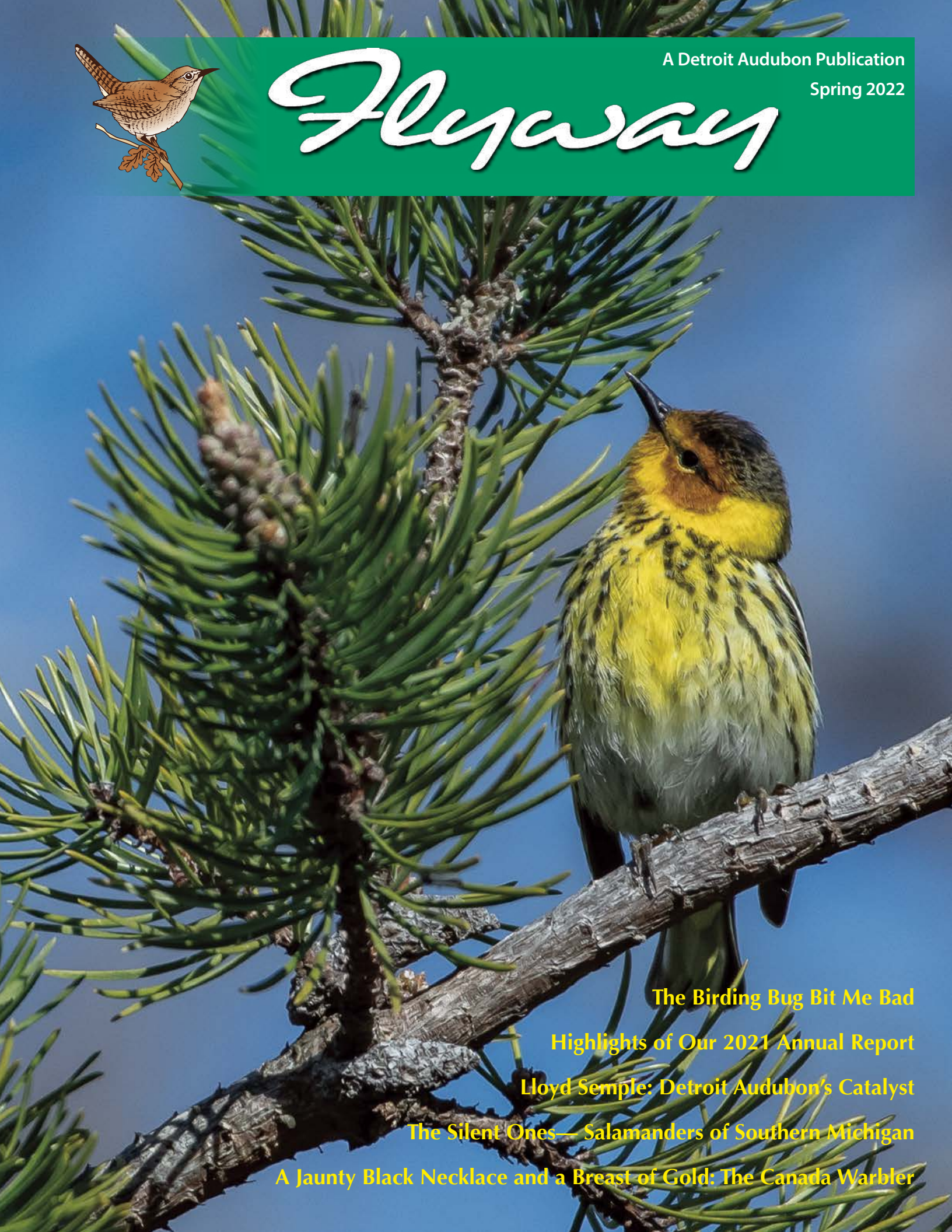




A Detroit Audubon Publication

Spring 2022

Fluway



The Birding Bug Bit Me Bad

Highlights of Our 2021 Annual Report

Lloyd Semple: Detroit Audubon's Catalyst

The Silent Ones—Salamanders of Southern Michigan

A Jaunty Black Necklace and a Breast of Gold: The Canada Warbler

Flyway

A publication of Detroit Audubon

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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.



MYSTERY BIRD

Two species of Michigan woodpeckers, the Downy and the Hairy, look very much alike. Can you tell them apart? Which do you think this bird is? Check your answer on page 26. Photo by Bruce Szczecowski.



Contents

- 1 Mystery Bird
- 3 Upcoming Programs
- 4 A Jaunty Black Necklace and a Breast of Gold: The Canada Warbler
- 5 Lloyd Sample: Detroit Audubon's Catalyst
- 6 The Birding Bug Bit Me Bad
- 7 Volunteer Spotlight: David Fuller
- 9 Winter Programs: Exciting, Enriching Experiences Despite the Cold
- 11 Detroit Audubon Helps Preserve 162-Acre Natural Area in Superior Township
- 12 Laundry Love: Finding Joy in a Common Chore - Book Review
- 13 The Silent Ones— Salamanders of Southern Michigan
- 17 Late Winter - Early Spring Nature Gallery
- 20 What I Want To Believe About Vireos - Poem
- 21 Highlights of Our 2021 Annual Report
2021 Donor List
- 26 Mystery Bird Revealed

On the Cover

CAPE MAY WARBLER: With its mostly yellow head and chestnut cheek patch, this colorful warbler, like most of the species of that clan, can only be seen in these parts in May during its migration stopover. It winters in Florida and the Caribbean where it mostly hangs out in palm trees. After refueling locally, its destination for nesting is the spruce forests of Michigan's Upper Peninsula and north through most of Canada. There are a few records of this species nesting in the northern Lower Peninsula, but it is exceedingly rare below the bridge. Photo by Tracy Wyman.

MALE CANVASBACK DUCK WITH FISH. Strange behavior for a species of duck that winters on the Detroit River and Lake St. Clair every year attracted by the vast Water Celery (*Vallisneria* sp.) or Eelgrass beds. But it sure looks like they enjoy an animal entrée from time to time to go with their salad! We have observed several other supposedly vegetarian duck species eating fish this winter as well. Dingell Park, Ecorse, MI. Photo by Tracy Wyman.



Upcoming Programs

Article and photo by Brittany Leick, Program Coordinator, Office Administrator, and Membership Coordinator



People of all ages, genders, ethnicities, experience levels, and walks of life love nature. Thus, we offer a wide range of events, including three different monthly field trips: Beginner Birders (Beginner level [B]), Elmwood Cemetery (Intermediate level [I]), and at least one Experienced level (E) trip (often Pointe Mouillee). You are welcome to attend any of our field trips regardless of your experience level.

Because our field trips are first announced via our e-newsletter, **The Flyway Express**, they often fill up before we have a chance to post them on Facebook. Make sure we have your current email address to ensure you get these early notices.

Go to www.detroitaudubon.org/birding/field-trips/ to learn more and to sign up! Detroit Audubon Chapter members receive priority registration. Want more information, to give us your email address, or to check your membership status? Contact us at staff@detroitaudubon.org.

There may be pop-up field trips as well, so for up-to-date information on our programs look in **The Flyway Express**, on our website, and on our [Facebook](#) page.

Color Key: Field Trips / [Webinars](#) / [Volunteer Programs](#) / [Field Course](#) / [Kids' Programs](#)

April

Fri. Apr. 1 - Beginner Birders Field Trip, Crosswinds Marsh, New Boston (B)
\$ Sat. Apr. 9 - Elmwood Cemetery Bird and History Walk, downtown Detroit (I)

Sat. Apr. 9 - Pheasant Walk, Detroit's Eastside

\$ Sat. Apr. 16 - Pointe Mouillee, Brownstown Township (E)

[Thur. Apr. 21 - Michigan Dark Skies & Migration Webinar](#)

\$ Sat. Apr. 23 - Woodland Wildflowers, Eliza Howell Park, northwest Detroit

\$ Sat. Apr. 23 - Early Migrant Trip, Magee Marsh, Oregon, OH (E, morning)

\$ Sat. Apr. 23 - Frog Symphony, Southgate Anderson Nature Center (evening)

Tue. Apr. 26 - Wayne State Urban Birding Field Trip (limited to Wayne State students)

Fri. Apr. 29 - Who's Calling? Frog Hike, West Bloomfield Nature Preserve

\$ Sat. Apr. 30 - St. John's Marsh Birding Walk, Clay Township

\$ Sat. Apr. 30 - Spring Ephemeral Wildflower Walk, LeFurge Woods Nature Preserve, Superior Township, Washtenaw County

[\\$ Sat. Apr. 30 - Jun. 11 - Birds Nesting: A Six-Week Field Course \(May 28 - Skipped\)](#)

May

Sun. May 1 - Songbird Migration at Elmwood Cemetery, downtown Detroit

Fri. May 6 - Beginner Birders Field Trip, Crosswinds Marsh, New Boston (B)

Sat. May 7 - Belle Isle Spring Birding, Detroit

[Tue. May 10 - Trees for Birds Webinar](#)

\$ Sat. May 14 - Elmwood Cemetery Bird & History Walk, downtown Detroit (I)

\$ Sat. May 14 - Songbird Extravaganza, Magee Marsh, Oregon, OH (E)

Sun. May 15 - Wayne State Urban Birding Field Trip (limited to Wayne State University students)

[Sat. May 21 - BirdWatcher's Garden Family Program](#)

[Sat. May 28 - Bryant-Vermont Park Cleanup Event, Detroit](#)

June

Fri. Jun. 3 - Beginner Birders Field Trip (B)

Sat. Jun. 4 - Black Birder's Day Event, Belle Isle Nature Center

\$ Sat. Jun. 11 - Nesting Birds, Eliza Howell Park, NW Detroit-

\$ Sat. Jun. 11 - Elmwood Cemetery Bird & History Walk, Detroit downtown area (I)

\$ Sat. Jun. 11 - Rare Nesting Birds, Oak Openings Metropark (Toledo area) (E)

\$ Sat. Jun. 18 - Pointe Mouillee, Brownstown Township (E)

[Sat. Jun. 18 - BirdWatcher's Garden Family Program](#)

[Thu. Jun. 23 - Birding Do's & Don'ts Webinar](#)

\$ Sat. Jun. 25 - Port Huron State Game Area (E)

Are you interested in getting more involved with Detroit Audubon?

