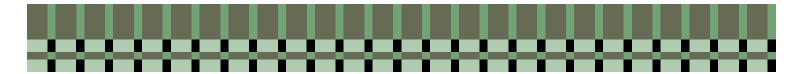
The main argument in her book was that total extermination of a pest was unwise. The focus should be to use the safest and most practical means to keep pest damage to a minimum. "We have gone very far recognized the importance of environmental quality in our abuse of this planet," she stated. She advocated the use of biological controls by using artificially introduced diseases, predators, and sterilizers that would attack a target species. "In each of my books, I have tried to say that all the life of the planet is inter -related, that each species has its own ties to others and that all are related to the earth. This is the theme... and it's also the message of Silent Spring."

Carson's book, Silent Spring, garnered the attention of political and economic figures. She was attacked by the chemical and agricultural industries, and government officials who called her an alarmist, however, her cool-headed nature prevailed. She accomplished her goal in her appeal to the public because of her earlier success in writing and her achievement as a scientist. She was supported in her writing by

outstanding international scientists and biologists which added to her credibility.

In 1963, because of a study requested by President John Kennedy, Carson was credited for bringing the problem of pesticides to the attention of the American public. In 1969, the United States passed the National Environmental Policy Act which officially by the U.S. Congress. William D. Ruckelshaus, Chief Administrator of the U.S. National Environmental Protection Agency, announced the ban of DDT in the United States beginning December 31, 1972.

Rachel Carson died after a long battle with cancer in 1964. I believe that she will be remembered for her unselfish dedication to the world by giving the world the sense of wonder and beauty that she witnessed. Through her writing, she challenged the public to become caretakers of their environment and for that we should be truly grateful. At her funeral, Senator Abraham Ribicoff described her as "this gentle lady who aroused people everywhere to be concerned with one of the most significant problems of midtwentieth century life - man's contamination of the environment."



The Missouri Master Naturalist program is a community-based natural resource education and volunteer service program for adults, sponsored by the Missouri Department of Conservation and the University of Missouri Extension.

Its purpose is to develop a corps of well-informed volunteers to provide education, outreach and service dedicated to the beneficial management of natural resources and natural areas within their communities for the state of Missouri.

The Mississippi Hills Master Naturalist Chapter is located in Hannibal, Missouri, and serves the surrounding counties. We are involved in citizen science, community projects, nature interpretation, and community nature education.

FIND US ON THE WEB: https://www.mississippihills.missourimasternaturalist.org/

And on Facebook @MississippiHills

"Mulberry Times"

From our MHMN President, Vanessa Laatsch



The New Year is a wonderful time to glance back at this year and know that we did well. First, this fantastic newsletter continues to in-

spire us. And we have ample opportunities to be outside and give Mother Nature a hand.

Each year I like to experience something new in our Master Naturalist network. There's never enough time to do it all. So this year I participated in both the Deer Hunt for People with Disabilities and the Youth Hunt. What an eye opener they were. I work with seniors weekly, so to see so many seniors dressed and ready to hunt in frigid cold temperatures was impressive!

My team helped a few hunters get to and from their deer blinds. A team member brought his side by side to transport hunters, and I assisted in making sure they had their gear in order, and occasionally helped them move about, because walking can be difficult in the forest. It almost brought tears to my eyes hearing hunters admit that the annual handicapped hunt is the highlight of their year. Many of them hoping this won't be their last. And for most of the senior hunters, just sitting in a blind all day watching the squirrels and the blowing leaves was their

reward. So much nicer than another gloomy day parked in front of a TV waiting for someone to have time to talk to them. I'll be back next year. What a tremendous opportunity to watch and listen and share and care.

The Youth Hunt was equally inspiring. Big-eyed youth, a little nervous, but prepared to take a big step into adulthood. What person doesn't remember harvesting their first deer? Trying hard to follow all the rules and sitting so still for so long in a hunting blind with a parent and a mentor (a stranger), nothing like making them completely uncomfortable. I mentored a 12 year-old lad and the poor guy was trapped in a blind with me and his mother. He should get a gold medal just for doing that. But he was pleasant to work with, and again, I enjoyed every minute. I encourage experienced hunters to donate your time as youth mentors. We keep saying we want to increase youth activity in hunting and fishing. What a good way to do that. Talk to Bob Kendrick if this fits into your goals as a Naturalist.

On that note, I'll say, I Hope you have a wonderful New Year, and here's looking forward to our next adventure!

-Vanessa

BY THE NUMBERS

(rounded to nearest whole hour as of December 31, 2022)

2022

SERVICE PROJECTS

Volunteer Service Projects Total Hours = 3920

ADVANCED TRAINING

Advanced Training Total Hours = 855

Congratulations on 2022 Recertifications!

- Kent Cheek
- Dennis Foss
- Mark Weatherford
- Al Davis
- Donna Black-Blackman
- Bella Erakko
- Gale Rublee



Recognition for achieving Initial Certifications!

