The Missouri Birding Society

Officers

Edge Wade\textsuperscript{*,+}, President (2024); 3105 Blackberry Lane., Columbia, MO 65201, (573)268-3714, edgew@mchsi.com

Michael O’Keefe\textsuperscript{*,+}, Vice President (2024), Independence, MO, (816) 478-4512

Phil Wire\textsuperscript{*,+}, Secretary (2024)
1245 Boone St., Troy, MO 63379-2471 (314) 960-0370, phw222@gmail.com

Tommy Goodwin\textsuperscript{*,+}, Treasurer (2024); 321 Blanche Dr., St. Charles, MO 63303; (417) 241-9189 tommy.j.goodwin.jr@gmail.com

Honorary Directors
Richard A. Anderson, St. Louis\textsuperscript{**}
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Regional Directors

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Kendell Loyd\textsuperscript{+} (2026)
Springfield (573) 776-0901

Lottie Bushmann\textsuperscript{+} (2024)
Columbia (573) 445-3942

Dan Getman\textsuperscript{+} (2024)
Kirksville, (314) 560-5883

Jennifer Pederson\textsuperscript{+} (2024),
Kearney (816) 903-4063

Mike Grant\textsuperscript{+} (2025)
Chesterfield (314) 779-8032

Greg Leonard\textsuperscript{+} (2025)
Columbia (573) 443-8263

Terry McNeely\textsuperscript{+} (2025)
Jameson (660) 828-4215

Chairs

Bill Clark, Historian
3906 Grace Ellen Dr.
Columbia, MO 65202
(573) 474-4510

Greg Leonard, Membership
2101 W. Broadway, PMB 122
Columbia, MO 65203-1261
egreg2@yahoo.com

+ Board Position
* Executive Committee Member
**Deceased
The Bluebird

Editor:
Allen Gathman*+, PO Box 1, Pocahontas, MO 63779, (573)
579-5464, agathman@gmail.com

Christmas Bird Count Compiler:
Kendell Loyd 1730 E Valley Watermill, Apt D 108, Springfield, MO 65803,
(573) 776-0901, kloyd892@gmail.com

Communication Services:
Kevin Wehner, Webmaster and eNews editor
David Scheu, Listserv co-owner mobirds-l-request@po.missouri.edu
Mike Grant, Listserv co-owner

MBS Bauer Graduate Scholarship Committee:
Sarah Kendrick, Chair, 808 Fairway Dr. Columbia, MO 65201,
612-394-8822, sarah_kendrick@fws.gov

MBS Youth Scholarship Committee:
Edge Wade, Chair, 3105 Blackberry Lane., Columbia, MO 65201,
(573)268-3714, edgew@mchsi.com

MO Bird Records Committee:
Pete Monacell+—Chair, 2324 W Main St., Jefferson City, MO 65109,
(573) 289-8116, plmonacell@ccis.edu
Bill Rowe—Secretary, 7414 Kenrick Valley Drive, St Louis, MO 63119-5726 (314) 962-0544, rowemb45@gmail.com

Seasonal Survey Editors:
Spring: Josh Uffman, 707 Ashton Way Circle, Eureka, MO 63025,
(314) 616-0296; birdsandbugs@sbcglobal.net
Summer: Allen Gathman, PO Box 1, Pocahontas, MO 63779, (573)
579-5464; agathman@gmail.com
Fall: Mary Nemecek, 7807 N. Merimac Ct, Kansas City MO 64151,
(816) 210-5148; msnemecek@aol.com
Winter: Pete Monacell, 2324 W Main St., Jefferson City, MO 65109,
(573) 289-8116, plmonacell@ccis.edu

* Executive Committee Member
+ Board Position

Deadlines for submission of material for publication in The Bluebird
Manuscripts for The Bluebird—to the editor by:
Feb. 1 for March issue; May 1 for June issue;
Aug. 1 for Sept. issue; Nov. 1 for Dec. issue
Manuscripts submitted for peer review may be published in a subsequent issue.

Deadlines for submissions to the Seasonal Survey Editors
Winter (Dec. 1-Feb. 28)—to Pete Monacell by Mar. 10
Spring (Mar. 1-May 31)—to Josh Uffman by June 10
Summer (June 1-July. 31)—to Allen Gathman by Aug 10
Fall (Aug. 1-Nov. 30)—to Mary Nemecek by Dec. 10
<table>
<thead>
<tr>
<th>Page</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>39</td>
<td>President’s Corner</td>
</tr>
<tr>
<td>41</td>
<td>Subscribe to the MOBIRDS Listserv</td>
</tr>
<tr>
<td>42</td>
<td>We welcome our new MBS members — Greg Leonard</td>
</tr>
<tr>
<td>43</td>
<td>In memoriam Wally George — David Easterla</td>
</tr>
<tr>
<td>48</td>
<td>2024 MBS Spring meeting — Edge Wade</td>
</tr>
<tr>
<td>53</td>
<td>Is the female Brown-headed Cowbird getting smarter? — David Easterla</td>
</tr>
<tr>
<td>56</td>
<td>Notes on Foraging, Roosting, and Diurnal Activity by Limpkin (Aramus guarauna) at Twin Lakes Park, Columbia, Boone Co — Paul M. McKenzie</td>
</tr>
<tr>
<td>62</td>
<td>Visions of owls dance in my head — Chrissy McClarren</td>
</tr>
<tr>
<td>67</td>
<td>Breeding Success of Eastern Meadowlark (Sturnella magna) and interactions with bison (Bison bison) grazing in restored pastures of Midewin National Tallgrass Prairie — Alejandro Chávez Treviño</td>
</tr>
<tr>
<td>71</td>
<td>Book Review: Feather Trails by Sophie A. H. Osborn — Allen Gathman</td>
</tr>
<tr>
<td>74</td>
<td>Spring — Terry Miller</td>
</tr>
<tr>
<td>75</td>
<td>Birders’ Guide: Castor River Conservation Area — Mark Hahn</td>
</tr>
<tr>
<td>79</td>
<td>Birders’ Guide: Robert G. Delaney Lake Conservation Area — Mark Haas</td>
</tr>
<tr>
<td>82</td>
<td>Birders’ Guide: Seven Island Conservation Area — Allen Gathman</td>
</tr>
<tr>
<td>85</td>
<td>Peer-reviewed Article: A Record of Common Yellowthroat (Geothlypis trichas) Entangled on Virginia Stickseed (Hackelia virginiana) in Missouri — Paul M. McKenzie</td>
</tr>
<tr>
<td>93</td>
<td>Missouri Christmas Bird Counts 2023-2024 — Kendell Loyd</td>
</tr>
</tbody>
</table>

Note: The Fall Seasonal Report will appear in the September issue.

Front Cover — Say’s Phoebe, Schell-Osage Atkinson Lake, St. Clair Co. Photo Bob Estes.

Peer-reviewed articles in The Bluebird are noted by a header. Species mentioned in articles not so designated may not have been subject to review.
I began thinking about this June column in early April, when all around me were the soft, indistinctly lined pastels of a burgeoning Missouri spring, bringing thoughts of Monet abstracts to mind. So, naturally, I was distracted...for a month (after all, it is spring in Missouri and migration is underway)...and now the deadline is here!...and so are the orioles and grosbeaks, and... more distraction...no, not just distraction, addictive eye candy vying for attention, and getting it until now.

The 2024 MBS Spring Meeting planned by Michael O’Keefe and Jennifer Pederson was a smash hit. See the article featuring photos by Mike Grant, Veronica Mecko, and Michael O’Keefe on p.48 of this issue.

It’s been a busy late winter and early spring.

The Youth Scholarship Committee reviewed applications for the MBS camp scholarship to ABA’s Camp Colorado in Allenspark, CO. Zita Roberson of Canton, MO was selected. The field of applicants was so strong the MBS Board, at the request of the committee, has voted to offer two camp scholarships for 2025, one to Camp Colorado and one to Camp Delaware Bay. The two camper slots will be reserved for Missouri young birders as soon as ABA opens reservations in early fall, and applications will be available soon after.

The Board approved $585 toward a CACHE/SPARKS partnership project to support a birdwatching unit of study at Kansas City’s Our Lady of Hope School, to be capped off with a field trip to Wallace SP; and $2,000 to Missouri River Relief in a partnership toward operation of the 2024 Missouri River Adventure Camp this summer.
We’re looking forward to articles about both programs in future Bluebirds. You can view the progress of these and all other CACHE/SPARKS partnership projects on the MBS website at https://mobirds.org/MBS/Conservation.aspx.

The Board also appropriated $1,500 to Missouri River Bird Observatory toward development and delivery of April weekly Zoom-based webinars in a collaborative effort to bring bird-related information to Missouri birders as an integral component of MBS programming. We hope to resume the series in the fall.

Michael O’Keefe represented MBS at the Conservation Federation of Missouri sponsored Grasslands Summit April 9-11 in Jefferson City. Between a hefty agenda load of presentations, Michael connected with representatives of Missouri’s very active conservation oriented organizations. He’ll bring a broad set of information and perspectives to future MBS grassland topics and actions.

MBS is working with Birding Hotspots, a project to provide basic information about what to expect and how to bird the 2,064 eBird Missouri hotspots. You can contribute photos and/or short content pieces. See https://birdinghotspots.org/region/US-MO. This is a great time of year to get good photos showing the habitats and amenities of the hotspots. At this writing there are 646 sites with at least one photo (several may be used for a site). Only 392 have written content.

MBS has a partnership commitment to provide bird monitoring for the Ha Ha Tonka State Park Bank Branch Glade Restoration project, funded by a Natural Community/Habitat Grant from MoBCI, with Jacob Bryant, Park Naturalist as Project Coordinator. This partnership commits MBS volunteers to provide 10 hours of bird surveys submitted to eBird per month in July 2024, August 2024 and June 2025, and a brief report of the results in each month to the Project Coordinator. The in-kind value of the volunteer bird monitoring is calculated as $1,800. Can you help monitor? Contact me in my Conservation Partnership Coordinator hat via email for additional details.

There are many opportunities to represent MBS before the public. Some of the recent activities include “Introduction to Birding
Missouri,” a presentation to the Meramec Hills Chapter (Rolla, Phelps Co.) Master Naturalists class and “Finding 375+ Bird Species in Missouri” presented to the residents of the Golden Age Assisted Living, Stover (Morgan Co.). Michael O’Keefe and I represented MBS at the Arrow Rock (Saline Co.) Birds, Bees Blooms Festival, sharing a table with hummingbird bander Veronica Mecko.

I just bought new tires, so on June 1 I plan to be at Echo Bluff State Park (Shannon Co). August 22–23 2024 is the Annual MoBCI Conference in Columbia, (Boone Co.), and this fall, we plan to attend the Conservation Federation (CFM) Affiliate Summit September 5-6 (site not known), and the Conservation Expo 2024 at Cooper’s Landing September 7-8, (Boone Co.)

If we don’t cross paths this summer, let’s get together for some bodacious birding at the MBS Fall Meeting, October 4-6, in Independence!

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If you are curious about what birds are being seen around Missouri, have a question about a bird, enjoy sharing your birding experiences, want to know what field trips are coming up, want to meet other birders online, the MBS sponsored MOBIRDS listserv is for you.

