

THIS ISSUE

Sunday, August 14 / Feeding Frenzy

Around the State

Coffee Break, August 26

2015 Record Warm; 2016 Warmer Still.



Polyphemus GO

We walked with purpose up and down city streets for miles, for hours, on a warm summer afternoon in search of a special reward. Playing Pokemon GO? Get real. No, really, this one exists in the *real* world, rarely found by accident, but eventually found if you follow the *real* clues and hone the *real* search skills to find it. Tree climbing skills and occasional, ill-advised risk-taking also come in handy... I'm sure my mother would have never let me out of the house if she knew the risks to life and limb her fourteen-year-old son was taking.

In our June 2014 newsletter I wrote about, at age twelve, my abrupt and frightening introduction to the Polyphemus Moth, one of several huge, colorful giant silk moth species that inhabit The Midwest (<http://naturediscovery.net/pdf/WILD%20TIMES%20June14%283%29.pdf>). The incident made such an impression on me that, decades later, we've developed a giant silk moth "farm" maintained with an eye on offering educational opportunities that ultimately enhance their ability to survive in the wild. Populations of giant silk moths, including the Polyphemus, Cecropia, Prometheus, and especially, the Luna, have undergone precipitous declines since the 70s. Every June we offer the presentation, *Finding & Rearing Giant Silk Moths*, on our open Sunday. We are also contracted by nature centers and other educational venues to give the presentation in which all participants can take home larvae of the moths to raise along with detailed care instructions. Larvae are also available for sale through the first half of the summer via our website. Raising them safe from a slew of natural and man-made dangers, then overwintering the cocoon and, ultimately releasing the impressive, beautiful moth when it emerges the following June is actually beneficial to the species, not to mention an interesting and fun summer project.

Within a couple years of that initial discovery my friend, Goose, and I had become remarkably proficient over the winter at finding the cocoons of Polyphemus and Cecropia Moths. It was only natural that we would follow the metamorphic trail and begin to try our hand at locating the caterpillars. Early in the summer we knew they would be too small and too difficult to find among a sea of silver maple leaves over our heads, but by late July and August the nearly-full-grown caterpillars of the largest moths on the continent offered up clues of their presence to the inquisitive human. Despite their size, though, they were often maddeningly-difficult to put an eye on. The Polyphemus, especially, has the

camouflaging ability to melt into a surrounding sea of backlit green leaves while perched in full, unobstructed view over your head.

At the time, the silver maple was possibly the most popular tree planted by The City along residential streets. While these caterpillars feed on the leaves of a variety of trees Goose and I walked the streets cruising mostly for maples because of the especially high rate of larval returns. Of course, we quickly became very good at spotting and identifying silver maples as much as a full city block away, not by the shape of their leaves - too far away - but simply by the color of the bark and the overall contour of the foliated branches.

The route taken on a given day from our Northwest Side 'hood was loosely-planned. We ambled down a residential street in a certain direction, then, upon reaching the next intersection, would stop to survey three new directional options: the block straight ahead, or the one to the right or left. Whichever appeared to have the most silver maples lining it was the chosen direction. In this manner we would zig-zag for miles through adjoining neighborhoods.

As we approached a maple towering over the lawn between the sidewalk and the street, usually in front of a city house or apartment building, our eyes would never be fixed on the branches themselves despite the fact that this is where the caterpillars were. Our four eyes were riveted, instead, to the sidewalk that ran under them. By far, most sidewalks did not yield the clues we were looking for. This ended up being fine by us. If the treasure was too common or too easy to come by, it most certainly would lose its vaulted status. Why bother with banal?

As we approached a specific tree, however, perhaps from nearly one hundred feet away, one or both of us would begin to discern a smattering of dark pinpoints on the pavement in the shade of a maple. With keen anticipation we would break into a run. Once reached, the “pinpoints” from afar had grown to nearly a quarter-inch in length, cylindrical, and nearly as wide. Droppings from a *very* large caterpillar straight overhead! We didn’t call them *droppings*, though. Fourteen-year-old jargon for *droppings* was *turds*. As many as twenty or more were scattered over an area over three feet in diameter. Gazing upward into a jumble of green branches we had to have a way to fine-tune our search for the camouflaged turd-dropper. We would immediately kneel and begin to methodically press each one against the concrete sidewalk with the tip of a finger. Most were dry after being baked on the pavement by the summer sun. Eventually one was pressed and found to be soft and “fresh” - the latest dropping to fall. Goose or I would stand with the fresh turd positioned between his feet and look straight upward. Only a handful of branches were in alignment with the most recent dropping. (A caterpillar seems to produce a dropping about every fifteen minutes, so, sometimes, yes, we looked up in time to take one off the forehead. It was one of the few times Goose was glad he wore glasses.)