Do you feel comfortable with your birding skills or have other knowledge you would enjoy sharing with others? Or maybe you want to co-lead a program with one of our staff or other volunteers? If you're interested in becoming a Field Trip Leader, reach out to Brittany at programs@detroitaudubon.org!



A Jaunty Black Necklace and a Breast of Gold: The Canada Warbler

By Rebecca Minardi • Photos by Bruce Szczechowski

The first time I saw a Canada Warbler was the first time I birded at Magee Marsh in northwestern Ohio. It was my third spring as a birder and my first outside of Iowa. I had heard

about Magee Marsh and The Biggest Week in American Birding through Detroit Audubon. I wanted to see what all the hype was about. Despite my chronic worries about the reliability of my old car, I made the journey south. The hype was very, very much deserved. Of the scores of species I saw that day, 12 were new to my life list. That trip to Magee Marsh was life changing; the incredible display of spring migrants took my breath away at every turn on the fabled boardwalk. And the Canada Warbler I spotted was one of the most stunning species. The male gleams in his bright yellow, black, and slate gray with a marked white eye ring. A streaky black necklace contrasts beautifully against a buttercup yellow breast, while his delicately stippled head is as lovely as a painting. This species is spring incarnate.

The Canada Warbler knows all about migration. They spend their winters from Panama to Peru. They are one of the last species to arrive in the spring when they head to their breeding grounds across mid- and southern Canada into New England and in a few patches across Appalachia. During migration, they may forage in mixed species flocks with other warblers and titmice. They tend to hang out in the understory, music to any birder's ears as they are much easier to spot. Their preferred breeding habitats are wide ranging, from mixed conifer and deciduous forests to rhododendron-filled woodland slopes to forested wetlands. Canada Warblers prefer to be by water and feast on myriad species of insects. They nest on or close to the ground, where the female lays two to six eggs. Brown-headed Cowbirds often parasitize their nests, making it tougher for the next generation of Canada Warblers to survive. This, along with habitat loss across their

breeding and wintering grounds and hazards during migration, has contributed to very troubling news. From 1970 to 2014, their population has declined as much as 62 percent; there are only an estimated three million Canada Warblers in existence. Partners in Flight, an organization focused on landbird conservation in the Americas, warns that by 2072, this species may lose another half of its population. Partners in Flight includes it as one of 50 species on its "D" Yellow Watch List for birds with declining populations and many threats. Unfortunately, seven other warbler species have also made this list.

While I can still readily see them, I celebrate each and every Canada Warbler in the spring. Their striking beauty would brighten anyone's morning, and I'm counting down the days to my trek to Magee Marsh this spring. Though I now live almost 400 miles away, I just can't miss this pilgrimage after two years of pandemic closures. I'll be ready, binoculars at the waiting and standing still on that boardwalk, for my first glimpse of a jaunty black necklace and a breast of gold.



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Sign up for Amazon Smile (smile.amazon.com). You'll have access to all the products sold by Amazon at the same prices, but if you sign up via their Smile site, Amazon will donate a portion of your purchase amount to a charity of your choice. If you choose Detroit Audubon, as we hope, you will help birds every time you make a purchase at no cost to you whatsoever. So, why not sign up today?

DO YOU HAVE DETROIT AUDUBON "BOYCOTT TUNA" BUMPER STICKERS AND CAN LABELS?

We would like to have at least one copy of each of these items we produced in our archives. We had requests for these items from all over the country. The labels were for folks to tape on tuna cans to send to their congressional representatives. Any other items related to our history including old photos are also welcome. Please send them to Detroit Audubon, 4605 Cass Avenue, Detroit, MI 48201 or contact Jim Bull at jbull@detroitaudubon.org to arrange for him to pick them up.



Supporter Spotlight: Lloyd Semple- Detroit Audubon's Catalyst

Article and photo by Jim Bull

I first met Lloyd Semple in 2003. How did that happen? I was president from 2003 to 2005. In the March/April 2003 issue of the *Flyway*, I wrote a president's column called "The Bully Pulpit"

in which I spun a vision of a bigger, brighter, more impactful future for Detroit Audubon building on exciting developments in southeast Michigan, especially along the riverfront. Lloyd was a board member of National Audubon at the time. After reading my article in the *Flyway*, which all joint members with National Audubon received at the time, he asked Lynn Tennefoss, then National Audubon's Vice President for Chapter Services, to put us in touch. She gave me his phone number, I gave him a call, and we agreed to meet over lunch at the Detroit Athletic Club. During our lunch, Lloyd told me that he was inspired by my column and wanted to help Detroit Audubon achieve the dream I had outlined.

At the time I wrote that column, Detroit Audubon had a budget of \$60,000, and our only employee was a part-time secretary. The only programs we had were volunteer-led and ad hoc. Lloyd told me he thought he could help us get to a budget of at least \$200,000 and really start implementing a lot of that vision. Today we have a budget of almost \$230,000, moved back to Detroit in 2015, and have two full-time employees: one focused on education and membership services and the other focused on research and conservation action. In the recent past we had three employees and we soon will again. We plan to hire an Executive Director before the end of this year, and other positions that will help us expand our work are on the drawing board. It is not an overstatement to say that Lloyd was key to getting us to where we are today. It isn't so much his monetary gifts that made it happen, although those gifts have helped a lot. What he has given us that is more valuable, is the gift of his connections and introductions. Most of our high-end donors are part of our family because Lloyd connected us with them. He's been like Yente in *Fiddler on the Roof* for us—a match maker! He just loved our vision, he loves birds and nature, and he has served as the catalyst that fired up the Detroit Audubon growth reaction.

Catalyst is an apt description of Lloyd in more than one sense. He lived in St. Louis as a young child, but his family moved to the Detroit area when his father became CEO of what then was Wyandotte Chemical Company (now BASF). Now that was a company and a CEO that knew a thing or two about catalysts! Speaking of catalysts, he told me it was his grandmother who was a high school teacher of botany and general science who initially sparked his interest in nature. She would take him on her explorations and even taught him how to draw birds. His nature bug really got a boost when his family started spending time at their cottage in Harbor Beach, where he befriended an elderly woman who was an avid birder and all around naturalist. He just lapped up all the nature knowledge she could impart!

Wyandotte Chemical owned Fighting Island in the Detroit River (it is still owned by their successor company BASF), which is on the Canadian side of the river. One end of the island was kept wild and served as a nature and hunting preserve. Lloyd's father often invited VIPs to enjoy the island and do some hunting while they were there. One of the people his father invited over was Rep. John Dingell, Jr., and that's how he and Lloyd became hunting buddies. Lloyd started hunting

with Peter Stroh that way too. Stroh invited him to his hunting lodge in Canada, and soon they were also going to northern Michigan to fly fish together. That is a pastime he also shared with his friend Joseph Hudson (of Hudson's Department store). Lloyd has told me that on their fishing trips he would often point out birds and bird songs to him, and he began to fancy birds a lot too. Fly fishing and birding are Lloyd's two favorite activities because he finds them both so relaxing. Lloyd's bread and butter came from his life as an attorney. He worked for the international law firm, Dykema-Gossett for over 30 years, the last 10 as senior partner and CEO. In 2004 he also joined the faculty of the University of Detroit Law School. After he retired as CEO at Dykema-Gossett, he became Dean of the U of D Law School for five years before he fully retired. It was when he started hanging around with New York lawyer Donald O'Brien that his birding really took off. O'Brien would invite him to go along on his birding adventures including at the Outer Banks. O'Brien was chair of the board of National Audubon, and that's how Lloyd was persuaded to join that board. Lloyd served on the board for ten years, the last five as Vice-Chair.

One of the best things about being on the National Audubon board, he told me, was getting to know the organization's head researcher, Frank Gill, who also authored one of the most popular ornithology textbooks. As a board member Lloyd got to travel with Gill and bird all around the country. Birding on the Outer Banks and in Texas were two of the standout birding spots he recalls. Again, just as with his grandmother and the elderly lady at Harbor Beach, he eagerly lapped up everything he could learn from Gill.