Join the active Missouri birding community by subscribing here: https://po.missouri.edu/SCRIPTS/wa.exe?SUBED1=MOBIRDS-L&A=1

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Also, all listserv posts are retained in a searchable archive: https://po.missouri.edu/SCRIPTS/wa.exe?A0=MOBIRDS-L
WE WELCOME OUR NEW MBS MEMBERS!
Greg Leonard

Remember, new members are our future. If a new member lives near you, say, “Howdy and welcome to MBS.” In addition, recruit another new member. Welcome to these 18 new MBS members in the 2nd quarter of 2024!

Margie Bowman  St. Peters, MO
Lucy Terry  Kansas City, MO
Cindy Kell  Canton, MO
David Wheaton  Independence, MO
Nancy Schaefer  Smithville, MO
Thomas Vesely  Saint Louis, MO
Karen Lyman  St. Joseph, MO
Alan Rankin  Niangua, MO
Doug Hardesty  Columbia, MO
Krista Smith  Joplin, MO
Shirley Seabaugh  Jefferson City, MO
Alex Bryant  Ballwin, MO
Keith Brink  Ironton, MO
Jeff Powelson  Rosendale, MO
Craig Alexander  Weldon Spring, MO
Judy Lincoln  Columbia, MO
Mary Holzhausen  Kansas City, MO
Leah Devos  St. Charles, MO
This is the story of my friend and buddy Wally George, and of the many adventures we shared. A recent call from Bob George was unexpected, since it was his brother Wally whom I usually communicated with. The news of Wally’s passing was shocking – how could such a strong, healthy person be gone? Only weeks earlier I had called and talked to Wally, who informed me that he had been battling cancer for a lengthy time, but the disease was now in remission; how life can change on a dime. Since college in the 1950s we had always kept in touch, but in later years our contact was by phone every year or so. Regardless, a great naturalist had been lost.

I first met Wally during the fall of 1956 at the University of Missouri – Columbia, when I was a sophomore and he was a freshman. We had the same major, wildlife, and advisor, Dr. William H. Elder, and were enrolled in many of the same wildlife courses in the same building, Stephens Hall, which at the time was the Fish and Wildlife Services Wildlife Unit building. We immediately hit it off in an ornithology laboratory where I was the instructor.

During those early years, Wally reported many good birds that were recorded on a clipboard at the entrance of the wildlife building. Beside his report of 70 Evening Grosbeaks during the invasion year of 1961-62, one of Wally’s best species was Bohemian Waxwing. During that same fall (1961), Wally chased me down, and out of breath stated that he had just observed a lifer, a flock of Bohemian Waxwings south of Columbia in cedar trees at the Ashland Wildlife Area. After he convinced me that the birds weren’t Cedar Waxwings, we jumped in his car and speeded to the area, where I observed my Bohemian Waxwing lifer.

On occasion Wally would mention observing the Bachman’s Sparrow at his home in St. Louis, a species that certainly attracted my attention, as it would be a lifer for me at the time. On a summer weekend in the early 1960s I did make the trip to St. Louis for his Bachman’s Sparrow, but the weather did not cooperate. I would later discover the species nesting in Morgan County, MO.
During college, we took a number of out-of-state birding trips together, including to the Florida Everglades. On a spring break trip, passing through Fort Lauderdale, we of course stopped for a break at the beaches, where there were thousands of other students on vacation. Being poor college students, we spent all our nights camping out. In some way or another, Wally, in talking to a sweet elderly lady who lived by a popular beach, convinced her that we were true birders and used our binoculars only for viewing these feathered friends. She allowed us to erect a tent in her back yard next to the beach. Although tempted to view other (featherless) “birds,” we stuck to our word – and we did observer a lifer, the Northern Gannet.

In the late 1950s, stopping at Fort Lauderdale during another spring break trip to the Everglades, we were caught in a beach riot for which the city unfortunately became famous. We witnessed a beer truck that was stopped at a traffic light beside a beach. Suddenly the truck was surrounded by inebriated students shouting “get that truck,” and then boarding it, throwing cases of beer to other students while the poor driver was in shock. Afterward, they marched down the street toward a liquor store with a gigantic swordfish mounted over its door, chanting “get that fish!” After trashign the fish, they began chanting “get that boat,” referring to a nearby fishing vessel. Hundreds of students began swimming toward the boat, and its occupants hurriedly left before being swamped by student boarders. Here tragedy resulted, as some of the intoxicated students could not return to the beach and drowned. Wally and I were shocked to observe this mob hysteria, and were embarrassed to be students. We immediately left for the Everglades, where we observed many of the Florida specialties in a much more peaceful environment.

Wally, Mike Flieg, Jim Gilmore, and I were driving at night through Alabama, listening to the radio, when a news flash came on, detailing a car wreck that killed “three persons and two negroes!” Wally and the rest of us always stood against racism, hence we were infuriated. Later that same night at a service station we inquired about restrooms. The attendant informed us there were two outhouses, one for us and the other for “Negroes.” We purposely headed for the one for “Negroes,” but were immediately confronted and informed that it was the wrong one, as it was not as clean. Wally, with a scowl on his face and looking straight at the attendant, stated that we were continuing ahead. “If it’s good
enough for them, it’s good enough for us whites.” Wally, Jim, and I were all over six feet tall, and when we looked down at the attendant, he got the message and immediately walked away.

Wally was enthralled with the colorful and vocal Neotropic avifauna. Our earliest trip to Mexico was during Christmas vacation in 1963. On the way we first stopped at Freeport, Texas, to visit the famous “bird lady” (as Roger Tory Peterson called her), Connie Hager. While there, Wally spotted for us a Red-necked Grebe, according to Connie an extremely rare bird. Continuing our trip, we stopped at Corpus Christi, where the National Audubon Society’s annual meeting was being held. We were rewarded one evening when at a restaurant Roger Tory Peterson and his wife walked in for a meal. At the time, no other bird artist could compete with his Eastern Field Guide – he was literally worshiped! After the shock wore off, a discussion ensued about getting his silverware as a souvenir. However, he was using the silverware, and who would have the nerve? When Peterson finished eating and walked out the door, Kay Stewart, a friend of Wally’s, got up and dashed to Peterson’s table, grabbed his spoon, and slipped it into her purse. It would be interesting to know who ended up with that spoon – Kay or Wally?

On the same trip, while stopping at a service station in Brownsville, Texas, we saw another car with birders, which obviously attracted our attention. To our amazement it was Edgar Kincaid, Victor Emanuel, and others who were also visiting Mexico to bird. Since this was our first trip to Mexico, the encounter was very worthwhile, as they readily shared their knowledge about Mexican birds and clued us in on visiting El Salto Falls. Fortunately, we followed their advice and enjoyed one of the most enchanting, beautiful natural areas in Mexico, observing such birds as the Military Macaw, Blue-crowned Motmot, etc. Sadly, in later years we again visited the area and discovered a desolate area with no waterfall and few birds. Above the falls Mexican engineers had diverted the river to another area for power, completely drying up the original falls area – “progress” again.

During the 1950s, the only book on Mexican bird identification was Emmett Blake’s Birds of Mexico. Unfortunately, it contained no color plates, with only descriptions, keys, and a few drawings; what a challenge! While viewing the bird, we would call out its characteristics while someone would be thumbing through Blake’s book, attempting to find a key that fitted the bird’s field marks.
When successful, Wally would yell out “we earned and deserve that lifer!” How times have changed today for bird identification, especially for the beginner.

Later, while traveling farther south, we visited the small, remote mountainous town of Xilitla, where we were told vampire bats could be found in a nearby cave. After discovering the cave and entering, we found on the cave floor a pool of tar-like reddish-black substance, and crawling, but not flying, bats scampering on ceiling ledges – yes, we had discovered the Hairy-legged Vampire Bat (Diphylla ecaudata). As we were leaving, driving back through town, a Mexican appeared out of nowhere, yelling and throwing a knife at us, which bounced off our car. Wally, who was driving, hit the gas, and as we sped out of town declared “do you believe our welcome is over?”

.Editor’s note: This tribute to Wally George will conclude in the next issue of The Bluebird.


2: Ibid.
L-R: Mike Flieg, David Easterla, Wally George, 2005
The MBS 2024 Spring Meeting May 3-5, based at the Stoney Creek Hotel and Conference Center, St. Joseph, was organized by Vice President Michael O'Keefe and Board Member Jennifer Pederson. The team of volunteers they assembled made the weekend one of the best we've had. Of the 91 registered, about 80 picked up nametags; all 11 field trips were well attended; and 201 species were observed over the weekend.

St. Joseph residents Karen Lyman and Donna Chance organized the registration process, greeted members, and handed out “goodie bags” stuffed by Karen and Lolene Dempster of the St. Joseph Visitors

Photo Laura Semken
Bureau. Also provided by Jolene was the delicious (so I’m told) Cherry Mash candy. I got a kick out of telling about a dozen people to “Go ahead, take mine, too, ‘cause I can’t eat it.” It was easy to be generous with something that wasn’t mine in the first place, and I hope it made several people feel as special as they really are to me. Their smiles helped make my day.

The Remington Nature Center was the perfect venue for the Friday evening gathering. We were welcomed with birds swirling outside and entertained by great displays and live critters inside. Jaye O’Keefe’s impressive array of finely crafted cookies disappeared in record time.

Sarah Elder, Remington Nature Center Manager, presented a fascinating overview of the history of St. Joseph, followed by William Kutosky’s in depth description of the features and management requirements of Loess Bluffs NWR.
Saturday at Remington, Laura Semken, Missouri River Bird Observatory Outdoor Educator and advisor to Missouri Young Birders Club, led two sessions of activities for kids and parents in a jointly sponsored MBS/MRBO Family Birding Day that included free pizza.

Field trips began with two offered Friday evening, followed by a full set of options for Saturday. Rain dampened activities at a couple of field trip sites early Saturday, but skies cleared, temperatures rose, and winds stayed low to moderate, providing ideal conditions for birding guided by the outstanding team of field trip leaders Pete Monacell, William Kutosky, Terry McNeely, Steve Kinder, Brent Gaillart, Tom Nagel, Dillon Freiburger, Steve Romo, Joanne Dial, Tim Barksdale, and Peggy and Jim Votz.

Field trip venues were Loess Bluffs NWR, Missouri Western State University, Bluffwoods CA, Mark Youngdahl Urban CA, Wallace SP, Pony Express Lake CA, Northwest Parkway/Old Girl Scout Camp, River Bluffs Hike/Bike Trail, and Belcher Branch Lake CA. Sunday morning’s schedule included options not available Saturday and many who opted for other destinations Saturday were able to see Loess Bluffs Sunday morning and experience the exciting variety ranging from shorebirds to warblers.
At the banquet, 2006 Rudolf Bennitt Distinguished Service Award awardee Dave Easterla and 2024 Camp Colorado camp scholarship recipient Zita Robertson were introduced. MBS Board Members present were recognized, and a happy-hearted lively rendition of the Missouri Prairie-Chicken dance was performed by the crowd to celebrate the life birds seen that day.

The Saturday evening keynote speaker, Ann Johnson Prum, delighted us with behind the scenes tales of videographing birds and showed highlights from PBS broadcast bird documentaries "An Original DUCKumentary", “The Hummingbird Effect”, and “Woodpecker: The Hole Story”.

