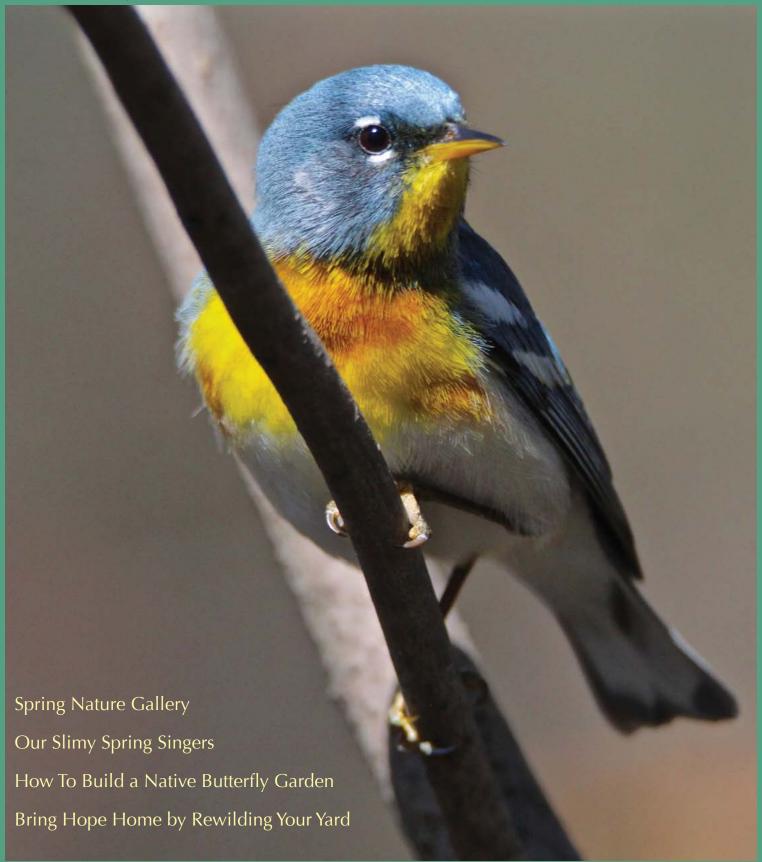




Flyway





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4840 Mt. Elliott Street, Detroit MI 48207-1341

Phone: 313-588-1015

Email: staff@DetroitAudubon.org Web: www.detroitaudubon.org

Rochelle Breitenbach, President rochelle@detroitaudubon.org

Gretchen Abrams,

Executive Director 313-588-1015 gretchen.abrams@detroitaudubon.org

Brittany Leick,

Program and Membership Coordinator and Office Administrator 313-960-3399 programs@detroitaudubon.org

Ava Landgraf, **Research Coordinator**

313-800-1578

alandgraf@detroitaudubon.org

Staff are often in the field, so there may be communication delays, but your calls and emails will be returned as soon as possible.

Flyway Editor-in-Chief: Gretchen Abrams **Editor:** Jim Bull

Assistant Editors: Rebecca Minardi and Emily Simon

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The mission of Detroit Audubon is to foster the appreciation and conservation of birds and the environment we share. Our three mission areas are: Education, Research, and Action.





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FRONT COVER PHOTO:

NORTHERN PARULA (male). Northern Parulas are one of our most striking warblers, sporting a bright blue head and back, yellow breast, chestnut bib, and a bit of a black beard. I almost always hear them first and then locate them by following the sound. Once you hear the song, you'll likely never forget it. It is a fast buzzy trill, "zeeeeeeeeeeee up" that climbs the scale, according to Peterson—a very accurate description! Caption by Jim Bull. Photo by Bruce Szczechowski.



Letter from the Executive Director

Greetings!

Spring has arrived! Whether you're out on the trails seeking your first warbler of the season, tracking nightly migration on BirdCast, or waiting for the return of the hummingbirds that visit your feeders each year, spring migration is an exciting time. The Great Blue Heron rookery

on Kensington Metropark's Wild Wing Lake is one of my favorite springtime birding spots. The rookery sits on an island in the middle of the lake, like a stage. The majestic birds fly to and from their nests preparing, providing a beautiful performance for an awestruck audience of hikers, photographers and birders gathered on the boardwalk.

While birds are busy building nests, we are often busy freshening up our own and thinking about the growing season. This year, spring brings big changes to

Detroit Audubon. We recently moved our office to a new location and welcomed seven new members to the Board of Directors. I encourage you to visit our website to learn more about the expertise and skills they bring to our organization. Their passion for protecting birds brings a new energy as we transition to a new era under a new name.

We are disappointed the National Audubon Society chose to keep Audubon's name. They missed an opportunity to take the lead in ensuring we are inclusive and unified in bird protection and conservation. Bird conservation benefits everyone and with 3 billion birds lost in just 50 years, we need everyone in the fight. Detroit Audubon will begin the careful process of choosing a name that reflects our commitment to birds, conservation, and our community. Only together can we better protect birds and the environment we share.

Happy Birding,

Gretchen Abrams

How To Build a Native Butterfly Garden

From the Southeast Michigan Butterfly Association (SEMBA) by Brenda Dziedzic

ESSENTIAL COMPONENTS

Lots of Sun – Most butterfly plants need full sun, at least six hours a day.

