



The diminutive Eastern Screech-owl needs a tree cavity to roost as well as to raise young. Photo by Greg Smith.

THIS ISSUE

Thank You, Donors

Visit Us by Appointment

Around the State in April

Volunteer to Save a Forest

LCC Summer Day Camps

Summer Day Camp Update

Fight Plastic Packaging

The Ecologically-Aesthetic Tree Cavity

When we moved into our north Williamston home at the start of the winter of '89, an old Weeping Willow grew - and I use the term loosely - on the south side of the house. It was a gnarly four-trunked monstrosity, each trunk abiding its own independent path of decay. From the ends of some branches hung whip-like sprigs lined with lanceolate leaves that arced and drooped toward the ground. Other limbs of varying diameters remained leafless in all seasons. Bark sloughed from many a brittle bough as it clung to the trunk in a losing battle against the forces of wind, precipitation and gravity.

The tree was such an eyesore that the mere sight of it must have triggered disgust in some passing motorists. On two separate occasions a guy in a pick up truck pulled onto our driveway, knocked on the door, and offered to cut it down for a couple hundred dollars. We politely took the contact information but knew we'd never make the call...

Our south-facing dining room window offered us a clear view of the willow situated perhaps forty feet from the pane. Within a few weeks of moving in, there was no doubt about it. From a bird's point of view this was the most popular tree in the yard. Woodpeckers of several species, nuthatches, chickadees, titmice and others rotated in foraging mode throughout the tangles. Through the spring and summer dozens of migrant songbirds were attracted to its insect bounty, as well.

One week in mid-autumn a Downy Woodpecker excavated a hole on the underside of a horizontal dead limb. Through the window we could watch it fly up and enter its fashioned winter roost as dusk set in. As spring drew closer it excavated a second hole in a more upright dead limb of the tree. Later in the spring we got to watch the comings and goings of the busy parents as they fed their hidden family. A couple weeks down the road they were leading the noisy, begging fledglings to the suet feeder situated closer to the window.

The following spring a pair of Bluebirds chose this very Downy nesting hole - now abandoned by the original occupants - to raise their own brood. They had opted for the more natural alternative rather than the specifically designed box we had erected for them on the lawn out back.

Over several years we saw chickadee then titmouse pairs choose to nest in their pick of several available cavities. One spring a pair of larger Red-bellied Woodpeckers took several days to chisel a hole high in one of the dead trunks. After they completed it, however, they never got a chance to actually use it. The reason why speaks to the intensity of competition for limited nesting cavities, revealed later in this column.

One late-March day a Wood Duck pair landed in the tree. They flapped and hopped from one girthy twisted branch to another obviously convinced that there must be a hole large enough in a tree as battered as this to accommodate a nest. Unfortunately, there were none and they moved on. Incentivized now, I got to work and built a Wood Duck nesting box. I then fastened it to the trunk about fifteen feet off the ground, purposely positioned to face the dining room window. The following spring and for several springs afterward the box produced a brood of ducklings that then headed to the vernal ponds out back to feed and grow.

As a bonus, over the winter an Eastern Screech-owl would adopt the box as a roost. From the window we were able to watch it wake up and stick its head out of the hole in late afternoon's pre-dusk light. When the air had grown almost too dusky to see, we could make out its silhouetted form as it took flight.



A Screech-owl roosts in the Wood Duck box fastened to a trunk of the old willow.

One summer in the late 90s one of our large Black Ratsnakes - a forest-dwelling, tree climbing constrictor with a naturally snaky affinity to holes – escaped from its tank. We searched the house thoroughly but never found it. We assumed it made its way outside and that we'd likely never see it again. About a month passed. During a day camp here we led some elementary-aged students along the south side of the house when a girl exclaimed, "There's a snake in the tree!" I looked toward where she pointed. The ratsnake's head protruded from an old enlarged woodpecker hole about ten feet off the ground. We hauled a ladder from the garage and spent the next hour carefully cutting and chipping the hole wider to eventually extricate the snake unharmed.



Twenty years later the last willow trunk to fall has nearly returned to the soil.

All-of-the-above explains why we never made the call to the tree cutters. The last of the trunks fell about twenty years ago. We decided to not section and remove it though. It was to lay and decay on nature's time and terms back to the soil from which it had grown into its prime, so many years before we had come to know it.

Garter snakes of all sizes overwinter underground below it. On sunny spring and summer mornings they come out to bask around and on top of the slowly sinking, disintegrating remains of the prostrate trunk.

On March 23 Michigan Bluebird Society contracted us to set up our Michigan reptiles & amphibians exhibit at their annual Bluebird Festival held this year at Washtenaw Community College. Additionally,

I was contracted to compose and present a Powerpoint program entitled *Cavity-Nesters Beyond the Bluebird*.

