

THIS ISSUE

- MSU Sc Fe: Garter Snakes, April 4**
- Nature Education: COVID-19 Edition**
- Volunteer to Save Trees**
- Non-guided Outside Visits to ND**
- Spring Products for Sale**
- Thank You!**
- Abdication of the EPA's Mission**



COVID-19 Restriction Opens Doors to Nature Education “Tutorial Style”

Did you know that the governor’s ‘stay home’ order *does not* apply to outdoor activity? There is no better antidote for cabin fever and the “Coronavirus Blues.”

When they learn that Nature Discovery is not a non-profit organization, but rather a home-based sole proprietorship people often ask us how we manage to remain solvent. We respond that Nature Discovery doesn’t make a dime unless we are able to place ourselves in front of an audience, either here at our private nature center or - much more prevalently - on a contracted basis at another location.

Although we promote ourselves in the usual variety of ways, the most effective “advertisements” occur at the presentation and exhibit venues, themselves. We communicate on the topic with a purposeful edge and intensity, aware that making a strong impression on the audience may likely generate another job in the future. Virtually every audience contains a parent, a teacher, a garden club or conservation club member, an environmental organization member, etc., who may think, *This would be a great program for our venue.* We’ve been hopscotching job to job like this for over thirty years without a hitch... Until now, that is.

Like nearly everyone whose income is reliant on the “gig economy,” our entire calendar of appointments has been wiped clean through April and indefinitely - all of society frozen in uncertain repose over a duration that no one can predict. We’re keeping fingers crossed that as a small business so reliant on educational “gigs,” we will indeed qualify for unemployment benefits, and then that the whole system won’t crash before we see a first check. (Our confidence in the competence of the federal government isn’t what it used to be.)

In just the first few weeks of the crisis we've been blessed by the unsolicited support and generosity of many clients and friends. These folks have known us and the nature and dynamics of our business long enough to recognize the threat the current situation poses to Nature Discovery's continued existence.

Nature Discovery was born and exists above all else to implement 'the mission.' These times demand a metamorphosis in technique and delivery in order for us to continue to achieve our purpose. In step with so many other businesses we are working to reinvent ourselves to conform to the COVID-19 shutdown by offering more online. To start with I have composed some half dozen posts on our Facebook page in the past two weeks. Some are short videos. Others are "mini-lessons" in a photo album (i.e., attracting bluebirds and identifying garter snakes) with a snippet of information accompanying each photo. Here is a link to our page. Please 'like' it and share it with others: <https://www.facebook.com/Nature-Discovery-327017934273/>



Eastern Garters (like this one indicating infinity) are common on our acreage.

In light of the statewide mandated "stay home" order, combined with a ban on gathering in large groups, local nature centers have ceased in-person programming until further notice... Not us!

Being "private" allows us to unilaterally call the shots. With a nature center attached right to our residence we do not need to set "hours of operation." Lately, we're *always* here, so in operating by appointment only, in a manner of speaking we're *never* closed!

Under the current circumstances many would understandably balk at physically entering the nature center. Our extensive and totally unique zoo of Michigan-native reptiles and amphibians is a huge draw. However, the season is advancing and *warming* - albeit in fits and starts. Our frogs, snakes, turtles and salamanders can be brought out to you on any day you may visit where the temperature is in the upper 50s or higher.

Let's not forget, there are better circumstances in experiential learning than sitting among the masses in a classroom or assembly hall. In any academic pursuit every instructor and every learner knows that the lower the student-to-teacher ratio the more effectively the content can be assimilated. Since circumstances dictate that we remain isolated from group gatherings why not take advantage of the high-quality educational experience that one-on-one learning provides? For what we offer, think *Michigan Natural Science Tutorials... In Situ!*



We've got six acres of natural area right out the back door. Trails lead to two wildly diverse, active and loud vernal ponds. Did you know that the vernal wetland is considered the most biologically abundant and diverse natural community type in temperate regions of the world? Visit ours now on a mild day and you'll understand why...

Regarding natural science education there is no substitute for physical immersion. Surrounded by diverse flora and fauna; teeny to towering, terrestrial, aquatic, arboreal and aerial, the sky's the limit on familiarizing oneself with all these interconnecting components. Call it a 'new' subject of education no matter your age, because so many are surrounded by it, yet, starkly oblivious to it when we step outdoors.

Indeed, we mention it often in presentations and even in past newsletters: This subject does not exist among standard public school curricula, K through twelve. Kids deprived of this knowledge grow into adults who view the natural world through fogged lenses. Biological diversity surrounds them yet they never learned to tell one tree from another, one bird from another, one butterfly, bug or flower from another. They never learned their names, much less the interesting physiological traits that allow them to connect to each other - like pieces in a jigsaw puzzle - to form the big picture. Is it any wonder there is a society-wide lack of interest in the natural world? Is it any wonder it is becoming so degraded?

