

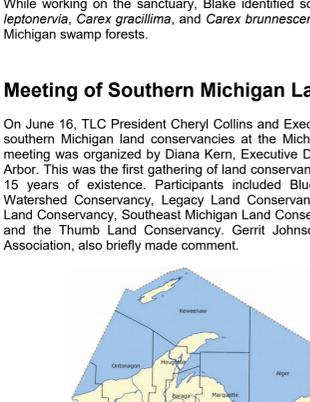
# Thumb Land Conservancy News

## 2023 July 13

### Dead End Woods Sanctuary Spring Stewardship

Fort Gratiot Township, Saint Clair County

TLC Program Assistant Blake Short led our three spring stewardship days in the Dead End Woods Sanctuary this May. Our focus for 13 years has been removal of invasive Garlic Mustard, but it was yet again clear this spring that we have eliminated most of it. We are now removing minor occurrences of Multiflora Rose, Japanese Barberry, and other invasive plants across the sanctuary. One of our next challenges will be trying to eliminate Yellow Archangel - *Lamium galeobdolon*, an escaped invasive ground cover in the Mint Family, covering the northwest corner of the sanctuary. This moved into the preserve back in the 1970s and 80s from an adjacent yard in Old Farms subdivision. We may even start vegetative enhancement soon, transplanting higher quality native plants to the sanctuary to improve the natural community to a whole.

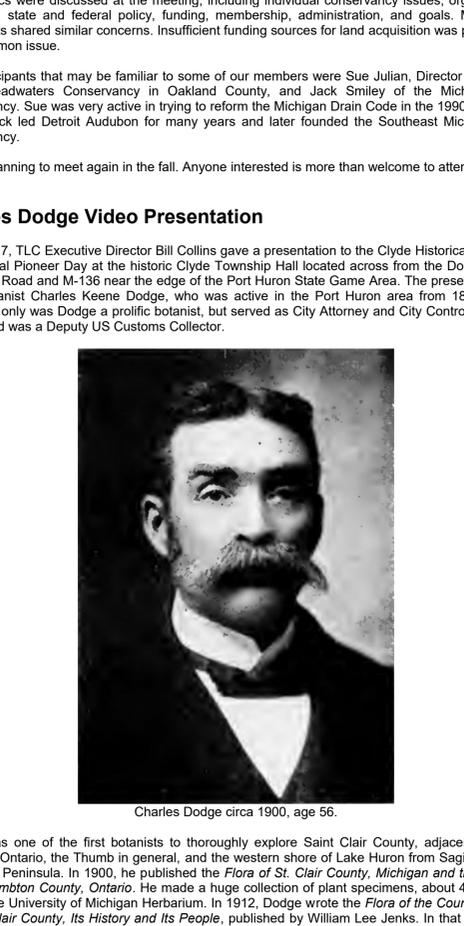


Left, *Carex gracillima* (photo by Anton Reznicek) and right, *Carex brunnescens* (photo by R. Schipper), Michigan Flora On-line.

While working on the sanctuary, Blake identified some new native species for us, including *Carex leptonevia*, *Carex gracillima*, and *Carex brunnescens*, three native sedges that are fairly common in Michigan swamp forests.

### Meeting of Southern Michigan Land Conservancies

On June 16, TLC President Cheryl Collins and Executive Director Bill Collins, attended a meeting of southern Michigan land conservancies at the Michigan Nature Association office in Okemos. The meeting was organized by Diana Kern, Executive Director of the Legacy Land Conservancy of Ann Arbor. This was the first gathering of land conservancies that the TLC has ever been invited to in our 15 years of existence. Participants included Blue Heron Headwaters Conservancy, Chippewa Watershed Conservancy, Legacy Land Conservancy, Michigan Land Conservancy, Mid-Michigan Land Conservancy, Southeast Michigan Land Conservancy, Southwest Michigan Land Conservancy, and the Thumb Land Conservancy. Gerrit Johnson, Executive Director of the Michigan Nature Association, also briefly made comment.



Conservancy Territories

- Blue Heron Headwaters Conservancy: Headwaters of Clinton, Shiawassee, Huron, and Flint Rivers in Genesee, Livingston, and Oakland Counties
- Chippewa Watershed Conservancy: Clare, Mecosta, Isabella, Montcalm, and Grand Counties
- Legacy Land Conservancy: Jackson, Washtenaw, and Lenawee Counties
- Michigan Land Conservancy: entire State
- Michigan Nature Association: entire State
- Mid-Michigan Land Conservancy: Ionia, Clinton, Shiawassee, Eaton, Ingham, and Hillsdale Counties
- Southeast Michigan Land Conservancy: Livingston, Oakland, Macomb, St. Clair, Washtenaw, Wayne, and Monroe Counties
- Southwest Michigan Land Conservancy: Allegan, Barry, Van Buren, Kalamazoo, Calhoun, Berrien, Cass, St. Joseph, and Branch Counties
- Thumb Land Conservancy: Huron, Tuscola, Sanilac, Lapeer, St. Clair, and Macomb Counties