- Stephanie Whaley
- Kathy Griffin
- Beth Whelan
- Pamela Whiston



Special Congratulations to—

Ken Daniels

For achieving his *Bronze Milestone* pin for 250 volunteer hours

Vanessa Laatsch

For achieving her *Pewter Milestone* pin for 500 volunteer hours

HIGHLIGHT ON UPCOMING EVENTS

Watch for Emails and Check our Calendars for Updates and New Events

-Volunteer Opportunities-

♦ January 28 and 29, 2023 10am-4pm——Eagle Days

On Saturday and Sunday, January 28 and 29th from 10 am – 4 pm, Mississippi Hills Master Naturalists will assist the city of Clarksville host Clarksville Eagle Days. Please arrive at 9:30 am to help set-up. This is the fourth year that our organization has participated in this nature event that draws thousands to observe and celebrate the majestic American Bald Eagle. Spotting scopes will be set up on the riverfront below Lock and Dam #24 for ease of observing the eagles' nests and feeding in the open waters of the Mississippi River. This location offers some of the best viewing of eagles in the state. Representatives from MHMN and Army Corps of Engineers will be on hand to assist with the scopes.

Additional Eagle Days activities will be held at the Apple Shed located on Hwy 79. Children's activities sponsored by MHMN, natural history displays, and hourly live eagle shows by the Wild Bird Sanctuary will be available to the public at no charge. MHMN sponsors the children's activities which includes animal print stamping, making eagle bookmarks and eagle masks.

Food and drinks will be available for our volunteers to enjoy. The weather is usually cold so please dress warmly to enjoy this annual event. We are still needing volunteers for this event that celebrates our national symbol. In the past we have carpooled starting at 8 am at MDC with stops along 61 for pickups. Please let me know if you are able to join in the fun by contacting Theresa Casey for any questions.

♦ February 25, 2023 8am-2pm—11th Annual Ben Sapp Memorial Antler Shed Hunt for Youth

The Shed Hunt will be held at the M.W. Boudreaux Visitor Center at Mark Twain Lake. Youth will visit stations held both inside and outside completing various activities. MHMN will provide activities such as learning about eagles, prairies and blue birds, but we need volunteers to help plan and staff these activities. If you are interested in being part of the volunteer team, let please Bob Kendrick know.

Date TBD--2023 Second Inaugural Steyermark Woods Hikes —Birds and Blooms

More information to come, but this will take place early spring (April or May). If you are interested in being part of the volunteer team, let please Vanessa know.

♦ June 2-4, 2023-- Hannibal Great Gardens Conference "Natives, Meadows & Prairies"

This event coincides with National Prairie Day (June 3rd) and is being organized by Robert Hendrickson. MHMN has agreed to be one of many sponsors for this event and will be providing volunteers to perform various tasks.

The current schedule includes:

Save

Date

Friday, June 2 at 7pm: Film and Discussion "Urban & Suburban Meadows...Bringing Meadowscaping to Big and Small Spaces"

Saturday, June 3 at 9am-4pm: Conference sessions by native plant and prairie experts, and a native plant sale

Sunday, June 4 at 10am-4pm Drive-yourself tour of five native plant gardens and prairie projects. There is also a tentative plan to have the Dedication for the Mack Ellis Prairie on Sunday morning before 10am.

This event is in the initial planning stage and so there will be much more information to come. If you are interested in being part of the volunteer team, please let Vanessa know.

-Advanced Training Opportunities-

—Speakers at meetings—

- ♦ January 24, 2023—Dr.Coehlo Dragonflies
- ♦ February 28, 2023—Vanessa Laatsch Raingardens
- March 28, 2022--Scott Woodbury Grow Native Garden Design

—Conferences—

- ◆ January 27, 2023 8:30am-3:30pm: Soil Conservation, Monroe City Doors open 8am (Pre-registration required by Jan 20th)
- February 28, 2023 9am-3pm: Cover Crop & Invasive Species Workshop Doors open 8:30am (Pre-registration Required by Feb 8th)



Volunteer Opportunity Calendar for January, February, March 2023

Monthly Chapter				
Meetings are held on the				
4 th Tuesday of				
every month				

Bi-monthly Board Meetings are held on the 2nd Tuesday of every other month

The Deadline for our next Newsletter is March 31st, 2023. Please be a contributor. Sharing your story is important! Send to Jan Golian, Anne Coleman or Carolyn Trower

E	event Date	Event Time	Event Title	
	1/24/2023	07:00 pm - 08:00 pm	Program Support :: Chapter Meeting :: (01) January	
	1/28/2023	08:00 am - 04:00 pm	Parks / Conservation Areas :: Clarksville Eagle Days	
	1/29/2023	08:00 am - 04:00 pm	Parks / Conservation Areas :: Clarksville Eagle Days	
	2/17/2023	06:00 am - 04:00 pm	Citizen Science :: Great Backyard Bird Count	
	2/18/2023	06:00 am - 04:00 pm	Citizen Science :: Great Backyard Bird Count	
	2/19/2023	06:00 am - 04:00 pm	Citizen Science :: Great Backyard Bird Count	
	2/20/2023	06:00 am - 04:00 pm	Citizen Science :: Great Backyard Bird Count	
		06:00 pm - 09:00 pm	Chapter Education & Interpretation Projects :: MDCEvening With Wildlife :: Louisiana High School	
	2/25/2023	08:00 am - 02:00 pm	Parks / Conservation Areas :: Mark Twain Lake :: Boudreaux Visitor Center :: Shed Hunt	
	2/28/2023	07:00 pm - 08:00 pm	Program Support :: Chapter Meeting :: (02) February	
	3/14/2023	06:00 pm - 07:00 pm	Program Support :: Executive Board :: Board Meeting	
	3/28/2023	07:00 pm - 08:00 pm	Program Support :: Chapter Meeting :: (03) March	

