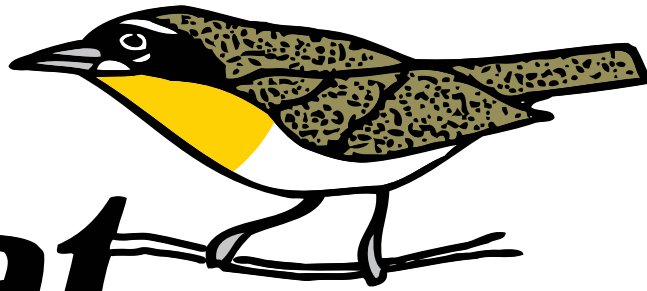


The

Chat



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Serving Audrain, Boone, Cooper, Howard, Monroe and Randolph Counties

The mission of the Columbia Audubon Society is to preserve the natural world and its ecosystems, focusing on birds, other wildlife, and the earth's biological diversity, through education, environmental study, and habitat restoration and protection.

FRIENDLY FINCHES: THE FAMILY LIFE OF BIRDS

How, and why, do birds choose their mates? Evolutionary theory suggests that animals pair off to maximize the genetic potential of their offspring, using physical characteristics like plumage and size as proxies for a built-in DNA sequencer. Yet reproductive success ultimately rests on the successful maturation of the young, whatever their genetic heritage. Indeed, a recent study suggests that behavioral traits play a role both in mate selection and ultimate reproductive success.

In her 2015 P.h.D. dissertation* and a following paper in the journal PLOS Biology**, Malika Ihle “investigated whether female zebra finches choose genetically and/or behaviorally compatible social mates” using breeding pairs of these monogamous birds, who were either allowed to choose a mate freely or confined to a single choice of mate. She also tested whether the finches could identify, and avoid, related but unfamiliar birds (to avoid inbreeding). Would genetically well-matched birds who didn't get along as a couple raise the same quality young as birds who freely chose each other as mates?

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THE FAMILY LIFE OF BIRDS, CONTINUED

- from previous page The result? “[Z]ebra finches were unable to identify partners with whom they would minimize embryo mortality, or to recognize unfamiliar kin on the basis of genetic similarity per se”. In addition, “zebra finch pairs that resulted from free mate choice achieved a 37% higher reproductive success than pairs that were forced to mate.” The finches were choosing mates, and raising young, based on more than inherent genetic quality, which they couldn’t reliably detect.

In other words, these finches are more like ourselves than we think. With a background in education, I’m familiar with the age-old “nature vs. nurture” debate. Every teacher knows the value of a good home and supportive parents for proper childhood development, and now we catch a glimpse of the same dynamic in birds. I’ve paid particular attention to family groups during birding this past year, and these results add one more layer to that experience. One question that lingers in my mind is, to what extent does genetics drive parenting ability and mate-compatible personality? It’s not clear how the finches figure all this out, but humans don’t quite understand our own pairing-off practices either.

- by Eric Reuter (inspired by an article in *The Economist* (<http://ow.ly/SKFTT>))

*Ihle, Malika (2015): Compatibility benefits of social and extra-pair mate choice in the zebra finch. Dissertation, LMU München: Faculty of Biology <http://ow.ly/SKBsX>

** Ihle, Malika; Kempnaers, Bart; & Forstmeier, Wolfgang, (2015), Fitness Benefits of Mate Choice for Compatibility in a Socially Monogamous Species, *PLOS Biology* <http://ow.ly/SKD5V>

DISTINGUISHING WOODPECKER GENDER

We’ve long enjoyed watching diverse woodpeckers at our winter feeders, a good place to observe bird details. Interestingly, almost every woodpecker likely to be seen in central Missouri follows the same pattern of sexual dimorphism: the males will have an extra patch of color (usually red) somewhere on the head. I put together this chart based on descriptions from multiple bird guides:

- text & photos by Eric Reuter



WOODPECKER

Pileated

Red-Bellied

Hairy

Downy

Yellow-Bellied Sapsucker

Northern Flicker (eastern)

Red-Headed

FEMALE

Red only on peak of crest, black malar.

Red patch on back of head.

No red.

No red.

White throat.