The audience viewed images related to two dozen species of ‘secondary’ cavity-nesting birds found throughout the state. Here they are in taxonomic order: Wood Duck, Hooded Merganser, Common Merganser, American Kestrel, Barred Owl, Eastern Screech-owl, Northern Saw-whet Owl, Belted Kingfisher, Great Crested Flycatcher, Purple Martin, Tree Swallow, Northern Rough-winged Swallow, Bank Swallow, Black-capped Chickadee, Tufted Titmouse, Red-breasted Nuthatch, White-breasted Nuthatch, Brown Creeper, Carolina Wren, House Wren, Winter Wren, European Starling, Prothonotary Warbler, and House Sparrow.

These species, as well as the Bluebird, are generally unable to excavate their own cavity for nesting like most woodpeckers (‘primary’ cavity-nesters) do. Instead, they are obligated to find existing cavities within the natural communities to which they are evolutionarily-adapted.

Many find and utilize abandoned woodpecker holes. Others find rotted holes where perhaps a few years before, a small or large limb snapped from a tree. Still others have nesting needs beyond hollowed-cellulose chambers. Bank Swallows and Kingfishers must locate eroded embankments into which they can dig a nesting burrow.

Imagine a secondary cavity-nesting bird of a certain size that settles in otherwise appropriate breeding habitat. The availability of a suitable cavity may be the sole, critical component that makes or breaks its ability to breed. For quite a list of birds, cavity availability has been found to be the ‘limiting factor’ to the habitat’s occupation by a breeding pair or, more broadly, by a breeding population.



A Tree Swallow inspects a cavity.

Photo by Steve Sage.

In forest habitats little disturbed by human encroachment the spectrum of components throughout the trophic levels remains in place. Woody growth includes trees of various ages and heights; some with dead snags, if not entirely dead; others fallen and moss-covered. Processes of decay are accelerated by the weathering elements. Fungal invasion further weakens and softens the decaying wood. Beetles tunnel and woodpeckers excavate to additionally create cavities of nearly every size and shape at any height and position from end to end in the forest. Although any one hole may last only a few years, more holes are continuously formed and available to any feathered cavity-seekers from the pint-sized Red-breasted Nuthatch to the bulky Barred Owl.

Where people live, travel, work and play, however, suitable cavities are lost by default with the loss of entire forest communities to farmland, shopping centers, subdivisions, golf courses, roads, other infrastructure, etc. The slivers and remnants that remain include small designated natural areas, parks, and portions of suburban or rural backyards.

In these locales around many of our neighborhoods dead and dying trees and limbs are routinely removed by park maintenance teams and road commission crews ostensibly for aesthetic or safety reasons. Many property owners remove them without any thought beyond merely deeming them ‘unsightly.’

Yet, each dead tree, each limb removed should be thought of as a lost opportunity for, say, a Downy Woodpecker pair to excavate a cavity in which to raise a next generation, and by extension a potential lost opportunity for pairs of Chickadees, Tree Swallows, Bluebirds, House Wrens and other secondary cavity-nesters.

When viewed through an *ecological* lens the consideration of a dead tree or limb transcends the limited, starkly human-centric criteria for what constitutes beauty. Wherever I walk outdoors, I can't help taking notice - in a good way - when my view happens upon a cavity, low or high in a tree. The hole's size, shape and surroundings make me ponder what forces created it, what species have used it in the past for shelter or procreation, and what species may still have a chance to utilize it to their advantage before it falls to the ground. From early spring to mid-summer I may get to observe one of these very birds using it to raise a brood; or in the winter hope to see the face of a roosting screech-owl filling the entrance.



In our yard a deteriorating woodpecker hole is flanked by smaller ones created by tunneling insects.

Although most of us live among some degree of fragmented forest, even the most severely minimized (i.e., an inner city neighborhood) have the potential to support a few species of secondary cavity-nesters. Scattered holes may exist among the boughs of the larger, older trees on the block. These precious commodities become a source of heated competition not just between birds of the same or varying species. Several squirrel species seek them as well.

This is where you come in. When you notice a dead or dying limb or tree, definitely consider leaving it stand, provided it is not a danger to people, a power line or a building should it fall.

You can also supplement the cavities out there by providing human-made holes in the form of nesting boxes. Especially in late winter and spring, watch how quickly one attracts attention.



A young Bluebird in the box on our clothesline pole summons the courage to make the leap.

A human-constructed cavity may not blend into the natural community like one chiseled by a woodpecker on a rotting tree limb, however, it does have one huge advantage. The interior can be accessed through a hinged side so you can check on the nesting process, clean out an old nest or... evict the riff-raff.

