

THIS ISSUE

Spring Break Day Camp Tuesday

Coffee Break, April 7

Sunday, April 9 / Six Swallows

Around the State in April

SAAS Hosts Michigan Snakes Alive

Summer Day Camp Schedule

March for Science, April 22

It's Not Hard to Know Your Garters



Throughout Michigan the Eastern is the “default” garter species. We easily see 15 to 20 Eastern Garters for any one of the other two species combined.

Before we get into the meat of the topic let's get one thing straight... It is NOT a “gardener” snake. Furthermore, the correct term, “garter,” is actually not a snake species, but a genus – *Thamnophis* - of which there are about ten species east of the Rockies. Three can be found in our state, but lacking awareness of this diversity means most Michigan citizens are rendered incapable of knowing which species they have encountered in a given moment outside. It is important to be able to do so, though, for a couple of reasons.

First, from a personal perspective, differentiating between our state's three garters makes one's time outside more interesting. This is still another example of what we try to impress, in general terms, countless times a year in our newsletters and at presentations and exhibits... Recognition of natural diversity in the environment makes your time in it more interesting. This knowledge also instills a sense of value toward it along with an associated impetus to preserve it. The health of the environment as a whole is benefited with every step taken toward natural diversity awareness.

Michigan's three species are the Eastern Garter (a subspecies of the widespread Common Garter), the Northern Ribbon Snake (a garter without “garter” in its common name), and the Butler's Garter. The second reason to get to know the garters relates to the plight of this diminutive species; it has experienced tremendous population declines throughout its range in the past twenty years. Although all three species wear the dorsal stripes that help us to identify them as garters, each exhibits specific field marks that, when noted, can help anyone identify the species with confidence. In fact, I often tell audiences that if I get a good look at any Michigan garter snake's head for a mere second, I know which one it is – and so can any third grader, with a little practice.

We refer to the **Eastern Garter** as our state's “default” garter for a couple of reasons. First, the species can be found in any natural habitat in every county, including the U.P. Secondly, even within the ranges of the other two species it is, by far, the most commonly-encountered. I think Carol and I must easily see fifteen to twenty Easterns for every one of the other two combined. So, the next time you see a garter, don't forget to use what we call “The Law of Commonality.” Assume it's an Eastern until you can prove to yourself it is one of the others.

The Eastern is the only Michigan garter with a green background color on either side of a lighter-colored dorsal stripe. The shade of green is almost never bright. A grayish or “army-fatigues-green” background seems to be most common in individuals inhabiting the southern Lower Peninsula. However, this species also exhibits the most color variation of the three, and some individuals lean toward a brownish-green hue. Other individuals may show a thin, rusty stripe on the lateral scales that border the belly scutes. In general, it also appears that the background color of individuals darkens the further north you find them. In U.P. snakes, the green hue approaches black.

This is the largest and - especially in the females - the girthiest of the three. With age, a female may attain a length of three feet or more. All male garters are substantially shorter and slimmer than the females. Like many other snakes, garters mate as they emerge from hibernacula in the spring. Thus, when you encounter any female, two years or older, during the summer she is most assuredly pregnant. Females carrying developing young bask often, usually not far from easily accessible cover should danger approach. Come August, a large one may live-birth thirty or more offspring.

Easterns feed almost exclusively on worms and small amphibians. Since worms can be found in any backyard you might wonder why this snake would not be found in inner city neighborhoods. Car traffic might have something to do with it. Assuming a typical garter needs about a quarter acre to constitute a home range, cityscapes are comprised of such a close crosshatch of streets that even this most common garter snake would not survive long before being flattened.



Note the strongly-contrasted pattern and bright white chin exhibited on a Northern Ribbon Snake.

A female **Northern Ribbon Snake** can rival a female Eastern in total length, but this is a notably slimmer species. Its dark brown background looks black in any light other than full sunshine. Bright yellow dorsal and lateral stripes create a striking contrast. Its long, slim tail tapers to an extra fine tip and can reach up to ten or twelve inches - nearly twice as long as that of a similar-sized Eastern. All Northern Ribbons have bright white chin scales. The white continues onto the row of scales above the mouth. The other garters exhibit a yellowish chin and cheek.

The Northern Ribbon is found in appropriate habitat in any county but only in the Lower Peninsula. Since it strictly consumes small amphibians and fish, “appropriate habitat” is defined as usually in, or not far from a wetland. It is worth stating that around most wetlands you are still more likely to see an Eastern over a ribbon snake, but occasionally you may discover that a specific wetland supports a remarkable abundance of this species.

