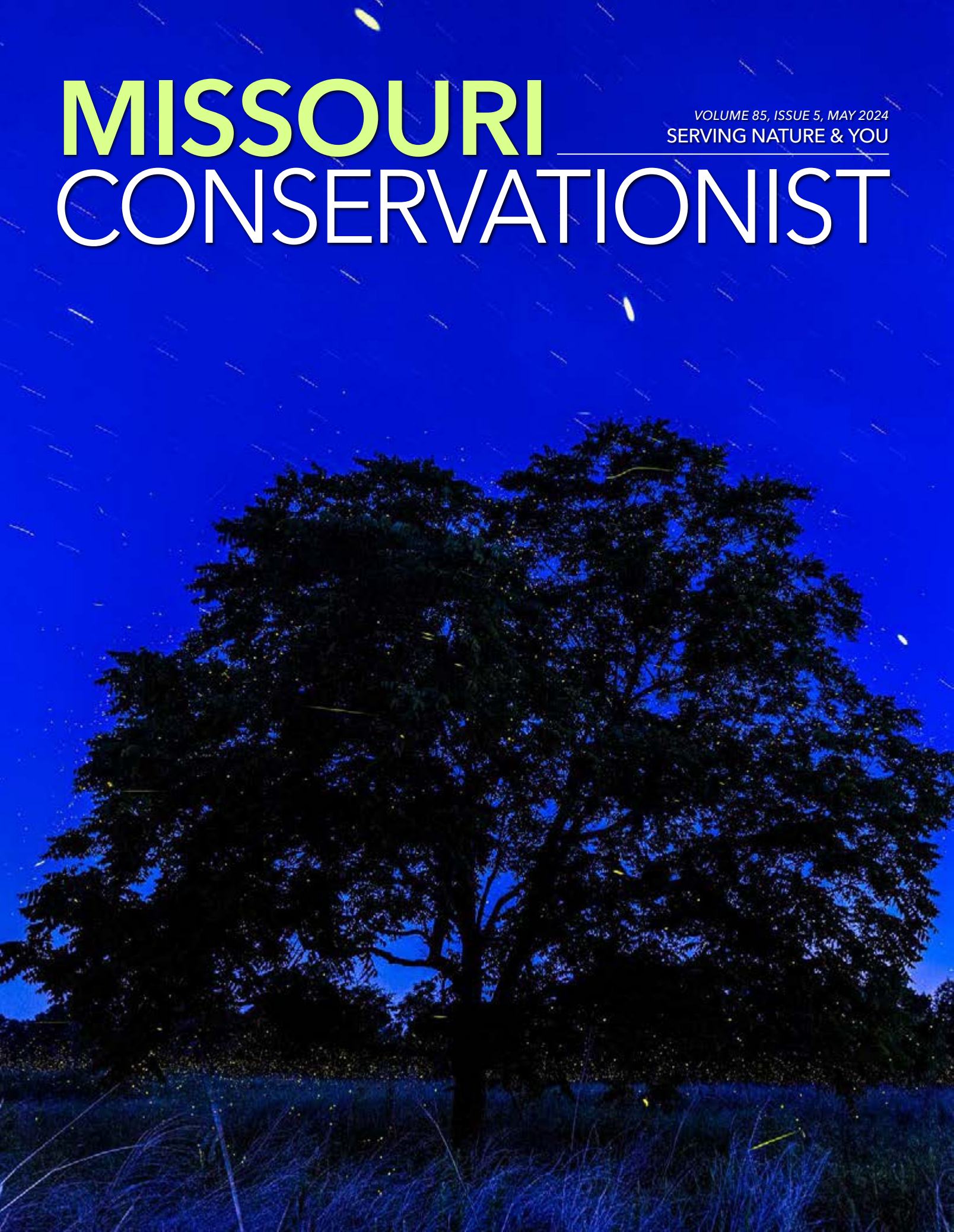


MISSOURI CONSERVATIONIST

VOLUME 85, ISSUE 5, MAY 2024
SERVING NATURE & YOU



3 Things YOU Can Do to Help Pollinators

1

Plant Natives

Native plants are a food source for bees, butterflies, and other pollinators. Add the plants shown below to your landscape.

2

Keep it Blooming

Keep something in bloom each season. Some species bloom all year, others only in April and May, still others in July and August. Learn more at mdc.mo.gov/monarch.

3

Get Involved

Protect native grasslands, provide nesting places, and become a wildlife gardener. To learn how, visit GrowNative.org.



Common milkweed



New England aster



Showy goldenrod



Prairie blazing star



Wild bergamot



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VOLUME 85, ISSUE 5



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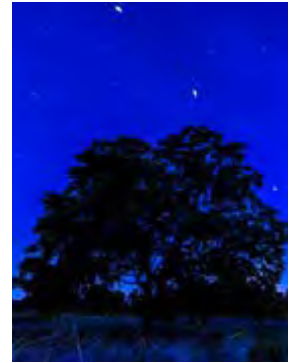
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Wood ducks



MISSOURI
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ON THE COVER

Fireflies illuminate the night sky.

📷 **NOPPADOL PAOTHONG**

14mm lens, f/5.6
30 sec, ISO 1600

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Inbox



Letters to the Editor

Submissions reflect readers' opinions and may be edited for length and clarity. Email Magazine@mdc.mo.gov or write to us:

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LOVE ALL AROUND

I love your magazine! The lovely pictures, the natural events each month, the letters on the front page, *Up Front* — just the whole magazine. You are doing a very good job.

Margaret Brill
Kansas City

UP FRONT

One of the first things I read when I open my new issue of the *Missouri Conservationist* is *Up Front* [Page 3]. Through her writing, Sara Parker Pauley's character is revealed, declaring loud and clear what a perfect choice was made in making her director of the Missouri Department of Conservation.

In the March issue she said, "... in nature I know the thrill of adventure and yet a tranquility of spirit; the lure of the unknown and yet know that I am home." Beautifully said!

Suzanne Rush via email

PASSING ON CONSERVATION

When I am finished with my *Missouri Conservationist* magazines, I take them to the Harsha Visitor Center at East Fork State Park in southwest Ohio. They display them so visitors can relax, read, examine the numerous wildlife displays, and watch birds, squirrels, and deer visit the feeders. I have lived in Ohio for 40 years, but I'll always be a Missouri boy.

Dennis Lewis via email



Black-capped chickadee

MOTUS

I read with great interest *Motus* by Sarah Kendrick [March, Page 10]. I am a birder and try to attract as many birds as possible to our yard. I am also an active amateur radio operator and loved seeing radio and bird conservation combined into a single activity.

Paul Orf O'Fallon

HUNTING ARTICLES

Why do you have at least one monthly article that glorifies hunting or fishing or trapping wildlife? Why do you encourage people to enjoy life by killing other animals? There's no excuse for this gross, cruel activity.

Elizabeth Small via email

The Missouri Conservationist staff strives to present a well-rounded magazine each month. We realize that not all our readers are hunters, trappers or anglers, so we try to provide articles about birding, landscaping, natural history, etc., in addition to any articles about hunting and fishing. However, the department cannot forget one of its fundamental missions, which is to manage the fish, forest, and wildlife resources of the state. One of the ways in which we are constitutionally obligated to manage wildlife is to provide hunting and fishing seasons, and thereby, to provide opportunities for citizens to pursue that wildlife. We recognize that not every article is going to resonate with every reader and hope all readers will enjoy those articles that more closely align with their interests and beliefs.

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Have a Question for a Commissioner?

Send a note using our online contact form at mdc.mo.gov/commissioners.

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The Missouri Department of Conservation protects and manages the fish, forest, and wildlife of the state. We facilitate and provide opportunity for all citizens to use, enjoy, and learn about these resources.



Want to see your photos in the Missouri Conservationist?

Share your photos on Flickr at [flickr.com/groups/mdcreaderphotos-2024](https://www.flickr.com/groups/mdcreaderphotos-2024) or email Readerphoto@mdc.mo.gov.



