

**THIS ISSUE**

- Raise Giant Silk Moths this Summer*
- Coffee Break, June 7*
- Sunday, June 9 / Giant Silk Moths*
- Summer Youth Camp Openings*
- Around the State in June*
- Cedar Creek Vets*
- Attacks on Climate Science Intensify*

***Invasives Update a Bittersweet Reality***



*The miniscule flowers and finely, prickly mien of catchweed bedstraw. Tiny hooklets allow it to stick to other plants, fur, clothing and nearly anything else that it contacts.*

Examples of resiliency in nature abound. Unfortunately, even the most stable of systems eventually succumbs to incessant pummeling by human encroachment and its side effects. This spring I noted a glimmer of this resiliency while on my near-daily, annual, springtime quest to remove garlic mustard from our six-plus acres before it goes to seed.

In explaining to school children the set of circumstances that make garlic mustard and other alien invasive plants so insidious to the local ecology I combine its ability to profusely drop and disperse seeds with the



fact that nothing in our natural communities will recognize it as palatable; no deer will touch it, no rabbit will nibble it, no caterpillar or any other native insect will munch it. Thus, it is free to spread unfettered - and does - to the detriment of the plant life that is supposed to be growing here and, by extension, the animal life that depends on it.

When I caught sight of a garlic mustard that appeared to have been neatly cropped halfway up the stem it barely registered. After all, any of an array of environmental incidents can result in a snapped stem. However, over ensuing days, when I spotted one more lobotomized mustard, then another and another, the ideation took hold: *Is something here really starting to eat it?* The plants appeared to have been grazed by a mammalian herbivore. Deer are constantly passing through our sub-climax woods, but, although we see them much less often than the deer, woodchucks are here too. I've located a few burrows and associated "runs" in the undergrowth. Where did I note the most grazed mustard plants? Within thirty feet or so of each of these burrows.

Having *never* noticed it in some twenty previous years of pulling, this spring I've probably spotted close to one hundred grazed garlic mustards. That may seem like a lot until it is taken within the scope of multiple thousands I've pulled so far – significantly less than one percent of the crop. We can only keep our fingers crossed that it marks a shift toward increased consumption by woodchucks and possibly other herbivores. Its actual nutritional value to these large herbivores remains to be seen. Indeed, maybe they are eating it for lack of other, more suitable forage as invasives take up increasingly more space in the environment.

Scintillas of good news in relation to the plights of ecosystems continue to be shrouded by an ominous blanket of unsettling trends though. In the last half dozen years another invasive has entered the mix on our property and beyond, but strangely, this one is thought by most to be *native*.

We've always noticed the presence of catchweed bedstraw (*Galium aparine*, a.k.a., cleavers, sticky-willy, and more) since we moved here some thirty years ago but as an apparently balanced member of the open woodland community. Why has it suddenly exploded into invasive status within the past several years? A search for correlations makes my own speculations settle on fossil fuel emission-generated changing climate. Ever since that roasting-hot spring and summer of 2012, springs in the Midwest have been quite consistently cool and wet... *very* wet. Are these conditions particularly advantageous to its growth and reproduction?

Catchweed bedstraw is a fast-growing annual that rushes through its lifecycle in a matter of weeks. By early June it produces and drops the seeds that will grow into next spring's crop, then quickly desiccates. The sticky seeds hitch rides on animal fur and clothing allowing them to disperse effectively into new habitats. Therefore it is imperative to pull or rake bedstraw where it grows *before* it goes to seed, but better do it quickly if you are going to act this spring. Much of it on our property is producing seeds as I write. On a side note, this plant is known to possess a long list of nutritional and medicinal properties and usages. Details are easy to find online.



*Bedstraw is a native annual that has gone rogue in recent years. It can cover other plant growth like a blanket. Pull it early before it seeds to avoid a bumper crop next spring.*

The presence and proliferation of still other alien invasives continue to be of much more dire consequence to survival of our forest ecology. I now rank oriental bittersweet at the top of the list – certainly on our property, and on many other forested tracts I've seen in the area. This vine corkscrews up any and all vegetation including healthy trees, then, over a course of years, literally strangles them to death. Entire forests in some local state parks and natural areas are being torn to the ground by bittersweet. These previously shaded domains rich with native wildflower diversity are thus stripped of their leafy canopies. Dense thickets of mostly impenetrable, alien, woody growth move in. Bittersweet vines bind bushy alien buckthorns, honeysuckles and thorny multiflora rose into painfully impenetrable thickets that are sure to keep any hiker glued to the trail.

Can this dire state be reversed? We say *absolutely!* After all, apathy is a defeatist attitude. By harboring such an attitude toward environmental degradation the naysayer grants himself permission to do nothing. Every human is part of the problem but one who chooses to do nothing becomes a much larger and more dangerous part.



*This wild black cherry on our property is engulfed in the grasp of oriental bittersweet. Without human intervention the tree and the forest is doomed.*

On the bright side, look at the sheer volume of people-power available in our communities including the volume of kid-power in our schools. Any group of dedicated individuals working in coordinated unison can wipe out the invasives on any acre of natural area and in so doing, set it on a path to healing. Then, with continued vigilance to keep invasives from returning (not nearly as labor intensive) the resilient nature of the ecosystem can regain a fighting chance at regeneration.

Currently, society has no collective will to do what needs to be done at the scale required. Why? A gaping void in our public school curricula gives students little to no sense of connectedness to, and responsibility toward the natural world that immediately surrounds them. Without the knowledge there can be no connection. Without the connection there will never be a societal will on the level required to combat local invasives, much less the larger, more far-reaching global messes we've unleashed.

