

THIS ISSUE

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Wood Turtle Rescue

Dirt Bag: Opposing Definitions

Save a Woodland, Feed a Rhino

When life gives you invasive honeysuckles...
make honey.

Since the onset of spring and the COVID-related shutdowns, then extending through the summer, Nature Discovery has lost nearly all of its contracted jobs. A 33-year streak of Nature Discovery summer day camps was also broken. Prospects don't look much better going into the school year.

However, one silver lining to this year's lost educational and income-generating opportunities is the unprecedented amount of time that we've been able to devote to battling invasive growth on our six acres this spring and summer. Over the past two decades we've had to watch helplessly as invasive growth spread more widely and densely by the year through our natural area. Nearly all our time and energy was necessarily focused on fulfilling a docket full of wildlife education contracts across the state, especially in the months between spring and fall. That left little time to battle invasives with any of the diligence required to create more than a dent.

Since April this year, however, we've been able to designate many more hours on all aspects of this daunting task. In May alone we cumulatively pulled over 55,000 garlic mustard plants. By the end of the month anyone would be hard pressed to go off trail and locate one. We also pulled thousands of individuals of other herbaceous invasives like catchweed bedstraw, Virginia stickseed, and Japanese hedge parsley. We have taken pruners, limb loppers and saws to hundreds of combined individuals of the woody invasive species, too, including the shrubs, Amur honeysuckle and autumn olive, mulberry trees of various sizes and hundreds of feet-worth of twisting, tree-climbing-and-killing oriental bittersweet vines.

Unless their seeds are near maturity we've been content to pull any of the herbaceous species by the root and merely drop them on the ground. The relatively soft plant material decomposes and returns to the soil in fairly short order. However, the woody growth, which takes up magnitudes more space in a more three-dimensional manner, is a different story. We've cut and uprooted so many of the above-mentioned species over the past five months (with still a looong way to go, mind you) that if we were to merely drop the branches, trunks and twisting vines where they were cut the trail sides would become a veritable unsightly



Autumn olive, Amur honeysuckle and mulberry are three invasives in a long list of browse for their animals accepted by Potter Park Zoo. Can you identify each in this photo?

labyrinth of impenetrable dead, dry, sharp, tangled branches. So, after cutting they are immediately carted or dragged to the fire pit.

It is hard to believe that it has been over twenty-five years – back when our kids were very young - since I designated a spot for a modest fire pit off the northeast corner of our yard. The surrounding sub-climax woods looked very different back then – healthier, more open and very walkable off the trail. Except for randomly-scattered autumn olives all the rest of the above mentioned invasives had yet to arrive. At the time the pit was meant solely and simply as a special spot for the family to gather and perhaps roast hot dogs or marshmallows. Today it is used, solely and simply, to make an unending parade of woody invasive waste go away. It has been aflame and asmolter with more frequency over the past five months than ever in its history.

I know, I know... While wood burning is infinitely less harmful to the environment than combustion of fossil fuel-based materials, the particulate byproducts lofted into the air are far from harmless (<http://www.familiesforcleanair.org/myths/>). Thus, comes the million dollar question for the environmentally-correct: how to clear the woodland without trashing the air in the process? Renting a wood-chipper would alleviate much of the burning, however, a tremendous accumulation of cut material would need to be stockpiled in order to make efficient use of the short rental time. Perhaps more importantly, chemically-charged fossil fuel emissions are still being generated by the gas-run chipper...

A few weeks ago we discovered a decidedly unique way to dispose of large amounts of freshly-cut woody invasives - by rhinoceros! Elisabeth Baumann, our volunteer here through most of the summer, informed us of Potter Park Zoo's program encouraging the public's help to provide fresh browse for the zoo's rhinos as well as for other large grazers. The zoo's Facebook page has a long list of acceptable browse. Some are native trees, but a number are some of the very trees and shrubs that have taken over not just our woodlands but natural areas everywhere, on private and public land: <https://potterparkzoo.org/fresh-browse-donation-program/>

Elisabeth's mother, Krista Baumann, contacted the zoo's animal care supervisor, Pat Fountain, then offered the use of the family mini-van for us to load with Amur honeysuckle, autumn olive and mulberry branches. She then delivered it to the zoo. I visited the zoo's Facebook page and discovered that arrangements could be made for the zoo to pick up ready-cut browse at any location within a thirty minute drive. The distance to our north Williamston location barely got under the wire.



In each of the past three weeks on a designated day we arranged for a zoo pickup truck to secure a load at Nature Discovery. Each time we had cut and dragged an impressive, leafy-branched mix of the above three species, then spread and piled them on the side of our circular drive in time for the truck's arrival.

