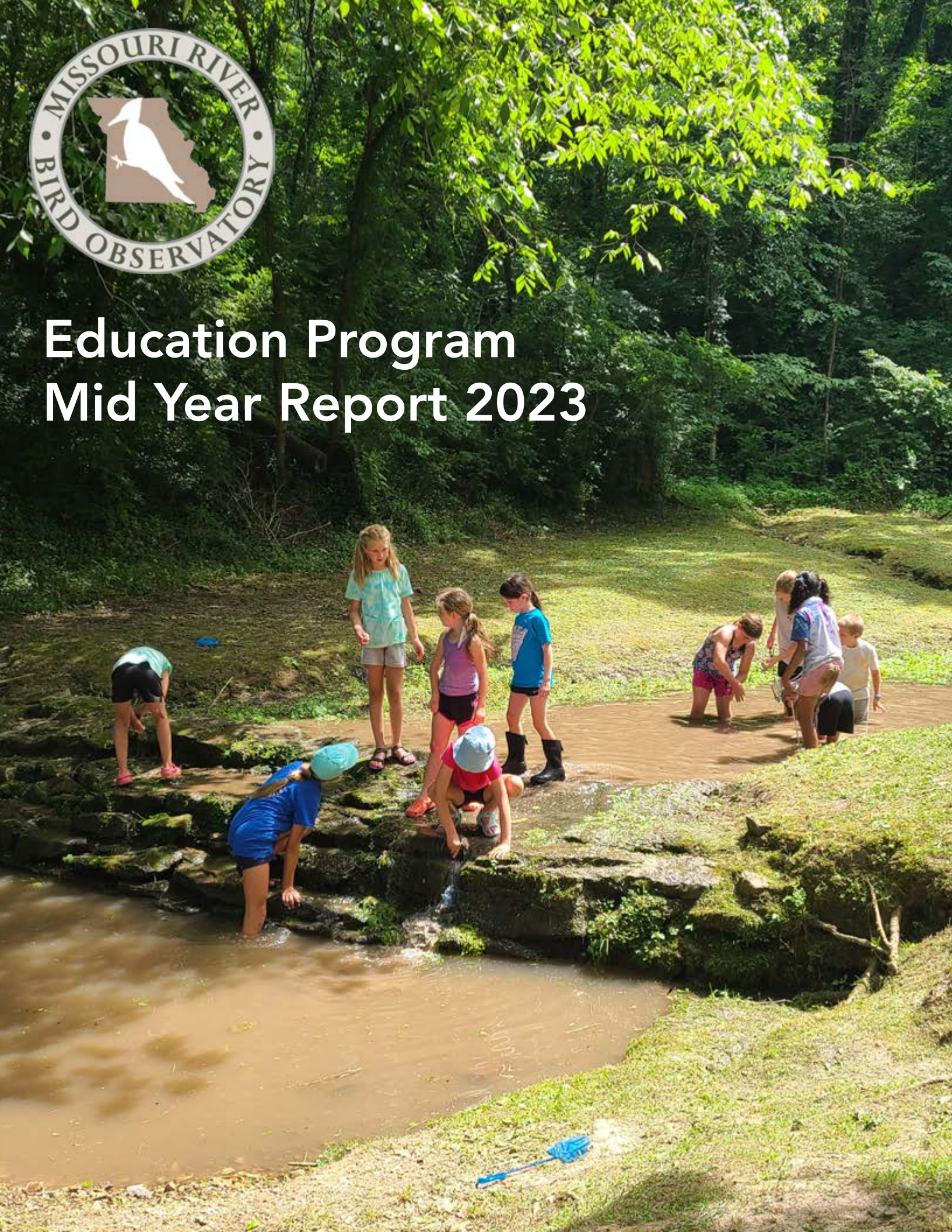




# Education Program Mid Year Report 2023

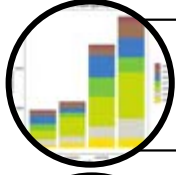


# Our Mission



## 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.

## MRBO Staff

**Dana Ripper Duke**  
Director/Founder

**Ethan Duke**  
Director/Founder

**Marlee Dodson**  
Operations Assistant

**Laura Semken**  
Education Coordinator

## MRBO's Core Values

- Robust data and scientific integrity
- Time-and-cost-efficiency and use of technological innovations
- Fostering the formation of partnerships
- Embracing and encouraging equity, diversity and inclusion
- Empowering and providing opportunities for young people

