

May 23, 2019

Barberry Burning Deerfield Wind Energy Preserve Huron Township, Huron County

From late March, our spring stewardship focused on burning invasive Japanese Barberry at the Deerfield Wind Energy Preserve in Huron County. Like many plants, barberry roots are more vulnerable in spring as energy and nutrients stored from the previous growing season are used to send up new shoots. Burning the new spring shoots prevents the roots from being resupplied, which significantly weakens or kills them. After another inspection and half-day of burning this past Monday, May 20, I can say that our control work has been very successful. Where two years ago the barberry was an average of 3 feet tall and covered well over half of the approximately 1-acre main work area, there are now almost no barberry plants remaining. The few that survive are either scattered back in the forest where they are limited by more shade and wetter soil, or were left temporarily in a few spots until burning conditions are better. There are also very few Multiflora Rose shoots visible. To add to our satisfaction, native plant cover already appears to be increasing, including Canada Mayflower, Red Trillium, Foamflower, Royal Fern, and Sensitive Fern. It does not appear that removal of barberry has resulted in increased grazing of forest herbs by White-tailed Deer as we feared, but we will continue to monitor this.



Before, 2017 June 25: Thick with Japanese Barberry.

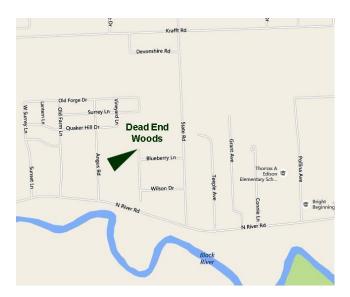


After, 2019 May 20: Same location now with almost no Japanese Barberry. Barberry was fully leafed-

out in other areas at this time. Almost all barberry stems in this area are dead.

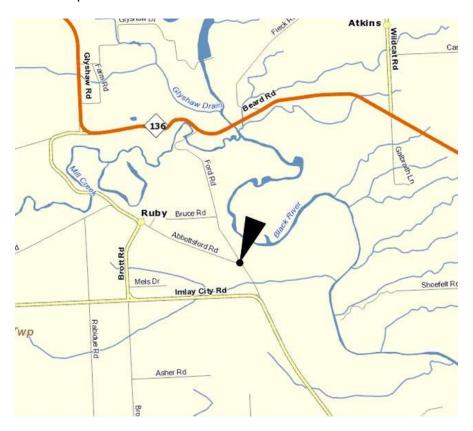
Garlic Mustard Pulls This Friday May 24 and Saturday May 25 Dead End Woods Sanctuary, Saint Clair County

April and May were very busy months for us, but extended cold, wet weather is partly to blame for our late Garlic Mustard removal this spring. Most Garlic Mustard did not even appear to flower until just over a week ago and our Dead End Woods Sanctuary was probably too wet for volunteers anyway. But as temperatures climb into the 70's, the window for Garlic Mustard pulling passes quickly. In an effort to make up for lost time, we will be working in the Dead End Woods Sanctuary tomorrow, Friday, and Saturday, May 24 and 25, from 10:00 AM through 3:00 PM. If you want to help instead of lounging in your backyard all Memorial Day weekend, please contact us.



Garlic Mustard Pulls Saturday June 1 and Saturday June 8 Port Huron State Game Area, Saint Clair County

We will conduct our third annual Garlic Mustard removal in the Port Huron State Game Area on Saturday, June 1 and Saturday June 8, from 10:00 AM through 3:00 PM. We will work in the same location as the past two years and meet at the Ford Road gate. Please contact us if you would like to help.



Eagle Scout Project Gerrits Sanctuary Ira Township, Saint Clair County

Eagle Scout candidate, Will Fuller, has completed installing boundary signs around our 39.5-acre Gerrits Sanctuary in Ira Township, Saint Clair County. Will and his crew have been out working on the Gerrits Sanctuary for the past several weekends, installing signs every 200 feet along the perimeter. This weekend, they will wrap-up the project with some invasive weed removal along the east property line, including Garlic Mustard and Oriental Bittersweet. Thank you to Will Fuller and all the Scouts and Scouters that have improved our Gerrits Sanctuary.



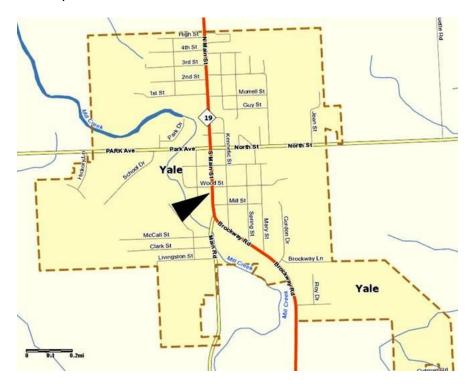
Left to right: Andrew Robinson, Devin Dennis, Nate Dennis, and Tim Howard of Algonac Scout Troop 223 with a new sign on the Gerrits Sanctuary.