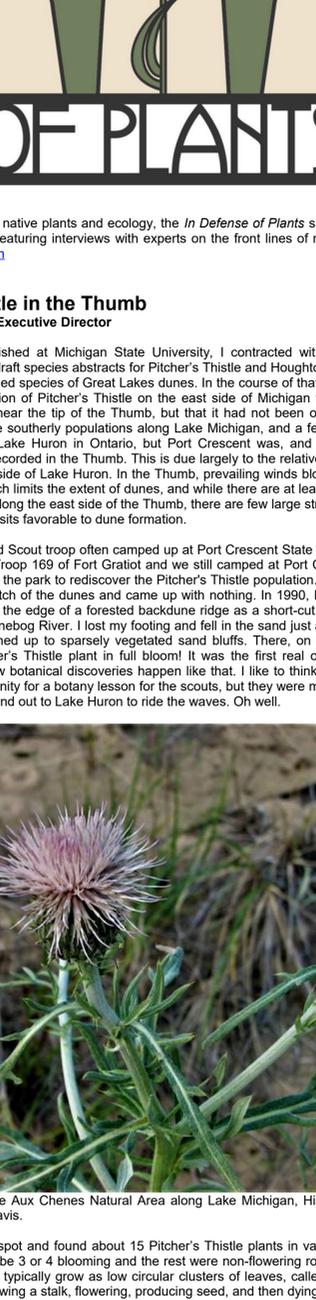
Many topics were discussed at the meeting, including individual conservancy issues, organizational structures, state and federal policy, funding, membership, administration, and goals. Most of the participants shared similar concerns. Insufficient funding sources for land acquisition was perhaps the most common issue.

Two participants that may be familiar to some of our members were Sue Julian, Director of the Blue Heron Headwaters Conservancy in Oakland County, and Jack Smiley of the Michigan Land Conservancy. Sue was very active in trying to reform the Michigan Drain Code in the 1990s and early 2000s. Jack led Detroit Audubon for many years and later founded the Southeast Michigan Land Conservancy.

We are planning to meet again in the fall. Anyone interested is more than welcome to attend.

### Charles Dodge Video Presentation

On June 17, TLC Executive Director Bill Collins gave a presentation to the Clyde Historical Society at their annual Pioneer Day at the historic Clyde Township Hall located across from the Dorsey House at Wildcat Road and M-136 near the edge of the Port Huron State Game Area. The presentation was about botanist Charles Keene Dodge, who was active in the Port Huron area from 1876 through 1918. Not only was Dodge a prolific botanist, but served as City Attorney and City Controller for Port Huron, and was a Deputy US Customs Collector.



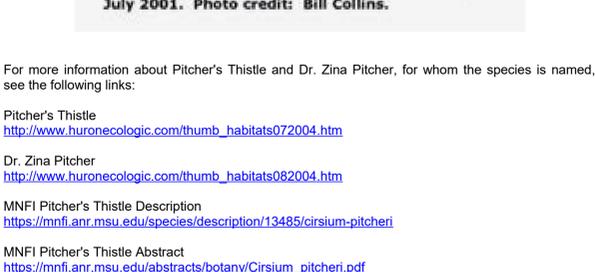
Charles Dodge circa 1900, age 56.

Dodge was one of the first botanists to thoroughly explore Saint Clair County, adjacent Lambton County in Ontario, the Thumb in general, and the western shore of Lake Huron from Saginaw Bay to the Upper Peninsula. In 1900, he published the *Flora of St. Clair County, Michigan and the Western Part of Lambton County, Ontario*. He made a huge collection of plant specimens, about 40,000, now held by the University of Michigan Herbarium. In 1912, Dodge wrote the *Flora of the County*, chapter V of *St. Clair County, Its History and Its People*, published by William Lee Jenks. In that publication, Dodge proposed a "public reservation of 3,000 or 4,000 acres in one piece for St. Clair county" to preserve native flora and fauna in the township. He wrote, "The very best place for such a proposed reservation in this county is in the township of Clyde where Mill creek joins Black river", which years later became the Port Huron State Game Area.

The presentation has since been made into a video, which is still in draft form, but will be available to the public in the near future.