## Board of Directors

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Marshall, Missouri

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Education Program Chair  
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Columbia, Missouri



*Family Time by Ryan Steffens*

## In this Report

Highlights . . . . .	3
Education Scope . . . . .	4
Arrow Rock Natural Resource Programs . . . . .	6
Young Explorers Camp . . . . .	6
Missouri Young Birders Club . . . . .	8
Statewide Programs & Festivals . . . . .	8
Birds, Bees & Blooms Festival . . . . .	10
Winter Learning Series. . . . .	11
Adult Education Programs. . . . .	11



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# 2023 Highlights

- **Hired a full-time Educator Coordinator based in Arrow Rock (meet Laura on page 4!)**
- **From January - July, MRBO helped thousands of students to explore and experience nature, and hundreds of adults with conservation-focused workshops and presentations**
- **Secured partnership funding to launch a joint staff position with the Missouri Department of Conservation (MDC). The Community Conservation Educator will be based in Kansas City at the Anita B. Gorman Discovery Center starting in August.**
- **Young Explorers Camp entered its 7th year.**
- **Development of the Arrow Rock Nature School continued in partnership with the MDC and with support from the organizations and people listed below. During the 2023-24 school year, MRBO will be hosting 4th and 5th grades from:**
  - » **Marshall**
  - » **Santa Fe**
  - » **Blackwater**
  - » **Miami**
  - » **Glasgow**
  - » **Hardeman**

*Background photo shows the historic Lawless-Barger property, home of the Arrow Rock Nature School*



## Thank you Education Program Sponsors!



## Meet MRBO's new Education Coordinator!

Laura Semken joined the MRBO team in late February 2023. She is developing the Arrow Rock Nature School and coordinating a wide variety of bird adventures that lead to stewardship action. In her short time at MRBO, she has delivered nature experiences to more than 1,000 Missouri students.

