

The Rectrix

A Newsletter of the Missouri River Bird Observatory



rectrix lek-triks/ noun. (pl. -trices) any of the larger feathers in a bird's tail, used for steering in flight.

Our Mission



Conservation

To contribute to the conservation of Missouri's migratory and resident birds through scientific research, education, and conservation policy advocacy.



Science

To gather information about avian communities and habitat use that will assist state, federal, and private natural resource managers in their efforts to implement conservation programs.



Education & Outreach

To provide opportunities for people of all ages to learn about species and their habitats.



Advocacy

To advocate for sound, science-based conservation policies that benefit birds, other wildlife and environmental quality.

Staff

Dana Ripper Duke
Director/Founder

Ethan Duke
Director/Founder

Marlee Dodson
Operations Assistant

Jordan Lane
Nature Education
Specialist

Board of Directors

Diane Benedetti, Chairman
Marshall, Missouri

Leslie Huston
Education Program Chair
Marshall, Missouri

Theresa Enderle,
Vice-Chairman
Independence, Missouri

Doug Doughty
Chillicothe, Missouri

Michele Reinke, Secretary
Malta Bend, Missouri

Kim Ratcliffe
Columbia, Missouri

Steven Byers, Treasurer
Nevada, Missouri

Jerry Giger
Rolla, Missouri

In this Issue of the *Rectrix*

Science

MRBO Science Update: "Into the Frontier"	4
Guest Article: A Spring to Remember - 2022.	5

Education

Some Recent Events	7
MRBO Nature School Opens in September	7
BirdHouse Bylines	8
New This Month: Little Nestling's Corner!	9

Advocacy

You Can Help Birds Avoid Window Collisions	10
State, federal regulations of CAFOs are weak. It will take political courage to strengthen them	11
MRBO and Missouri River Relief Team up on Plastic Brand Audits	12

Community News

Upcoming Events	13
Board's Eye View	14
In Memoriam	15



On the cover: American Avocet

"This cute little shorebird loves shallow wetlands. Keeping these areas clean and free of trash and pollutants is critical to their success."

~Photographer Amy Watts

(We at MRBO thought this to be a fitting cover to honor conservationist Susan Hazelwood. See a small tribute to her towards the end of this issue.)

P.O. Box 16
Arrow Rock, MO 65320
660.837.3888
<https://mrbo.org>
facebook.com/moriverbirdobs
[twitter @moriverbirdobs](https://twitter.com/moriverbirdobs)
[instagram @moriverbirdobs](https://instagram.com/moriverbirdobs)

Letter from MRBO Director Dana Ripper

Dear MRBO Supporters and Friends,

I hope this finds you well and that by the time this issue of the *Rectrix* arrives in your mailbox, that we are into real fall weather. I'm writing this on September 19th, and it is 96 degrees today. I'm hoping that the food, water, and nectar we have out for the birds are helping migrants and residents alike.

There is a great deal going on at MRBO right now and in the conservation community as a whole. As the summer has waned and the pandemic has become more manageable, we are mostly back into in-person events – which is great from the education and outreach perspective. In just the next 10 days, for example, the small MRBO staff will host the first classes at the Arrow Rock Nature School, table at the Prairie State Park fall festival, offer up volunteer opportunities at the Osage Trails Master Naturalists Partner night, give a presentation at the MDC Partners Roundtable in Springfield, conduct a birding workshop for women in partnership with Quail and Pheasants Forever, and present at the International Dark Sky Association's Missouri conference. Whew! A lot of wonderful opportunities. I am grateful to all of the many conservation partners that make these things possible.

As you will see below, one of our closest partner organizations, the Missouri Prairie Foundation, honored Ethan and me with a very special award last month. We are beyond humbled to have our names next to Bill Crawford's. We once had the good fortune of sitting at his table at a Conservation Federation event at the Tiger Hotel. If you know the background of the formation of the Missouri Conservation Commission and, ultimately, the Missouri Department of Conservation, you'll understand this context. At the time of the dinner where we sat with him, Bill was the one surviving individual who had been at the pivotal Tiger Hotel meeting in 1935. For more on this tremendous history, see <https://mdc.mo.gov/magazines/conservationist/2017-06/fireside-chat-bill-crawford-80-years-conservation>.

Ethan and I have also had the fortune to meet and work with several of the past recipients of the MPF Prairie Professional of the Year Award. All of the previous Prairie Professionals of the Year have had a major impact on conservation in Missouri. These are some huge shoes to fill, and we will do our best to be worthy of this award. We are so thankful to be part of the conservation movement in our state.

Warm regards,
Dana

MRBO's Dana and Ethan Duke Honored by the Missouri Prairie Foundation

The Missouri Prairie Foundation's Annual Dinner, held virtually on August 27, 2022, was a celebration of Missouri's prairie legacy. During the event, the 56-year-old prairie conservation organization and land trust paid tribute to four awardees. "Missouri's remaining prairies are rare and priceless treasures," said David Young, Missouri Prairie Foundation President. "Protecting and promoting them requires dedication and commitment from many people. Our award program recognizes individuals who have made or are making a positive difference in the conservation of Missouri's prairie legacy and in the promotion or protection of native plants."

2022 Bill T. Crawford Prairie Professionals of the Year Award

As co-directors of the Missouri River Bird Observatory, Dana Ripper and Ethan Duke are driven by both scientific rigor and love of birds. They focus their bird surveys and monitoring on Missouri's rarest habitats, which are prairie, wetlands, and bottomland forests. In addition to gathering important data in the field about birds for groups like the Missouri Prairie Foundation and the Missouri Department of Conservation, Dana and Ethan also encourage the sharing of data among many conservation partners to best manage for birds and other species on grasslands and other habitats.