For older students and adults, imagine a tutorial that takes place *in the habitat*. For instance, imagine swishing a net back-and-forth through a vernal pond, dumping the contents into large trays and identifying each element of the dizzying array of invertebrate life it harbors; listening to and identifying every bird singing around you “by ear” then tallying it on a checklist for later review; learning to identify common trees, shrubs and vines of the area, as they currently exist *without* their foliage; identifying various invasive plants that are killing healthy trees and destroying local woodland ecology then learning various techniques to remove them.



Among a woodlot's bare branches the male catkins of the Smooth Alder make this small native tree stand out from the rest only fleetingly in early April.

School is out indefinitely. Many parents are in a pinch to keep kids constructively occupied. Many teens are spending way too much time on screens. Many working adults suddenly find themselves with heretofore unimagined amounts of free time. What a golden opportunity to discover the local natural world, and what a perfect time of year to start! Seasoned wildlife biologists (Carol and I) with decades of field experience plus decades of teaching experience, to boot, are at your disposal to guide you through such opportunities in natural science education – all while appropriately-distanced, of course!

The descriptions on the following pages can be found verbatim on our website. Only healthy individuals, couples, or family members who reside in the same household are invited to participate during a single appointment. We've purposely kept the fee very low - only \$5/person/hour - so as not to exclude many of those who, like us, are experiencing financial hardship through the crisis.

Stay safe, but make it a point to get outdoors today for a healthy body, mind and environment.

-Jim McGrath



MSU Science Festival is Still On (-Line, that is)

On Saturday, April 4, tentatively set for 3:20pm, Nature Discovery will present *Meet Michigan's Three Garter Snakes* as part of the festival's “Ask a Scientist” list of streamed presentations live on either Facebook or YouTube. Jim will feature live specimens to help you learn to identify each species, in addition to discussion of

its Michigan range, its habitat and ecology. Check out the entire lineup throughout the day, as well as the latest schedule updates at:

https://www.facebook.com/MsuScienceFestival/?eid=ARAsvVq_E7raLf3kjHqIBLeEVP18s0kTUOKL8I1N_hsaEb0wxc-LAzRYL1wP7hp_SZf-HFmxhz1dSDMe



Nature Discovery

5900 N. Williamston Road
517.655.5349

Williamston, MI 48895

naturedisc87@gmail.com www.naturediscovery.net

Michigan Nature/Wildlife Education: COVID-19 Edition

Remember, Governor Whitmer's 'stay home' directive DOES NOT apply to outdoor activity! Being out in the fresh air surrounded by woodlands, wetlands, greening landscapes and singing birds and frogs is the perfect antidote to cabin fever and the 'Coronavirus Blues.' Thankfully, in view of the timing of the crisis, there is in fact no better season to be outside, and Nature Discovery is here to enhance your experience.

SMALL GROUPS OUTDOORS

To comply with physical distancing directives, through the duration of the crisis we will only instruct and lead in an **outdoor** setting either here on the grounds of our private nature center north of Williamston, on your rural property, or at another natural area of your choosing. We will also only lead one small group of healthy people per appointment, i.e., individual or paired adults who live under the same roof, or individual families who reside in the same household. Why is this especially good for you? In any academic pursuit every instructor and every learner knows that the lower the student-to-teacher ratio the more effectively the content is assimilated.



BY APPOINTMENT

When? Virtually any day, any time! Amid the crisis our calendar has been completely cleared, so "hours of operation" no longer exist. In addition to scheduling an appointment based on when it is convenient for you, the area of interest you choose to pursue for your guided experience may better be scheduled during morning, afternoon or evening hours. Just contact us by phone or email to schedule a time. Same-day appointments are even okay. Just give a call to confirm our availability and we could meet the next hour! (See PRICING and MAKE AN APPOINTMENT headings below.)



Photo by Greg Smith

TOPICS & ACTIVITIES

The following list is far from complete but may inspire ideas for other subjects, venues and activities. Remember, we have decades-worth of knowledge about the local natural world at your disposal, not to mention decades of experience in sharing it with students of all ages!

➤ VERNAL POND ENCOUNTERS

Two vernal ponds exist on the back half of our private home-based nature center's six acres. In fact, no kidding, we bought this house in 1989 because of the presence of these ponds. Did you know that the vernal pond is considered the most biologically rich natural community in temperate regions of the world? It's a naturalist's playground! We'll show you why, firsthand.

