

Thumb Land Conservancy 2019 Annual Report



Silver Trails Scout Reservation - Ravine in the north end of the camp



Thumb Land Conservancy

4975 Maple Valley Road, Marlette, Michigan 48453
810-346-2584 ♦ mail@ThumbLand.org ♦ www.ThumbLand.org



Thumb Land Conservancy

4975 Maple Valley Road, Marlette, Michigan 48453
810-346-2584 ♦ mail@ThumbLand.org ♦ www.ThumbLand.org

Thumb Land Conservancy 2019 Annual Report

2020 February 21

2019 was both a very good and a very bad year for the Thumb Land Conservancy. It's the year we finally negotiated a purchase agreement for the long-sought beach ridge and swale forest on the Bidwell property in Burtchville Township. We gained two new preserves and a new conservation easement. But, 2019 was also the same year our community suddenly lost the 74-year old Silver Trails Scout Reservation. The beautiful 270-acre camp on the Sanilac and Saint Clair County line was sold to a gravel company. We also lost a good friend in conservation, Jim Bearss of Ruby.

Despite these losses, we continue fundraising for the Bidwell property and Southern Lake Huron Coastal Park project. We continue stewardship on the Deerfield Wind Energy Preserve in Huron County, and on our five TLC nature sanctuaries. We removed invasive Garlic Mustard in the Port Huron State Game Area. We are gradually improving the historic North Street property in partnership with the Clyde Historical Society. We continued our education and outreach efforts through Thumb natural areas presentations, distribution of the TLC brochure, Thumb Nature Guide, TLC land protection guide, our newsletter, and updates to the TLC web page. In July, we held our second annual TLC yard sale at the Yale Bologna Festival.

At this point, the TLC is on-track to complete fundraising for the current phase of the Southern Lake Huron Coastal Park by our July deadline, having raised about \$220,000 of the \$305,000 budget. We are discussing park and trail options with potential project partners. The fulfillment of the Southern Lake Huron Coastal Park will result in a tremendous public asset for residents and visitors in the Blue Water Area.

Beyond our current projects, we are looking at expanding our work up to the Saginaw Bay, and have a 2020 goal of protecting at least one natural area in each of the six counties we serve in the Thumb. If all goes well, the TLC will welcome a new group of student interns in the spring of 2020. We also look forward to expanding our work with current and new partners.

A handwritten signature in black ink that reads "William Collins".

William Collins
Executive Director

Thumb Land Conservancy 2019 Annual Report

2019 Year-In-Review

The Thumb Land Conservancy focused on stewardship, education, and fundraising in 2019. Following is a summary of monthly activities.

January

- Completed and distributed the TLC 2018 Annual Report.
- Completed and submitted the Michigan Department of Environmental Quality 2017 monitoring and stewardship report for the Deerfield Preserve in Huron Township, Huron County.
- Completed grant applications for proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County. Contacted potential project partners and funders.

February

- Completed grant applications for proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County. Contacted potential project partners and funders.

March

- At the first quarter executive board meeting in March, TLC members and guests viewed *A Fortnight in the Wilderness* presentation by Executive Director William Collins, about the 1831 journey of Alexis de Tocqueville and Gustave de Beaumont along the western edge of the Thumb. *A Fortnight in the Wilderness* was an appendix to Alexis de Tocqueville's well-known book, *Democracy in America*, which provides the very insightful observations of Tocqueville and perhaps the best glimpse of the people, cultures, and feeling of the primeval forest wilderness of our region before it was largely overrun by settlers: <http://thumbland.org/AFortnightInTheWildernessPresentation.pdf>
- Volunteers burned invasive Japanese Barberry and Multiflora Rose on the 12-acre Deerfield Preserve in Huron Township, Huron County, west of Port Hope.
- Submitted purchase agreements and revised project plans and grant application materials for the proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County. Contacted potential project partners and funders.

April

- Volunteers burned invasive Japanese Barberry and Multiflora Rose on the 12-acre Deerfield Preserve in Huron Township, Huron County.
- Visited proposed Southern Lake Huron Coastal Park property acquisition with the Carls Foundation of Bloomfield Hills, Michigan.

May

- Eagle Scout candidate, Will Fuller, and volunteers from Algonac Troop 223 completed installation of boundary signs and invasive weed control on the 38.5-acre Gerrits Sanctuary in Ira Township, Saint Clair County.
- Volunteers burned invasive Japanese Barberry and Multiflora Rose on the 12-acre Deerfield Preserve in Huron Township, Huron County.
- Pulled invasive Garlic Mustard at the 17-acre Dead End Woods Sanctuary in Fort Gratiot, Saint Clair County.
- Visited proposed Southern Lake Huron Coastal Park property acquisition with potential local funder.
- Negotiated a purchase agreement for the 42-acre Bidwell Trust property, part of the proposed Southern Lake Huron Coastal Park in Burtchville Township, Saint Clair County.

June

- Received a matching grant of \$150,000 from the Carls Foundation of Bloomfield Hills, Michigan for acquisition of the Bidwell Trust property, part of the proposed Southern Lake Huron Coastal Park in Burtchville Township, Saint Clair County.
- Conducted our third annual Garlic Mustard removal in the Port Huron State Game Area in Clyde Township, Saint Clair County.
- Advocated for protection of Silver Trails Scout Reservation, a 270-acre camp about 2 miles west of Jeddo and 1 mile north of the Port Huron State Game Area along the west side of the Black River.
- Cut and burned invasive Japanese Barberry and Multiflora Rose on the 12-acre Deerfield Preserve in Huron Township, Huron County.
- Pulled invasive Garlic Mustard at the 17-acre Dead End Woods Sanctuary in Fort Gratiot, Saint Clair County.
- Revised grant applications for the proposed Southern Lake Huron Coastal Park project based on our May purchase agreement for the 42-acre Bidwell Trust property in Burtchville Township, Saint Clair County.

July

- Advocated for protection of Silver Trails Scout Reservation, a 270-acre camp about 2 miles west of Jeddo and 1 mile north of the Port Huron State Game Area along the west side of the Black River.
- Held the second annual Thumb Land Conservancy Yard Sale at the Yale Bologna Festival, City of Yale, Saint Clair County.
- Conducted monitoring and vegetative sampling on the 12-acre Deerfield Preserve in Huron Township, Huron County.
- Revised grant applications for the proposed Southern Lake Huron Coastal Park project based on our May purchase agreement for the 42-acre Bidwell Trust property in Burtchville Township, Saint Clair County.

August

- Advocated for protection of Silver Trails Scout Reservation, a 270-acre camp about 2 miles west of Jeddo and 1 mile north of the Port Huron State Game Area along the west side of the Black River.
- Coordinated purchase offers for the proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County. Contacted potential project partners and funders.
- Conducted the initial site inspection of the 27-acre Springborn Wetland Mitigation Bank just north of Marine City in East China Township, Saint Clair County.

September

- Advocated for protection of Silver Trails Scout Reservation, a 270-acre camp about 2 miles west of Jeddo and 1 mile north of the Port Huron State Game Area along the west side of the Black River.
- Conducted yard maintenance at the historic North Street rail station, post office, and general store in Clyde Township, Saint Clair County.
- Conducted a site inspection and coordinated herbicide application to control invasive Reed on the 27-acre Springborn Wetland Mitigation Bank just north of Marine City in East China Township, Saint Clair County.
- Accepted donation of the new 0.62-acre Bertha's Haven from the Michigan Nature Association. Bertha's Haven is located only about 150 feet north of our Peltier Beach Ridge Sanctuary in Fort Gratiot Township, Saint Clair County.

October

- Cleaned and repaired the historic North Street rail station, post office, and general store in Clyde Township, Saint Clair County.
- Reviewed and compiled historic aerial photographs and mapping as part of a phase 1 environmental investigation and baseline assessment of the proposed 11.5-acre Loznak property donation along Wills Street in the City of Marysville, Saint Clair County.

November

- Conducted on-site inspections and drafted a baseline assessment and conservation easement for the Koester parcel, 84.6 acres of mostly second-growth southern hardwood swamp in Fort Gratiot Township, Saint Clair County.
- Completed grant applications and promotional materials for the proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County.

December

- Drafted the Michigan Department of Environmental Quality 2019 monitoring and stewardship report for the Deerfield Preserve in Huron Township, Huron County.
- Completed grant applications for the proposed Southern Lake Huron Coastal Park land acquisitions in Burtchville Township, Saint Clair County.
- Closed on the new 11.5-acre Loznak Sanctuary.

Southern Lake Huron Coastal Park Project Burtchville Township, Saint Clair County

A line of several preserves and parks currently extends along Lake Huron through Fort Gratiot and Burtchville Townships. The preserves are generally inaccessible to the public and somewhat disconnected from each other, but not by much. With a little effort, we are within reach of creating a continuous 4.5-mile coastal park connecting the Port Huron area to Lakeport State Park. The proposed Southern Lake Huron Coastal Park would encompass most of the remaining beach ridge (or dune) and swale complex along the eastern shoreline of Michigan's Thumb region, a linear forested greenway connecting Port Huron with shoreline communities into Sanilac County. This coastal forest zone is well-suited for a recreational walking and biking trail with interpretive signage.



1 Mehta Preserve
2 Fort Gratiot County Park
3 MNA Galbraith Preserve
4 TLC Peltier Beach Ridge Sanctuary
5 St. Clair County Drain Commissioner Water Works Preserve
6 Blue Water Development Preserve
7 St. Clair County Drain Commissioner Shorewood Forrest Preserve
8 St. Clair County Drain Commissioner Shorewood Forrest Preserve
9 Shorewood Forrest Preserves (3)
10 Presbyterian Villages Lake Huron Woods Preserve
11 Fort Gratiot Nature Park

The future Southern Lake Huron Coastal Park is located on an ancient coastal landscape of parallel beach ridges and wetland swales with rare species unique to the Blue Water Area.

The coastal forest is vital for migratory birds that move and nest along Lake Huron.

When completed, the park will feature a nearly 4 mile trail.

SOUTHERN LAKE HURON COASTAL PARK

Lake Huron

Thumb Land Conservancy
42-Acre Bidwell Preserve Acquisition
Part of the Southern Lake Huron Coastal Park
Connecting Fort Gratiot to Lakeport State Park

Thumb Land Conservancy
ThumbLand.org • 810-346-2584 • mail@ThumbLand.org

The beach ridge and swale complex along Lake Huron is a big part of what makes the Blue Water Area unique and a desirable place to visit and live. Yet, few understand the character and significance of this land because there is very limited public access to it. Routing a trail through the interior of this coastal forest corridor will provide a great opportunity for recreation, providing a small wilderness experience within just a few miles of Port Huron. The proposed forest trail will increase safe pedestrian access to public parks, as opposed to being squeezed to road shoulders with traffic, noise, exhaust, and major safety risks. Based on a 2019 trail plan commissioned by Saint Clair County, 37% of the population is completely uncomfortable with biking along roadways and 51% are reserved in their comfort. A clear majority prefer biking away from traffic. The Bidwell Preserve and proposed Southern Lake Huron Coastal Park will get people out in nature and educate area residents about significant natural features where they live, not a long drive away in some other place.

The Southern Lake Huron Coastal Park project would complete two major gaps in the Bay to Bridge Trail in Saint Clair County, specifically "Gap 20" and "Gap 21" identified in the County plan. As proposed, the coastal trail would pass through at least two TLC preserves, the Peltier Beach Ridge Sanctuary and future Bidwell Preserve. Currently, most of the preserves to be included in the larger park are difficult, if not impossible, for the public to access without trespassing on adjoining properties. The proposed Southern Lake Huron Coastal Park and trail would open most of these preserves to the public. Once connected, the Southern Lake Huron Coastal Park is likely to become a regional destination for bicyclists, birders, naturalists, and other visitors.



In early 2018, the TLC began renewed efforts to acquire key parcels needed to complete a 4.5-mile coastal park along Lake Huron, connecting Port Huron to Lakeport State Park. The proposed Southern Lake Huron Coastal Park will eventually protect most of the remaining beach ridge and swale complex along the eastern shoreline of Michigan's Thumb region. This important coastal forest habitat supports rare species found in few other regions and is vital for migratory birds that move and nest along Lake Huron.



The effort to protect large tracts of beach ridge and swale forest in Fort Gratiot and Burtchville Townships dates back to the late 1980's with the vision of Bertha Daubendiek, founder of the Michigan Nature Association. Before the TLC existed, the Bidwell property on the north side of Metcalf Road in Burtchville Township was targeted for preservation and some of us worked on that effort for the MNA through the early 2000's. The Bidwell property contains some of the best beach ridge and swale forest of what little remains from Ohio to the Saginaw Bay. Things didn't work out and the effort was mostly dropped until 2018. Finally, on May 26 of 2019, thanks to the determined work of our realtor, Dave Ladensack of Summit Realty in Burtchville, the TLC received a signed purchase agreement for the 42-acre Bidwell Trust property. Our thanks also to Nadine Scahill of Realty Executives, Home Towne, representing the Bidwell family, for making this happen. The TLC now has until July 31, 2020 to fundraise and close on the property.

Adding greatly to our good news, on June 18 the TLC was notified that we will receive a matching grant of \$150,000 from the Carls Foundation of Bloomfield Hills, Michigan for acquisition of the Bidwell Trust property. This grant will fund half the project cost, which includes the land purchase and a \$20,000 stewardship endowment. Most of the credit goes to Carls Foundation Executive Director, Elizabeth Stieg, who realized our vision for the Southern Lake Huron Coastal Park. Elizabeth met with us to look at the

Bidwell site on April 19. That day, seeing the extensive forest and even hearing the stormy waves of Lake Huron crashing on the distant beach, the coastal environment and potential of this place for natural recreation made a great impression.

William and Marie Carls established the Carls Foundation in 1961 to fund children's welfare and preservation of natural areas. Bill Carls immigrated to the United States from Germany in 1924 at the age of 21. With his training and experience in European apprentice programs, he was readily employed with major industrial companies in Detroit. In 1945, Bill Carls started Numatics, Inc. in his garage. The company is headquartered in Highland, Michigan and remains a leading worldwide manufacturer of industrial air valves.

The Carls Foundation has funded a lot of land preservation in Michigan and in our region where few other foundations have. A local project includes the Michigan Nature Association's Sharon Rose Leonatti Memorial Nature Sanctuary in Kimball Township with a large population of Michigan Endangered Painted Trillium. The Carls Foundation has also funded the Six Rivers Land Conservancy in their efforts to acquire large parts of Anchor Bay Woods in New Baltimore adjacent to our Gerrits Sanctuary in Ira Township. Our sincere thanks again to the Carls Foundation for sharing our vision of the Southern Lake Huron Coastal Park. For more information about the Carls Foundation, see their web site at: <http://CarlsFdn.org/>.

The beach ridge and swale landscape complex is a very unique formation of parallel sand ridges and muck wetlands. The series of sand ridges were deposited from about 4,500 years ago as high post-glacial lake levels receded as the Great Lakes outlet shifted from the Des Plaines River outlet to the Mississippi River at what would be Chicago, to the new Saint Clair River outlet at what would be Port Huron. The Saint Clair River down-cut rapidly which caused the post-glacial lake water to drop about 30 feet. At the same time, the earth's crust rose, having been depressed by the weight of glacial ice during the last stages of the Wisconsin glacial advance. The earth's crust is still rising slightly from the ancient depression of ice. The continued rise of the land and lowering of the Great Lakes has left a series of dry upland sand ridges and mucky wetland troughs or swales between. This beach ridge and swale landscape provides not only a unique natural community, but a record of Michigan's post-glacial past.

The beach ridge and swale complex is very limited in Michigan and covers just a small part of Fort Gratiot and Burtchville Townships in Saint Clair County where it ranges from about a quarter-mile to a half-mile wide. It originally extended from the Blue Water Bridges into southern Sanilac County. The remaining formation north of Port Huron is the only significant occurrence from Ohio to the Saginaw Bay. The coastal forest habitat supports rare and uncommon species found in few other regions and is vital for migratory birds that move and nest along Lake Huron. Ongoing threats to the beach ridge and swale complex include residential and commercial development along the M-25 highway corridor, speculative land clearing and grading, forest fragmentation, sand mining, invasive weeds, overgrazing by deer, loss of forest canopy due to tree pests or diseases, and incursions by off-road vehicles.

The community is usually referred to as "wooded dune and swale complex". However, "beach ridge and swale complex" is a more descriptive phrase for the landscape of the eastern Thumb of Michigan. The ridges were shaped primarily by water. As with all of the ridges around the Great Lakes, the sand was first deposited as beaches that gradually rose above the lake influence. Wind was a secondary influence, the non-forested shoreward ridges becoming dunes. The ridges along the southwestern shore of Lake Huron were probably less dune-like because prevailing winds are from the west and would have been buffered by adjoining forest to the west.

The beach ridge and swale complex provides critical shoreline habitat for uncommon and rare plant and animal species found in few other parts of Michigan, such as Purple-flowering Raspberry, Yellow Lady-slipper orchid, Pink Lady-slipper orchid, Eastern Hog-nosed Snake, and Blue-spotted Salamander, as well as a great abundance of migratory birds. Based on records maintained by the Michigan Natural Features Inventory, there are approximately 30 Endangered, Threatened, or Special Concern species that could occur in the beach ridge and swale community of Saint Clair County.



Of all species, Purple-flowering Raspberry - *Rubus odoratus* is the most emblematic of the beach ridge and swale community in Saint Clair County where it is known only from ancient beach ridges along Lake Huron and one location along the Saint Clair River. Purple-flowering Raspberry is essentially the Lower Peninsula's equivalent of the Upper Peninsula's well known Thimbleberry - *Rubus parviflorus*, being so closely related that they hybridize where their ranges overlap in the northern Lower Peninsula. Like Thimbleberry, Purple-flowering Raspberry has no thorns and produces large flowers and big tasty red fruits. But unlike the white flowers of Thimbleberry, as the common name suggests, Purple-flowering Raspberry produces vivid purple to magenta flowers with subtly contrasting pale yellow centers. While the prolific Thimbleberry is thought to have moved into Michigan from western North America as the last glacial ice melted back thousands of years ago, Purple-flowering Raspberry moved into Michigan from the east and is at the western edge of its range here, where native populations are relatively sparse and probably limited to only seven coastal counties, primarily along Lake Huron.



Yellow Lady-slipper - *Cypripedium parviflorum* and Pink Lady-slipper - *Cypripedium acaule* have been described as common orchids in Michigan, but both species are actually rare, limited to very specific habitats, and increasingly imperiled. Yellow Lady-slipper orchids are found primarily in the beach ridge and swale complex of Saint Clair County. Pink Lady-slipper orchids are more common in the dune and swale complex along Saginaw Bay. Despite how common or not these orchids may be, it is always a wonder to encounter these unusual plants in full bloom, usually in mid May. Yellow Lady-slipper is typically located in moist mucky sand along beach ridge bases. Pink Lady-slipper occurs on higher and drier sand.