The Sunday picnic at Mark Youngdahl CA featured a selection of sandwiches, chips and cookies from McAlester’s Deli. Michael O’Keefe conducted the tally resulting in a whopping (maybe a record?) 201 species count.

Smiles, handshakes and hugs were shared with birders calling out, “See you in October in Independence” as they parted, heading homeward toward familiar birding haunts with expectations of a continuing great migration season.
Some Field Trip Participants:

Front Row L-R: Sandy Elbert, Peggy Volz, Linda Trammel, Sherry Leonardo
Back Row L-R: Kelly Ormesher, Janet Haselrig, Dan McCann, Zita Robertson, Zalán Robertson, Jennifer Pederson, Kathleen Anderson, Cindy Kell, Eric Wood, Nellie Robertson

Photo Michael O’Keefe
At 1 PM on 25 April 2021, while opening the front door of my home, I flushed a female Northern Cardinal from her nest in an old flower basket hanging under overhanging eaves. Checking the nest, I found one Brown-headed Cowbird egg and one larger cardinal egg. At 3:10 PM, when the cardinal was not on the nest, I was heading for my car when I noticed a female cowbird nearby on the ground, and out of curiosity investigated. To my amazement, there was a cardinal egg on the ground with a small hole where yolk was spilling out. I immediately checked the cardinal nest, and eureka! The cardinal egg was gone, but the cowbird egg was still present – wow, how did the cardinal egg get some 40 feet, 6 inches (yes, I measured the distance) from the nest? Evidently the cowbird had flown and carried the egg, then destroyed it. If so, how was it carried: with its beak, or possibly feet?

The next day at 1:30 PM, when opening the front door and again flushing the cardinal, I discovered two additional eggs, for a new total of two cowbird eggs and one cardinal egg. Evidently, the two birds were each laying one egg per day. Upon checking the nest again at 7 PM, the egg numbers were the same.

27 April, 1 PM: cardinal on nest, egg numbers the same.
28 April, 11:30 AM: cardinal on nest – flushed – egg numbers the same. 12:20 PM, no cardinal on nest; one busted cowbird egg on ground 4 feet from nest. Now only one cowbird egg and one cardinal egg in nest. Is this cardinal revenge?
29 April: Cardinal flushed from nest, one cardinal egg and one cowbird egg.
30 April, 9 AM: Cardinal flushed from nest, egg numbers the same. Unfortunately, afternoon yard sale – cardinal alarmed and not on nest.
1 May: All day yard sale, eggs the same, no cardinal.
2 May: Eggs the same, no cardinal.
3 May: Abandoned nest, egg numbers the same.
15 June: A pair of adult cardinals at my backyard bird feeders with
at least two young. Apparently, the cardinal pair had successfully nested somewhere else.

Despite my yard sale bringing this drama to an end, obviously the two species objected to each other’s egg by destroying one. However, apparently the female cardinal did eventually adjust and accept the one cowbird egg.

I was impressed by the secretiveness of the female cowbird; never did I see her at the nest. I consulted Arthur C. Bent’s Life Histories of North American Blackbirds, Orioles, Tanagers, and Allies, which has an extensive discussion of the Brown-headed Cowbird, with the following pertinent comments.

1. The usual number of Brown-headed Cowbird eggs laid in a host’s nest is one, but sometimes two and rarely three to five. However, up to eight cowbird have been recorded in one nest – if so, this probably involved multiple females.
2. The female cowbird usually lays one egg daily.
3. A cowbird pair usually has a more or less defined territory, and the female tend to restrict herself to hosts within that area.
4. The eggs are sometimes found in nests of species that are wholly unfit to be foster parents for the young; hence the eggs never hatch or the young do not survive.
   a. If the eggs of the owner of the nest are much larger than those of the cowbird, the cowbird’s egg(s) will not receive enough warmth from the incubating host’s body to hatch.
   b. The host species must be altricial – can you imagine cowbird young surviving in a precocial Killdeer’s nest where the young leave the nest on hatching?
   c. The host species must also feed on food that is compatible to a cowbird. It is hard to imagine a young cowbird being fed “pigeon milk” form a Mourning Dove host.
5. Some avian species such as Yellow Warbler are intolerant of cowbird eggs. They may build a new floor over the eggs if they have not yet laid eggs of their own.
6. The American Robin is very intolerant, and will actually throw cowbird eggs out of the nest.
7. There are several records of broken cowbird eggs discovered below the pendant nests of Baltimore Orioles.
8. The incubation period of the cowbird is usually 10 days, about the shortest of any of the passerine species, and about one day shorter than that of the foster parent’s eggs.
Nowhere did I find any record of the cowbird carrying the host’s egg, so is this a recent adaptation, or has it simply been overlooked? Perhaps some of the Bluebird’s readers can shed light on this subject.

Reference:
Notes on Foraging, Roosting, and Diurnal Activity by Limpkin (*Aramus guarauna*) at Twin Lakes Park, Columbia, Boone Co, Missouri

Paul M. McKenzie

On 9 Nov. 2023, an anonymous birder contacted Emma Buckingham of Columbia asking for identification of a bird observed foraging along the edge of Twin Lakes in Columbia, Boone County, Missouri. Emma correctly identified the bird as a Limpkin, which constituted the first confirmed record of the species in Boone County (Fig. 1).

Limpkin was not known from Missouri until 9 May 2022, when the first confirmed state record was photographed at the Osage
Conservation Area in St. Clair County (Rowe 2023). Another 11 records were confirmed in the state between 9 May 2022 and 7 Nov. 2022 (Rowe 2023). Subsequently, additional records were sufficient to move the species’ official status in the state from “accidental” to “rare” in a little more than a year (https://mobirds.org/Birds/MOChecklist.aspx).

I examined all eBird records of Limpkin in Missouri and determined that as of Jan. 2024, there are now at least 40 records in the state since 2022. There may be more, as it was difficult to calculate an exact number of records for sites that had multiple individuals over an extended period (e.g. Busch CA- St. Charles County; Mingo NWR - Stoddard and Wayne counties). The species has now been documented in 27 states and two Canadian Provinces (eBird 2024). A recent examination of documented reports on eBird (eBird 2024) revealed that there are now a few hundred records scattered across North America.

Fig. 2 Limpkin prying mussel open
Photo Paul McKenzie
Numerous birders observed the Boone County Limpkin between 9 Nov and 3 Dec 2023. Because Twin Lakes was only a few minutes from my residence, I took the opportunity to make 22 visits between 11 Nov and 3 Dec to learn more about the species’ foraging, resting, and roosting behavior. Over the observation period, a pattern of its diurnal activity became apparent. Typically the bird would forage in the morning shortly after sunrise to around 10-11 am, rest (presumably to also digest food it had eaten) through much of the midday, forage between late afternoon and dusk, and then go to roost among shoreline vegetation of the lake.

The Limpkin foraged almost exclusively on an abundance of freshwater mussels scattered along all edges of the lake. The bird probed the edges of the lake in water that ranged from ca. 2.5 cm to 30.5-38 cm (12-15 in.). The Limpkin used its bill and feet to locate mussels within the water column. The bird would catch a mussel with the tip of its bill, walk it ashore, and then position it so the bird could pry the valves open (Fig. 2). Once the shell was open, the bird would remove pieces of the mussel until the entire internal mass could be swallowed whole. The bird removed the internal components from the mussels’ two shells including foot, gills, and internal organs. The bird ate the contents of mussels as small as 1.27 cm (0.5”) and as large as 15.24 cm (6”). Although there appeared to be no preference for large vs. small mussels, on multiple occasions other birders and I noted that the bird at times had difficulty opening the valves of the largest mussels and would switch to smaller prey items if unsuccessful with larger ones.

I took numerous photographs of different mussel specimens and collected a few empty valves for subsequent identification. U.S. Fish and Wildlife fresh water mussel expert Andy Roberts identified the mussel as giant floater [Pyganodon (= Anodonta) grandis] (Say, 1829). Giant floater is common in the Midwest and extends from Minnesota south to Missouri and east to Ohio (Cummings and Meyer 1992, McMurray et al. 2012, Benson 2023). This species is commonly distributed throughout Canada and the U.S. in the Mississippi, Great Lakes, and Hudson Bay basins, the Red River drainage in Texas and Oklahoma, and in the Apalachicola Basin of Alabama, Florida, and Georgia (Benson 2023).

Limpkins are opportunistic foragers. While authors of most field guides or references (e.g. Cottam 1936, Synder and Synder 1969, Walkinshaw 1982, Dobbs et al. 2019, Bryan 2020, Winkler et al.}
2020, Alderfer 2021) list the apple snail and freshwater mussels as the main prey items of Limpkins, the species will consume other food sources when available. A review of eBird records in North America (eBird 2024) and summary in Bryan (2020) reveals that observers of the species have noted that the species will take other prey items including worms, insects, lizards, frogs, crustaceans, weed seeds, and even dead fish.

As noted elsewhere in Missouri, the Limpkin at Twin Lakes appeared rather tame and seemed oblivious to nearby hikers, joggers, fishermen, or even individuals walking their dogs. The bird allowed close approach for taking photographs.

The Twin Lakes Limpkin would usually rest during the middle of the day by roosting in vegetation that lined the shores of the lake. At times it was difficult to locate the bird if it was not actively foraging, due to its perfect camouflage with its surroundings (Fig. 3). I identified a minimum of five roosting locations scattered along the edges of the lake. These same locations were used after foraging in
the evenings, and what site was chosen on a particular day was
dependent on wind speed and direction. The bird typically roosted
on the leeward side of the lake out of the wind and would tuck its
head and bill between its wings and back.

Although the Limpkin was last observed at Twin Lakes on 3 Dec., a
bird observed at a private pond in NE Columbia on 4 Mar. was
undoubtedly the same bird (https://ebird.org/checklist/S157064845).

Acknowledgments: I am grateful to Andy Roberts of the U.S. Fish
and Wildlife Service for his identification of giant floater.

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A piece of macrame art hangs on the front door of my home, a two-foot lanky owl that sways back and forth like a pendulum each time I open and close that creaky wooden portal. The top and bottom of the owl are attached to pieces of driftwood that scratch the paint on the door whenever it swings, but despite that, I leave my fraying and worn owl alone. That owl has come to embody more than I could have ever dreamt when I made it as a young teen, in a desperate effort to keep crankiness at bay while healing from a broken leg. I couldn’t have known then that a wild owl would become my gateway bird at age forty-four, the bird that led me enchanted and tiptoeing into the expansive world of avian wonders to become a lifelong bird lover. Most profoundly, I couldn’t have known that a special owl would help me accept a brutal death shortly before turning sixty this year.

The first week of spring, a telephone call mysteriously set in motion a most auspicious chain of events. A bird-watching friend called to chat and happened to reminisce about accidentally flushing twenty Short-eared Owls from a field at a nearby conservation area as well as how amazing the experience of them flying around him had been. I spontaneously gushed, “I wish I’d flush a tree full of LONG-eared Owls.” He laughed and concurred with my wish. We both knew the chances of something like that happening were astronomical, as Long-eared Owls are elusive beauties that are rarely found these days, and not simply due to habitat loss - they are spectacularly secretive and exquisitely sensitive nocturnal birds – but I’d heard a story some years back that had inspired a deep belief in the possibility of magic when it came to these owls. It was probably the unconscious impetus behind my outrageous wish.