On the first pick-up, the zoo employee exited the vehicle and greeted us. I immediately thought she looked familiar. Apparently, she was thinking the same about us, then asked if we used to do summer presentations at the visitor center at Cadillac's Mitchell State Park. Why did this particular high school student stand out among hundreds of audience participants over many summers at the park some ten or more years ago? Her personal interest and passion for the material was markedly evident. We remember meeting and talking with Ashleigh Winkelman and her family on multiple occasions.

Ashleigh explains further:

As a teenager I had the opportunity to engage with Nature Discovery at yearly presentations while I was

camping at Lake Mitchell State Park. I always looked forward to those presentations and learning more about Michigan's native snakes and turtles. I specifically remember getting to touch a blue racer and watch a large snapping turtle move down the aisle of seats. Those experiences and interactions with animals helped inspire my path towards becoming a zoo keeper.

In a cool circle of connection, I have reconnected with Nature Discovery through my job at Potter Park Zoo. I work with hoofstock (hoofed mammals) whose diet includes browse (tree branches), and we depend on our community to donate browse for our animals. Nature Discovery reached out to donate, and I had the lucky opportunity to head out there to collect the donation. I appreciate Nature Discovery's commitment to conservation, and it is so amazing to get to work with an organization now that had a profound impact on my childhood. We are both working to protect wildlife, and that is a fantastic partnership.

We've arranged for the zoo to continue to make weekly pick-ups into the future and indefinitely. The rhinoceroses and some of the other animals will even browse live branches after foliage has fallen, so we can continue harvesting through the winter months, too. We're looking forward to the day when, hopefully, all three of these invasives have been eliminated from our property by being turned into rhino food. There are so many opportunities to harvest them on other area lands that it would be a shame for the zoo's browsing animals to ever go without them. Awareness of local citizens is all that's needed, then the dedication to cut and provide it. It's a win for the zoo and its grazers and for our ecologically-diminished natural communities (This also begs the more expansive question, *Have they investigated equally-troublesome invasives not currently on the list, i.e., oriental bittersweet, European buckthorn, Phragmites grass, etc., for palatability and nutrition content?*).



Rhinos can munch through a LOT of browse. Why not clear a woodland of the invasives they love, like this Amur honeysuckle? Photo courtesy Potter Park Zoo.

Here is another potential benefit: It's a terrific outdoor endeavor for middle school and high school students – especially within a school year where so much time is destined to be spent learning in front of screens, and when so many other in-person experiences are off the table. Teachers, just think of all the multidisciplinary exercises that could be implemented in conjunction with such a project. We get excited imagining the many directions in which it could be expanded across the STAMEN spectrum (What's STAMEN, you ask? It's a step up from the highly-touted STEAM standard, infusing ecological and environmental consciousness into the curriculum. Pollinating young minds through more holistic education, we say: <http://naturediscovery.net/pdf/WILD%20TIMES%20July18.pdf>).

Thoughtfully engaged people *can* make lemonade out of this giant COVID-lemon in all different manners. Making honey out of invasive honeysuckles is one way. Nature Discovery can provide other means for in-person educational encounters to supplement the on-screen school year for students in any grade level, as well as for interested adults. Read on for more and contact us to discuss options.

- Jim McGrath

Individual, Family & Student Visits BY APPOINTMENT

Geared specifically for the times and continuing through the school year... Individuals, individual couples, families and students are invited to spend an hour or more immersed in any of an array of guided experiences outside - virtually any day by appointment at Nature Discovery. The sky's the limit as to the range of activities. Here are some ideas...

- Identify Michigan turtles up close as they swim and bask in pools at your feet. Kids *love* feeding them!
- Our big red-footed tortoise, Milberta, grazes often on the lawn. Kids love hand-feeding leaves to her!
- Snakes! Meet, handle and even feed our gentle rat snakes, garter snakes, water snakes and others. Observe the garter snakes as they wind in exploratory fashion through the grass. Meet our newly-hatched baby rat snakes, too.
- Identify and feed up to twenty species of Michigan frogs and salamanders.
- September is peak fall bird migration month! Adults or students can arrange guided birding at natural areas here or at other natural areas of your or our choice. Participants are provided with Nature Discovery's own Michigan Birds checklists to keep a tally of birds encountered.
- **Supplement your student's on-line education** with in-person, custom, hands-on units here. For instance, learn about insect life cycles, ecological concepts and more, by arranging to keep your own tiny, predatory antlion larva. We'll help you find one and even provide printed care instructions.
- **VISIT US** once, or even weekly for special in-person exploration. We've got a wealth of natural learning experiences for students in any grade, as well as adults. The breadth of material is limited only by the extent of the visitor's interest!