Left to right: George Arntfield, Will Fuller, Fred Fuller, and Lisa Robinson of Algonac Scout Troop 223.

Second Annual TLC Yard Sale Yale Bologna Festival, July 26-28

The TLC will hold our second annual yard sale at the Yale Bologna Festival on July 26 through July 28 in the front yard of Fred Fuller's house at 203 South Main Street in Yale, Michigan. If you have any items that you would like to donate to the sale, please drop them off on Fred's front porch or bring them to the sale. Look for a yellow Victorian style house with gray trim on the west side of Main Street. It's the second house south of Wood Street and the Sunoco gas station. See the map below.



If you have any items you don't want to leave on the porch, please call Fred Fuller at 810-304-0276 or call the TLC office at 810-346-2584 to make arrangements. You can also donate baked goods and we could use some volunteers to sit at the sale.

For more information about the Yale Bologna Festival, see this web site: https://www.yalechamber.com/yale-bologna-festival.html

Ecology News

Back in November of 2017 when I started this section of our TLC news, I was concerned that I might run out of new topics, but I really knew better and lately there has been no shortage in the news. Ultimately, the point of this ecology news section is to inspire meaningful action. I just read an article about global warming stating that, "support is a mile wide and an inch deep". I fully realize that it can be very difficult to do environmental work when we have personal issues to contend with. I know that our TLC board members know this also. But, if you do nothing else, in my opinion, the single most important thing you can do is to manage your land in the most natural way possible and protect it. For some of you, this means mowing less grass, planting native species, and creating native habitat in your yard. For others, it means taking only a sustainable timber harvest from your woodlot. For others, it means taking a late hay cutting to protect fledgling grassland birds, using controlled burning to improve meadows, leaving fencerows, leaving buffers along wetlands and watercourses, leaving woody debris in drains to assimilate excess nitrates, and transitioning to organic crops. For almost anyone, it can mean placing a conservation easement on your land to ensure that it will remain protected in perpetuity. Equally as important,

if you have kids or grandkids, or can borrow kids somewhere to help you do this work, you will educate and inspire the next generation.

Nature's Dangerous Decline 'Unprecedented', Species Extinction Rates 'Accelerating'

https://www.ipbes.net/news/Media-Release-Global-Assessment

This is the big report released about a month ago by the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services, essentially a United Nations organization, regarding the global state of nature and specifically of imperiled species. Without going into detail, the news is not good. Despite all of the efforts and funding, which is nothing compared to military spending, nature is in bad shape and getting worse fast. Highlights include the following:

- Since 1970, the world's population has doubled, the global economy is four times larger, and international trade is 10 times larger.
- Tropical forests have especially been destroyed to support the increase in human population.
- Between 1980 and 2000, just 20 years, 247 million acres of tropical forest were lost mainly due to cattle ranching in South America and palm oil plantations in Southeast Asia.
- Even with all of the regulatory protections, only 13% of the wetlands present globally in 1700 still existed in 2000. It is certainly less now, almost 20 years later.
- Urban areas have doubled since 1992.
- An average of 25% of animals and plants globally are now threatened with extinction.
- Insect populations have declined rapidly in many locations.
- Approximately 1 million species are now likely to be extinct within a few decades, a rate of destruction tens to hundreds of times higher than the average over the past 10 million years.

For anyone who looks around, reads, and thinks, we already knew it was bad and getting worse. When certain native species or natural communities are described as "common" or "not imperiled" or similar, you should mostly ignore that as I have for years. Any nature is now important. When we were kids, did we think that Monarch butterflies and bees would be rare species in our lifetime? There has not been proper accounting for most species and the many ways that people are destroying nature. Despite the grim outlook, we should not stop trying to save what we can.

More Animal Species Under Threat Of Extinction, New Method Shows

https://www.sciencedaily.com/releases/2019/01/190117090458.htm

A new study has found that several hundred species globally might be inaccurately assessed as non-threatened on the Red List of Threatened Species, a worldwide list of rare species. This article supports my statement regarding the previous article. When certain native species or natural communities are described as "common" or "not imperiled" or similar, you should mostly ignore that as I have for years. Further, this is a good example of the limitations of what I call "ecological triage". We can spend a lot of effort and money trying to constantly assess the condition of nature on life support. Wouldn't it be much better to maintain unquestionably healthy and stable ecosystems across the world?