Through their educational programming, Dana and Ethan also address broad environmental challenges, including the prevalence of plastics in ecosystems and the need for more sustainable food systems. Their young birders program, nature camps for children, and programming for adults, from their base in Arrow Rock, Missouri, and beyond is expanding the conservation ethic among Missouri citizens.





Science

To contribute to conservation by gathering information about avian communities and habitat use that will assist state, federal, and private natural resource managers in their efforts to implement conservation programs.

MRBO Science Update: "Into the Frontier"

By Ethan Duke

As you may know, MRBO dialed back data collection this year with the exception of a few grassland surveys. We worked in the Flint Hills of Kansas and conducted surveys in Missouri for the National Audubon Society as well as the Missouri Prairie Foundation.

We've taken this year to redo a complete analysis of all our grasslands data with a new streamlined workflow and are strategically planning for our next several years of bird monitoring. Our future monitoring plans will be based on input from our partners in conservation and an extensive review of our decade of bird survey data that has covered over 100 different sites.

What does strategic planning for birds look like? Well, bird conservation isn't done in a vacuum. We are first working with partners to meet their information needs. Secondly, those working to conserve species don't have the funding to compete with all the forces in every geography where bird declines are happening. So, we need to focus on providing the most relevant and comprehensive data possible in concert with other partners working in within shared priority geographies and conservation opportunity areas.

In this way, our data will not only be used to keep a finger on the pulse of bird populations, but it will be used along with partners' data on other indicators (e.g., botanical, invertebrate, mammalian, aquatic, etc.) within specific sites and landscapes to provide decision support and assessment indices to those actually managing those geographies. Ideally, MRBO's "bird-friendliness" indices will be used as part of broader natural community health index.

Further, we have pioneered the most efficient bird data collection and analysis workflows and have been working doing the same thing with habitat and landscape data. What frontiers does MRBO think it will tackle now, you ask? We are taking to the skies... using a birds-eye view one might say.

I recently became an FAA certified Part 107 UAS (drone) pilot. MRBO will be using drone imagery to assess habitat in variety of ways. This habitat data collected via drone sensors will be paired with our spatially-explicit bird data. We plan to access the use of standard RGB (like regular photos) imagery, multi-spectral imagery, and thermal imagery in a variety of ways to draw stronger conclusions of bird/habit relationships in a more efficient manner.

There are so many new tools at our fingertips now, and not a minute too soon considering the need for speed in reversing the declines of Missouri's birds. Stay tuned for more science updates as we moved towards wrapping our plans for 2023 and beyond.

See you in the future!



Guest Article: A Spring to Remember - 2022

By Dan Getman

We've likely all experienced one of those "what a day of birding", where we saw some new bird or interesting behavior. Well, for me, this entire spring (March, April, May) was one of those experiences – and all in our backyard – "what a spring"!

As background, ten years ago we moved to Kirksville and purchased a home on three acres, with quite a bit of existing bird habitat on and around our property. To build on that, we set out to create additional habitat for birds, bees, and butterflies. While doing so, we've removed a variety of invasives and have now planted over 300 perennials, > 175 bushes, > 60 trees and nearly 20 vines. Most of these plants are natives and were carefully chosen to provide; host plants for insects, which supports both butterflies and birds, lots of plants to attract hummingbirds, flowering plants to support bees throughout the seasons, layers of plants to provide a diversity of habitat, and > 20 species of berry-producing plants to support birds during migration and winter. In addition, we currently have 11 nest boxes for bluebirds and tree swallows, 2 each for northern flickers and kestrels/screech owls, 5 for chickadees/titmouse, and > 15 bird house gourds for house wrens. We also have a water feature and provide a variety of bird feeders, both of which attract birds for easy viewing.

Over the years, we've attracted a wide variety of birds to the yard, but this spring was particularly special for three reasons; (1) the return of nesting bluebirds after their absence in 2021, (2) the first time that northern flickers nested in our boxes, and (3) an amazing number of migrants passed through our yard. Let me attempt to share our experiences.

Bluebirds Return:

We typically have 3-4 pairs of nesting bluebirds and 3-4 pairs of tree swallows. However, in 2021, following the previous bluebird winter kill across the state, we had no bluebirds in our yard. What a disappointment! I wondered how long it would take for them to return.

On March 11, I first heard the characteristic bluebird warble, our first male, calling to attract a mate. Later, a pair of bluebirds were checking out a nest box. Hurrah – they're back! But a few weeks later, the bluebird pair was gone and only 2 lone males remained, calling from around the yard. A few days later, both appeared to have attracted a female and were visiting boxes. Two weeks later, there was no sign of bluebirds – had they left? What a disappointment. But a week later, a pair of bluebirds were building a nest – hurrah, now they're definitely back!

The bluebirds laid their 1st egg on April 30th and successfully raised 2 broods, which is normal behavior. Is this what repopulation looks like – a series of starts and stops – lone males trying to attract a mate, some successful, some not? Maybe next year we'll have more nesting bluebirds and hopefully get back to 3-4 pairs each year. This year, five pairs of tree swallows successfully raised a single brood, which is also normal.