1

1 | Eastern collared lizard by **Katie Petrie**, via website submission



2

2 | Columbine by **Roxane McWilliams**, via Flickr

3 | Stilt-legged fly by **TRV**, via Flickr



3



Want another chance to see your photos in the magazine?

➔ In the December issue, we plan to feature even more great reader photos. Use the submission methods above to send us your best year-round pictures of native Missouri wildlife, flora, natural scenery, and friends and family engaged in outdoor activities. Please include where the photo was taken and what it depicts.



Up Front

with Sara Parker Pauley

✳ There is nothing like a total solar eclipse to remind us that we, as humankind, are still most certainly dependent on this amazing galaxy and its stunning mix of stars, planets, dust, and fabric of interconnectedness. We'll not see another total solar eclipse for at least 20 years, but I hope a sense of awe is retained by those that looked up (hopefully with eclipse glasses) and witnessed this remarkable galactic display in the heavenly realm.

This year also marks the 75th anniversary of Aldo Leopold's epic collection of conservation essays, *A Sand County Almanac*, which culminated with his seminal treatise, the Land Ethic. It is here that Leopold outlines our individual and collective responsibility as stewards of the natural world because we, too, are members of the same natural world — or biotic community as he characterizes it — and not separate from it. Leopold famously opined, "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise."

And as you look through this month's issue, you'll see many examples where MDC is working to preserve or rebuild the health of our shared biotic community — in part by bringing nature closer to home for all Missourians (see *Human Habitat* on Page 16 about community conservation). My hope for all of us is that we never lose a sense of awe at the natural world — or with each other. We are members of the same community, after all.

SARA PARKER PAULEY, DIRECTOR
SARA.PAULEY@MDC.MO.GOV

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Nature LAB

by Dianne Van Dien

Each month, we highlight research MDC uses to improve fish, forest, and wildlife management.

WILDLIFE MANAGEMENT

Wild Turkey Brood Surveys

✳ MDC has been conducting turkey brood surveys since 1959. These annual surveys record flock sightings from June through August, noting the number of toms, hens, and poults (young turkeys). The survey is used to create an index for evaluating the quality of each year's hatch. Missouri not only has one of the longest running brood surveys, but, thanks to thousands of Missouri citizens, one of the highest participation rates in the nation.

"We're very lucky to have such good participation from the public," says MDC Turkey Biologist Nick Oakley. "Last year, folks laid eyes on over 70,000 turkeys, which is pretty remarkable."

The large number of sightings reported each year strengthens the reliability of the data, which is converted to a poult-to-hen ratio. In 2023, the statewide ratio was 1.4 poults per hen.

"This number isn't saying that every hen out there is having 1.4 poults," explains Oakley. It's an average that's "important because we can compare it to previous years."



Young turkeys, called poults, stay with their mothers for most of their first year. The first 28 days of a poult's life are the hardest. Weather, predators, insect abundance, and amount of brood cover all play a role in how well the small chicks survive.

Turkey brood surveys help biologists gauge nest success and population trends

Wild turkey populations naturally fluctuate based on various conditions. The brood surveys, along with harvest data, help biologists assess trends and anticipate the turkey population a few years into the future.

This year we are expecting a big cicada hatch, which, Oakley says, "should have a really positive impact on our brood numbers."

With a poult-to-hen ratio that was 46 percent higher than the previous year, 2023 was a good brood year.

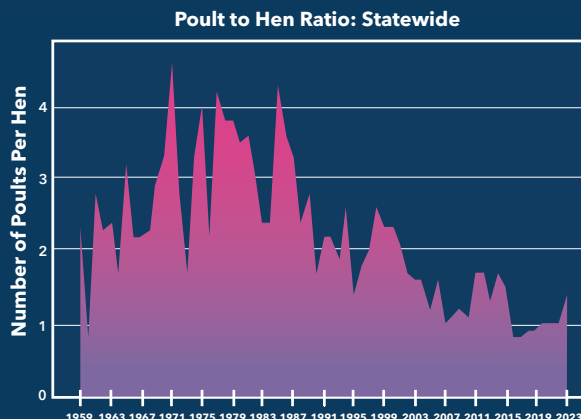
If we have good production again this year, Oakley says, "we would expect to see the overall turkey population respond."

Learn how to participate in turkey brood surveys at short.mdc.mo.gov/4iK.

At a Glance

MDC's Turkey Brood Surveys from 1959 to 2023

The graph shows an increase in turkey poult production per hen, followed by a slow, steady decline. In 1959, turkey numbers were low. After a period of growth, the population reached carrying capacity (the maximum number of turkeys the land can sustain), and therefore the production rate slowed down.



HEN AND POUTS: DIANNE VAN DIEN; SMALL CHICK: MARK SULLIVAN; HEN AND POUT (BELOW): JIM RATHER

In Brief

News and updates from MDC



AGENTS OF DISCOVERY

DISCOVER NATURE THROUGH OUTDOOR MISSIONS WITH THIS FUN APP

➔ Discover nature this spring through the Agents of Discovery mobile gaming app's spring missions. Agents of Discovery is an educational gaming app that allows users to engage with nature while completing missions or games — proving that screen time can be green time. Each mission consists of educational challenges that teach

players about local history, culture, ecosystems, and safety. Missions include prizes to reward "agents" or players who participate. Once an agent completes a mission, they can earn stickers, pins, and other prizes.

These MDC locations have new spring missions:

- **Springfield Conservation Nature Center:** Water Wonders mission to discover plants and animals that live near water along the nature center's Boardwalk Trail.
- **Powder Valley Conservation Nature Center (Kirkwood):** Spring Swing to explore wildlife behaviors and plant growth that signal spring.
- **Cape Girardeau Conservation Nature Center:** Swamp Stroll to explore the natural beauty and hidden wonders of Wood Duck Swamp.
- **Runge Conservation Nature Center (Jefferson City):** Wildlife Wake-Up to learn what animals do in spring.
- **The Anita B. Gorman Conservation Discovery Center (Kansas City):** Spring Splendors to look for signs of spring.

Join by downloading the free app and completing missions at participating locations. Agents of Discovery is available for download through the App Store or Google Play. For more information, visit agentsofdiscovery.com.



THANK YOU FOR SHARING THE HARVEST

MDC and the Conservation Federation of Missouri (CFM) thank the thousands of Missouri deer hunters who donated 247,575 pounds of venison to the state's Share the Harvest program this past deer season, including 5,394 whole deer.

MDC and CFM also thank the participating meat processors throughout the state who grind the donated deer meat into ready-to-use packages, and the many sponsors who financially support the program. The donated deer meat goes to local food banks and food pantries to help feed hungry Missourians all around the state. Meat-processing fees are covered entirely or in part by numerous local sponsors, along with state-wide sponsors that include Shelter Insurance, Bass Pro Shops, Feeding Missouri, and MDC.

Share the Harvest is coordinated by MDC and CFM and has been helping feed hungry Missourians for more than 30 years. Since 1992, it has provided about 5 million pounds of lean, healthy venison to help feed hungry Missourians. To get Share the Harvest venison, contact local food banks or food pantries.

For more information on Share the Harvest, visit CFM at short.mdc.mo.gov/4Mk.



DEER MANAGEMENT

MDC and the National Deer Association (NDA) invite landowners and others interested in managing deer on their properties to join our free 2024 Missouri Deer Management Webinar Series via Zoom.

Save the links and click on them at the date and time to join the free, live Zoom webinars. For those who have not previously used Zoom, click the links ahead of time and follow the prompts to install the free software.

- May 28 at 6 p.m. — Reducing Deer Damage to Crops at short.mdc.mo.gov/4Xi.
- July 30 at 6 p.m. — Invasive Plant Control for Deer Management at short.mdc.mo.gov/4XS.
- Sept. 10 at 6 p.m. — Hemorrhagic Disease in Deer at short.mdc.mo.gov/4Xq.