The female **Butler’s Garter** - by far the smallest of the three - rarely exceeds two feet in length. Its background color is dark brown, but not near black like that of the ribbon. Similarly to the ribbon, a yellow dorsal stripe is accompanied by a stripe along each side. The size and shape of the head is a reliable field mark. Whereby the head of the Eastern or ribbon balloons somewhat wider than the neck behind it, the head of the Butler’s seems no wider than the neck. The effect is as if the head is one size too small for its body. In presentations we sometimes refer to it as “wormy” or “shrunkened.”

The Butler’s occupies appropriate habitat strictly in the eastern half of the L.P., then, not much further north than Saginaw Bay. Soils to the west and north are too sandy. After a rain, they drain and dry much more quickly than loamy soils to the south and east, therefore, making it much less habitable to earthworms - the Butler’s Garter’s dietary mainstay. For this species “appropriate habitat” means overgrown, grassy and/or weedy fields with abundant open sky above. I never once recall seeing this species in the woods.



Note the "shrunk" head on this diminutive female Butler's Garter. Turkey food?

In the cases of many declining species loss of habitat is a common theme. However, over the past two decades or so, Butler's Garters appear to be disappearing from habitats that, from our perspectives, seem perfectly intact. While research has yet to yield definitive conclusions we can't help taking note of this snake's inverse trajectory to populations of the Wild Turkey.

Reintroductions began in the late 80s. People were thrilled at the sight of these new, huge fowl as they thrived and expanded. By the late 90s turkeys had become commonplace. Now, they are so abundant across rural landscapes that no one can argue that the Wild Turkey's reintroduction hasn't been *wildly* successful. Much of its success is due to its eclectic diet. Nearly any grain, berry,

invertebrate or small vertebrate animal is ripe for the pecking. The Butler's Garter happens to fit the bill at any age.

The Michigan DNR is aware of this snake's decline. You might see the Butler's Garter qualify for state-protected, "special concern" status in the near future. In the meantime, with your newly-acquired identification skills you can help monitor existing pockets of habitat in which they may still survive. Although we haven't seen any on or near our property in about twenty years we still occasionally find some in various Mid-Michigan locales.

Go to <https://www.miherpatlas.org/> to download an app on your phone that allows you to instantly submit your discoveries along with the exact GPS coordinates, not just of the Butler's Garter Snake, but of any other Michigan reptile or amphibian, as well. This is an engaging outdoor quest for the whole family no matter where you find yourself in the state - while aiding the DNR in monitoring herpetofaunal populations at the same time!

During next Sunday's open hours ask to see the three species of Michigan garters we have on hand here. You can test yourself after reading this column! Then, we will feed each of them their foods of choice – fresh worms and frogs.

-Jim McGrath

Spring Break Day Camp This Tuesday!

There are still openings for children, K & older, at Nature Discovery's Wildlife Day Camp this Tuesday, April 4. See the March newsletter for details. Contact us to enroll.

Catch Us on LCC Radio's Coffee Break Friday, April 7

Jim is scheduled to appear on Friday, April 7 at 9:45am, discussing various spring things. The show airs weekdays from 9 to 10am on 89.7 FM. Listen live online at lcc.edu/radio/onair/ or watch it live (or later in the day at 6pm) online at lcc.edu/tv/watch. We'll post a reminder on our Facebook fan page.



Six Swallows

Swooping

Sunday, April 9

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



The Barn Swallow has the most deeply-forked tail of Michigan's six swallows. Photo by Greg Smith.

Throughout April six species of swallows that breed in Michigan migrate back into the state after overwintering in the tropics. At 2pm sit-in on our original Powerpoint presentation, ***Six Swallows Swooping***. Beautiful color images and audio recordings are used to help participants learn the identification, behavior and ecology of Barn, Tree, Rough-winged, Bank, and Cliff Swallows, as well as the continent's largest, the Purple Martin. Also learn where to go to find each species and which ones you can attract to your rural yard. Weather-permitting, at the presentation's conclusion participants are invited to visit a nearby wetland to look for and identify some early arrivals.



As always, before, during or after the presentation spend time visiting our huge interactive Michigan Reptiles & Amphibians Zoo. "Wear" a Black Rat Snake, identify and feed all 10 state-native turtles, drop crickets to frogs and toads. Staff is on hand to help you make the most of your time here. Photo ops galore!