Northern Flickers Successfully Nest for the First Time in Our Box:

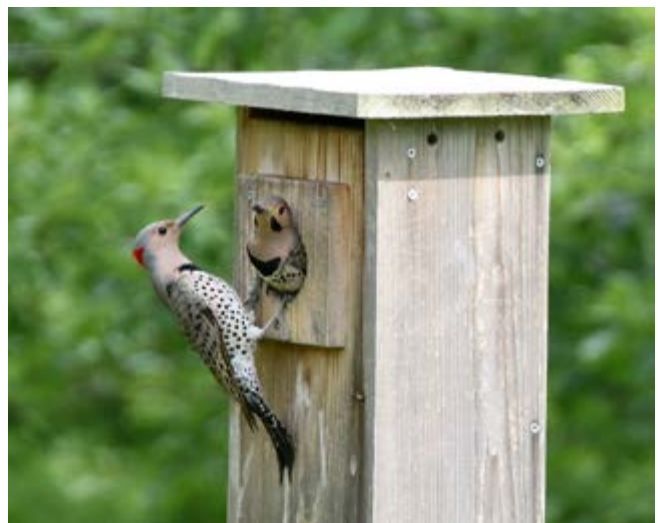
In 2020, I put up a Northern Flicker nest box and a male roosted in it all winter, entering the box each evening just before sunset. That spring, there was no apparent attempt to nest. However, I

did routinely see a male/female pair in another part of the yard, feeding on the ground. So that fall, I put up another box in that area. These are the first boxes I've put up with a larger hole (2 ½ inch). Unfortunately, despite rarely seeing starlings in our yard, these holes are now a magnet for attracting them. So, you have to regularly monitor and diligently trap them. I use a vanErt trap (<https://vanerttraps.com>), which works well. Are starlings invasive and competitive with natives? You bet they are – they are persistent and very aggressive.

The male flicker again roosted in the original box the winter of 2021/2022 and would regularly visit the suet feeder. I saw a female feeding on cedar berries, but never at the suet feeder – not sure why! In order to give the flickers the best chance to nest, I closely monitored the two boxes and, beginning in late February, diligently began trapping any starling that tried to claim a box.

On April 24, I noticed the female in the nest box, which the male had roosted in during the winter. Now that was a positive development since I'd never seen the female at any of the boxes. I watched to see what might happen. The female was calling from the hole. The male flew to the top of the box, then went to the hole. The female exited and flew away. The male then sat on the top and hammered on the box. The female returned and they mated. What a treat to observe all that! Unfortunately, two days later starlings had claimed that nest box and were already building a nest. I couldn't believe that the flickers hadn't defended the box. After trapping both starlings, the flickers reclaimed it and were then seen sitting inside, with their head at the hole. I was dying to check for eggs but didn't want to disturb them. On May 11, I finally did check and found 4 white-pinkish eggs – hurrah – what a thrill! Cornell reports they typically lay between 5-8 eggs. But I never again checked the box.

Based on their reported incubation and nesting time, I estimated that the eggs might hatch the week of May 23 and the young fledge the week of June 20. I was interested to see what food the flickers might bring to the box and whether the young would climb out and sit on top of the box, before ultimately flying away.



Flickers at Nesting Box Hole by Dan Getman



On May 27, there was always one parent in the box, sitting at the hole, while the other was presumably out foraging. When one returned, the other would leave. They would then go into the box, quickly feed the young, and assume their spot looking out from the hole. Each would forage for ~ 30-45 minutes and one was always in the box. I never saw any food in their beak, so they must regurgitate it. By comparison, bluebirds bring insects in their beaks, while tree swallows don't and regurgitate their food. A couple days later, the parents, needing to feed their growing young, were now out foraging at the same time for 10-30 minutes. A couple weeks later, the young were now coming to the hole and looked fully grown.

On June 20, when I expected the young to fledge, a flicker was calling from that part of the yard. When I went to investigate, the female was calling from a nearby tree and a nestling was sticking out of the hole, further than I'd ever seen. The adults never came to the box to feed the nestlings, but continued to call. So presumably they were withholding food and calling to encourage the young to leave the box. Unable to monitor the box over the next few days, I missed the young leaving. Oh well. What a treat to experience our first successful northern flicker nesting!

An Amazing Spring Migration:

After an overnight fresh snow, our spring migration began on March 7, when a male Red-winged Blackbird, a male brown-headed cowbird and a common grackle showed up in our yard. The first bluebirds and Tree Swallows arrived on March 11 and 20, respectively. In early April, the Chipping Sparrows and Brown Thrashers arrived.

We often have flocks of Cedar Waxwings feed in our red cedars, but this year in early April, they were feeding on the American cranberries, which remained from last year. These berries are usually not eaten during the fall, but like crabapples, go through a freeze/thaw to soften. It's nice to see them useful in early spring.

Usually, the 3rd or 4th week of April is when migration really picks up. Between April 22-24, multiple species arrived; several male and female Rose-Breasted Grosbeaks, two male Ruby-throated Hummingbirds, both male and female Baltimore Orioles, multiple House Wrens, and a Great Crested Flycatcher. It's so nice to again see all these colorful birds at the feeders. The House Wrens immediately started checking out the bird house gourds. A few days later, a male Scarlet Tanager made a brief appearance and two male Orchard Orioles arrived.

Our yard now appears to be a stopover for lots of Baltimore Orioles, an increasing number of Orchard Orioles and lots of grosbeaks. At one point, I counted 6 male Baltimore Orioles and 3 male Orchard Orioles, and over 10 male Grosbeaks. This often leads to squabbles between the orioles at the jelly feeder, which makes for great photo opportunities. I estimate that 3-4 pairs of both Baltimore Orioles and grosbeaks spend the summer in and around our yard, but the Orchard Orioles seem to move on after a week or so. I'm still hoping a pair will stay and breed.



Orioles Fighting by Dan Getman

I've recently become interested in the few warblers (typically 4-5 species each year) that stop to feed in our tree line, which has lots of oaks that provide insects for hungry migrants. This year was clearly different. Maybe I'm just more observant or maybe our yard has matured enough to



Blue-Gray Gnatcatcher by Dan Getman

provide lots of resources to sustain migrants on their journey. I routinely monitor the weather for winds from the south and check predictions at birdcast.info. If you haven't looked at this resource, check it out, it's amazing! This year I also used both the Photo ID and Sound ID of Cornell's Merlin app on my phone, as a starting point for identifying birds I'm unfamiliar with. With the Sound ID, I can get an idea of what bird I'm hearing, then look for that bird and verify it with a photo. Both are pretty impressive tools, and although not definitive, are useful to get an idea to explore further. Since my experience with bird song is somewhat limited, I have found that tool especially useful.