Learn more about deer management at short.mdc.mo.gov/4XC.

Ask MDC

Got a Question for Ask MDC?

Send it to AskMDC@mdc.mo.gov or call 573-522-4115, ext. 3848.

Q: If a volunteer or parent accompanies a child or children while fishing, does that person need a fishing license?

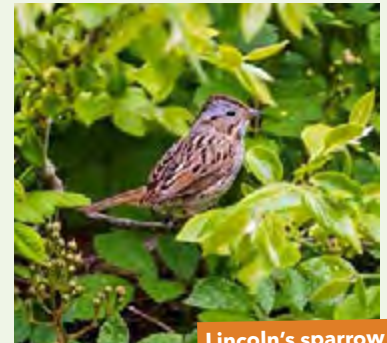
➔ A fishing license is not required if the adult is not actively fishing and is only accompanying a child. Parents or volunteers accompanying a child are allowed to assist with baiting hooks, untangling lines, or removing fish from the hook without a license. However, active assistance with taking or attempting to take fish, such as casting, retrieving, or setting the hook, would generally require a fishing license.

The ages of the children participating is another thing to consider. A fishing license is not required for anglers ages 15 years and younger. However, anglers that are 16 or older must have a fishing license.

Q: What type of sparrow is this?

➔ This is a Lincoln's sparrow, as evidenced by the neat streaking on the breast.

As adults, a Lincoln's sparrow's upperparts — its back and wing coverts — are streaked with brown, gray, tan, and black. These birds have medium-gray heads with brown crowns and a light gray central crown stripe. They have a thin, dark-brown



Lincoln's sparrow

eye stripe and their eye rings are pale with buffy streaks on the lower edges of their cheeks, also known as a "malar stripe." These sparrows lack wing bars. They also have unmarked white bellies and a buffy chest and flanks with fine black or deep brown streaks on their breast.

Overall, its gray face, pale eye-ring, and crisp streaking with buffy wash on its breast and sides help distinguish this sparrow from others.

When disturbed, this sparrow sometimes raises its crown feathers into a small, streaked, gray and brown crest. The Lincoln's sparrow's song is a loud series of trills and buzzy notes, similar to a house wren's. Their call is a *chup* and a *zeeee*. To learn more about Lincoln's sparrows, visit short.mdc.mo.gov/4Bf.

DEER: NOPPADOL PHOTHONG; LINCOLN'S SPARROW: MARIA MOORE; TOAD: BRYAN LEE



American toad

Q: We have a lot of these toads on my property. I have seen at least six or seven in the past year, all of them black in color. What can you tell me about them?

➔ Two potential reasons exist for these American toads' unusually dark pigmentation — temperature or genetics.

When toads and many other herps get extremely cold, they will turn dark, even black. As they warm, a more brownish coloration will reappear. In spring, mild days and cold nights are common. It would be interesting to know when the toad is warmed by the sun for an hour or so

if it starts to turn browner in color.

This could also be a melanistic individual. Due to genetic mutation, melanism is defined as the increased amount of black or nearly black pigmentation of skin, feathers, hair, etc. in an individual or organism.

These mutations are known in many animal groups, including mammals, amphibians, and reptiles, and we do see this on occasion in some frog and turtle species in Missouri.

"This toad looks healthy, and I do not believe there is any concerns related to disease or its health in general," said Missouri State Herpetologist Jeff Briggler.



Avery Crisp

CARTER COUNTY
CONSERVATION AGENT

offers this month's

AGENT ADVICE

Memorial Day is summer's unofficial kickoff, and we are drawn to water like moths to a flame. Black bass season opens at the end of the month. Be sure you are ready not only with the proper gear but with the appropriate permits and knowledge of regulations and limits. If boating and floating is your thing, know the rules of water safety before you head out. Be courteous to others and know the waterway you are navigating. Have a plan and let someone know your plan. Always pick up trash and pack out what you bring in. Be safe on the water and let's make it a great summer!

What IS it?

Can you guess this month's natural wonder?

The answer is on Page 9.





SPECIES OF CONSERVATION CONCERN

Chuck-will's-widows

by Kristen Heath-Acre

Chuck-will's-widows are a species of bird in the family known as "nightjars." Nightjars have long, pointed wings and easily maneuver in the air to capture insects on the wing, typically at dawn and dusk.

Chuck-will's-widows are found primarily in open pine-oak or cedar-oak forest and forest edges. Their distinctive song — *chuck-will's-WID-ow* — is commonly heard in the Missouri Ozarks region during spring and summer. They become less common as you move northward towards the plains region of Missouri.



WHY IT'S IMPERILED

These remarkable birds have declined 63 percent across their range since 1970. Causes of these declines likely include habitat loss due to land conversion and possible loss of target prey due to pesticide usage.

MDC RESTORATION EFFORTS

MDC woodland management on conservation areas, which can include timber thinning and prescribed fires, maintains forest clearings, opens canopy cover, and opens understory for nightjars to forage and nest in.



Chuck-will's-widows lay their eggs on leafy ground litter, relying on their camouflaged plumage to hide the nest.

WHAT CAN YOU DO?

Help protect forest clearings, forest edges, and woodlands on your property and maintain down and dead wood. Avoid using pesticides where possible and consider prescribed fires to open up the understory.

Questions regarding cost-share programs can be directed to the private land conservationist in your county (see Page 2 for phone numbers) or at local USDA Service Centers.

APPLY FOR ELK AND BEAR PERMITS

Hunters interested in pursuing black bear and/or elk in Missouri this fall need to apply for a limited number of permits in May.

MDC will again offer 400 permits for the taking of a maximum of 40 black bears during the 2024 Missouri black bear hunting season this fall, Oct. 14-23. Get more information and apply during May at short.mdc.mo.gov/4Xv.

MDC will again also offer five permits to hunt bull elk in Missouri this fall with at least one permit designated for qualifying landowners who own property in Carter, Reynolds, or Shannon counties and the remaining permits for qualifying residents. MDC has designated the elk archery portion to run Oct. 19-27 and the elk firearms portion to run Dec. 14-22. The five permits will be for bull elk with at least one antler being 6 inches or greater in length and will be valid for both portions. Get more information and apply during May at short.mdc.mo.gov/4BZ.

Only Missouri residents who will be at least 11 years of age by the first day of the hunt for which they are applying are eligible to apply for bear and elk permits during the application period of May 1-31. All permits will be assigned through a random drawing.



BE BEAR AWARE

Black bears are out and about looking for food, especially in the southern half of the state. MDC encourages you to Be Bear Aware by staying safe in bear country and keeping our bears wild by not feeding them.

Never feed a bear! Feeding bears makes them lose their natural fear of humans and teaches them to see humans as food providers. They will learn to go to places such as homes, campsites, and neighborhoods to look for food, instead of staying in the forest. A bear that has gotten used to getting food from humans may become aggressive and dangerous. When this happens, the bear has to be destroyed. A fed bear is a dead bear. Learn more about how to Be Bear Aware at short.mdc.mo.gov/4de.



WORLD-RECORD PADDLEFISH

Congratulations to first-time snagger **Chad Williams** of Olathe, Kansas, for snagging a world-record 164-pound, 13-ounce paddlefish at the Lake of the Ozarks on March 17. The fish broke the previous state record of 140 pounds and the previous world record of 164 pounds. Learn more at short.mdc.mo.gov/4XF.

WHAT IS IT? FERRUGINOUS CARPENTER ANT

The ferruginous carpenter ant, commonly known as the red carpenter ant, is named for its propensity to build nest tunnels in rotting and decaying logs. They do not eat the wood, however, like termites. In the absence of wood, carpenter ants will tunnel in cracks and crannies of houses. These species are large, growing up to three-quarters of an inch in length.