Malar same as rest of face.

Sex not distinct.

MALE

Red across full top of head from crest to bill, red malar.

Red across full top of head.

Red patch on back of head.

Red patch on back of head.

Red throat.

Black malar.

Sex not distinct.

FALL ACTIVITY AT CANS



The September 19th field trip to CANS, pictured above, recorded over 40 bird species during the two and a half hour field trip. Also of interest, Monarch butterfly caterpillars are using the prairie demonstration garden at CANS, feeding on swamp milkweed and forming chrysalises as part of their multi-generational migration.

- information & photos from Bill Mees



WHEN HABITAT & HARVEST COLLIDE

Red-bellied Woodpeckers used to be one of our favorite local birds. Colorful and flamboyant, they enliven our feeder in winter and patrol our woods in summer. We love how they chase Blue Jays away from the birdseed yet leave smaller birds alone, how they sidle along our porch railing with heads cocked, how they stash food in the woods through a conveyor belt of looping flights. Their brash and distinctive calls enrich our soundscape year-round. While conducting timber stand improvements in our woods, we've left abundant dead snags to support the woodpecker population. Then came the great fruit massacre of 2015.



First, it was the apples. We'd been seeing some pecking damage on ripening apples in our young orchard, but attributed it to Blue Jays due to direct observation of those pests active within the trees. This was the first year of setting fruit, after a late frost in 2014 damaged that year's buds, and the branches were loaded with apples, even after thinning. We hung some old CDs from the branches, in hope that the shiny flashes would offer some apple protection.



Nope. In early August, things got much worse. Something began drilling deep into the apples, hollowing out the entire fruit into an empty shell, and our tomatoes were being ravaged as well. In both cases, the fruits sported deep, sharp penetrations. Suddenly it clicked: woodpecker. *- continued on next page*

WHEN HABITAT & HARVEST COLLIDE, CONTINUED



- from previous page Sure enough, further observation showed the red-bellied marauders now visiting our orchard and tomato rows in waves, eating entire fruits right off the tree or vine, leaving only a dangling shell or stem as proof of their new appetite for fresh produce. They began scolding us, the fiends, when we dared to work within these areas, perching on a fence post or tree limb and chattering away at our impertinence. All told, they damaged much of our apple & tomato crop.

Interestingly, Red-Bellied Woodpeckers seem to have a clear preference for the color red. They ignored all the white, yellow, and orange tomatoes only to ravage even partially-ripe red ones, and ignored the sweet, juicy (but yellow!) Asian pears on four trees right next to the brutalized red apples. Online searches didn't return a clear answer on woodpeckers' visual color spectrum, but the fact that most of our local woodpecker species rely on red coloration to distinguish male from female certainly implies it's a color they're aware of and attracted to. Unfortunately, it's pretty hard for a Missouri fruit & vegetable farm to avoid the color red during summer.

We've always prided ourselves on integrating food and farming in the ecosystem, managing our landscape to benefit birds and other species along with our own needs. Our abundant and diverse bird species help control pests while improving our workplace. But sometimes habitat and harvest collide, and we seem to have done rather too good a job at encouraging fructavore woodpeckers.

Though we've been managing this land for over nine years, this was our first such experience with significant bird damage to fresh produce (we've always had woodpeckers and others raid things like corn & sunflowers). However, wild populations cycle through boom & bust, and multiple years of habitat improvement and winter feeding (Penn State notes that "seed from bird feeders is a very important diet component for red-bellied woodpeckers in the winter") may have coincided with a newly abundant fruit supply that taught our woodpeckers to raid the orchard and fields to support their booming 2015 population. Even now, with the apples and tomatoes gone, Red-Bellieds still seem prevalent. Or are we just paranoid?

- story by Eric Reuter, photos by Joanna & Eric Reuter

2015-2016 FIELD TRIPS
Lori Turner, Field Trip Chair

Bradford Farms

Date & Time: Saturday, October 3rd, 2015, 7:30 a.m., return by 11:30 a.m.