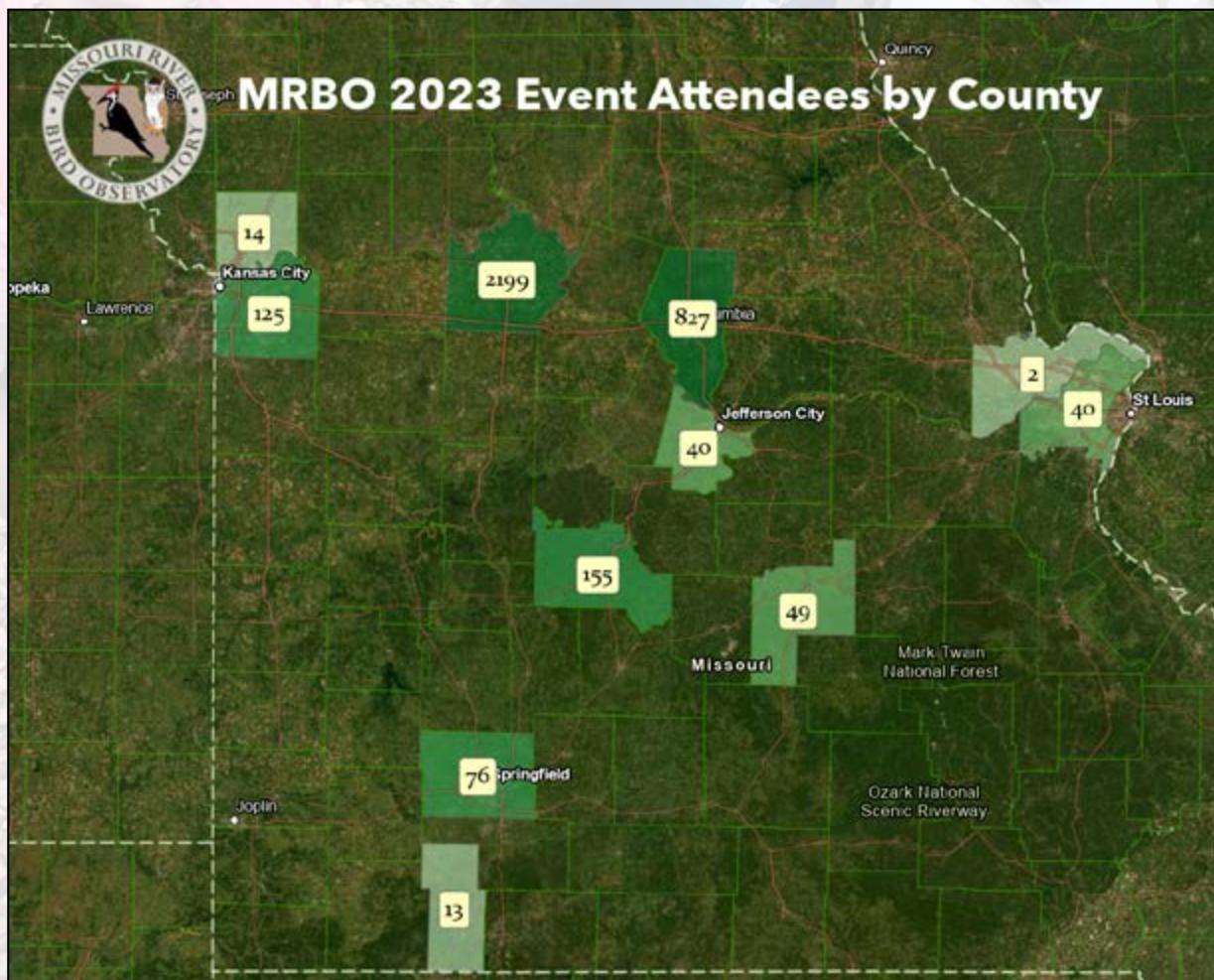
Laura was raised in Kansas City, Lee's Summit, and on a farm on Little Blackwater Creek. As a kid she could be found in a tree, in the creek, smelling wildflowers or on her bike. Not much has changed.

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.