Twinkling of a Summer Night

LIGHTNING BUGS ADD WONDER TO THE EVENING SKY

story and photographs by Noppadol Paothong



Occasionally, an entire group of fireflies, often in a low area like a creek bed, will blink in unison. It is a spectacular sight, and scientists aren't quite sure why or how it happens.

One of the most magical things during quiet, clear summer nights is the twinkling in the night sky. It's one of the true wonders of nature to see fireflies winking across a field, or if you are lucky enough, to see an entire group of fireflies in a stream valley blinking on and off in unison. In Missouri, this phenomenon starts in late May and June.

Fireflies, or lightning bugs, are the only flying, bioluminescent insects found in Missouri.

However, they aren't flies but are beetles in the family of Lampyridae (fireflies) in the order Coleoptera (beetles). They spend most of their lives as larvae living in soil, leaf litter, and under rotting logs. During the day, adult lightning bugs spend their time in shrubs, grasses, or other taller vegetation.

More than 150 kinds of fireflies live in North America. Many species live in the same place, so males and females need a way to pick out their own kind. That's why each species has a unique blinking pattern that allows them to communicate. For example, male big dipper fireflies light up for a solid half second while flying in a J-shaped pattern. Occasionally, an entire group of fireflies in a location — often in a low area like a creek bed — will blink in unison.

These beetles are nocturnal and crepuscular, or active at dusk and dawn, and are usually seen in spring and summer. When the winged adults fly, the bioluminescent tips of their abdomens blink on and off. They are commonly seen in meadows, yards, edges of forests, and around streams.

A male firefly's twinkling tush is like a neon sign, advertising himself to a nearby female. Female fireflies blink back in response to males. Some female fireflies copy the flash pattern of other females to lure in males only to eat them.

The last few segments of a firefly's abdomen are pale yellow and can glow yellow, green, or sometimes red, depending on the species. Fireflies are our only flying, bioluminescent insects.





Fireflies mostly use their light to “talk” to other fireflies and find a mate. They have special organs under their abdomens that take in oxygen. Inside special cells, they combine the oxygen with a substance called luciferin to make light with almost no heat. They use this light, called bioluminescence, to light up the ends of their abdomen.



Each firefly species has its own unique flashing pattern. When a male firefly wants to communicate with a female firefly, he flies near the ground while he flashes his light every six seconds. Once he’s near the ground, a female can more easily tell if he’s from the same species. (Most female fireflies can’t fly.) She answers his flashes by turning on her lights. Then the male finds her.

Most fireflies eat very little, if anything, during the adult phase of their lives. They mostly sip on dew, plant sap, or nectar. Some daytime species spend enough time visiting flowers for nectar and pollen that they can be effective pollinators.





The firefly larvae, called glowworms, are wingless. They don't blink, but they do glow continuously and can be seen on the ground, especially in moist areas near grass and brush. Lightning bug larvae thrive in moist soil with plenty of organic matter where they can eat snails, slugs, grubs, and worms. The larvae also help control populations of the various invertebrates they prey on. These beetles overwinter as larvae and in spring they change into adults. The adults are rarely preyed upon, as they contain chemicals that make them distasteful to predators.

Like most other insects, firefly populations are on the decline, but you can help them by avoiding the use of chemical insecticides or herbicides on your lawn or garden. Not only can these chemicals harm lightning bugs and other beneficial insects such as bees, but they also harm the food

they eat as larvae. You can welcome fireflies into your yard by adding more native shrubs to your garden. Frequent mowing can disturb adult fireflies. Light pollution can negatively affect the ability of fireflies to communicate and reproduce, thus reducing their populations. Consider turning off your outdoor lights when lightning bugs are active or install motion sensing outdoor lights that won't stay on all the time. ▲

Noppadol Paothong has worked as a staff photographer with the Missouri Department of Conservation since 2006, focusing on rare and endangered species. He also is an Associate Fellow with the International League of Conservation Photographers (iLCP). He hopes his images will help people connect with nature and the conservation issues for which he deeply cares.



Habitat loss, pesticides, and light pollution are all major contributing factors to the disappearance of fireflies. If a field where fireflies live is paved over, the fireflies don't migrate to another field. They just disappear forever. You can help them by creating habitat in your own backyard. It's as simple as eliminating or reducing pesticide use, leaving leaf litter and wild edges for habitat, and reducing light pollution so they can find each other during the breeding season.



Human Habitat

COMMUNITY CONSERVATION PUTS NATURE'S
FOCUS ON PEOPLE

by Ann Koenig | photographs by David Stonner



When you think about MDC, you might think of us as the agency that focuses on deer. Or perhaps you think of us as the folks who work on helping birds or pollinators. And all that is true. We are crazy about deer, birds, pollinators, and the like. At the same time, MDC also has a focus on promoting healthy habitats for a different species — one that is very close to my heart. In Missouri, 70 percent of this species lives on only 2.5 percent of the land, so we can help a large amount of their population by improving just a small habitat area.

What is this species we are so focused on? People!

As a community forester, I assist central Missouri towns, large and small, with trees. In fact, MDC has a major focus on community conservation, helping bring the benefits of nature to all its citizens.

Nature and Health

Most of us in Missouri live in some sort of town. And the habitat we live in makes a huge difference in our lives. For example, the parts of town with abundant trees are a jaw-dropping 12 degrees cooler in the heat of summer than the areas of town with few to no trees. Those trees are not just making life more comfortable; they are helping save lives of those most vulnerable to heat-related illness.

And even beyond life and death, the benefits of nearby nature are staggering. Social scientist Kathleen Wolf writes in *Nature's Riches: The Health and Financial Benefits of Nearby Nature*, "Having nearby nature in the vicinity of one's everyday life — whether during your commute, taking a walk through the neighborhood, or at your child's school — is now recognized to have important, yet often overlooked, positive effects on health. The entire sweep of native, cultural, and built nature in cities contribute to healthier birth weight in babies, reduced ADHD symptoms in children, stress and anxiety reduction for adults, reduced neighborhood crime, faster healing in hospitals, and improved mental health for seniors."



Local students learn about the community conservation project and help Marshall Parks and Recreation Department employees water freshly planted trees to help get through the summer heat.

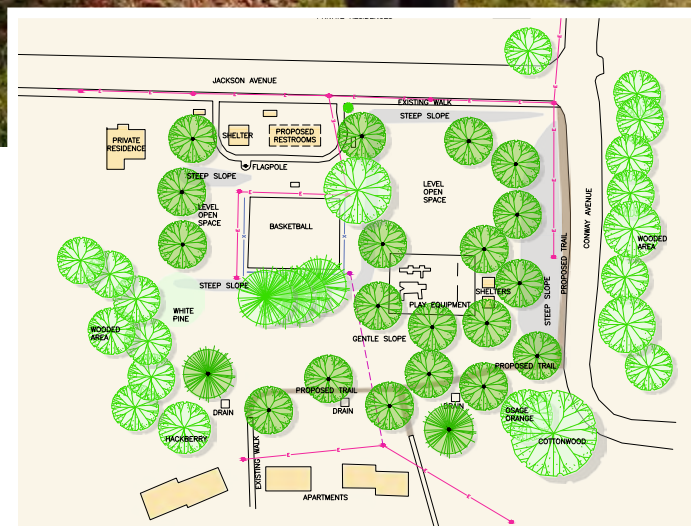
Community Conservation Projects

So, how do we make healthy habitats for humans and all the other creatures that live in our Missouri communities? And how can you work with us to improve the habitat where you and your family live? Here are three examples of recent projects in central Missouri that reflect a variety of ways MDC partners with communities to promote conservation for all our citizens.

Marshall

Located north of I-70 between Kansas City and Columbia, Marshall has lots of community pride and amenities and is surrounded by fertile farmland. Recently, the Marshall Parks and Recreation Department partnered with MDC to improve their two parks, Henry Peyton Park and Indian Foothills Park.