"I've got a real knack for birding by ear, and I can identify most pieces of classical music after hearing just one or two measures," he told me. His ear for music has made learning bird songs a cinch for him, so his birding involves as much or more listening than watching.

Lloyd has served as chairman of the Detroit Medical Center board, Chair of the Michigan Nature Conservancy board, and as chair of the Detroit Zoological Society board as well. He still serves on that board and is their longest serving board member. Lloyd introduced me to then-Zoo director, Ron Kagan, years ago helping us forge a partnership with the zoo that is bearing fruit to this day. As a result of that connection, we held two annual conservation conferences at the Zoo, work very closely with the Belle Isle Nature Center which is managed by the Zoo (its director, Amy Green, is on our board), and we work with their Curator of Birds (first Tom Schneider and now Bonnie VanDam) on Black Tern research and on our Great Lakes Safe Passage project on minimizing bird-building collisions. Lloyd also served for a short time on Detroit Audubon's board.

In addition to his other pursuits, Lloyd is an avid golfer. Many of our meetings have been at the Country Club of Detroit in Grosse Pointe where he always points out the Bald Eagle nest on the course with a lot of pride. On the day I interviewed him for this article in late February, he told me that the pair is starting to hang out around the nest again but had not started nesting yet. When he golfs, he told me, he is much more likely to count the number of birds he hears than to keep track of his golf score! "Sometimes I get in a golf cart and just drive around listening to the birds." He just can't get enough of nature. The world is a better place because of it. And Detroit Audubon has grown in size and in its impact on conservation of birds and the environment we share, due in large part to our wonderful friendship with the golfer who prefers listening to birds over getting "birdies." We are so grateful!



EVAN DEUTSCH PARTICIPATING IN OUR ROCKWOOD CHRISTMAS BIRD COUNT. Photo by Jim Bull.

The Birding Bug Bit Me Bad

by Evan Deutsch, member, volunteer

It all started with the Detroit Audubon October Elmwood Cemetery Bird and History walk. A beautiful setting, colorful birds, and an array of friendly, knowledgeable people; so, my birding adventures began.

I quickly found out that the first thing I needed was good binoculars. Most birders use lightweight models with 8x42 magnification, providing a well-lit panorama to better see flitting birds. You can buy ones that cost thousands of dollars or spend much less (skip the \$100 versions since their optics are inferior). I bought a pair of Celestron TrailSeekers with a shoulder harness to take the weight of the binoculars off my neck.

My second must-have was a birding field guide. While you can use an app on your phone, I prefer old-school guides you can put in your pocket. I have four (one for birding, the rest kept in rooms around the house).

During one of our Belle Isle outings (a frequent Detroit Audubon birding spot), I saw a black speck on the Detroit River through my binoculars. Using a spotting scope belonging to one of the other birders, I saw it was a Canvasback Duck featuring a brownish-red head, bright white back, black chest, and iridescent red eyes. Decision made! My purchases were far from over; a spotting scope would be my next acquisition. After doing my homework (there are so many variables to consider), I pulled the trigger on a

Vortex Razor HD model from birdwatching.com.

Decent scopes can be pricey, and since they have significantly more magnification than binoculars, they also require a good tripod to steady the view. If a scope and tripod aren't in your budget, no worries. There are always people that have them on our lake and river trips.

As I continued to attend programs, I was no stranger to the various types of cameras my fellow birders owned. Scanning various webpages such as Detroit Audubon or Birding Michigan, I was amazed at all the stunning images of birds. But in order to take great pictures, you need a good camera. After some research, I opted for the Olympus E-M1 Mark III with a 10-400mm lens (longer focal length, such as 400mm, translates into better reach and more detail). But what use is a camera if you don't know how to use it? So, I enrolled in a photography class (the first of what I'm sure will be many) at Schoolcraft College.

So now here I am, busier than ever, traversing the metro area to see new birds, and having the time of my life. I regularly attend Detroit Audubon-sponsored events and frequently volunteer my time. It's a rare occurrence when I am not on the banks of a river or lake or in the woods trying to ID new birds and take passable pictures of them. But birds are only part of it—there's also the people you meet. Where else can you walk up to a stranger with a camera or binoculars draped around their neck, strike up a conversation, and have someone to go birding with?

If you're a Detroit Audubon member and haven't gone on any of our trips lately, I highly encourage you to sign up for one. If you're not a member and want to learn about birds, join us on one of our many introductory bird outings (we'll even provide binoculars if you don't have any). There are plenty of free field trips and you're guaranteed to learn something just like I did. Unlike me, all you really need are binoculars.



Top right: BLUE JAYS ENJOYING LUNCH, and (at right) CEDAR WAXWING EATING BERRIES. PHOTOS by Evan Deutsch.



Volunteer Spotlight: David Fuller

Black Tern Tech Designer and Engineer

by Ava Landgraf, Research Coordinator

**DAVID AND JENNI WITH A NEST CAMERA.
Photo by Ava Landgraf.**



David Fuller began assisting with Black Tern monitoring efforts in 2019 through his sister, Jenni Fuller, who was writing her graduate thesis on the Black Terns at St. Clair Flats (SCF) and Wigwam Bay. Initially, David started volunteering because of his experience with trail cameras (cameras that use a timer or motion detector to capture wildlife images). At that time, Detroit Audubon was planning to incorporate the use of nest cameras (a trail camera geared to observe a nest) to observe the Black Tern nests at SCF. Using his engineering and construction experience, David designed and built nest camera poles and housing that could handle SCF lake levels and heavy storms. During the COVID-19 pandemic, he supported Jenni so she could safely collect field data and quickly became an essential part of our Black Tern monitoring team. By 2021, his efforts and skills significantly improved Black Tern monitoring efforts using nest camera systems.

Cameras and Camera Holders

David designed and built wooden camera holders that look just like bird nesting boxes. The holder protected the camera from the elements while disguising the valuable tech equipment as a mundane nesting box, similar to the ones at SCF for Mallards and Wood Ducks. These cameras were highly exposed to the elements, especially heavy rainfall and harsh sun exposure. David designed a structure with a slanted roof and shingles to shield the camera from water damage or overheating. This protection also kept the camera clear of bird poop since the terns frequently used the cameras as personal lookout posts.

In order to capture events that may happen within minutes or even seconds, for example a predator eating the eggs, these cameras had to take an incredible number of pictures (one every minute during the day for up to 30 days). This required considerable power, so David developed a special battery system. He

chose a rechargeable drill battery, which was more efficient and cost effective than rechargeable or nonrechargeable AA batteries. The only downside was that they were bulky and exposed, which led David to design and 3D print a case that secured it to the camera and provided protection from the elements.

The cameras were affixed atop eight-foot poles, so that they could stick several feet out of the water for a good view of the nest. David 3D printed augers (cone-shaped devices for drilling holes) that were attached to the bottom of the poles for drilling into the lake sediment. By installing the poles deep into the sediment, the cameras were extremely sturdy and wouldn't be knocked into the water by waves or a storm.

Camera-Carrying Contraptions

Despite using a decently large car, the eight-foot camera poles were not going to fit inside. David constructed a homemade roof rack since we didn't already have one. It was a little concerning to have all eight giant camera posts strapped to the roof on the highway, but everything stayed on perfectly.

David also made a similar camera-carrying system for the boat. Reusing the wood planks from the previous car rack contraption, he made a camera-holding rack for the front of the boat. Despite its makeshift appearance, it withstood the wind and waves of fieldwork.

Later in the season, David assembled the camera-holding rack into a setup that would pull two kayaks at the side of the boat. For the past two years we had to

start using kayaks instead of wading in the water because it was too deep. Even in shallow water, we found that the kayak's speed and maneuverability proved useful. However, trying to fit three people and two kayaks in a small boat was far too cramped and made working difficult.



NORTHERN WATER SNAKE EATING TERN EGGS.
Taken by a nest camera providing evidence for the reason for the failure of this nest.



David's kayak towing system allowed us to take the kayaks along but left room in the boat for us and our equipment.