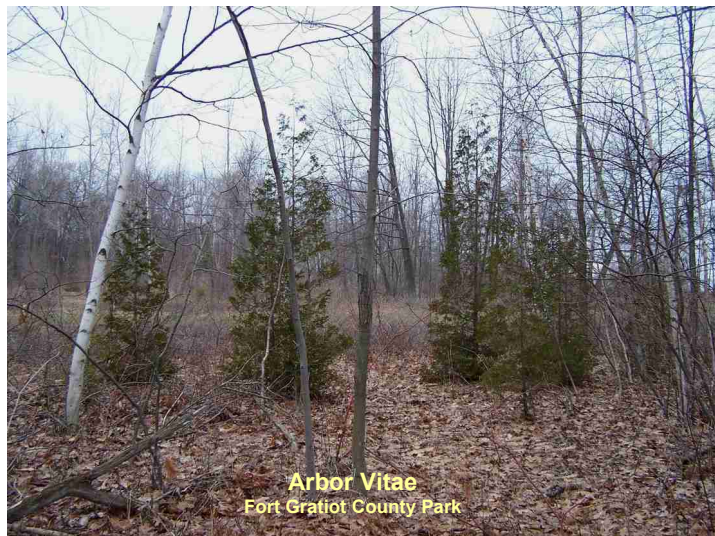
The Eastern Hog-nosed Snake - *Heterodon platyrhinos* is a very uncommon snake in Michigan, found almost exclusively in semi-open sand ridges of the complex in Saint Clair County. While more common in the southeast and southern plains of the United States, the Eastern Hog-nosed Snake is considered to be at moderate risk of extirpation throughout the Great



Blue-spotted Salamander

Lakes region, Ontario, and much of New England. The Eastern Hog-nosed Snake is non-venomous, but well known for flattening its upper neck and head like a cobra. When disturbed by a potential predator, they often roll over and play dead with their mouths open.

The Blue-spotted Salamander - *Ambystoma laterale* ranges across the northeastern United States and adjacent Canada to the James Bay. The salamander is found primarily in moist deciduous forests and swamp woodlands, especially with vernal pools. The Blue-spotted Salamander has been described as fairly common statewide, but seems to be particularly associated with the beach ridge and swale complex in Saint Clair County.



Arbor Vitae
Fort Gratiot County Park

Northern White-cedar or Arbor Vitae – *Thuja occidentalis* is not rare, but it is characteristic of the beach ridge and swale complex in Saint Clair County, and occurs in few other areas of southeast Michigan, limited primarily to relatively undisturbed muck swamps, lake and stream margins, and deep shaded ravines. The few Arbor Vitae remaining in the beach ridge and swale complex are remnant of the original that covered much of this landscape a few hundred years ago prior to European-American settlement and important to retain for restoration of the plant community and value to wildlife. The regeneration of Arbor Vitae is now severely limited due to over-grazing by Eastern White-tailed Deer.



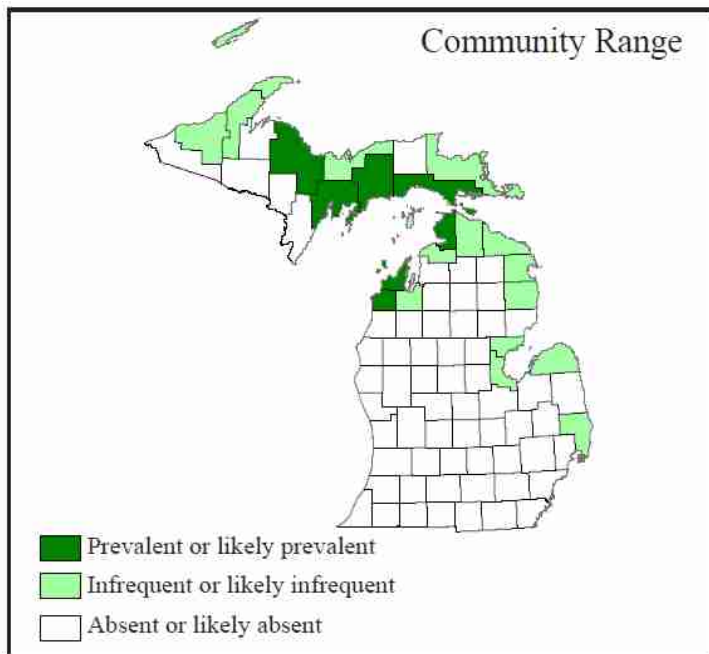
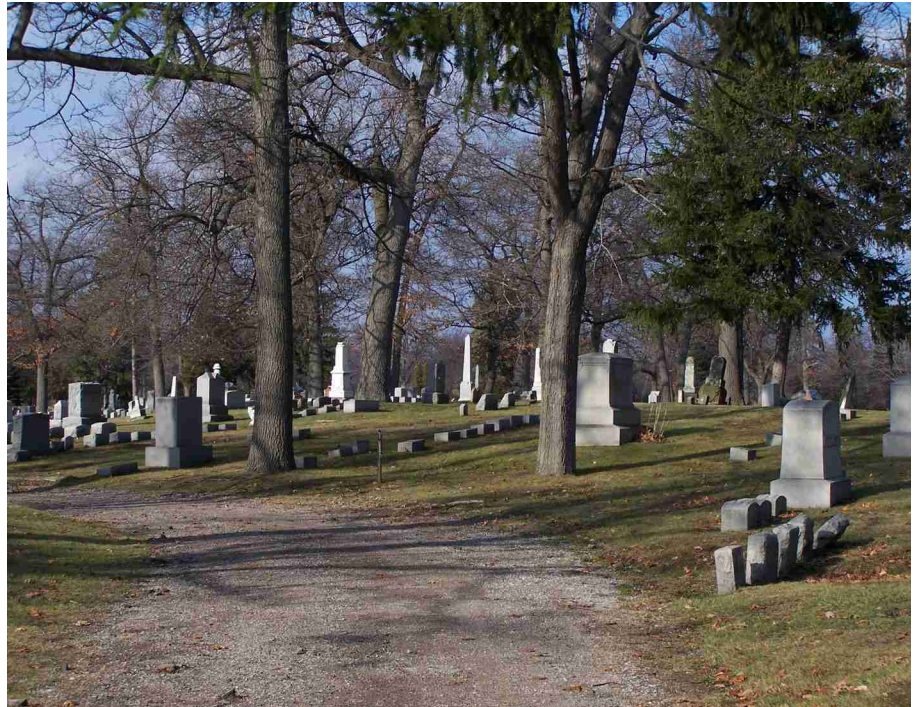
Magnolia Warbler
Shorewood Forrest Preserve, Fort Gratiot

The coastal forest is vital for migratory birds that move and nest along Lake Huron. Recent species observations provided by the local Blue Water Audubon Society for the beach ridge and swale habitat of Saint Clair County include American Redstart, Bald Eagle (Michigan Special Concern), Barred Owl, Bay-breasted Warbler, Black-and-white Warbler, Blackburnian Warbler, Blackpoll Warbler, Black-throated Blue Warbler, Black-throated Green Warbler, Blue-gray Gnatcatcher, Blue-headed Vireo, Blue-winged Warbler, Boreal Owl, Canada Warbler, Cape May Warbler, Cerulean Warbler (Michigan Threatened), Chestnut-sided Warbler, Common Nighthawk (Michigan Special Concern), Common Yellowthroat, Connecticut Warbler, Cooper's Hawk, Eastern Towhee, Eastern Wood-Pewee, Golden-crowned Kinglet, Golden-

winged Warbler, Gray-cheeked Thrush, Hairy Woodpecker, Hermit Thrush, Hooded Warbler (Michigan Special Concern), Indigo Bunting, Kentucky Warbler, Least Flycatcher, Louisiana Waterthrush (Michigan Threatened), Magnolia Warbler, Merlin (Michigan Threatened), Mourning Warbler, Nashville Warbler, Northern Goshawk (Michigan Special Concern), Northern Parula, Northern Saw-Whet Owl, Olive-sided Flycatcher, Ovenbird, Palm Warbler, Philadelphia Vireo, Pileated Woodpecker, Pine Grosbeak, Pine Siskin, Pine Warbler, Red-bellied Woodpecker, Red-breasted Nuthatch, Red-eyed Vireo, Red-shouldered Hawk (Michigan Threatened), Rose-breasted Grosbeak, Ruby-crowned Kinglet, Scarlet Tanager, Sharp-shinned Hawk, Swainson's Thrush, Tennessee Warbler, Tufted Titmouse, Veery, Whip-poor-will (Michigan Special Concern), White-breasted Nuthatch, White-winged Crossbill, Wilson's Warbler, Wood Thrush, Yellow Warbler, Yellow-bellied Sapsucker, Yellow-billed Cuckoo, Yellow-rumped Warbler, and Yellow-throated Vireo.

The beach ridge and swale landscape complex is very limited geographically, occurring only along the Great Lakes and originally covering only about 1% of Saint Clair County, and even less of the Thumb region as a whole. The landscape complex in Saint Clair County is the only significant occurrence remaining from Ohio to Saginaw Bay. Very little of this unique shoreline community remains intact, due largely to construction of State Highway M-25 and subsequent development along this corridor.

The Michigan Natural Features Inventory (MNFI) considers Great Lakes wooded dune (or beach



ridge) and swale complex as a distinct natural community in Michigan because of the unique assemblage of physiographic, soil, and vegetative components that provide high quality habitat for numerous shoreline species. The MNFI ranks the Great Lakes complex as a rare to uncommon community both statewide and globally. There are landscapes of similar geologic origin along oceans and seas, but plant and animal communities of the Great Lakes complex are unique, and much of the Great Lakes landscape has been destroyed by development and hydrology alterations.

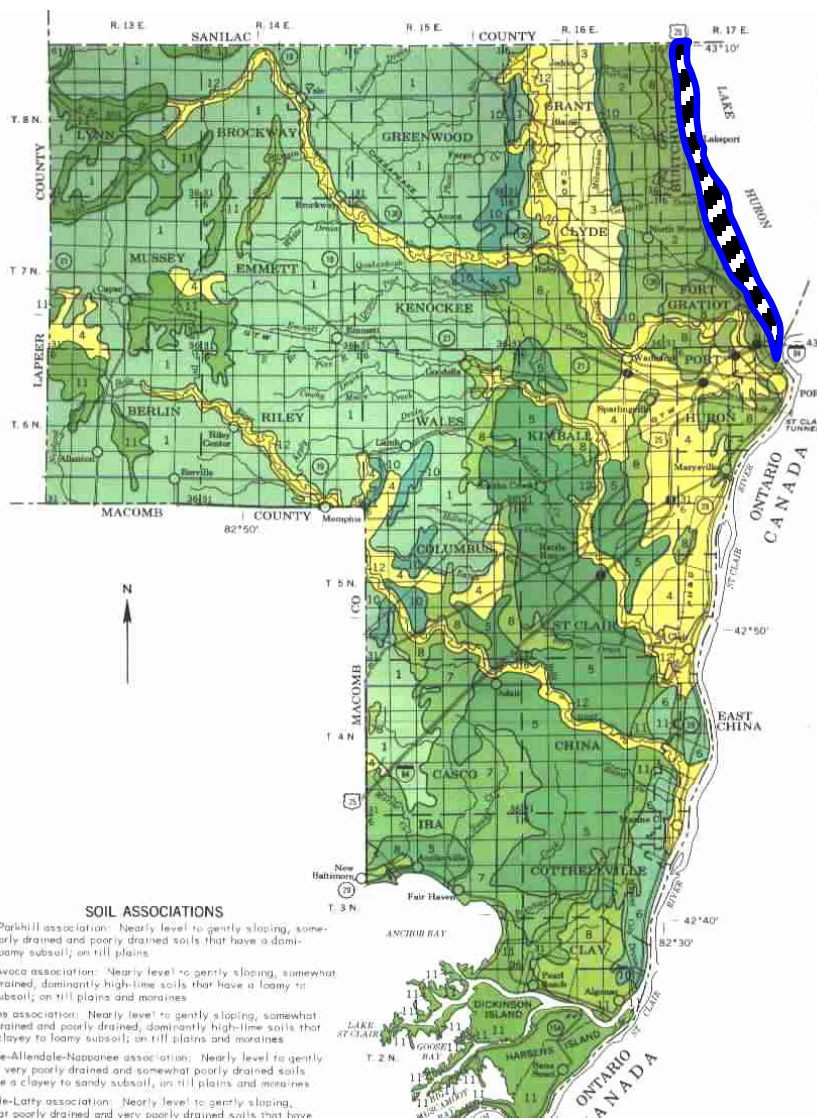
The primary soil type of the beach ridge and swale landscape in Saint Clair County is Wainola-Tobico complex. About half of this soil complex is somewhat poorly drained Wainola fine sand forming the upland beach ridges. The other half is very poorly drained Tobico mucky

fine sand and pure muck in the wetland swales between the ridges. The Tobico mucky fine sand portion of the complex is a hydric soil. This soil complex is restricted in Saint Clair County to a narrow strip along Lake Huron in Fort Gratiot and Burtchville Townships, covering only about 0.7% of the county in 1970 when soil survey data was compiled.

Today, significantly less of this unique shoreline community remains intact. What remains of the landscape in Fort Gratiot and Burtchville is the only significant occurrence from Ohio up to the tip of the Thumb where there is a similar formation at Port Crescent State Park and Sleeper State Park, and along other parts of Saginaw Bay. In Saint Clair County, the sand ridges average about 3 to 4 feet above the adjoining swales. The largest and oldest beach ridge runs continuously along the western limit of the landscape, furthest inland from Lake Huron. Although much of it has been mined out, this big sand ridge is still intact through Lakeside Cemetery and into Port Huron near the Blue Water Bridges where it is over 500 feet wide and up to 15 feet high. The largest relatively intact portion of the complex in Saint Clair County is now limited to an approximately 4-mile long strip of forest tracts averaging about one-quarter mile wide. It is critical to protect and restore what remains before it becomes less of a coastal ecosystem and more a patchwork of unsustainable remnants.

The most imminent and devastating threat to the beach ridge and swale complex in Saint Clair County is development, or land clearing and grading as speculative preparation for development. Some landowners have cleared large areas of forest with the misguided intent of drying-up wetlands. Others have graded upland sand ridges into the adjacent wetland swales. Forest clearing and wetland filling not only destroys the immediate impact area, but degrade the beach ridge and swale complex as a whole by fragmenting the forest, altering the hydrology, and disrupting ecological functions of the community inherent in its natural linear connectivity. such as a migratory bird corridor. An increasing threat to the entire beach ridge and swale complex is sand mining. Trucking costs will always make local sand sources more desirable to contractors. Other significant ongoing threats to the beach ridge and swale complex include invasive plant species expansion, overgrazing by Eastern White-tailed Deer, loss of forest canopy due to the Emerald Ash Borer, continued degradation of the plant and animal community due to decreased forest cover, and incursions by off-road vehicles.

Being a linear landscape, the coastal beach ridge and swale forest is naturally suited as a greenway corridor. A proposed walking and biking trail would traverse the entire park from Fort Gratiot north to Lakeport State Park, providing an excellent opportunity for interpretive signage describing the landscape, geology, and natural community. We believe the park would be a significant destination for birders as the



coastal forest is a major corridor for migratory birds moving up and down along Lake Huron. When completed and with some promotion, this coastal park could attract birders on a level approaching Point Pelee National Park in Ontario.

The proposed Southern Lake Huron Coastal Park project will fulfill several objectives of County and regional plans, including the following:

2016 Saint Clair County Master Plan

<https://www.stclaircounty.org/Offices/metro/CountyMasterPlan.aspx>

- Greater access to healthy communities.
- Connect people to parks and transportation options.
- Utilize inherent connectivity of coastal communities.
- Protect and preserve valuable natural resources and sensitive environments.
- Protect woodlots, wetlands, and other natural vegetation.
- Preserve natural character of shorelines.
- Preserve forest, wetlands, and other ecologically valuable landscapes.
- Discourage fragmentation of natural environment.
- Protect and preserve water resources.

2017-2021 Saint Clair County Master Recreation Plan

https://www.stclaircounty.org/Offices/metro/forms/StClairCounty_2017_2021_MasterRecreationPlan_FULL.pdf

- Preservation Of Resources - Support conservation and stewardship of land, water, and natural resources. Quality of life is improved by parks and open space.
- Quality User Experience - Develop and maintain recreational facilities that draw people to experience nature and to be active outdoors.
- Connected Greenways / Blueways - Connect land and water trails within the county to natural areas, recreation areas, and other trail systems.
- Explore potential locations for acquisition of significant property or properties, such as: Significant properties in conjunction with the Southeast Michigan Greenways Plan and the Michigan Natural Features Inventory.
- Develop programs to interpret natural, cultural and physical resources, and educate the public.

2013 Blue Water Trail Towns Master Plan

<http://www.bluewaysofstclair.org/downloads/bwttpart1.pdf>

- The focus of this Trail Town Plan is on seven communities that define the greater “Coastal Thumb Region” of Michigan, including Lexington and Port Huron. The Southern Lake Huron Coastal Park would establish a high quality connection between shoreline communities in Saint Clair and Sanilac Counties. Recommendations in the plan include:
- Promote the trail corridor as a tourist destination.
- Build partnerships with community groups and stakeholders to develop local interest and buy-in.

2014 SEMCOG Green Infrastructure Vision for Southeast Michigan

<https://semcog.org/Reports/GIVision/index.html>

- Protect high quality wetlands.
- Connect green corridors to parks and other natural areas.
- Increase public access along Great Lakes.
- Fund trail improvements to fill gaps in Southeast Michigan trail network.
- Coordinate non-motorized trail planning with green infrastructure planning.

In September of 2019, the Saint Clair County Drain Commissioner acquired a 60-acre parcel within the coastal beach ridge and swale forest in Burtchville Township located only a few hundred feet northwest of the Bidwell Trust property. Roughly half of the parcel being wetland, the Drain Commissioner plans to preserve the land under a conservation easement as mitigation for impacts to State-regulated wetland necessary for county drain projects. We have worked with two Drain Commissioners to protect about 300 acres of land in the County, preserved as mitigation for State-permitted wetland impacts. The latest 60-acre addition will complete a major portion of the Southern Lake Huron Coastal Park, located less than a half-mile from Lakeport State Park.

The TLC continues fundraising for the 42-acre Bidwell Trust property in Burtchville Township. In addition to the \$150,000 matching grant from the Carls Foundation, we have received major funding commitments in 2020. On January 3, 2020, the Consumers Energy Foundation made a grant of \$30,000. On January 30, SEMCO ENERGY Gas Company of Port Huron donated \$2,000. On February 13, the Community Foundation of Saint Clair County made a grant of \$20,000. The TLC has also raised about \$15,000 as individual donations and pledges. Approximately \$80,000 more is needed for the land purchase, stewardship fund, and other expenses, and we must close on the Bidwell property by July 31 of this year.

A Fortnight in the Wilderness

At our first quarter board meeting in March of 2019, Executive Director, William Collins, gave a presentation on *A Fortnight in the Wilderness*, an account written by Alexis de Tocqueville of his 1831 journey by horse with Gustave de Beaumont on the Saginaw Trail from Detroit to Pontiac and north to the early settlements of Flint and Saginaw. Their travel in Michigan was part of a much larger journey throughout the United States, southeast through the Carolinas, southwest to the Mississippi River, northwest to Green Bay, Wisconsin, and northeast to Quebec. Their route on the Saginaw Trail was basically what would become Woodward Avenue in the Detroit area and Dixie Highway (US-24, Saginaw Road, and M-54) from Pontiac to Saginaw. They detoured slightly on a smaller trail north of Flint and briefly traveled along the western edge of the Thumb, crossing the Cass River at a Native American settlement just west of what would become Frankenmuth.