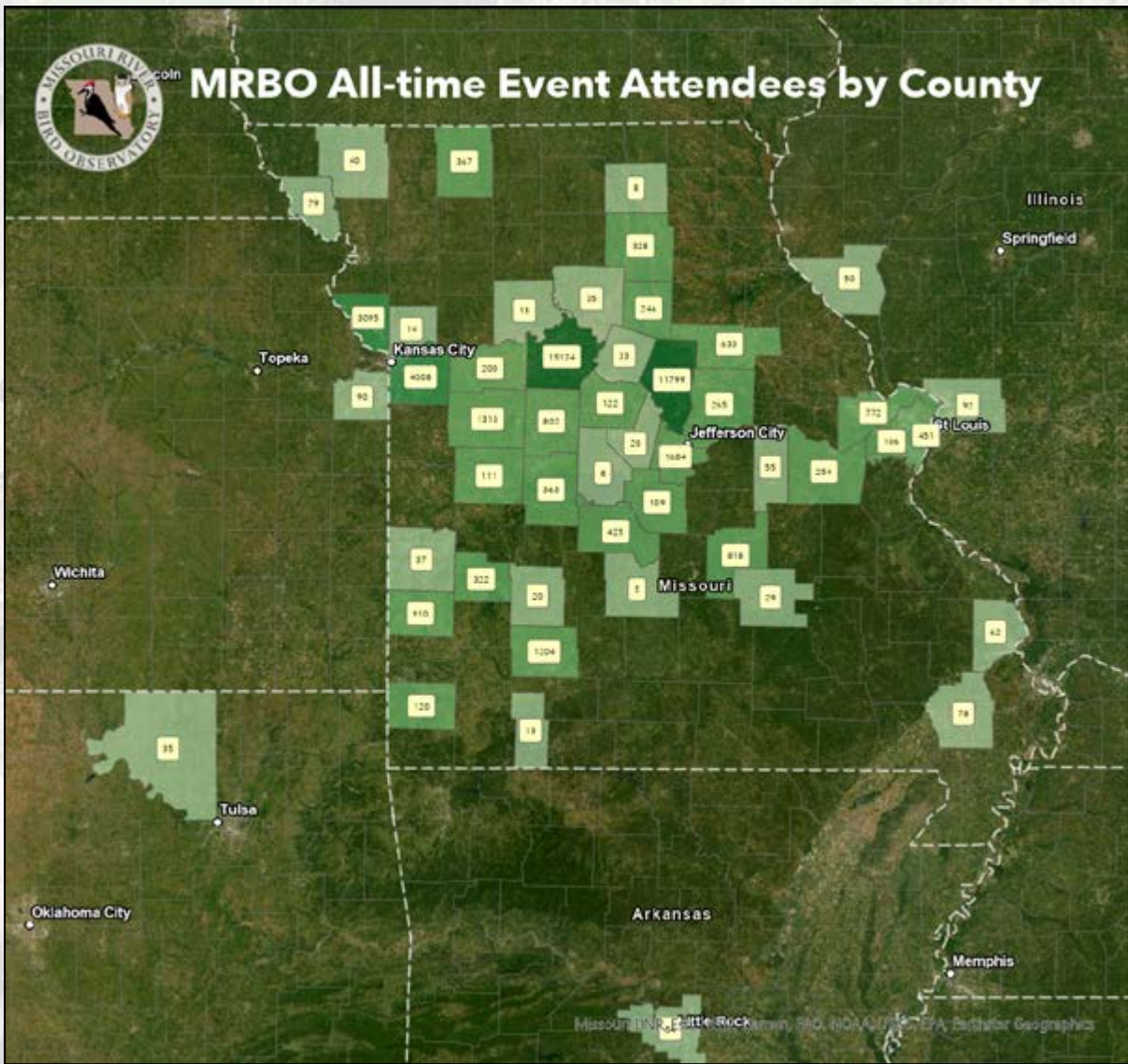
## Education Scope

The maps on the following pages show which counties MRBO reached through our education and outreach programs. The first one shows the counties reached since March of 2023 and the following map shows the counties reached since MRBO began taking attendance. The color scale is based on the approximate number of attendees that participated in that county. Please note that these maps do not include virtual events for which audience location is unknown.