Peyton Park is the site of a former segregated school and a 2.5-acre parcel nestled in a close-knit neighborhood that actively uses the park for basketball and socializing. What the park did not have was an abundance of shade. Noticing this, MDC helped create a tree planting plan for the park. Next, the parks department applied for and received community forestry cost-share dollars from MDC to help fund the tree planting efforts. Park staff and local businesses got the trees planted and park staff water the trees throughout the summer to get them established. Now, Peyton Park is 21 trees richer. Trees will cool and beautify Marshall's Peyton Park as they grow for decades to come.



MDC creates tree planting plans for parks, schools, and other public grounds in communities.

At the same time, Marshall wanted to focus on the existing trees in its 325-acre Indian Foothills Park. For this area, Marshall received community forestry cost-share funds from MDC to have an urban forest management company provide an inventory of its trees. Tree inventories assess each tree's size, species, location, and condition. This allows the Marshall Parks Department to get a better handle on what trees they have and their maintenance needs. In turn, Marshall made the inventory available for all to see online at marshallmo.treekeepersoftware.com. This is a great tool for those wanting to improve their tree identification skills in the area. The project identified 783 trees.

"We are pleased with the results and excited about the future to see how the trees enhance Peyton Park and develop the tree plan for Indian Foothills Park," said Marshall Parks and Recreation Director Chad Unterreiner.

Centralia

Located half an hour north and east of Columbia, Centralia has a rich history of industry and a thriving school and park system. For several years, Erle Bennett, Centralia Parks and Recreation director, has been partnering with MDC to plant trees in Centralia's parks, city square, and public golf course. Like Marshall, MDC first provided a tree planting plan for Centralia's parks. Next, Bennett applied for and received community forestry cost-share both to plant new trees and also treat select trees and to remove some trees that were at high risk of failure. From there, Bennett worked with an MDC private lands conservationist for Boone County on a plan to convert a few acres of turf grass in their golf course to native wildflowers. MDC staff helped find funding for the project through our partners at Quail Forever and provided technical assistance throughout the process.

By partnering with MDC the last couple of years, Centralia has planted over 500 trees in their parks and provided large areas of wildflowers for birds and pollinators while cutting down on their mowing costs.



Golfers at the Centralia Community Golf Course tee off against the backdrop of a prairie restoration and tree planting partnership with MDC. The goal of this project is to reduce mowing costs for the city while increasing habitat for birds and butterflies.





Columbia

Columbia has a rich history of providing bountiful nature for its citizens. The Columbia trail system is exceptional. They also have parks with lakes, streams, savannas, forests, bluffs, and open areas. But keeping up with maintaining all these resources is not for the faint of heart. At the same time, there are people who would be glad to lend a hand to keep nature healthy in our parks.

Meet the Missouri Conservation Corps.

This new non-profit is not just dedicated to removing invasive honeysuckle and planting native plants, but they are also dedicated to community engagement, and are excited to carry out their work through the power and passion of community volunteers. They are also integrating environmental education, citizen science, and environmental studies into their projects. With support from MDC, the Missouri Conservation Corps has held dozens of events with several hundred volunteers in Columbia parks. It's wonderful to see a small group of people building community through conservation work in our towns.



Coming to a Community Near You

These are just three examples of the dozens of ways MDC is partnering with towns in central Missouri to improve our communities with nature. In Fayette, volunteers are going door to door promoting tree care. Columbia churches are helping promote native plants and providing community garden spaces. The Boys and Girls Club of Jefferson City is planting trees to shade their outdoor space. Multiply these with the hundreds of projects and partnerships MDC has going on all around the state from our smallest, most rural communities to the heart and soul of our largest cities and you can begin to visualize our commitment to community conservation. MDC staff across the state are ready to work with you in your neighborhoods and towns. ▲

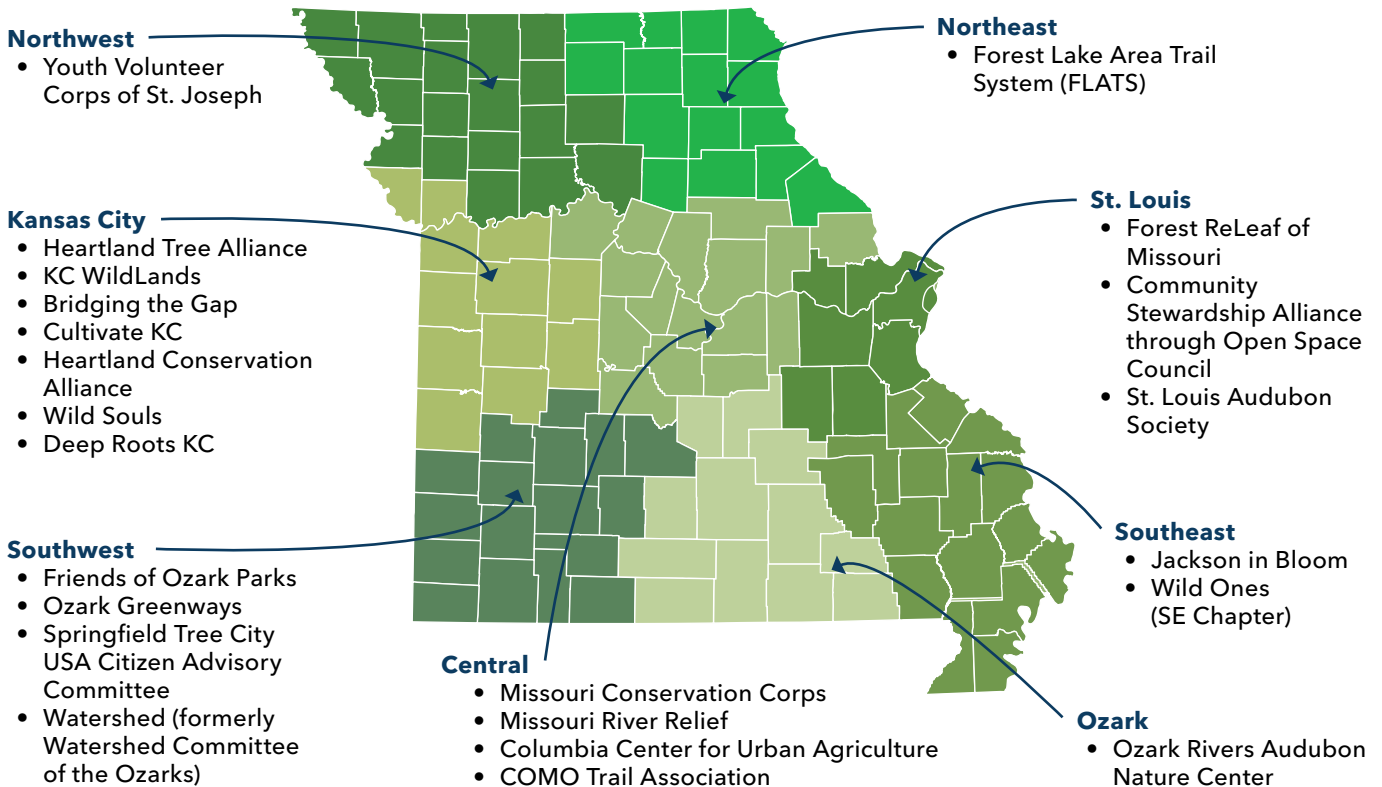
Members of the Missouri Conservation Corps work hard to eradicate invasive plant species such as bush honeysuckle, while planting native seedling trees and shrubs in their place. The group also makes time to enjoy the fruits of their labor by taking sunrise birdwatching hikes in Columbia parks.

Ann Koenig has worked for MDC as a community forester in the central Missouri area for more than 25 years.

