

THE RECTRIX

A Newsletter of the Missouri River Bird Observatory

Volume 13 No. 2
Summer 2023



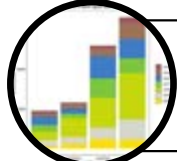
rectrix lek-triks/ noun. (pl. -trices) any of the larger feathers in a bird's tail, used for steering in flight.

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

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Director/Founder

Ethan Duke
Director/Founder

Marlee Dodson
Operations Assistant

Laura Semken
Education Coordinator

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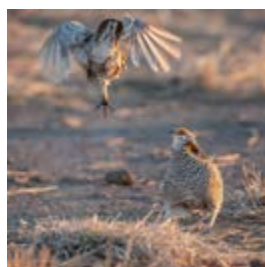
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Post-Migration Nap Time By: Aaron Jungbluth

It was so comforting to see this Common Nighthawk relaxing in the springtime sun after a long migration from South America! Nighthawks are in serious decline due to a variety of factors, especially the overuse of pesticides affecting the insects that they solely feed on. In years past, we would see Nighthawks circling the night lights on parking lots and at baseball/soccer fields swooping to catch the moths and other insects attracted to those lights. Recently, we have not witnessed this phenomenon at all, which has left summers feeling a bit empty. However, in 2021, we happily observed more Nighthawks, and we hope that trend continues with more people reducing their use of pesticides and appreciating the beauty and dynamics of this bird.



Cover Photo by: Aaron Jungbluth



Back Photo by: David Seidensticker



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[instagram @moriverbirdobs](https://instagram.com/moriverbirdobs)

Greetings from the MRBO Directors

Dear MRBO Supporters,

We hope this letter finds you in good health and high spirits. We wanted to take a moment to express our heartfelt gratitude for your support. The progress we have achieved would not have been possible without the generosity of those who continue to astound us with their support in various ways. We deeply appreciate the dedication of the amazing volunteers at the BirdHouse, the dedication of our Board of Directors, the competence and commitment of MRBO's permanent and seasonal staff, and the critical financial support from MRBO's donors.

We are looking forward to sharing this issue of the Rectrix with you. The work that is described has been a source of great inspiration for us directors. The collective action we have witnessed, driven by our passionate community, is truly remarkable. Your commitment to our mission has propelled us forward, filling us with hope and continued determination.

Over the past few months, one of our primary emphases has been on grasslands field work and delving deeper into the science behind it. Through rigorous research and field studies, we are providing important insights into the intricate grassland ecosystem. This knowledge empowers those developing conservation and land management strategies that have a tremendous impact.

In addition to our field work, we have remained steadfast in our advocacy and education efforts across the board. From continually providing opportunities for people to immerse themselves in the natural world, to championing policies that protect and conserve nature, we are making a significant difference at a broader scale. Our collective voice has grown stronger, amplifying the urgency of environmental conservation.

None of this would be possible without your support; whether through financial donations, volunteering your time and expertise, or spreading awareness among your networks, you have been instrumental in fueling our progress.

We hope you enjoy reading about some of the people and their activities doing good for birds and their habitats over the past few months.

With heartfelt appreciation,

Ethan and Dana
MRBO Co-founders/Directors

MRBO's New Staff

Laura was raised in Kansas City, Lee's Summit, and on a farm on Little Blackwater Creek. As a kid she could be found in a tree, in the creek, smelling wildflowers or on her bike. Not much has changed.



Laura Semken
Education Coordinator

Spending time in the woods, prairies and water led to an art degree from the University of Kansas and then toward a passion to share her love of nature with children. In 2001 she began leading bird hikes and mushroom forays at a wildlife camp in Iowa. In 2011 she went back to school and earned a Masters of Science in Environmental Education and Interpretation from the University of Wisconsin in Stevens Point. Since then she has been the assistant director for the Iowa Raptor Project, an AmeriCorps VISTA volunteer for Missouri River Relief and a naturalist working for the Louisa County Conservation Board in Iowa. Laura joined MRBO in late February, ready to continue connecting people with nature. She is developing the Arrow Rock Nature School and coordinating a wide variety of bird adventures that lead to stewardship action.