In the early 1980s, a friend had driven out to Busch Conservation Area to join a group that regularly met to watch birds. It was March. He was early. He decided to wander off on his own and explore the Comfort Pines area, which in those days was a well-known spot to look for owls. Not finding much, he returned to the road. Unsure of where he was, he began walking, turned a corner...
and realized he was going the wrong way. However, instead of heading back, he noticed a cluster of thirty-foot tall cedar trees growing by the side of the road up ahead. As he approached them, he got within forty feet when it began to rain owls – and he came to a mesmerized halt. The owls, startled by his presence, began moving, reacting, flushing, flying about, many returning, diving back into the tree. A number of them had not left the tree at all. As the birds settled down and he had a chance to take in what had just happened, he gazed at first at ten, then twenty, then thirty, maybe fifty or more Long-eared Owls hidden within the tree, snuggled tightly together on branches. He turned and walked slowly away, not wanting to flush any more of them. Returning to the group, he told them what he’d seen, but as preposterous as it was, no one believed him. Not one to press an issue, he participated in the morning’s planned activity, and after the group broke up, the group leader decided to accompany him back to the cedars, along with one other group participant. They started toward the tree and it again rained owls. As they tried to regain their composure and attempt to count the birds, they realized it was literally impossible – it was too hard to see them all. Long-eared Owls often perch in groups in the winter, but these birds were side by side by side on every branch of the tree. He surmised that a flock migrating north to their breeding grounds must have stopped there that day, but was dumbfounded as to why they had packed into that one tree on the edge of the woods.

Dumbfounded is exactly how I felt when my whimsical wish for a tree full of Long-eared Owls came true the very next day after blurting it on the phone. When I received a text that some Long-eared Owls had just been discovered in a tree in a thicket at Riverlands Migratory Bird Sanctuary, only thirty-five minutes away from my home, I shook my head. ‘No way,’ I thought to myself. ‘Was this possible? Had I conjured a tree full of Long-eared Owls with my wish the night before? What am I doing still here?’ My husband was more than willing to drop everything, to immediately take off work and drive me to see them. Although I longed to do the driving myself, as I’m the speedster, I did not trust myself to get us there safely and reluctantly let him drive. Crossing my fingers on both hands, I wasn’t going to uncross them until we arrived and saw the owls. The entire drive there, I was frantic, sure others were going to flush them. When we arrived at the thicket and heard from a woman coming out of it that the owls were still there, we walked gingerly inside. The man who’d first found the owls that day beckoned us, describing which tree they were perched in.
Taking my first look at them through my binoculars, I released my still tightly crossed and very sore fingers. Relief flooded my body as I gazed reverently at them, then I gasped at the stunning view of them through a spotting scope. Three Long-eared Owls looked wide-eyed back at me. Astonishment hit me in waves as I told the man who’d discovered them about my wish, and he told me how he’d found them. He said he’d had to take a leak, but chose not to use the odoriferous pit toilets. Instead, he’d walked into the nearby thicket, and, voila, flushed the owls into the tree. Looking again through the scope, that’s when I noticed her. One of the owls was an unusual ethereal white – and her gaze was more alert and pointed than the sleepy eyes of the other two. She was small and slender and had the checkered bark-like pattern on her body like the other two, but was much paler. She had white feathers around her yellow eyes, instead of orangish feathers, which is more typical. Tall soft tufts stood erect on top of her head, looking like ears. She gazed at me with such intensity, I almost felt the need to look away, that I was being terribly naughty even glancing at her, but she compelled me with her ghostly charms. I wanted to get as close to her as she would allow, but I feared offending her and causing her to fly off if I walked closer; I didn’t want to violate the intimacy I was being afforded and decided to keep a lengthy distance.

Returning day after day to see the white owl and her companions became a compulsive pilgrimage to a sacred site of worship. I was alarmed at how agitated I became if we talked of going anywhere else, even crying the day we tried to go to another refuge, and was only consoled when we turned around and headed in their direction. Haunted by her presence, I kept far back, until on the fourth and last visit, when a special friend encouraged me to get closer and led me to a different path into the thicket, promising me that the birds would not flush. Hesitant, I walked the path that she pointed out, shocked at how close it was to the owls, but I persisted, slowly, very slowly, until suddenly I felt like I was right in front of the white owl, about twenty feet away. She was tiny, much smaller and more vulnerable than I’d imagined. I did not use my binoculars. To lift them to my eyes seemed invasive at that proximity. Overcome with awe, our eyes locked, and I suddenly recognized the eyes of my aunt, who’d died just days before.

That day, I had held my mother in my arms as we wept, watching my aunt die at home of pancreatic cancer, the most painful of all cancers. She was my mom’s baby sister and best friend – and the
Long-eared Owl, Riverlands Migratory Bird Sanctuary, St. Charles Co
Photo Andy Reago and Chrissy McClarren
woman who had spoiled me since I was a baby. After my aunt became bedbound and entered hospice, my mom wanted to visit her every day. I filled her room with sunflowers and we pored through old family photos together; I handmade and hung a banner that said, “You are the miracle and joy in our lives, always and forever,” and gave her the foot massages she loved. We teased her, joked, hung on her every sassy word, words which became more and more infrequent. As she withered away, became jaundiced, and lost all desire for food and drink and engagement, our sense of powerlessness took its toll as she asked us repeatedly to end her life. Her four children did all they could by administering the allowed doses of morphine and anti-anxiety medication, but her suffering became more and more acute due to the neglect of the in-home hospice care company that was so understaffed that no one could be dispatched even on the day she died. That day, her coughing and choking spells were grisly, and the task of helping her through this, of figuring out what to do, was left to my gut-wrenched cousins. When she finally took her last breath, I left enraged and deeply disturbed that my last memory of my aunt was seeing her in excruciating distress.

I do not believe in supernatural phenomena as a rule, but for a few minutes, I suspended my disbelief and entertained the notion that what had compelled me to return over and over was that this specter of an owl was my aunt – and she was not going to leave this world with that horrific vision of her death left in my head. She was quite stubborn, after all. My compulsion could have been an instinctual need to heal from the trauma of the last days of her life, to release its stranglehold, but that would be a boring clinical way to view it, wouldn’t it? Again, I looked into the owl’s eyes and saw my aunt, having taken the form of this bold and glorious owl, waiting in purgatory here in this thicket, soon to be escorted to heaven by her two handsome companions, once this new vision of her was embedded in my thick skull. It was marvelous, imagining her this way. I walked out of that thicket joyous. Whether fact or fiction, owl or my aunt, it did not matter. All the earth was in hospice, and I knew we were going to need to learn some creative, even fantastical ways to survive. I thanked my friend profusely – and hugged her long and tight.
Midewin National Tallgrass Prairie has a growing history of commitment to tallgrass prairie management and restoration. The globally imperiled conditions of grasslands and tallgrass prairies (Henwood, 2010; Lark et al., 2015) and the dramatic decline of grassland birds (Rosenberg et al., 2019) require science-based solutions and research on prairie restoration and bird ecology. Currently, an experimental project on restoration of tallgrass prairie is being conducted assessing the effect of disturbances (i.e., fire, mowing, herbicide, and bison grazing) on grassland birds. The response of grassland bird breeding success, habitat selection and territory sizes to different management practices is important because the role of tallgrass prairie restoration and bison reintroduction in the mitigation of grassland birds’ declines is still unknown.

Nest Searching and Monitoring
Thanks to the Missouri Birding Society Scholarship, I was able to purchase equipment necessary to perform my field work. In the Spring of 2023, I assembled a team of 5 technicians. Two of them used handheld GPSs purchased thanks to the scholarship. The team used the GPSs to mark waypoints of nests found and navigate to them for monitoring. We found 40 nests of Eastern Meadowlarks (*Sturnella magna*) and 330 additional nests of other species of grassland birds including Dickcissel (*Spiza americana*) and Grasshopper Sparrow (*Ammodramus savannarum*) (Figure 1).

Eastern Meadowlark GPS tagging
We purchased three GPS tags for Eastern Meadowlarks that helped
us increase our sample size. Data collected by GPS tags will tell us about the management treatments preferred by Eastern Meadowlarks. We caught 21 birds and GPS tagged 19 of them. We collected 19,479 locations, an average of 32 locations a day per bird (Figure 2).

**Bison behavior and locations**

Six bison were GPS-collared, and their movements were monitored. A video camera was purchased and used to film behavior of collared bison. The videos were used to label behavior into three categories (grazing, resting, walking). Then these labeled behaviors were used to create a model to predict bison behavior given accelerometer data collected by the collars. This information will expand our understanding of bison space use, as we will be able to link behavior and bison GPS locations and discover which areas were actually used for grazing. Ultimately, this data will be used in a model of grassland Eastern Meadowlark’s nesting success as a covariable.

**Acknowledgments**

This research would not have been possible without the support of Missouri Birding Society, USDA Forest Service, the staff of Midewin National Tallgrass Prairie and The TWS Native American Research Assistantship. Also, I appreciate the tremendous work of technicians, interns, and volunteers: Sarah Geisler, Liliana Tobar, Sebastian Orue Herrera, Tanikwah Lang, Sabrina Sanchez and Jerret Carpenter.
Figure 1: Nests of grassland birds. From left to right and top to bottom: Eastern Meadowlark nestlings, Dickcissel nest parasitized by Brown-headed Cowbird (egg stage), Grasshopper Sparrow.
Figure 2. Above: Map of Eastern Meadowlark locations on study site. The site was managed with four different treatments: burning, mowing, herbicide, and bison grazing. Bison grazing occurred on the west pasture, whereas the east pasture remained ungrazed. Distinct colors represent different bird individuals. Lower Left: An Eastern Meadowlark with a GPS tag handled with the appropriate permits.
Sophie Osborn has a long and varied career in wildlife biology, from a summer job in 1991 attending newly released Peregrine Falcons in Wyoming to four years as Field Manager of the California Condor reintroduction project in Arizona in the early 2000s. In Feather Trails, she shares her experiences with these two projects as well as her work on release of captive Hawaiian Crows (‘Alala) – all projects of The Peregrine Fund.

The three species differ in important ways, but they have in common the threat of extinction due to human activity. Peregrine Falcons were one of the first recognized casualties of DDT. This organochlorine pesticide, widely used from the 1950s through 1970s, becomes concentrated as it moves up through the food chain from insects to small mammals to raptors; in the falcons, it caused thinning of eggshells resulting in failure to reproduce, and ultimately in extirpation or near-extirpation of the species throughout much of North America. Captive-raised Peregrine Falcons were released to the wild (a practice known as “hacking”) in
order to reestablish their populations. Osborn captures the wonder and exhilaration, as well as the strenuous physical work and discomfort, of her undergraduate summer monitoring newly released falcons in Wyoming. She and her field partner name the released individuals, and experience a roller-coaster of emotions tracking the fates of their birds. One, a young male named Osiris, goes missing for almost two weeks, only to reappear safe and sound to the hackers’ great relief. The reestablishment of Peregrine Falcons is one of the great ecological success stories of recent times.