Here's What You Can Do Where You Live to Promote Nature:

1. Consider planting native wildflowers and trees in your yard. Think about starting in a small area and learning as you go.
2. Volunteer with your community's parks department, tree board, or office of volunteer services. They could use your help. MDC's nature centers are another great place to volunteer. Even a little bit of support can provide a big boost.
3. Consider supporting nature-based projects within civic organizations such as scouts, Missouri Master Naturalists, Stream Teams, garden clubs, Audubon, Kiwanis, Rotary, Lions, schools, and other non-profits. Get creative — the list of organizations out there is long. Some employers are also looking for team-building projects and might be open to ideas.
4. Below is a sample of community conservation-related volunteer organizations that MDC partners with. Maybe there are one or two you could learn more about.

MDC Region Map



Learn more:

- Visit *Community Conservation* to learn how MDC can support your community, including funding opportunities on public properties in towns, at mdc.mo.gov/community.
- Visit grownative.org, an excellent source to learn about native plants for your yard, including where to get them.
- Visit short.mdc.mo.gov/Z3J for information on how to select the right trees for your yard and how to plant and care for them.

Zen

Moments of

YOUNG MISSOURIANS FIND BOTH
EXCITEMENT AND PEACE IN BIRDING

by Kristie Hilgedick | photographs Noppadol Paothong



Downy woodpecker



Above: Avian meccas like B.K. Leach Memorial Conservation Area and Cuivre River State Park are “like my backyard,” said Henry Gorski, who shares a passion for birds with his brother Oliver.

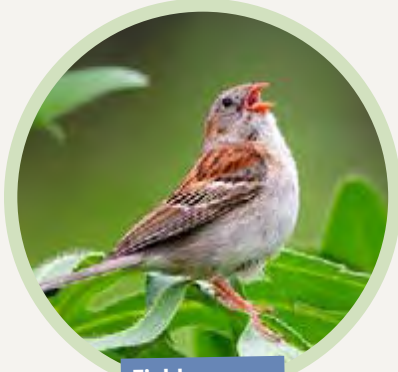
Right: “I’m always impressed by how accessible birding is,” said Annie DeTar, as she gazes into the canopy at Rock Bridge State Park with her friend, Aarya Kumar.



Cedar waxwing



Blue grosbeak



Field sparrow



Northern cardinal



A slender, tow-headed teen with a wide smile, Christian Hawn, 16, cocks his head and listens more than he looks.

“That’s a tufted titmouse,” he said, mimicking the sound. “*Peter, peter, peter,*” he said.

Field sparrows, he said, sound like ping-pong balls getting faster.

American bitterns sway with reeds in the breeze. Their slightly bizarre song sounds a bit like a dollop of splashing water.

Over the course of the next hour, Hawn identified dozens of bird species by song alone and many by sight at the Audubon Trails Nature Center in Rolla.

“I’ve always enjoyed birdwatching,” he said. “But in 2019 I really got into identifying them. In 2020, I set a goal of adding 220 birds to my life list. But I ended up reaching 302. It was such an insane, amazing year. I saw a storm petrel that year!”

With 407 birds on his life list, Hawn already has an impressive start. Connecticut warblers, northern parulas, great crested flycatchers, blue grosbeaks, white-breasted nuthatches, LeConte’s sparrows, roseate spoonbills, yellow-breasted chats, and northern saw-whet owls are just a portion of the birds he’s seen. Seeing flamingos in the wild at St. Marks National Wildlife Refuge in Florida is a future goal.

A teacher, Daniel “Doc” Hatch, helped foster Hawn’s passion by chatting with him about ornithology after school.

“Doc Hatch really sparked it for me,” he said. “It’s addictive. That first rare-bird chase gets you sucked into it.”

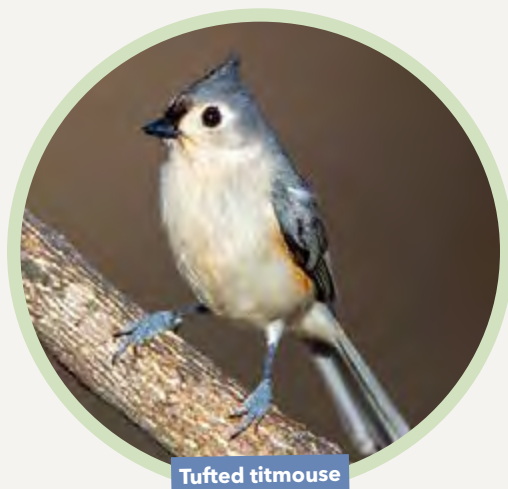
Hawn is a member of the Missouri Young Birder’s Club, which convenes via Zoom and in person. He’s also a member of the Ozark Rivers Audubon Chapter, and because he has such a keen eye, he’s often invited to lead birdwatching walks for the chapter. Already at age 16, Hawn has a masterful understanding of ornithology. His mind has collected

information with the insatiability and enthusiasm only a fiercely absorbed young person can summon.

He’s used a variety of tools — **ebird.org**, the Merlin app, Sibley’s guides — to hone his skills. But the simple act of surrounding himself with other avid birders and being outdoors helps the most, he said.

“It’s always fun to see what other people have been seeing,” he said. “It’s a passion and I love it. I’d like to make a career out of it if I can.”

For Hawn, birding is an everyday activity, a daily act of joy he does whenever he steps outside.



Tufted titmouse



“It’s a passion and I love it. I’d like to make a career out of it if I can.”

—Christian Hawn

Christian Hawn reached 345 birds on his Missouri list this year, including a black-legged kittiwake, a gull common near ocean shorelines.



Quinn and Anthony Draper encounter a pileated woodpecker hammering out a potential nesting cavity.

Brothers See Merit in Birdwatching

For Columbia brothers Anthony Draper, 13, and Quinn Draper, 11, the Boy Scouts of America served as their entry into the world of birdwatching. Their aunt noticed the opportunity for a merit badge and encouraged her nephews to go for it and allowed them to borrow her spotting scope.

To earn their badges, the boys met several goals, including creating a field notebook identifying 20 species, recognizing five birds by their songs, sketching a perched bird, and labeling its anatomy.

The brothers dived into the hobby with enthusiasm. A selection of backyard bird feeders summoned a host of Missouri's winter fliers. Trips to Eagle Bluffs Conservation Area (CA) helped them learn how to identify Missouri's various wetland birds.

"It was a little harder to complete, compared to the other badges," Anthony said.

"It was challenging, but it was fun," added Quinn.

Quinn is the younger of the two

brothers, but also the more passionate about birds. Both native and nonnative species have captured his imagination.

"I'd like to see a wandering albatross someday," he said. "They have the longest wingspan of any bird."

He has big dreams of adding additional bird-friendly features to his family's yard.

"I want to build more bird habitat," he said. "I think one thing we should do is add more bird feeders. And a tiny pond, too."

Ways to Get Involved

Missouri River Bird Observatory

More and more young people are finding themselves fascinated by birds. Are you a young person interested in learning more about birdwatching?

Join a network of young birders through the country by becoming a member of the Missouri Young Birders Club (MYBC). The club's mission is to bring together young Missourians to enjoy, experience, and conserve birds and other wildlife.

MYBC provides field trips to local wildlife areas across the state and opportunities for members to get involved with helping birds. Students can help improve habitat and take part in community science initiatives such as FeederWatch and eBird.

Youth members are between the ages of 8-17 years old. For more information, visit moyoungbirders.org.

Audubon Center at Riverlands

The center offers a variety of hands-on learning opportunities for K-12 classrooms, homeschoolers, scouts, and youth groups. For more information, visit riverlands.audubon.org.

Jerry Wade Youth Habitat and Education Program Grants

Missouri Bird Conservation Initiative (MoBCI) provides financial support to private and public organizations or to individuals who have partnerships that carry out bird habitat conservation projects in Missouri. Adults who work with youth — teachers, scout leaders, and other youth birding leaders — are encouraged to apply. For more information, visit mobci.net/yhep.

Local Audubon Chapter Events

Missouri has numerous Audubon chapters that host meetings, programs, field trips, hikes, and other birding-related events for people of all ages. To find a chapter near you, visit short.mdc.mo.gov/47L.