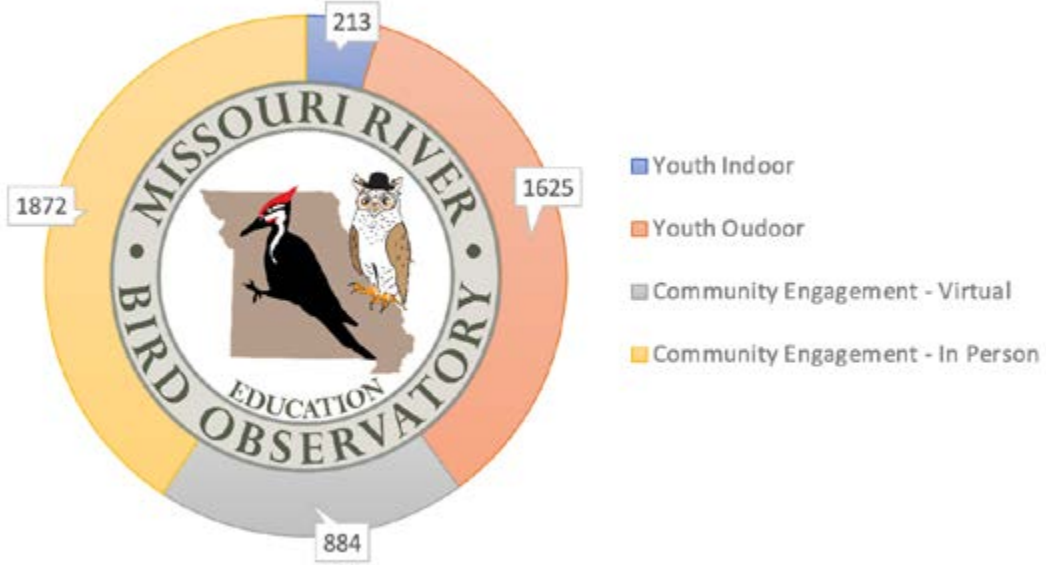




# MRBO All-time Event Attendees by County



## People reached by MRBO programs, January - July 2023



# Arrow Rock Natural Resource Programs

Hosted 20 programs with 1,017 students plus 139 adults

Each year in partnership with the Friends of Arrow Rock and the State Historic Site, MRBO conducts Arrow Rock Natural History programs. Over six weeks, more than 1,000 students toured the natural features of our local area and discovered what has made Arrow Rock a place to thrive for both humans and animals for hundreds of years. We explored a wide variety 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. Students also learned about chert from the Missouri River bluffs. Chert is used to create stone tools like arrowheads and axes. Kids learned how to connect everything back to how healthy habitats help wildlife and people, and how natural resources fit in with the history and culture of the area.



YMCA Students exploring the cool waters from the Big Spring.



Students were challenged to use their observation skills to find the native birds that live in Missouri year-round.



Each student was able to feel the skin on the tree frog and observe it in its natural habitat.



One day students wanted to explore the magnificent natural resource: the Big muddy!

## Young Explorers Camp



Campers practiced using binoculars. A pair of Red-bellied Woodpeckers were bringing caterpillars to their young nearby. There was also a pair of Summer Tanagers hanging around that we all got to watch.

The 7th Annual Young Explorers Camp was held for two week-long sessions in June. Eleven campers enrolled in Week 1 and ten campers enrolled in Week 2. Every day was filled with discoveries. The Lawless Farmstead and entire Village of Arrow Rock served as excellent locations for kids to explore, discover, and connect with nature.

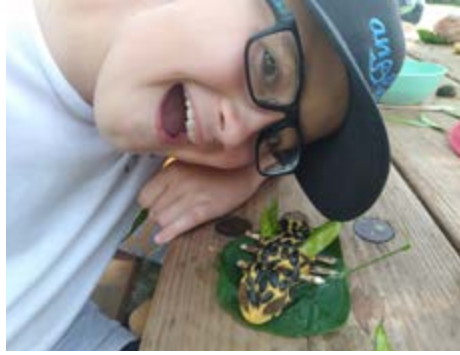
Through encouragement and guided exploration, the campers were able to gently handle wildlife, taste wild edibles, and create nature journals. Campers were also encouraged to explore connections within the web of life by participating in various activities and crafts. Our activities fall under the Missouri Learning Standards and further reinforce concepts our campers are learning in school.

We appreciate all the parents, grandparents, and caregivers for their support of the Young Explorers Camp. Being trusted to guide children through supervised play in the exploration of, and connection with, nature brings purpose and joy to our lives. Meeting the campers and getting to spend time with them is a gift.





Campers found the magnificent mulberry full of the ripest, juiciest fruit EVER!



Carter shows off his critter dough creation, a wasp, that was put out for the birds to nibble. It is made from cornmeal, flour, and peanut butter.



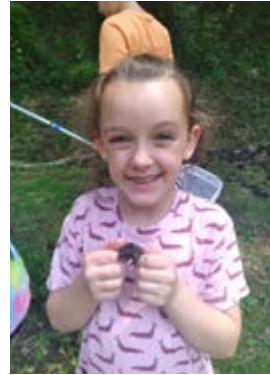
Anna Kate, Hadley, Edrie, and Ada have located the prime spot for catching crawdads and tadpoles.