The history of the ‘Alala or Hawaiian Crow is more complex. Once abundant on the major islands of the Hawaiian archipelago, it survives only in captivity now. Like many native Hawaiian birds, it was affected by avian malaria carried by mosquitoes, introduced to Hawaii in the early 19th century. In addition, habitat loss drove them out of many areas, and predation by feral housecats further reduced populations. Osborn worked on an effort by the Peregrine Fund to release captive-raised birds to the wild on the big island of Hawaii. She traded the discomforts of the mountains of the American west for those of sweltering Hawaiian rainforest, but the passionate attachment to the fragile newly released birds remained the same. One of the released crows had to be recaptured and treated for avian malaria, an invasive and difficult process, but recovered and was re-released. Sadly, within five years after her work with this project, losses of Hawaiian Crows in the wild forced the Peregrine Fund to recapture all the surviving birds and return them to the relative safety of captivity. Today the ‘Alala is extinct in the wild, and the captive population awaits improvements in habitat, reduction of predator populations, and a solution to the disease problems before they can be released to the wild again.

The final section of the book encompasses Osborn’s four years as Field Manager for the reintroduction of the California Condor to Arizona. At almost 10 feet, the condor has the greatest wingspan among North American birds. Feeding on the carcasses of large mammals, it is highly vulnerable to ingestion of lead shot pellets and bullet fragments. Lead poisoning, along with habitat loss and illegal hunting, reduced the population of the species to 22 individuals in 1987. All of the remaining wild condors at that time were captured and placed in captive breeding programs. In the early 1990s, condors were released into the wild in California, and in 1996 in Arizona.
As field manager, Osborn worked to monitor the released birds by means of patagial radio transmitters as well as direct observation. The released birds face many challenges as they accommodate to the wild. Some birds become too interested in the crowds of people on the South Rim of the Grand Canyon, and wildlife ecologists have to “haze” them, chasing them away from gatherings of tourists – and then they have to explain to the tourists why they’re being mean to the condors! The biggest ongoing threat to the establishment of wild populations of California Condors remains the use of lead ammunition. Numerous birds had to be recaptured and treated with chelation therapy to reduce their blood lead levels. Other birds were found dead, apparently due to lead poisoning; a few were even shot by poachers. Still, the project was a success overall. Osborn herself was able to document the first egg laid in Arizona by a released California Condor, a major step toward reestablishment. The population of condors in Arizona now seems to be doing well, but they will only be secure when lead ammunition is banned from the region.

Feather Trails is a compelling read; I felt some pangs of envy for Osborn’s career with endangered birds, and I cheered her triumphs and felt the pain of her tragedies. The book is packed with observations about bird behavior that could only come from long days spent watching over her charges. Her writing is engaging and informative, with necessary biological information interwoven into her personal story. For anyone interested in the fate of endangered birds, or simply in the behaviors of diverse bird species, this will be a rewarding book.
Sunrise, Sunset
Quickly go the days...

Sunrise, Sunset
Many new migrants will arrive today!

Should I bird a lake, marsh, or stream?
Or maybe a forest, field, or glade?

Oh, what is that new shorebird?
And, is it a warbler that I heard?

Just what is that new song I hear?
Is it one I know or is it one to learn, I fear?

Migrants arriving through the night,
Some to stay, some to continue on their way!

Each morning is filled with such anticipations!
Each evening overflowing in gratitude and admirations!

Yesterday, the trees were bare
Now today, hiding my pleasures and unaware.

Sunrise, Sunset
Quickly Spring passes away!

Sunrise, Sunset
Birders cherishing each and every day!
9688 acres, Bollinger County
MDC owned. For more information call (573) 290-5730
Note: The photograph of the area seen on the MDC website is not
from this area, nor is it representative. It is of the Castor River
shut-ins found in Amidon Memorial Conservation Area, which is not
really that close by.

Directions
From Marble Hill, take Highway 34 west 12 miles. Just before Hwy
34 crosses Castor River, turn north on Route MM and then right,
east, on County Road 820 to access the Fishing Lake and Grassy
Creek, or continue on to the next right, east, on County Road 822 to
access the Trace Creek Camping Area.
From the Hwy 34/MM intersection, turn south on Route Y to access
the Horse Camping Area, Shooting Range and Blue Pond.
Note that Route Y turns abruptly to gravel before it goes down the
hill to the campground and range.

Birders arriving from population centers to the north will probably
want to access the area from Hwy 67 through Fredericktown, east
on Route A at Cherokee Pass to Marquand, a slight jog west on
Route M, then south on Route DD to Hwy 34.

ADA Information:
The vault toilets at the Horse Camping Area and Shooting Range
are accessible facilities. No trails are formally accessible. However,
the campground loops and the road/trail to Blue Pond may be
considered functionally so. Birding from the county roads and
abundant parking areas is possible.

General Description:
The area is dominated by upland hardwood forests. Scattered small
short-leaf pine groves can be found throughout. Grassland is
limited, but can be found if one knows where to look (see below).
Multiple small perennial streams provide riparian birding.
Interestingly, access to the namesake Castor River is extremely
limited. The area offers many miles of trails, which are generally not well maintained and somewhat hard to follow in the more remote regions. The best “trails” for birding are the many access roads.

**Points of Interest to Birders:**
This area is large, and a quick glance at the fragmented and widespread Area Map can leave a birder wondering where to begin. Four suggestions are described here.

The **Trace Creek Campground Area** offers a good mix of habitats and convenient access. A walk through the small campground can produce a mix of woodland and edge species. Just across County Road 822 is the largest grassland habitat on the area, which is usually accessible via periodically mowed roads. Thirteen sparrow species have been recorded here. Trace Creek is a perennial stream that boasts an attractive stream bed with exposed bedrock and some low mossy bluffs.

True to its name, the **Fishing Lake** has the only body of water of any notable size on the area and can be accessed most easily from the second parking lot in this sub-unit. The first parking area is also a convenient distance from the lake and provides easy access to one of the largest short-leaf pine stands on the area. A service road meanders from this parking a lot a short distance through the rocky upland forest/Grassy Creek riparian corridor interface, to an open floodplain food plot area. This can be decent for grassland and edge species.

The **Horse Camping Area and Shooting Range** are situated close together. The Horse Camping Area provides easy walking along the gravel roads for woodland/edge species. The Shooting Range can be loud and busy before firearms deer season, but the birding here is very good at times. An easy walk down the service road, which leads from the parking area away from the range, provides access to a nice riparian forest, an extensive brushy bottom land field, and a small, but often productive, wetland created by a series of beaver ponds.

While in the Horse Camp and Shooting Range Area consideration should be given to visiting the **Blue Pond Natural Area**. Blue Pond, while small, is the deepest natural lake in Missouri, reported to have been formed by a cave collapse during the New Madrid Earthquakes of 1811-12. There are two parking areas which provide
access. The first requires an approximate one mile walk along a mostly flat road to get to Blue Pond. The second lot is about 0.6 miles down the same road, which cuts off much of the distance to the pond. However, this road is closed to vehicle traffic seasonally. The one mile walk takes a birder through much of the habitat diversity that can be found on this Conservation Area.

**Toilets:** Vault toilets are available at the Horse Camping Area and the Shooting Range.

**Hazards/Limitations:**
In tall grass and wooded areas, ticks and chiggers are ABUNDANT in the summer and fall.
The area is hunted, especially during spring turkey and fall deer season. Wearing hunter orange in season is recommended; hunting seasons are posted on the MDC website.

**Nearby Birding Sites:** Coldwater CA, Duck Creek CA (various units), Sweetgum Access
Birders’ Guide

Robert G. Delaney Lake Conservation Area

Mark Haas, 2024

160 acres. Mississippi County. DeLorme 69, C5
GPS: 36.955722, -89.369917
MDC owned. For information, call 573-290-5730

Directions: From Charleston, take Highway N north, then west one-half mile on CR 222.

ADA Information: 110-acre DeLaney Lake is the main feature of this area. From a vehicle, there are good views of the lake at five parking areas and along the quarter-mile road on the “dam” at east end. Also, the accessible fishing dock on north side and courtesy dock next to boat ramp on south side provide good views of the lake. Accessible vault toilets are located near the fishing dock and boat ramp.

When to visit/species to expect: This small oasis of water and woods, surrounded by vast ag fields, has recorded 186 species. Nineteen are warblers. More birding on foot during summer and migration seasons could add another 6-8 common warblers (such as Louisiana Waterthrush) to the list. Common Yellowthroat, Yellow-throated, and especially Prothonotary Warbler should be expected in summer. Other birds to look for in summer include Least Tern, Yellow-breasted Chat, Blue Grosbeak, Yellow-billed Cuckoo, flycatchers, and orioles.

Expect most of our common, resident woodland species. In winter, look and listen for kinglets, Winter Wren, Brown Creeper, Yellow-rumped Warbler, and owls. Though sparrow habitat is limited, in winter expect six species, including Fox, Field, White-crowned, and Swamp Sparrows. On the lake, Common Loon is possible in winter.

There is little shorebird habitat here, except for the rocky north shoreline that is good for Spotted Sandpipers. Waders most likely seen are Great Blue Heron, Great Egret, and Green Heron. The lake
is not especially attractive to ducks, with only nine species seen more than once or twice. However, Wood Ducks and Hooded Mergansers (particularly in winter) are here year-round. Other year-round birds are Bald Eagle, Eastern Phoebe, Double-crested Cormorant, and Belted Kingfisher.

**Features of interest to birders:** The lake is filled with cypress snags attractive to many birds. It is easy to walk the entire 2.2-mile perimeter of the lake, using the fishing dock access road, CR 222 on the south, and the well-mowed levee on the north side. Along CR 222, mature trees with scrubby undergrowth fill the narrow band between the road and lake with habitat variety. There are gaps to view the lake, plus you also have good views of the ag land to the south. Be sure to check out the scrubby border to the boat ramp parking lot and the tiny pond just to the east on private land.

Along the north levee, you have open views of the lake. Also, a permanent ditch with trees on both sides parallels the lake, offering more birding opportunity as you walk the levee. On the opposite side of the ditch, a half mile of this area borders the woods on CR 219. There is one pull off that takes you from the county road down to the ditch for a different view of woods and water.

Probably the most productive birding here is around the fishing dock and the 0.4-mile of road over to the boat ramp. This includes a view of the open area to the east below the dam and sparrow habitat south of CR 222. For bird photographers, this CA offers many opportunities via the numerous cypress snags in the lake.

**Picnic Areas:** Picnic tables with pavilion at boat ramp parking lot.  
**Toilets:** Accessible vault toilets at fishing dock and boat ramp.  
**Camping:** none

**Hazards/Limitations:** There is no hunting on the area. Only electric motors are allowed on the lake. This is a fishing lake, so bank anglers and boaters are expected, but not a nuisance for birders. CR 222 is mostly gravel, so birding from the road can be dusty from passing vehicles.