Departure Point: Bradford Farms Visitor's Center, 4968 Rangeline Rd, Columbia

Leader: Brad Jacobs , contact Lori Turner, loricatrips@gmail.com

We will leave the visitor center's parking lot at 7:30 a.m. by foot and explore Bradford Farms. This trip will be focused on finding LeConte's and Nelson's Sparrows; other species will be sought after as well. Wear your waterproof boots, if you want, as we might go through some shallow water areas in hopes of flushing Rails and Marsh & Sedge Wrens. Expect lots of slow walking and many bird species!

Gold Crest Distributing Warehouse Sale, 1600 Bassford Dr. Mexico, MO

Date & Time: Saturday, October 17th 2015, 7:00 a.m., return around 1:00 p.m.

Departure Point: Moser's Foods (ex-Patricia's) 900 N. Keene St. Columbia, MO.

Leader: Lori Turner, loricatrips@gmail.com

Gold Crest Distributing is a wholesale distributor of wild bird, pet, and outdoor products that sells to independent retailers throughout the United States; this company owns Songbird Station. They have a big sale at the warehouse every year where things like bird feeders, baths, houses, bird food, bird books, pet items, and garden décor items will all be discounted. NOTE: they only accept cash. Sale begins at 8:00 am so we will leave Moser's parking lot at 7:00 am (there is usually a line to get in the door!) You just never know what you may find!

After shopping, if we have time, we will swing over to Lakeview Lake or Teal Lake or another local park for some birding before heading back to Columbia; we may even stop for lunch.

Binder Lake, Jefferson City, MO

Date & Time: Saturday, October 31st, 2015, 8:00 a.m.

Departure Point: AC commuter parking lot, SE corner of AC exit off US-63.

Leader: Greg Leonard, 573-823-4759

If you're not joining the carpool, meet at the tackle shop on the north side of the lake at 8:40 a.m. After the trip we'll have lunch at Dudley's Café (cash only).

Directions to north entrance into Binder Lake from Columbia: Take US 63 south to Hwy 50 west. Exit at the Capital Mall, turn right and then an immediate left onto N. Country Club Drive, go about 0.7 miles and turn right onto Rainbow Dr, go 0.5 miles and turn right onto Henwick Ln, go another 1.7 miles and then turn left onto Binder Lake Rd, the tackle shop will be less than a mile and on your left.

2015-2016 FIELD TRIPS
Lori Turner, Field Trip Chair

McBaine wetlands & lower Perche Creek

Date & Time: Saturday, November 7th, 2015, 8:00 a.m.

Departure Point: McBaine trailhead (Katy Trail SP), McBaine, MO

Leader: John Besser, jbesser1@gmail.com

We will bird the City of Columbia's wetland cells 1 and 4, MKT trail, and lower Perche Creek, looking for ducks, marsh birds, sparrows, and raptors. We hope to drive into the area via the city's access road, but plan to do some walking as well. A spotting scope may come in handy for viewing ducks on the wetlands. The trip will be 4 hours long. We recommend water-resistant footwear.

Prairie seed collection

Various seed-collection trips will be organized throughout the fall, to harvest native seeds for the CANS restoration project (see September 2015 Chat). If you want to be notified of these trips, contact John Besser, jbesser1@gmail.com or 573-874-5675.

FALL MEETINGS & PRESENTERS

Wednesday, October 21, 7:00 p.m.

Presenter: Brent Wade and Betsy Blake

These two educators were recipients of our Hog Island Scholarship (see the February 2015 Chat). They will talk about their experiences and how they incorporate all they learned into their teaching.

Wednesday, November 18, 7:00 p.m.

Presenter: Sarah Kendrick, Missouri Department of Conservation

Wed. Nov. 18, 7 pm

Come hear Sarah Kendrick, Wildlife Programs Supervisor at the Missouri Department of Conservation, speak about her Master's research on the breeding demography of the Eastern Wood-Pewee across a gradient of savanna, woodland, and forest in the Missouri Ozarks. Sarah will also cover her more recent work at the Department partnering with Missouri Bird Conservation Foundation to build the Great Missouri Birding Trail. Come and see how Audubon Societies around the state are integral to this effort now and in the future of this statewide effort highlighting the "best of the best" places to bird in Missouri.



Columbia Audubon Society wants to thank our corporate sponsor:

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