



THIS ISSUE

Invasives ID & Removal by Appointment

Visit Our Nature Center by Appointment

By Appointment at Dawn or Dusk

Summer Day Camp Update

Thank you, Donors!

Ecosystems & Indigents; Plastics-addiction

***“Ctenucha?” Better to Call It the
“Iridescent Grass Moth”***

Like most gardeners this time of year we spend a measurable amount of time in close proximity to the ground. However, the lion’s share of our time is spent “gardening” the natural landscape around and beyond our country lawn – cutting, pulling, and otherwise beating back an onslaught of invasive plant life that diminishes natural diversity.

Encounters with varied invertebrate life on and near the ground are inevitable: from a disturbed ant colony, to a roving, iridescent blue-black blister beetle or a queen bumblebee, bulbous and buzzing, perhaps a bit too close for comfort.

In a rural setting in late April or May your eye may fall upon a small, fuzzy, elongated, bristly mass adorned in a varied pattern of yellow, black and white, perhaps clinging halfway up a green blade within a patch of unmown grass. If you bump or touch the caterpillar, it suddenly releases its grip and falls among the tangled thatch below, curled defensively in a tight, ornately-patterned C-shape. You’ve just encountered the common but broadly-overlooked larva of the oddly beautiful, yet widely unknown Virginia Ctenucha Moth.

Pronounced “ten-oo’-kuh,” the word is derived from Greek origin, meaning “having a comb.” This refers to the perceived comb-like look of the black antennae sported by the adult moth. It resides within the lepidopteran family, Erebidae, the wasp moths. This species however is larger and less wasp-like in appearance than most other members.

With the same purposes you may have for keeping and providing milkweed for a Monarch caterpillar, it is actually *easier* to raise a Ctenucha caterpillar now, and through its eventual eclosure from the cocoon to its adult state in mid-to-late June. Why easier? Well, for one, its food plant, grass, is accessible virtually anywhere.



After raising it as a larva, we released this moth back into the medium which allows its existence.



Care instruction follows our same formula for keeping and raising most small or medium-sized caterpillars. All you need is a clean, standard pickle, peanut butter or salsa jar. Pull or cut a dozen or so grass blades that are long enough to stand upright in the jar. I like to harvest from an unmown patch of grass as opposed to lawn stock. Insert the caterpillar then close the lid, but do NOT punch holes in it. An explanation as to why can be found in the opening column of our August 2017 newsletter, entitled *Bug Jars by Vlasic: The Hole Story*: <http://naturediscovery.net/pdf/WILD%20TIMES%20Aug17.pdf>. Then, every two days or so the jar's contents should be maintained by shaking out the accumulated droppings and providing fresh grass.

The caterpillar you may find in the spring actually hatched from an egg last summer, began eating and growing, then curled up under dense grass roots to spend the winter. On any seasonably mild days in the spring it climbs the grass blades to resume grazing and growing throughout the final weeks of its larval stage. Therefore, you can expect your caterpillar in the jar to be ready to spin a cocoon within days or, at most, a couple of weeks after you've taken it in.

The ovate cocoon is about three-fourths of an inch in length. As with the woolly bear and other hairy/bristly species of tiger, tussock or dagger moths, all the *Ctenucha* Moth caterpillar's protective hairs slough off, stick loosely, and completely cover the silk of the cocoon. No doubt, the easily dislodged and irritating hairs would act as an effective deterrent to a would-be predator who wishes to get at the juicy pupa within. Incidentally, these hairs embed readily into human skin, like minute porcupine quills, if the cocoon is handled. I've never suffered ill effects, but many children and people with sensitive skin may become temporarily itchy or rashy.

Within the jar the spun cocoon may be attached to the grasses, but just as likely to the side of the jar itself. Since there will be no more grass consumed you can now keep the lid off and allow the grass to dry or remove any that is not stuck to the cocoon.



The plainly visible white, yellow and black hairs of the larva are embedded in the cocoon.

When the moth eventually emerges weeks later it will need to expand its wings. The first few minutes out of the cocoon are critical to proper wing expansion. Whether outdoors or in the jar the nubby-winged moth needs to immediately locate a vertical surface onto which it can climb. It then positions itself such that its wings can expand and drape freely as the veins are pumped full of fluid, attain their full one-inch length and dry. This hurdle can easily be cleared by placing a narrow, elongated piece of bark upright in the jar. It is perfectly fine – even preferred – to find or fashion a piece long enough that it protrudes above the jar's lip by several inches.