My name is Chelsea Mosteller, and I am currently an intern with MRBO's education program. I've loved nature and birds my whole life and look forward to sharing this passion with others during my internship. Outside of birds I enjoy looking for mushrooms, creek-walking, and insects. I also love creating art whether it be graphic design or realism with watercolors and colored pencils. I was also the designer of the Missouri Young Birders' Club logo.



Chelsea Mosteller
Education Intern



Jacob Tsikoyak
Seasonal Grassland Technician

Hello, this is Jacob Tsikoyak. I am a senior at the University of Central Missouri where I am studying wildlife and natural resource conservation. My interest in birds started in April 2022 and it has grown massively since then.



MRBO's New Staff Continued



Kendell Loyd
Seasonal Grassland Technician

My name is Kendell Loyd. My passions are science, education, and conservation, which have led me to work as a high school biology teacher. I am an avid birder, and I actively serve within the Conservation Federation of Missouri and the Missouri Birding Society. I also sit on the Missouri Bird Records Committee, and I am the state Christmas Bird Count Compiler. I am very excited to apply my passions and skills to the missions of MRBO!

Matt Longabaugh has worked on various wetland and grassland projects for MRBO since 2019. He has a special passion for birds of Central and South America and has been fortunate to be involved in fieldwork there, too. Matt is currently studying ecology and evolutionary biology and Spanish at the University of Kansas in Lawrence.



Matt Longabaugh
Seasonal Grassland Technician



Shawn Hawks
Seasonal Grassland Technician

I grew up in the Prairie Pothole region of northwest Iowa in a family that loved the outdoors. We spent a lot of time hunting, fishing, camping, boating, and generally exploring natural areas around the upper Midwest. My love of nature and biology led me to pursuing a double major in Biology and Conservation Management through Upper Iowa University in northeastern Iowa. Like many people in our field, I have enjoyed many field adventures around North America studying many species of birds often focusing on different aspects of a species' annual cycle. I have a particular fondness for grassland and waterbirds, but even more specifically, raptors

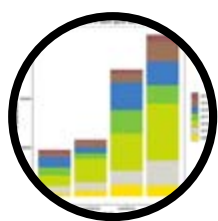
and waterfowl. My adventures have taken me to raptor migration studies throughout the Great Lakes. In fact, I spent nearly 10 years as a bander at Hawk Ridge Bird Observatory in Duluth, Minnesota, which led to obtaining a Master's degree in Zoology from North Dakota State University where my research investigated the use of deuterium isotopes for tracing latitudinal origins of Northern Goshawks captured on fall migration at Hawk Ridge. I'm really enjoying my time here in Missouri getting to know the state's natural resource beauty, history, and culture. I have also enjoyed a fair amount of work experience in wildlife management, but I especially enjoy sharing, teaching, working with and even mentoring others to help solve problems as well. Thank you MRBO!

My name is Josh Smith, I live in Inola, OK. I work for Oxley Nature Center in Tulsa, OK as the Natural Resources Coordinator. I started birding in 2006 after taking an Ornithology class at Oklahoma State. Birding has gotten me a few jobs that have allowed me to travel to some very neat places across the U.S. I've worked for USFWS in New Mexico and SWCA Inc. in various states in the Interior U.S. doing surveys on windfarms and working at National Wildlife refuges. I was also given the opportunity to work



Josh Smith
Seasonal Grassland Technician

for MRBO back in 2013 doing some of the initial grassland surveys we are doing today. It's nice to see the progress they have made in the past 10 years. When I am not chasing birds for fun or work, I enjoy fly fishing. Do I get to do it as much as I'd like?? Not at all, but it's still nice to get away from it all and stand waist deep in a river and get lost in the sounds. I usually end up calling it early because I'll hear some random new bird sound and off I go investigating. I also currently serve on the Tulsa Audubon Board of Directors.