MDC provides numerous programs and events to educate young people about birds and encourage their involvement in birdwatching. To keep abreast of MDC's upcoming programs, visit short.mdc.mo.gov/472. To get started birdwatching, visit short.mdc.mo.gov/Zvs.



Katie Koopman shares her passion for birds by teaching younger students how to identify wild songbirds, like this white-eyed vireo, on a field trip.

"I love sparking young minds to see how cool birds can be!"

—Katie Koopman

Banded for Life

A Rock Bridge High School field ecology class has piqued numerous Columbia teenagers' interest in birds.

A lover of the outdoors, Annie DeTar's active lifestyle trends towards the adventuresome. Birdwatching provides a peaceful contrast.

"I'm always impressed by how accessible birding is," DeTar said. "I'm into other outdoorsy things — hiking, camping. But birdwatching is a lot less work. You are by yourself, or with friends, and it's quiet and calm. It's an opportunity to find moments of Zen."

Most birders' grow their interest through the lenses of a pair of field binoculars. For 17-year-old Shubha Gautam, her school's ecology class afforded her the opportunity to band birds and collect scientific data. The students receive training and certification to perform the tasks legally.

Soon, she was measuring the captured birds' wingspans and weights. She also



learned how to safely hold a bird without harming it.

“It’s a nice feeling,” she explained. “I don’t have a life list. For me, it was more of an escapist thing to do. It’s cool just to be in a place where the only thing you focus on is the bird and taking care of it.”

Some of the birds she’s held in her palm are northern cardinals, indigo buntings, Kentucky warblers, black-capped chickadees, American robins, cedar waxwings, and more.

“The downy woodpecker pecked at me,” she said, indignantly. Banding and studying an owl is one of Gautam’s goals.

Although her plans for college aren’t yet fully developed, she said “doing something related to wildlife and the environment would be really cool.”

Chelsea Mosteller and Aarya Kumar explain to younger peers how their team captures and bands the birds as a part of citizen-science efforts.



Stress Free Fun

Hailey Smith, 12, of Dardenne Prairie, finds birding a wonderful way to escape into a new and secret realm.

“It’s like there’s nothing I need to worry about. All my stress goes away,” she said.

On a cold April morning, Hailey and her mother, Kelly Smith, met a group of other bird-watchers to explore the wetlands at Marais Temps Clair CA, a vast sodden landscape in St. Charles County.

“What do you call a group of egrets?” Hailey asked.

“A congregation of egrets,” her mom replied.

The question kicked off light banter among the members who started to list other birds’ fun collective names.

“A flamboyance of flamingos!” said one observer.

“An earful of waxwings!” replied another.

“A murder of crows,” added Kelly Smith. “That’s my favorite.”

The conversation paused when someone noticed a blue-gray gnatcatcher perched near the woodland’s edge.

“Oh! I see him, I see him!” Hailey exclaimed. “He’s so cute.”

Mother and daughter participate in events hosted by the Missouri River Bird Observatory (MRBO). A statewide organization based in Arrow Rock, MRBO contributes to the conservation of birds and their habitats via science, education, and advocacy. It also provides opportunities for Missourians of all ages to learn about species and habitat conservation.

Hailey is also a member of MRBO’s Missouri Young Birders Club and Kelly has been an active supporter and facilitator of birdwatching events for youth in the St. Charles area.

When birding, Hailey Smith usually has her camera nearby.



Blue-gray gnatcatcher

“They’re so beautiful. I like how there are so many different species ... so much to see.”

Finding birds’ hidden nests is a joy to her. Her favorite bird is the bohemian waxwing — a bird rarely ever seen in Missouri, but one she hopes to glimpse someday.

Although Smith is young, she’s already beginning to understand the complex and critical relationships between birds, pollinators, and native plants.

“We have to plant more natives because they bring nature and more birds to us,” she explained.

For now, the promise of a bowl of ice cream is a sweet incentive for Hailey, who is still learning to identify Missouri’s common species. But it won’t be long before she’s the teacher, leading the group.

“I can’t wait,” she said. ▲

Kristie Hilgedick serves as the ombudsman for the Missouri Department of Conservation, writing responses to the inquiries that come in through Ask MDC. She also writes the Ask MDC column for Missouri Conservationist.



Hailey and her mother enjoy birdwatching and the late-winter sunshine.

Get Outside

in MAY → Ways to connect with nature



VIRTUAL

Copperhead Study Findings

Friday • May 10 • 7-8:30 p.m.
 Online only
 Registration required by May 10.
 To register, call 888-283-0364
 or visit short.mdc.mo.gov/48z.
 All ages

Copperheads conjure up curiosity, mystery, and even fear. In truth they are one of Missouri's most intriguing and often least understood venomous snakes. Ben Jellen, associate professor of biology at the University of Health Sciences & Pharmacy in St. Louis, has conducted a study of copperheads at Powder Valley Conservation Nature Center over a period of five years. Learn about his latest findings at this special virtual presentation.



Flowering dogwood



Dogged by Dogwoods?

Missouri is home to five species of dogwoods, all of which begin blooming in May. Dogwoods are shrubs or small trees with distinctive flowers, fruits, and bark. In flowering dogwoods, Missouri's official state tree, the flowers are positioned in clusters at the branch tips. These clusters have four showy white bracts that resemble petals. In other species, the flowers lack such bracts and are not as showy, with only small white, cream-colored, or greenish-yellow petals. Those species include:

- Alternate-leaved dogwood
- Rough-leaved dogwood
- Gray or stiff dogwood
- Swamp or silky dogwood

To learn more about Missouri dogwoods, visit short.mdc.mo.gov/486.

Make Way for Warblers

May is the peak of warbler migration in Missouri. These pint-sized birds make their way back to the Show-Me State from their southern wintering grounds to delight us for another season. Learn more about them at short.mdc.mo.gov/48R.



Magnolia warbler

Natural Events to See This Month

Here's what's going on in the natural world.



Blue-eyed Marys bloom.



Crappie spawn.



Coyotes are quiet, bearing young.

Be Bee Aware

Bumblebees are becoming more noticeable this month. At least six species of bumblebees call Missouri home. These hard-working pollinators are important for humans agriculturally, horticulturally, and environmentally. Considering many bumblebees are declining, if you find bumblebees on your property, leave them be and consider yourself lucky. Watch them from afar through the season and take pictures. To learn more about Missouri's bumblebees and how you can help them, visit short.mdc.mo.gov/48L.

CENTRAL REGION

Family Fishing Days

Friday • May 17 • 4:30-7:30 p.m.

Stephens Lake Park, 2001 E. Broadway, Columbia, MO 65201

Registration is not required.

All ages (children under 15 must be accompanied by an adult)

Join us for a family fishing day in the park. Fishing poles, tackle, bait, and instruction will be provided. This is a great opportunity for anyone you know who is interested in fishing but does not have the gear to do so. Stop by to grab a fishing pole and start fishing! Participants do need a fishing permit during this event. For more information, contact Community Education Assistant Huston Spellman at 573-815-7900, ext. 2926 or Huston.Spellman@mdc.mo.gov.

What's That Sound

Missouri outdoors in the spring is like a symphony of sound. Just one of those contributors is the green frog, which breeds from late April through mid-August, and while doing so, the male calls with an explosive *bong*. The sound is reminiscent of a loose banjo string. To familiarize yourself with the rest of the symphony, visit MDC's online *Field Guide* page on frogs at short.mdc.mo.gov/48E.



Green frog

DISCOVER FISHING

Want to make connections?
Why not **discover fishing**?
It's a great way for everyone to have fun outdoors and learn about conservation.

With fishing you can:



Find adventure and excitement



Spend quality time with family



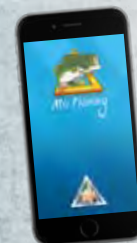
Escape the stress of everyday life



Reconnect with friends



Make lifetime memories



Download the **MO Fishing** app today to make it even easier!