The process of eclosure happens quite quickly and so you may very likely not be present when it occurs. However, when you pass the jar on a particular day you'll be pleasantly surprised to find the handsomely iridescent dark moth, fully expanded as it clings to the bark. If a full day passes without your noticing that the moth has emerged you may discover it fluttering against a brightly lit window.

Although *Ctenucha* Moths occasionally show up after dark at our patio light this species has strong diurnal tendencies. It can be seen nectaring alongside butterflies, bees, beetles and flies at various flowers that

blossom in late June. Wild Ctenucha Moths in our yard are especially attracted to the Staghorn Sumacs which border the south side of our country lawn. They happen to flower in perfect synchrony with the moths' emergence.

You might initially come to the conclusion that with a species able to feed on something as ubiquitous as grass (They also feed on many sedges and irises.) this moth must be *everywhere*. Not so. As a boy naturalist I never saw Ctenucha Moths in any stage of their lives in inner city Chicago. Nor are you likely to find them in the middle of a large subdivision. Ctenucha Moths need grass that is allowed to grow in some semblance of a natural existence; not subjected to a mandatory crew cut every six to ten days. A spinning mower blade does to the Ctenucha Moth's reproductive success what it does to the lawn over which it passes. The mowed grass continues to grow but not so the mowed caterpillar.

Are you likely to find a Ctenucha caterpillar this spring in your immediate neighborhood? Just look around. How much grass is visible that is allowed to grow, unfettered by our propensity to cut it? In many city and suburban neighborhoods there is none. Would you like to find a larva to raise through the rest of its life cycle? Keep your eyes open anywhere there is unmown grass now, because within a couple weeks the last of them will have spun cocoons.



A 4th instar larva. The 5th and final instar is much paler and lasts about a week before cocoon-spinning begins.

So far, while engaged in outdoor tasks over the past few weeks I've stumbled across six separate Ctenucha larvae along the edges of our country lawn and among the grassy overgrowth. I've kept and maintained them to use in natural science lessons at Montessori Children's House in Lansing, Stepping Stones Montessori in East Lansing, Okemos Nursery School, and in other schools. So far, I have left three Ctenucha larvae in classrooms so students can continue to care for them and witness their metamorphosis. I have one more that I am willing to give to any interested teacher, parent (or grandparent) with an eye toward educating youth. Just contact us, but make it soon while it is still in its larval state.

-Jim McGrath



Invasives Identification & Removal

Make an appointment any day to take a guided tour through our natural area. Learn to identify a host of invasive growth that is destroying the ecological integrity of natural areas on public and private properties throughout the area, including oriental bittersweet, Amur honeysuckle, multiflora rose, autumn olive, garlic mustard, dame's rocket, catchweed bedstraw, Japanese hedge parsley, and more. Removal techniques are demonstrated *without* the use of herbicides.

Our fee is only \$5/person/hr (min. \$15 for the 1st hr), and open to individual adults or individual couples or families. A similar tour can be arranged on your property or at a natural area of your choosing. Same fee plus a small mileage fee. Contact us!

VOLUNTEER! Can you help us clear invasives out of our woods? If you have some time to spare AND you like working outside AND you like working in the soil AND you would like to do something that's good for the environment AND you like being surrounded by the sights, smells and sounds of the month of May, please contact us! It's a great outdoor service endeavor for teens!



Nature Discovery

5900 N. Williamston Road
517.655.5349

Williamston, MI 48895

naturedisc87@gmail.com www.naturediscovery.net



Visit Our Nature Center by Appointment

**Suggested Minimum Donation:
\$5/person/hour**

The sky's the limit for natural science learning here – with a Michigan twist! Individual adults, couples, individual families and small groups are welcome to schedule a safe, intimate outdoor or indoor visit to what we call “The Biggest Little Nature Center in Michigan,” and “Home to the Largest Zoo of Michigan-native Reptiles and Amphibians.” The unique, in-person, hands-on experiences here are a welcome relief to a student’s screen-learning time! We will bring snakes, turtles, frogs and salamanders out of tanks to interact with adults or students of any age or grade-level. Visitors are required to wear a mask during all indoor time.

Identify and feed “the grand slam of Michigan turtles,” all ten species native to our state, as they swim in pools at your feet! Meet, pet and feed “Milberta”, our always hungry Red-footed tortoise.



Handle any or all of Michigan’s three species of garter snakes while learning how to tell them apart, then watch them gobble up worms and live frogs. Hold or “wear” a gentle 6-foot Black Rat Snake – the largest in the state!