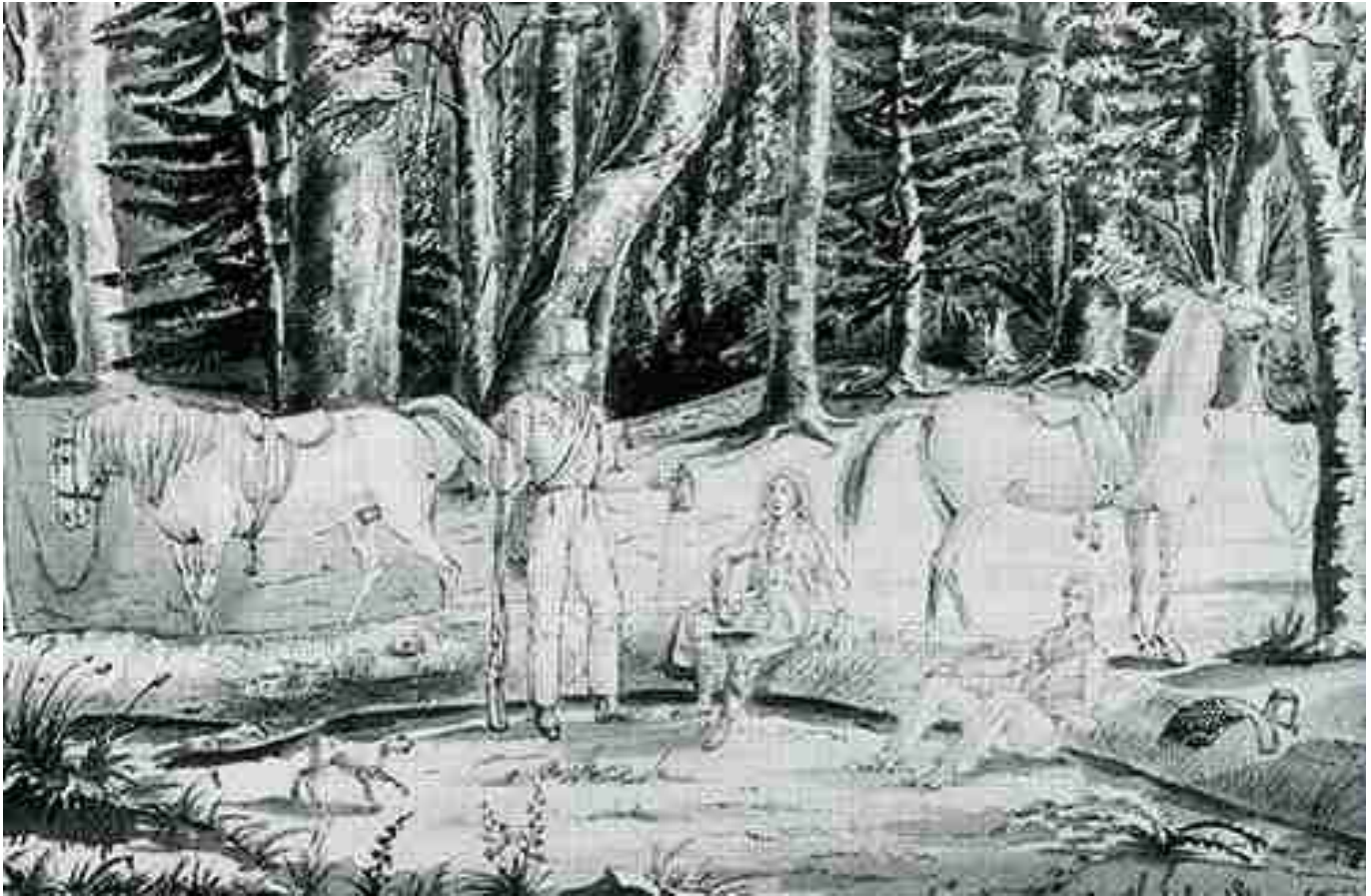
After their return to Detroit, Tocqueville and Beaumont traveled by steamship up through Lake Saint Clair and the Saint Clair River. They stopped for a day at the mouth of the Black River, at what would become Port Huron, where the ship crew gathered firewood and Tocqueville and Beaumont went duck hunting over on the Canadian side of the Saint Clair River. They continued up through Lake Huron and eventually to Green Bay, Wisconsin and back.

Tocqueville was the author of the well known book *Democracy in America*, once used as a school textbook and frequently cited in political commentary. *A Fortnight in the Wilderness* was later added as an appendix to *Democracy in America*. The very insightful observations of Tocqueville provide perhaps the best glimpse of the people, cultures, and feeling of the primeval forest wilderness of our region before it was largely overrun by settlers. If you have never read *A Fortnight in the Wilderness* and are curious about how it felt to stand in the untouched forest of Michigan almost two centuries ago, you need to read it. If you want a first-hand account of settlers and the few remaining Native Americans of that time, read it.

See the following link on our web site with a summary of the presentation and nearly the complete text of *A Fortnight in the Wilderness*:

<http://thumbland.org/AFortnightInTheWildernessPresentation.pdf>

A far more comprehensive presentation, entitled, *Aristocracy on the Saginaw Trail: Tocqueville in Michigan*, is available from the Clarke Historical Library of Central Michigan University at the following link:
<https://www.cmich.edu/library/clarke/Pages/Aristocracy-on-the-Saginaw-Trail-.aspx>



Drawing by Gustave de Beaumont of the travel party north of the Cass River near present Frankenmuth, Michigan. Shown left to right are a horse, Sagan-Cuisco's dog, Alexis de Tocqueville, Sagan-Cuisco, a horse, and Gustave de Beaumont. Missing is the younger Native American guide, possibly at a nearby Indian camp.

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, about 4 miles west of Port Hope. Like many perennial 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. Our control work on the Deerfield Wind Energy Preserve 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 very few barberry plants remaining. Those that survive are largely 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. 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 – The east preserve boundary thick with Japanese Barberry.



After - 2019 May 20 - Same location with very few Japanese Barberry. Almost all barberry stems in this area are dead.

Garlic Mustard Pulls Dead End Woods Sanctuary Fort Gratiot Township, Saint Clair County

The TLC conducted the annual Garlic Mustard removal in the Dead End Woods Sanctuary on May 24 and 25 of 2019. Our usual work area near the dead end of Wilson Drive was still looking good with very few Garlic Mustard plants remaining. Our removal is gradually shifting east by several hundred feet, although some Garlic Mustard patches might be moving back west. Fortunately, there is a natural barrier where the woods is too wet for Garlic Mustard to spread back to the dead end area.

In 2019, our little population of Spikenard – *Aralia racemosa*. seemed to be stable and possibly increased by a few plants. At some point we will attempt to spread this uncommon plant species to other parts of the Dead End Woods Sanctuary.



Foamflower – *Tiarella cordifolia* in full bloom surrounded by the leaves of Yellow Trout Lily – *Erythronium americanum*. Just a few of the many native plants we are trying to protect in the Dead End Woods Sanctuary. Foamflower is assigned a coefficient of conservatism of 9 out of 10 in Michigan, meaning that it truly represents our original native flora.



Spikenard – *Aralia racemosa* plants just leafing out in the Dead End Woods Sanctuary in May of 2019. Spikenard is a very uncommon species of mature forest, assigned a coefficient of conservatism of 8 out of 10 in Michigan. Just one of the species demonstrating that the Dead End Woods Sanctuary is an important living museum of our native flora.

Third Annual Garlic Mustard Pull Port Huron State Game Area Clyde Township, Saint Clair County

On June 1 of 2019, the TLC conducted its third annual Garlic Mustard removal in the Port Huron State Game Area. We made a lot of headway on setting back the Garlic Mustard in our usual work area northeast of the Ford Road trail end near the Black River. In addition to pulling the mature flowering plants, we put one of our weed torches to work on the thousands of Garlic Mustard seedlings, only a few inches tall, which cover the ground beyond where we have been pulling the past two years. While some of the native plants are burned in the process, the torch does not kill the roots or bulbs of most perennials. Our native plants are generally fire-adapted and will return. Garlic Mustard is a biennial plant, meaning that it lives only a few years before flowering, seeding and dying. Because of this it is more susceptible to fire and likely most of the seedlings are completely killed. In addition, the fire kills much of the seed that might remain dormant on the ground surface from last year.

Garlic Mustard appears to have originally colonized a historically disturbed area where the trees were pushed over and the ground partially graded decades ago, apparently by the Department of Natural Resources to create an opening for deer or other game species. This area, now with younger trees and a more open canopy, appears to be the source of Garlic Mustard intrusion into the surrounding mature forest. If we can control the Garlic Mustard in this area, we should be able to eventually eliminate it from the general vicinity.

Before we drove up the trail to our work area, we met six bird watchers in two different groups at the Ford Road gate. The first was a husband and wife from the area who are beginning birders and very interested in the great diversity of warblers in the State Game Area. The next was four guys from the Rochester area who were loaded with new scopes, cameras, and other gear. It was very encouraging to see that the Port Huron State Game Area truly is a regional attraction for birders and other naturalists. The guys from the Rochester area mentioned the web site eBird.org. That site and others have played a part in getting more people out to local natural areas: <https://ebird.org/home>



Left: Burning Garlic Mustard seedlings with a weed torch while being careful of Sugar Maple seedlings and other native plants. Right: TLC board member, Kay Cumbow, with an arm load of Garlic Mustard.

Eagle Scout Project Gerrits Sanctuary Ira Township, Saint Clair County

In the spring of 2019, Eagle Scout candidate, Will Fuller, completed installing boundary signs around our 38.5-acre Gerrits Sanctuary in Ira Township, Saint Clair County. Will and his crew worked on the Gerrits Sanctuary for several weekends, installing signs every 200 feet along the perimeter. They wrapped-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 from Algonac Scout Troop 223 that improved our Gerrits Sanctuary. Will is the son of TLC board member Fred Fuller and former State Representative, Karen Willard.




GERRITS NATURE SANCTUARY

property of the
Thumb Land Conservancy

This 38.5-acre nature sanctuary is protected in memory of the former owners, Dr. James F. Gerrits, his wife Lois Gerrits, and the Gerrits family. The public is welcome to access and enjoy this sanctuary, but please respect the rules so we can protect this area for future generations.

ANY DISTURBANCE OR ALTERATION OF THIS NATURAL AREA IS FORBIDDEN, INCLUDING BUT NOT LIMITED TO • DESTRUCTION, REMOVAL, OR INTRODUCTION OF PLANTS, ANIMALS, OR ANY NATURAL MATERIALS • CUTTING, FELLING, OR REMOVAL OF LIVE OR DEAD TREES • MOWING OR TRIMMING OF VEGETATION • FILLING, DIGGING, GRADING, TILLING, OR ANY GROUND DISTURBANCE • SURFACE OR GROUND WATER DRAINAGE • MAKING OR EXPANDING TRAILS • CONSTRUCTION OR PLACEMENT OF STRUCTURES, MATERIALS, OR EQUIPMENT • DISPOSAL OR PLACEMENT OF ANY TRASH, SCRAP, OBJECTS, OR ANY DEBRIS INCLUDING GRASS CLIPPINGS, LEAVES, OR BRANCHES • APPLICATION OF ANY CHEMICALS, HERBICIDES, PESTICIDES, BIOLOGICAL AGENTS, OR ANY SUBSTANCE • USE OF ANY ORV, 4-WHEELER, MOTORCYCLE, SNOWMOBILE, OR ANY MOTORIZED VEHICLE, • HORSE RIDING, • BICYCLING, • PAINTBALL SHOOTING • HUNTING • TRAPPING • CAMPING • FIRES • LIVESTOCK GRAZING • DEFACING OR VANDALISM OF ANYTHING • AND ANY OTHER ACTIVITY THAT COULD ALTER THIS AREA.



Thumb Land Conservancy
4975 Maple Valley Road, Marlette, Michigan 48453
810-346-2584
mail@ThumbLand.org
www.ThumbLand.org

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. Right: The new Gerrits Sanctuary sign.



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

James Lee Bearss
May 5, 1952 - June 28, 2019



On June 28 of 2019, we lost a great advocate for local history, the outdoors, and friend of the TLC, Jim Bearss. We had just gotten to know Jim in 2016 as a result of our work together on the historic North Street rail station in Clyde Township. Jim was a leader in the Clyde Historical Society and enthusiastically welcomed our new partnership on the North Street project. In 2017, we started our annual Garlic Mustard removal in the Port Huron State Game Area and Jim was there to help. Also a leader of the local chapter of Pheasants Forever, the Department of Natural Resources entrusted him with a key to the Ford Road gate where we entered the Game Area. Not only did Jim transport drinking water and other supplies for us on his ATV, he made the long walk down to and back up from our work area deep in the woods along the Black River, and all of this while enduring multiple chemo treatments. The covers of both our 2017 and 2018 TLC annual reports feature Jim walking in the State Game Area near our work area. The TLC encouraged the Clyde Historical Society to join us at the annual Saint Clair County Earth Fair in 2016 and 2017. Jim was there too, showing kids how to use an old hand-cranked corn sheller. Jim was very diligent and supportive in his work. He certainly is missed.



Jim Bearss in the Port Huron State Game Area, 2017 June 03, looking for TLC Director, Bill Collins.



Jim Bearss and Clyde Historical Society President, Connie Bates.
Port Huron State Game Area 2018 May 26.



Left: Jim Bearss pulling Garlic Mustard in the Port Huron State Game Area, 2017 June 03. Right: Jim Bearss selecting raffle tickets from the bucket at the 2017 Clyde Historical Society summer fundraiser.



Jim Bearss and Connie Bates of the Clyde Historical Society at our 2018 May 26 Port Huron State Game Area Garlic Mustard pull.

Obituary:

James Lee Bearss of Ruby, Michigan, 67, passed away June 28, 2019, surrounded by family after a courageous battle with cancer. He was born May 5, 1952, to the late William and Anna Bell (Molesworth) Bearss. He was also preceded in death by his infant sister, Jeri Lynn. His marriage to Betsy Brown was August 10, 1974, at the Yale United Methodist Church.

Jim graduated from Yale High School in 1970. He earned a bachelor's degree from Central Michigan University and a Master's degree from Michigan State University. Throughout school, Jim enjoyed team sports, especially baseball, which he continued to play in college and recreationally for many years.

He worked as an educator for the Marysville Public Schools from 1974 to 1999. In Marysville, he served as a teacher, coach, elementary school principal, and also curriculum director. After retiring, Jim continued to work in education as a teacher, consultant, and interim administrator in several districts. His impact was obvious; he was remembered and greeted with kind words by former students and parents everywhere he went. Jim always recognized names and faces, even decades after having students in school.

In retirement, Jim pursued many hobbies. He enjoyed activities in the outdoors including archery and hunting with family and friends. Farming at the family property in Ruby and maintaining wildlife food plots was a passion. Jim loved to spend time with his family, especially his grandchildren.

Jim was instrumental in forming the St. Clair County chapter of Pheasants Forever, a habitat conservation organization. He served as chapter treasurer for 34 years and was instrumental in growing the chapter to a membership of over 600 and as a top ten chapter nationwide. Jim also was a founding member of the Clyde Historical Society. He helped in the organization of the club in its early years and was instrumental in the club's process of moving the original Clyde Township Hall building to its current site and preserving it as a historical building.

Jim is survived by his wife of 44 years, Betsy, son Brian (Carrie), daughter Kate Favre (Daniel), four grandchildren, Brett and Leo Bearss, and Anna Belle and Quincy Favre, brother-in-law and sister-in-law Dennis and Susan Bricker, and aunts Joanne Bearss and Marge Molesworth. Jim is also survived by nieces, nephews, cousins, and many friends.

A memorial service was held on July 2 with Pastor Nate Polzin at Ruby Cemetery. Memorials were suggested to the Ruby Community Church or Clyde Historical Society.

Second Annual TLC Yard Sale Yale Bologna Festival

The TLC held our second annual yard sale at the Yale Bologna Festival on July 26 through July 28 of 2019 in the front yard of Fred Fuller's house in Yale. Thanks to the generosity of donors and hard work of our board members, we raised \$475 which helped us eliminate our general fund deficit.



The TLC yard sale at the Yale Bologna Festival.



TLC board member, Fred Fuller, grillin' at the Yale Bologna Festival.

North Street Post Office, General Store, and Railroad Station Clyde Township, Saint Clair County

The TLC continued restoration and yard maintenance at the historic North Street post office, rail station and general store in September. As you can see, the property is far from perfect yet, but we are getting there. The yard maintenance alone is a lot of work. It cleans up a little nicer every time. Hopefully 2020 is the year we finally get some paint on the building.



Left: Northeast corner of the 1940's addition to the original structure. Right: The backyard after mowing.

New Bertha's Haven Sanctuary Fort Gratiot Township, Saint Clair County

The Michigan Nature Association (<https://michigannature.org/>) approached the TLC a few years ago about taking ownership of their Galbraith Plant Preserve which is located only about 150 feet north of our Peltier Beach Ridge Sanctuary, in the same beach ridge and swale landscape along Lake Huron in Fort Gratiot. The Galbraith Plant Preserve is only 0.62 acre and we have been watching over it when we go out to the Peltier Sanctuary, so we agreed to accept it. The deed was finalized in late September and we now officially own the preserve.



Our new Bertha's Haven Sanctuary shown in yellow boundaries just north of our Peltier Beach Ridge Sanctuary and just south of the Bidwell property we are currently fundraising to acquire..

MNA founder and director, Bertha Daubendiek, established this preserve in 1972 as a place to transplant native wildflowers from the adjacent Detroit Water Board property before the Lake Huron water intake facility was constructed. Most of the TLC board members knew Bertha as she lived in Saint Clair County for many years and we were all active in local environmental issues. In 1990, Bertha even walked with TLC Executive Director William Collins from Metcalf Road to show him the preserve that would later become Bertha's Haven Sanctuary. She relied on two walking canes at that time and it was quite an effort for her. The preserve is small, but any little piece of nature that could be protected was important to Bertha.

The TLC wanted to rename the preserve in honor of Bertha, but at the same time, avoid confusion with MNA's Bertha A. Daubendiek Plant Preserve in Columbus Township. Therefore, we chose the name, "Bertha's Haven", borrowing part of an older name for the preserve. We are not planning to run a trail through this very small sanctuary, but it will eventually be included within the boundaries of the Southern Lake Huron Coastal Park. Thank you to the Michigan Nature Association for this little gift - Bertha's Haven Sanctuary.



Left: Bertha Daubendiek (center) on the shore of Lake Superior in 1969. Right: Bertha Daubendiek (bottom center) exploring the western Upper Peninsula in 1970 with MNA board members Thelma Sonnenberg and Rita Juckett, and biology student guides from Michigan Technological University.

For more information about Bertha Daubendiek and the Michigan Nature Association, see these articles written by TLC Executive Director, William Collins:

http://www.huronecologic.com/thumb_habitats022004.htm

http://www.huronecologic.com/thumb_habitats032004.htm

Loznak Property City of Marysville

Our attorney, Tim Lozen of Lozen and Kovar, PC in Port Huron (<http://www.lozenlaw.com/>) approached us a few years ago about accepting donation of land adjacent to an industrial area along Wills Street in Marysville, east of Busha Highway. On December 18, the TLC accepted donation of the new 11.5-acre Loznak Sanctuary, along with a small endowment fund, from Loznak Real Estate Enterprises, LLC. The Loznak Sanctuary will honor the memory of Charles and Elizabeth Loznak. The sanctuary is located in a historically industrial area along Wills Street in Marysville, east of Busha Highway in Marysville.



Oblique view of the Loznak property donation in yellow boundaries.