Errett peeks in on his bird nest creation.



Our forest exploration day brought many surprises! We heard new birds, found many different animal tracks in the creek and a plethora of bruising boletes.



Mikayla handles a baby Snapping Turtle.



Calvin wants to be an entomologist when he grows up. He is already well on his way!

### Campers received their very own exploration kit!

#### The kits included:

- Backpack
- MRBO Water Bottle
- Nature Journal
- Butterfly Net
- Aquatic Insect Net
- Hand Magnifier
- Bug Observation Container
- Pencils and Eraser
- Pencil Sharpener
- Ruler
- Colored pencils
- Pencil Case
- Young Explorers' Club T-shirt



#### Summer Education and Outreach Intern: Chelsea Mosteller

Our Education and Outreach Intern for the summer of 2023 was Chelsea Mosteller, a gifted artist with a passion for all things bird. Chelsea has loved nature and birds her whole life and shared this passion with campers and the organization during her internship. As an artist, she led the campers in the nature journaling activity, lending patient guidance to their watercolor exploration. Her enjoyment of mushrooms, creek-walking, and insects also delighted the campers.

The intern's main task is assisting the Camp Director with planning, organizing, preparing, and running the Young Explorers' Camp. This internship is vital in making camp a great experience for all. Thank you, Chelsea!

Left: Chelsea fishing at Big Soldier Lake wearing the MYBC logo shirt which she designed!



# Missouri Young Birders Club



The mission for the Missouri Young Birders Club (MYBC) is to bring together young people to enjoy, experience, and conserve Missouri's birds and other wildlife. MYBC members connect from all over the state during our virtual monthly meetings, and also participate in regional field trips organized by chapter leaders. The club's growth thus far would not have been possible without the help of our adult chapter leaders as well as Missouri Department of Conservation staff, Missouri State Parks staff, and the Missouri Birding Society. We're also thankful to all the parents, grandparents, and guardians who help young birders attend MYBC events!

You can always learn more about what the Missouri Young Birders Club is up to and how to get involved by visiting the website [moyoungbirders.org](http://moyoungbirders.org).

## Membership

5 virtual MYBC meetings, 3 Field Trips

Current members = 54

New members 2023 = 9

MYBC had 24 members in 2021. Since then, MYBC has gained 30 members.

This is a 125% increase!

## Chapter News

**Greater St. Louis Chapter** – Our St. Louis Regional Chapter was officially launched in 2020 with the help of members of the St. Louis Audubon Society. Since the beginning of 2023 we have gained six new members from the greater St. Louis area bringing the chapter to 18 total members! Thank you to chapter leader Kelly Smith and adult mentor Jonah Eckels for guiding this chapter!



**Central Chapter** – Since the beginning of 2023 we have gained three new members to the Central Missouri Chapter bringing its total membership to 24 members. Thank you to chapter leader Veronica Mecko and adult mentors Lottie Bushman and Thomas Carpeuter for guiding this chapter!

**Kansas City Regional Chapter** – The Kansas City Regional Chapter has 8 members. Thank you to Sara Scheil for being the chapter leader and to Evelyn Kirtley, Katie Boord and Tammy Maples for serving as adult mentors.

**NEW Springfield Chapter** – Since our last MYBC update, we have added a new chapter in Springfield! Ashlee Huerta with the Missouri Department of Conservation is the chapter leader. There are currently 5 members. Thank you, Ashlee for guiding this chapter!

## Field Trips

### Greater St. Louis Chapter

Wetland Hike at Marais Temps Clair CA in St. Charles, MO

Species Highlights: 5 Northern Bobwhite, 2 Northern Harriers, 1 Merlin

### Central Missouri Chapter

Twilight Timberdoodle Hike at Rocky Forks Lake CA in Hallsville, MO

Species Highlights: Heard a Louisiana Waterthrush singing on March 28<sup>th</sup>, observed the Timberdoodle "Peent" Dance.