Science

Grassland Project Update

Ethan Duke, MRBO Director/Founder

I'm excited to share the progress we've made with our innovative data collection workflow, as it represents another significant step in the evolution of how we manage our massive grassland bird dataset. This efficient system combines advanced technology and streamlined processes, allowing us to collect and analyze data in near real-time.

Our online dashboards continue to provide daily updates to all grassland bird survey stakeholders, offering valuable insights through data visualizations. Researchers, conservationists, and others can access the latest information easily, empowering them to make informed decisions and take timely action. The user-friendly nature of the dashboards ensures that stakeholders can engage with the data effectively.

To contribute to the 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.



The addition of analysis results to the online dashboards will further strengthen our ability to communicate key metrics related to bird-friendliness. Stakeholders will have the opportunity to explore trends, patterns, and correlations within the data, enabling them to develop informed conservation strategies and make a lasting impact on grassland bird populations.

As we move forward, we are especially excited about our progress with drone mapping on grasslands. We have mapped several prairies using this technology, and we will be performing the analysis of the imagery. This analysis will enable us to track invasive species and gain further insights into the intricacies of grassland ecosystems. We encourage you to stay tuned for updates on this exciting development, as it holds great promise for enhancing our understanding of grassland bird conservation.



Above: A screenshot of one MRBO's grassland bird survey dashboards. This dashboard is for surveys on Public Lands and those owned by partners. Data can be visualized and downloaded. Check it out at: <https://mrbo.maps.arcgis.com/apps/dashboards/065f3270c0d742bb80c114f017a8dfbd>

Our data collection workflow represents a significant leap forward in monitoring and managing grassland bird populations. By leveraging technology and efficiency, we maximize the impact of our research and foster collaboration among informed stakeholders. We are excited to continue this journey together, as we strive to protect and preserve the rich biodiversity of our grasslands.

American Kestrel Monitoring Project

Marlee Dodson, MRBO Operations Assistant

The current trend of American Kestrel populations in Missouri is uncertain. Monitoring kestrel nesting success can help us determine local trends in their population.

With the help of supporters and volunteers we were able to deploy over ten nesting boxes this year across the state of Missouri to monitor throughout the breeding season. It can take several years for these boxes to get noticed, but with a little bit of luck we had our first nesting pair in a box placed on private property near Paint Brush Prairie about ten miles south of Sedalia. The female kestrel laid a total of five eggs, and had a 100% hatch rate! MRBO along with the help of the Missouri Department of Conservation banded all five kestrel nestlings, four males, and one female, at the beginning of June. We hope to recruit more volunteers to hang up and monitor boxes for the 2024 breeding season to expand the project and collect more data on these beautiful birds!

A project like this can't happen without the help of volunteers. Vernon Elsberry, in particular, was a huge asset to this project. Vernon, along with MRBO board member Jerry Giger, built us eight kestrel nesting boxes and donated them for us to sell to raise money for the project.



Donor Spotlight

"I'm a long-time resident of Warrensburg and graduated from what's now UCM with a degree in biology. I taught biology for 11 years before becoming a real estate appraiser. I have always been interested in birds and have participated in the Christmas Bird Count for over 50 years. I am a board member with the Missouri Prairie Foundation, love to fish, hike, camp and chase the grandkids around, birding all along the way. I also am a woodworking guy. I build a wide variety of things, to include bird houses. When I learned of your kestrel project, I called a longtime friend, and one of MRBO's board members, Jerry Giger, and the building began. When MRBO needs more houses, or anything else, just let me know. We humans have done enough damage and it's time to make repairs! Thanks for all MRBO does, and just know, I'm proud to help."

-Vernon Elsberry





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.