We were initially not enthusiastic about accepting the property because of the potential liabilities of land with an industrial history. Based on a few aerial photographs and other information, the site appeared to be heavily impacted by previous use. But these days, every scrap of natural area is significant and we found that the property has a few interesting things going for it that warranted further consideration. The property has a railroad spur running through the middle of it with a working switch connecting to the old Port Huron and Detroit Railroad line, now owned and operated by CSX. Adding to the historical interest, the property was used as part of a World War II munitions factory with foundations of storage structures still partially intact. Historic aerial photographs and mapping show that, other than limited use of the property appearing to begin and end with World War II, the land appears to have been generally undisturbed.

To our surprise, upon walking the property, we found vegetation associated with lakeplain prairie across the east half of the site, a now rare natural community that once covered large areas near the Great Lakes. Plant species on the east half of the sanctuary include Riddell's Goldenrod - *Solidago riddellii*, Fringed Gentian - *Gentianopsis crinita*, and Mountain Mint - *Pycnanthemum virginianum*, indicating a likely remnant of lakeplain prairie. A 1937 aerial photograph shows the Loznak Sanctuary and vicinity was completely vacant and part of a large swath of mostly open land along the Saint Clair River which may have been farmed. We have found similar lakeplain prairie vegetation in the Marysville area where land use was not so intensive and fallow fields serve as refugia for plants remnant of original populations that existed prior to European settlement. Michigan Threatened Sullivant's Milkweed - *Asclepias sullivantii*, a rare lakeplain prairie plant found in only 8 southeast counties in Michigan, is known from several locations in the Marysville area.

The western half of the Loznak Sanctuary is a nice recovering forest interspersed with wetland and the remains of concrete foundations reminiscent of monuments. It is also adjacent to approximately 26 acres of unusual forested ridge and swale landscape which appears to have an interesting alluvial origin along the Saint Clair River dating back almost 5,000 years ago.



Left: Old-field with lakeplain prairie vegetation and railroad spur. Right: Part of a concrete foundation.



Remnants of a concrete foundation amongst Paper Birch trees on the Loznak Sanctuary.

We are still discussing options and plans for this new sanctuary with potential partners, including the Port Huron and Detroit Railroad Historical Society (<http://phdrailroad.com/>). We envision the Loznak Sanctuary as a small park highlighting the interesting combination of natural area, World War II industrial history, and railroad history relating to the old Port Huron and Detroit Railroad, now owned by CSX Transportation, running along the west side of the sanctuary and the rail spur connecting to it. Our thanks to Loznak Real Estate Enterprises, attorney Tim Lozen, and Jim Hollenbeck of EH&S Services for completing the phase 1 environmental assessment (<https://www.facebook.com/EHS-Services-246483582068278/>)

Springborn Wetland Mitigation Bank East China Township, Saint Clair County

The TLC began limited stewardship in the summer of 2019 on the 27-acre Springborn Wetland Mitigation Bank just north of Marine City. As with the Deerfield Wind Energy wetland mitigation site near Port Hope in Huron County, the Springborn project came to us from Bourke Thomas of Atwell, a large engineering and environmental consulting firm (<https://www.atwell-group.com/>). The TLC has provided contract stewardship for several sites with existing wetland preserved as mitigation for State-permitted wetland impacts. The Springborn Wetland Mitigation Bank is essentially the first constructed and restored wetland that we have worked on as a conservancy. However, as a private wetland consultant, TLC Executive Director William Collins has worked on many constructed or restored wetlands, including design, planting, management, and monitoring.



View east across the Springborn Wetland Mitigation Bank.

First, we inspected the site to identify and prioritize stewardship issues. Apart from the need for further surface hydrology development, as usual, the biggest concern is invasive weeds, particularly Reed – *Phragmites australis* subspecies *australis* and Reed Canary Grass – *Phalaris arundinacea*. We photographed the site and made a cursory inventory of the vegetation to document native plants present and what planted species were successful. In cooperation with the mitigation bank owner, we asked Bob Bryson of Great Lakes Phragmites Cutter and Champion Marine Services (<http://greatlakesphragmitescutter.com/>) to spray the Phragmites patches with glyphosate in early September. At this point, Bob will be back out to spray the Reed Canary Grass in the spring. The TLC is also planning limited burning in the early spring. Invasive weed control alone is likely to keep us busy on this site for the next few years. Protection of the thousands of planted tree seedlings across the site will also require a lot of work. At some point, we may start limited seeding and transplanting of native plants from local populations to enhance the wetland.

Koester Conservation Easement Fort Gratiot Township, Saint Clair County

In November and December of 2019, the TLC completed a baseline assessment and draft conservation easement for nearly 80 acres of forested wetland and upland complex, one of the larger forest tracts remaining in Fort Gratiot Township. The property is located along the south side of Keewahdin Road and Pine Grove Avenue, extending south one-half mile. The owners of the property, Darrin and Kim Koester, are constructing their residence on 5 acres in the north end of the parcel. The conservation easement will allow the Koester's to afford the property taxes on this large parcel, which had not been sold for many years. Upon sale, the property taxes would have increased significantly and made the land unaffordable for the Koester's as a residence. The Fort Gratiot Township Assessor contacted the TLC in late August explaining the dilemma. We suggested a conservation easement for that part of the property to remain undeveloped, giving the Township a legal guarantee that the land will remain protected in perpetuity while also providing the basis to grant the new landowners a significant tax abatement. The assessor was agreeable, and the taxes were reduced significantly in trade for a conservation easement on most of the parcel.



The Koester Conservation Easement will protect a large area of relatively mature, non-fragmented southern swamp and hardwood-conifer swamp forest complex on seasonally inundated to moist sands with scattered upland knolls. Wetland vegetation includes Silver Maple, Green Ash, American Elm, Eastern Cottonwood, Bur Oak, Swamp White Oak, American Hornbeam, Spicebush, Dwarf Raspberry, Spotted Touch-me-not, False Nettle, Clearweed, Marsh-marigold, Sensitive Fern, Royal Fern, Spinulose Woodfern, Fowl Manna Grass, Lake Sedge, and Tussock Sedge. Upland vegetation includes Red Oak, Black Oak, White Oak, American Beech, Basswood, Sugar Maple, Red Maple, Tulip Tree, Sassafras, Serviceberry, Witch-hazel, Jack-in-the-pulpit, White Avens, Solomon-seal, Wild Geranium, and Yellow trout-lily. Many of the native forest plant species are typically of a more northern distribution in Michigan, including Paper Birch, Eastern White Pine, Eastern Hemlock, Speckled Alder, Black Chokeberry, Meadowsweet, Low Sweet Blueberry, Dwarf Raspberry, Wintergreen, Goldthread, Canada Mayflower, Wild Sarsaparilla, Foamflower, Wood Anemone, Bracken Fern, Royal Fern, Northern Lady Fern, Ground-pine, and Ground-cedar. Likewise, there are species that are typically more southern, including Black Oak, Sassafras, Tulip Tree, and Spicebush. This sort of southern-meets-northern forest is characteristic of the Blue Water Area, a transitional vegetative region where nearby Lake Huron maintains cooler summers and warmer winters.

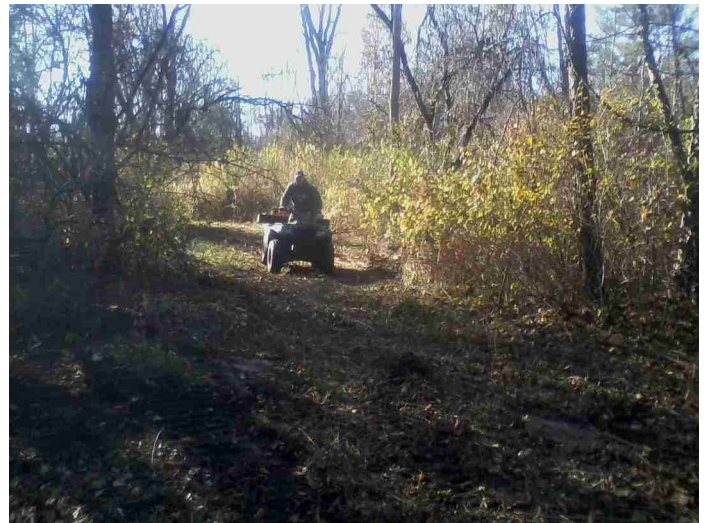


View across the south end of the Koester Conservation Easement.

The south end of the parcel was partially logged in recent years but tree removal appears to have been limited largely to dead ash. The logging left a lot of deep tire ruts in the south end, but the forest plant community is still intact. While such disturbance is often excessive, we have seen interesting things happen after logging in similar swamp forest areas, like our Dead End Woods Sanctuary just over a mile southwest. That property was logged about 10 years prior to acquisition by the TLC in 2008. While the log extraction was quite destructive, the ground still bearing deep tire ruts from heavy equipment, during our 2008 species survey, we found a few uncommon native plants that had not been observed in the Dead End Woods previously. These included Spikenard – *Aralia racemosa*, American Hazelnut – *Corylus americana*, and

Cardinal Flower - *Lobelia cardinalis*, which all appeared to benefit from the moderate gaps in the forest canopy. There was also a very significant increase in Tulip Tree – *Liriodendron tulipifera* seedlings and saplings across much of the Dead End Woods. The increase of these plant species after forest cutting would not normally be surprising as they respond to increased light. But as some species were never seen before, or increased with such density from only a few trees, suggests that a seed or root bank was stimulated.

Darrin and Kim Koester are developing their residence on land that was cleared decades ago. This area is now partially wooded and dominated by planted pines along with very common or weedy species such as Apple, Black Cherry, hawthorn, Gray Dogwood, Autumn-olive, Common Buckthorn, Tartarian Honeysuckle, Common Blackberry, Late Goldenrod, Paniced Aster, and grasses. Portions of this area have so many apple trees, it appears there may have once been a small orchard here. TLC Executive Director, William Collins, determined wetland boundaries in the proposed residential area to help the Koester's avoid regulated wetland impacts and optimize the conservation easement boundaries. William Collins also helped Darrin Koester identify invasive shrubs in this area, like buckthorn and honeysuckle, and suggested control methods. The TLC will assist them with management of the conservation easement in the future to improve the native forest community.



Left: An apple tree in the residential area. Right: Darrin Koester enjoying a ride on his ATV along the Warner Drain in the north end of his new property.

A conservation easement is one of the few ways that you can legally protect your land in perpetuity, basically as long as our legal system supports such easements. With a good land conservancy holding the easement, you can be assured that your property will remain protected no matter the future ownership. Conservation easements, despite being called “easements” do not allow public access. A conservation easement is simply a legal agreement between a landowner and a conservancy or similar conservation group or agency. Most easements can be customized to allow uses that you and the conservancy agree upon. While most conservation easements are written to preserve natural areas and allow for passive uses and minor impacts such as trails, firewood cutting, and hunting, many easements also allow for farming, selective logging, or limited expansion of new buildings and other structures. Assessors are often not agreeable to reducing property taxes, so if you consider a conservation easement, you should consult with your local assessor if you are anticipating any tax abatement.

Beyond a conservation easement, the best way to protect nature on your land is to donate it to a conservancy. This can be done by will, or you can donate it now with a lifetime use provision. The TLC owns one preserve where the previous owner was granted a lifetime right to deer hunt on the property. If you have a natural area that you want to protect, please contact us.

Silver Trails Scout Reservation Grant Township, Saint Clair County

On September 16, Silver Trails Scout Reservation was sold to AMC Mid Michigan Materials. Silver Trails is a 270-acre camp located about 2 miles west of Jeddo along the west side of Black River in Grant Township, Saint Clair County, along the Sanilac County line. The camp was established in 1945 from land that was sold to the local Boy Scout Council for one dollar and developed with contributions from local Rotary Clubs, the Exchange Club, and many volunteers from the community. Silver Trails was later enlarged to over 300 acres through additional land donations and purchases.



Silver Trails Scout Camp boundaries outlined in yellow. The gravel pit on the north end of the camp was not originally intended to be that large and surrounding grades have not been restored for access.

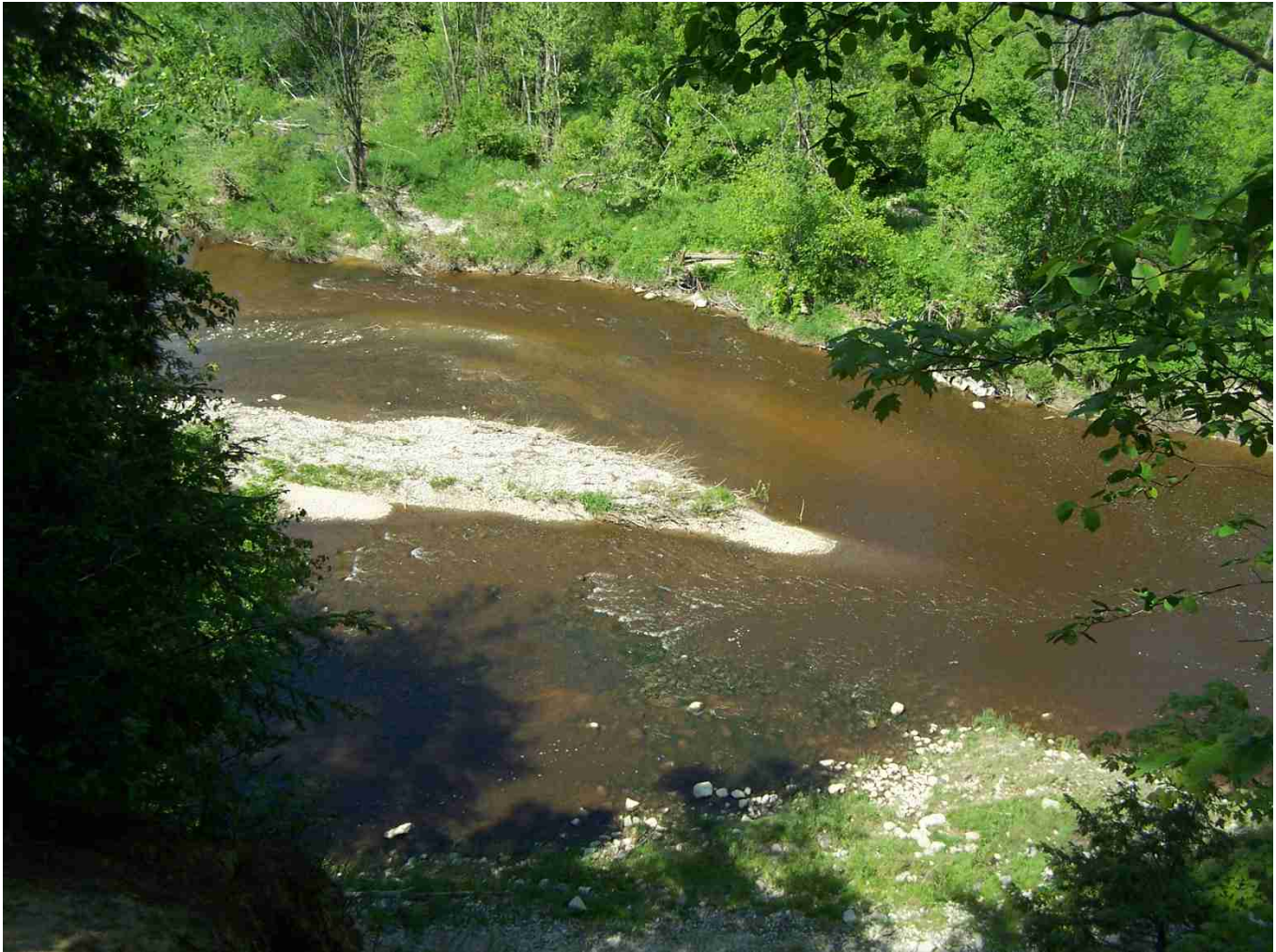
For those who have never been to Silver Trails, the camp is an impressive and unusual natural area located about 1 mile north of the Port Huron State Game Area along the west side of the Black River. The landscape is a series of plateaus and valleys cut by the ancient confluence of Silver Creek with the Black River. The camp entrance from Jeddo Road, complete with stone gateway pillars, is located on the south plateau.



The Silver Trails main entry gate.

To the east, across the large events field, are high forested bluffs along the Black River valley. One point in particular, named “Devil’s Point”, provides a very scenic view out over the valley with a nearly 80-foot vertical drop down to the river where you can watch birds fly below. Near this area, you can walk a switchback trail on the forested hillside down to the Black River floodplain where we sometimes camped. Back up top, west of the switchback, you can walk a forested trail along the top rim of the Silver Creek valley. From certain points you can peer through the branches of Eastern Hemlock, Yellow Birch, and Arborvitae down to the old canoe pond where many of us earned our boating merit badges, caught turtles, and discovered leeches. From a once barren slope above the canoe pond known as “Dead Man’s Bluff”, it is possible to look out about a half-mile over the tree tops to the north end of the camp.

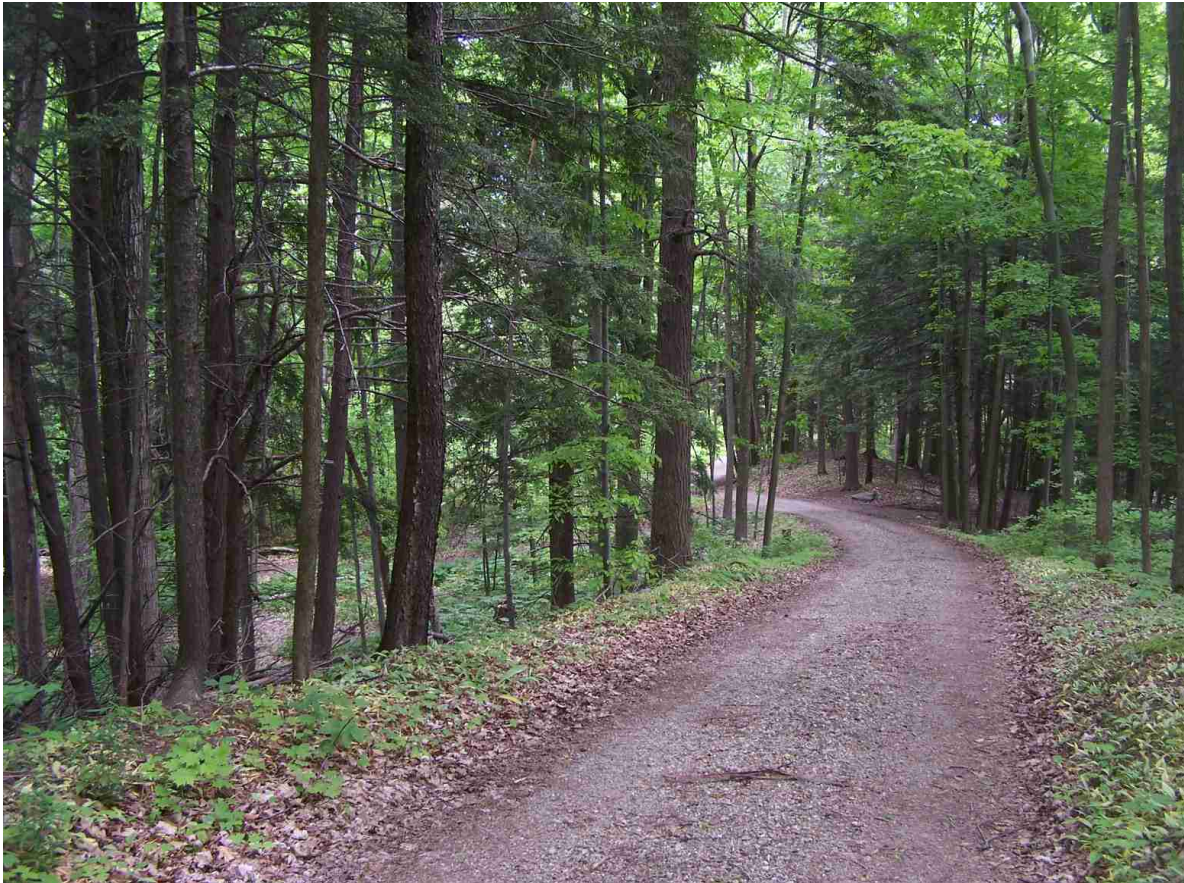
Back at the log cabin-styled Rotary Lodge, also known as the “mess hall”, built in 1948 by local Rotary Clubs, you can walk north or west down long wooden stairways to the main campsites in the broad valley below carved out by the ancient windings of Silver Creek. It’s a beautiful mature forest of Sugar Maple, Black Maple, American Beech, Eastern Hemlock, and Yellow Birch with campsite names like Chippewa, Dan Beard, and Hemlock Point. Down here is where most of the summer camp program happened from the founding of Silver Trails in 1945 through the mid 1980’s. The old swimming pool was down here where everyone earned their swimming merit badge and some of us did the Mile Swim. Behind the swimming pool was the staff area where we lived in tents half the summer.