Plant in Groups – It's easier for butterflies and moths to see a group of three or more plants.

Plant Arrangements – To easily observe the butterflies and moths in your garden, plant the taller plants in the back.

Shelter from Wind – Use trees, shrubs, tall plants, trellises, or fences to provide shelter from the wind.

Sunning Spot – Rocks and stepping stones can be used by butterflies and moths to warm themselves when it's cool.

Overripe Fruit – Overripe fruit such as bananas, cantaloupe, peaches, pears, watermelons, etc., provides nutrients for butterflies and moths.

Place to Puddle – Butterflies and moths ingest sodium and potassium from damp sand, soil, and mulch.

Nectar Plants — Nectar plants are food for butterflies and moths.

Host Plants — Host plants are needed for butterflies and moths to lay their eggs on and are food for the caterpillars.

NO PESTICIDES

NECTAR PLANTS

Aster - Symphyotrichum spp.
Blazingstar - Liatris spp.
Blue Mistflower - Conoclinium coelestinum
Butterfly Weed - Asclepias tuberosa
Goldenrod - Solidago spp.
Ironweed - Vernonia spp.
Joe Pye Weed - Eutrochium spp.
Prairie Phlox - Phlox pilosa
Purple Coneflower — Echinacea purpurea
Swamp Milkweed - Asclepias incarnata
Vervain - Verbena spp.

Wild Bergamot - Monarda fistulosa

HOST PLANTS AND THE BUTTERFLIES THAT USE THEM

Aster - Symphyotrichum spp.

• Pearl Crescent

Cherry - Prunus spp.

 Coral Hairstreak, Eastern Tiger Swallowtail, Redspotted Purple

False Nettle - Boehmeria cylindrica

• Eastern Comma, Question Mark, Red Admiral

Hackberry - Celtis spp.

 American Snout, Hackberry Emperor, Mourning Cloak, Question Mark,

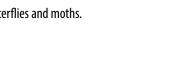
Tawny Emperor

Hop Tree - Ptelea trifoliata

Giant Swallowtail

Milkweed - Asclepias spp.

Monarch



Pearly Everlasting - Anaphalis margaritacea

American Lady

Spicebush - Lindera benzoin

Spicebush Swallowtail

Tulip Poplar - Liriodendron tulipifera

• Eastern Tiger Swallowtail

Violet - Viola spp.

Fritillary

Wild Indigo - Baptisia spp.

• Frosted Elfin, Hoary Edge, Wild Indigo Duskywing

Willow - Salix spp.

 Compton Tortoise Shell, Dreamy Duskywing, Mourning Cloak, Red-spotted Purple, Viceroy

Above, **GREAT SPANGLED FRITILLARY on WILD BERGAMOT.** Photo by Leonard Weber.



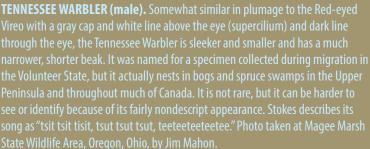
Spring Nature Gallery

Captions by Jim Bull

Spring is what birders look forward to all year long. Why? Spring migration brings us looks at many birds we see only in April and May, all decked out in their finest breeding plumage. But the crème de la crème is those first three weeks of May because that is the prime time for our most colorful birds, the warblers, to come through. Many birders even take days off work during this time if they can, to be out in the field as much as possible. While we did sprinkle in a couple other kinds of birds and an endearing mammal species, this Spring Nature Gallery features mostly warblers—just in time for you to learn them here and go see them, either by yourself or on one of our many field trips during that special time. Happy warblering!

PROTHONOTARY WARBLER (male). A large, deep yellow warbler with a very dark eye. Unlike most warblers, Prothonotary Warblers are cavity nesters that use old woodpecker holes or nest boxes. They prefer swamps (forested wetlands) and river bottoms both for migration stopovers and for nesting. They winter in Central and South America. They get their name from an order of Roman Catholic prelates who wore yellow hoods. Photo taken at Magee Marsh State Wildlife Area, Oregon, Ohio, by Jim Mahon.







BLACK-THROATED BLUE WARBLER (male). Note the slate blue back, black mask, and the white handkerchief-like wing patch (which the female has as well, though she is brownish in color). In Michigan they nest mostly in the northern Lower Peninsula and the Upper Peninsula in mature mesic deciduous forests, often dominated by Sugar Maples. The male's song has been compared to a nasal repeated "beer, beer, beer, beer, beer, beer!" ascending in pitch. They mostly winter in the Caribbean. Photo taken at Magee Marsh State Wildlife Area, Oregon, Ohio, by Jim Mahon.