### TLC Membership Items

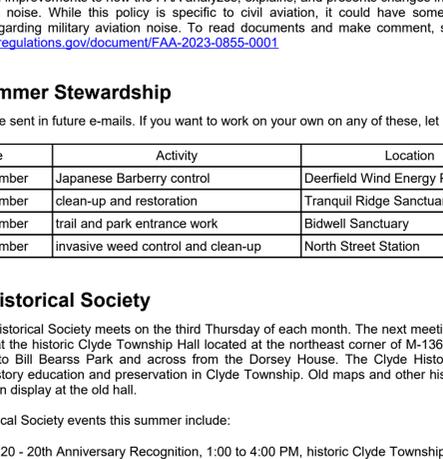
The TLC has a new collection of gifts ready to be sent to new and renewed members and donors. These include bumper stickers and patches. We plan to eventually offer hand-made stationary from recycled paper fiber and hemp bags with the TLC logo. Two different patches are available; one featuring the TLC logo given for memberships, and the other featuring rare species of the Thumb for donations of at least \$10 above the membership level.



### In Defense of Plants

[InDefenseOfPlants.com](http://InDefenseOfPlants.com)/podcast  
William Collins, TLC Executive Director

TLC Program Assistant Blake Short recently directed me to an interview about Pitcher's Thistle on the *In Defense of Plants* podcast by Matt Candeias, PhD, featuring various plants and plant topics relating to ecology. The interview features Dr. Kayri Havens of the Chicago Botanic Garden and her studies of Pitcher's Thistle - *Cirsium pitchei*, a rare plant of Great Lakes dunes, listed as Threatened in the US and Michigan, and Endangered in Canada and Ontario. Several factors are responsible for low reproduction and destruction of Pitcher's Thistle across its range. One of the latest problems is a non-native weevil introduced to the US as a biological control for other thistle species in agricultural fields. Pitcher's Thistle typically requires several years of growth before flowering once, producing seed, and then dying. The introduced weevils, along with birds like Goldfinches, consume the already limited seeds and decrease the chance of reproduction. The interview with Dr. Havens is available at this link: <https://www.indefenseofplants.com/podcasts/tag/pitchers-thistle>



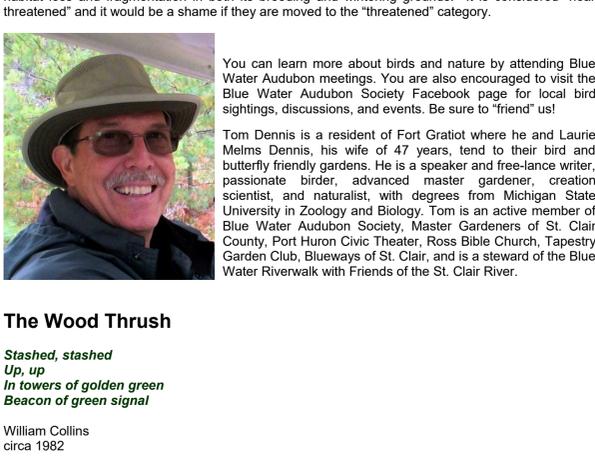
For those interested in native plants and ecology, the *In Defense of Plants* site is a uniquely focused source of information featuring interviews with experts on the front lines of research and protection: [InDefenseOfPlants.com](http://InDefenseOfPlants.com)

### Pitcher's Thistle in the Thumb

William Collins, TLC Executive Director

In 1987, not quite finished at Michigan State University, I contracted with the Michigan Natural Features Inventory to draft species abstracts for Pitcher's Thistle and Houghton's Goldenrod, both US and Michigan Threatened species of Great Lakes dunes. In the course of that work, I learned that the southern-most population of Pitcher's Thistle on the east side of Michigan was recorded from Port Crescent State Park, near the tip of the Thumb, but that it had not been observed since the early 1960s. There are more southerly populations along Lake Michigan, and a few more southerly along the eastern shore of Lake Huron in Ontario, but Port Crescent was, and still is, as far south as Pitcher's Thistle was recorded in the Thumb. This is due largely to the relative lack of extensive sand dunes along the west side of Lake Huron. In the Thumb, prevailing winds blow sand toward the lake rather than inland, which limits the extent of dunes, and while there are at least a few hundred creeks that outlet to the lake along the east side of the Thumb, there are few large stream or river outlets that concentrate sand deposits favorable to dune formation.

As a kid, our family and Scout troop often camped up at Port Crescent State Park. By 1987, I was an adult leader in Scout Troop 169 of Fort Gratiot and we still camped at Port Crescent every summer, so I decided to explore the park to rediscover the Pitcher's Thistle population. For a couple of years, I searched a 2-mile stretch of the dunes and came up with nothing. In 1990, I was portaging a canoe and main stretch of the Pinnebog River, I lost my footing and fell in the sand just as we got over the peak where the woods opened up to sparsely vegetated sand bluffs. There, on the peak of the ridge, I suddenly saw a Pitcher's Thistle plant in full bloom! It was the first real one I ever saw. What a surprise. I've had a few botanical discoveries happen like that. I like to think it was divine guidance. What a perfect opportunity for a botany lesson for the scouts, but they were more interested in getting the canoe to the river and out to Lake Huron to ride the waves. Oh well.