View of the Black River from “Devil’s Point”, located northeast of the “parade field”.

To the west is the old George Flott Nature Lodge with charms not unlike a deep woods cottage or hunting cabin. Further west was the old James West Cabin, sometimes used as the trading post, where you could buy a cold pop and make a basket or some leather craft. Not far down the trail is the council fire ring where so many hundreds of scouts, scouters, and scouting families gathered around big bonfires on summer evenings and watched funny camp skits, Order of the Arrow Native American dancing, listened to stories, and sang together. Further down the trail, tucked up against a hillside, is the rifle and archery range where we earned those merit badges.

Back east you’ll find a footbridge over Silver Creek. Head east before crossing the bridge and you’ll walk past the location where the old Number 9 Tree grew, the symbol of Silver Trails. Keep heading east and you’ll pass the Swift Water and Stony Creek campsites just before the canoe pond. Back west at the foot bridge, cross Silver Creek, turn west, and you will end up at the chapel where we had our worship services and many scouters got married, including TLC founders Bill and Cheryl Collins. Keep heading west and you can walk up an old stairway made from railroad ties to the “back forty” campsites on the west plateau with names like Kit Carson, Dan Boone, and Fueslein. Head back east down past the chapel to a trail heading north and you will walk through one of the most beautiful old-growth forest areas in the region, packed full of woodland wildflowers like White Trillium, Red Trillium, Bloodroot, Hepatica, Dutchman’s Breeches, Solomon’s seal, Wild Ginger, Toothwort, Blue Cohosh, and Wild Leek. Forest birds include Wood Thrush, Veery, Ovenbird, Eastern Wood Pewee, Flycatchers, and many warblers. Certainly, Silver Trails is a place where rare species could very well occur, including the Cerulean Warbler, Hooded Warbler, Louisiana Waterthrush, Red-shouldered Hawk, Large Toothwort, Goldenseal, Ginseng, and more.



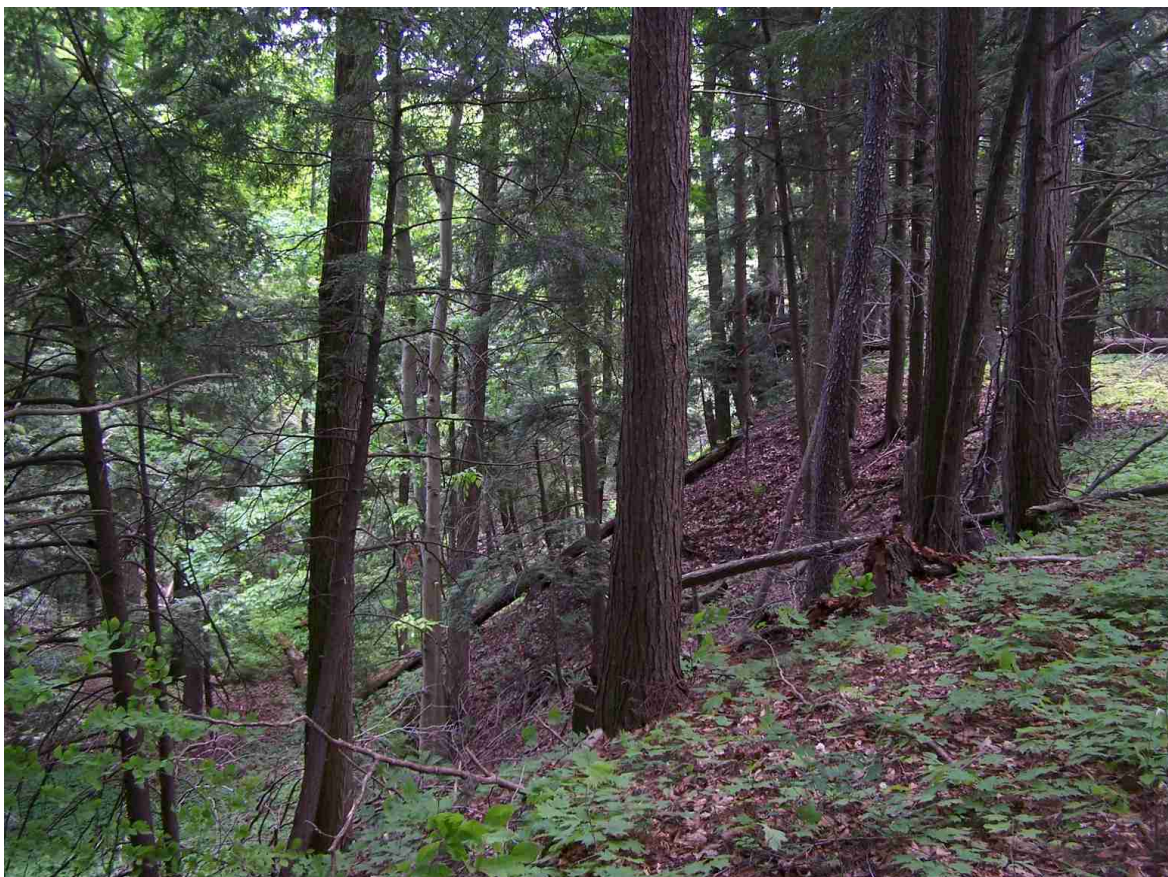
View of the Silver Creek valley from the trail leading down from the Dan Boone campsite area.



Two streams nearly join in the north of the camp, downstream of the Fueslein and Wilson Drains.



View down from a ridge to a deep ravine cut by streams flowing through the north of the camp.



A steep ridge in the north of Silver Trails covered by Eastern Hemlock and Yellow Birch.



The Number 9 Tree along Silver Creek, shown shortly before the dead tree was cut down in 1986.

Further north, small streams have cut deep shaded ravines and left narrow ridges covered by Eastern Hemlock and Yellow Birch. These hidden places served as the ceremonial sites for Order of the Arrow members in Chickagami Lodge 180. North of here was the other “back forty” on the north plateau that was once a big farm field planted with young pine trees by scouts in the late 1960’s. Southeast of the plateau was an old campsite named Baden Powell where we ventured once in a while, and up on top was another old campsite named Voyageur. Now that is all gone and replaced by a massive gravel pit, approved in 1992. It was to be a lake for the camp within 15 to 20 years. 27 years later and there is no useable lake. Apparently, a combination of gravel greed and financial pressure on the former Blue Water Council led to more and more digging until they started in on the beautiful forest in the north of the camp and even took out one of our Order of the Arrow sites.

On September 16, Silver Trails Scout Reservation was sold to AMC Mid Michigan Materials. This great community asset was provided through the generosity of the original landowners and local civic groups, and maintained for decades by legions of volunteers and donations from local businesses. Silver Trails is now in private ownership and the Boy Scouts of America has gone bankrupt. In a media statement, Rob Wilson, Vice president of AMC MMM said their “... next steps would include discussions with local governments and conservancies” and also that, “Our intention is always to preserve the best assets of our community.” Grant Township administration has stated they want to buy Silver Trails and protect it as a park, ideally with camping still available. The TLC is ready to assist them in applying for a Michigan Natural Resources Trust Fund grant which has millions of dollars from oil and gas revenue sharing available for park acquisitions just like Silver Trails. Grant Township potentially scores quite high for a Trust Fund grant and has a very good chance of being fully funded.



Dedication ceremony of the Rotary Lodge and Silver Trails Scout Reservation on June 20, 1948. Assembly of speakers and musicians on the north porch of the Rotary Lodge.



Dedication ceremony of the Rotary Lodge and Silver Trails Scout Reservation on June 20, 1948. Gathering of Scouts and public north of the Rotary Lodge.



Dedication ceremony of the Rotary Lodge and Silver Trails Scout Reservation on June 20, 1948. Flag raising north of the Rotary Lodge, overlooking the Silver Creek valley to the northwest.

TLC Board of Directors

Cheryl Collins, President

Cheryl Collins of Brown City - Marlette formed the Thumb Land Conservancy in 2008. She has been at the forefront of natural area protection efforts in the region for over 20 years. Cheryl served on the board of directors of the Michigan Nature Association from 2003 through 2008, and co-founded the Macomb Land Conservancy in 2000 which merged with Oakland Land Conservancy to become Six Rivers Land Conservancy. In 2001 and 2002, she conducted a fundraising campaign as a volunteer on behalf of the Michigan Nature Association to purchase the Sharon Rose Leonatti Memorial Nature Sanctuary in Kimball Township, Saint Clair County, 9 acres with one of Michigan's largest remaining populations of State Endangered Painted Trillium. Through grants and individual donations, she raised \$57,000 in less than two years in her spare time. With the Michigan Nature Association, she developed funding sources resulting in grants of nearly \$500,000 for a statewide land acquisition campaign. Cheryl and husband, Bill Collins, worked together on many projects for Huron Ecologic, LLC since 1998. Cheryl served as Project Coordinator, assisting community groups in protecting local natural areas across Michigan. She prepared, organized, and presented exhibits and testimony for three Michigan Department of Environmental Quality Contested Case Hearings and two Michigan Environmental Protection Act suits involving State and federally regulated wetland and other natural features. She provided information regarding the Michigan wetland regulatory program and wetland violation files to the Michigan Environmental Council and U.S. Environmental Protection Agency. From 1996 through 1998, Cheryl was Assistant Drain Commissioner for Saint Clair County, working with Drain Commissioner Fred Fuller, who promoted natural watershed management and river restoration. In 2006, she was a Project Assistant for the Sanilac County Economic Development Corporation. She obtained a grant to construct a rain garden in Lexington and worked with the Huron County Economic Development Corporation on a Michigan Department of Transportation plan to identify significant heritage highway features along M-25. From 2006 through 2009, she was the Chairperson of the Sanilac County Brownfield Redevelopment Authority. She ran for Sanilac County Drain Commissioner in 2008, receiving 38% of the vote as a Democrat in a solidly Republican county. Cheryl currently works as a drain inspector and assists with drain maintenance projects for the Saint Clair County Drain Commissioner.

Terry Gill - Treasurer and Secretary

Terry Gill of Greenwood was Supervisor of Greenwood Township in Saint Clair County from 2004 through 2016. Terry is a strong advocate for land preservation with over 20 years of volunteer experience in non-profit organizations. She served on several boards in Saint Clair County, including the Water Quality Board, Farm Land Preservation Board, and Tri-Hospital EMS Board of Directors. For over 10 years, Terry coordinated the Mill Creek Volunteer Monitoring Project, an aquatic macroinvertebrate sampling program to assess and monitor the water quality of the Mill Creek, a major tributary of the Black River. She obtained multiple grants to produce and submit an annual Mill Creek monitoring report to the Michigan Department of Environmental Quality. Terry served as President of the Blue Water League of Women Voters and was the Natural Resources Chair for the Michigan League of Women Voters based in Lansing. As Natural Resources Chair, she represented the Michigan League of Women Voters on the board of the Michigan Environmental Council and obtained a grant from the Frey Foundation to produce and distribute a brochure entitled, "*Keeping This Land Ours*", a citizen guide to protecting natural areas.

Kay Cumbow - Director

Kay Cumbow of the Brown City area is a long-time environmental advocate. She is a director of Citizens for Alternatives to Chemical Contamination, a statewide organization working to protect the health of our communities and the Great Lakes. She also serves as a director of the Great Lakes Environmental Alliance, a grassroots organization based in Port Huron working to safeguard the environmental health of the Great Lakes Basin through education and community outreach. Kay was an active participant for several years in the Mill Creek Volunteer Monitoring Project, an aquatic macroinvertebrate sampling program to assess and monitor the water quality of the Mill Creek in Saint Clair County. Kay has an Associate of Arts degree from Kalamazoo Valley Community College and an Associate of Science degree from Mott Community College. She worked for many years as a licensed certified respiratory technician, and is now happily retired.

Dorothy Craig - Director

Dorothy Craig lives near the TLC Dead End Woods Sanctuary in Fort Gratiot Township and joined the TLC board in 2013. Dorothy has cared for animals her whole life and loves nature. Dorothy has encouraged and supported the work of the TLC since its formation in 2008.

Dr. Scott Ferguson - Director

Doctor Scott Ferguson grew up near the TLC Dead End Woods Sanctuary in Fort Gratiot Township and joined the TLC board in 2010. Doctor Ferguson has been in full-time dental practice since 1988, the year he earned his Doctorate of Dental Surgery from the University of Detroit. He is a member of the Thumb District Dental Society, the Michigan Dental Association, the American Dental Association, and the Port Huron Study Club, part of a nationwide network of affiliates under the Seattle Study Club. Doctor Ferguson has completed advanced training through the Misch Institute for Implant Training and is a Fellow in the International Congress of Oral Implantology. A Port Huron native and active supporter of many local associations, Scott lives in North Street with his son, Gabriel and daughter, Maya.

Daniel Rhein - Director

Dan Rhein of Port Huron grew up in China Township in Saint Clair County. He is a naturalist, wildlife expert, and a self-taught botanist possessing thorough knowledge of many obscure plant species, especially grasses and shrubs. Dan graduated from Michigan State University with a Bachelor of Science degree in Fisheries and Wildlife. For years, Dan has volunteered his time to provide nature education programs for the Blue Water Council Boy Scouts of America and local school children. Dan has long worked to promote natural areas in the Thumb, especially lakeplain prairie, wetlands, and aquatic habitats. He was a member of the Thumb Bioregional Alliance in the early 1990's, which advocated for the protection of land along the Black River near the Port Huron State Game Area, and the Minden Bog in Sanilac County. He has led several tours through the Minden Bog, being quite familiar with the unique bog vegetation. Dan taught an edible plants course for Willow Winds school of traditional skills and crafts near Mikado, Michigan. Dan is a very talented painter and has exhibited his work at Studio 1219 in Port Huron. He works for the Saint Clair County Drain Commissioner as a drain inspector and project supervisor.

Chris Walker - Director

Chris Walker grew up on a small farm near Croswell, where his parents instilled in him a near-reverent appreciation for the land and its natural inhabitants. Chris is currently an Assistant Professor in the Communication Department at North Dakota State University. He earned a Master of Fine Arts in Cinema and Photography from Southern Illinois University and a Bachelor of Applied Arts in Journalism from Central Michigan University. As a photography professor, he has fulfilled full-time teaching and research appointments at Auburn University, Auburn, Alabama; Southern Indiana University, Evansville; and Loyola University Maryland in Baltimore. He has worked for several newspapers, including the Toledo Blade, where he and two coworkers earned a finalist spot in the Pulitzers, and has been published worldwide in numerous magazines, books, and journals. For 7 years, he was the Photography Columnist for Camping Life magazine. Chris is a naturalist and has a life-long interest in ecology, particularly through bird biology and stock nature photography. He was a Neotropical Migratory Research Technician for 2 years at Black Swamp Bird Observatory in Oak Harbor, Ohio. Chris is an artist and journalist with deep concerns for social anthropology and our ever-changing environment.

Fred Fuller - Director

Fred Fuller grew up in Yale, Michigan and has lived most of his life there, serving as Mayor of the City of Yale in 1990, 1991, and 1996. He earned a Bachelor of Arts from Albion College in English Literature and spent a semester in New York City working as an editorial assistant at The Paris Review literary magazine edited by George Plimpton. He has held a life-long interest in old cultures of the British Isles and has written several magazine articles on that subject. He was employed as a Field Director with the Michigan Nature Association in 1992 and 1993, exploring potential new preserve lands and helping edit the MNA's sanctuary guidebook. Fred co-founded the Thumb Bioregional Alliance in 1993, an association of environmentalists and others concerned about ecology and the quality of life in the Thumb region. He also co-founded the Mill Creek Coalition, the Black River Watershed Group and the Friends of Beards Hills, to help preserve important ecosystems in the Thumb. Fred served as the Saint Clair County Drain Commissioner from 1997 through 2008. As Drain Commissioner, he opposed the proposed full-scale dredging of Mill Creek, a major tributary of the Black River, and he helped negotiate a compromise restoration of the creek. He enacted the first storm water rules for Saint Clair County, initiated an illicit discharge elimination program on county drains, required wetland clearance for new development sites, and helped pioneer preservation of high-quality wetlands as mitigation for Michigan Department of Environmental Quality permits in Saint Clair County. Since 2009, Fred has been employed with Huron Consultants, LLC of Port Huron and Lapeer, Michigan, where he is currently the Water Resources Manager.

TLC Staff

William Collins - Executive Director

Bill Collins of Brown City - Marlette is a naturalist and botanist who grew up in the Port Huron area. He was a nature instructor at Silver Trails Scout Reservation summer camps from 1978 through 1986. He has an Associate of Science degree from Saint Clair County Community College and graduated from Michigan State University in 1987 with a dual Bachelors of Science degree in Botany and Natural Resources Development while also following the engineering program. From 1984 through 1986 he was a Program Assistant with the Michigan Chapter of The Nature Conservancy in East Lansing, and later worked on various contract projects for the Michigan Department of Natural Resources Wildlife Division. He is a Life Member of the Michigan Nature Association and explored natural areas for MNA in 1988 through 1990. Bill has worked as a professional wetland consultant and ecologist since 1990, employed 8 years as a botanist and project manager with SSOE, Inc., a large architectural and engineering firm in Troy, Michigan, and since 1998 with his own consulting firm, Huron Ecologic, LLC. In his capacity as a private consultant, he has encouraged and helped local governments and individuals preserve high quality natural areas. Bill and his wife, Cheryl, have been very active in promoting the protection of natural areas and rare species throughout the region, including Michigan Endangered Painted Trillium, a rare woodland wildflower that is now known only from Saint Clair County in all of Michigan.