Education Program Updates

Laura Semken, MRBO Education Coordinator

The Spring Arrow Rock Natural History programs, in partnership with the Friends of Arrow Rock and the State Historic Site, were a huge success. Over six weeks, more than 1,000 students were taken on a tour to discover what has made the location of Arrow Rock a place to thrive for both humans and animals for hundreds of years. We explored a plethora of local natural resources and their importance to survival; we also discussed how humans can overuse or pollute resources to our detriment. The students had many questions about water, trees, soil and air. Highlights of the daily program included exploring the Big Spring and hearing stories about salt springs in the area. Salt allowed people to create jerky and preserve other foods for winter. We also learned about chert from the Missouri River bluffs. Chert is used to create stone tools like arrow heads and axes. Natural resources and how they allow for the survival of all species is such a fascinating topic. Kids also enjoyed connecting everything back to how healthy habitats help birds by completing a scavenger hunt.



In June, 22 kids participated in Young Explorers' Camp (YEC).

Every day YEC campers were guided through play to appreciate nature, increase awareness of food webs, and become inspired to act on behalf of all animals, plants and especially birds, and to discover ways we can be stewards of this beautiful, diverse area we call home. Campers made window stickers to help prevent bird strikes. They caught crawdads, tadpoles, fish, insects, butterflies, and spiders. For some campers it was their first time catching a fish! Campers also got to see a lot of wildlife up close. They witnessed birds feeding their young and learned how to use binoculars. They also chose a bird to emulate and pretended to be a bird, building a nest similar to what their chosen bird would build. Eggs were "laid" as well with colors matching their chosen bird's eggs. One day was spent foraging in the forest and cooking up some Nettle Soup along with twist bread cooked over a fire. So many adventures, so many gifts from nature, and so many positive connections!



Little Nestlings Corner

MRBO's kids' section!

Answers are on page 11.

Native plants are those that occur naturally in an area where they (and lots of insects) have grown for a very long time. Without native plants, local birds cannot survive. Doug Tallamy, an insect expert, found that native oak trees support over 500 caterpillar species. He also found that that the beautiful but nonnative ginkgo tree only has five species of caterpillars. When it takes over 6,000 caterpillars to raise one brood of chickadees, that is a BIG difference. So, no matter how pretty they are, nonnative plants can be harmful to our bird population.

Important term definitions:

-Ecosystem: Community of interacting living things

-Evolve: change over time

-Adapt: adjust to the environment

-Climate: Typical weather conditions in a certain place over many years

-Native plants: plants that grow naturally in a specific area or ecosystem

-Nonnative plants: plants from other areas that are introduced into different ecosystems

-Niche: role and place for a living thing in an environment

DRAW A "BEE-LINE" BETWEEN EACH INSECT OR BIRD TO ONE OR MORE OF THEIR FAVORITE NATIVE PLANTS.



THESE PHOTOS SHOW A SMALL SAMPLE OF MANY NEW NATIVE PLANTS WE ARE GROWING AT THE MRBO BIRDHOUSE (VISITOR CENTER) AT 406 MAIN ST, ARROW ROCK. COME SEE US!

M D E Y I F Q C A N N M M E L
Z D K V I C L E D J T P V P A
R Y E F I I K V A T P I R O S
Q E S C M S G O P C T K V R I
L U W A O C A L T A E T Y T S
A N T O O S J V N I C H E U P
C E H Y L R Y E N B F C N L O
O L K G D F A S C I Z W D A E
L W I W R C E E T E P M O C R
Q T O O V O N N F E S O R A O
N R O B S O T I O Z M V E M C
C T W L L Q Y V G C P E T F B
D A Y L I L I E S I H Q A J R
D E C U D O R T N I R T W H O
H Y E V I T A N N O N O F B V

Word Search Directions: Names of plants are hiding in this word search puzzle. Some of the plants are native, but others are invasive. Circle the names of the native plants. Draw a line through the invasive plants. Use a yellow crayon or highlighter to find the bonus words.