BROWN-HEADED COWBIRD (males). The bird at the top right is in the midst of its courtship bowing, but since these are all males, he might be just getting in some practice unless a female is nearby but outside the picture. Cowbirds bow so deeply that they sometimes seem like they will fall off the branch. As they bow, they utter a gurgly "derrr-drink!" call. A kind of blackbird, males have brown heads and black bodies, while females are uniformly light brown. They were first named "Buffalo Bird" by early settlers because the birds followed the American Bison around eating insects and seeds they kick up, and sometimes eating external parasites. Their nomadic lifestyle did not allow for incubating eggs and brooding young, so the Brown-headed Cowbird evolved into a nest parasite, laying its eggs in other birds' nests. Often the cowbird young survive at the expense of the host young. They are relative newcomers to Michigan. Norman Wood, who wrote the first "Birds of Michigan" compendium, doubted reports of observations in Michigan due to the dense forests, which they do not frequent. As the forests were cut, however, the Brown-headed Cowbird found the farm fields, mowed grass, and abundant cows much to their liking. They helped drive Michigan's rare Kirtland's Warbler to the brink of extinction. Photo taken at Eliza Howell Park by Nick Hinnant.

Below, **AMERICAN REDSTART (male).** This bird's breeding plumage features a black head, breast, and wings with bright orangish-red shoulder, wing, and tail patches. This bird may be a first-year bird because the wing patches and tail patches are yellow and not the usual bright orange. They nest in northern Michigan and Canadian deciduous forests. Peterson describes the song as a thin buzzy "tsee tsee tsee tesee tsee-o" or "teetsa teetsa teetsa teetsa teet." Photo taken at Tawas Point State Park by Chris Wlodkowki.





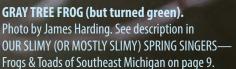
Spring Nature Gallery

EASTERN BLUEBIRDS IN A ROW. Eastern Bluebirds are members of the thrush family, which also includes the American Robin. They like to nest in old woodpecker holes near the edges of woods bordered by fields, where they hunt for their insect prey. With fewer tree cavtities available due to competition from Tree Swallows and nonnative European Starlings, Eastern Bluebirds are aided in many places by a series of nest boxes installed along field edges in what are called bluebird trails. There used to be a bluebird trail on Belle Isle around Blue Heron Lagoon. Detroit Audubon would love to see a bluebird trail there again, but it would take a cadre of volunteers to monitor and maintain it. Photo by Glenn Miller.



PALM WARBLER (male). One of the first migrating warbler species to arrive in the spring, it can be identified by its lightly speckled dull yellow breast, rufous cap, and yellow eyeline. But there is a behavior that gives them away almost every time—they constantly bob their tails. While they can be found in trees, they are more often seen foraging on the ground or in low shrubs. A few nest in Tamarack bogs and Black Spruce swamps in the Upper Peninsula, but most go further north into Canada to breed. Photo taken at Pointe Mouillee by Dongfan Chen.

CHESTNUT-SIDED WARBLER (male). Males and females look similar in breeding plumage, but the female is a bit paler than the male. They are often heard before they are seen by veteran birders, who recognize their familiar "Pleased, pleased, pleased to meetcha" song. They nest in woodlands with shrubby undergrowth throughout most of the state and into Canada but are extremely rare nesters in the southeast corner of the state. They are common in migration, however. Photo by Glenn Miller.









right in our area to nest. Our most common warbler, it can be seen from May through early fall. The male has a bright yellow breast with vertical red stripes and sings loud and often its narcissistic song that sounds like it is saying over and over, "Sweet, sweet, sweet, I am so sweet!" They nest in every corner of the state in shrubby wetlands and overgrown fields. Having evolved with cowbirds, they often build a second nest over the top of both their own eggs and a cowbird egg when one is discovered and lay a new clutch. Dr. Walter P. Nickell, one of Detroit Audubon's early presidents and naturalist at the Cranbrook Institute of Science, once found a five-story Yellow Warbler nest, with only the top story free of cowbird eggs, and it was that clutch the female incubated. That photo was featured in many different ornithology texts. Photo by Josette Shindak.





HERMIT THRUSH. Their ethereal, plaintive, flute-like song graces the ear and permeates the soul at both dawn and dusk. Their lightly spotted breast, greenishgray back, and rufous tail are diagnostic. Hermit Thrushes are commonly seen in migration in this area, but they nest in the northern Lower Peninsula, the Upper Peninsula, and into Canada. They seem to prefer woodlands with at least some conifers for nesting, including Jack-Pine plains, sparsely wooded grasslands, and forest edges. In migration they can be seen in large numbers. We once saw over 40 feeding together in a small wooded area at Elmwood Cemetery in Detroit. Photo taken at Pointe Mouillee by Dongfan Chen.



COYOTE PUPS. This native member of the canine family, a relative of the wolf and the domestic dog, has adapted well to humans and is doing very well in every one of the lower 48 states. The state used to pay a bounty for them (it wasn't effective) before we really appreciated the important role that predators play in ecosystems. They are primarily mousers but will also take rabbits and other small mammals. They hide from humans pretty well, but can be heard yipping or howling in groups at times. People too often panic when they hear reports of Coyotes. It's better to just enjoy and appreciate them as part of our native Michigan fauna. But do keep small dogs on a leash when Coyotes are in the vicinity. Predator cams at Detroit parks have revealed how many more Coyotes there are than previously thought and are helping us better understand their behaviors and interactions with other species. Photo taken at Pointe Mouillee by Dongfan Chen.