TLC Service Providers

TLC Legal Counsel

Attorney Timothy J. Lozen
Law Offices of Timothy J. Lozen, P.C.
511 Fort Street, Suite 402
Port Huron, Michigan 48060
810-987-3970
LozenLaw.com

TLC Financial Institution

Eastern Michigan Bank
65 North Howard Avenue
Crosswell, Michigan 48422
810-679-2500
EasternMichiganBank.com

TLC Liability Insurance

Conserv-A-Nation Insurance Program
Underwritten by Chubb Group of Insurance Companies
Alliant Insurance Services, Inc.
Franey Muha Commercial Group
4530 Walney Road, Suite 200
Chantilly, Virginia 20151
703-397-0977
AlliantInsurance.com

TLC Accountant

Cathy Rovano
5626 Ortman Drive
Sterling Heights, Michigan 48314
586-945-1950

TLC Web Site Host - ThumbLand.org

Jeff Ronan
LochánDé IT Services, LLC
Port Huron, Michigan 48060
810-334-4119
jeff@lochandeit.com
www.LochanDeIT.com

TLC Corporation

TLC Web Site

ThumbLand.org

TLC Contacts

mailing address:

Thumb Land Conservancy
4975 Maple Valley Road
Marlette, Michigan 48453 USA

phone and fax: 810-346-2584

e-mail: mail@ThumbLand.org

TLC Incorporation Documents

IRS Employer Identification Number: 41-2247569

IRS Employer Identification Number Assigned: 2007 August 13

Michigan Corporation Identification Number: 70398K

Michigan Articles Of Incorporation Filed: 2008 October 29

Michigan Articles Of Incorporation Effective Date Of Approval: 2008 October 29

IRS Effective Date Of Tax Exemption: 2008 October 29

IRS 501(c)(3) Tax Exempt Status Confirmed: 2009 February 26

Michigan Corporate Entity Documents:

[https://cofs.lara.state.mi.us/CorpWeb/CorpSearch/CorpSummary.aspx?
ID=800918673&SEARCH_TYPE=1](https://cofs.lara.state.mi.us/CorpWeb/CorpSearch/CorpSummary.aspx?ID=800918673&SEARCH_TYPE=1)

IRS Search for Charities, Online Version of Publication 78:

[https://apps.irs.gov/app/eos/pub78Search.do?ein1=41-
2247569&names=&city=&state=All...&country=US&deductibility=all&dispatchMethod=searchCharities&
submitName=Search](https://apps.irs.gov/app/eos/pub78Search.do?ein1=41-2247569&names=&city=&state=All...&country=US&deductibility=all&dispatchMethod=searchCharities&submitName=Search)

TLC Memberships and Affiliations

Clyde Historical Society

7293 Beard Road

Clyde Michigan 48049

810-824-0726

<https://www.facebook.com/groups/1481890455361159/about/>

TLC Balance Sheet

Thumb Land Conservancy Balance Sheet 2019 December 31

Current Assets	
Checking/Savings	
Eastern Michigan Bank	12,076.01
Total Checking/Savings	12,076.01
Total Current Assets	12,076.01
Fixed Assets	
Land	
Gerrits Sanctuary	48,972.00
North Street Property	9,500.00
Dead End Woods Sanctuary	0
Peltier Beach Ridge Sanctuary	0
Bertha's Haven Sanctuary	0
Loznak Sanctuary	0
Total Fixed Assets	58,472.00
Total Assets	70,548.01
Liabilities and Equity	
Equity	
Opening Balance Equity	70,548.01
Total Equity	70,548.01
Total Liabilities & Equity	70,548.01

TLC 2019 US Tax Return

Form 990-N

Electronic Notice (e-Postcard)

OMB No. 1545-2085

Department of the Treasury
Internal Revenue Service

for Tax-Exempt Organization not Required to File Form 990 or 990-EZ

2019

Open to Public Inspection

A For the 2019 Calendar year, or tax year beginning 2019-01-01 and ending 2019-12-31

B Check if available

- Terminated for Business
 Gross receipts are normally \$50,000 or less

C Name of Organization: THUMB LAND CONSERVANCY

4975 Maple Valley Road,
Marlette, MI, US, 48453

D Employee Identification

Number 41-2247569

E Website:

ThumbLand.org

F Name of Principal Officer: William Collins

4975 Maple Valley Road,
Marlette, MI, US, 48453

Privacy Act and Paperwork Reduction Act Notice: We ask for the information on this form to carry out the Internal Revenue laws of the United States. You are required to give us the information. We need it to ensure that you are complying with these laws.

The organization is not required to provide information requested on a form that is subject to the Paperwork Reduction Act unless the form displays a valid OMB control number. Books or records relating to a form or its instructions must be retained as long as their contents may become material in the administration of any Internal Revenue law. The rules governing the confidentiality of the Form 990-N is covered in code section 6104.

The time needed to complete and file this form and related schedules will vary depending on the individual circumstances. The estimated average times is 15 minutes.

Note: This image is provided for your records only. Do Not mail this page to the IRS. The IRS will not accept this filing via paper. You must file your Form 990-N (e-Postcard) electronically.

TLC Properties

Dead End Woods Sanctuary

17.6 Acres, Fort Gratiot Township, Saint Clair County

Acquisition Date: 2008 December 30

North Parcel 74-20-030-2009-000: Beginning North 660.34 Feet From The East Quarter Corner, Thence N89°37'00"W 229.00 Feet; Thence S00°00'00"E 130.17 Feet; Thence N89°37'00"W 189.00 Feet; Thence S00°00'00"E 200.00 Feet; Thence N89°37'00"W 920.79 Feet; Thence N00°00'00"E 330.18 Feet; Thence S89°37'00"E 691.79 Feet; Thence N00°00'00"E 70.00 Feet; Thence S89°37'00"E 647.00 Feet; Thence S00°00'00"E 70.00 Feet To Beginning. Section 30, Town 7 North, Range 17 East, 8.59 Acres.

South Parcel 74-20-030-2012-000: Part Of The Northeast Quarter Of Section 30, Town 7 North, Range 17 East, Fort Gratiot Township, St. Clair County, Michigan; Described As Commencing At The East Quarter Corner Of Said Section; Thence N00°00'00"E 97.00 Feet Along The East Section Line To The Point Of Beginning; Thence N89°44'42"W 225.00 Feet; Thence S00°00'00"E 97.00 Feet; Thence N89°44'42"W 537.54 Feet Along The North Line Of Spruce Village; Thence N89°47'58"W 575.76 Feet Along The North Line Of Ferguson Heights; Thence N00°02'55"E 320.95 Feet Along The East Line Of Angus Campbell Number One; Thence N00°07'02"E 12.77 Feet Along The East Line Of Plat Number 5 Of The Old Farm Subdivision; Thence S89°37'00"E 1113.04 Feet; Thence S00°00'00"W 130.78 Feet; Thence S89°17'00"E 225.00 Feet; Thence S00°00'00"W 101.08 Feet To The Point Of Beginning. Containing 9.01 Acres.

The Dead End Woods Sanctuary was the first preserve acquired by the TLC, in December 2008. The woods is known locally as the "dead end woods" because it is located and accessed at the dead end of Wilson Drive in Fort Gratiot Township. The preserve is located between Wilson Drive and Blueberry lane to the south, State Road to the east, and Old Farm subdivision to the north.



The 17.6-acre Dead End Woods Sanctuary contains about 11.6 acres of swamp forest wetland, part of the headwaters of the Gossman Drain which flows east and south to the Black River. Both the wetland and the upland on the sanctuary were preserved as partial mitigation for wetland impacts permitted by the Michigan Department of Environmental Quality for the 2008 Bunce Creek and Huffman Drain project of Saint Clair County Drain Commissioner, Fred Fuller. The Dead End Woods Sanctuary is protected by a conservation easement held by the State of Michigan. As mitigation options for the drain project were being considered, the owner of one of the Dead End Woods parcels offered to sell the land to the Drain Commissioner at a reasonable price. The MDEQ confirmed the presence of a large amount of wetland on the property and

determined that it is part of a high quality plant community. The adjacent parcel was then purchased to provide the necessary wetland mitigation for the drain project. To satisfy MDEQ requirements for long-term monitoring and stewardship of the wetland, ownership of the two Dead End Woods parcels was transferred to the TLC, relieving the Drain Commissioner from further responsibility for this land. In accepting ownership of the property, the TLC agreed to be responsible for submittal of an approved management plan to the MDEQ, annual monitoring of the conservation easement, long-term stewardship, and submittal of annual monitoring reports to the MDEQ.

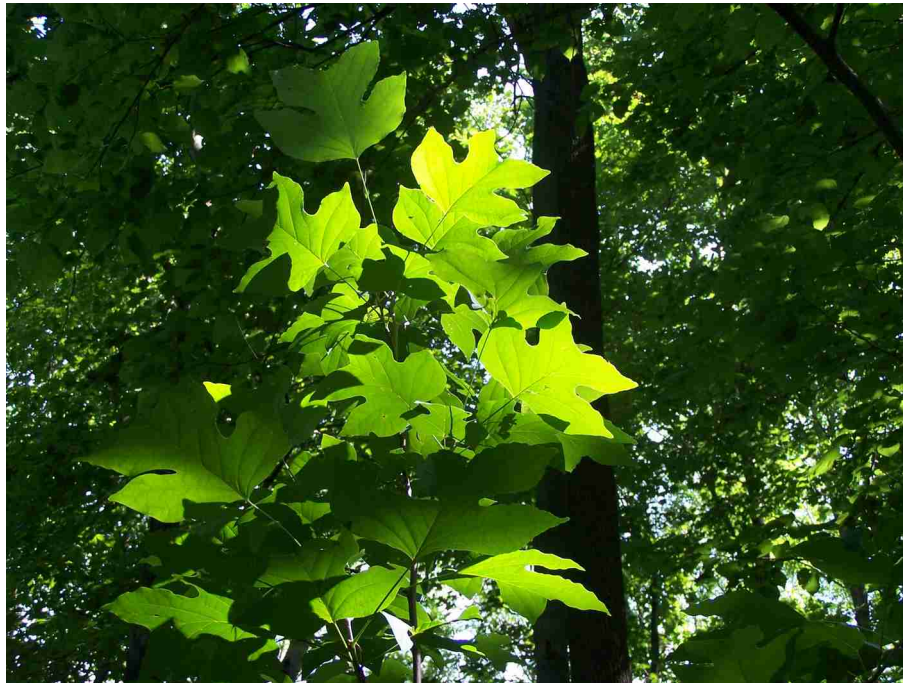


Forest of the Dead End Woods Sanctuary.



Swamp wetland in the Dead End Woods Sanctuary.

The Dead End Woods is a highly diverse forest community of southern swamp and mesic upland on Wainola-Deford fine sands deposited on the glacial lakeplain. The swamp is dominated by Silver Maple and Red Maple hybrids, Green Ash (all large ash trees now dead due to the Emerald Ash Borer), American Hornbeam, Spicebush, Sensitive Fern, Royal Fern, Jack-in-the-pulpit, and Marsh-marigold. The upland is dominated by Red Maple, Red Oak, Sassafras, Black Cherry, Witch-hazel, Mayapple, Wild Geranium, and Yellow Trout-lily. At 44.5, the Floristic Quality Index calculated for Dead End Woods is one of the highest in the area and indicates a natural area of statewide significance. The higher quality or interesting species include Maidenhair Fern, Spikenard, Richweed, American Hazelnut, Black Ash, Butternut, Spicebush, Tuliptree, Cardinal Flower, Indian Pipe, Black Gum, Sycamore, Christmas Fern, Broad-leaved Goldenrod, Foamflower, and Eastern Hemlock.



Tuliptree sapling in the Dead End Woods Sanctuary.



Spikenard in the Dead End Woods Sanctuary.

A 1937 aerial photograph shows most of the Dead End Woods forest cover was intact, probably because the land was simply too wet to farm. As a result, many species are relict from before European settlement. In 1997 and 1998, the previous owners selectively cut large trees throughout the forest, which drew protests from neighbors who thought the site was being prepared for residential development. Despite this cutting and heavy soil disturbance, the forest vegetation remained intact. While the opened canopy supported the invasion of Garlic Mustard, it also favored uncommon species like Tuliptree, American Hazelnut, and Spikenard.

Uncommon animal species observed on the Dead End Woods Sanctuary include Flying Squirrels, Barred Owls, Pileated Woodpeckers, Wood Ducks, Spring Peeper frogs, Wood Frogs, and Red-backed Salamanders. Aquatic macroinvertebrates observed in the wetter portions of the swamp include caddisfly larvae, fairy shrimp, crayfish, pond snails, clam shrimp, water striders, and various protozoa, all generally indicating high water quality.

Entrance to the Dead End Woods Sanctuary is from at the dead end of Wilson Drive and also a shared driveway at 3745 State Road, between the 4th and 5th houses north of Blueberry Lane. Visitors must be careful not to block driveways or the fire hydrant at the end of Wilson Drive.

Gerrits Sanctuary

38.5 Acres, Ira Township, Saint Clair County
Acquisition Date: 2009 July 16

Parcel 74-23-007-1003-000: The Northwesterly 38.5 Acres Of The Southwesterly ½ Of The Northeasterly ½ Of Private Claim 627. Section 7, Town 3 North, Range 15 East. 38.5 Acres.

On July 16, 2009, the TLC acquired its second nature preserve, the Gerrits Sanctuary, a generous donation from Lois Gerrits, wife of the late Dr. James F. Gerrits. The closing was held at the Law Offices of Timothy J. Lozen, with attorney Anna Kovar <http://www.lozenlaw.com/> and TLC executive board members William Collins and Terry Gill present. Ullenbruch Flowers and Gifts of Port Huron <http://www.ulenbruchflower.com/> kindly donated a bouquet of flowers to express our appreciation to Mrs. Gerrits.

Dr. James Gerrits was well known in Saint Clair County. He was co-pilot of a bomber in World War II, and later a fighter and test pilot. Because of his war experiences, he became an outspoken critic of war. He and Lois twice voluntarily went to Vietnam in the 1960's, sponsored by the U.S. Department of State and Catholic Church, to provide civilian medical care to the people of both South and North Vietnam. Lois shared several stories about those times after our closing.



In Memory of
Lois Marie Gerrits
Sept. 5, 1927 ~ March 28, 2016

Afterglow

I'd like the memory of me to be a happy one, I'd like to leave an afterglow of smiles when life is done. I'd like to leave an echo whispering softly down the ways, Of happy times and laughing times and bright and sunny days. I'd like the tears of those who grieve, to dry before the sun Of happy memories that I leave When life is done.



Gerrits siblings at the 2011 November 26 sanctuary dedication.



The Gerrits Sanctuary is 38.5 acres located along the east boundary of the City of New Baltimore, only about $\frac{3}{4}$ mile north of Anchor Bay and Lake Saint Clair. The southern half of the sanctuary is a complex of mature mesic and swamp forest. The north half is old-field and the Crapaud Creek Drain runs through the north end of the preserve. Years ago, the property was part of the Gerrits family farm.



Upland and swamp forest on the Gerrits Sanctuary.

The forest on the Gerrits Sanctuary is an impressive mix of southern swamp and mesic upland containing plant populations relict from centuries ago. Dominant vegetation in the extensive wetlands includes Silver Maple, Green Ash (all large trees dead due to the Emerald Ash Borer), Eastern Cottonwood, American Elm, Cinnamon Fern, and various sedges. The upland forest is a mature and species-rich southern forest community of American Beech, Sugar Maple, Red Oak, White Oak, Black Cherry, American Basswood, Tuliptree, Yellow Birch, Mayapple, White Trillium, Wild Geranium, Canada Mayflower, Spinulose Woodfern, Jack-in-the-pulpit, Solomon's-seal, Yellow Trout-lily, and Spring Beauty among many other forest herbs. Along the southwestern boundary of the sanctuary, the vegetation on moist sand tip-up mounds is distinctly northern with clubmosses, Wild Sarsaparilla, Starflower, and Goldthread. Some areas look surprisingly like habitat for Michigan Endangered Painted Trillium – *Trillium undulatum*, currently known only from the Port Huron area.



Upland forest with large Black Cherry, American Beech, and Sugar Maple on the Gerrits Sanctuary.

The Gerrits Sanctuary is part of one of the largest and least fragmented forest tracts remaining along the Great Lakes coastline from Ohio north through the Algonac area. The larger forest is nearly 300 acres, of which the Gerrits Sanctuary includes only about 20 acres of that forest, or about 7% of it. At the southern limit of the forest along M-29, it is within 1,000 feet of Anchor Bay. Near-shore natural areas are critical for migratory birds and insects that move along the Great Lakes. The Gerrits Sanctuary provides habitat both for migratory woodland birds and for migratory insects, like butterflies, in the old-field on the north half of the preserve.

Official entrance to the Gerrits Sanctuary is from near the end of Sienna Oaks Drive to the north. With permission from park management, the sanctuary may also be accessed through The Shores at Anchor Bay modular park along the east and south boundaries:

<https://www.facebook.com/TheShoresAtAnchorBay/>



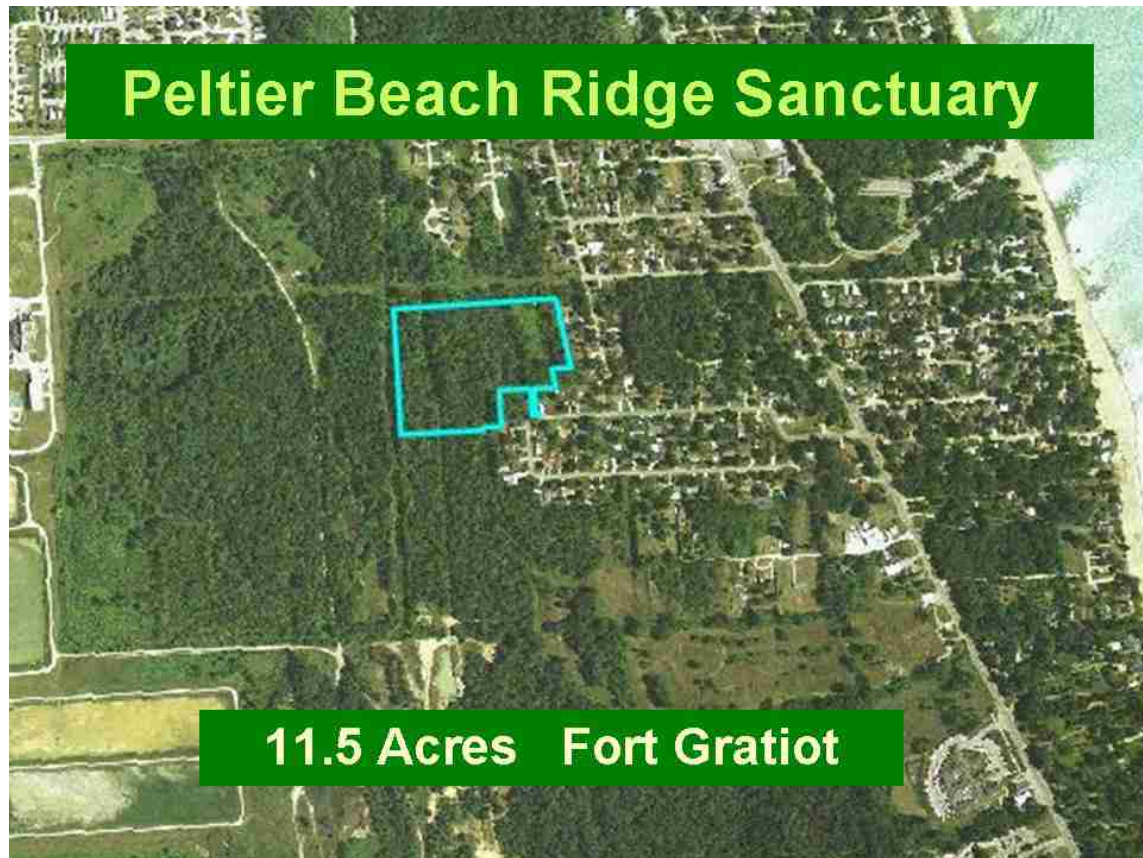
Birthday nature walk for Lois and James Gerrits' granddaughter, Rose, on 2014 May 18.