Pitcher's Thistle, Pointe Aux Chenes Natural Area along Lake Michigan, Hiawatha National Forest. Photograph by Sara Davis.

I later returned to the spot and found about 15 Pitcher's Thistle plants in various stages of their life cycle. There were maybe 3 or 4 blooming and the rest were non-flowering rosettes of different sizes. Pitcher's Thistle plants typically grow as low circular clusters of leaves, called "rosettes", for several years before finally growing a stalk, flowering, producing seed, and then dying. They do not spread by rhizomes like other thistles and there are usually only a few widely scattered plants. The strange part was that all of the Pitcher's Thistle were nowhere near the dunes. Instead, they were on a steep slope above the Pinnebog River at the edge of the forest about a third of a mile in from Lake Huron. This area was mined for sand in the early 1900s to provide glass for Ford Motor Company. It may be the disturbance long ago, possibly combined with erosion from the adjacent river, destabilized the sand in just the right way to favor Pitcher's Thistle colonization from the dunes. Still, it's a long way, and maybe the plants grew for centuries on these sand bluffs near the river.

So, I notified the State Endangered Species Coordinator and State Park Manager of my discovery, but as usual, didn't get any sense of concern for protecting and restoring this tiny isolated colony. It was not a surprise based on previous experience with the State. Cheryl and I made trips up there every year through 2002 to monitor the plants. They dwindled rapidly, to the point that there was only one rosette. We haven't looked for several years, but as far as we know, the colony is gone. I was told that a new colony was found in that vicinity in 2013 during a Michigan Botanical Club foray, and it is recorded on the Michigan Natural Features Inventory web site, but I was unable to get details.



The last flowering Pitcher's Thistle in the Thumb? Port Crescent State Park, Huron County, Michigan, July 2001. Photo credit: Bill Collins.

For more information about Pitcher's Thistle and Dr. Zina Pitcher, for whom the species is named, see the following links:

- Pitcher's Thistle [http://www.huronecologic.com/thumb\\_habitats072004.htm](http://www.huronecologic.com/thumb_habitats072004.htm)
- Dr. Zina Pitcher [http://www.huronecologic.com/thumb\\_habitats082004.htm](http://www.huronecologic.com/thumb_habitats082004.htm)
- MNFI Pitcher's Thistle Description <https://mnfi.anr.msu.edu/species/description/13485/cirsium-pitcheri>
- MNFI Pitcher's Thistle Abstract [https://mnfi.anr.msu.edu/abstracts/botany/Cirsium\\_pitcheri.pdf](https://mnfi.anr.msu.edu/abstracts/botany/Cirsium_pitcheri.pdf)

### You Too Can Be A Green Guardian. You've Got The Power Save Nature Any Place! Sustain Native Animals & Plants!

This spring, we highlighted restoration of nature on private land, citizen efforts in their neighborhoods, and programs like Homegrown National Park, National Wildlife Federation Certified Wildlife Habitat, and the TLC Naturehed registry. For more information, see our March newsletter. As we pass into mid-summer, we hope that you will do everything you can to support native plants and wildlife as most babies have matured and many species are starting work on a second batch. One of the best and easiest things you can do is simply provide a small source of water.

While the world is distracted by the selfish money side of land ownership, there can be a quiet and benevolent aspect of owning land. You have the power to help restore nature, to support native species, to improve our air, water, soil, and climate, and to benefit all of humankind now and for generations to come, all right where you live. Every little piece of land matters now, whether it serves as habitat for native species year-round or is just a stop-over for transients. If you have a lot of land, you can have even more impact. Even if you own a few land but have a few flower pots or a small patch of dirt at your disposal, you will surely benefit a lot of our beleaguered pollinators. Besides that, there is a lot to be said for adding a little beauty to our world.

### Michigan Air National Guard Airspace Expansion

There does not seem to be anything new on the proposed Michigan Air National Guard Airspace expansion for now. However, there is currently a public comment period on Federal Aviation Administration civil aviation noise policy, which determines how the FAA analyzes, explains, and publicly presents noise exposure from aviation activity. The FAA will consider how impacts to the civil aviation noise policy may better inform agency decision-making, the types of changes it considers, and potential improvements to how the FAA analyzes, explains, and presents changes in exposure to civil aviation noise. While this policy is specific to aviation, it could have some bearing on decisions regarding military aviation noise. To read documents and make comment, see this link: <https://www.regulations.gov/document/FAA-2023-0855-0001>

### TLC Summer Stewardship

Details will be sent in future e-mails. If you want to work on your own on any of these, let us know.