Nesting and Parenting Strategies of Backyard Birds

by Bethany Beekly

On a day in early May, a Red-bellied Woodpecker excavates a new cavity above the one he created last year while an Eastern Bluebird constructs a nest in that vacant space downstairs. The woodpecker has a brief altercation with a starling who's hoping to take a shortcut. On this day the woodpecker triumphs over his assailant. In a neighboring tree, Blue Jays come and go periodically with mouthfuls of sticks and rootlets. Their progress is slow and almost careless; they've been working for two weeks, and they're only just now nearing the final stages of construction. Meanwhile, a Brown-headed Cowbird waits until other birds are done with their nests, and then stealthily lay one of their own eggs inside the other birds' nests. Birds can make lots of different nests, and cowbirds aren't very picky, so they have lots of opportunities for success.

Many birds construct cup or basket-like nests of sticks, mud, and grasses. Most line the interior with soft, warm materials such as feathers, spiderwebs, or fur. Nests may be in trees, shrubs, or even tall grasses, including cattails. Cavity-nesting birds, who lay their eggs in holes in snags or dead branches of living trees, may excavate a new cavity each year or take over an empty one. Baltimore and Orchard Orioles build nests of grass woven into baskets that dangle off the ends of tree limbs. Some birds, like the familiar Killdeer, lay extremely well-camouflaged eggs more or less directly on the ground. It can be nearly impossible to spot the same Killdeer nest two days in a row (and one must take care not to step on them). Finally, Cliff and Barn Swallows will build mud-cup nests in the rafters of picnic

shelters and under or on bridges or other structures.

While wrens generally nest in tree cavities, birders have observed them incubating eggs in coils of Christmas lights, old boots, light fixtures, and plant pots. Their adaptability makes them resilient to the ever-increasing strain that urban sprawl places on wildlife habitats. Birds that are pickier about their environment can get pushed out by savvier adapters, leading to pockets of extinction or extreme reductions in numbers.

Like humans, birds take a variety of approaches to the division of domestic labor. In certain species, nest building is mainly undertaken by one parent, but some birds bond by working together. A male Carolina Wren will select a few potential nesting locations and take his mate on a tour to visit them. The female picks her favorite, and the two construct a nest together at that site. Mourning Doves have a fascinating creative process: once a location is selected, the female stays put while the male flies back and forth at a breakneck pace, delivering her sticks and grasses then landing on her back, reaching over her shoulder, and passing the material into the female's beak. She weaves the materials in place while he makes another trip, essentially building the nest around herself.

Once the nest is built and eggs are laid, some male birds hit the road (and may even seek out additional females to mate with). However, between 80-90% of birds engage in some level of biparental care. There is a loose but interesting



relationship between monogamy and the sharing of parental responsibilities. For instance, Red-winged Blackbirds are highly promiscuous, with males having up to 15 mates in a season. Male Red-winged Blackbirds also have virtually no interaction with their chicks. Mourning Doves, on the other hand, form powerful pair bonds with their mates and are also some of the most egalitarian parents of the bird world. Males and females take turns incubating the eggs and, after they hatch, brooding the young. Both male and female doves produce a substance called "crop milk" in their esophagi with which they feed the chicks in their first few days—an ability shared by just a handful of species.

Like nesting habits, avian parenting strategies are not rigid. Males of many species act in

accordance with environmental conditions such as food availability to maximize their own reproductive success. When food availability is high, they may engage in more promiscuous behavior because there are enough resources to support multiple broods. If food is scarce, they stick with one female and participate more actively in chick-rearing to ensure the success of a single brood. Unfortunately, climate change could disrupt this decision-making process. Birds use information like temperature and precipitation to determine the best reproductive and parenting strategies. With the intense and erratic weather patterns that are becoming the norm, food availability is unpredictable. As a result, birds could suffer opportunity loss or offspring death due to predation and starvation. In addition to climate change, deforestation, skyscrapers and windmills, artificial light at night, and noise pollution threaten avian biodiversity.

It is imperative that we learn more about how anthropogenic changes affect behaviors like nesting and parenting, especially for less flexible species who struggle to adapt to our encroachments. That starts with a deep appreciation for and understanding of our backyard birds' natural habits. Armed with a greater knowledge of how our choices impact these birds, we can make both personal and policy decisions with their well-being in mind.

Special thanks to Leonard Weber, a longtime volunteer with Detroit Audubon and guide to the flora and fauna at Eliza Howell Park in Detroit. Thank you, Leonard, for sharing the invaluable wisdom you have accumulated through your loving and meticulous observations. You can learn more at Leonard's blog ("Eliza Howell Nature Walks"), or by signing up for a field trip through Detroit Audubon. Upcoming field trips are listed on the Detroit Audubon Express. If you do not receive this bi-weekly email, be sure to let us know that you would like to by emailing your request to kathy.das313@gmail.com.

Clockwise from left: **AMERICAN ROBIN** on nest; **MOURNING DOVE** on nest; and **NORTHERN FLICKER** in nest cavity. Photos by Nick Hinnant.





Our Slimy (or Mostly Slimy) Spring Singers: Frogs & Toads of Southeast Michigan

LAST IN A SERIES ABOUT SOUTHEAST MICHIGAN HERPTILES (Reptiles and Amphibians) by Jim Bull and James Harding*

As early as a warm spell in February that melts the ice on small ponds, males of some of our common frog species can be heard (and, if you are very lucky, seen) inflating the vocal sacs on their throats as they call to attract females.