**Nearby Birding Sites:** Ten Mile Pond CA, Swift Ditch Access, Bird’s Blue Hole, Sand Prairie CA, General Watkins CA, Big Oak Tree SP.
Birders’ Guide

Seven Island Conservation Area

Allen Gathman, 2024

1375.8 Acres. Mississippi Co. DeLorme 69, H-6
GPS: 36.6148, -89.2859
Owned by MDC; for more information call (573) 290-5730

Directions: From East Prairie, take Highway 80 east, Highway 102 south, then Route A east. Incidentally, this route takes you past Ten Mile Pond CA and Big Oak Tree SP.

ADA Information: No accessible facilities. Some of the area can be birded from roads and parking lots.

When to Visit/Species to Expect: This area has been most thoroughly birded during the Big Oak Tree Christmas Bird Count. A good variety of warblers and other passerines have been recorded during spring and fall migration, though.

Features of interest to birders: This conservation area is a long (over 8 miles), narrow (less than a mile) strip of land outside the Mississippi levee, subject to frequent flooding. It contains two chutes — remnants of old river channels— and part of a third. There are two entrances from the levee road; it is worthwhile to try each of them. Taking the northwestern entrance, it’s possible to pull off at the foot of the levee and walk a short distance west to a small pond or slough which may hold waterfowl, waders, and passerines in the surrounding trees. Continue on the MDC road and stop at the sharp right curve. There is another view of the slough here, and another opportunity for waterfowl. The woods at this bend have been good for woodland species. Continuing to the end of this road, there is a parking area and a boat ramp giving access to Old No. 7 Chute.

Return to the levee and proceed southeast to the second entrance, where a service road leads into some frequently flooded woods. This road leads to a parking area, with another boat ramp giving access to a different chute. It is worthwhile to park and walk the ¼ mile west from here to the end of the MDC property. Thick brush on the
left side of the road is often birdy; in the winter this is the most reliable place around for Fox Sparrow. The road ends at a rather over-engineered steel gate and a view of a huge cottonwood tree on private land beyond. The field past this gate sometimes holds Wild Turkey.

**Picnic Areas:** A picnic table at the southeast boat ramp.

**Toilets:** None.

**Camping:** None shown on the MDC map, but the area by the southeast boat ramp is often used as a primitive campsite.

**Hazards/Limitations:** In season, the usual mosquitoes and chiggers. Hunting in season; check the MDC site for dates.

**Nearby Birding Sites:** Seven Island Access, Big Oak Tree State Park, Ten Mile Pond Conservation Area, Dorena Access, Towosahgy SHS.
The threats faced by Neotropical migrants during migration are numerous and have resulted in population declines of many species. While great attention has been given to major stressors such as habitat loss and fragmentation (Robinson 1996); collisions with communication towers, buildings or windows (Evans Ogden 1996, Erickson et al. 2005, Longcore et al. 2013); feral cats (Kosiciki 2021); and oil pits (Trail 2006), less attention and publicity has been given to impalement or entanglement of Neotropical migrants on plants.

Birds have been intertwined by the blades of sedges (Bond 1960), impaled by thorns or cactus spines (Delareueulee 1973; Shackelford and Shackelford 2001), caught in the inflorescences or seed heads of grasses (Powers et al. 1981; Rodríguez et al. 2009), and tangled in the burrs of herbaceous plants (Craves 1998; see reviews in Catling 2006, Hager et al. 2009, and Underwood and Underwood 2013a). A recent overall review of bird entanglement that includes an updated comprehensive table is provided in Harms (2020).


Across North America, more than 90 birds of at least 17 species have been found entangled in burdock burrs (Brown 1970, Burnett 1970, DiLabio 1986, McNicholl 1988, Brewer 1994, McNicholl 1994,

Hager et al. (2009) reported that 29 species of passerines were entangled by 15 different plant taxa. Of these, 56% were impacted by burdock. To a lesser extent, birds have been ensnared by Virginia Stickseed [(Hackelia virginiana) (L.) I. M. Johnst.] (Hampsom 1970, Wilson 2016, Hearn 2017, Underwood and Underwood 2013b).

On 12 Sep. 2023, I observed two Common Yellowthroats (Geothlypis trichas), either migratory or summer residents, foraging among weedy vegetation on the Bonnieview Nature Sanctuary in Columbia, Missouri. Because the two birds were in different plumages (one a first year male, the second of a female), I attempted to photograph each with my Nikon 9500 bridge camera. As I got closer to the first year male, I noticed that the bird suddenly became motionless. I assumed, incorrectly, that the lack of movement was likely due to the overflight of a hunting accipiter sp. I then observed the bird vigorously move its wings for a few seconds and then become motionless again. On closer inspection, it was evident that the bird’s struggles were due to its wings being entangled within the seed pods of Virginia Stickseed. I took several photos of the bird’s entrapment (Fig. 1) and then approached the bird to determine if it could free itself. The bird energetically struggled with my approach but was firmly attached to the plant. I gently removed the bird from the plant, removed all the fruit attached to its feathers, and released it unharmed.

The attachment was identical to the observations of Hearn (2017) who observed a Ruby-crowned Kinglet entrapped on Virginia Stickseed in Toronto Canada. Wilson (2016) also noted a Field Sparrow entangled by Virginia Stickseed in southern Ohio. In both cases (Wilson 2016, Hearn 2017) the authors were able to remove the victims from their entrapment and release them unharmed.

Virginia Stickseed (Fig. 2) is a common under-story species scattered throughout the eastern U.S. and Missouri (Weakley and Southeastern Flora Team 2023, Yatskievych 2006). Similar to the flowers of burdock, the seed pod surfaces of Virginia Stickseed are covered with dense, apically barbed tubercles (Yatskievych 2006), that can quickly become embedded on the fur and hair of wildlife,
Table 1: Bird species entangled on Virginia Stickseed(*) or Burdock(+)  

<table>
<thead>
<tr>
<th>Species</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Yellow-bellied Flycatcher</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Least Flycatcher</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Blue-headed Vireo</td>
<td>Taylor and Cameron 1985</td>
</tr>
<tr>
<td>+ Red-eyed Vireo</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Black-capped Chickadee</td>
<td>McNicholl 1994</td>
</tr>
<tr>
<td>* Tufted Titmouse</td>
<td>Underwood and Underwood 2013b</td>
</tr>
<tr>
<td>+ Barn Swallow</td>
<td>Burton 1994</td>
</tr>
<tr>
<td>+ Ruby-crowned Kinglet</td>
<td>Hampson 1970, Hearn 2017</td>
</tr>
<tr>
<td></td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Golden-crowned Kinglet</td>
<td>Needham 1909, Kubisz 1989, Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Red-breasted Nuthatch</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Blue-gray Gnatcatcher</td>
<td>Brewer 1994</td>
</tr>
<tr>
<td>* House Wren</td>
<td>Hampson 1970</td>
</tr>
<tr>
<td>+ Pine Siskin</td>
<td>McNicholl 1988</td>
</tr>
<tr>
<td>+ American Goldfinch</td>
<td>Kelsey 1970</td>
</tr>
<tr>
<td>* Field Sparrow</td>
<td>Wilson 2016</td>
</tr>
<tr>
<td>+ Tennessee Warbler</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Orange-crowned Warbler</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Nashville Warbler</td>
<td>Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Magnolia Warbler</td>
<td>Burnett 1970, Underwood and Underwood 2013a</td>
</tr>
<tr>
<td>+ Yellow-rumped Warbler</td>
<td>Burnett 1970, McNicholl 1988, Underwood and Underwood 2013a</td>
</tr>
</tbody>
</table>

Given the prevalence of Virginia Stickseed and Common Burdock in Missouri, it is possible that the impalement of migrating birds on these plants occur more frequently than reported. Efforts should be undertaken to remove plants before the seed pods have matured and threaten migrating passerines as recommended by Kommedahl and Johnson (1969).

Acknowledgments: I thank two anonymous reviewers who provided helpful comments on the manuscript.

Literature Cited


Hinam, H. L., S. G. Sealy, and T. J. Underwood. 2004. Ruby-


Rodríguez, A., F. Siverio, R. Barone, B. Rodríguez, and J. J. Negro.


This year was the 124th Christmas Bird Count (CBC), hosted by the National Audubon Society. Missouri has now held CBC counts for 122 years. Each annual count consists of count circles that are established around a central, fixed point and have a 15-mile diameter. Each holiday season—between December 14th and January 5th—volunteers descend into each circle to count every individual bird they see or hear within a single day. These counts occur into perpetuity, all in the name of bird population science. The data of each circle are collected by groups of volunteers, then compiled and submitted by the count compiler. There are over 2,600 count circles across North America, South America, the Caribbean, and the Pacific. The CBC is the largest and longest-running citizen science project in history, and provides scientists invaluable long-term trends of bird populations.

This season, Missouri hosted 33 active count circles—the highest number yet (Table 1, Figure 1). Two circles saw their debut: Cass County (compiled by Barry Jones) and Grand Pass (compiled by Laura Semken). Thanks in part to these two new circles, a record high of 689 participants recorded 159 species with a total of 1,128,353 individual birds. This species count was the highest recorded in Missouri CBC history. On average, 1 species for every 4 participants was recorded, and about 1,640 birds per person were counted. In total, this year’s efforts included about 1,800 hours of birding and about 8,500 miles of walking or driving. Collectively, there were 54 bird feeders being watched as a part of a count and 46 hours of nocturnal birding logged.

As stated previously, the participation and species figures this year were greater than in the past, with a total of 44 more participants and 8 more species on this year’s counts than on last year’s. Interestingly though, of the species seen last year, 10 were missed on the present count. Likewise, 17 species were recorded this year and not recorded last year.
Table 1. Missouri Christmas Bird Counts Data for 2023-2024