Restore Natural Forests To Meet Global Climate Goals

https://www.sciencedaily.com/releases/2019/04/190402081533.htm

Tree plantations are far from natural forests, yet, not surprisingly, nearly half of the so-called forest "restoration" that countries have pledged in the effort to counter global warming is in the form of commercial monoculture plantations. As this article states, plantations are much poorer at storing carbon than natural forests, for many reasons. Natural forests have larger and older trees, far

greater species diversity, multiple forest stories or vegetative layers, more woody debris and leaf litter, and usually deeper topsoil. Of course, natural forests have many more values than just commercial production and carbon sinks.

Rewilding To Decarbonize The UK

https://www.rewildingbritain.org.uk/blog/new-report-how-restoring-nature-can-help-decarbonise-the-uk

https://www.rewildingbritain.org.uk/our-work/rewilding-vs-climate-breakdown

Meanwhile, as some debate whether global warming and climate change are actually happening and offer commercial tree plantations as part of their contribution to humanity, the United Kingdom is contemplating "rewilding" or restoring natural ecosystems on nearly 15 million acres of degraded and under-utilized landscapes, including golf courses, low-grade agricultural land, and various exclusive-use lands. Evidence suggests this could provide for over a third of the greenhouse gas mitigation required globally between now and 2030. One acre of forest absorbs about 5.7 tons of carbon dioxide per year. One acre of wetland absorbs about 2.3 tons of carbon dioxide per vear. One acre of peatland absorbs about 1.6 tons of carbon dioxide per vear. It's almost hard to imagine. A 5-acre residential parcel with about half remaining natural could potentially remove roughly 10 tons of carbon dioxide from our atmosphere each year, or nearly 4 tons of pure carbon, the weight of a full size pickup truck. An average suburban lot full of trees might absorb a ton of carbon dioxide, or almost 800 pounds of pure carbon. Imagine what these residential lands could do if everyone converted their lawns to natural woodland. Looking at the numbers reinforces my suspicion that the larger part of the immediate climate changes we are experiencing now may be due more to destruction of so much forest globally, not to suggest that increasing greenhouse gas output and other factors are not impacting the climate.

Photographer And His Wife Plant 2 Million Trees In 20 Years To Restore A Destroyed Forest And Even The Animals Have Returned

https://www.boredpanda.com/brazilian-couple-recreated-forest-sebastiao-leila-salgado-reforestation/

A husband and wife planted 2 million trees over 20 years on their family's former cattle ranch in southeastern Brazil to restore forest cover and wildlife habitat. They later founded Instituto Terra which has since planted another 4 million trees, resulting in restoration of 17,000 acres of subtropical Atlantic Forest. Their land has been declared a Private Natural Heritage Reserve. So far, 172 bird species have returned, as well as 33 species of mammals, 293 species of plants, 15 species of reptiles and 15 species of amphibians.

Climate Change: One Man's Fight To Save A California Tree

https://www.bbc.com/news/world-us-canada-48189216

A man is attempting to restore native forest on his 300 acres near San Diego, California. He was focused on the Bigcone Douglas Fir, a species limited to only a very small range in southern California. His efforts are failing due to extreme drought.

How Hyper-Manicured Public Spaces Hurt Urban Wildlife

https://theconversation.com/how-hyper-manicured-public-spaces-hurt-urban-wildlife-109449

Urban and suburban wildlife are highly dependent on the few resources available, whether vegetation, organic matter, water, and so on. Tidy manicured landscapes are mostly bad for

wildlife. These areas tend to lack multi-layered vegetative cover, a diversity of plants that flower and fruit throughout the growing season, dead trees, logs, dead branches, leaf litter, wet soils, open water, and other elements of natural areas. To make things worse, many places are poisoned by herbicides, pesticides, fungicides, and fertilizers, and subject to regular intrusion by people, pets, noise, mowing, and other disturbance. Many ornamental plants produce flowers that are unavailable to pollinators due to particular breed traits, or produce no fruit, or even produce their own pesticides. As the author of this article says, letting nature be more natural is good for many reasons.

Improving "Silvopastures" For Bird Conservation

https://amornithnews.org/2018/09/19/improving-silvopastures-for-bird-conservation/

If you do nothing else, plant trees. Birds will benefit. A few trees in a field or lawn can surprisingly serve as a small oasis for less common birds, insects, and other creatures.

2019 TLC Membership

With your membership, the TLC is better enabled to protect important natural areas in our region. We offer three membership levels as shown below: Individual \$25, Family \$30, and Business \$100. Members will receive our e-mail news. Some of you are members based on your previous donations, volunteer efforts, or other help. You can also make donations in honor or memory of someone or something. For donations of \$100 or more, your name will be listed on our web site. For larger donations, please contact us for details. You may print and complete the form below. Make checks payable to "Thumb Land Conservancy". Mail checks and forms to: Thumb Land Conservancy, 4975 Maple Valley Road, Marlette, Michigan 48453

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