Great Backyard Bird Count in February

Join the world in connecting to birds – February 17-20, 2023

For more information, visit their website.

https://www.birdcount.org/

Master Naturalists in the News

Missouri Conservationist, January 2023

The Missouri Master Naturalist Program is highlighted in this article on Page 23. The Mississippi Hills Chapter is recognized for our work in 2022 with a Discover Nature Fishing Event where we connected with kids with YESA (Youth Empowerment Sports Activities).

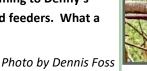


Missouri Independent, January 23, 2023

'Everybody can do their part': Naturalists working to reestablish prairies in Missouri Members of the Mississippi Hills Chapter are interviewed for this article with an accompanying video. Great Job!!

https://missouriindependent.com/2023/01/03/everybody-can-do-their-part-naturalists-reestablish-prairies-in-missouri/? eType=EmailBlastContent&eId=d34f82de-40a7-4ce5-862b-a5674e2e13cd

Sharp-shinned Hawk keeping a close eye on the birds coming to Denny's backyard feeders. What a beauty!







Watch for new training that is added on the website. If you find additional training not on the calendar, please send to Vanessa and Anne so that it can be added. If you aren't sure whether the new training qualifies please ask! THANKS!!

Most training requires advanced registration. If you want to sign up for a training session, please use the appropriate link below.

FOR MDC: https://mdc.mo.gov/events

FOR MPF: https://moprairie.org/events/

For other advanced training, follow the instructions in the email sent by Vanessa.

If you aren't sure, please ask! Someone will be happy to help you get signed up.

Advanced Training Calendar for January, February, March 2023

Event Date		Event Title	
1/14/2023	111.50 am	MDCHabitats: Biodiversity in Your Backyard Virtual Program	
1/17/2023	06:00 pm - 07:00 pm	MDCHabitats: Glade Ecology and Restoration (VIRTUAL)	
1/18/2023	12 noon - 01:00 pm	MDCBirds: Wonderful Woodpeckers (Virtual)	
1/18/2023	04:00 pm - 05:00 pm	MPF: Grow Native! Master Class: Gardening on the Shady Side (Virtual)	
	04:00 pm - 05:00 pm	MDCBirds: VIRTUAL: Homemade Suet Bird Feeders	
1/24/2023	OO.OO DIII	MDCBirds: Great Backyard Bird Count - Virtual Program	
1/24/2023	u / uu nm	Chapter MeetingDr.Coehlo : Dragonflies	
1/27/2023	08:00 am - 03:30 pm	5th Annual NEMO/WCIL Soil Health Workshop	
	10:00 am - 11:00 am	MDCNative Plants: Winter Beauty - Virtual	
2/4/2023	09:00 am - 12 noon	MDCFishing Skills: Fly Tying Class with Pat Rigby	
	06:00 pm - 07:00 pm	MDCInvasive Species: Identify and Manage Exotic Invasive Plants - Virtual Program	
	11:00 am	MDCDiscover Nature: VIRTUAL: Nature's Unlovable	
2/14/2023	12 noon - 01:00 pm	MDCNative Plants: Plant Romance (Virtual)	
2/18/2023	08:30 am - 03:00 pm	Pike County Cover Crop & Invasive Species Workshop	
2/23/2023	10:00 am - 11:00 am	MDCBirds: Becoming a Bluebird Landlord (Virtual)	
2/25/2023	10:00 am - 11:00 am	MDCDiscover Nature: DIY Native Landscape Design Virtual	
2/28/2023	10:00 am - 11:00 am	MDCNative Plants: Naturalist Favorites Virtual Program	
2/28/2023	02:00 pm - 02:30 pm	MDCWildlife: Creature Feature: Missouri's Skunks (Virtual)	
2/28/2023	06:00 pm - 07:00 pm	Chapter MeetingVanessa Laatsch : Raingardens	
3/1/2023	12 noon - 01:00 pm	MDCMushrooms: Meet the Morels (Virtual)	
3/4/2023	09:00 am - 12 noon	MDCFishing Skills: Fly Tying Class with Pat Rigby	
00:00 am		MDCPrescribed Burn Workshop: Field Portion	
3/28/2023	06:00 pm - 07:00 pm	Chapter MeetingScott Woodbury: Grow Native Garden Designs	

The first day of a month is a great time to enter your hours for last month!

Please visit—https://www.hills.missourimasternaturalist.org/

Contact Anne Coleman if you need assistance. THANK YOU!