<table>
<thead>
<tr>
<th>Abbrev.</th>
<th>Count Name</th>
<th>Date of Count</th>
<th>Count Compiler</th>
<th>Number of Years Active</th>
</tr>
</thead>
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<tr>
<td>BO</td>
<td>Big Oak Tree SP</td>
<td>Dec 18</td>
<td>Bill Eddleman</td>
<td>58</td>
</tr>
<tr>
<td>BS</td>
<td>Big Spring</td>
<td>Dec 16</td>
<td>Steve Paes</td>
<td>27</td>
</tr>
<tr>
<td>CA</td>
<td>Cass County</td>
<td>Dec 28</td>
<td>Barry Jones</td>
<td>1</td>
</tr>
<tr>
<td>CC</td>
<td>Clarence Cannon NWR</td>
<td>Dec 30</td>
<td>Bruce Schuette</td>
<td>22</td>
</tr>
<tr>
<td>CP</td>
<td>Cole Camp Prairies IBA</td>
<td>Dec 27</td>
<td>Ryan Steffens</td>
<td>15</td>
</tr>
<tr>
<td>CO</td>
<td>Columbia</td>
<td>Dec 16</td>
<td>Allison Vaughn</td>
<td>67</td>
</tr>
<tr>
<td>CF</td>
<td>Confluence</td>
<td>Jan 01</td>
<td>Tommy Goodwin</td>
<td>15</td>
</tr>
<tr>
<td>DA</td>
<td>Dade County</td>
<td>Jan 03</td>
<td>Rick Hostetler</td>
<td>03</td>
</tr>
<tr>
<td>DC</td>
<td>Dallas County</td>
<td>Dec 15</td>
<td>David Blevins</td>
<td>35</td>
</tr>
<tr>
<td>DT</td>
<td>Dent-Texas County</td>
<td>Dec 30</td>
<td>Daniel Hatch</td>
<td>9</td>
</tr>
<tr>
<td>GP</td>
<td>Grand Pass</td>
<td>Dec 15</td>
<td>Laura Semken</td>
<td>1</td>
</tr>
<tr>
<td>GR</td>
<td>Grand River</td>
<td>Dec 16</td>
<td>Terry McNeely</td>
<td>35</td>
</tr>
<tr>
<td>HF</td>
<td>(Horton) Four Rivers</td>
<td>Dec 14</td>
<td>Mark Robbins</td>
<td>26</td>
</tr>
<tr>
<td>JC</td>
<td>Jefferson City</td>
<td>Dec 16</td>
<td>Barbara Bruegsembling</td>
<td>46</td>
</tr>
<tr>
<td>JS</td>
<td>Johnson’s Shut-Ins SP</td>
<td>Jan 04</td>
<td>Dairan Elam-Pyles</td>
<td>5</td>
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<tr>
<td>JO</td>
<td>Joplin</td>
<td>Dec 22</td>
<td>Lydia Swift</td>
<td>36</td>
</tr>
<tr>
<td>KC</td>
<td>Kansas City</td>
<td>Dec 17</td>
<td>Mike Stoakes</td>
<td>93</td>
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<tr>
<td>KI</td>
<td>Kirksville</td>
<td>Jan 03</td>
<td>Sarah Kendrick</td>
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<tr>
<td>KN</td>
<td>Knob Noster</td>
<td>Dec 17</td>
<td>Shelby Palmer</td>
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<td>LI</td>
<td>Liberal</td>
<td>Dec 30</td>
<td>Dana Hoisington</td>
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<td>LB</td>
<td>Loess Bluffs NWR</td>
<td>Dec 20</td>
<td>Mark Robbins</td>
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<td>MA</td>
<td>Maryville</td>
<td>Dec 19</td>
<td>David Easterla</td>
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<td>MI</td>
<td>Mingo NWR</td>
<td>Dec 14</td>
<td>Bill Eddleman</td>
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<tr>
<td>ML</td>
<td>Montrose Lake WA</td>
<td>Dec 16</td>
<td>Rhonda Edmunds</td>
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<td>MS</td>
<td>Maramec Spring</td>
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<td>Linda Frederick</td>
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<td>MT</td>
<td>Mark Twain Lake</td>
<td>Dec 16</td>
<td>George Wisdom</td>
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<tr>
<td>PB</td>
<td>Poplar Bluff</td>
<td>Dec 23</td>
<td>Bruce Beck</td>
<td>37</td>
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<tr>
<td>SJ</td>
<td>St. Joseph</td>
<td>Dec 16</td>
<td>Tom Nagel</td>
<td>60</td>
</tr>
<tr>
<td>SL</td>
<td>Swan Lake NWR</td>
<td>Jan 01</td>
<td>Steve Kinder</td>
<td>47</td>
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<tr>
<td>SP</td>
<td>Springfield</td>
<td>Dec 16</td>
<td>Greg Samuel</td>
<td>69</td>
</tr>
<tr>
<td>TC</td>
<td>Taney County</td>
<td>Dec 30</td>
<td>Charley Burwick</td>
<td>41</td>
</tr>
<tr>
<td>TR</td>
<td>Trimble</td>
<td>Dec 16</td>
<td>Kristi Mayo</td>
<td>48</td>
</tr>
<tr>
<td>WS</td>
<td>Weldon Spring</td>
<td>Dec 17</td>
<td>Anne McCormack</td>
<td>73</td>
</tr>
</tbody>
</table>
Figure 1. Locations of Christmas Bird Counts (for abbreviations see Table 1)
The early summer in Missouri was marked by some of the driest conditions on record, with the state receiving nearly 2 inches below the average precipitation. July and August saw momentary above average precipitation levels; however, the remainder of the year was dry again. Overall, the state was still in drought conditions throughout the period with several counts noting low water. By the end of the year, the state was 4.6 inches of precipitation below average. The Missouri River level at St. Joseph had been running 2 feet low for several weeks before the count period. Ephemeral pools and oxbow lakes around the state were notably low as well. The only precipitation seen was light rain on a few counts. No counts experienced snow.

Globally, 2023 was the warmest year on record. In fact, the top 10 warmest years have all been post-2014 (i.e. the past 10 years). In Missouri, December 2023 was 9.1°F above average, making it the fourteenth consecutive month with above average temperatures. Several northernmost counties in the state experienced their warmest December on record. As Missouri experiences the effects of climate change, citizen science projects like the CBC will become increasingly important to monitor the climate’s effects on bird populations.

The weather during the count season was unusually warm, with an average count temperature of 40.5°F. This is the highest average temperature in over 15 years. The coldest temperature was recorded at both Dade County and Dent-Texas County at 23°F, and the warmest temperature was recorded at Grand Pass at 59°F.

Possibly due to the increased rain in late summer and/or the mild temperatures, fruit-bearing plants like cedar, hackberry, and poison ivy had high volume crops across the state. The prevalence of fruit contributed to higher numbers of frugivorous birds like robins, bluebirds, mockingbirds, waxwings, and some warblers.

As for total species counted, Dade County had the highest total with 114 species. This ties the state record for the highest species count on a single count with Four Rivers in 2016. Other counts that broke 100 species include Clarence Cannon (107 sp.), Confluence (103 sp.), Four Rivers (107 sp.), and Mingo (101 sp.). For Clarence Cannon, Confluence, and Dade County, these totals represented personal high species count records for the prospective circles, with Confluence tying its 2012 species total. Five other circles set high
species counts as well: Grand River (74 sp.), Liberal (91 sp.), Mark Twain Lake (57 sp.), Swan Lake (86 sp.), and Weldon Spring (80 sp.). For the new circles, Cass County recorded 75 species and Grand Pass recorded 78 species.

Twenty species were seen on all 33 counts: Rock Pigeon, Mourning Dove, Red-tailed Hawk, Red-bellied Woodpecker, Downy Woodpecker, Northern Flicker, American Kestrel, Blue Jay, American Crow, Tufted Titmouse, White-breasted Nuthatch, Carolina Wren, European Starling, Eastern Bluebird, American Robin, American Goldfinch, Dark-eyed Junco, White-throated Sparrow, Song Sparrow, and Northern Cardinal.

Three new species were added to the Missouri CBC list this year. A Red-throated Loon at Trimble was the fourth loon species—and possibly the most expected after Common Loon—to be added to the CBC list. Maybe unsurprising to most, Limpkin was added to the CBC list with a bird at Springfield. There were two other counts that recorded this newly invading species (Mingo and Weldon Spring), but both only recorded it as a “count-week” bird. Luckily, Springfield was able to officially add the species to the list. Maybe most notably, a Northern Rough-winged Swallow at Big Oak Tree represented a first winter record for Missouri as a whole, as well as a first for a CBC. In addition to these full species, a Hooded Merganser x Common Goldeneye hybrid at Trimble placed this species combination on the list for the first time.

Other noteworthy birds in the state included Long-tailed Duck, Eared Grebe, Sora, Greater Yellowlegs, Dunlin, Pectoral Sandpiper, Pacific Loon, American Bittern, Say’s Phoebe, Scissor-tailed Flycatcher, Smith’s Longspur, and Baltimore Oriole. A more in-depth description of notable sightings follows in taxonomic order. Note, numbers within parentheses mark the number of individuals recorded, and for individual count reports, high counts refer the greatest number of individuals of a species counted in a specific circle.

Collectively, Missouri set or tied high counts for 24 relatively expected species: Greater White-fronted Goose (26,805), Sandhill Crane (42), Greater Yellowlegs (73), Least Sandpiper (24), Common Loon (84), Bald Eagle (1,265), Red-shouldered Hawk (421), Belted Kingfisher (193), Red-bellied Woodpecker (2,636), Downy Woodpecker (1,655), Hairy Woodpecker (410), Pileated Woodpecker
(527), Northern Flicker (2,377), Merlin (25), Peregrine Falcon (6), Northern Shrike (8), House Wren (6), Sedge Wren (13), Fox Sparrow (730), White-crowned Sparrow (4,034), White-throated Sparrow (6,701), LeConte’s Sparrow (80), Song Sparrow (3,743), and Western Meadowlark (357).

Big Spring recorded its fourth record of Snow Goose (5). Ross’s Goose was seen on 12 counts, with notable records including Montrose Lake’s first, Liberal’s third, and Kansas City’s fourth. Springfield recorded two separate Snow Goose x Ross’s Goose hybrids representing a first for that count and only a second record for Missouri CBC; however, this hybrid is likely relatively common and overlooked. Kansas City set a high count for Greater White-fronted Goose (252), and Springfield had its fifth record (4). Mingo had its second record of Cackling Goose, and Johnson’s Shut-Ins set a high count of Canada Goose (210).

Grand River recorded Trumpeter Swan for the second time (16). Tundra Swan was seen at Clarence Cannon for the second time and at Swan Lake for the fifth time. Columbia saw its fifth record of Mute Swan. Green-winged Teal had high counts at both Montrose Lake (3,016) and Mingo (2,000). Rare for the state in winter, Blue-winged Teal was recorded on five counts—more counts than ever before. Grand Pass and Dade County—both very young counts—recorded their first records. Loess Bluffs had its third record; Columbia had its fifth; and St. Joseph had its sixth. Liberal recorded a high count of Northern Shoveler (74), and Confluence had a high count of American Wigeon (12). Big Spring had its second record of Mallard. Dent-Texas County received its first record of Northern Pintail, and Canvasback was a first at Mark Twain Lake. Redhead was seen at Big Oak Tree for the fourth time, with the previous record being in 1988. High counts of Redhead were seen at Kansas City (106) and Swan Lake (115). Swan Lake also saw high counts of Lesser Scaup (128) and Ring-necked Duck (825). Remarkably, the latter species has had an unbroken high count since 1941 (500). Mark Twain Lake saw its first record of Ring-necked Duck, and Big Oak Tree also set a high count for the species (211). While not on the count day proper, Maramec Spring recorded a White-winged Scoter within the count week. Confluence saw its second record of Long-tailed Duck (4). Grand River recorded Common Goldeneye and Liberal recorded Hooded Merganser, both for the second time. Weldon Spring set a high count for Hooded Merganser (128), and Johnson’s Shut-Ins saw its first record of Common Merganser.
High counts of Wild Turkey were set at Big Spring (62), Confluence (56), and Dent-Texas County (99). A high count of Pied-billed Grebe (12) was seen at Confluence, while Cole Camp received its first record of the species. Kansas City recorded its seventh record of Horned Grebe and its ninth record of the typically less common Eared Grebe. Interestingly, over half of the records of Eared Grebe on a Missouri CBC come from the Kansas City count, likely not unrelated to KC being the longest running count in the state. High counts for Rock Pigeon (150) and Eurasian Collared-Dove (14) were set at Dent-Texas County. Taney County also saw a record high of Rock Pigeon (643). Both Jefferson City and Kirksville recorded record highs of Eurasian Collared-Dove (33 and 48 respectively). Johnson’s Shut-Ins had a high count of Mourning Dove (50).