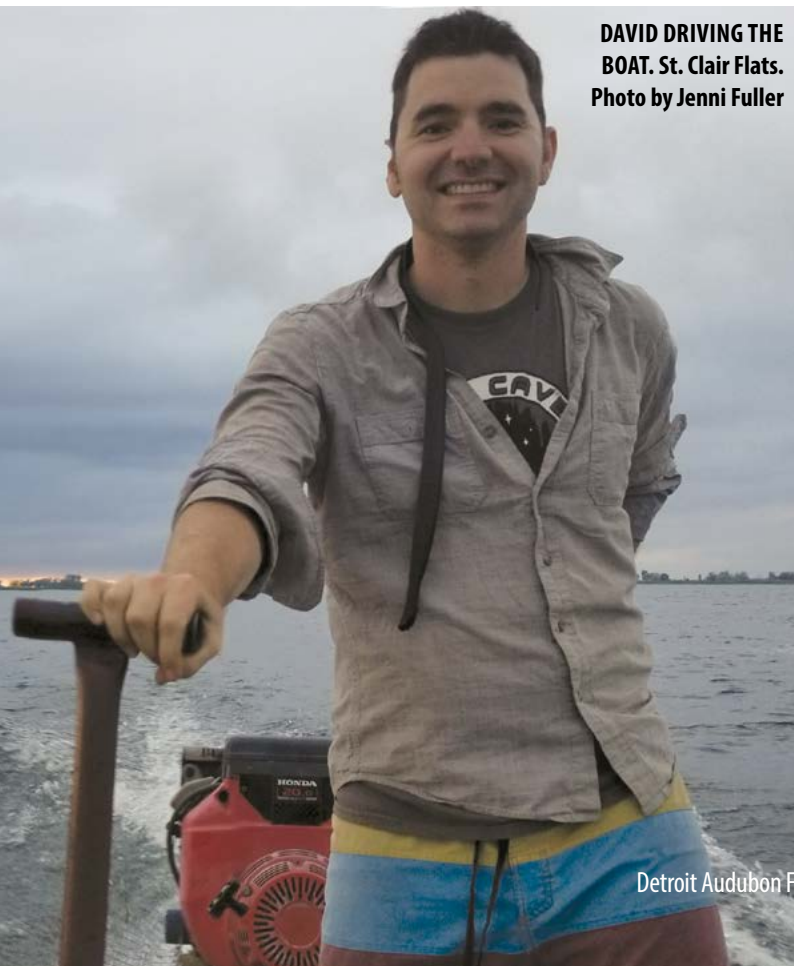
Boat Driving

With such a short nesting season (May-August), we need to be strategic with our timing and use each day to its full potential. David's willingness to drive the boat was crucial in enabling Jenni and me more time to record notes, review nest locations, and determine the best way to spend our time. These brief moments of extra time were so helpful and can make a huge difference in the data we collect. In addition, David helped us maximize our field work days by pulling the boats in and out of the garage and water. Now, for the record, I can do this by myself (it did take me three years to master it), but I am still pretty slow and need to back up and pull forward several times. So, with David around we were able to move the boats quicker, leaving more time for checking nests and looking for chicks.

Finding Hidden Chicks

Locating chicks can be extremely difficult and stressful: success requires patience and persistence. The chicks are well camouflaged and freeze when you come close. Furthermore, they move incredibly fast and scatter when the nest is disturbed. There were multiple times David was able to find the second or third chick while the two of us were preoccupied either banding or locating the others. Through this experience, we learned that having an extra person observing was essential to safely gather all the chicks in an area.

For the past couple of years David has been an essential part of the Black Tern research community. If he was not involved, we would not have accomplished as much as we have. He brought us technologies I would have never known how to set up or use, and he made the day-to-day tasks easier with his ideas, assistance, and willingness to help. We owe David a huge thank you for his dedication to our SCF Black Tern colony.



DAVID DRIVING THE BOAT. St. Clair Flats.
Photo by Jenni Fuller

Hand Feeding

FEMALE WOODPECKERS BEING FED BY HAND.
Kensington Metropark. Photos by Brittany Leick.



Winter Programs: Exciting, Enriching Experiences Despite the Cold

by *Brittany Leick*

Winter is snow-covered landscapes, warm sweaters, glistening crystals in the sunlight, fuzzy socks, slowly falling snowflakes, hot chocolate, and cozying up next to a fire. It's the time of year people often view as a time to stay indoors, when nature is sleeping until spring. But did you know winter can also be the perfect time to go snowshoeing in a blanketed winter forest trail after a set of unknown animal tracks indented in the snow or search for one of our many unique feathered visitors? Winter is the perfect time to let your inner child shine. Throughout the magical winter season, we offered a range of field trips to local parks to help connect our community to birds they wouldn't think to search for at this chilly time of year.

We started the year with displays at area-wide nature events, guided field trips, webinars, and volunteer training. We offered, partnered on, or attended 31 different programs, connecting with 1,237 people by the end of February.

Our programs took participants to Pointe Mouillee, Valade Park, Belle Isle, Bishop Park, Grosse Ile and other locations along the Detroit River. 'T'was the season to find winter waterfowl splattering a canvas of the river to search for food under the watery, frozen depths or huddling up in a group of thousands to stay warm.

We also offered field trips to various wooded areas. At Kensington Metropark's Nature Center, program participants fed common backyard birds out of their hands, while seeing two rarities—Red-headed and Pileated Woodpeckers! At Elmwood Cemetery, we frequently saw Red-tailed Hawks lingering for an early morning breakfast.

We were also invited to two separate Winterfest events at Belle Isle Nature Center and Palmer Park. Both events allowed us the chance to reach a broader range of individuals and families in the community. People of all ages enjoyed the unique opportunity to touch some of our taxidermied (stuffed) bird specimens. People's eyes lit up with curiosity, caution, and enthusiasm as they felt real feathers, beaks, and feet. We could not have offered all these programs without our dedicated volunteer field trip leaders, partners, and members. A big thank you to them all.

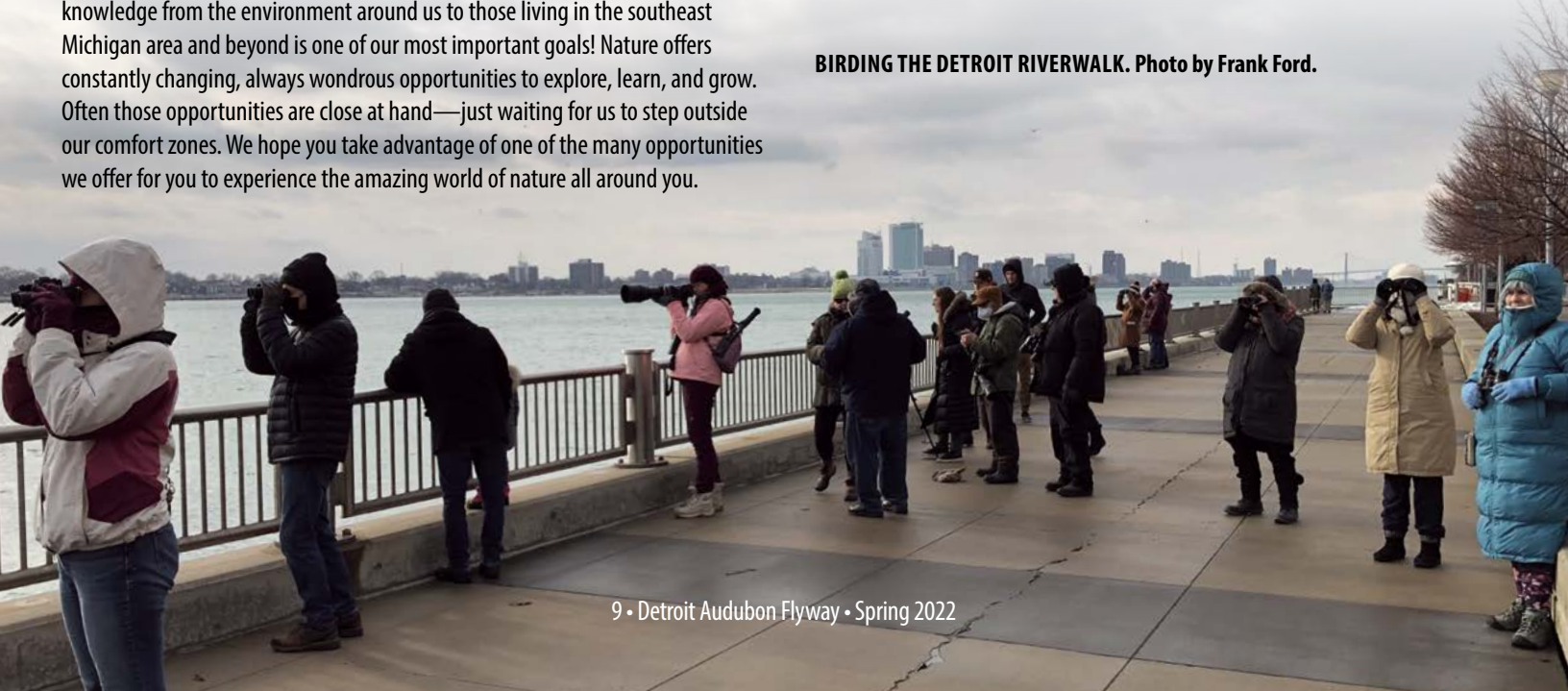
We value each opportunity to connect people to nature—from the twinkle of excitement in an adult's eye when learning something new to a child experiencing the wonder of a bird landing on their hand to take a seed. Building bridges of knowledge from the environment around us to those living in the southeast Michigan area and beyond is one of our most important goals! Nature offers constantly changing, always wondrous opportunities to explore, learn, and grow. Often those opportunities are close at hand—just waiting for us to step outside our comfort zones. We hope you take advantage of one of the many opportunities we offer for you to experience the amazing world of nature all around you.



LOOKING FOR LAND BIRDS ON BELLE ISLE FIELD TRIP.
Photo by Jim Bull.



WATERFOWL WATCHING ON BELLE ISLE FIELD TRIP. Photo by Jim Bull.