Date	Activity	Location
July - September	Japanese Barberry control	Deerfield Wind Energy Preserve
July - September	clean-up and restoration	Tranquil Ridge Sanctuary
July - September	trail and park entrance work	Bidwell Sanctuary
July - September	invasive weed control and clean-up	North Street Station

### Clyde Historical Society

The Clyde Historical Society meets on the third Thursday of each month. The next meeting is July 20 at 6:30 pm at the historic Clyde Township Hall located at the northeast corner of M-136 and Wildcat Road, next to the Bill Bearss Park and across from the Dorsey House. The Clyde Historical Society promotes history education and preservation in Clyde Township. Old maps and other historical items are always on display at the old hall.

Clyde Historical Society events this summer include:

- August 20 - 20th Anniversary Recognition, 1:00 to 4:00 PM, historic Clyde Township Hall
- September 17 - Pulled Pork Frydaiser, 1:00 to 4:00 PM, historic Clyde Township Hall

For more information, see the Clyde Historical Society Facebook page at: <https://www.facebook.com/groups/1481890455361159/>

### Wood Thrush, *Hylocichla mustelina*

By Tom Dennis



Photograph credit, Coniferous Forest: <https://www.coniferousforest.com/wood-thrush.htm>

My previous article entitled "Summer Birdsong" ended prematurely without naming the featured bird concert soloist. Fortunately for you readers, I surmised the oversight long enough to pen this "reveal" article. Since I have completely recovered from my error, I admit that the singing bird mentioned was actually the male Wood Thrush and I claim poetic license for the seeming error of the female being the soloist. The vast majority of bird singing is by males with the exception of a few species such as House Wrens with both sexes being excellent singers. The Wood Thrush song will be detailed later in the text but for now, let's get to know this amazing song bird.

These thrushes are considered medium sized, being significantly smaller than the American Robin. They have rufous upperparts including top of the head, tail, and wings and white underparts with heavy dark brown spots that diminish in size as they surround the eye and cheeks. The throat is clear white, bordered by brown mustache stripes and they have a white eye-ring. The black bill shows creamy pink on the lower mandible and this feature is helpful identification as it distinguishes them from the Veery and Hermit Thrush. Males and female birds look alike and they are monogamous (mating for life). Other common thrush family members in Michigan include Gray-cheeked and Swainson's Thrushes, Eastern Bluebird and American Robin. Of all the local species of the family, with thrush in the common name, the Wood Thrush is the most likely to be found during the summer breeding season in Southeastern Michigan.

These birds are omnivores with soil invertebrates (largely insects) and their larvae comprising most of their diet. They will also eat fruits in the late summer, fall, and late winter. After breeding and before migration they change their diet from insects to fruits with high lipid levels. I found it interesting that during the summer, the low fruit consumption and resulting low lipid reserves require the birds to feed on insects continuously in order to meet metabolic needs. Oh, what one will do to put up with food forecasts!

And finally, the song of the Wood Thrush has been reported to have one of the most beautiful songs of North American birds. American naturalist Henry David Thoreau wrote, "Whenever a man hears it he is young, and Nature is in her spring; wherever he hears it, it is a new world and a free country, and the gates of Heaven are not shut against him."

I described it this way in my prior article: "It started with a soft 'po, po, po', followed by the 'e-o-lay' of the flute and ending with an almost eerie trill." The first three notes are inaudible unless you are standing quietly nearby and the ending is described as a trill-like phrase of non-harmonic pairs of notes given rapidly and simultaneously (a sound that one individual bird can make since the syrinx (unlike our larynx) can make two sounds simultaneously!) The Veery performs a similar trill that is done in perfect harmony and to appreciate these songs you need to live around, or visit, large natural woodlots. You can also do an internet search but make sure you listen to them, especially the Veery, in slow sound.

Michigan is on the southern edge of their summer breeding range and the Wood Thrush migrates south for the winter, surrounding the Gulf of Mexico including Cuba and surrounding islands and as far south as Belize. The Wood Thrush population has been declining for several years, largely due to habitat loss and fragmentation in both its breeding and wintering grounds. It is considered "near threatened" and it would be a shame if they are moved to the "threatened" category.



You can learn more about birds and nature by attending Blue Water Audubon meetings. You are also encouraged to visit the Blue Water Audubon Society Facebook page for local bird sightings, discussions, and events. Be sure to "friend" us!

Tom Dennis is a resident of Fort Gratiot where he and Laurie Meims Dennis, his wife of 47 years, tend to their bird and butterfly friendly gardens. He is a speaker and freelance writer, passionate birder, advanced master gardener, creation scientist, and naturalist, with degrees from Michigan State University in Zoology and Biology. Tom is an active member of Blue Water Audubon Society, Master Gardeners of St. Clair County, Port Huron Civic Theater, Ross Bible Church, Tapestry Garden Club, Blueways of St. Clair, and is a steward of the Blue Water Riverwalk with Friends of the St. Clair River.