Last year, rails were absent and shorebirds were scarce. However, that was not the case this year. Virginia Rail was recorded on two counts: Columbia, where the species is expected, and Liberal, where 4 birds represent the first record. Columbia also recorded its tenth record of Sora. Mark Twain Lake saw its first record of American Coot, while high counts were set at Clarence Cannon (367), Poplar Bluff (309), and Swan Lake (259). Sandhill Crane was recorded for the first time at Grand Pass and for the second time at Confluence. A high count (15) was seen at Clarence Cannon. Johnson’s Shut-Ins got its first record of Killdeer (13). Four Rivers set high counts for Least Sandpiper (24) and Greater Yellowlegs (48), as well as recording its third record of Dunlin and second record of Pectoral Sandpiper. These represent the fourth record of Dunlin and the third record of Pectoral Sandpiper on a MO CBC. Big Oak Tree also had Greater Yellowlegs (23), representing its second record; as did Mingo and Loess Bluffs, where single birds represented the first and second records respectively. American Woodcock (4) was seen at Dade County.

Clarence Cannon had its first record of Bonaparte’s Gull (12). High counts for Ring-billed Gull were set at Kansas City (5178) and Montrose Lake (806). Dade County recorded its second record of Lesser Black-backed Gull. Dade County also had its third record of Pacific Loon. This count is only three years old, meaning it has a 100% detection rate of this rare species. In fact, there are only a total of four records of the species on a Missouri CBC, making Dade County’s three detections (or 75% of the detections) even more impressive. The count circle does include parts of Stockton Lake,
which is widely known to host hundreds of loons at a time in winter, offering some explanation.

Clarence Cannon recorded its first definitive record of American Bittern after a count-week bird in 2016. The count also had its second record of dark ibis species (1) (likely White-faced Ibis), as did Loess Bluffs (3). Mark Twain Lake got its first record of Great Blue Heron.

In line with past trends, Black Vulture was seen both northward and eastward of its historical winter range. Big Spring had its second record (2); Jefferson City had its third record (35); Maramec Spring also had its third record (15); Big Oak Tree had its seventh record (2)—all since 2015; and Weldon Spring had its seventh record (5)—with records six years in a row. Turkey Vulture were also prevalent, with Grand River receiving its first record. High counts were recorded at Big Oak Tree (81), Big Spring (30), Clarence Cannon (38), Jefferson City (7), and Maramec Spring (122). Dade County saw its first Golden Eagle, and Mingo had its ninth. Mark Twain Lake added both Sharp-shinned Hawk and Cooper’s Hawk to its list. Columbia set its high count for Cooper’s Hawk (17), and both Jefferson City and Taney County tied their high counts from previous years. High counts of Bald Eagle were seen at Grand River (43) and Swan Lake (219). St. Joseph had its sixth record of Red-shouldered Hawk. All of this count’s records are in the past 8 years, as this species has also experienced northern winter range expansion. Grand River (5), Four Rivers (29), and Weldon Spring (34) had high counts of Red-shouldered Hawk. Barn Owl was seen on three counts, including Swan Lake’s second record. High counts of Barred Owls were seen at Four Rivers (33), Mingo (12), and Weldon Spring (12). Swan Lake had its first record of Long-eared Owl. Confluence saw its highest count of Short-eared Owl since 2013 (4). Jefferson City had its second record of the species, and Swan Lake had its first record since 2010. Kirksville recorded its first definitive record of the owl since a count-week bird in 2020.

Woodpeckers were in high numbers at counts across the state. Confluence saw high counts of Yellow-bellied Sapsucker (9), Red-headed Woodpecker (47), Red-bellied Woodpecker (108), Hairy Woodpecker (27), Downy Woodpecker (129), and Northern Flicker (119). Jefferson City recorded high counts of Hairy Woodpecker (34), Downy Woodpecker (111), Pileated Woodpecker (23), and Northern Flicker (93). Kirksville had high counts of Red-headed Woodpecker
(154), Hairy Woodpecker (25), and Northern Flicker (75). Johnson’s Shut-Ins saw high counts of Yellow-bellied Sapsucker (9), Downy Woodpecker (22), and Pileated Woodpecker (32). Kansas City also had its high count of Pileated Woodpecker (12). Both Clarence Cannon (121) and Springfield (102) had high counts of Northern Flicker.

Mark Twain Lake received its first record of Belted Kingfisher, and Confluence tied its 2022 high count (11). American Kestrel high counts were set at Confluence (32) and Kirksville (56). Somehow, Swan Lake hit its high count of 34 for the third time, tying with 2022 and 2015. A Merlin at Kirksville was a first record, and another at Maryville was a fourth record. Clarence Cannon had its third record of Peregrine Falcon. Prairie Falcon was seen on four counts. At Cole Camp and Liberal, this species has become relatively expected. However, Knob Noster and Grand River saw their first records, and Dade County saw its second. Grand Pass recorded Prairie Falcon as a count-week bird.

Eastern Phoebe was recorded on 11 counts. Four Rivers saw its second record of Say’s Phoebe, and Dade County saw its first. Remarkably, Dade County recorded two separate birds this year. Even more incredibly, Springfield recorded its first record of Scissor-tailed Flycatcher. This species is accidental in Missouri in winter, and consequently, this represents only the second winter record for the state as a whole. This bird also represents the second CBC record for Missouri after a bird at Grand River in 1992.

Northern Shrike was seen on four counts, resulting in the third record for Four Rivers and the second records for Clarence Cannon (2), Cole Camp, and Liberal. The latter recorded 4 separate birds, which is shockingly not the state CBC high count. This record—5—was set by Grand River in 2007. Clarence Cannon (240) and Kirksville (630) both set high counts of Blue Jay. Fish Crow was seen only at Big Oak Tree. High counts of Ruby-crowned Kinglet were set at Clarence Cannon (10), Confluence (14), Loess Bluffs (6), and Taney County (14). White-breasted Nuthatch received high counts at Confluence (82) and Kirksville (89).

This year, wrens were plentiful across the state; a welcome sight after previous years of lower than average populations. Carolina Wren, as stated previously, was seen on all 33 counts, which is notable because the species fell from this list after a population-
reducing deep-freeze in February of 2021. In fact, Maryville recorded its high count (7), which is a great sign of population recovery since this circle is the northernmost in Missouri. However, even with two additional count circles this year, the total number recorded in Missouri (1162) is still 500 individuals short of the 2020 (pre-freeze) numbers. Marsh Wren was recorded on 6 counts. Liberal set its high count (7); St. Joseph had its second record; and Swan Lake had its third. Sedge Wren was recorded on 4 counts. Mingo set its high count (9), and Loess Bluffs saw its third record. House Wren, in winter, is a low-density resident in the Bootheel, but is quite rare in the rest of the state. Counts in the southeast area see the species occasionally, illustrated by the eighth record at Big Oak Tree and the ninth record at Mingo. However, this year the species oddly showed up in the northwest too. Cass County, Loess Bluffs, and Swan Lake all received their first records. For Loess Bluffs, this means the count saw 5 species of wrens, a record previously only held by Mingo from 2017.

Weldon Spring saw its second record of Gray Catbird. Eastern Bluebird, another species negatively affected by the deep cold of 2021, saw high counts at Dent-Texas County (217), Johnson’s Shut-Ins (73), Cole Camp (321), Knob Noster (248), and Montrose Lake (252). Likely due to the plentiful fruit crop of the season, American Robin high counts were set at Confluence (2913), Cole Camp (4893), Columbia (6996), Dent-Texas County (55), Kirksville (730), and Springfield (9597). Likewise, Jefferson City recorded a high count of Cedar Waxwing (1219). Eurasian Tree Sparrow was detected at Kirksville for the third time with an impressive 14 birds, and the species was seen at Columbia for the fourth time (2). High counts of American Pipit were recorded at Four Rivers (130) and Big Oak Tree (200).

House Finch were seen in high numbers at Cole Camp (38) and Kirksville (132). Red Crossbill was recorded at Loess Bluffs for the second time. The species was also recorded at Kansas City where it amazingly represents the twentieth record. Cole Camp saw high counts of Pine Siskin (18), and both Johnson’s Shut-Ins (71) and Kirksville (248) had high counts of American Goldfinch.

Smith’s Longspur was recorded at Liberal (6) for the first time and at Dade County (9) for the third time. This is only the tenth CBC in which this species has been recorded; however, it seems to be experiencing increased detection. Any counts with suitable habitat
Much like wrens, it seemed to be a good year for sparrows. Grand River received its third record of Field Sparrow. Johnson’s Shut-Ins (475) and Kirksville (834) set high counts of Dark-eyed Junco. High counts of White-crowned Sparrow were recorded at Big Spring (9), Dent-Texas County (223), Johnson’s Shut-Ins (17), Kirksville (42), and Liberal (613). White-throated Sparrows were seen at high numbers at Cole Camp (168), Confluence (758), Jefferson City (314), and Liberal (189). High counts of Fox Sparrow were seen at Confluence (78), Dent-Texas County (11), Four Rivers (154), and Liberal (60). Four Rivers recorded a high count of Song Sparrow (990). Liberal had high counts of several sparrow species: Song Sparrow (354), Lincoln’s Sparrow (27), Swamp Sparrow (223), and LeConte’s Sparrow (27). Four Rivers recorded its second record of Vesper Sparrow. Spotted Towhee was seen on 5 counts, including Cole Camp’s second record and St. Joseph’s fourth record (3). Oddly, this western species was recorded for the seventh time at Weldon Spring, one of the easternmost counts in the state.

Grand River had its fourth record of Western Meadowlark (25). Liberal (51) and Swan Lake (150) set high counts for the species. Springfield recorded its first record of Baltimore Oriole. This is only the fourth record of the species on a Missouri CBC. Rusty Blackbird was seen in high numbers at Dent-Texas County (8) and Jefferson City (40).

Orange-crowned Warbler was seen on two counts—Big Oak Tree and Springfield—both representing fifth records. Common Yellowthroat is a relatively expected species on certain counts. At Columbia and Liberal, the species was recorded for the second time. Swan Lake recorded its first definitive record after a count-week bird in 2002. A high count of Pine Warbler was set at Dent-Texas County (8), and Johnson’s Shut-Ins recorded the species for the first time. High counts of Yellow-rumped Warbler were seen at Johnson’s Shut-Ins (77), Kansas City (52), Kirksville (9), and Weldon Spring (205).

It is with great sadness that I must report on the passing of Daniel “Doc” Hatch in January 2024. Doc has compiled the Dent-Texas County CBC since he started the count in 2015. He had a passion for birds, nature, conversation, and education. He taught science at Licking High School in some capacity from 1976 to 2020. He was...
awarded Teacher of the Year in 2010 and 2019, as well as Conservation Educator of the Year in 2015. His impact on birding and conservation is evident, and he will be greatly missed.

I would like to thank the many compilers and participants that make the Christmas Bird Count a success year after year. It is an incredibly important data collection project that easily allows professional and citizen scientists alike to participate and provide data, as well as meet new people and have an enjoyable time birding. It is something I look forward to every winter, and I know many of you feel the same way. If you have any questions about CBC data or how to get involved, please contact Kendell Loyd at KLoyd892@gmail.com.

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