Between April 24-May 26, we observed 19 migrant species passing through and 17 that arrived and stayed for the summer. Between May 7-11, we had a significant influx of 15 different migrants. May 10 was a cloudy, bright day, with calm winds. When I went outside, I was immediately overwhelmed by the many different bird songs, most of which I didn't recognize. It was one of the most amazing mornings of birding I have ever experienced. The Sound ID of the Merlin app was able to identify multiple birds. Although at first not visible, eventually I saw almost every one of them and most were confirmed with photos. Birds we'd seen before in our yard, included: the Warblers-Yellow, Nashville, Magnolia and Tennessee, Red-eyed Vireo, Ruby-Crowned Kinglet, Indigo Bunting, and Eastern Wood-Pewee. New yard birds included: the Warblers-Blackpoll, Wilson and Chestnut-sided, the Vireos-Philadelphia and Yellow-Throated, Common Yellow Throat and American Redstart.

Was this just a special few days or what? Well, this fall has been just as interesting. So far, between Aug 22-Sept 4, we've observed 17 migrants, including: the Warblers-Tennessee, Yellow, Magnolia, Wilson, Blackburnian, Nashville, Black and White, and Chestnut-sided, Blue-Gray Gnatcatcher, American Redstart, Northern Parula, Red-Eyed Vireo, Eastern Wood-PeWee, and the new yard birds; the Warblers-Canadian, Black-Throated Green and Bay-Breasted, and Warbling Vireo. The vast majority of these fall migrants were seen foraging in a large River Birch tree, rather than the oak tree line, as is typical in spring. Albeit a small sample size, it seems like an interesting observation.

Whether it was the bluebirds returning, the nesting flickers or the large number of migrants, our yard has provided plenty of entertainment and lots of opportunities to observe and photograph interesting bird behavior. I would certainly endorse the perspective "build it and they will come".

Photos can be viewed at: [flickr.com/photos/dgetman/sets](https://www.flickr.com/photos/dgetman/sets). Feel free to contact me with any questions or suggestions at daniel.p.getman@me.com.





Education

To contribute to conservation
by providing opportunities for
Missourians of all ages to spend more
time outdoors and to learn about
species and habitat conservation.

Some Recent Events

**Audubon Trails Nature Center Fall Festival,
Rolla - September 10th**



**Bueker Middle School Field Day
Van Meter State Park - September 16th**



MRBO Nature School Opens in September

By Jordan Lane

By the time you are reading this, the pilot program for MRBO Nature School will be underway! The entire 5th grade class of Glasgow Public School will be coming to Arrow Rock to take part in some wonderful place-based learning.

The first session will take place over three days, and students will be completely immersed in science and local history, using the surrounding environment to teach Missouri Learning Standards. Instead of walking to their next classroom, students will instead hike to a different area with different subjects to study. For example, while doing the fishing activity they will see firsthand an active ecosystem, explore the plant diversity around the pond, and develop skills such as using the metric system to measure their catches.

A key activity is a trip to the longest river in the United States, the mighty Missouri. The Missouri River is an amazing resource for education; it has a wonderful and well-documented history of management, different ecosystems to explore, and a deep cultural history. Here we will have an exercise in critical thinking where the students will use language and artistic skills to describe the scientific, cultural, and historical experience.

We have been working closely with the teachers and principal of Glasgow Elementary and they are excited about this amazing opportunity as well. MRBO is proud to be continuing its goal of education through the Arrow Rock Nature School and to provide immersive learning experiences for students in our area.



BirdHouse Bylines

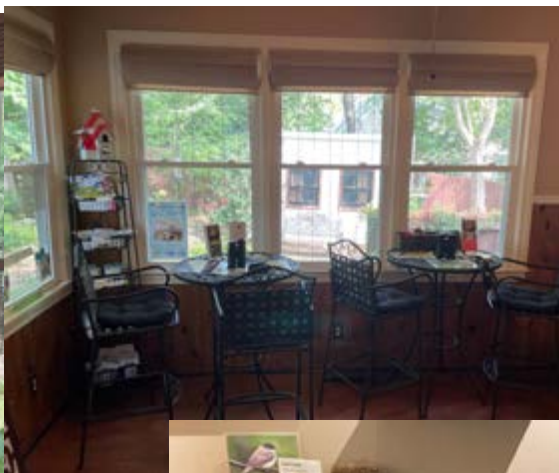
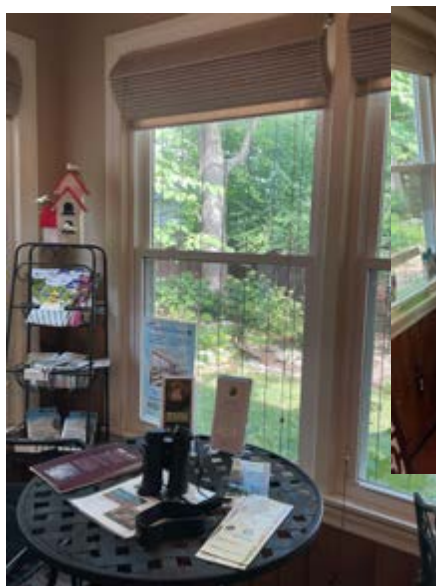
MRBO's visitors center: freshly painted and fully stocked!