The well-known (albeit misnamed) House Sparrow, an introduced species of weaver finch from Eurasia, is an abundant and aggressive cavity-nester in cities, on farms and in other locations with human constructions. This bird's presence in an area is known to depress populations of native songbirds, especially those with which they compete for precious nesting holes. It is considered a noxious pest at the federal level for this and other reasons.

Citizens are encouraged to remove or otherwise deter it in any manner, including through the elimination of cracks and crevices on human structures where it may attempt to nest.

By erecting and monitoring nesting boxes on your property or elsewhere, a 'landlord' has the ability to provide for the natives while keeping aggressive House Sparrows at bay. For more details read 'The Trouble with House Sparrows': <http://naturediscovery.net/pdf/WILD%20TIMES%20Mar14.pdf>.

The backstory and negative impact of the introduced European Starling on native cavity-nesting songbirds is nearly identical to that of the House Sparrow. However, since it is notably larger it cannot squeeze into the standard 1.5-inch opening on a typical nesting box that suffices for most native cavity-nesting songbirds. It definitely poses problems for other cavity-dwelling birds larger than a Bluebird, though.

On several occasions in the spring including in our own yard, I've watched a pair of Starlings patiently

watch from a nearby perch for a Red-bellied Woodpecker to finish chiseling a hole in which to nest. Once completed they take to fighting with the woodpecker pair in order to steal the cavity. Eventually, the woodpeckers abandon their work and search for a new location to start over while the Starlings get busy bringing nesting material to their newly-won digs.

Since Starlings will often nest in tree cavities well off the ground, I often feel helpless to do anything about it. However, in over thirty-five years here I've made sure that none have ever successfully nested in gaps, such as vents or under loose siding or soffits that they often seek on houses.



You shouldn't wait or deliberate long if you'd like to become an advocate for native cavity-nesters in your yard this spring. There are many sources online to purchase quality Bluebird nesting boxes made from cedar. For the DIYer, check out <https://70birds.com/> which provides building specifications for every species of North American cavity-nesting bird along with other bird-friendly constructions.

We can also be of service to help you get started in attracting tenants as soon as possible. Consider a visit here, too, to see our boxes and current occupants. Just contact us to make an appointment.

-Jim McGrath

We wish to extend our appreciation to our many supporters over the years, including these most recent donors...



*Eowyn Bates * Jim Bricker
Cedar Creek Veterinary Clinic * Emily McGeath
Sandy Mobley * Joyce Peterson * Mike Quinn
Mary Lou Turnbull * Gene Wasserman*

Nature Discovery

5900 N. Williamston Road
517.655.5349

Williamston, MI 48895

naturedisc87@gmail.com

www.naturediscovery.net

Visit Our Nature Center by Appointment

Suggested Minimum

Donation: \$5/person/hour



The sky's the limit for natural science learning here – with a Michigan twist! Adults, couples and families are welcome to schedule an intimate indoor/outdoor visit to what we call “The Biggest Little Nature Center in Michigan,” and “Home to the Largest Zoo of Michigan-native Reptiles and Amphibians.” The unique, in-person, hands-on experiences here are unmatched by a trip to a conventional zoo! We will bring snakes, turtles, frogs and salamanders out of tanks to interact with adults or students of any age or grade-level.

Identify and feed “the grand slam of Michigan turtles” - all ten species native to our state! Meet, pet and feed “Milberta”, our always hungry Red-footed tortoise.

Handle any or all of Michigan’s three species of garter snakes while learning how to tell them apart, then watch them gobble up worms and live tadpoles. Hold or “wear” a gentle 6-foot Black Rat Snake – the largest in the state!



Many more snakes, turtles, frogs and salamanders to identify and feed. Take a guided walk on our trails to identify birds and bird song, trees, vines, and invasive plants in early spring.

Make special arrangements now for a simply magical field trip at dusk! Wade through our vernal pond by flashlight while being serenaded LOUDLY by frogs all around you. Let your eyes adjust to the darkness then walk the trails with eyes to the ground in search of glow worms – the larvae of this summer’s fireflies.

Contact us for more info or to make an appointment.

