

THIS ISSUE

Coffee Break, June 8

Raise Giant Silk Moths this Summer

Sunday, June 10 / Giant Silk Moths

Cedar Creek Vets

Summer Youth Camp Openings

Around the State in June

Follow the 5 Rs in Order

A Trifecta of Cavity-nesting Success

Bathed in early-morning light our current bluebird pair keeps watch from the nesting box situated on our clothesline pole. The young just fledged!

It only took twenty-nine springs to achieve this “first” - three visible nesting boxes out our back door simultaneously occupied by three pairs of different native songbird species. The realization dawned on me with the arrival of a tree swallow pair a few weeks ago. They quickly took interest in the only vacant box remaining, situated across an expanse of lawn from our patio but very visible from inside the nature center. At the time a pair of bluebirds was maintaining a nest with five eggs in the box attached to the clothesline pole situated a mere fifteen feet from the edge of our patio.

Appropriately, a house wren pair occupied the third. Shortly after we moved here I erected a Peterson-style bluebird box on the northeast corner of the lawn. The area surrounding the box was free of trees or high shrubbery, so, very suitable for bluebirds or swallows. However, encroaching boxelder trees have now completely negated its desirability for these two species, and the proximity of low branches just behind, above and adjacent to the entry hole has transformed it into a dream nursery for the house wrens. A pair has nested in this box for at least ten years straight.

At first blush it doesn’t seem like a big deal, but the fact that it took this long to achieve a spring featuring “three boxes / three birds” says a lot about the trials and failures they endure every breeding season. The “trifecta” would never have a chance to occur here, first, if we had never erected the boxes to begin with, but also if we didn’t commit to constant vigilance against house sparrows between March and June each year.

We are happy to report that no house sparrow has ever completed a nesting cycle in these boxes, but it hasn't been for lack of trying on their part. This invasive alien is federally-listed as a "noxious pest." It is lawful and even encouraged to treat it as you would a Norway rat that has taken up residence in your barn or basement. Removal is a springtime ritual here. We are usually able to live-trap one that has taken an interest in the box before eggs are even laid. However, let a week pass and expect to find the box not only



Our milk snake consumes an egg of the invasive house sparrow.

crammed with grasses, feathers, string, candy wrappers, etc., but an egg or two laid as well.

A bluebird society website may list some tips on how best to humanely euthanize the house sparrow, but we put their protein to very good use. Our adult rat snakes easily constrict and swallow a freshly-trapped adult. We are not averse to demonstrating it as an exciting educational opportunity for kids during spring day camps here. With proper explanation the students are far from horrified, and accept it as a fact of life if native, cavity-nesting songbirds are to succeed. House sparrow eggs don't go to waste either. They are perfect size for any of our many young rat snakes or for our adult milk snake.

Research on breeding songbirds shows that close to fifty percent of nesting efforts fail. Therefore, don't be too surprised if that robin nest on the limb outside your window turns up upside down on the ground one morning, its contents probably in a sleeping raccoon's belly within the cavity of a tree close by; or if that cardinal nest with eggs you located hidden in the flowering spirea turns up intact, but suddenly empty, each egg stolen, broken open and consumed by the same blue jay that visits your feeder every day; or to see that pair of chipping sparrows which nested in the spruce tree next to your garage feeding – not any of their own fledglings - but a fat, begging cowbird fledgling perched on the wire over the lawn as if it were their own, even though it is twice their size.

Nests in cavities are less accessible to acts of predation or brood parasitism than cup nests in the open, but rates of failure are still significant largely due to intense competition for the limited, suitable ones available in a given area. Nearly every cavity-nester is competing with others of its kind as well as with other species for this precious commodity. Once a cavity has been claimed and is being actively-defended during commencement of nesting other native cavity-nesters will usually defer to the current occupant. However, house wrens have been known to slip into a box with bluebird eggs, peck them open and throw them overboard. The bluebird pair will then abandon the box.

A male house sparrow will do the same. He will also kill the nestlings of native birds, and, in some cases, even trap an incubating female of another species in the box by plugging the hole with his body then pecking it to death with his sharp bill.



By cramming a box with thin twigs a house wren eliminates interspecific competition and reduces depredation of eggs and young.

Over the decades we've seen, in descending order of commonality, house sparrows, house wrens, bluebirds, tree swallows and chickadees attempt to nest in any of the three boxes. Of these, the house wrens have had near-perfect nesting success. An energetic male will cram the cavity full of thin twigs, thus, making it unsuitable to any other cavity-nesting birds. The nest at the bottom of the entanglement is



The male tree swallow keeps an eye on Jim.

also quite inaccessible to predators. A pair has nested in one of the boxes every single year with near-perfect reproductive results.

A pair of bluebirds has attempted to nest in one of the two boxes situated in the open in roughly twenty of the past twenty-eight springs. About half of these have failed due mostly to raccoons, cats, or house sparrow raids. Tree swallows have attempted to nest in about half of the springs and have been successful only about half of those times. I only remember chickadees attempting to nest on two occasions. House sparrows destroyed the eggs both times.