### Greater Springfield Chapter

Hummingbird Hike at Nathanael Greene Springfield Botanical Center in Springfield, MO

Highlights: Discussed flower shapes and habitat needs for Hummingbirds.

## Monthly Meeting Topics

Winter Sparrows, Owls of the Midwest, Rails, Hummingbirds, Warblers, Swifts & Swallows.

Guest Presenters: Veronica Mecko, Pete Monacell, Bill Eddleman.





# Festivals and Events Across the State

## Number of Events

Public Festivals: 5

Youth Education Events: 12

Total number of people reached: kids 930, adults 1,381

## Festivals

It's all about birds, all the time! MRBO traveled to St. Louis to participate in the Passport to Clean Water Festival. Participants discovered how plastic pollution in our rivers is accidentally being ingested by birds. At the Echo Bluff State Park Bird Festival participants practiced telling the difference between a Bald Eagle and a Turkey Vulture in flight. They also discovered how and why raptors and some other birds glide in spirals, effortlessly climbing higher and higher into the sky on thermal air currents. Then they created their own symbolic thermal air current by cutting a spiral out of a paper plate and gluing raptors up the column. When held, the spiral will spin in the wind. Other festivals included the Burr Oak Woods Naturescaping Event, Get Outdoors Day at Kemper Outdoor Education Center, and Columbia Earth Day.

## Education throughout Missouri

Since the beginning of the year, MRBO has participated in 12 youth education events that led us near and far, from Marshall to Rolla Outdoor Collaborative School to Springfield Nature Center to Columbia to Kansas City. Topics ranged from the structures and functions of bird adaptations to bird friendly landscaping to how the plastic crisis is harming habitat for all creatures on earth. Just a few highlights include:

Mornings at the River with partner Missouri River Relief: Families were encouraged to explore birds that live along the Missouri River. Participants got to see fascinating sights such as Cliff Swallows swooping through the air, catching insects and bringing food back to their intricate mud nests that cling to the vertical walls under a bridge.

Dogwood Canyon: MRBO led a day of Bird Camp with Dogwood education staff. Campers were introduced to threats that occur during bird migration, the importance of cooperation when problem solving, ways to improve habitat for birds, and tools for participating in stewardship action.



*Dogwood Canyon: Campers made critters out of bird friendly dough and set them out at the bird feeders. Then campers participated in the community science program called FeederWatch.*



*Passport to Clean Water St. Louis: Participants were challenged to be like an American White Pelican and scoop up only fish (no plastic).*



*Earth Day Columbia: Based on a scientific study, participants built a 3D bar graph that demonstrates the magnitude of various anthropogenic threats to birds. The tallest stack represents the total number of birds killed by domestic cats each year in the U.S.*



*Mornings at the River: Families were invited to explore birds along the Missouri River.*



*ROCS Rolla Outdoor Collaborative School: Students explored how birds build nests.*

*Afterwards, students got to be their chosen bird, discover their nesting structure, and build their nest.*



# Arrow Rock Birds Bees & Blooms Festival



We at MRBO are proud to have started the **Birds & Bees Festival** in Arrow Rock. The original Birds & Bees fest “piggybacked” off the popular, 20-year-old Arrow Rock Garden Market and Vintage Bazaar, an event that took place every 2nd Saturday in May. The Garden Market featured vendors of plants, crafts, outdoor items, and more. MRBO wanted to introduce a nature education aspect and highlight outdoor plants, and our partner Experience Arrow Rock graciously allowed us to hold the first Birds & Bees Festival in conjunction with the Garden Market in 2019.

In 2023, the two festivals merged into one great, colorful event now known as **Birds Bees & Blooms!** This year we had over 1,000 festival attendees on a beautiful Saturday in late April. Visitors were treated to almost 40 booths, plus opportunities to go on guided bird, plant, and insect walks. In addition to vendors offering nature-related items for sale, many naturalists and fellow conservation organizations had educational displays and activities for attendees.