- **Breeding frogs!** Currently, chorus frogs, spring peepers and wood frogs are calling abundantly and sometimes deafeningly on our ponds. Leopard frogs, toads, tree frogs and green frogs will hit the ponds in the coming weeks. Take a guided walk around the edges while identifying each species "by ear" and learning more from us about their life cycles through the year, other aspects of their ecology, and discussion of the human-induced factors that are driving their declines. Take it a step further if you'd like and arrange with us to wade in among the action. Photo ops, galore!



- **Vernal Pond Wade: Day or Night!** Hey, there is a lot more going on here than the breeding frogs. A healthy vernal pond teems with a dizzying abundance and diversity of invertebrate life. Wade in with a small bucket and a net then start scooping. Specimens can be dumped into a pan for identification. You can even take a bucketful with you to inspect more closely at home. We'll provide you with a pond invertebrate identification sheet. A **wade after dark** is especially enchanting. Bring a strong-beamed flashlight or headlamp to witness how the invertebrate life kicks into another gear under the cover of darkness. You might need ear protection. The awe-inspiring volume of the **spring peepers will blow you away**. We've taken our best photos of breeding frogs by spotlight after dark. Give it a try.



Catch tadpoles! There is a glut of huge green frog tadpoles on our vernal ponds now. We'll explain why this is actually a *bad thing*. Check our submerged minnow trap (attached to a rope that runs to the edge) in which we catch dozens of tadpoles a day, or catch them with a net while you wade. Kids and families are welcome to **take some home**. Watch us feed some to our garter snakes outside, weather-permitting!



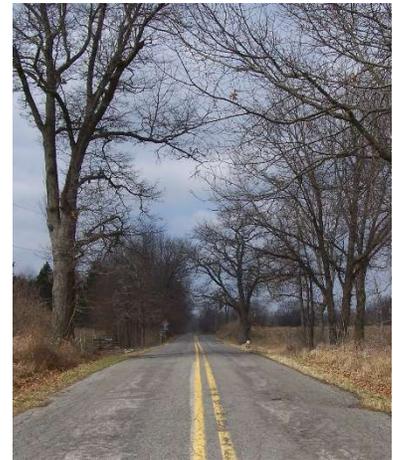
➤ **BIRDS BY SIGHT & BY SOUND**

Do you hear it? The volume, diversity and intensity of singing birds is growing by the day as individuals claim nesting territories and migrants return. Songbirds that are here are singing loudly and frequently as they secure nesting territories. Guided walks on our property (or at another location suggested by you or us) aid participants in **identifying every species** by sight and “by ear.” A **Michigan Birds checklist** is given to each participating adult or family to keep track of species encountered. Bring binoculars if you have a pair.



➤ **THE “WALKABOUT”**

Here’s a combination of **exercise, fresh air and natural instruction**. Join Jim on a walk around our country block, a 3.4-mile trek that starts and ends on our driveway. At an easy pace combined with brief stops the entire circuit can be done in less than 90 minutes. We’ll identify birds by sight and sound, plus trees, shrubs, other plant life and wildlife as we pass a diversity of **fields, woodlots, wetlands** and roadside growth. Jim will also point out roadside insect life that many casual observers would miss. Would you like to get to know the birds, flora and other fauna along the rural roads you walk around your own neighborhood? Make an “on-site” appointment.



➤ **ON NATURE’S TERMS**

No specific “theme.” Just random **natural life as we encounter it** or as it finds us in the yard, on the trail, at pond-side, and even in the skies overhead. Identification and discussion of birds, bugs, trees, vines, shrubs, and invasive growth. If you can’t decide on one of the above options or you just want to get a general feel for the experience and potential for future visits, this is a very good way to start.



PRICING

During these trying times for everyone we are purposely setting our rate for visits here at only **\$5/person/hour** (minimum \$15 for the first hour) so as not to exclude anyone who would like to participate but who cannot afford to pay more. However, if you have the means we will gladly accept any extra donation based on what you can afford.

The 90-minute “**Walkabout**” **rate** is a minimum of \$15 for one individual and \$5 for every extra individual from the same household. If we are traveling to a location of your choosing a nominal mileage fee may be added. Cash or check accepted and preferred. Ask us about Paypal or credit/debit card payment options, too.



OUTDOOR VOLUNTEER OPPORTUNITIES

The natural area at Nature Discovery (as well as those nearly everywhere else) is under siege from a range of **invasive growth** that is **killing healthy trees** and destroying the ecological integrity of our woodlands. We could use help any day in **cutting, pulling and burning** oriental bittersweet, Amur honeysuckle, garlic mustard, and more. Accepting adult help, or get your teens off the screens to come out and lend a hand. Save a tree while enjoying fresh air, the smells of the season and amid a serenade of birds and frogs. Contact us for more details.