### The Wood Thrush

*Stashed, stashed*  
*Up, up*  
*In towers of golden green*  
*Beacon of green signal*

William Collins  
circa 1982

Postscript 2023: Indeed, as Thoreau wrote, hearing the song of the Wood Thrush, we are "... young, ... Nature is in her spring ... it is a new world and a free country, and the gates of Heaven are not shut ...". Surely, the Wood Thrush is granted access, if only for a few summer days, to the foundational resonance of the world, hidden away in the deepest forest. Or maybe the Wood Thrush simply remembers. Regardless, mankind is on-track to never hearing these chords played for us again.

### Ecology News

If you have any ecologically oriented news articles you'd like to share, please e-mail them to us and they could be included in a future newsletter.

**Canada's Wildfires: Where They Are, How Much Has Burned And How It's Changing Air Quality**  
Just a few weeks ago, the big news was the smoke from Canada's burning boreal forests. The general attitude around here was that it was a nuisance and not a harbinger of things to come. <https://www.cbc.ca/news/canada/canada-fires-map-air-quality>, <https://www.cbc.ca/news/canada/canada-fires-map-air-quality>, <https://www.cbc.ca/news/canada/canada-fires-map-air-quality>

**Canada's Wildfire Crisis: By The Numbers**  
The worst fire season since reliable records began in 1959. About 20 million acres burned, about 15 times the normal 1.3 million-acre average by the end of June. <https://www.axes.com/2023/06/30/canada-wildfire-crisis-active-acres-record>

**Natural Resources Canada, Fire Weather Normals**  
<https://cwfis.cfs.nrcan.gc.ca/ha/fvnormals>

**How Canada's Wildfires Really Started**  
<https://www.dw.com/en/how-canada-wildfires-really-started/a-65893778>

**B.C. Is Burning Through Its Wildfire Budget Well Before The Season Even Peaks**  
<https://www.cbc.ca/news/canada/british-columbia/bc-wildfire-costs-2023-1.6875171>

**It Burns Wild And Free Up There: Canada Fires Force Us Crews To Shift Strategy**  
<https://www.theguardian.com/world/2023/jun/29/canada-wildfires-us-crews-shift-strategy>

**Photos: Hundreds Of Wildfires Blaze Throughout Canada**  
<https://www.boston.com/news/world-news/2023/06/07/photos-canada-wildfires/>

**Fires Ravaged Michigan's Thumb In 1871, 1881**  
There was talk around here of the two big fires that devastated the Thumb in 1871 and 1881. While the summers were hot, you should know that these big fires were due primarily to a massive amount of slash left from extensive logging prior to 1871, followed by all of the dead and scorched trees remaining in 1881. Otherwise, it is unlikely that such massive fires would have happened naturally. <https://news.umich.edu/fires-ravaged-michigans-thumb-in-1871-1881/>

**June 2023 Was The Hottest On Record, EU Climate Body Finds**  
<https://www.dw.com/en/june-2023-was-the-hottest-on-record-eu-climate-body-finds/a-66143166>

## UN Says Climate May Be 'Out Of Control' As Heat Records Fall

<https://www.dw.com/en/un-says-climate-may-be-out-of-control-as-heat-records-fall/a-66147643>

## Climate Reanalyzer

<https://climatereanalyzer.org/>

## Scientists Have Been Talking About Greenhouse Gases for 191 Years

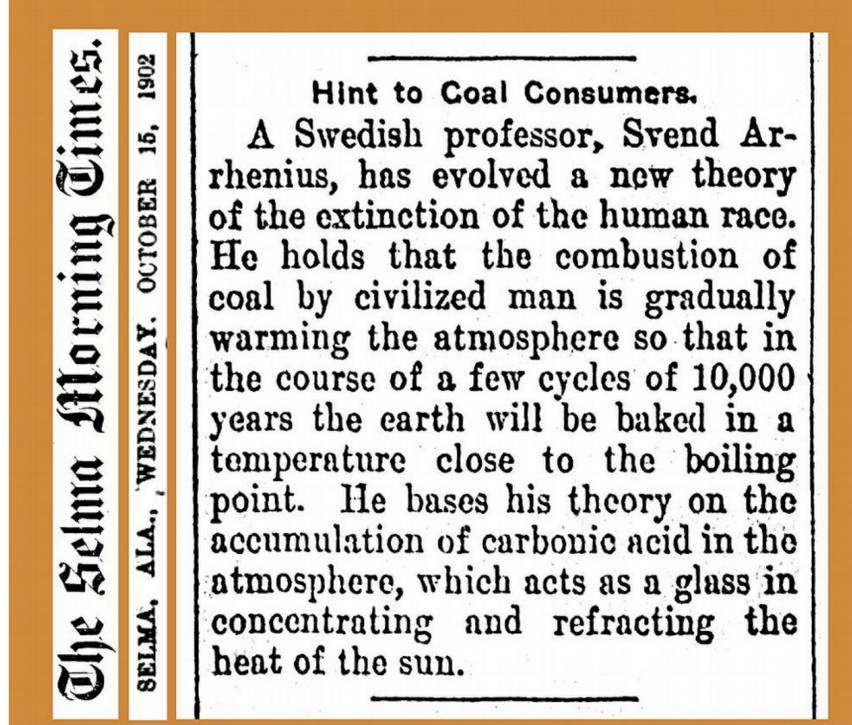
Contrary to all of the conspiracies and misunderstandings of how academic-based science is intended to function, modern Western scientists have been aware of the potential for global heating due to changes in atmospheric gases for about 200 years.