LOOKING GOOD

If you have visited Arrow Rock lately, you may have noticed how bright and happy the BirdHouse looks with its new paint job. A look around the grounds reveals a landscaping update that is underway. As the project continues through the fall and into spring, flower beds will become native prairie flower gardens to attract more birds, bees and butterflies.

The interior of the BirdHouse is also experiencing some changes.

BirdHouse Viewing Room: Our sunporch offers backyard bird watching and provides a perfect setting for learning about window collisions and how to prevent them.



The MRBO gift shop has been expanded to include a "little nestlings' corner" where many new items have been added that kids can learn and play with; including child friendly binoculars for the serious young birder.



The lower level conference room has undergone some updates and is now available for rent for private events. The space is perfect for small meetings and presentations, birthday parties (especially for kids when combined with a **KnOWledge Nest** experience) and special events. The pantry kitchen makes entertaining easy and the ambiance is warm and welcoming.

If you have not had the opportunity to visit us at the BirdHouse yet, we hope you will do so in October. There are several events going on this month. In addition to the Arrow Rock Fall Festival and MRBO's supporter party, our inhouse Visitor Center and the KnOWledge Nest is open from 11:00 am until 2:30 pm Fridays, Saturdays and Sundays through October 9th.



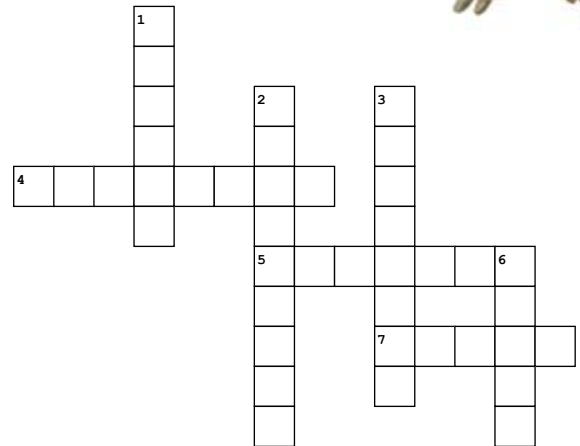
New This Issue: Little Nestlings Corner!

MRBO's new kids' section! Answers are on page 14.



True/False Questions:

- The Pileated Woodpecker is the largest woodpecker in the US.
- Turkey Vultures pee on their feet to stay cool.
- The Ruby-throated Hummingbird flies across the Gulf of Mexico.
- Birds are not affected by plastic.
- Cats do not kill birds.



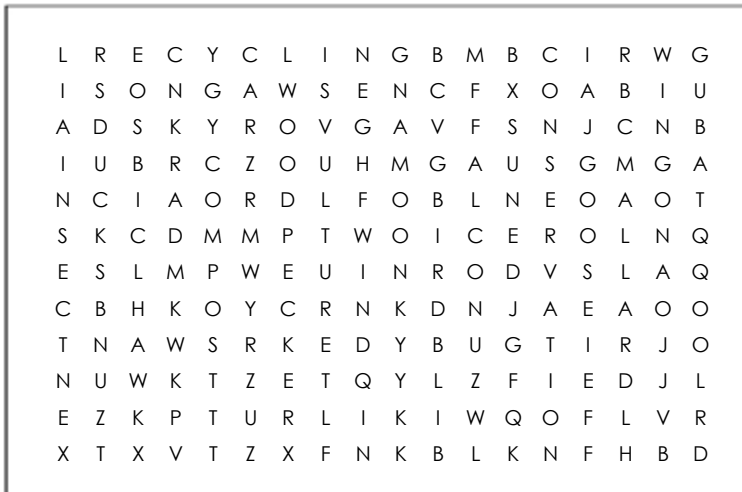
Across

- MO state bird
- Where you can typically find Shorebirds
- Sun Power

Down

- A group of Crows
- Where MRBO is located
- The Downy Woodpecker is the _____ woodpecker in MO.
- Male Mallard Duck

Who am I?

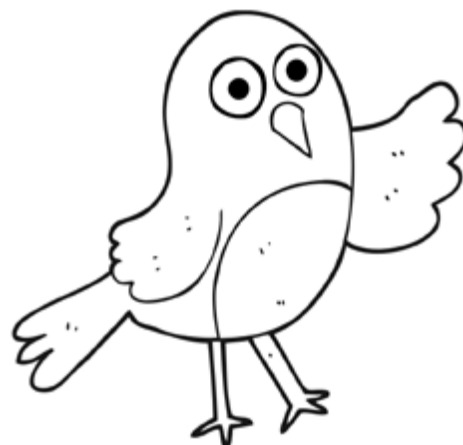


Find the following words in the puzzle.
Words are hidden → ↓ and ↘.

BIRD
BUG
COMPOST
CONSERVATION
DUCK
EAGLE
FALCON

GOOSE
HAWK
INSECT
MALLARD
MOON
RECYCLING
SKY

SONG
SUN
VULTURE
WIND
WING
WOODPECKER





Advocacy

To contribute to conservation by advocating for sound, science-based conservation policy that benefits birds, other wildlife and environmental quality.

You Can Help Birds Avoid Window Collisions

By MRBO Board Member/BirdsafeKC Coordinator Theresa Enderle

Have you ever heard the thud of a bird crashing into a window? It is distressing, and unfortunately it happens with alarming frequency. Up to 1 billion birds die each year in the United States after colliding with glass windows, walls, and other structures. Birds hit windows because they don't understand the concept of glass. Humans know that glass is a barrier, and we learn to anticipate glass even when we can't see it: door and window frames, for example, signal 'glass' to us. Birds don't learn those cues. They also don't understand that glass is a barrier that will prevent them from reaching vegetation they see on the far side of transparent glass or reflected in glass. Far too often, birds die or are injured as a result.