Peltier Beach Ridge Sanctuary

11.5 Acres, Fort Gratiot Township, Saint Clair County
Acquisition Date: 2010 June 28

Parcel 74-20-004-1058-000: A parcel of land being a part of the Northwest $\frac{1}{4}$ of Fractional Section 4 and the Northeast $\frac{1}{4}$ of Fractional Section 5, T7N, R17E, Fort Gratiot Township, St. Clair County, Michigan and described as: Commencing at the East $\frac{1}{4}$ corner of said Fractional Section 5; thence N. $89^{\circ} 38' 30''$ W. 656.67 feet along the East and West $\frac{1}{4}$ line of said Fractional Section 5; thence N. $00^{\circ} 12' 07''$ E. 1145.13 feet to the point of beginning of this description; thence continuing N. $00^{\circ} 12' 07''$ E. 648.12 feet; thence N. $89^{\circ} 59' 07''$ E. 853.62 feet; thence S. $09^{\circ} 03' 53''$ E. 363.81 feet; thence N. $89^{\circ} 15' 00''$ W. 101.00 feet; thence S. $09^{\circ} 03' 53''$ E. 101.00 feet; thence N. $89^{\circ} 15' 00''$ W. 299.26 feet; thence S. $00^{\circ} 07' 00''$ E. 200.50 feet; thence N. $89^{\circ} 15' 00''$ W. 82.00 feet; thence S. $00^{\circ} 07' 00''$ E. 1.00 feet; thence N. $89^{\circ} 15' 00''$ W. 447.36 feet to the point of beginning of this description. Said parcel contains 11.47 acres, more or less.

On June 28, 2010, the TLC received its third nature preserve, the 11.5-acre Peltier Beach Ridge Sanctuary in Fort Gratiot Township, Saint Clair County. The parcel was given to the TLC by Ray and Nancy Peltier to satisfy State of Michigan requirements, then briefly administered through the Michigan Department of Natural Resources and Environment, for the long-term protection of 6.3 acres of wetland on the property, preserved as mitigation for 0.63 acre of wetland to be impacted by an expansion of the Hamzavi Dermatology office in Fort Gratiot: <https://www.hamzaviderm.com/>. The Peltier's worked out a deal with Dr. Syed Hamzavi to preserve the wetland and adjoining upland on their property as mitigation for the Hamzavi Dermatology project. As with our first preserve, the Dead End Woods Sanctuary in Fort Gratiot, the Peltier Beach Ridge Sanctuary is protected by a State of Michigan conservation easement. In accepting ownership of the mitigation property, the TLC agreed to be responsible for submittal of an approved management plan, annual monitoring of the conservation easement, long-term stewardship, and submittal of annual monitoring reports to the MDNRE, now the Michigan Department of Environmental Quality again.



The Peltier Beach Ridge Sanctuary is located a few hundred feet south of the end of West Montevista Drive, south of Metcalf Road, and along the east side of the Detroit Water Board property. The intake pipes from Lake Huron for the Detroit Water facility are very near the north property line. Also just north is the Galbraith Plant Preserve owned by the Michigan Nature Association, and four small lots north of the MNA preserve, owned by the Saint Clair County Drain Commissioner to be preserved as wetland mitigation for a future project. Although some people use the Detroit Water line property to enter the sanctuary from East Montevista Drive, the actual entrance is from North Shoreview Drive, just east of the intersection with San Juan Drive.

The Peltier Beach Ridge Sanctuary is a small part of a much larger and ecologically unique beach ridge and swale landscape formed thousands of years ago along portions of the early Great Lakes shoreline as water levels dropped, rose again, and then dropped to modern levels after the last glacial period. The beach ridge and swale landscape in this part of the Thumb is a long, narrow formation within about 1 mile of the Lake Huron shoreline, extending from Port Huron into Sanilac County. The landscape began forming about 11,500 years ago as the last stages of the Wisconsin glacier melted back and early Lake Huron was about 30 feet higher than today. About 1,500 years later, the melting glacier uncovered a new outlet from the Georgian Bay and the water dropped over 400 feet. The massive weight of glacial ice depressed the earth's crust for thousands of years, but as it melted, the crust slowly rose and continues today. By 4,500 years ago, the drainage outlet from Georgian Bay raised such that early Lake Huron filled to the Lake Nipissing stage and back to the old shoreline of 7,000 years previous. Great Lakes drainage was gradually limited to the Mississippi River through the old Chicago outlet, and then to the current Saint Clair River outlet, which rapidly down-cut and lowered the Great Lakes to modern levels, leaving a series of beach ridges as the water dropped.



Beach ridge and swale landscape in Fort Gratiot and Burtchville Townships.

In the southern Thumb, the beach ridge and swale landscape is restricted to a narrow strip along Lake Huron in Saint Clair County, in Fort Gratiot and Burtchville Townships, and some small patchy occurrences in Sanilac County. The landscape is much more extensive in Huron and Tuscola Counties along the Saginaw Bay, especially near Port Crescent State Park. In Saint Clair County, it originally covered less than 1% of the total land area, and has since been significantly reduced by commercial and residential development. The landscape consists of a series of upland sand ridges and mucky wetland troughs or swales between. In Saint Clair County, the sand ridges average about 40 to 50 feet wide and 3 to 4 feet above the adjoining swales. The swales are usually about as wide as the ridges, but some are a few hundred feet wide. The largest and oldest beach ridge runs continuously along the western limit of the landscape, furthest inland from Lake Huron. This ridge was over 500 feet wide across most of its extent and may have been over 30 feet high in some areas. Although much of it has been mined out, this big sand ridge is still largely intact through Lakeside Cemetery and into Port Huron near the Blue Water Bridges where it is about 15 feet higher than adjoining land. Centuries ago, this ridge served as a burial ground for Native American inhabitants whose burial mounds have been found near Port Huron. The beach ridge and swale landscape provides not only unique habitat, but also a unique record of Michigan's post-glacial past.

Most of the Peltier Beach Ridge Sanctuary is forested, except a large trail that runs through the western part of the preserve, and portions of the sand ridges to the east. Like most of the landscape, the wetland swales are covered by Silver Maple, Green Ash and Black Ash, the larger ash trees now all dead due to the Emerald Ash Borer, Eastern Cottonwood, and American Elm. The upland beach ridges are covered largely by Black Cherry, Bigtooth Aspen, and American Basswood, with scattered Black Oak and a few Arbor Vitae. The lower ridge bases are lined with Paper Birch and covered by an unusual concentration of Alternate-leaved Dogwood.

Much of the beach ridge and swale landscape in Saint Clair County was impacted years ago by logging, clearing, draining, livestock grazing, and sand mining. Because the surrounding forest as a whole has either been degraded or eliminated, subsequent forest species recruitment has been severely diminished, which has limited the return of many forest plants and therefore, the recovery of a mature forest community. The dominance of invasive species like Tartarian Honeysuckle, Common Privet, and Garlic Mustard has further displaced mature forest species.



Beach ridge left and wetland swale right.

Despite so many impacts, the landscape still contains high quality habitat with several unique species. Like other parts of the landscape, a few sand ridges on the Peltier Beach Ridge Sanctuary contain small patches of Purple-flowering Raspberry, the Lower Peninsula's equivalent of the Upper Peninsula's Thimbleberry, with large flowers and large raspberry fruits that actually fit over a finger like a thimble. Purple-flowering Raspberry is thought to be native to only seven shoreline counties in Michigan. The species is so restricted to this habitat in Saint Clair County that it's symbolic of it.



Purple-flowering Raspberry near the Peltier Beach Ridge Sanctuary.

Yellow Lady's-slipper orchid grows in a variety of habitats, but in Saint Clair County is largely restricted to the moist ridge bases and mucky swales of this landscape. Several Yellow Lady's-slipper orchids have been found on the Peltier Beach Ridge Sanctuary.



Yellow Lady's-slipper orchid near the Peltier Beach Ridge Sanctuary.

The Eastern Hog-nosed Snake is a special reptilian inhabitant that has been found just a few hundred feet south of the Peltier Beach Ridge Sanctuary. They prefer the more open sand of dunes and disturbed ground such as along the south end of the sanctuary. When aggravated, the snakes flatten their necks like a cobra, and then sometimes roll over and play dead with their mouths hanging open. They can look imposing, but are harmless. The Eastern Hog-nosed Snake is more common in the southern plains and southeastern US, but is considered to be at some risk of extirpation in the Great Lakes region, Ontario, and New England.



Eastern Hog-nosed Snake just south of the Peltier Beach Ridge Sanctuary.

One of the most critical functions of this coastal forest habitat is the support it provides to an abundance of migratory birds as they move north and south along the Lake Huron shoreline. The spring and summer breeding bird population is very abundant and diverse in this area, especially the forest warblers. Several species of warblers have been identified on the Peltier Beach Ridge Sanctuary.



American Redstart warbler just south of the Peltier Beach Ridge Sanctuary.

The Peltier Beach Ridge Sanctuary is a high quality wetland and upland complex with a unique geologic history, unique plant and animal community, significant Great Lakes coastal habitat, good restoration potential, and a great addition to the TLC preserve lands. The beach ridge and swale landscape is a high priority for the TLC and we continue working to promote preservation of this area.

North Street Station

5220 North Road, North Street, Michigan
0.5 Acre, Clyde Township, Saint Clair County
Acquisition Date: 2016 August 02

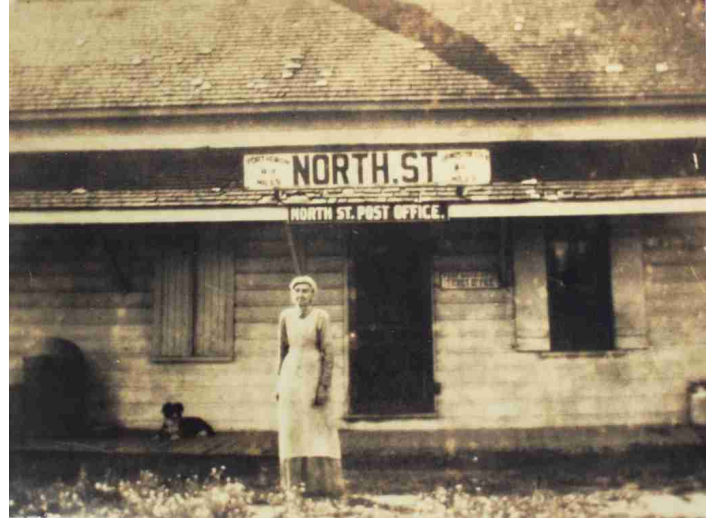
Parcel 74-15-012-3006-000: All that part of the North $\frac{1}{2}$ of the Northwest $\frac{1}{4}$ of the Southeast $\frac{1}{4}$ lying south of the Pere Marquette Railroad right-of-way and containing 0.5 acre in Section 12, T7N R16E

On August 2, 2016, the TLC purchased the old general store, post office, and rail station in North Street through the Saint Clair County tax auction. This historic structure would have been demolished if not acquired by a preservation group. The North Street station is one of only two remaining stations between Port Huron and Croswell along the old Port Huron and Northwestern Railway which opened in 1879. The main line ran from Port Huron to Saginaw, with branches to Sandusky, Port Hope, and Port Austin. The line became part of the Pere Marquette Railroad in 1889. The main structure on the North Street site probably dates back to at least 1889, but was later partially modified in the mid 1940's to serve as a residence.

The TLC is partnering with the Clyde Historical Society to protect the structure and fundraise for restoration. We are currently restoring the exterior and plan to install signs describing the history of the site. Eventually, we would like to restore the interior, display related historical artifacts, and open it for meetings and public events.



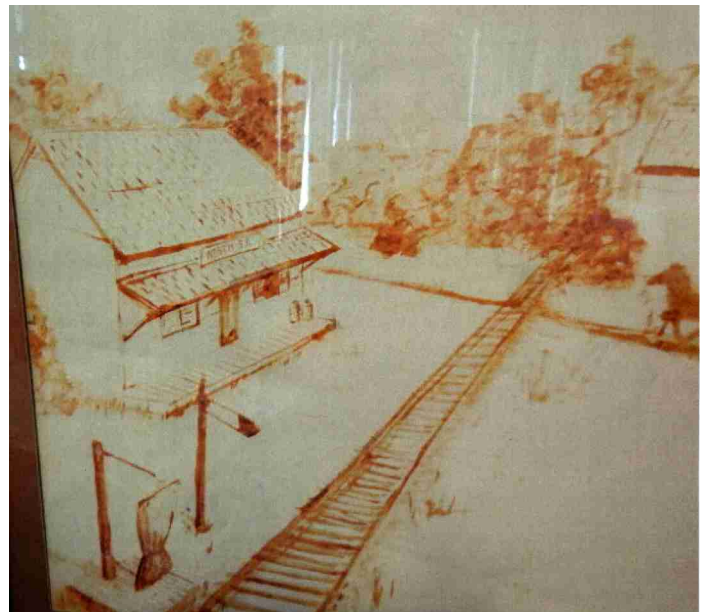
South side of the North Street Station during roof repair in the spring of 2017. The large window was installed and other modifications were made in the mid 1940's to upgrade the structure as a residence.



The North Street Station circa 1930 showing the north side, facing the railroad tracks. A proprietor of the general store and post office stands in front, with a dog on the porch behind.



The North Street Station circa mid 1930's showing the south side from North Road. The lower room to the east was added to the original structure.



A drawing of the North Street Station as it appeared circa 1900 showing the north side and adjacent railroad. A mail pouch is hanging at the lower left. A horse is shown to the far right on North Road.



Left: A portion of an 1899 map showing the Pere Marquette Railroad line from Port Huron through North Street and beyond.

Bertha's Haven Sanctuary

0.62 Acre, Fort Gratiot Township, Saint Clair County
Acquisition Date: 2019 September 27

Parcel 74-20-004-1057-000: West 175 feet of South 154 feet of that part of the East ½ of the Northeast ¼ of the Northeast ¼ lying North of the extended North line of Roosevelt Avenue in Section 5, T7N, R17E, 0.62 acre

On September 27, 2019, the TLC accepted ownership of the Galbraith Plant Preserve from the Michigan Nature Association (MNA). The preserve is located only about 150 feet north of our Peltier Beach Ridge Sanctuary, in the same beach ridge and swale landscape along Lake Huron in Fort Gratiot and we have been watching over it when we go out to the Peltier Sanctuary. MNA founder and director, Bertha Daubendiek, established this preserve back in 1972 as a place to transplant native wildflowers from the adjacent Detroit Water Board property before the Lake Huron water intake facility was constructed. The TLC renamed the preserve in honor of Bertha Daubendiek, to "Bertha's Haven", borrowing part of an older name for the preserve.



Bertha's Haven Sanctuary in yellow boundaries just north of the Peltier Beach Ridge Sanctuary.



Left: Bertha Daubendiek (center) on the shore of Lake Superior in 1969. Right: Bertha Daubendiek (bottom center) exploring the western Upper Peninsula in 1970 with MNA board members Thelma Sonnenberg and Rita Juckett, and biology student guides from Michigan Technological University.

For more information about Bertha Daubendiek and the Michigan Nature Association, see these articles written by TLC Executive Director, William Collins:

http://www.huronecologic.com/thumb_habitats022004.htm

http://www.huronecologic.com/thumb_habitats032004.htm

Loznak Sanctuary

Honoring Charles and Elizabeth Loznak

11.5 Acres, City of Marysville, Saint Clair County

Acquisition Date: 2019 December 18

9.3 acres of Parcel 74-03-092-0025-000: Lots 19 and 20 and Lot 21, except the South 200 feet of "ASSESSOR'S PLAT OF DOW ADDITION TO THE CITY OF MARYSVILLE, MICHIGAN", according to the plat thereof as recorded in Liber 55 of Plats, page 7, St. Clair County Register of Deeds Office.

2.2 acres of Parcel 74-03-092-0023-000: Westerly 350 feet of Lot 18, "ASSESSOR'S PLAT OF DOW ADDITION TO THE CITY OF MARYSVILLE, MICHIGAN", according to the plat thereof as recorded in Liber 55 of Plats, page 7, St. Clair County Register of Deeds Office.

On December 18, the TLC accepted donation of the 11.5-acre Loznak Sanctuary, along with a small endowment fund, from Loznak Real Estate Enterprises, LLC. The Loznak Sanctuary honors the memory of Charles and Elizabeth Loznak. The sanctuary is located adjacent to an industrial area along Wills Street in Marysville, east of Busha Highway in Marysville.



Oblique view of the Loznak property donation in yellow boundaries.

The Loznak Sanctuary is adjacent to the old Port Huron and Detroit Railroad line with an old rail spur running through the middle of the sanctuary. It is also adjacent to approximately 26 acres of unusual ridge and swale forest with an interesting alluvial origin along the Saint Clair River dating back almost 5,000 years ago. Despite the impact of previous industrial use connected with a World War II munitions factory, the Loznak Sanctuary is a nice recovering natural area with patches of young forest interspersed with the remains of concrete foundations reminiscent of monuments. The east half of the sanctuary contains lakeplain prairie vegetation with uncommon species such as Riddell's Goldenrod - *Solidago riddellii*, Fringed Gentian - *Gentianopsis crinita*, and Mountain Mint - *Pycnanthemum virginianum*. Historic aerial photographs and mapping show that, other than limited use of the property appearing to begin and end with World War II, the land appears to have been generally undisturbed. A 1937 aerial photograph shows the Loznak Sanctuary and vicinity was completely vacant and part of a large swath of mostly open land along the Saint Clair River which may have been farmed. Similar lakeplain prairie habitat in the Marysville area, where land use was not so intensive, serves as refugia for plants remnant of original populations that existed prior to European settlement. Michigan Threatened Sullivant's Milkweed - *Asclepias sullivantii*, a rare lakeplain prairie plant found in only 8 southeast counties in Michigan, is known from several locations in the Marysville area.



Left: Old-field with lakeplain prairie vegetation and railroad spur. Right: Part of a concrete foundation.



Remnants of a concrete foundation amongst Paper Birch trees on the Loznak Sanctuary.

We are still discussing options and plans for this new sanctuary with potential partners, including the Port Huron and Detroit Railroad Historical Society (<http://phdrailroad.com/>). We envision the Loznak Sanctuary as a small park highlighting the interesting combination of natural area, World War II industrial history, and railroad history relating to the old Port Huron and Detroit Railroad, now owned by CSX Transportation, running along the west side of the sanctuary and the rail spur connecting to it. Our thanks to Loznak Real Estate Enterprises, attorney Tim Lozen, and Jim Hollenbeck of EH&S Services for completing the phase 1 environmental assessment (<https://www.facebook.com/EHS-Services-246483582068278/>)

TLC Conservation Easements

Bob Putze Preserve

The Bob Putze Preserve is the first residential landowner conservation easement agreement for the TLC. The conservation easement adjoins the Port Huron State Game Area along the west side of Abbottsford Road; a very nice northern forest community with lots of Eastern White Pine, and tall Red Pines that Bob Putze planted in 1964. Edge species like Big-tooth Aspen and planted spruce are gradually dying off in the increasing shade, while shade-tolerant American Beech and Sugar Maple are colonizing the understory, a natural process known as forest succession which leads to a mature native forest community. The ground-level vegetation is diverse and of good native quality with the usual species of cool sandy soils in the Port Huron area including at least three species of clubmoss, a distant cousin of ferns, along with Canada Mayflower, Wintergreen, and Low Sweet Blueberry. A small area of wetland is covered by Royal Fern with Michigan Holly shrubs. Bob Putze's forest is potential habitat for Michigan Endangered Painted Trillium, a rare species now known only from Saint Clair in all of Michigan, and occurring within a mile of Bob's land.