<https://www.smithsonianmag.com/smart-news/scientists-talking-about-greenhouse-gases-191-years-180956146/>

## On The Influence Of Carbonic Acid In The Air Upon The Temperature Of The Ground

In 1896, Swedish scientist Svante Arrhenius used the principles of chemistry to estimate the extent to which increases in the atmospheric carbon dioxide are responsible for the Earth's increasing surface temperature.

[https://www.rsc.org/images/Arrhenius1896\\_tcm18-173546.pdf](https://www.rsc.org/images/Arrhenius1896_tcm18-173546.pdf)



By The Selma Morning Times (newspaper in Alabama, US), October 15, 1902). <https://commons.wikimedia.org/w/index.php?curid=109836939>

## The Discovery of Global Warming - Timeline

A comprehensive timeline of the many issues related to global heating and climate change.

<https://history.aip.org/climate/timeline.htm>

## Hockey Stick Graph (Global Temperature)

On the most basic level, common sense usually says that you can't significantly increase or decrease something in the environment without expecting a change. Certain aspects and details can be debated endlessly, and that's partly what science is about, but the consensus is that the general trend in global temperature since the early 1900s is significantly up. Even one of the more critical and business-oriented climate scientists says that global warming is happening and that at least 40% of it is due to human activity. While scientists make mistakes, or base studies on flawed theories, extremely few would ever seek to intentionally deceive. More often by far, good research is taken out of context, or flawed research recruited, by those lacking informed opinions to support their positions. Ironically, they try to use science to argue against science. Science "is a process" as they say today; incomplete, open for debate and refinement. It seems foolish to take a piece of it and run too far with it. Let science say what it will, present your own proof, and don't shoot the messenger.

[https://en.wikipedia.org/wiki/Hockey\\_stick\\_graph\\_\(global\\_temperature\)](https://en.wikipedia.org/wiki/Hockey_stick_graph_(global_temperature))

## With A Drastic Decline In Tropical Fruit, Gabon's Rainforest Mega-Gardeners Go Hungry

Endangered forest elephants and other keystone species in Lopé National Park in central Gabon, such as western lowland gorillas, chimpanzees, and mandrills, could be facing famine due to a massive collapse in fruiting of tropical plants which require normal rainfall and a drop in temperature to trigger flowering. These conditions have been getting worse since the 1980s.

<https://news.mongabay.com/2020/10/with-a-drastic-decline-in-tropical-fruit-gabons-rainforest-mega-gardeners-go-hungry/>

## Moose Herds Threatened By Ticks, Brain Worms, The Result Of Climate Change

<https://www.bridgemi.com/michigan-environment-watch/moose-herds-threatened-ticks-brain-worms-result-climate-change>

## Watch Out! Creepy Kudzu Coming To Michigan?

The last thing we need is Kudzu. It has absolutely devastated the South. We already have an Asiatic Bittersweet invasion which is nearly as bad.

<https://www.bridgemi.com/michigan-environment-watch/watch-out-creepy-kudzu-coming-michigan>

## Energy Transition: The Dark Side Of The Electric Car Battery Cobalt Rush

We really really need to consider all aspects of the shift to renewable energy. Some of it seems to be doing more harm than good. Unfortunately, there may be no good options, but the technology is advancing rapidly and committing to specific systems on a large scale might be too hasty.

<https://www.france24.com/en/tv-shows/reporters/20230707-energy-transition-the-dark-side-of-the-electric-car-battery-cobalt-rush>

## The Rush For Nickel: 'They Are Destroying Our Future'

<https://www.bbc.com/news/world-asia-66131451>

## In Lula's First Six Months, Brazil Amazon Deforestation Dropped 34 Percent, Reversing Trend Under Bolsonaro

But it's still really bad. There needs to be a more serious international effort to protect both the Amazon and the tropical forest of central Africa. Deforestation has been going on for how many decades now?

<https://www.pbs.org/newshour/world/in-lulas-first-six-months-brazil-amazon-deforestation-dropped-34-percent-reversing-trend-under-bolsonaro>

## Biden Administration Moves To Restore Endangered Species Protections Dropped By Trump

If only the majority of conservatives were not so dead set on eliminating environmental protections.