Places to Go

OZARK REGION

Fourche Creek Conservation Area

Helping people make it through
by Larry Archer

✘ While time spent in any of MDC's conservation areas can help a person "make it through" tough times, Fourche Creek Conservation Area (CA) in Ripley County has a history of helping folks with more than just fresh air.

Originally owned by the University of Missouri, which was granted the area as part of the Morrill Act of 1862, the area was mostly ignored, but as one local resident recounted to Resource Forester Steve Paes, many families during the Great Depression took advantage of what people called the "ag land."

"He said many a family made it through the Depression on that ag land," Paes said. "By cutting timber if they needed and by farming parts of it."

Evidence of its farming past was prominent at one time, but that has been replaced by decades of intensive forest management, he said.

"I found places where they piled up the rocks and made fences on the edges of fields," he said. "You can't really tell it now — it's a fully stocked oak forest."

Located on 3,768.4 acres along the Missouri-Arkansas border, Fourche Creek CA's heavily forested landscape also attracts many turkey hunters in May.



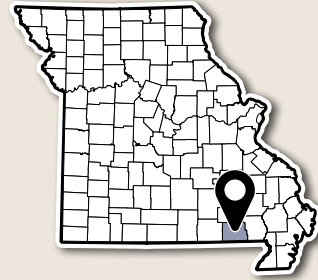
"I've been told there's grouse there, and I've seen birds I thought were grouse. Part of the reason is the intensive forest management, which can produce the habitat that supports grouse."

—Resource Forester
Steve Paes

DAVID STONNER



Purchased by MDC in 1965, Fourche Creek CA has undergone extensive forest management, leading to 97 percent of its over 3,700 acres being upland forest/woodlands. Early forest management included converting stands of low-quality hardwood to pine, as evidenced by leaf litter (inset).







FOURCHE CREEK CONSERVATION AREA

consists of 3,768.4 acres in Ripley County. From Doniphan, take Hwy. 142 west 11 miles, then Route P south 7 miles to the area.

36.5116, -91.0454

short.mdc.mo.gov/47i 417-256-7161

WHAT TO DO WHEN YOU VISIT

-  **Biking** Includes 12.7 miles of improved, service, and unimproved roads.
-  **Birdwatching** Included in the National Audubon Society's Eleven Point Watershed Important Bird Area (short.mdc.mo.gov/4hW). The eBird list of birds recorded at Fourche Creek CA in May is available at short.mdc.mo.gov/4hP.
-  **Camping** Designated camping sites. Open camping (walk-in/float-in/backpack).
-  **Hunting Deer and turkey** Regulations are subject to annual changes. Refer to MDC's regulation page online at short.mdc.mo.gov/Zjw.

Also **bear, rabbit, and squirrel**

DISCOVER MO OUTDOORS

Users can quickly and easily find outdoor activities close to home, work, or even while traveling with our free mobile app, MO Outdoors. Available in Android or iPhone platforms at mdc.mo.gov/mooutdoors.



WHAT TO LOOK FOR WHEN YOU VISIT



Gray fox



Blue-wing warbler



Summer tanager



Indigo bunting



Smooth Spiderwort

Tradescantia ohiensis

Status
Perennial

Size
Height: to 3 feet

Distribution
Statewide

Smooth spiderwort, also known as Ohio spiderwort, is an herbaceous perennial that grows in glades, prairies, openings in moist-to-dry upland forests, along railroads, and in fields and pastures. Spiderwort stems are straight or sometimes zigzag, with very few hairs. This plant blooms May through July with flower clusters that contain three petals of various colors including blue, rose, purple, lavender, white.



HUMAN CONNECTIONS

Spiderworts are sensitive to radiation and other chemicals. Once exposed, their stamen hairs mutate and change color. This sensitivity is being explored for numerous applications.



ECOSYSTEM CONNECTIONS

Each spiderwort flower is open for just one day. Bumblebees and other insects pollinate this plant, and several herbivorous mammals — including deer, rabbit, and livestock — eat the foliage. Humans also can eat spiderwort.

Outdoor Calendar

MISSOURI DEPARTMENT OF CONSERVATION



Buy Permits and Permit Card

Buy Missouri hunting and fishing permits from numerous vendors around the state or online at mdc.mo.gov/buypermits. View permits through our free mobile apps, MO Hunting and MO Fishing.



Permit cards are an additional way to show proof of most permits. Buy a new permit card for a one-time fee of \$5 at mdc.mo.gov/buypermits. Buyers can select from five images: bass, range, buck, bluebird, or mallard duck.



FISHING

Black Bass

Impounded waters and non-Ozark streams:
Open all year

Most streams south of the Missouri River:

- ▶ Catch-and-Release:
March 1–May 24, 2024
- ▶ Catch-and-Keep:
May 25, 2024–Feb. 28, 2025

Bullfrog, Green Frog

June 30 at sunset–Oct. 31, 2024

Nongame Fish Giggling

Impounded waters, sunrise to sunset:
Feb. 16–Sept. 14, 2024

Paddlefish

On the Mississippi River:
March 15–May 15, 2024
Sept. 15–Dec. 15, 2024

Trout Parks

State trout parks are open seven days a week
March 1 through Oct. 31.

Catch-and-Keep:

March 1–Oct. 31, 2024

**Only hunters selected through a random drawing may participate in these hunting seasons.*

For complete information about seasons, limits, methods, and restrictions, consult the *Wildlife Code of Missouri* at short.mdc.mo.gov/Zib. Current hunting, trapping, and fishing regulation booklets are available from local permit vendors or online at short.mdc.mo.gov/ZZf.

HUNTING

Black Bear*

Oct. 21–30, 2024

Bullfrog, Green Frog

June 30 at sunset–Oct. 31, 2024

Coyote

Restrictions apply during April, spring turkey season, and firearms deer season.

Open all year

Crows

Nov. 1, 2024–March 3, 2025

Deer

Archery:

Sept. 15–Nov. 15, 2024

Nov. 27, 2024–Jan. 15, 2025

Firearms:

- ▶ Early Antlerless Portion (open areas only): Oct. 11–13, 2024
- ▶ Early Youth Portion (ages 6–15): Nov. 2–3, 2024
- ▶ November Portion: Nov. 16–26, 2024
- ▶ CWD Portion (open areas only): Nov. 27–Dec. 1, 2024
- ▶ Late Youth Portion (ages 6–15): Nov. 29–Dec. 1, 2024
- ▶ Late Antlerless Portion (open areas only): Dec. 7–15, 2024
- ▶ Alternative Methods Portion: Dec. 28, 2024–Jan. 7, 2025

Elk*

Archery:

Oct. 19–27, 2024

Firearms:

Dec. 14–22, 2024

Groundhog (Woodchuck)

May 6–Dec. 15, 2024

Pheasant

Youth (ages 6–15):

Oct. 26–27, 2024

Regular:

Nov. 1, 2024–Jan. 15, 2025

Quail

Youth (ages 6–15):

Oct. 26–27, 2024

Regular:

Nov. 1, 2024–Jan. 15, 2025

Rabbits

Oct. 1, 2024–Feb. 15, 2025

Squirrels

May 25, 2024–Feb. 15, 2025

Turkey

Archery:

Sept. 15–Nov. 15, 2024

Nov. 27, 2024–Jan. 15, 2025

Firearms:

- ▶ Spring: April 15–May 5, 2024
- ▶ Fall: Oct. 1–31, 2024

Waterfowl

See the Migratory Bird and Waterfowl Hunting Digest or visit short.mdc.mo.gov/ZZx for more information.



Serving nature and you®



**Follow us
on Instagram**

@moconservation

The eastern bluebird, our official state bird, ushers in spring with its cheerful song. Get outside and take a listen. It is just one song in a delightful chorus from our feathered friends. How many will you discover?

📷 by **Noppadol Paothong**

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