Frogs and toads (collectively called "anurans" by biologists) are amphibians, which literally means "double life," referring to the fact that these animals typically spend time both on land and in the water. Females of most amphibians lay their eggs in the water. In frogs, the male rides on the female's back clasping her belly with his "hands" just behind her forelegs and exudes sperm over the eggs as the female lays them. The sperm have only a very short distance to swim to get to the eggs.

The eggs hatch into legless aquatic larvae called "tadpoles" (or "polliwogs"), which are somewhat fish-like, breathe with gills, and propel themselves with a large, flattened tail. As the tadpole matures into a young frog or toad, it undergoes many changes, including developing a broad mouth, lungs, and four legs while the tail is eventually resorbed. At this point the little frog or toad can leave the water whenever it wants. Their skin is coated in mucous (making them slimy to the touch), which keeps them moist; in some species respiration via the lungs may be supplemented by gas exchange through the skin. It is better to just watch frogs, but if you must catch them, make sure your hand is wet so as to not damage this important mucous coating. Our two native toads typically have dry warty skins and live on land and only return to the water once each year to reproduce. Most of our native frogs stay close to or in water bodies such as marshes, ponds, lakes, or rivers.

Frogs and toads mostly eat insects and other invertebrates they catch with their long sticky tongues, but they can eat anything smaller than they are, including, at times, other frogs, and in the case of Bullfrogs, even small mammals and birds!

Because of their double life in the water and on land, frogs are susceptible to pollution and other forms of environmental degradation in both realms. While many frog species are in decline around the world, the causes are not well known although diseases, pollution, habitat loss, and climate change are strongly suspected as key factors.



GRAY TREE FROG. Photo by Jalexa Photography/ Donna Macauley. Used by permission.

Every year the Michigan DNR and local organizations like the Friends of the Rouge conduct frog surveys to assess environmental quality of wetlands and water bodies using volunteers as citizen scientists to document their presence in likely habitats by their songs.

Below we provide a catalogue of southeast Michigan frog species starting with the earliest singers of the season and progressing to later singers.



MIDLAND (formerly WESTERN) CHORUS FROG

(Pseudacris triseriata). This is the frog that can sometimes be heard singing during a February thaw. It is about the size of your thumb from the joint to the tip of your fingernail. It is tan to light brown with darker brown stripes running parallel down its back. These little frogs are hard to locate as they call amidst the sedges and reeds; they sometimes breed in very small, ephemeral water bodies such roadside ditches. Their song, which sounds like running your finger along the tines of a stiff pocket comb,

is unmistakable. They occur over the entire Lower Peninsula. The genus name means "false cricket frog," and the species name refers to the three lines on its back. Photo by Bruce Szczechowski.

WOOD FROG (Rana sylvatica). This species is light brown with dark brown stripes on its legs and a dark brown mask (sometimes called "the bandit frog"). It's size ranges from 1.5 to 3 inches long. They are found in moist shady woods and swamps and are on the decline due to habitat loss. They often begin singing and mating while there is still snow on the ground. The males' songs sound a bit like a bunch of quacking ducks. They usually mate and lay eggs in vernal woodland ponds (spring ponds that dry up in summer), and thus their survival can be severely affected by spells of dry weather during springtime. Once they mature, they only go back to a pond for mating and egg laying, so they need a very moist woodland environment. During their one- to twoweek mating time, they often cross roads, so many get run over. If a road is known to separate Wood Frogs from a vernal pond, it is best to close that

road during the mating period. Its species epithet, "sylvatica," means a forest or woodland dweller (sylviculture is the study of the care and growing of trees). They pass the winter in leaf litter or under dead logs and can survive partial freezing of their body fluids! Photo by James Harding.





MALE WOOD FROG singing amidst duckweed. Photo by James Harding.

SPRING PEEPER (Pseudacris crucifer). A tiny treefrog in the same genus as the Midland Chorus Frog, it is about the same size at 1 to 1.5 inches. It is light tan with an X on its back, hence the specific name "crucifer," which means "cross-bearer." Like most treefrogs, it has round suction-cup-like discs on the tips of each toe that enable them to climb into low vegetation. The males sing to attract mates from late March through May. The song is a high-pitched, very loud, "Peep!" Jim Bull reports that when he worked at Sarrett Nature Center, he was the lone naturalist on duty one Sunday in the small interpretation building. Where they had one male Spring Peeper on display in an aquarium that was calling so loud, he had to escort a couple visitors outside and close the door in order to hear well enough to have a conversation! A bunch of them singing together can be deafening! Another time at Sarrett Nature Center, when he was leading a bird hike, Bull pointed out Spring Peepers singing, only to have one of the frustrated participants come up seeking help to find this species in this bird book. Oops! Spring Peepers are common in swamps, woodlands, and wet meadows throughout the state. Like the Wood Frog, they pass the winter in leaf litter or under decaying wood and can survive partial freezing of their body fluids!



MALE SPRING PEEPER singing. Photo by James Harding.