Although windows collisions occur, the good news is that we can take steps to make it less likely. In 2019, Missouri River Bird Observatory in cooperation with Burroughs Audubon Society of Greater Kansas City and Johnson County Community College's Sustainability Center established the BirdSafeKC project to address the issue of avian window collisions in the Kansas City area. BirdSafeKC volunteers survey commercial sites, documenting window collisions and determining the most collision-prone sections of each site. We report survey results to property owners each year and provide information about potential steps to reduce the number of window collisions. BirdSafeKC offers employee programs about the issue, as well. St. Louis has a BirdSafe program, coordinated by the local Audubon chapter, and many such programs exist across the country.

Because nearly half of all avian glass collisions occur at buildings 11 stories tall or less – which includes our homes – it is important for all of us to learn how we can help make glass safer for birds. First, we can treat glass to help birds see it. Any glass treatment, whether purchased or made at home, needs to be placed on the outside of the window to break up the reflection. It also needs to be properly spaced: dots, decals or paint on windows themselves need to be on a 2-inch grid or less; Acopian BirdSaver cords should be hung no more than 4 inches apart.

We can also help by making some nighttime changes. Night migrators navigate in part by using the moon and stars. Birds disoriented by artificial light exhaust themselves as they circle structures, wasting energy vital for migration. Tired and confused, they can collide with windows, resulting in injury or death. Luckily, the solution couldn't be simpler: reduce or modify nighttime lighting, especially during migration. Turning off or dimming lights, using warmer temperature bulbs (think red/yellow instead of the blue end of the spectrum), and shielding lights to only shine downward have proven effective at commercial sites, and these same steps may also help at home. As a bonus, modifying lighting helps insects – an important food source for birds.

The danger of windows to birds is an unintended consequence of human expansion in the environment. No one constructs a building intending to kill or injure birds, but now that we know it happens it is incumbent on us to take action to mitigate the danger. To learn more, please see the resources listed below.

<https://www.3billionbirds.org/>
<https://www.birdsafekc.org/>
<https://www.birds.cornell.edu/home/seven-simple-actions-to-help-birds/>
<https://abcbirds.org/glass-collisions/stop-birds-hitting-windows/>
<https://lightsoutheastland.org/>



Lynn Cleveland, Audubon Photography Awards



State, federal regulations of CAFOs are weak. It will take political courage to strengthen them

MRBO Board Member Doug Doughty recently had an article published in the Missouri Independent.

This article was reprinted with permission. The original can be viewed here:

<https://missouriindependent.com/2022/08/05/state-federal-regulations-of-cafos-are-weak-its-will-take-political-courage-to-strengthen-them/>

"On July 19th, I had the opportunity to testify to a Congressional committee about the challenges and opportunities facing family farmers like me. Below is a slightly condensed version of what I said.

I'm Doug Doughty. We grow corn, soybeans, and hay along with a cow/calf operation in north Missouri.

I returned to our farm during the 1980s farm crisis. Little did I know, another crisis was unfolding and is continuing to gain strength today — the proliferation of large-scale, industrial concentrated animal feeding operations (CAFOs).

From where I stand in my 38 years of farming: Industrial agriculture nutrient pollution (such as nitrogen and phosphorus) is increasing due to runoff and leaching of animal manure and fertilizer from fields, and CAFOs are escalating, both posing environmental threats to rural communities, our urban neighbors, and even the Gulf of Mexico.

There is less topsoil, more carbon in the air, and more agriculture-related greenhouse gas emissions than yesterday. Overall methane emissions have declined since 1990, but agriculture-related methane emissions have risen—a 71% increase. The Environmental Protection Agency (EPA) ties this growth of methane and nitrous oxide emissions to hog and dairy factory farms.

The sophisticated CAFO industry is highly dependent on cheap feed and avoiding environmental regulations — pushing farmers, animals, and the earth to their limits. Recent state assessments show a laundry list of waterbodies impaired with bacteria, nitrates, and phosphates.

We raise cattle. I grew up raising hogs. I understand what is involved raising animals for food.

But what corporations do is different than what we do on our farm. Buildings the size of football fields concentrate thousands or tens of thousands of animals and create massive amounts of manure, in quantities equivalent to cities — a challenge to be handled responsibly, putting surface and groundwater at risk of contamination.

We need more effective CAFO regulations to counter this massive environmental impact. It's past time to regulate their waste and air pollution. Let's bring nitrogen and phosphorus inputs in line with crop needs, an easy way to improve water quality. Let's stop over-applying manure and fertilizer—less excess to wash away. In 2016, EPA identified phosphate and nitrogen farm runoff as a serious threat to the public's health.

In 1997, my county enacted a local health ordinance to govern CAFOs. The ordinance did not ban CAFOs but was stronger than state regulations. But 20 Missouri health ordinances fell victim to intense lobbying from corporate agriculture in 2019, another domino to fall in a series of laws to deregulate the industry.

And our state government, commandeered by corporate agriculture, has eroded state protections and regulations on CAFOs to near the EPA baseline. Weakening state rules are described as "coming in line with federal regulations."

We were taking a reasonable approach, but the attack on "local control" takes that tool away. And our state government, commandeered by corporate agriculture, has eroded state protections and regulations on CAFOs to near the EPA baseline. Weakening state rules are described as "coming in line with federal regulations."

Shortly after, we resisted a 10,500 head industrial sow CAFO proposed near the 6,000-acre Poosy Conservation Area. We knew the impact it would have on the neighborhood dealing with air and water pollution, health issues, flies, noise, and truck traffic. Plus, the burden on our deteriorating highways and county roads. And finally, the potential harm to the conservation area, an important public land/natural resource destination for recreation. This was not opportunity knocking.