Around the State in April

- ❖ Monday, April 1: 11:30ampm. MI Wildlife Presentation; Au Gres Community Library.
- ❖ Monday, April 1: 2pm. MI Wildlife Presentation; Mary Johnston Memorial Library, Standish.
- ❖ Friday, April 5: 6-8pm. MI Reptiles & Amphibians Exhibit; Kinawa 5-6, Okemos.
- ❖ Tuesday, April 11: 7pm. MI Snakes Presentation; Sable Dunes Audubon Society, Pentwater.
- ❖ Thursday, April 18: 5:30-7:30pm. MI Reptiles & Amphibians Exhibit; Red Cedar Elem, E. Lansing.
- ❖ Thursday, April 18: 6:30-8pm. MI Reptiles & Amphibians Exhibit; Cornell Elem, Okemos.
- ❖ Saturday, April 20: 10am-2pm. MI Reptiles & Amphibians Exhibit; Earth Week Plus, Cheboygan.
- ❖ Saturday, April 20: 1pm. MI Reptiles & Amphibians Presentation; AFFEW Earth Day, Ludington.
- ❖ Sunday, April 28: 12-3pm. MI Amphibians Exhibit. Stony Creek Metropark Nature Center.



Volunteer to Save the Forest...

Adults and high school students. Want to get out of the house into a natural landscape AND do something for its benefit? Help us save our woods! This photo shows alien, invasive Oriental Bittersweet engulfing and strangling a healthy, native, wild black cherry tree. Jim will introduce you to this, as well as the invasive shrub, Amur honeysuckle, and the invasive biennial, garlic mustard – each in its own way destroying the ecology of this and nearly every other natural area on private and public properties. Learn methods for removing them, then come to the rescue.

The removed alien growth accumulates rapidly, so we regularly light a bonfire to burn what we've cut.

Want to learn more about invasive plants on your own rural property? Schedule an on-site appointment!

Lansing Community College Summer Day Camps

Carol will be teaching the following youth classes at LCC East this summer...

June 24-27: AM – Wildlife Explorers, Gr. 5-8; PM – Science with Experiments, Gr. 2-3.

July 15-18: AM - Fun with Physics, Gr. 2-3; PM – Miniature Golf Challenge, Gr. 6-8.

July 22-25: AM – Michigan Reptiles & Amphibians; PM – Build a 'Bot, Gr. 4-5

July 29-Aug 1: AM – Mystery of Missing Bear, Gr.2-3; PM – Carnival Games, Gr. 4-5.

For more details and to enroll visit <https://www.lcc.edu/community/youth-programs/>

Nature Discovery Day Camps

There are currently openings left in the following day camp sessions...

Mid-Michigan Field Birding

June 10-13; 8am - 2pm

For middle to high school students



Nature Discovery Day Camp

August 5-8; 9am - 3pm

For students 7-9 years old

6

Michigan Reptiles & Amphibians

August 12-15; 9am - 3pm

For students 10 years & older



For details and fees for any of these weeks see the summer day camps page in our March 2024 newsletter:

<http://naturediscovery.net/pdf/WILD%20TIMES%20Mar24.pdf>

Fight the Plastic Packaging Push

In his often profane demonstration of outrage you gotta love John Oliver's ability to take it to greed-driven fossil fuel corporations. They've contaminated every inch of the planet with a full-on tap of plastics production using consumers as the vectors. It is past time that we stop being complacent pawns to their obscenely profitable, planet-trashing practices.

Last Week Tonight: Plastics

<https://www.youtube.com/watch?v=Fiu9GSOmt8E>

12 Ways to Break Up with Single-Use Plastics

https://www.nytimes.com/wirecutter/reviews/stop-using-single-use-plastics/?campaign_id=9&emc=edit_nn_20240401&instance_id=119013&nl=the-morning®i_id=97652655&segment_id=162278&te=1&user_id=e2b8dd8c9b543fb8c35d5dd30658067e

-JM

The next generation would be justified in looking back at us and asking, "What were you thinking? Couldn't you hear what the scientists were saying? Couldn't you hear what Mother Nature was screaming at you?" - Al Gore

I don't want you to be hopeful. I want you to panic. I want you to feel the fear I feel every day. I want you to act. I want you to act like you would in a crisis. I want you to act like your house is on fire, because it is. - Greta Thunberg

The personal actions that cut climate pollution fast are to go flight-, car-, and meat-free. Start with the one that feels most feasible for you; if you can't totally go without, aim to cut your consumption today at least in half. - Kimberly Nicholas, Under the Sky We Make

What if we had storytelling mechanisms that said it is important that you know about the well-being of wildlife in your neighborhood? -Robin Wall Kimmerer



Less Beef = Less CO₂
Cowspiracy.com

**Union of
Concerned Scientists**
Science for a healthy planet and safer world



Flightfree.org



RSPO.org



insideclimatenews.org

Become a fan of *Nature Discovery* on Facebook!

NATURE DISCOVERY 5900 N. Williamston Road Williamston, MI 48895

(517) 655-5349 naturedisc87@gmail.com www.naturediscovery.net