AMERICAN TOAD (Bufo americanus). American Toads start singing and breeding in early April and continue to mid-May, usually in shallow, ephemeral ponds. The call is a prolonged musical trill. If you pick up a male in the breeding season and gently push with the tips of your fingers and thumb just behind its front legs, it will give a loud chirp. Why? Because in the frenzy of calling and mating, when any toad comes near, a male will hop on it. The chirp essentially tells the male, "You got the wrong gender, get off me and try somebody else, buddy!" We have two species of toads in Michigan, but the other one, the Fowler's Toad, is pretty much restricted to interdunal ponds in the sand dunes bordering Lake Michigan. The two toad species differ in wart pattern. If the dark spots on their back have three or less bumps each, then it is an American Toad. Fowler's Toads tend to have more than three bumps or spots. The large oval-shaped parotid glands behind a toad's eyes exude a bitter liquid that is distasteful to predators and often causes them to froth at the mouth. Once tasted, predators generally leave toads alone. Exceptions include the Eastern Garter Snake and especially the Eastern Hognose Snake, which specializes in feeding on toads.

Photo above taken in Toronto, Ontario by P.B.Toman. Printed with permission from Creative Commons - Attribution-ShareAlike 3.0 Unported - CC BY-SA 3.0.



MALE GRAY TREE FROG singing. Photo by James Harding.



GRAY TREEFROG (Hyla versicolor). These frogs, which range from 1.25 to 2.5 inches long, have bumpy skin and thus are sometimes mistaken for toads. The species name "versicolor" refers to their ability to change color (to gray, brown, or green), which may or may not match their surroundings! They call and mate from late April through June. They prefer woodland ponds, swamps, and wet shrub lands (shrub carrs) but can also breed in shallow lake margins. Their call is a very loud short trill, which can be deafening when many are singing together, and they are skilled ventriloguists. One can look for hours trying to find a singer that seems to be only a few feet away! They can also call from perches in trees, but that is typically after the breeding season. There are actually two species of Gray Treefrogs in Michigan, but they are so difficult to tell apart that we lump them together here.

Photo above showing green against green taken at Horicon National Wildlife Refuge, WI by Rachel Samerdyke/(USFWS).



NORTHERN LEOPARD FROG (Rana pipiens). Photo above taken at Pointe Mouillee by Jim Bull. To most people this is the quintessential frog—green with dark spots all over. While it is often found in ponds, true to its other common name, "grass frog," they also inhabit wet meadows and prairies. It was our most abundant frog species in Michigan but declined drastically for unknown reasons in the 1970s. They have made a comeback since then but are still a species of concern. They mostly breed in our area in April in ponds and lake edges. Instead of blowing up a single balloon-like qular sac in their throat area

continued

Our Slimy Spring Singers continued

when they sing, males have two balloon-like sacs that inflate on either side of their mouth. The call has been described as a low snore, a bleating sheep, or rubbing your hand over an inflated balloon. The species name "pipiens" means "chirping or piping." Photo of male **NORTHERN LEOPARD FROG** below by James Harding.



GREEN FROG (Rana clamitans). This is our most common pond, river, and lake frog, but they occur in any wet habitat throughout the state. It has two parallel ridges running down both sides of its back. The female has an all-white belly and throat, and its ear drum (tympanum) is about the same size as its eye. The male's throat, which inflates to become the balloon-like gular sac, is bright yellow, and the male has an ear drum larger than its eye. They can be all green to brownish, but occasionally

they can be mostly blue due to a genetic variation that causes a lack of some of the yellow pigment on part of its body that is necessary for it to appear green. Its song sounds like a single banjo string being plucked, "Gung! Gung!"Their species name, "Clamitans," means "loud-calling" in Latin. They breed from mid-May through June and even into July. Jim Bull reports that while working at Indiana Dunes National Lakeshore, a

herpetologist doing research in the park gifted the visitor contact station with one of each of the species of frogs found in the park for us to put on display. Jim put the frogs in the same aquarium. One day while he was pointing out how to tell the species apart, the Green Frog launched its tongue out and pulled in the Spring Peeper, and then the Chorus Frog, two of the most difficult frogs to find and catch! Arrggghh! Lesson learned—separate frog species, especially larger and smaller species!



Above, **FEMALE GREEN FROG.** Point Pelee National Park, Ontario. Photo by Jim Bull.



At left, **MALE GREEN FROG** singing. Photo by James Harding.

BULLFROG (Rana castesbeiana). By far it is our largest species of frog (up to eight inches long!), and it is the last species to breed starting in June and lasting well into July. It lacks the lateral ridges on its back that the Green Frog has, and it is often more brown than green, though its upper jaw area is almost always green. Its song is a very deep bass, "Jug-a-rumm." It is often first identified by this loud, deep call. They are found in permanent ponds, lakes, and marshes in warm water with lots of aquatic plants. The female can lay up to 20,000 eggs during each mating. The tadpoles are very large—up to six





FEMALE BULLFROG. Pointe Mouillee. Photo by Bruce Szczechowski.

inches long! They don't metamorphose into adults until their second season. If a Bullfrog is caught, it will often let out a loud wailing scream that can scare a predator, including humans, enough to let them go. They are legally taken for frog legs, but their population may be going down due to over-exploitation. *For a biography of Harding see page 16 of our Spring 2022 issue at the end of his article "The Silent Ones—Salamanders of Southern Michigan."