We are not charging a specific fee so as not to exclude visitors who may be financially-stressed through these times, like us. Hence, **DONATIONS ARE ACCEPTED** in light of each participating party's financial ability. What is a "suggested" donation? Our previous minimum fee was \$5/person/hr (min. \$15 for the first hour).

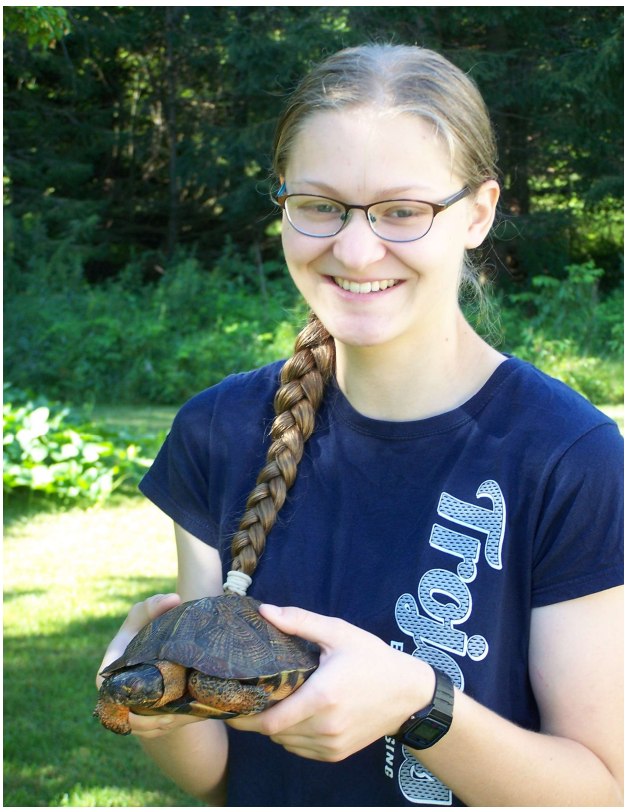


*Our sincerest thanks to those who have
supported us through generous donations
this August...*

*Irene & Fred Baker
Maura Last*

*Theresa Moran
Nancy Nelson*

*Barb Paff
Stacey Preuss
Kurt Scholler
Chantal Tetreault
Tricia Thompson
Connie Watts*



Christine Steensma found this road-injured specimen of the state-protected wood turtle near Petoskey and gave us a call. Jim arranged to drive north and meet her halfway in order to deliver it to the reptile care specialists at Cedar Creek Vet Clinic in Williamston. Left: Our summer volunteer, Elisabeth Baumann, holds it upon arrival. Above: The turtle has a fractured bone in its head and is currently unable to eat, so the vets surgically implanted a feeding tube to keep it strong through the healing process. Our collective fingers are crossed that it can eventually be returned to the wild.

“Dirt Bag”: Opposing Definitions

Between petty politics, the pandemic, racial tensions and protests demanding accountability the media is saturated with coverage of the widespread fallout from the dumpster fire in Washington. After all, there are only so many hours in a day. Thus, the science, technology, and, yes, politics, surrounding climate change is getting not nearly the coverage it deserves.

That’s why we subscribe to two special weekly news sources to help keep us informed and up to date:

The New York Times has a regular e-contribution called *Climate:Fwd*.

Inside Climate News is an independent, non-profit news organization dedicated to factual coverage of the disaster-in-progress. You can subscribe to their free weekly newsletter.

Here are a few hand-picked recent columns, the content of which segues nicely from one to the next, then finishes on an environmentally-hopeful tone with the inclusion of a packaging company’s mission.

<https://insideclimatenews.org/news/31082020/candidate-profile-donald-trump-climate-change-election-2020>

<https://insideclimatenews.org/news/26082020/exxon-mobil-dow-jones-industrial-wall-street-coronavirus-big-oil>

https://www.nytimes.com/2020/08/30/climate/oil-kenya-africa-plastics-trade.html?campaign_id=54&emc=edit_clim_20200902&instance_id=21841&nl=climate-fwd%3A®i_id=97652655&segment_id=37340&te=1&user_id=e2b8dd8c9b543fb8c35d5dd30658067e

<https://www.betterpackaging.com/better-packaging-co/>

-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



Less Beef = Less CO₂
Cowspiracy.com

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



RSPO.org



Worldwarzero.com

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