Native Plant Wordsearch

Adapt
Coneflower
Daylilies
Introduced
Native
Origin
Rose

Climate
Coreopsis
Ecosystem
Invasive
Niche
Portulaca
Soil

Compete
Crowd
Evolve
Local
Nonnative
Root
Water





Advocacy

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

What is all the hype about the 2023 Farm Bill?

You might have heard some of the buzz around the 2023 Farm Bill – one of the largest and most impactful pieces of federal legislation affecting conservation in our country. The Farm Bill, re-crafted by Congress every five years with varying degrees of public and industry input, ultimately influences management on hundreds of millions of acres of land and directs billions of dollars in federal funding to everything from food assistance programs for families to the restoration of wildlife habitat. We at MRBO, along with organizations such as the Conservation Federation of Missouri, the National Wildlife Federation (NWF), Missouri Coalition for the Environment, and Missouri Rural Crisis Center, are working hard to influence the Farm Bill on behalf of wildlife conservation, water and soil quality, and independent family farmers. MRBO supporters might have read in our e-newsletter that MRBO Director Dana Ripper went to Washington DC with NWF in April to speak to the Missouri congressional delegation about the Farm Bill. Here are some of important topics for which we are advocating:

- Consider maintaining full funding on behalf of Missourians and all US farmers.
 - Farm Bill conservation programs are oversubscribed. Nearly 1 million producers nationwide were turned away from the EQIP program from 2010-2020; there is simply not enough funding to spread around to all interested farmers.
 - Conservation programs like EQIP and CSP are popular and in high demand in Missouri. Only 22% of EQIP and 26% of CSP applications in Missouri were accepted in 2022, ranking 43rd and 37th in the nation respectively. Maintaining baseline Farm Bill conservation funding and keeping the Inflation Reduction Act funding in conservation.
 - From 2017-2020 conservation programs invested over \$689,000,000 in Missouri.
- Expand the Sodsaver provision nationwide.
 - The Sodsaver provision is in place for ND, SD, MT, MN, IA and NE. This provision means that if a producer plows up previously unplowed, native prairie, the taxpayer subsidy for crop insurance on this newly-cultivated acreage is not available for three years. (The landowner can still choose to break ground on unplowed prairie, but does not receive subsidized insurance on that acreage).
 - Sodsaver helps protect the very little prairie remaining. Missouri has less than 1% of its original prairie remaining; from 14,000,000 acres we are down to less than 60,000.
 - At this point, land that has not already been converted to agriculture is likely to be marginal for production. This means that the taxpayers are subsidizing additional risk on these acres in states not currently covered by Sodsaver.
 - If enacted, it is estimated that this provision will save approximately \$56,000,000 in taxpayer dollars over the next 10 years.
 - Leaving original, unplowed prairie intact helps decrease run-off and soil erosion as well as maintaining a rare, extremely diverse ecosystem.
- Restore reasonable funding, acreage allowances, and limits to emergency haying and grazing provisions in the Conservation Reserve Program (CRP):
 - CRP is one of the most popular Farm Bill programs and is critical for wildlife in Missouri and across the nation.
 - Changes to CRP in the 2018 Farm Bill made it less attractive to producers. The 2023 Farm Bill should improve CRP to better meet the needs of producers while providing critical public services such as soil health, run-off reduction, water filtration, and fish and game habitat.
 - Specifically, the 2023 Farm Bill should restore incentive payments to previous levels, remove rental rate caps so producers can be fairly compensated, and let NRCS State Technical Committees decide haying and grazing rules appropriate for their states.
- Consider co-sponsoring or supporting the Cover Act
 - Practices like planting cover crops build healthier soil and reduce the likelihood that a drought or heavy rain will wipe out a crop - triggering a payout under the federally subsidized crop insurance programs. Current crop insurance rules ignore the lowered risk provided by cover crops, thus farmers who are planting cover crops pay more for insurance than they should.
 - The Cover Act would continue the current \$5/acre discount on crop insurance for farmers who plant cover crops. It would also allow the USDA to provide reasonable discounts for other practices that build healthy soil such as diverse crop rotations, conservation tillage, and rotational grazing.
 - 78% of row crop farmers polled support the USDA offering discounts on premiums for engaging in conservation practices that have been shown to reduce the risk of crop failure.