In early June this year, as usual, the wrens are feeding young deep under the twiggy maze within the shaded corner box, the swallow female is incubating eggs that should be hatching any day in the box in middle of the lawn.

Only about eighteen days separates hatching from fledging for nestling bluebirds. Since they hatched on May 16 I was keenly aware that these bluebird young would be ready to fledge before this past weekend was over. Therefore, I was relieved to see that

the parents were still feeding them in the box when we arrived home from our job at the Kirtland's Warbler Festival in Roscommon on Sunday afternoon. It turns out we were just in time to witness another "first." Taking what I thought would be a short water break while mowing the lawn I was lucky enough to have my eyes pass over the box just as the first of five nestlings transformed into a fledgling. With plenty of vocal encouragement from the parents it hesitated at the entrance of the hole for a minute before launching with desperate flaps up to the powerline situated fifteen feet overhead. One after another, each of its siblings followed the same procedure. A half hour later all five were out of the box and perched on a wire or tree limb throughout the yard. Over the coming days we will watch them being fed on the wires over the lawn out the back door, growing stronger and more confident until, in another week or so, they will have learned how to spot and snatch insects off the ground on their own.



We arrived home Sunday afternoon to find the bluebird parents still delivering insects to the box.

This morning I removed the beaten-down, fecal-stained nest from the box. Within days of the fledging of her first brood she will start the nest-building process again and attempt to raise a second brood.

Concocted by humanity and served in any of a million different ways, we call it the "recipe for extinction": *Stripping a wild creature or a wild population of its ability to make more of itself.* Incessantly, with no thought or consideration, human activities swing wrecking balls into the heart of wild reproductive efforts in our yards, in our neighborhoods, and beyond, with impunity. Examples are limitless.

This June we encourage you to develop an awareness for the critical needs of wild things if they are to succeed in procreation, and then, at least use caution, or, better yet, take action to ensure their success. Providing and monitoring nesting boxes is one action. How about sparing a female turtle from being road-killed while she searches for a place to lay her eggs? Clearing invasive garlic mustard from the shaded patch of wild violets? Refraining from digging up that patch of nettle in the corner of the flower bed so a



passing red admiral butterfly has a larval food plant on which to lay eggs? Be it birds or butterflies, wood frogs, crane flies, or even wildflowers, witnessing the onset of a new wild generation is not only engaging, but feels *right* on behalf of a diverse and dynamic ecosystem. Active involvement in the process, like the few examples above, is immensely rewarding. We're here to guide you through it – to help you know what to do (or *not* to do!) in order to support any wild, native organism in achieving the continuance of its kind.

Raising giant silk moth caterpillars is still another action. Read on for more...

- Jim McGrath

Mere seconds "pre-launch," this young bluebird surveys a vastly bigger world than the one it knew the first two weeks of its life.

Catch Jim on Coffee Break

Friday, June 8

Jim is scheduled to appear on Friday, June 8 at 9:15am, discussing giant silk moths and more. The show airs weekdays from 9 to 10am on 89.7 FM. Listen live online at lcc.edu/radio/onair/ or watch it live (or later in the day at 6pm) online at lcc.edu/tv/watch. We'll post a reminder on our Facebook fan page.



This huge 5th-instar Polyphemus melts into the green leaves that surround it when viewed from below the tree branch.

4 eggs/larvae (per species): \$12. Additional eggs/larvae \$2 each while supplies last. Includes detailed care instructions. Contact us to make purchase arrangements.

Raise Giant Silk Moth Larvae this Summer

***A Fantastic
Summer Hobby!
A Unique Gift!***

***Eggs and young larvae
are available for sale
now thru early July.***

***Polyphemus, Cecropia
& Prometheus Moths!***



A huge, late 5th-instar Cecropia larva eats more than 10 whole leaves a day!

Finding & Rearing Giant Silk Moths

SUNDAY, JUNE 10



Doors open from 1 to 5pm. Admission \$5/person.

At 2pm, attend our presentation, **Finding & Rearing Giant Silk Moths**. The largest, most impressive moths on the continent can be found right here in Michigan, yet, their numbers have declined dramatically over the past few decades. Beautiful photographs enhance this Powerpoint presentation featuring the life cycle and ecology of Cecropia, Polyphemus, Prometheus and Luna Moths. Over the past two weeks females have begun emerging from cocoons, attracting mates, and laying eggs. See huge newly-emerged live moths in the “mating cage,” and more!



Start the newly-hatched larvae in an air-tight jar.

Then, take advantage of this unique opportunity. All paying participants will receive a caterpillar to rear at home over the summer, along with detailed care instructions. Additional larvae of the same species will be available on this day only for \$1 each while supply lasts. Fertile eggs or larvae of other species will also be available for sale (see Page 4) with complete care instructions.

An AWESOME summer project for enthusiasts of all ages.

As always, come early or stay late to interact with the largest collection of live Michigan reptiles and amphibians in the state, including The Grand Slam of Michigan Turtles – all 10 species native to the state! Lots of snakes, frogs, salamanders and tortoises, too. Photo ops galore!