Listen to songs of Michigan frogs, at:

https://www.youtube.com/watch?v=A2F26CAwd-4

OPPORTUNITIES FOR HANDS-ON EXPERIENCE WITH SOUTHEAST MICHIGAN FROGS:

Go on a Frog Field Trip: Join us for our Frog Symphony field trip this spring at Southgate Anderson Nature Center (April 28). Register through Eventbrite (link on our website

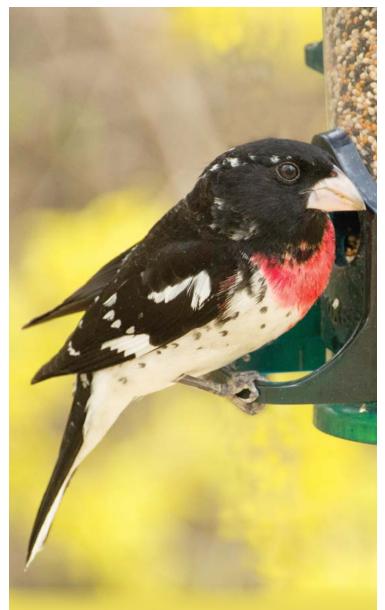
<u>www.detroitaudubon.org</u>). West Bloomfield Parks and Recreation Department offers another one with Friends of the Rouge. Other parks and nature centers may offer frog programs as well.

Participate in Frog Surveys: You might also want to volunteer to help with the annual frog survey with the Michigan DNR

(DNR-FrogSurvey@Michigan.gov) or the

Friends of the Rouge (<u>friends@therouge.org</u>). Both provide training. Ann Arbor also sponsors annual volunteer-led frog surveys in their parks (<u>https://www.a2gov.org/departments/Parks-Recreation/NAP/volunteering/pages/frogandtoadsurvey.aspx</u>).

Contact your city, local park, or nature center to inquire if they conduct frog surveys using volunteers as well.



Mystery Bird Answer:

If you guessed Rose-breasted Grosbeak, you are right! If you couldn't figure it out, it is probably because the photo on page 1 is of a female, which has a totally different plumage—brown and white stripes—rather than the ebony back, white belly, and vivid crimson breast of the male. The female is striking, too, and her more subdued coloring helps camouflage the nest, making it harder for predators to locate her or the eggs she is incubating or the young she is brooding. Surprisingly, males sometimes sing while sitting on the nest. Females sing a softer version of the loud, melodic male song, and according to Arthur Cleveland Bent, the male sings a special love song just to the female. The most common male territorial song is loud and has been compared to that of the American Robin, only sweeter and more melodic. They generally nest pretty high up in deciduous trees; the nest is flimsy enough that you can sometimes see from below the eggs or the young through spaces between the twigs. Rose-breasted Grosbeaks spend about eight months of the year in second-growth deciduous forests of Mexico and Central and South America. Their diet includes a variety of seeds they crack open with their powerful, conical beaks, as well as a host of invertebrates, especially larval forms. Photo by Paul Stenguist.



Bring Hope Home by Rewilding Your Yard

Article and photos by Rebecca Minardi

Now more than ever it is important that we restore and protect as much habitat as we can for the bird and other species struggling to hang on. Other

than supporting organizations

doing this on a broad scale, such as the Nature Conservancy, the Rainforest Trust, and the Center for Biological Diversity, the quickest way you can provide habitat is in your own yard. Whether you have several acres or a 1,000 square foot lot (or maybe only an apartment balcony), you can provide plants, food, water, and shelter for myriad species. Starting small with several native plants, forgoing all pesticides and fertilizer, and leaving a corner of your yard to rewild is a great way to begin. But consider going a little further and working to certify your yard as official wildlife habitat.

Though several organizations provide this certification, the best known is the National Wildlife Federation's Certified Wildlife Habitat program. Through their organization, the homeowner goes through a detailed list of ways their yard can support wild species, including providing sources of water, homes such as bird and bat boxes, supplementary food sources such as native plants and bird feeders, and a commitment to avoid chemicals and keep cats indoors. This certification is self-reported and a great way to display to your neighborhood that your household is committed to habitat protection. Other certification programs can be more rigorous and may even send out a technician to survey and rate your habitat. Many of these are regional. One such organization that has chapters throughout Michigan, including one in Oakland County, is Wild Ones (https://wildones.org/chapters/michigan/).

After we purchased our home here in Peoria, Illinois, last summer, we immediately got to work transforming some of our .63 acre yard into a more friendly space for birds and insects. At first, we didn't know our new home came with a small patch of woods with an occasional creek beyond the backyard fence. We were thrilled to finally have enough space, especially land that wasn't landscaped, to work on creating and preserving habitat for native species. We began by clearing decades of dumping in the woods, including loads of concrete, processed wood, and trash. We ripped up tarp from a large section in the woods and in two conventional gardens in the yard. My brother, a native plant expert, started the ongoing process of helping us remove invasive species like honeysuckle, English ivy, and periwinkle. I began small last summer with an 80 square foot native plant garden in the backyard; Monarch Butterflies laid eggs on the leaves of the Common Milkweed within the week. But with the help of my mother, also an avid native plant gardener, the garden was soon extended to 250 square feet. In the fall, we then got ambitious and converted half of the front lawn into a 900 square foot garden that I filled with native prairie seed mixes this winter. To qualify as a Certified Wildlife Habitat, we also added more spaces for other species, including a bat house and bird house, and provide water and seed for birds through winter. In autumn, we left as many fallen leaves as we could for overwintering insects, and we avoid all pesticides and fertilizers. We have since counted 43 species of birds in our yard, including an American Woodcock!