Still, the girthy caterpillar, a good three inches in length, was not evident. So, we started to look for another clue to help us zero-in on the exact branch – the leaf stems, or petioles, *without* the leaves. At this size a single caterpillar eats ten or more whole leaves a day. After a leaf is consumed the petiole by which it was attached remains. It usually didn’t take us long to pick out the branch on which leafless stems were liberally scattered.

At times, it would take us fifteen minutes or more before one of us spotted the prize. Other times we strained our eyes against the filtered rays of the sun in vain. We would reluctantly give in, then continue down the street in search of another occupied tree.



This large Polyphemus caterpillar melts into the surrounding backlit foliage. It is located slightly above the center point of the photo.

We competed over who could spot the caterpillar first, followed by a sense of elation when a pair of scanning, squinting eyes abruptly settled on a fat Polyphemus, so perfectly camouflaged to its surroundings. From below, the lines separating the segments perfectly mimicked the veins of the leaf to which it clung. The yellow-green hue was spot-on with that of the backlit leaf. We would often gaze in awe at the perfect match - early stirrings of awareness over the power and beauty of evolution.

Then, we would get to work. We took turns between roles of climber and booster. The tree trunks were usually wide enough and the lowermost branches high enough that one of us would have to scale it by stepping into a stirrup the other one made with two hands and meshed fingers. Then we would push/heave on the count of three. Once the climber was able to grasp the lowermost branch the booster would shove him upward by the rear, by the soles of the sneakers, or by wedging his shoulders under dangling feet for support.

Surrounded by a jungle of scratching twigs and obstructing foliage the climber's perspective was thrown for a loop. Verbal guidance from below was necessary to locate the target branch. The wide bases of the limbs that

grew out of the trunk were not unlike rungs on a ladder – thick, stable, unswaying. However, the caterpillar to be retrieved seemed always to be situated well out of reach from where the footing was firmest. Of course, the branch tapered as it extended horizontally away from the trunk - steadily thinner, more flexible, more densely-foliated, and more likely to crack under the weight of a teenage body.

The best technique required standing on the branch immediately below, then, while grasping another branch near chest-height, begin to inch outward toward the caterpillar. With each minor shuffle the branch bearing the weight would lean downward a few degrees. We found that living branches are amazingly pliable! Finally, the climber reached a point where he could stretch and strain an arm far enough out on the thinning limb that he could begin to bend it backward in his direction. Eventually, came a snap and release. The end of the branch was firmly in hand, the caterpillar clinging among the leaves. If there was an opening to the ground between the limbs the climber would carefully drop the branch into the arms of the one on the ground. If not, two hands were definitely required to get down. The climber would clench the stem with dangling caterpillar between his teeth for the descent.

Sometimes a branch we stood upon snapped while one of us was creeping out on it. In a panic, we would grab frantically at anything in reach on the way down. Each time we fell – sometimes from as high as twenty feet – the fall was slowed by the branches we hit on the way down. Luckily, in retrospect, we walked away from each incident with nothing more than bruises and scrapes.

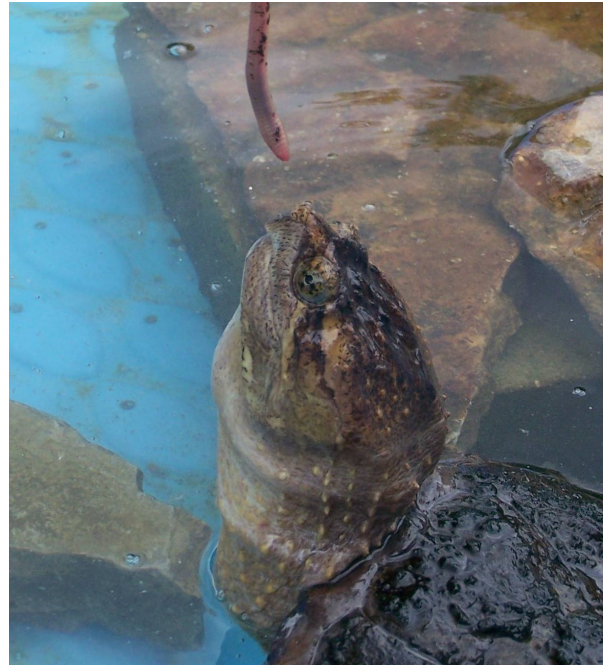
At times, we were interrupted by an adult stepping out a door and yelling at us to get out of the tree. We would politely walk up to the porch and show them a huge caterpillar taken from a previous tree. “One of these is in your tree eating the leaves.” The reaction ranged from surprised to horrified. Most quickly gave their blessings for us to get back up there and rid their tree of the beast. One man, military-gruff on the outside, but wanting to be helpful, turned our quest for the Polyphemus in his tree into the easiest catch of them all. He insisted on pulling his ladder out of the garage, then held it firmly against the trunk for us. “GO,” he barked. I doubt it ever occurred to him that he was taking the fun out of it.