BIRDING THE DETROIT RIVERWALK. Photo by Frank Ford.



At left and below: WINTERFEST ACTIVITIES.
Photos by Brittany Leick.



FEEDING A RED-BELLIED WOODPECKER BY HAND. Kensington Metropark.
Photo by Brittany Leick.



DUCKS FLYING AS VIEWED FROM THE DETROIT RIVERWALK. Photo by Scott Bowdich

Detroit Audubon Helps Preserve 162-Acre Natural Area in Superior Township

by Jack R. Smiley, board member, chair of the Sanctuary Committee, and President of the Michigan Land Conservancy

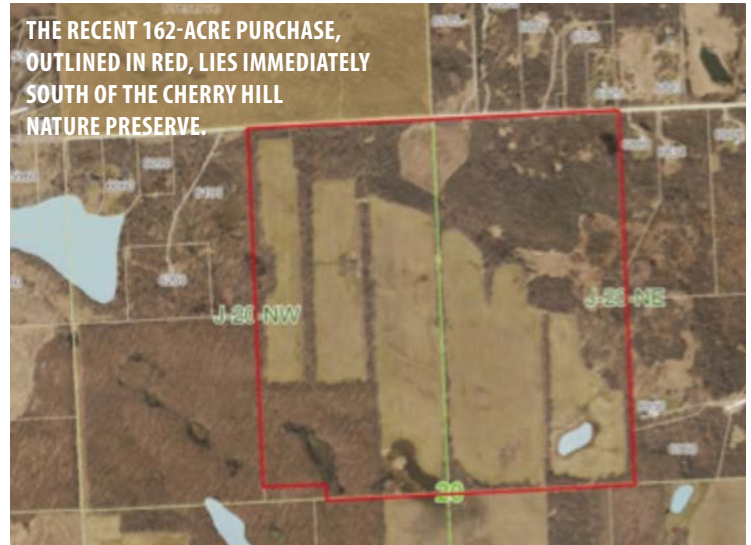
Last summer, many Audubon members were able to witness the emergence of millions of periodical cicadas at Superior Township's Cherry Hill Nature Preserve in Washtenaw County. Others were able to see the Mississippi Kite feasting on the cicadas, and many other wonderful birds using the preserve's varied habitats. Those venturing to this area will now be able to enjoy the wildlife found in the forests, wetlands, and fields of the 162-acre expanse (1/2 mile x 1/2 mile) that lies due south of the Cherry Hill Nature Preserve. This parcel was recently purchased by the Michigan Land Conservancy, with primary support from the Superior Land Preservation Society.

This key acquisition will link the Cherry Hill Nature Preserve to 301 acres being acquired by Superior Township. Coupled with the township's acquisition, the land will create a two-mile-long corridor of natural habitat and open space, consolidating over 650 acres of protected land. "This is wonderful news," exclaimed Township Supervisor Ken Schwartz. "This is a very strategic and welcome acquisition by the Michigan Land Conservancy. It is truly remarkable that we have been able to protect such a large corridor of green space within our community," he said. "This will benefit wildlife and generations to come."

Detroit Audubon played a key role in the purchase as it provided the Conservancy with a short-term loan of \$50,000 towards the million-dollar purchase price. A total of \$900,000 in private loans was secured to finance the purchase. Detroit Audubon also contributed \$10,000 towards the purchase, primarily from its Sanctuary Fund, which is earmarked for land protection.

"It's important to do what we can to protect habitat for birds and other wildlife," said Detroit Audubon President Rochelle Breitenbach. "It's also important to save these natural lands so that children can experience the wonders of nature. Especially considering the health benefits that being in nature provides, people need to have more nature in their lives."

The Conservancy plans to restore some of the farmland back to grassland habitat, which will benefit many of the rare bird species found in the area, including Short-eared Owls and Henslow's Sparrows. A youth camp is also being considered for the property. Once the property is paid for and protected with a conservation easement, the intent is to transfer the property to the township for permanent



stewardship, as was done with the Cherry Hill Nature Preserve. The Michigan Land Conservancy operates much as the Trust for Public Land does on a national level—serving as an intermediary in the purchase and protection of land for public benefit. The Trust for Public Land acquired Humbug Marsh in this same fashion.



Laundry Love: Finding Joy in a Common Chore

By Patric Richardson with Karin B. Miller (Macmillan, 2021, 185 pages)

Book review and photos by Emily Simon

When I first heard about **Laundry Love: Finding Joy in a Common Chore** on a book podcast last summer, I wondered what in the world there could be to celebrate about this unrelenting mundane task. And seriously, how much more could there really be to learn about doing laundry?

As it turns out, quite a lot—a great deal, in fact. Author Patric Richardson, a.k.a. “The Laundry Evangelist,” is a Minneapolis-based textile expert who’s been fascinated with laundry since the age of two. He runs a popular “Laundry Camp” out of his clothing store in the Mall of America and even hosted a laundry-focused television series on HGTV. His mission, as he notes in **Laundry Love**, is to “help make laundry faster, cheaper, kinder to the environment, and more fun.”

Laundry Love is a homey, confiding, and entertaining book, sprinkled with stories of Richardson’s extended family and his considerable textile expertise. It’s chock full of information and suggestions about everything from choosing environmentally friendly laundry soap to ironing, sorting, folding, caring for special fabrics, organizing closets, and “making the laundry room your happy place,” among many other topics. A particularly useful chapter breaking down the science behind stain removal, including an extensive list of problem stains and how to remove them, makes **Laundry Love** a very valuable home reference.

While Richardson keeps his tone light and the focus on all the benefits both we and our clothes will realize from following his advice, he is also extremely concerned about the toll laundering takes on the environment. In chapter 8, “Doing Better When We Know Better,” he offers nine relatively simple “eco-friendly laundry strategies” we can take to help limit the damage. Some of these are explained in depth in the other chapters. All of them bring direct benefits to ourselves and our clothes, in addition to the environment.

According to the Washington Post (March 26, 2021), “U.S. consumers wash more than 660 million loads of laundry every week, or about 35 billion wash loads a year... That’s about 1,000 wash loads every second of every day.” Those loads all involve the use of energy, water, and detergents, fabric softeners, and dryer sheets containing a potpourri of toxic chemicals that manufacturers are not even required to list as ingredients. Further, many synthetic fabrics (polyester, fleece, modal, etc.) release plastic microfibers that drain from our washers into the waterways, harming marine life and increasing plastic pollution in the oceans with every load.

Laundry Love’s most game-changing suggestions range from the quick and simple to the more drastic. An easy change Richardson recommends is simply to wash every load on speed wash and the highest spin cycle. He notes that “the washing machine is better able to force water through the clothes, thereby cleaning them better, with less water in your machine.” The shorter cycle delivers much less lint into the wash water. The fast spin causes less wear and tear on clothing, and they will take less time to dry. I tried this immediately, mainly for the time savings involved. I was a tiny bit skeptical about whether the shorter wash time really gets clothes clean until I speed-washed my husband’s grimy grass- and mud-stained yardwork ensemble. I was thrilled when it came out completely clean!

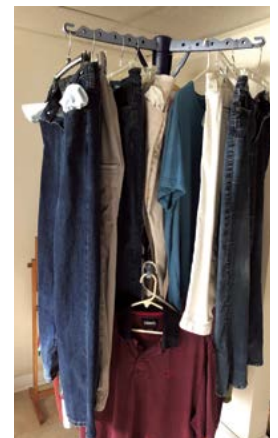


Another easy suggestion: Stop using fabric softener and dryer sheets, which coat fabric with silicone, cut its absorbency, diminish its breathability, and make stains harder to remove. The silicone also coats the dryer’s lint catcher, increasing fire risk. Finally, Richardson says that dryer sheets and fabric softeners contain harmful chemicals as well as animal fats that necessitate the addition of petrochemical fragrances to cover the smell. Who knew? Instead, use wool balls (inexpensive and readily available) to help fluff the clothes and decrease drying time by as much as 40 percent. A drop or two of your favorite essential oil (lavender, peppermint, etc.) can be added to the wool balls for added fragrance if desired. You can eliminate static with a piece of wadded up aluminum foil. I implemented these tips too. The foil really does eliminate the static in the dryer, and my garments come out of the dryer smelling, well, clean—even

without adding any fragrance.

A more drastic change Richardson proposes is to use your dryer only for T-shirts, socks, towels, underwear, sheets, and kids’ clothes. Air dry everything else using hangers, a clothesline, or drying rack. Noting that a dryer can use as much energy per year as a new energy efficient refrigerator, clothes washer, and dishwasher combined, Richardson also convincingly argues that air drying significantly lengthens clothing life, as well as saves money. Using a clothesline outside offers additional benefits of more exercise, fresh air, and sunlight whitening your whites, he says.

I don’t know why this suggestion excited me. My urban location eliminates a clothesline as an option, and I couldn’t see myself running in and out to hang wash. But I pretty much immediately ran out and bought a dryer rack on which I can hang up to 60 items in a 4x4-foot space in my basement laundry room—for less than \$30. Articles that are wrinkled coming out of the washer I throw in the dryer for just a couple minutes before hanging up to dry. Generally my things are dry within 8 to 10 hours, at which point I simply transfer them to the closet. Using these methods, I can do three complete loads of wash from beginning to end in just a couple hours, and I am done for the week. No more dragging my laundry cycle throughout the week when I repeatedly forget to take that last load out of the dryer.