**SAVE THE DATE! April 27th, 2024**



## MRBO's Visitor Center - The BirdHouse



The MRBO visitor center, The BirdHouse, has been open to visitors since the end of April and will be open through the end of October. This season MRBO has educated hundreds of visitors about Missouri's natural communities, and of course, birds! We have a viewing area out back for folks to watch birds, we have a gift shop for people to purchase items and support MRBO, as well as a natural communities diorama that is a big hit with the kids!

**You can help support MRBO's education programs by taking part in our Fall Auction and CoMoGives!**



# Adult Education Programs

Since the beginning of 2023, MRBO has given 28 programs for adult audiences.

From January to March, in partnership with the Conservation Federation of Missouri and the Missouri Birding Society, we hosted the very popular **Winter Learning Series (WLS)**, a weekly virtual event on Monday evenings. The WLS featured different guest speakers each week, all renowned experts in their fields. We received rave reviews about every presentation. Each WLS session had between 150 and 300 registrants, and attendance was over 130 Zoom participants each week. We are very grateful to our awesome guest presenters and look forward to hosting another series in 2024!

MRBO staff have also been giving a variety of both **virtual and in-person programs** to groups across the state and beyond. From January to July 2023, we have reached approximately 800 adults with presentations and discussions on topics such as native plant landscaping, prairie and wetland ecology, and introductory bird ID. We are also often given the opportunity to speak to adult audiences on policy issues such as single-use plastics and food system concerns.

**Partner organizations and venues** have included several chapters of the Missouri Master Naturalists, the Missouri Natural Resources Conference, the Missouri Waste Control Coalition, Daniel Boone and Missouri River Regional Libraries, the Chicago Ornithological Society, Stream Teams United, the National Association of Interpreters, and the Mizzou Botanic Garden.



## Part 1

- January 9th - Bird Conservation 101/Intro to the Learning Series - Dana Ripper, MRBO
- January 16th - Winter Sparrows of Missouri - Mark McKellar, Backyard Bird Center of Kansas City
- January 23rd - Why Prairie Matters: New Relevancies of a Vanishing Landscape - Carol Davit, Missouri Prairie Foundation
- January 30th - How the Missouri legislature works and current bills of conservation importance - Kyna Iman & Zach Morris, Conservation Federation of Missouri
- February 6th - Birds in Big Numbers: Cause for Celebration or Concern? - Eric & Joanna Reuter

## Part 2

- February 20th - Owls of the Midwest - Ethan Duke, MRBO
- February 27th - Prairie Grouse of North America - Seth Gallagher, National Fish and Wildlife Foundation
- March 6th - Cycled Energy: Wetland Communities, Processes, Alterations, and Ecological Services - Frank Nelson, Missouri Department of Conservation
- March 13th - Motus Bird Tracking - Sarah Kendrick, U.S. Fish and Wildlife Service
- March 20th - Pollinator Gardening and Conservation - Kate Lamke and Rae Powers, Xerces Society for Invertebrate Conservation
- March 27th - The 7 Simple Actions to Help Birds - Paige Witek, Door County Land Trust

## Upcoming Events

- August 3rd - 5:30 pm: Wood Thrush Motus-tagging Informational Session & Call to Action
- August 26th 11am - 2pm: Passport to Clean Water at Green Tree Park in Kirkwood, MO
- September 9th - 10am - 3pm: Prairie Days at Dunn Ranch Prairie & Pawnee Prairie Natural Area
- September 9th - 8am - 2pm: Fall Nature Festival at Ozark Rivers Audubon Nature Center
- September 16th - 1:30pm - 4pm: Plastic Brand Audit at Weldon Springs Conservation Area in St. Charles, MO
- September 30th - 10am - 3pm: Get MO Wild at James A Reed Memorial Wildlife Area
- October 14th & 15th: Arrow Rock Heritage Festival
- October 21st - 1:30pm - 4pm: Plastic Brand Audit at Stump Island Recreational Park in Glasgow, MO

To learn more about MRBO's upcoming events visit <https://mrbo.org/events/>



Educators with the Midwest Regional Chapter of the National Association for Interpreters visited MRBO in February





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