Many grassland birds, including Northern Bobwhite, can benefit from CRP and other Farm Bill habitat improvement programs.
Photograph by: Shelby Thomas





Community News

Board's Eye View

Jerry Giger, MRBO Treasurer

To our dedicated friends and loyal supporters,

After joining the MRBO Board of Directors in 2022, I, like others already on the board, became involved with many aspects of the organization's mission. Although my background is in education, I was asked to take on the position of Treasurer when the current treasurer retired. As a former superintendent of one of Missouri's school districts, I was used to budgeting and handling unforeseen fiscal matters. Taking over the responsibility of oversight for MRBO's finances gave me a few new insights that I would like to share with you.

Some people may not realize the work it takes to run a non-profit organization; after all, if these entities are not for profit, there is no need to worry about money! This is very far from reality. Like any commercial business, MRBO needs to maintain staff, facilities, and supplies to accomplish its mission. There are many of the same everyday expenses that individuals have that also need to be funded. As the name implies, "non-profit" organizations do not make a profit but they do need funding to survive.

MRBO supporters, both small and large, provide the means for MRBO to cover the expense of most of the staff (donations do not cover all of the costs and we wish we had funding to provide for a much-needed additional staff member) and without these supporters, MRBO could not exist. The funding that comes from major donors and private foundation and corporate grants are almost always very project specific and do not allow for administrative costs. This means that MRBO may get funding for education or conservation projects but the money may not be used to cover the salaries and expenses of the staff who are directly responsible for the coordination and execution of the organization's work.

Planning for the future when annual funding is an unknown is very difficult. If you visit MRBO's website, you will find the many educational activities which our organization sponsors for the community. You can also view some of the data reports that MRBO has prepared for federal, state and private landowners based on the scientific studies undertaken. And, there's lots more. Your generous support has made it possible to accomplish many of these projects. My hope is that you will continue to donate in the future; working together we can make a difference in our environment. As MRBO continues its work in conservation efforts with a strong emphasis on the science of ornithology, education for children and adults, and science-based advocacy, the organization requires a solid financial basis that could be derived from a program of Planned Giving by our supporters. If you have interest and can help us, please contact our office for further information.

Sincere thanks for your generosity,

Jerry Giger
Treasurer
Missouri River Bird Observatory



Upcoming Events - MRBO & Partners

- **Bird Yoga**

Saturday, July 8th 8:00 am-9:30 am
Meet at the Watershed Center at
Valley Watermill Park
2400 E Valley Water Mill Rd,
Springfield, MO 65803



The early bird gets the worm and beats the heat! Join the Springfield area young birder's club for morning bird theme yoga and backyard bird feeder viewing. Wear exercise gear or your favorite PJs for a guided imagery yoga session celebrating some of your favorite birds. We will also enjoy a leisurely walk on the trails and view the bird feeding station at the Watershed Center. MYBC events are open to the public. Event is geared toward children aged 8-17 and their families.



- **Little Sprouts at the Sedalia Area Farmers' Market**

Friday July 28th 3-6 pm
At the Sedalia Farmers Market
1814 S Limit Ave, Sedalia, MO 65301



Kids can explore how pollinators allow for some of our favorite fruits and veggies to grow! Activities and crafts provided.

- **Fall Nature Festival**

Saturday September 9th – 8 am until 2 pm
Ozark Rivers Audubon Nature Center
550 Meriweather Ct, Rolla, MO 65401



Vendors, informational booths, hummingbird banding demonstration, birding activities and more!