Official Vet of Nature Discovery!

Thank you to Cedar Creek Veterinary Clinic for decades of quality care for all our precious educational reptiles.

Visit www.cedarcreekvet.com.



**Cedar Creek
Veterinary Clinic**



Bobolink.

Photo © Steve Sage

ND & LCC Camp Openings Still Remain

Michigan Field Birding Camp: June 19-22

(for students 10 yrs & older)

For details or to enroll visit:

<http://naturediscovery.net/pdf/summercamps.pdf>

Openings remain in the following summer youth classes offered by Carol at LCC East.

Classroom Arcade (4-5 gr): July 9-12, 9am-12pm.

Pond Life Explorers (4-5 gr): July 9-12, 1-4pm.

Mystery of Missing Bear (2-3 gr): July 16-19, 9am-12pm.

STEAM Spinning Gadgets! (5-8 gr): July 16-19, 1-4pm.

Rockets & Robots (6-8 gr): July 23-26, 9am-12pm.

Miniature Golf Challenge (5-8 gr): July 23-26, 1-4pm.

Visit <http://lcc.edu/seriousfun> to enroll.

Around the State in June



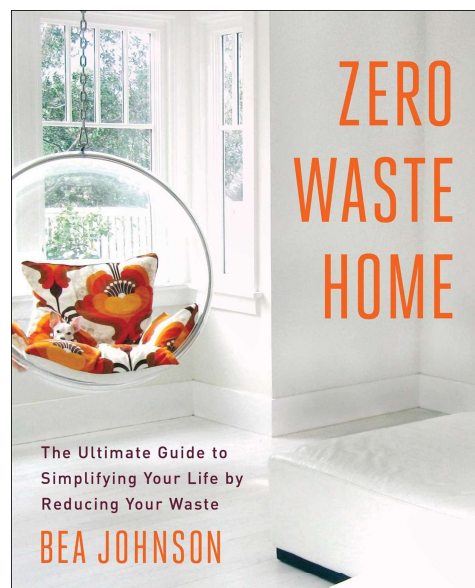
- ❖ ***Saturday, June 3: 9am-1pm. MI Reptiles & Amphibians Exhibit; 2pm. Recognizing MI Wildlife Presentation; Kirtland's Warbler Festival, Roscommon.***
- ❖ ***Saturday, June 9: 10am-2pm. MI Turtles & Snakes Exhibit; Get Outdoors Day, Baldwin.***
- ❖ ***Monday, June 11: 7pm. The Art of Birding by Ear; Michigan Audubon Society, Okemos.***
- ❖ ***Saturday, June 16: 10am-2pm. Giant Silk Moths Presentation; DNR Outdoor Adventure Center, Detroit.***
- ❖ ***Sunday, June 17: 10am-2pm. Giant Silk Moths Exhibit, Guided Birding; East Ingham Farmers Market.***
- ❖ ***Thursday, June 21: 10am. Field Guides Come Alive; Saranac Public Library.***
- ❖ ***Thursday, June 21: 10am. Field Guides Come Alive; Clarksville Public Library.***
- ❖ ***Friday-Sunday, June 22-24: 12-4pm. MI Reptiles & Amphibians Exhibit; Milliken State Park, Detroit River Days.***
- ❖ ***Thursday, June 28: 2-4pm. Michigan Reptiles & Amphibians Exhibit; Farmington Public Library.***
- ❖ ***Saturday, June 30: 11am. Field Guides Come Alive; Charlotte Public Library.***

Follow the 5 Rs “in Order” to Eliminate Waste

After reading our May newsletter my sister-in-law in Seattle, Cynthia McGrath, recommended this TED talk video. Speaker, Bea Johnson, the author of “Zero Waste Home,” emphasizes that recycling is, in fact Number 4 in importance out of the five Rs for eliminating waste. “Refusing” to purchase the packaging to begin with is R Number One. Here is the link along with the given description of its content.

<https://www.youtube.com/watch?v=kWnsmzSSgdI>

In her presentation, Bea shares her tribulations and secrets to achieving Zero Waste. She covers the importance of applying her 5R's in order (Refuse, Reduce, Reuse, Recycle, Rot) and shatters misconceptions, proving that the Zero Waste lifestyle can not only be "stylish", but also lead to significant health benefits, and time and money savings. She manages to talk about her personal journey with humour and without preaching. She brings an intimidating topic down to a manageable scale, lending a unique perspective and making Zero Waste less daunting. Her non-judgmental approach will inspire self-reflection and change. Bea talks about her lifestyle with passion and provides many practical solutions to living simply and reducing waste, but more importantly, finding happiness in our consumerist society. Together with her family Bea Johnson doesn't produce more than one jar full of junk each year. In her bestselling book „Zero Waste Home“ she explains the five principles of a home without waste: Refuse, Reduce, Reuse, Recycle and Rot (and only in that order). Anyone who follows those principles will not only save more time, but also live a healthier life. This talk was given at a TEDx event using the TED conference format but independently organized by a local community. Learn more at <http://ted.com/tedx>



-JM

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