Of course everyone’s laundry situation is different. Curtailing dryer use may not be a realistic option. But the beauty is that choosing to try even just one or two of Richardson’s hundreds of pointers and recommendations has an immediate payoff—in health benefits; time, money, and energy savings; better care and preservation of your clothing and textiles; and less damage to the atmosphere, our waterways, and the oceans. It’s hard to imagine simpler changes of any kind that can positively impact both individuals and the planet as directly as many of those Richardson recommends in this fun and important little book. And I have to say that all his good advice has indeed helped me find joy in this common chore.

The Silent Ones— Salamanders of Southern Michigan

by James Harding. Photos by James Harding unless otherwise noted.

After a long, cold winter, the breeding calls of frogs and toads emanating from Michigan ponds and wetlands are among the more anticipated and obvious signs of spring. Considerably less obvious and unfamiliar to most people are the largely silent and secretive breeding activities of those other amphibians, the salamanders, in these same wetlands.

Frogs and toads are highly recognizable, with their oversized hind legs for jumping or hopping, large heads and eyes, and (except when breeding), their mostly diurnal (daytime) activities. Most salamanders, on the other hand, have four legs of roughly equal size and a rather generalized body form, reminiscent of the first tetrapods (four-legged animals) to emerge from Carboniferous waters around 370 million years ago. Our native salamanders tend to be nocturnal and spend most of their time underground, beneath rotted wood or leaf litter, or submerged in aquatic vegetation. Their inconspicuous nature can obscure the importance of salamanders in the environment, particularly in moist woodlands, where they can represent a significant portion of vertebrate biomass, and (by consuming myriad insects and other invertebrates, while in turn being eaten by larger predators such as birds and small mammals) serve to move energy through the forest ecosystem. Under the right conditions, some of our local salamander species can be quite abundant. One Michigan study estimated the population of Red-backed Salamanders in a woodland at about 3600 individuals per acre!

Salamanders are most often observed during their above-ground migrations to or from breeding areas, or while foraging or trying— often unsuccessfully—to cross roads on rainy evenings. Many people, on observing typical terrestrial salamanders, mistake them for lizards— but the smooth or warty-skinned, moisture-loving salamanders are amphibians and not at all closely related to lizards, which are scaly, fast-moving, warmth-loving reptiles. Another important distinction is mode of reproduction—most lizards lay shelled eggs on land; newly hatched lizards are basically miniatures of their parents. As with frogs, most salamanders breed (or even live their whole lives) in water, and lay soft shell-less eggs that hatch into aquatic larvae which breathe with gills prior to metamorphosis into the lung-breathing adult form. A few Michigan salamanders never undergo full metamorphosis— they retain gills and tail fins and

permanently live and breed in water; included here is the Mudpuppy and the (very rare) eel-like Lesser Siren. Under some conditions, species that normally undergo metamorphosis will retain gills and other larval characters and remain in water as breeding adults. The Tiger Salamander and the Eastern Newt are known to do this, a state called neoteny.

Salamanders may be inconspicuous and low-key, but they have some notable and amazing biological attributes. Their reproductive habits are a case in point. Most salamanders have internal fertilization . . . but do not actually mate! Instead, after some species-specific courtship maneuvers to get the pair in the “mood,” the male will deposit one or more cone-shaped globs of jelly-like material capped with sperm, called spermatophores. The female then crawls over a spermatophore and takes up the sperm into her cloaca through the anal opening. Her eggs are fertilized in her body prior to being deposited. With most Michigan salamanders, this all occurs in vernal ponds in early spring, though a few species breed in permanent waters or terrestrially.

A “typical” salamander, such as our common Blue-spotted Salamander, will lay several small masses of eggs covered in a protective jelly-like substance attached to vegetation in shallow water; they resemble frog eggs except that salamander eggs tend to be relatively larger and fewer in number. Other differences with frogs show up a few hours or days after hatching. Salamander larvae display feathery external gills and front legs (and then quickly develop hind legs) unlike frog tadpoles with their internal gills and slower leg development. The larval diet also differs from most frog tadpoles since salamanders are predators on small animals (mostly invertebrates) throughout their lives; tadpoles of most of our common frogs feed largely on algae, plankton, and soft decaying organic material and switch to an entirely carnivorous diet after metamorphosis. There are numerous exceptions to this “typical” mode of salamander reproduction. A female Red-backed



Salamander deposits her eggs in a damp cavity under a rock or log or in a rotting stump and attends them till they hatch. The “larval stage” is completed while in the egg, and the baby salamanders emerge looking like tiny versions of their parents. Because they don’t have free-swimming larvae, Red-backed Salamanders can live in wooded habitats lacking vernal ponds or other adjacent open waters. The related Four-toed Salamander also lays its eggs terrestrially, in moss or leaf litter overhanging a pond or stream, and guards them till hatching. However, the eggs hatch into gilled larvae that drop into the water below to complete their development in “normal” fashion. Both of these species belong to a family of lungless salamanders (the *Plethodontidae*); without lungs or gills, they basically breathe through their skins, which must remain moist to facilitate gas exchange.

The use of spermatophores for fertilization is related to a very strange phenomenon discovered in “mole” salamanders (genus *Ambystoma*) in our region. The Blue-spotted Salamander (*Ambystoma laterale*) is an attractive species that is common in southeastern Michigan. Years ago it was confused with the Jefferson Salamander (*Ambystoma jeffersonianum*), which is now not known to occur in Michigan but is common further east. It was noticed that many supposed “Blue-spotted Salamanders” looked somewhat duller in color and were often a bit bigger than was typical, a bit more like the Jeffersons. It turned out that these intermediate animals were almost all females, and they were polyploids (that is, they had one or more extra set of chromosomes in their cells; recall that most sexually reproducing animals are diploids, having two sets of chromosomes, one from their mother and one from the father). All of the polyploids had one or more sets of chromosomes from a

Blue-spotted Salamander; the rest of the genome could be from a Jeffersons, or (surprise!) from certain other *Ambystoma* species, such as the Tiger, Small-mouthed, or Stream-side Salamanders. At first it was thought that the unisexual (all-female) animals were the result of simple hybridization between species, but (inevitably) it is now known to be far more complicated. The polyploid females pick up spermatophores from these other species, and usually the “donated” sperm just initiates embryonic development, without the male’s genes being incorporated into the new generation (making the embryos essentially clones of the female). But sometimes the male’s genes are incorporated into the embryos, thus elevating the number of chromosome sets, creating triploids (with three sets of chromosomes), or even tetraploid (four sets) or pentaploid (five sets) animals. Some individual animals even have DNA from three or more species. The biology and origin of the unisexual *Ambystoma* complex is still being worked out, but it shows how strange things can get with these secretive little amphibians!

Salamanders have some additional biological attributes that are quite surprising. They are well-known for their ability to re-grow lost limbs and fingers. . . and even parts of their brains! Recent research has shown that many salamander species have hugely expanded genomes in their (much enlarged) body cells, meaning they have much more DNA than would seem necessary. In fact, a close relative of our Mudpuppy, found in North Carolina, has the largest genome known for any four-legged animal — its cells contain about 38 times more DNA than human cells. This has many possible biological ramifications that are just being examined, but it may be related to the fact that many salamanders retain larval-like traits in their bodies, and this in turn, may be related to their limb regeneration abilities.

As noted previously, our native salamanders have many enemies, including birds, various small mammals (particularly shrews and moles), raccoons, skunks, and weasels. The aquatic larvae are eaten by fish, large frogs, snakes, herons, and even predatory insects. The avoidance of fish is presumably one reason why so many of our amphibian species breed in vernal (ephemeral) ponds. Salamanders appear outwardly defenseless, but they do have defenses. Many species have skin glands that exude repellent or toxic substances. The “mole” salamanders (*Ambystoma*) may lash their tails at an enemy, bringing concentrations of poison glands into play. The bright reddish color of the “red eft” form of the Eastern Newt (see account below) may warn potential predators of their highly toxic skin

secretions. The tiny lungless salamanders, like the Red-backed, can drop part or all of their tails if attacked, which will keep wriggling and perhaps distract the predator.

The decline and extinction of many amphibian species across the world has attracted much attention, but concern has largely concentrated on frogs and toads. Salamanders are certainly affected by the same threats (mostly human-caused) as their louder relatives. The draining and polluting of wetlands has probably had the greatest effect; the dependence of so many amphibian species on vernal ponds means that we must conserve these areas that may only hold water for four or five months of the year. The harvest of woodland trees can expose a formerly good habitat to direct sunlight, increasing temperatures and decreasing humidity and often eliminating the resident salamanders. And salamanders are affected by the same or closely related diseases that threaten frog populations; the most notorious of these is the deadly “chytrid” fungal disease that has devastated amphibian species in many parts of the world.

Below is a brief description and additional comments for each salamander species found in southern Michigan. Descriptions are for the adult form; for larval characteristics, see references below.