- **Get MO Wild**

Saturday September 30th from 10 am until 3 pm
James A Reed Memorial Wildlife Area
12405 SE Ranson Rd, Lee's Summit, MO 64082.



Activities will include fishing, kayaking, outdoor skills, wild edibles, plant id, insects, birds and more.

We are Hiring!

MRBO, in partnership with the Missouri Department of Conservation, is looking for an experienced, dedicated educator to fill a position in the Kansas City metro area based at the Anita B. Gorman Discovery Center. The Community Conservation Educator will work with people of diverse backgrounds and experience levels to provide opportunities for all Kansas City residents to engage with nature.

Summary/Objective

The Missouri River Bird Observatory (MRBO) and Missouri Department of Conservation (MDC) are offering a joint position as Community Conservation Educator. This position is intended to accelerate conservation education in Kansas City and the surrounding area by providing opportunities for community members to connect with nature, such as wildlife viewing, hiking, plant and insect studies, nature-related artistic endeavors, and more.



Essential Job Duties

- Work with MRBO and the MDC's Community Conservation Team and partners to help community members connect with nature where they live.
- Identify and implement strategies to deliver community conservation to underserved populations and communities.
- Support community conservation projects and programs within the Kansas City Region community conservation framework.
- Develop and implement events at the Anita B. Gorman Discovery Center as well as at various community centers and outdoor locations throughout KC.
- Expand network and associated programming with traditional and nontraditional partners.
- Work with schools to create and deliver high-quality conservation education.
- Promote and facilitate schools' use of MDC- and MRBO-provided instructional units.
- Assist with MRBO's BirdSafe Kansas City project, and with bird-related educational events in the KC metro area.
- Represent MRBO and MDC at meetings, conferences, festivals, symposia and workshops as presenter and attendee.
- Develop and/or assist with the development of educational materials, plans, grant applications, etc.
- Develop, schedule, and conduct curriculum for workshops, training classes, etc.
- Train, mentor, and support educators and other stakeholders in the teaching of ecology and environmental science.
- Perform administrative duties such as generation of regular reports.
- Answer questions via telephone, e-mail and in-person discussions with internal and external stakeholders and customers professionally.
- Order supplies and track budget expenditures to include a MRBO credit card, ensuring proper documentation and filing of necessary documentation and forms.

To learn more about the job go to <https://mrbo.org/we-are-hiring/>

They Came, They Saw...They Planted!

A dedicated group of Missouri Master Naturalists (MMN) from the Osage Trails Chapter generously offered to renovate the gardens at MRBO's BirdHouse in Arrow Rock. This was not to be an easy task considering the decades old plantings that included a few invasive species and a plethora of weeds embedded with both native and non-native plants. After the initial inspection and follow up planning, the project began on the ground in Arrow Rock at the start of the May/June heatwave and drought.

The team was headed by Sara Scheil, a MMN for almost 20 years and a charter member of the Osage Trails Chapter. With her were Mel Haney, also a charter member of the organization, and Ken Snow and Beth Settle; all are avid gardeners and know well the importance of using native plants to establish the basis of a healthy environment. Witnessing their efforts was inspiring. Ken took on some of the invasive species with their deep underground root systems. Employing shovels, hoes and even a pickaxe, he got them. On one of the days of work, Mel patiently sat trying to extract the native copper iris from a web of invasive vine roots. Beth was most often seen delicately planting many of the new seed growth plants and native transplants. Sara weeded, planted, and watered but all the while was busy assessing the site plan and determining where best to place the various plants. Sara is an advocate for using the "winter sow" method for native plants and many of the flowering plants that were added to the garden were a donation from her "winter gardening".



Osage Trail Master Naturalists from left to right: Mel Haney, Sara Scheil, Beth Settle and Ken Snow.

It is now less than a month since the MMNs completed their work in the front garden and already many pollinators have come to enjoy the fruits of their labor. THANK YOU MASTER NATURALISTS.