MAKE AN APPOINTMENT

Since we will only be permitting one small appointed group at a time please call or email us to reserve a date and time. One hour minimum, please. Feel free to contact us *spontaneously*. As long as we have a staff person available and no other appointment is scheduled we would be happy to host you with as little as an hour's notice!



Volunteer to Save a Tree...

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

The removed alien growth accumulates rapidly, so we regularly light a bonfire to burn what we've cut. If you'd rather not cut and clear but have a bit of 'pyromaniac' in you (What camper doesn't?), volunteer to maintain and feed invasives to the fire - a satisfying endeavor in itself.

Parents, get your teens off screens, saving trees! Send them over to try this out. Would you like to learn more about invasive plants on your own rural property? Schedule an on-site appointment most any day!

Or a More Sedentary Visit

By appointment, visit any morning, afternoon or evening to immerse yourself, alone and unguided, in the sights and sounds along our trails and around our active vernal ponds. Pull up a lawn chair at the edge of one of the ponds to enjoy the bird and frog concert. If you arrive at dusk on a mild evening, prepare to be awed by the shrill cacophony of breeding spring peepers. Then, let your eyes adjust to the darkness and search for dim pinpoints of light on the ground emitted by the larvae of this summer's fireflies. Donations graciously accepted. BYO lawn chair!



Items for Sale That Go With the Season

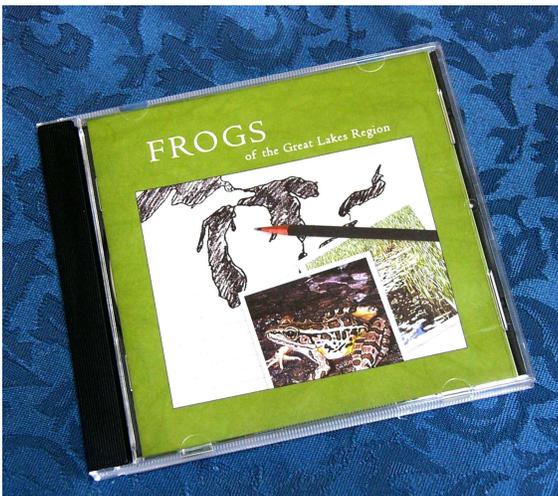


Bluebird Nesting Boxes

Jim built nesting boxes for participants in last month's "Attracting Bluebirds" presentation here, and there are still a few left. High-quality cedar, made to DNR-specs. **\$30 each**. Mount one on a post in your rural yard now and watch how quickly it attracts attention. Bluebirds, chickadees, tree swallows or house wrens may take up residence. (But if alien house sparrows try to nest, evict them!) Contact us to arrange payment method, pickup or delivery. We'd be glad to mount it on a post for you for a nominal fee.

Michigan Birds Checklists

Keep track of birds you identify on your property, on a field trip, at your vacation home up north or anywhere else in the state. Nature Discovery's own design features over 300 species potentially found within the state's borders. The list is printed on card stock for easy checking in the field and is small enough to fit into most pockets. Birds are arranged according to the official A.O.U. classification system, in general alignment to the order in which bird species are arranged in most field guides. Boxes marked A thru D allow the user to use the checklist at four separate locations or on four separate dates. **\$1 each**. Contact us to arrange payment method, pickup or delivery. (A complimentary checklist is provided to each participant in any of our guided birding functions.)



Frogs of the Great Lakes Region CD

Nature Discovery's original audio CD includes recordings of all 13 species found in the state. Several of the recordings were made on the vernal ponds right here on our property. Twenty-five minutes of instruction helps you learn what species are breeding on area ponds "by ear." Nearly an hour of environmental listening follows, arranged in order of each species' emergence and breeding time from early spring to summer. Load it onto your favorite device then turn up the volume on your wireless speaker to acoustically place an active breeding pond smack in the middle of your living quarters! **\$15 each**. Contact us to arrange payment method, plus pickup, delivery or shipping options.

Thank you!



Debbie & Andy Clay

Judy & Allan Marr

Gene Wasserman

Marge Pestka

*For your generous
donations and support
through these challenging times.*

“An Abject Abdication of the E.P.A. Mission”

https://www.nytimes.com/2020/03/26/climate/epa-coronavirus-pollution-rules.html?campaign_id=9&emc=edit_NN_p_20200327&instance_id=17106&nl=morning-briefing®i_id=97652655§ion=topNews&segment_id=23038&te=1&user_id=e2b8dd8c9b543fb8c35d5dd30658067e

-JM



Less Beef = Less CO₂
Cowspiracy.com

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



RSPO.org



Worldwarzero.com

Become a fan of *Nature Discovery* on Facebook!

NATURE DISCOVERY 5900 N. Williamston Road Williamston, MI 48895

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