<https://www.pbs.org/newshour/politics/biden-administration-moves-to-restore-endangered-species-protections-dropped-by-trump>

## Joshua Trees Win Long Term Protection In Environmental Victory

If you've never walked among Joshua Trees, you should do it before they're gone.

<https://www.theguardian.com/us-news/2023/jun/28/california-protect-joshua-trees-conservation>

## Joshua Trees Are Dying. This New Legislation Hopes To Tackle That

<https://www.npr.org/2023/07/05/1186110349/joshua-trees-are-dying-this-new-legislation-hopes-to-tackle-that>

## Conservationists Fight To Save Northern Atlantic Right Whales From Extinction

With today's technology and some imagination, this would seem to be a relatively simple problem that could be worked out. Again, ask yourself if you really need to eat lobster.

<https://www.pbs.org/newshour/show/conservationists-fight-to-save-northern-atlantic-right-whales-from-extinction>

## Nets, Coolers And Courage: A Day In The Life Of A Volunteer Bee Conservationist

Who would have thought that bees would be in so much trouble?

<https://www.npr.org/2023/07/01/1180459184/bumble-bees-animals-survey-conservation>

## Honeybee Deaths Rose Last Year. Here's Why Farmers Would Go Bust Without Bees

<https://www.npr.org/sections/health-shots/2023/07/03/1185391513/honeybee-deaths-rose-last-year-heres-why-farmers-would-go-bust-without-bees>

## The Black Market Endangered This Frog. Can The Free Market Save It?

Laissez-faire economists who have touted Adam Smith and the "invisible hand" as the cure-all for society, seem not to have imagined the insane black markets of today. That everything should become a market commodity in order to be protected is crass.

<https://www.npr.org/2023/06/30/1185313253/poison-dart-frog-black-market-smuggling>

## Rangers 'Heartbroken' After 600 Dead Arctic Tern Chicks Found In Northumberland

<https://www.theguardian.com/environment/2023/jul/10/dead-arctic-tern-chicks-northumberland-long-nanny-bird-flu-suspected>

## Migratory Birds Love New York Harbor Islands, But Humans Are Forcing Them Out

<https://gothamist.com/news/migratory-birds-love-new-york-harbor-islands-but-humans-are-forcing-them-out>

## Young Families Continued To Leave Cities Last Year – But At A Slower Pace

That cities are unable to retain their populations is always bad news for surrounding natural areas.

<https://www.npr.org/2023/07/09/1186483034/family-exodus-cities-census-data>

## Living Near Green Space Makes You 2.5 Years Younger: Study

But the good news is that those moving to the country may have more fulfilling lives and live a few years longer. Cities have been trying, but they need to have even more green spaces.

<https://bluewaterhealthy.com/living-near-green-space-makes-you-2-5-years-younger-study/>

## Evaluating The Ability Of Wetland Mitigation Banks To Replace Plant Species Lost From Destroyed Wetlands

Based on several wetland mitigation banks we monitor in great detail, they are even worse than what this study reveals. That's partly why we promote preservation of existing natural wetlands as mitigation whenever possible. There is a place for restored wetland as mitigation for sure, and there are good people doing their best, but the methods and oversight on most mitigation banks are largely inadequate at this point.

<https://besjournals.onlinelibrary.wiley.com/doi/10.1111/1365-2664.14391>

## Scottsdale Bans Natural Grass In Front Yards Of New Houses To Conserve Water Amid Arizona's Drought

This just in. Better late than never.

<https://www.cnn.com/2023/07/13/us/scottsdale-arizona-grass-ban-new-houses/index.html>

## Help Fund The TLC With CARS

Like many non-profit organizations these days, you can now support the TLC by donating old vehicles through CARS - Charitable Adult Rides and Services. CARS donates 70% of the net income from all vehicle donations to their non-profit partners such as the TLC.



Depending on your tax situation, your vehicle may be more valuable as an itemized deduction than the income you might get by selling it. Not only do you avoid the hassle of advertising and dealing with potential buyers, but you don't need to get the vehicle in running condition. CARS accepts any vehicle, driveable or not.

To donate, see our donation page at: <https://careasy.org/nonprofit/thumb-land-conservancy>

Or call 855-500-7433

## TLC Membership

With your membership, the TLC is better enabled to protect important natural areas in our region. We offer two membership levels: Individual and Family \$40, and Business \$200. Members will receive our e-mail news. Membership is also available in trade for volunteer 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. Make checks payable to "Thumb Land Conservancy". Mail checks and forms to: Thumb Land Conservancy, 4975 Maple Valley Road, Marlette, Michigan 48453. Make sure you provide us with your mailing address and e-mail address. Providing a phone number is optional but helpful. You can also make donations through the Square web on our web site at [ThumbLand.org](http://ThumbLand.org)