MUDPUPPY (*Necturus maculosus*)



A large permanently aquatic salamander, 8 to 19 inches long, with flattened tail and reddish gills behind its head. Body color is brown or gray-brown with darker, scattered blotches. Found statewide in inland lakes, Great Lakes bays and marshes, rivers, and reservoirs. Shallow waters are preferred in spring, but occur at depths of up to 100 feet in winter and summer. Mudpuppies eat crayfish, insect larvae, worms, snails, small fish, and smaller amphibians and their larvae. Mudpuppies have declined in many Michigan lakes and streams. They are sensitive to chemical pollutants, and are unfortunately often destroyed by people who catch them while fishing.

Mudpuppy photo by Todd Pierson courtesy of Creative Commons (Link to license: <https://creativecommons.org/licenses/by-nc-sa/2.0/>).



WESTERN LESSER SIREN (*Siren intermedia nettingi*)

This is a long, eel-like salamander, 7 to 19.7 inches long, with bushy external gills, a flattened tail, tiny front legs and no hind legs. Color is gray, brown, or olive. Still, muddy waters with abundant plant growth are preferred habitats. They are known in Michigan only in Allegan and Van Buren counties. Sirens can move overland in damp weather to colonize new habitats. They eat small invertebrate animals, including insects, crayfish, and snails. Primary range extends from northern Indianan to the U.S. Gulf coast and Florida; they are extremely rare and probably near extinction in Michigan.

Photo by R. Bartlett.



EASTERN NEWT (*Notophthalmus viridescens*)

The aquatic adult, (R) 2.5 to 5.5 inches long, is olive green to greenish-brown above, usually with two rows of red spots down the back and with a yellow, black-spotted belly. The tail is flattened.



Gilled larva usually metamorphose into a land living “eft,” (above) which is reddish-brown to bright red or orange, with a rounded tail. Efts can take a year to several years before returning to water to become breeding adults. Newt skin appears rough, but is soft to the touch. Insects, other small invertebrates, and tadpoles are eaten. Found statewide, adult newts prefer small, permanent ponds, but also live in vernal ponds, sloughs, marshes, and lake shallows. Efts are usually found in nearby woods, under rotting logs, rocks, and other shelters. If ponds dry up, adults can survive on land, but do not regain eft-like coloration.



SPOTTED SALAMANDER (*Ambystoma maculatum*)

A chunky-bodied black or dark gray salamander, 4.3 to 9.8 inches long, with two rows of round yellow spots running from head to tail. Rarely, spots are tan or white, or even absent. Sides are usually unspotted, and the belly is grayish to purplish. Found statewide but becoming less common, they require mature woodlands with access to vernal ponds for breeding. They spend most of the year in underground burrows, but are sometimes found under rotting logs or leaf litter. Small invertebrates, such as worms, insects, spiders, slugs, and snails are eaten.



BLUE-SPOTTED SALAMANDER

(*Ambystoma laterale*)

A mostly blackish salamander, 3 to 5.5 inches long, with blue flecks and spots on the sides, limbs, belly, and tail. The belly may be black or grayish-black. Across much of Lower Michigan, populations of Blue-spotted Salamanders often include many individuals that may appear stouter and grayer, with fewer or no blue spots on the sides. These are unisexual (all-female) polyploid animals that share genes with other *Ambystoma* salamanders (this situation is described in the introduction above). Both pure Blue-spotted and polyploid individuals prefer moist woodlands with access to vernal ponds; however, they often persist in drier, human-disturbed second-growth woodlands, and occur statewide. Food includes insects, spiders, worms, and other small invertebrates. They are fairly common, and even occur in some of the larger urban parks and farm woodlots.



EASTERN TIGER SALAMANDER

(*Ambystoma tigrinum*)

Michigan's largest land living salamander, 7 to 13 inches long, is a robust animal with a broad, rounded snout and small eyes. The background color is black, brown, or olive, with scattered yellow or brownish blotches, spots, and streaks over the head, back, and tail. They inhabit woodlands, meadows, marshes, and suburban areas, spending most of their time in burrows underground. Found in Michigan's western and southern Lower Peninsula and in Alger County in the Upper Peninsula. They eat insects, worms, slugs, snails, and smaller salamanders.



SMALL-MOUTHED SALAMANDER

(*Ambystoma texanum*)

This species has a small head and a short, blunt snout and are 4.3 to 7 inches long. The background color is black, gray, or brown, with an irregular pattern of grayish blotches and spots over the head, back, and tail. Breeding individuals in ponds are often paler in color than they will appear later in summer. In its limited southeastern Michigan range, they prefer moist hardwood forest habitat; farther south the species is also found in fragmented woodlands, fields, and farming areas. Breeding habits are similar to those of the Blue-spotted Salamander, described under "Salamander Reproduction." The range of the Small-mouthed Salamander barely enters Michigan in a few southeastern counties; it is listed as Endangered in the State.



MARBLED SALAMANDER (*Ambystoma opacum*)

This is a chunky-bodied, black or dark brown salamander, 3.5 to 5 inches long, with bold white or gray markings on the head, back, and tail. The light markings form crossbands that may merge into a stripe on each side. Moist lowland woods are the preferred habitat for Marbled Salamanders, though they may tolerate drier woodlands and rocky hillsides in parts of their range. Insects, worms, slugs, and other small invertebrates are eaten; the larvae often eat the larvae of other amphibians. Unlike other *Ambystoma*, they breed in fall instead of spring; eggs are laid in woodland depressions and hatch after rains flood the site. This very rare species was found in the southwestern Lower Peninsula and had not been seen since the 1960s until 2016, when one specimen was reported in Monroe County. Listed as Endangered in Michigan.



RED-BACKED SALAMANDER (*Plethodon cinereus*)

This is a thin-bodied little salamander, 2.3 to 5 inches long, that occurs in two common color phases. The "redback" phase has a reddish or orangish stripe down the back and tail, bordered by darker sides. The "leadback" phase lacks the stripe, and has a dark colored back, sometimes speckled with faint light spots. In both phases the belly is mottled with a white and gray "salt and pepper" pattern. Found statewide in woodlands, especially deciduous woods with thick leaf litter and many decaying logs or stumps; they feed mostly on small insects and other invertebrates. They are unique among Michigan salamanders in not requiring water to reproduce; young go through larval stage in the egg. A "key" species in the woodland ecosystem; their abundance can signify a healthy forest environment.



FOUR-TOED SALAMANDER

(*Hemidactylium scutatum*)

This small slender salamander, 2 to 4 inches long, is orangish to grayish-brown above, sometimes with small black and bluish speckles on the sides. The belly is white with black spots. The tail is constricted at its base, and there are only four toes on each hind foot (most salamanders have five toes). These salamanders may lose portions of their tails during encounters with predators. They take refuge under rotting logs and leaf litter, and eat insects, worms, and other small invertebrates. Four-toed Salamanders are found statewide though generally rare; they can be locally common in damp wooded habitats but require boggy ponds or spring-fed creeks for breeding. Eggs, laid under moss or leaves at the water's edge, are often guarded by the female until larvae hatch and drop into the water.

Two other species of small "lungless" (*plethodontid*) salamanders were recently discovered to be breeding in Michigan in southern Tuscola County. These are the Southern Two-lined Salamander (*Eurycea cirrigera*) and the Northern Dusky Salamander (*Desmognathus fuscus*). Both of these occur near small streams in wooded habitat and have aquatic larvae. It is suspected that the Tuscola populations were intentionally introduced, but these species do not appear to compete with any native species and are considered interesting additions to Michigan's



Southern Two-lined Salamander by R. Bartlett

amphibian fauna.

For more information (and descriptions of eggs and larvae), see these publications:

Amphibians and Reptiles of the Great Lakes Region, 2017. Harding, J. and D. Mifsud. University of Michigan Press, Ann Arbor, 392 pp.

Field Guide to Amphibian Eggs and Larvae of the Western Great Lakes, 2020. Casper, G., T. Anton, and R. Rutherford. Amphibian and Reptile Conservancy, Inc., 91 pp.

Michigan Frogs, Toads, and Salamanders, 2015. Harding, J. and J.A. Holman. Michigan State University Extension, Pub. E-2350, 128 pp.



James Harding

James H. Harding retired in January 2020 from the Department of Integrative Biology and the MSU Museum at Michigan State University where he was an instructor and natural history outreach specialist. Jim received his bachelor's and master's degrees from the Department of Fisheries and Wildlife at MSU. He taught the MSU undergraduate course "Biology of Reptiles and Amphibians" from 1997 through 2019. Jim is a research herpetologist specializing in the conservation biology of turtles. He has conducted long-term research on the biology of the Wood Turtle in northern Michigan and also conducted field studies on the Blanding's Turtle and the Eastern Box Turtle. He is an experienced interpretive naturalist and spent nine years as the naturalist at the Cranbrook Institute of Science in Bloomfield Hills, Michigan. He is the author or co-author of four popular books on reptiles and amphibians (listed below) and has written many articles for academic journals, newspapers and magazines. His expertise and advice are often sought by natural resource agencies and private organizations in their management and conservation efforts to protect Michigan's reptiles and amphibians. Jim presently co-chairs the Michigan's Technical Advisory Committee on Amphibians and Reptiles, which reports to the Michigan Department of Natural Resources.