Many more snakes, turtles, frogs and salamanders to identify and feed. Take a guided walk on our trails to identify birds, insects, trees, vines, and invasive plants.

Ask about arranging weekly or monthly visits, or regarding custom natural science lessons to supplement your student’s interests and grade-specific science requirements.

Contact us for more info or to make an appointment.

By Appointment at Dawn or Dusk

Guided Birding

By appointment almost any morning! Did you know there are more birds to be seen and heard here in May than in any other month of the year? Jim will lead any individual, couple or small group through a local natural area of your or our choosing to experience this fleeting avian diversity during peak songbird migration. Personal checklists will be provided for participants to keep track of all the species encountered. Tally up to 50 species or more in a single morning.

Our minimum donation request is only \$10/person/hr (or minimum \$20/hr). Bring binoculars. We can also lend you a high-quality pair.

Cape May Warbler. Photo © Steve Sage



Tree Frogs @ Twilight

Make an evening appointment to discover the hidden mini-jungle that is a vernal pond while being loudly serenaded by trilling tree frogs. We will wade in with headlamps, then spotlight and photograph them as they call and breed.

We'll use nets to scoop an array of teeming invertebrates that squirm and dart beneath the surface, then bring filled buckets back to the center. The contents will be poured into trays to allow close inspection and identification under bright lights and magnifiers.

Along the trail we'll turn off flashlights, let our eyes adjust to the darkness, and search for glowworms. They emit dim pinpoints of light that slowly brighten and fade along the dark trail sides. These rarely-seen, oddly-shaped, ground-dwelling larvae are destined to become this summer's fireflies.

Our minimum donation request is only \$15/person for 90 minutes (min. \$30).



2021 Summer Day Camps Update

Yes, they're back! After careful consideration while watching COVID trends thus far we've decided to offer 6 weeks of very limited-enrollment day camps through the weeks below. Details will be forthcoming in the following weeks, however, feel free to inquire about any of the following day camps and even put down a deposit to secure a space on the roster.

Full-day (FD) camp fees are \$300. Half-day (HD) are \$160. An additional small field trip mileage fee will apply to the two camps for students 10 yrs and older.

June 14-17: Michigan Birds & Birding (FD - 10 yrs & older)

June 21-24: Nature Discovery (FD - 7 to 9 yrs)

June 28-July 1: Budding Naturalists (AM only, HD - 5 to 6 yrs)

July 26-29: Nature Discovery Nature Discovery (FD - 7 to 9 yrs)

August 2-5: MI Reptiles & Amphibians (FD - 10 yrs & older)

Aug 9-12: Nature Discovery (FD - 7 to 9 yrs)



A heartfelt "thank you" to all our supporters, including to these generous donors this past month...

Marsha & Bill

Bohnett

Giselle Claux & Family

Lynn & Tim Croze

*Patty Flynn * Dale Giddings*

*Maria & Leo Gonzalez * Jan Heminger*

*Wendell Hocking * The Modlin Family*

*Montessori Children's House * Marge Pestka*

*Eric & Mary Petrie * Stepping Stones Montessori*

Sarah & Adam Zwickle

Ecosystems & Indigents; Plastics-addiction

More on indigenous peoples and ecosystem management...

Return the National Parks to the Tribes

https://www.theatlantic.com/magazine/archive/2021/05/return-the-national-parks-to-the-tribes/618395/?utm_source=newsletter&utm_medium=email&utm_campaign=atlantic-daily-newsletter&utm_content=20210413&silverid=%25%25RECIPIENT_ID%25%25&utm_term=The%20Atlantic%20Daily

Nature is Critical to Slowing Climate Change, But It Can Only Do So If We Help It First

<https://insideclimatenews.org/news/05052021/nature-is-critical-to-slowing-climate-change-but-it-can-only-do-so-if-we-help-it-first/>

Enough already with rampant plastics production and consumption! In addition to our escalating climate crisis, plastic waste is choking the planet – both crises incidentally brought to us by a powerful and dominant, profit-driven petroleum industry, combined with broad complacency within our consumption-driven society. Don't buy it!

Plastic Debris is Getting into the Great Lakes, Our Drinking Water and Our Food

<https://www.michiganradio.org/post/plastic-debris-getting-great-lakes-our-drinking-water-and-our-food>

-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

Scientific findings should never be distorted or influenced by political considerations.

- from President Biden's Memorandum on Restoring Trust in Government through Scientific Integrity and Evidence-Based Policymaking.



Less Beef = Less CO₂
Cowspiracy.com

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



Worldwarzero.com



RSPO.org



insideclimatenews.org

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