Even if you are not ready to certify your yard as wildlife habitat, it is easy to make any yard safer for other species, especially those in decline such as Monarch

Butterflies. Simple things such as turning off outdoor lights at night, forgoing pesticides, keeping cats indoors, and leaving more fallen leaves in autumn require no work. Other steps we all can take include leaving patches of yard to

grow wilder, making sure windows are bird safe, and properly installing bat and bird boxes. Planting native plants and trees are key to rewilding. Plenty of reputable companies sell true native seeds and plugs that can be specified for your region and habitat type. Detroit Audubon's Conservation Committee has a booklet of native species recommended for our area on Detroit Audubon's website (https://www.detroitaudubon.org/birdfriendlygardens). With some time and care, all of us can do a little more to help those species who need it most and bring hope home.

Above, MONARCH CATERPILLAR on Swamp Milkweed.

Resources:

The National Wildlife Federation's Certification Program at https://www.nwf.org/CERTIFY

Homegrown National Park's Native Plantings Map at homegrownnationalpark.org

Xerces Society for Invertebrate Conservation at xerces.org

Douglas Tallamy's **Nature's Best Hope: A New Approach to Conservation**That Starts in Your Yard

Benjamin Vogt's Prairie Up: An Introduction to Natural Garden Design

Laura Erickson's 100 Plants to Feed the Birds: Turn Your Home Garden into Healthy Bird Habitat



Windows: A Danger During Spring Migration and Beyond

by Rosann Kovalcik

The arrival of warmer weather prompts insects to emerge, bringing an influx of birds from further south, ready to capitalize on this abundant food source. Protein, in the form of insects, is just what a bird needs to raise its next generation.

Birds that migrate from their wintering grounds in the southern United States and Central and South America can travel as far north as the boreal forests in Canada to nest and raise young. That migration is the most challenging of a bird's life. Along the way, they face inclement weather and a diminishing number of stopover sites where they can rest and refuel.

There is another challenge birds face in migration, one that poses a threat that we can work right now to mitigate. The combination of big city lights and the effects of highly reflective glass in urban environments often results in significant numbers of birds striking buildings and communication towers, resulting in severe injuries, and, all too often, death.

The American Bird Conservancy estimates that between 100 million and a staggering 1 billion die annually from window strikes or from hitting communication towers.

Birds run into windows during the day because the light reflected off glass often appears to birds as trees and sky. In cases where windows are positioned opposite each other, such as in a ground floor lobby or where glass facades meet at corners, birds can see through the glass and what is reflected on glass, but they cannot see the glass itself. Birds will strike clear glass while

attempting to reach the habitat and sky they see on the other side.

Bird strikes occur throughout the year, but they rise dramatically during the annual spring and fall migrations because many species of migratory birds travel at night. A combination of light from the moon and stars and geomagnetic signals from the earth provide natural cues for direction. Light pollution from urbanized areas can, however, obscure the light from the moon and stars. Scientists believe that red lights, commonly used on communication towers and other tall structures, can confuse birds, causing them to crash into these structures or one another.

The light emitted from urban areas can also disorient migrating birds and draw them into brightly lit downtown areas, hence the term "fatal light attraction." Disoriented birds will often fly around until exhausted and drop to the ground, or they may strike a building or window and fall to the pavement below. If they survive the fall, they must contend with opportunistic predators such as gulls, raccoons, and rats. If not eaten, birds are then trapped within the unfamiliar city environment.

How can you help?

If you work in a building that stays lit at night, ask the owner if they would please





turn off the lights at night, especially during the peak migration times.

To prevent birds from striking the windows in your home, provide them with visual cues. To be most effective, make sure you use closely spaced, high-contrast markers on the outside surface of the glass. Doit-yourself options include applications of decals, dots, or stripes. Manufacturer information and additional ideas and products can be found on https://flap.org/stop-birds-from-hitting-windows/.

Birds are essential to healthy ecosystems as they consume billions of insects, pollinate plants, and disperse seeds. Birds also contribute significantly to our economy as bird watching has become the second most popular leisure activity in North America, after gardening. The beauty and diversity of birds greatly enhance our experience of nature. It benefits all of us to preserve the bird population any way we can.

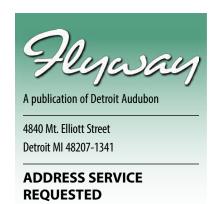
Photos from top:

Birds collected around Detroit.Photo by Jensen Bigelow.

Feather Friendly Dots at Detroit Zoo. Photo by Bonnie Van Dam.

Chalk marker artwork and photo by Kaisa Ryding.





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MAGNOLIA WARBLER (male) at Magee Marsh State Wildlife Refuge. These birds nest in dense stands of regenerating conifers in northern Michigan and Canada, either in young even-age stands or under the canopy of older coniferous forests. Photo by Glenn Miller.