We need an "environmental revolution," a broad shift in how we choose to relate to our environment, as soon as possible before it is truly too late. It starts with the individual. Are you in? If so, come on out!

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Attending our monthly open Sundays is a great way to start. Kids and adults can gain an impactful and interesting aspect of connectedness by raising impressive and ultimately huge giant silk moth larvae this summer. We'd be happy to give you firsthand experience in identifying the invasives mentioned in this column on a guided stroll during our open hours on Sunday, the 9th. Details ahead...

- Jim McGrath



*A huge 5<sup>th</sup>-instar Polyphemus larva.*

## *Raise Giant Silk Moth Larvae this Summer*

*A Fantastic Hobby!  
A Unique Gift!*



*A huge 5<sup>th</sup>-instar Cecropia larva.*

*Eggs and young larvae are available for sale now thru early July.*

*Four eggs/larvae (per species): \$12. Additional eggs/larvae \$2 each while supplies last. Includes detailed care instructions. Contact us to make purchase arrangements.*



## *Catch Jim on Coffee Break*

*Friday, June 7*

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

# *Finding & Rearing Giant Silk Moths*

*SUNDAY, JUNE 9*



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

At 2pm, attend our presentation, **Finding & Rearing Giant Silk Moths**. The largest, most impressive moths on the continent can be found right here in Michigan, yet, their numbers have declined dramatically over the past few decades. Beautiful photographs enhance this Powerpoint presentation featuring the life cycle and ecology of Cecropia, Polyphemus, Promethea and Luna Moths. Females have begun emerging from cocoons, attracting mates, and laying eggs. See huge newly-emerged live moths in the “mating cage,” and more!

Then, take advantage of this unique opportunity. All paying participants will receive three fertile eggs to hatch at home. The caterpillars can then be reared over the summer. Detailed care instructions are also provided. This is an AWESOME summer project for enthusiasts of all ages!



Come early or stay late to interact with the largest collection of live Michigan reptiles and amphibians in the state, including The Grand Slam of Michigan Turtles – all 10 species native to the state! Lots of interactive opportunities with snakes, frogs, salamanders and tortoises, too. Photo ops galore!

A guided walk on our trails will also take place after the presentation to help participants become familiar with a number of invasive plants.

*See and feed the state-threatened Spotted Turtle here on Sunday.*

## Summer Youth Camps at LCC East

Carol will be teaching 4-day summer science camps for students entering grades 2-9 at LCC's East Lansing Campus. Check out the schedule below, which offers hands-on fun with Chemistry, Physics, Math, Engineering, Natural Science, Building Machines and Robots. Morning classes, 9am-noon. Afternoon classes, 1-4pm.

July 8-11: AM - Science Wizards (Gr 2-3). PM - Pond Life Explorers (Gr 4-8).

July 15-18: AM – Rockets & Robots (Gr 6-9). PM – Classroom Arcade (Gr 4-5).

July 22-25: AM – Fun with Physics (Gr 2-3). PM – Miniature Golf Challenge (Gr 5-8).

July 29-Aug 1: AM – Build A 'Bot (Gr 4-5). PM – Alternative Energy Projects (Gr 6-9).

For details or to register for Summer Youth Camps, visit [lcc.edu/seriousfun](http://lcc.edu/seriousfun) and click on the summer tab.

## Around the State in June



- ❖ Saturday, June 1: 9am-1pm. MI Reptiles & Amphibians Exhibit; 2pm. "Birds of the Jack Pine Habitat" Presentation; Kirtland's Warbler Festival, Roscommon.
- ❖ Saturday, June 2: 10:30am. Giant Silk Moths Presentation; DNR Outdoor Adventure Center, Detroit.
- ❖ Saturday, June 8: 10am-2pm. MI Turtles & Snakes Exhibit; Get Outdoors Day, Baldwin.
- ❖ Sunday, June 9: 2pm. MI Turtles & Snakes Presentation; Gerald Eddy Environmental Center, Chelsea.
- ❖ Saturday, June 15: 12-3pm. MI Reptiles & Amphibians Exhibit; Wild Birds Unlimited, Ann Arbor.
- ❖ Sunday, June 16: 10am-2pm. Giant Silk Moths & MI Salamanders Exhibit; Eastern Ingham Farmers Market, Williamston..
- ❖ Thursday, June 21: 10am. Field Guides Come Alive; Saranac Public Library.
- ❖ Thursday, June 21: 10am. Field Guides Come Alive; Clarksville Public Library.
- ❖ Friday-Sunday, June 21-23: 12-4pm. MI Reptiles & Amphibians Exhibit; Milliken State Park, Detroit River Days.
- ❖ Saturday, June 29: 11am-3pm. Michigan Reptiles & Amphibians Exhibit; Art in the Garden Festival, Gaylord.



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## *Attacks on Climate Change Science Intensify*

We will no longer soil the pages of this newsletter with the name of he-who-shall-(heretofore)-not-be-named, so we'll suffice it to say that the "current" administration, to serve its fossil fuel producing bedfellows, is still further intensifying efforts to discredit and eliminate the underlying scientific study that should be driving governmental policy to combat the effects of climate change for the sake of our country and the world. Catch this unsettling episode of *On Point* which aired on May 29 to find out exactly how their doing it: <https://www.npr.org/podcasts/510053/on-point>

-JM

*The next generation would be justified in looking back at us and asking, "What were you thinking? Couldn't you hear what the scientists were saying? Couldn't you hear what Mother Nature was screaming at you?" -Al Gore*



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