This CAFO was going to produce feeder pigs for JBS — the Brazilian multinational and largest meatpacker in the world. How would JBS be held accountable? Other Missouri communities deal with pollution issues from industrial CAFOs run by China-owned Smithfield. China





and Brazil get the pork, we get the manure and environmental issues.

The permit was withdrawn, for now. But Missouri is determined to provide minimal protections. Recently, our DNR removed "perched water table" from the definition of groundwater. Shallow groundwater had been discovered on the aforementioned proposed CAFO site. Often, perched groundwater is our ONLY source of groundwater that is reasonably available. Curiously, the definition change applies to CAFOs, not other industries, such as landfills and mines.

Federal regulations of CAFOs are weak. The EPA doesn't have regulations in place to protect us from CAFOs, nor the political will to improve them. But EPA is our last line of defense.

In the meantime, the United States Department of Agriculture (USDA) funds CAFOs to pay for manure lagoons, animal mortality facilities and manure management. Why is USDA underwriting pollution with conservation dollars? Let's direct a larger percentage of USDA dollars toward small and mid-sized family farms seeking to implement cover crops, sustainable livestock practices, farmers selling directly to consumers, urban ag projects, and neighborhood kitchen and grocery initiatives.

Let's fund resourceful farming and food initiatives that contribute to the public good.

MRBO and Missouri River Relief team up on Plastic Brand Audits

Readers of the *Rectrix* will know that one of MRBO's advocacy focus areas is single-use plastic. Thanks to our friends at Missouri River Relief, this is the second year that we have been able to take part in Break Free From Plastic's global brand audit. Similar to the Waverly and Lexington events in 2021, River Relief let us tack on our brand audit to their St. Louis river clean-up on September 17th. As usual, even working quickly and efficiently, we were only able to audit about a quarter of the plastic waste pulled out of the Missouri River that morning! This is a distressing measure of just how much trash is in the Missouri River. To stop having so much plastic waste, we need to stop producing so much plastic. Learn more at beyondplastics.org and breakfreefromplastic.org.

As part of our Microplastic Madness month, MRBO will have another brand audit in Jefferson City in conjunction with Missouri River Relief's October 15th clean-up. See mrbo.org/plastics to sign up!



What is a Brand Audit?

Break Free From Plastic's global brand audit is a citizen science initiative that involves recording data on plastic waste to help identify the companies responsible for plastic pollution and hold them accountable.





Community News

Upcoming Events

<https://mrbo.org/events/>

MICRO PLASTIC MADNESS in Missouri



Brought to you by: 

Events 2022

Virtual
9/16-30 - Free on-demand streaming of the documentary **Microplastic Madness**
10/5 - Evening **panel discussion** on microplastics in Missouri, with audience Q&A
10/18 - Plastic Threats to Human Health - a **deep topic dive**

In Person
Plastic Brand Audits on the Missouri River
9/17 - Columbia Bottom CA, St. Louis
10/15 - Niren Access, Jefferson City



Now until October 15th - **Microplastic Madness!**
Free on-demand movie screenings, presentations + more!
See mrbo.org/plastics or click the QR code in the graphic on the left.

October 5th - **Microplastic Madness panel discussion**

October 8th & 9th - **Arrow Rock Heritage Festival**

October 15th - **Missouri River Plastic Brand Audit in Jefferson City**

October 18th - **Virtual presentation: Plastic Threats to Human Health**

October 22nd - **MRBO Supporters Party!**

October 22nd - October 29th - **MRBO Online Auction**

October 24th - **MYBC Monthly Meeting: Long-distance Migrants**

October 29th - **Arrow Rock Halloween Spooktacular**

November 1st - **MRBO's Missouri Bird Photo Contest Opens**

November 21st - **MYBC Monthly Meeting: Gulls**

December 19th - **MYBC Monthly Meeting: Eagles of the World**



MRBO Supporters' Party Returns!

We are pleased to announce that after a two year hiatus, the annual MRBO Supporters' Party is back. The date this year is October 22nd and the event will take place at the BirdHouse on Main Street in Arrow Rock from 5:00 to 7:00 pm.

If you haven't visited the BirdHouse since it's renovation, you are in for a surprise. The evening will provide the opportunity to catch up with Dana and Ethan, meet the new staff, and the new members on the Board of Directors. It's a chance also to see the virtual auction items on display.

There will, of course be, wine and beer along with a buffet table full of hors d'oeuvres and special treats. We look forward to saying "thank you" in person to all of our loyal supporters.

Going... Going... NO... it's just COMING! MRBO's Fall Auction!

MRBO's annual fall auction is just getting started. The dates have been set: The auction opens on October 22nd and closes on October 29th. There are already experiences and a variety of new items being added daily. The auction site will be open for online viewing beginning October 12th.



Joining in on the auction is very simple. MRBO uses the 32 Auctions platform, and you can enter through their website: 32auctions.com. If you have joined us before, you can just sign in. If you are new to the auction the process to set up your account is very user friendly and takes but a minute and then you can start viewing the many items available.

This is a fun way to shop at your leisure from your favorite comfy chair. All proceeds go to MRBO in support of the many projects and programs that we do throughout the year.



Board's Eye View

By Diane Benedetti, MRBO's Chairman of the Board

Greetings to all our friends and supporters,

In this issue of the Rectrix we are introducing a new feature to talk about MRBO from a different perspective. We call it "Board's Eye View" and plan to have a different member from MRBO's Board of Directors address a different topic in each newsletter. As Chairperson, I have the privilege of going first and would like to offer some insight as to what this Board does ... and doesn't do.

As with all non-profit organization boards, one of the primary duties is the important task of **Oversight**. We must assure the integrity of the work being done by all staff and that our core values are upheld. MRBO has three key mission statements that you may have noted on the first page of this newsletter. These tenets guide us all.