-Jim McGrath

Feeding Frenzy

**SUNDAY,
AUGUST 14**

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



Who doesn't love feeding time at the zoo? That's why we've set up a whole afternoon of nothing but... With over 100 hungry Michigan-native reptiles and amphibians of 46 species, plus an always-hungry red-footed tortoise, plus an array of butterfly and moth caterpillars, there will be a LOT of feeding. Throughout the day, knowledgeable staff is on hand to mingle with visitors, giving everyone up-close opportunities to watch snakes, turtles, frogs, salamanders and lizards eat a wide variety of foods – fruits and vegetables plus many kinds of small animals, including worms, slugs, insects galore, fish, frogs, toads and even mice.

- We'll provide nets for you to catch your own insects around the yard and on the trails to feed to frogs of all 13 species found in the state. Tree frogs will take one right out of your fingers!
- Feed food sticks, worms and fish to 20 aquatic turtles in small pools on the patio. Small ones will take food right

out of your fingers!

- Watch our large snapping turtle take a stroll on the lawn, then watch it chase minnows in a pool.
- Feed berries to our box turtle and tortoise.
- Learn to identify all 3 species of Michigan garter snakes then watch them eat worms, fish and frogs.
- Hold specimens of all sizes of the Black Rat Snake, Michigan's largest. Then, watch some of them eat frozen, thawed mice.
- Meet 9 species of Michigan salamanders, then watch them eat worms and insects.
- Watch caterpillars of various butterflies and moths devour leaves of a variety of native trees.
- Staff is always on hand to help visitors of all ages make the most of their visit.



See the huge, coarfully-adorned Cecropia Moth caterpillar in addition to other species, each feeding on the leaves of a particular tree or plant.



Catch Us on Coffee Break Friday, August 26

Jim is scheduled to appear on Friday, August 26 at 9:15am, discussing a Michigan wildlife topic. 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.

Around the State in August

- ❖ ***Saturday, August 6 7:30pm. MI Turtles Presentation; Hartwick Pines SP, Grayling.***
- ❖ ***Sunday, August 7: 1:30pm. Seldom Seen Herps Presentation; Hartwick Pines SP, Grayling.***
- ❖ ***Thursday, August 11: 6pm. MI Reptiles & Amphibians Presentation; Albion Library.***
- ❖ ***Friday, August 12: 2pm. Michigan Reptiles & Amphibians Presentation; Canton Library.***
- ❖ ***Saturday, August 13: 7:30pm. MI Turtles Presentation; Brandon Twp Library.***
- ❖ ***Saturday, August 20: 10:30pm. MI Turtles Presentation; Huron Co Nature Center***
- ❖ ***Saturday, August 20: 12pm. MI Butterflies Presentation; Leila Arboretum, Battle Creek.***
- ❖ ***Sunday, August 21: 10am to 2pm. MI Snakes Exhibit; Williamston Farmers Market.***
- ❖ ***Saturday, August 27: 11am to 2pm. MI Reptiles & Amphibians Exhibit; For-Mar Nature Center, Burton.***



2015 Record Warm; Now 2016 Poised to Shatter That

For your perusal... Let's heed the scientific consensus, then adjust our activities now, accordingly and responsibly, based on that knowledge.

<http://www.commondreams.org/news/2016/08/02/climate-change-here-and-now-dire-noaa-report-warns>

<http://blogs.discovermagazine.com/imageo/2016/07/19/first-half-2016-warmest-on-record/#.V6PTXJgrKM8>

<http://blogs.discovermagazine.com/imageo/2016/07/18/broiled-alaska-soaring-temperatures-crackling-lightning-cause-wildfires-to-ignite/#.V6Tc2pgrKM8>

<http://blogs.discovermagazine.com/imageo/2016/07/22/blanket-of-smoke-from-siberia-fires-can-be-seen-from-1-million-miles-away-in-space/#.V6TdeprKM8>

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