Thank you for your Support

The following individuals and organizations have provided support since the beginning of 2023 along with many other anonymous donors. We give thanks to them and to all who have supported the Missouri River Bird Observatory! YOU make our work possible.

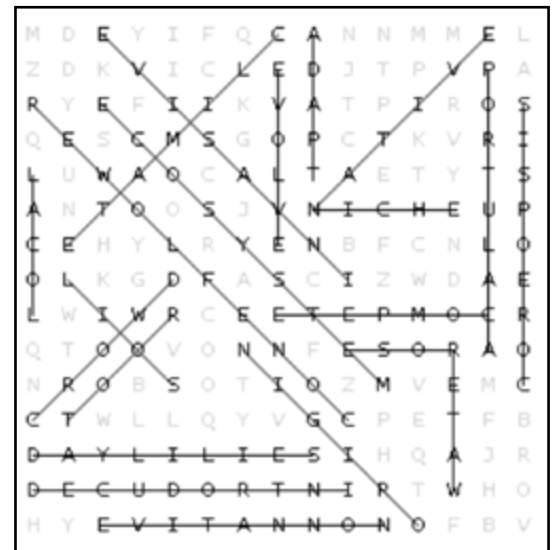
Aaron and Jon Trigg	Jack and Amy Corrigan	Laura Robinson	Sean Tracy
Abigail Perkins	Janice Wiese-Fales	Lee Elliott	Shawna Bethell
Alpha Benedetti	Jennifer Renee	Lee Walter	Shelby Gregory
Bill Rowe	Joshua Tripp	Mark and Theresa Enderle	Shirley Wolverson
Burroughs Audubon Society	Kade Bruce	Matthew Schamberger	Steve and Regina Garr
Catherine Webb	Kalen Brady	Myra Chrisotopher	Steve Johnson
Chanteil Sniff	Karen Mathis	Nancy Blossom	Steve Schnarr and Mel Cheney
Conservation Federation of Missouri	Karen Sweeney	Nicholas Salick	Sue and Dan Kelly
Dana Micklos	Kathy Borgman	Nick and Leslie Huston	Tammie Gillespie
Deborah Malas	Kim Kraus	Nicole LaPlante	Thomas Tucker and Tina Yochum-Magaz
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Ed Smith	Laura Good	Sarah Beier Hobbs	
Elizabeth and Peter Allen	Laura Morlan	Sean Boston	

Our fiscal year-end report (August 1, 2022-July 31, 2023) will highlight all donors during this period. Also included will be a list of MRBO's "Legacy Donors", those who have included MRBO in their will. If you have made such provisions for the future, please let us know. We would like to thank you for your thoughtful generosity that will contribute to MRBO's success in the future. As always though, we respect donors who wish to remain anonymous or maintain their privacy. You are welcome to contact our Chairman (diane.benedetti@mrbo.org or 630 605 3240) with any thoughts or questions you may have.



Little Nestling's Corner Answers

1. Common Boneset
 2. Coneflower
 3. Coreopsis
 4. Crane's Bill (Geranium)
 5. Foxglove Beardtongue
 6. Oakleaf Hydrangea
 7. Prairie Dock
 8. Wild Quinine
 9. Winged Purslane (Portulaca)
1. Butterflies, caterpillars, beetles, and flies.
 2. Hummingbirds, butterflies, and bees.
 3. Long-horned bees, small carpenter bees, leafcutter bees, cuckoo bees, and sulphur butterflies. Cardinals, chickadees, goldfinches, and others eat the seeds once the flower head fades.
 4. Butterflies, hummingbirds.
 5. Butterflies, birds, and even hummingbirds.
 6. Bees, butterflies. Songbirds eat seeds.
 7. Honeybees and bumblebees. Goldfinches love to eat the seeds.
 8. Bees, wasps, flies, and bugs like the nectar; beetles like the pollen.
 9. Bees, butterflies and moths.





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