Books:

Michigan Snakes (A Field Guide and Pocket Reference), 1989. Holman, J.A., J.H. Harding, M.M. Hensley, and G.R. Dudderar. [Revised 2006]. Michigan State University, Cooperative Extension Service, Pub. E-2000. 74 pp.

Michigan Turtles and Lizards, 2014. Harding, J.H. and J.A. Holman, Michigan State University, Cooperative Extension Service and MSU Museum, Extension Bulletin. E-2234. 88 pp.

Michigan Frogs, Toads, and Salamanders, 2015. Harding, J.H. and J.A. Holman. Michigan State University, Cooperative Extension Service and MSU Museum. Extension Bulletin. E-2350. 128 pp.

Amphibians and Reptiles of the Great Lakes Region (Revised Ed.) 2017. Harding, J.H. and David A. Mifsud. University of Michigan Press. 392 pp.



Late Winter-Early Spring Nature Gallery

(L) CLOSE-UP OF COOPER'S HAWK. These striking accipiters used to be found only in remote woods, but they have moved into wooded neighborhoods big-time and have really had an impact on nearby House Sparrow populations. Bird lovers sometimes complain when these bird predators show up at their bird feeders, but we say they are just feeding carnivores as well as herbivores. Cooper's Hawks need to eat too, right? Photo by Scott Jorgensen.

Below, (L) **MALE RED-WINGED BLACKBIRD PUFFING UP HIS RED SHOULDER EPAULETS** to intimidate other males from intruding on his territory. Photo by Donna Macauley.

(R) FEMALE RED-WINGED BLACKBIRD DISPLAYING. Ornithologists have only recently turned to studying the behavior of female songbirds and are finding that many sing and have more complex behaviors never previously known. There is much more to learn. Photo by Donna Macauley.

(Bottom row, L-R)

GRAY MORPH EASTERN SCREECH OWL in the midst of ornamental cherry blossoms. They normally nest in tree cavities but will use Wood Duck and even bluebird boxes. They lay eggs in early to mid-April, and the young fledge (leave the nest) from mid-May to early June. They are our most common owls and may be right in your neighborhood if you have a good number of trees. Photo by Donna Macauley.

MALE YELLOW WARBLER SINGING. This is our most common warbler, and many of them stay right here with nesting territories in shrubby marshes, in shrubby areas along the shores of lakes, ponds, and riverbanks, as well as in overgrown fields. The male is easily recognized by the bold red streaks on his breast and by his loud, melodic song, which sounds a bit like he is saying, "Sweet, sweet, sweet, I am so sweet!" Photo by Donna Macauley.

RED-BELLIED WOODPECKER SCOLDS EUROPEAN STARLING. Starlings are known to take over nest cavities from woodpeckers, bluebirds, chickadees, nuthatches, and other native birds. Photo by Donna Macauley.





MALE RED-WINGED BLACKBIRD.
Photo by Scott Bowditch.



(L) MALE ROSE-BREASTED GROSBEAK. It spends most of the year in the South American rainforests, but it is a delight to see and hear when it returns each spring. Some do nest here, but most migrate further north, choosing high spots in deciduous trees. Their nests are so thin you can sometimes see the eggs or young from the underside. Their song is like an American Robin's, only sweeter (a robin that took singing lessons!). Photo by Donna Macauley.

(R) GRAY TREE FROG BLENDING INTO SURROUNDINGS.

These frogs will turn green on the leaves of herbaceous stems. Their loud spring mating calls can make sleeping difficult for nearby campers. Trying to find calling males is tricky because they are ventriloquists—often physically distant from where the sound seems to be coming from. They can sing on the ground, in marsh vegetation, or high in a tree. They have suction-cup-like pads on their feet that help them climb trees. Photo by Donna Macauley.



Late Winter-Early Spring Nature Gallery

EASTERN KINGBIRD ON A NEST. One of our larger flycatchers, it has a gray to black head and back, white breast, and black tail with a diagnostic thick white edge. Photo by Scott Bowditch.



*"I have no idea why vireos are doing well," Dr. Rosenberg said.
"I'd love to do a study of vireos and discover what their secret is."
-The New York Times 9/21/2019, 'Birds Are Vanishing from North America'*

What I Want to Believe About Vireos

By Catherine Pierce

The vireos are plotting.
They are everywhere and various
and all with names
like Shakespearean villains
disguised as Shakespearean clowns.
Black-whiskered.

Plumbeous. Slaty-capped
shrike. Their songs drop
from the canopy like candied
needles, and everyone smiles. Sweet

birds. They've been above us
for centuries, watching. See

their eyes: small, bright
pebbles that betray

nothing. They know
patience. See them tableau'd

on the oak branch
for minutes before diving

for the fat black beetle.
They know how green works,

how it muscles back, always.
once the pillars and poisons

are gone. They're playing
the long game. Weary,

weary, weary, trills the scrub
greenlet. It'll all be theirs

again—rain forests, mangroves,
the great deciduous rustle.

The breeze and moss.
The loam and sunrise.

The vireos will be here
at the end and at the next

beginning. The red-eyed
vireo's call will sound then

like it does now, like
it's constantly asking

and answering
its own questions.

What did they do?
They did.

What did they know?
They knew.

Catherine Pierce is the author of four books of poems, most recently ***Danger Days*** (Saturnalia Books, 2020). Her work has appeared in *The Best American Poetry*, *The New York Times*, *American Poetry Review*, the *Academy of American Poets' Poem-a-Day* series, and elsewhere. Pierce has won a Pushcart Prize and co-directs the creative writing program at Mississippi State University.

This poem first came to our attention in *Fellowship Magazine* Summer 2021.

RED-EYED VIREO. Photo by Bruce Szczechowski.

Highlights of Our 2021 Annual Report

PARTICIPANTS IN ROCKWOOD CHRISTMAS BIRD COUNT.

Photo by Jim Bull.



When in-person events were canceled due to COVID-19 in 2020, we knew we had to be creative and stay connected to everyone who counts on Detroit Audubon (DA) for field trips, questions about birds, and general information about the natural world. Webinars, the **Flyway Magazine** and **The Flyway Express** were our ways to stay relevant and connect with our constituents.

Education

Creative Connections: Webinars Continue in 2021

- 15 Webinars in 2021: 1,800 registrants plus an additional 1,200 via YouTube

A Return to Normal: Field Trips

- 53 field trips in 2021 with 880 attendees

Research & Conservation

Long Term Research Focus: Black Terns

- During the ninth summer of monitoring at St. Clair Flats, our research

coordinator deployed 20 nanotags on juvenile Black Terns, recorded 99 Black Tern nests and installed eight nest cameras.

Urban Habitat: Detroit Bird City

- As of 2021, we have planted eight acres of meadows at five different parks with plans to plant an additional four acres in 2022.

Data Collection: Bird Surveys

- We participated in various bird surveys ranging from three Winter Waterfowl Surveys in partnership with Birds Canada in January and February, various Detroit Bird City bird and plant surveys in June and August, and finished off the year with our Detroit Audubon and Rockwood Christmas Bird Counts.

To learn more Detroit Audubon's impact in 2021, see our full Annual Report at:

<https://www.detroitaudubon.org/annual-impact-report/>

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POINTE MOUILLEE AT SUNRISE. Photo by Chris Wlodkowski.



RED-WINGED BLACKBIRD
NESTLINGS. Pointe
Mouillee. Photo by
Bruce Szczechowski.



Mystery Bird Answer

If you answered Hairy Woodpecker, you are right! While the Hairy Woodpecker is quite a bit larger than the Downy (9 inches or more compared to 6.5 to 6.75 inches long), size is hard to judge in the field unless you see them side by side. The most reliable way to separate them is that the Hairy has a much longer and stouter beak that is at least as long as, if not longer than, its head. The Downy's beak is much shorter than the width of its head. Their calls are quite distinctive too. The Hairy's trill is more akin to the Belted Kingfisher's rattle, while its call note is a sharp *peek*, contrasted with the rapid whinny and flat pick call note of the Downy. Both have almost identical black and white markings, with males distinguished by an added small red dot on the back of the head. The Downy is much more common.

Right: MALE HAIRY WOODPECKER. Note long beak and red spot on back of head. Photo by Bruce Szczechowski.



Far left: MALE DOWNY WOODPECKER by Bruce Szczechowski. Note how much shorter its beak is! Near left: FEMALE DOWNY WOODPECKER by Brittany Leick. Note the short beak and lack of a red spot on the rear of her head. Also, note the way she bends her tail to brace against the hand just the way all woodpeckers use their tails to brace against a tree trunk. In this photo you can also see the unusual woodpecker toe arrangement on her foot—it's called zygodactylous—two toes in front and two toes behind. This gives better support for perching or moving on a tree trunk than the normal three in front, one in back arrangement of most songbird toes.

Flyway

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**BALD EAGLE LANDING ON THE ICE. Dingell Park, Ecorse, MI.
Photo by Chris Wlodkowski.**