Science: We are extremely fortunate to have Executive Directors and staff who are all trained biologists with degrees in various specialized fields and all related to environmental conservation. As Board members we do not do field work, analyze data or create technical programs for conservation efforts. MRBO's highly talented staff does all of this.

Education: MRBO's Board has an outstanding Education Committee that works closely with all staff in the development of educational materials, particularly in the development of the curriculum for the Arrow Rock Nature School project. MRBO's small staff conducts over 100 education and outreach events each year; Board members will assist if appropriate.

Advocacy: As Board members, we must maintain a non-partisan position for the organization. MRBO's work is based on scientific data, not emotion or conspiracy theories. We work diligently toward providing the best possible support for environmental conservation based on reliable information.

Another vital part of the Board's function is **Fundraising**. We assist with the fundraising activities that keep MRBO afloat wherever possible. However, the Board's paramount mission in this area is to develop relationships with individuals and organizations in the community in order to assure the necessary funding for MRBO daily operations as well as providing a secure foundation for the future.

Our **Oversight** in this area is to ensure that all of the contributions from our generous donors, private foundations and special grants are put to the best possible use and that designated funds are properly allocated.

The door to MRBO's boardroom is always open and if you would like to contact any of us, I hope that you will feel free to do so. Your thoughts and contributions in support of MRBO's work are greatly appreciated.

With best regards,



Little Nestling's Corner Answers

True/False Questions:

- The Pileated Woodpecker is the largest woodpecker in the US. **True**
- Turkey Vultures pee on their feet to stay cool. **True**
- The Ruby-throated Hummingbird flies across the Gulf of Mexico. **True**
- Birds are not affected by plastic. **False**
- Cats do not kill birds. **False**



I am a
Dickcissel!

Crossword Answers

1. A group of crows is called a **murder**.
2. MRBO is located in **Arrow Rock**.
3. The Downy Woodpecker is the **smallest** woodpecker in MO.
4. The MO state bird is the **Bluebird**.
5. You can typically find shorebirds in a **wetland**.
6. A male Mallard is called a **drake**.
7. Sun Power is called **solar** power.



In Memoriam



The conservation community lost one of its champions, Susan Hazelwood, in August. Just before her passing, Susan donated a treasure trove of books for MRBO's Birdhouse library. Her legacy will live on in so many ways. Below is a memoriam written by Dave Erickson which captures our appreciation and thoughts of Susan Hazelwood. Dave is a long-time MRBO supporter and mentor, and is the Treasurer of the Missouri Bird Conservation Initiative (MoBCI.net), a coalition of more than 70 conservation organizations from across the state.

We will miss you, Susan!

The last weekend of August 2022 was a joyous one for the coalition known as the Missouri Bird Conservation Initiative because the organization resumed its in-person annual conference string after a two-year Covid-driven hiatus. But it was also very sad because one of MoBCI's charter organizers and longtime Steering Committee members, Susan Hazelwood, passed away the next day after her long battle with cancer.

Susan was with MoBCI from the very start, participating in the organization's earliest consensus building meetings. She, as much, and maybe more than anyone, recognized that those of us who value birds—whether over the barrel of a shotgun or through the lens of a spotting scope—have so much in common with one another through our love of birds and our recognition that birds need secure habitats. In many parts of the country, distrust exists between bird watchers and bird hunters, but not in Missouri, and certainly not in MoBCI. Susan was one of the individuals who built bird conservation bridges, and her quick smile and deep laugh are memories friends will cherish forever.

We shouldn't be surprised that Susan enjoyed nature, the outdoors, and especially, birds. She had, after all, a degree in Life Sciences and had pursued an M.S. in invertebrate physiology. She conducted breeding bird surveys, was a certified Master Naturalist, and held leadership positions in MoBCI, The Missouri Birding Society, and numerous other organizations. Susan chaired the MoBCI Grants Committee and led our Youth Habitat Education Program grants program for several years. Who would be surprised that she excelled at these activities after Susan spent much of her professional career either writing grants or administering them at the University of Missouri.

Susan was generous without exception. She was a regular and frequent donor to bird conservation organizations. For a series of MoBCI auctions she donated baskets of bird-themed and bird-named wines and liquors. I loved them and think I purchased most of them. In recent years Susan simply made sizable donations to MoBCI. I guess I wasn't bidding enough on the booze.

Susan would not want us to linger in sadness over her passing. She'd want us to continue our mission and hers, to be stewards of birds and bird habitats, and to continue on the road that lies ahead. We certainly missed her at the just concluded conference, but if I think about it, I can close my eyes and hear her laugh from across the room.



Thank you for your Support

The following individuals and organizations have provided support since the publication of our Summer 2022 newsletter. We give thanks to them and to all who have supported the Missouri River Bird Observatory! YOU make our work possible.

Anonymous

Anonymous

Ericka Boerman

Kathy Borgman

Kim Borgman

Kalen Brady

Myra & Truman Christopher

Jennifer Davies

Susan Hazelwood

Jeanne Heuser

Sarah Beier Hobbs

Monte Holder

Donna & John Huston

Steve Johnson

Laura Robinson

Steve Schnarr & Mel Cheney

Joshua Tripp

Tom Tucker & Tina Yochum
Magaz

Dianne Van Dien & Don
Sheldon

Scott Villmer

Charlie Wehmeier





P. O. Box 16
Arrow Rock, Missouri
65320

NONPROFIT
MARKETING MAIL
U.S. POSTAGE PAID
PI 17
MARSHALL MO
65340

Enter MRBO's annual photo contest - contribute to conservation outreach
AND win big prizes!

<https://mrbo.org/photocontest2022>



Hope is The Thing With Feathers

The Missouri River Bird Observatory's
Seventh Annual Missouri Bird Photography Contest
November 1st - December 31st, 2022