Around the State in April

- ❖ ***Wednesday, April 5: 2pm. MI Reptiles & Amphibians Presentation; Plainfield Twp Library, Hale.***
- ❖ ***Friday, April 7: 4pm. MI Frogs Presentation; Oceana Conservation District, Hart.***
- ❖ ***Saturday, April 8: 10am-4pm. Michigan Snakes Exhibit; MSU Science Festival, East Lansing.***
- ❖ ***Thursday, April 20: 9am-2pm. MI Reptiles & Amphibians Exhibit; MDEQ Earth Day Celebration, Constitution Hall, Lansing.***
- ❖ ***Saturday, April 22: 1-5pm. MI Reptiles & Amphibians Exhibit; March for Science, Lansing.***
- ❖ ***Wednesday, April 26 5:30-7:00pm. MI Reptiles & Amphibians Exhibit; Okemos Public Montessori, Central School, Okemos.***
- ❖ ***Saturday, April 29: 1pm & 3pm. MI Snakes Presentations; DeGraaf Nature Center, Holland.***



“100 Michigan Birds” Tour, June 12-16



Upland Sandpiper. Photo by Andrew Nowicki.

Join our economical 5-day guided tour for a small group of adults that starts locally and ends Up North! Our goal – to encounter at least 100 species of birds through the week. Weather-permitting we should easily surpass it! Monday and Tuesday of the week involves visiting natural areas within an hour drive for specialty species and more. On Wednesday morning we will head up to jack pine country (Higgins Lake area) to bird Kirtland’s Warbler habitat and other nearby natural areas.

COST: \$500 (\$250 deposit), includes all transportation and two nights lodging. Enrollment is limited to 5, so contact us soon to ensure your space. Preference will be given to those who enroll for the entire week. If the roster is not full

by May 15, those who only wish to participate in one, two or three days of the week can enroll while spaces are available. Contact us to check on the pro-rated cost.

SAAS Keeps Snakes Alive thru Education

For the seventh consecutive year Straits Area Audubon Society, based in Cheboygan, raised funds to arrange for Jim to visit northern Michigan schools in March with Nature Discovery’s *Michigan Snakes Alive* program. This year they raised more than ever, which allowed for four whirlwind days of presentations - mostly to 5th grade students - in Cheboygan, Indian River, Onaway, Wolverine, Mackinaw City, Pellston and Petoskey. SAAS also funded two evening programs at Cheboygan Public Library, one featuring Michigan snakes, the other on “Birding by Ear” for the SAAS monthly meeting.

Thank you to donors, Nancy Waldron, Straits Area Community Foundation Youth Advisory Council, Awakon Federal Credit Union, Citizens National Bank, Kathy Swanson, SAAS Youth Fund, Petoskey Montessori Children’s House, and Petoskey Cooperative Nursery School.

Thank you to the following volunteers took the time to attend programs and assist audiences with up-close opportunities and handling: Kathy & Jim Bricker, Eowyn Bates, Dale Giddings, Rosanne Rynerson, Dennis Mikus, Jean Moberly, Jackie Pilette, and 6th grade student Thomas Tafoya.

After participation in the experience here is what Mackinaw City resident and business owner, Dennis Mikus had to say: *I was amazed anyone could accomplish what Jim McGrath did. At the outset of his talks, several students in each class pushed their chairs back and were poised to flee the room. By the end of the hour all were eager to hold the snakes and even “accessorize,” wrapping snakes around their necks.*



Petrified at the onset, this Onaway 5th grader feels comfortable enough at the presentation’s conclusion to hold a snake for the first time in her life.

Special thanks to Kathy & Jim Bricker for graciously hosting Jim and his legless travel companions at their home over the course of the week.

2017 Summer Camp Schedule

is on our website now! Click this link:

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

Join Us at Lansing's March for Science, April 22

As the Trump "Alternative Facts" Circus strips away one scientifically-based environmental regulation after another, shows of resistance are imperative. The National March for Science happens on Earth Day, April 22. Please join Nature Discovery and a host of others at The Capitol to show your support if you feel that a healthy, sustainable world through scientifically-based knowledge and policy should take precedence over the reckless and self-serving whims of this administration.

Nature Discovery will set up an interactive display of native Michigan reptiles & amphibians to help participants experience some species destined to be imperiled if the current administration is given free-reign. Stop by and say hi, or spend time with us to help spread the word!

"Science is what makes our world what it is. To have a movement or a tendency to set science aside is in no one's best interest ... but nevertheless, that's what's happening in the U.S." – Bill Nye

<http://www.commondreams.org/news/2017/03/31/trump-wages-war-science-energy-grows-worldwide-march-science>

https://www.washingtonpost.com/news/speaking-of-science/wp/2017/03/30/bill-nye-will-join-the-march-for-science/?utm_term=.fb2beb6eb571

<https://www.facebook.com/MarchForScienceLansing/>

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–JM

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