Bob Putze is a very conscientious and reverent man who loves God's creation and cares for every animal that ventures onto his land. Bob feeds them all, including deer, turkeys, rabbits, raccoons, opossums, and stray cats. Even Pileated Woodpeckers come to his suet feeder, and Flying Squirrels live in a nest box by his driveway. Bob has always felt a spiritual connection to his land. For years, he wanted to ensure that the woods would remain natural and undeveloped after he is gone. The conservation easement signed with the Thumb Land Conservancy in March of 2017 provides the legal basis for that protection in perpetuity.



The Bob Putze Preserve conservation easement site.



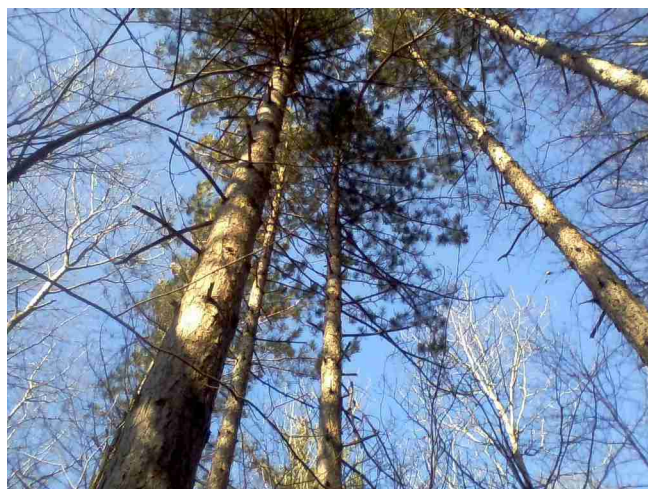
Canada Mayflower, Ground-cedar (clubmoss), and Red Maple seedling.



Typical forest understory.



Typical forest understory.



Overstory of planted Red Pine.



Typical forest understory.



One of Bob's signs.

The Bob Putze Preserve is characteristic of the drier and more northerly forest remaining in the region. In the Port Huron area, northern forest complex is a second-growth woodland complex of mesic to dry-mesic northern forest, dry-mesic southern forest, hardwood-conifer swamp, and southern hardwood swamp on sandy soils extending across large parts of Kimball, Clyde, and Port Huron Townships. The vegetation of this complex is a unique blend of northern and southern flora, skewed largely toward northern species. This generally northern community complex covers a broad and flat landscape of coarse to fine sands deposited across the glacial lakeplain, the dominant cover being swamp forest. Smaller upland sand ridges are typically scattered throughout the complex, deposited in glacial drainageways or as glacial lake beaches and inland dunes.

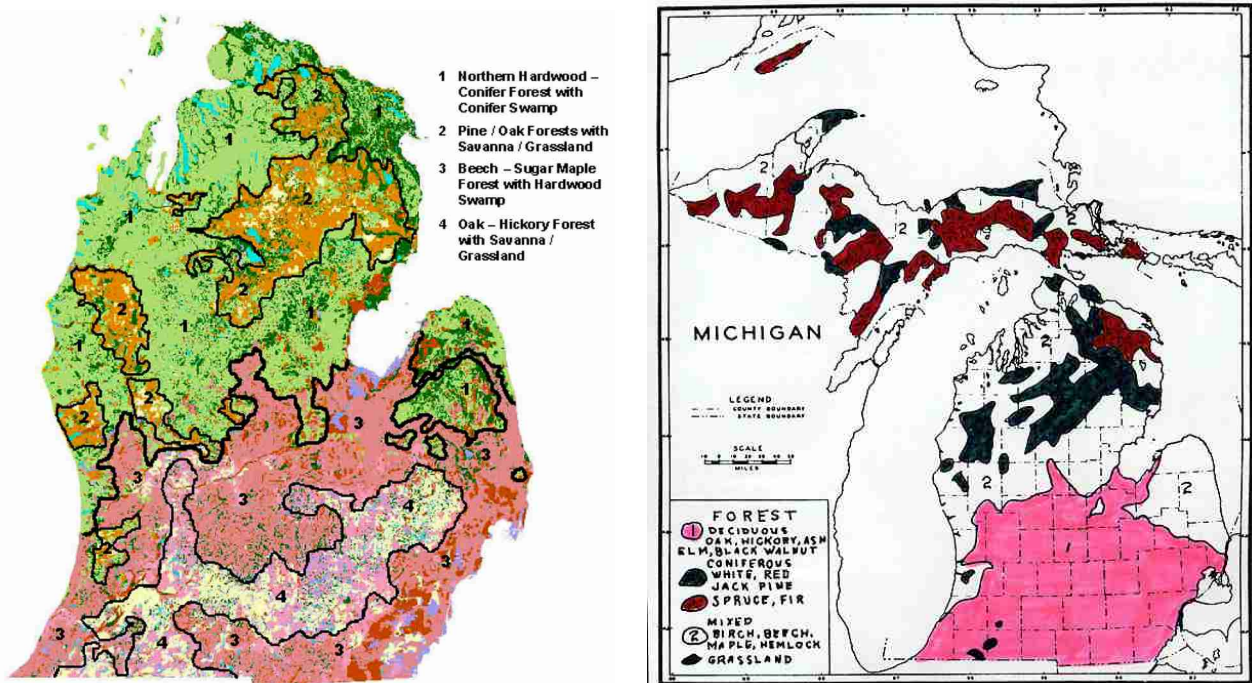


Bob Putze standing by one of the Red Pines he planted in 1964.



Bob Putze and Michigan Holly he transplanted to his yard.

Northern forest communities occur almost exclusively north of the “tension zone” or “transition zone”, a rough division of northern and southern flora in the northeastern United States, extending from Maine through Minnesota and dividing the lower peninsula of Michigan roughly in half. North of the transition zone, conifer trees are a major component of the forest along with broad-leaved hardwood trees. South of the transition zone, conifers are largely absent. The combination of climate and soils north of the transition zone favors northern vegetation, and south of the zone favors southern vegetation. In Michigan, the transition zone is broad, roughly 100 miles wide in some areas, running from near Muskegon on Lake Michigan, to the Saginaw Bay and across the northern tip of the Thumb. Some consider the transition zone to extend down through the lower part of the Thumb, but most restrict it to northern Huron County. Although there is some disagreement as to the precise location and extent of the transition zone, it is certain that many northern plant species reach their southern range limit there, and conversely, many southern plant species reach their northern limits. Regardless, the occurrence of large northern plant communities south of Saginaw Bay is unusual. The primary factor in the southern extension of northern flora in the Thumb is the cooler growing season near Lake Huron. Northern vegetation extends down from Huron County in a narrow coastal zone through Sanilac County, spreading out to the south and west over the low, flat, wet sands of Saint Clair County on the glacial lakeplain.. Other factors include extensive sand soils, a generally high water table perched above a shallow layer of lakeplain clay, and the historic influence of fire.



Northern and southern floristic zones in Michigan.

Several rare or uncommon plant species occur almost exclusively in this northern forest complex in Saint Clair County. The complex contains all of the currently known and extant populations of Michigan Endangered Painted Trillium – *Trillium undulatum* in Michigan. Michigan Threatened Northern Prostrate Clubmoss - *Lycopodiella margueritae* was recorded from the area in 2002 but now its occurrence is apparently questionable due to a recent change in the taxonomic status of the species. Other uncommon plants that may be found in the complex include Creeping Rattlesnake Plantain - *Goodyera repens*, Downy Rattlesnake Plantain - *Goodyera pubescens*, Tesselated Rattlesnake Plantain - *Goodyera tessellata*, Trailing-arbutus - *Epigaea repens*, Pink Lady-slipper orchid - *Cypripedium acaule*, and Showy Orchis - *Galearis spectabilis*.

TLC Stewardship Sites

12.35-Acre Deerfield Wind Energy Preserve Huron Township, Huron County, Michigan 2016 to present

In late 2016, the TLC contracted with Algonquin Power Company of Oakville, Ontario, Canada to provide stewardship of their 12.35-acre Deerfield Wind Energy Preserve, about 4 miles west of Port Hope. The Deerfield Wind Energy Preserve was placed under a State conservation easement as mitigation for wetland impacts resulting from the nearby Deerfield Wind Energy turbine project. 1.235 acre of State-regulated forested wetland was permanently converted to open wetland for the purpose of clearing a 60-foot wide right-of-way for an electrical transmission line. The Michigan Department of Environmental Quality allows preservation of existing wetland, at a 10 to 1 ratio, as mitigation for permitted wetland impacts. As with the TLC Dead End Woods and Peltier Beach Ridge Sanctuaries in Fort Gratiot Township in Saint Clair County, the Deerfield Wind Energy preserve was placed under a State conservation easement as mitigation for permitted wetland impacts. The MDEQ now requires long-term stewardship on all mitigation sites, usually provided by land conservancies like the TLC.



Deerfield Wind Energy Preserve, shown in yellow boundaries.

Most of the Deerfield Wind Energy Preserve is southern swamp forest with species trending somewhat toward a northern community. Dominant vegetation includes Silver Maple, Black Ash saplings and seedlings, Sensitive Fern, Spinulose Woodfern, Wood Nettle, Clearweed, Lake Sedge, and other sedges. Small upland areas are dominated by Red Maple, Wild Black Cherry, American Basswood, and, unfortunately, Japanese Barberry. Uncommon native plant species include Foamflower, Swamp White Oak, Turtlehead, Woodreed Grass, Spicebush, Cardinal Flower, Round-leaved Pyrola, and Red Trillium. The preserve is part of one of the larger forest fragments remaining in the Thumb, almost continuous along tributaries of Willow Creek to Lake Huron. As such, it is not only important for the watershed, but as habitat for migratory birds. Those observed on the preserve include Wood Thrush, Veery, Eastern Wood-pewee, Evening Grosbeak, many American Redstart warblers, Common Yellowthroat warbler, Yellow Warbler, Black-capped Chickadee, Downy Woodpecker, and Catbird.



Swamp forest on the Deerfield Wind Energy Preserve, showing Pileated Woodpecker excavations on the dead tree at the right.

The most immediate stewardship issue on the Deerfield Wind Energy Preserve was determined to be a dense growth of invasive Japanese Barberry along roughly 600 feet of the east preserve boundary, extending about 100 feet west into the forest before decreasing to a few scattered shrubs. The barberry growth apparently exploded in the past few years as a result of forest clearing on the adjacent parcel east to expand a hay field. The clearing greatly increased the amount of light exposure in the remaining forest, shifting edge forest conditions at least another 100 feet west into the preserve.

The TLC proceeded with extensive manual clearing of the barberry in the fall of 2017, as opposed to herbicide application, after determining that native forest plants under and around the barberry would likely be eliminated by herbicide. These species include Foamflower, Turtlehead, Red Trillium, Round-leaved Pyrola, and Canada Mayflower. Deer ticks are known to concentrate in barberry, much of it head-high on the preserve, which could present a risk of Lyme Disease to stewards cutting or digging barberry in the summer. To minimize Lyme Disease risk and destruction of native woodland herbs, the TLC has limited most of our work to the fall, winter, and early spring. Starting in early September

of 2016, the TLC began cutting barberry shrubs with hand loppers and a gas-powered weed whacker fitted with a 4-point steel brush blade. Over one acre of barberry has been cut along the east side of the preserve. In the early spring of 2018, the TLC will start burning the cut barberry stems with a large propane torch. Repeated for a few years, most of the barberry should eventually be killed. Others will be manually pulled or dug from the ground.



View south of Japanese Barberry along the east preserve boundary.

As with other stewardship sites, the TLC conducts species inventories, detailed measurements of vegetation in sampling plots across the preserve, general observation, and extensive photographic documentation as part of the annual monitoring required by the MDEQ. The TLC inspects all preserves annually to monitor conditions and identify potential stewardship issues. A detailed monitoring report is submitted to the MDEQ by the end of January each year.

18.5-Acre Super Kmart / Sam's Club Preserve Port Huron Township, Saint Clair County 2016 to present

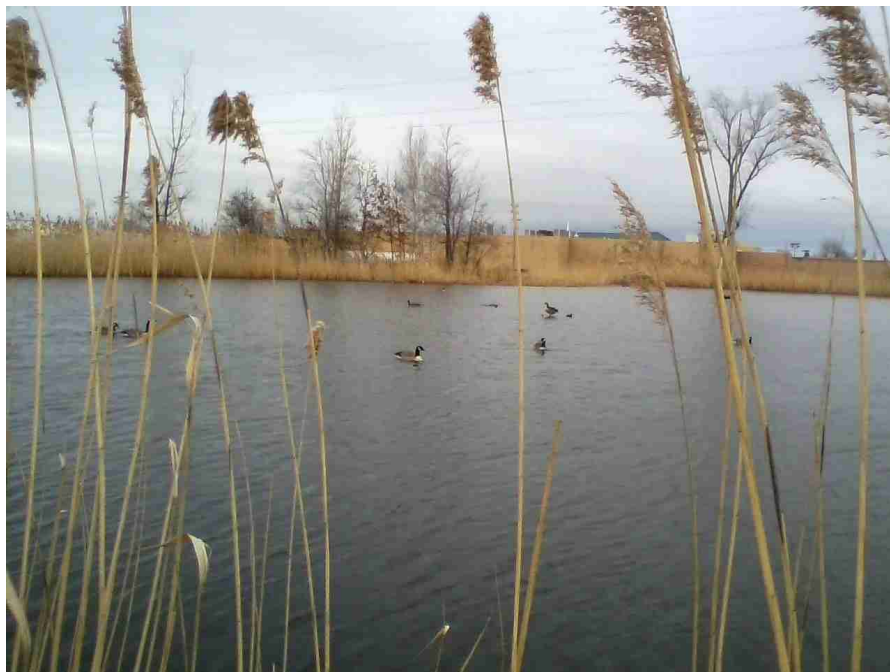
Starting in early 2016, the TLC has been assisting Port Huron Township in Saint Clair County with management of wetland and forest around the vacant Super Kmart and Sam's Club at the northeast corner of I-69 and 32nd Street. Wetland was constructed north and east of the stores, and natural swamp forest preserved, as mitigation for a wetland permit issued by the Michigan Department of Environmental quality back in 1992. In total, about 18.5 acres of wetland and forested upland is protected by a State of Michigan conservation easement. Management of the area has been lacking for years and became even more critical when the Super Kmart closed a few years ago.

TLC member and friend, Port Huron Township Fire Chief Craig Miller, has been a continued advocate for the preserve while working for a compromise allowing the Township better management of the area for public safety. In late 2016, County Sheriff deputies moved an encampment of about 15 young men living in tents and other shelters on the preserve to adequate housing elsewhere. They not only caused a lot of destruction on the preserve for years, but produced drugs and engaged in theft of local stores and customers. Relocating these men was key to gaining control of the preserve.



Super Kmart and Sam's Club preserves (areas 1, 2, and 3) in Port Huron Township.

The constructed wetland on the Super Kmart and Sam's Club preserve leaves a lot to be desired, being almost completely dominated by invasive Reed – *Phragmites australis*. The most striking part of the constructed wetland is a large pond east of the stores that is utilized by an abundance of waterfowl. In contrast, a large part of the preserve consists of the original native forest community with uncommon species like Blue-bead Lily, Fringed Polygala, Michigan Holly, Black Chokeberry, and a Scarlet Oak x Pin Oak hybrid particular to the Port Huron area. The TLC produced a detailed management plan for the preserve which has helped gain approval for management actions from the MDEQ while taking the sensitive natural features into consideration.



Canada Geese in the pond east of the stores, showing also the dominance of invasive Reed.



Left: Invasive Reed along north drive. Right: Litter north of stores before March 2016 clean-up.



Native forested wetland north of the stores. Despite surrounding impact, still a nice natural area.

In March and December of 2016, the TLC assisted a County community service crew with clean-ups, removing litter and materials left on the site by the young men that lived on the preserve. During unseasonably warm weather on February 26, the TLC assisted the Port Huron Township Fire Department in an attempt to burn the invasive Reed in the wetland east of the stores. Unfortunately, the air temperature was too low to sustain a good burn. However, based on a recent discussion with the Township Supervisor, another controlled burn should be attempted in the early spring of 2018 and the TLC will continue to assist the Township as we are able.

51-Acre Michigan Road Preserve Port Huron Township, Saint Clair County, Michigan 2011 to 2015

From 2011 through 2015, the TLC contracted with the Saint Clair County Drain Commissioner, Saint Clair County Road Commission and Pro-Tel Development to provide five years of annual monitoring and stewardship required by the Michigan Department of Environmental Quality as a condition of two wetland permits issued to the SCCRC and Pro-Tel Development. The SCCRC permit authorized impact of 0.57 acre of emergent marsh and 0.14 acre of shrub swamp wetland for the removal of the old Michigan Road crossing of the North Branch of Bunce Creek, and replacement of the crossing structure with a new bridge over the Canadian National Railway in Port Huron Township. The Pro-Tel Development permit authorized impact of 2.85 acres of wetland and relocation of 950 linear feet of the Read Drain for the purpose of commercial development at the southeast corner of Wadhams Road and Griswold Road in Kimball Township. In total, the MDEQ required preservation of 31.08 acres of existing natural wetland as mitigation for the permitted impacts. The SCCRC and Pro-Tel Development provided the required preservation on two adjacent parcels totaling just over 51 acres and the SCCDC subsequently accepted ownership of the land.



The TLC inspected the conservation easement site annually for five years, documented site conditions, identified management concerns, and performed stewardship activities according to the requirements of the MDEQ permits and management plans produced by the TLC. Annual monitoring and stewardship reports included detailed vegetation data from sampling plots, descriptions of ecological conditions, vegetative development, human and natural disturbance, litter and refuse dumping, invasive species control results, controlled burn effects, native plantings, ecological enhancement, easement sign conditions, potential safety hazards, adjoining land use, a summary of annual management and maintenance activities, and extensive on-site photographs. Monitoring reports also included comparisons of current site conditions to those of previous years, descriptions of changes observed, and evaluation of the effectiveness of long-term management actions.

The Michigan Road Preserve is just 51 acres of a much larger northern woodland complex on upland sand ridges and lower wetland east of Michigan Road, north of Dove Road and along the south side of the Canadian National Railroad. Sand ridges are relatively broad, a few hundred feet in width, appearing to be Rousseau fine sands. Adjacent lower and wetter soils are Wainola-Deford fine sands. Most of the preserve is typical of relatively young woodland in the Port Huron area, recovering over the past 70 to 90 years after much of the area was cleared for timber. The forest community is composed of northern species like Red Maple, Paper Birch, Wintergreen, Bracken Fern, Wild Sarsaparilla, and Canada Mayflower mixed with southern species like Black Oak and Smooth Highbush Blueberry. The central and eastern portions of the Michigan Road Preserve are covered by disturbed northern shrub swamp dominated by Tag Alder, Black Chokeberry, and Glossy Buckthorn, with Narrow-leaved Cat-tail and Reed in the lowest and more open areas.



Typical wetland and upland complex on the Michigan Road Preserve, showing tip-up mounds.

Despite clearing decades ago, the Michigan Road Preserve has retained many species characteristic of the vegetation that existed before European settlement. The composition of the forest community on the preserve, like much of the forest in the Port Huron area, is a diverse blend of northern and southern flora, being located at a southern extension of Michigan's Transition or Tension Zone along the Lake Huron coast, with a moderated climate.

The habitat across much of the upland portions of the Michigan Road Preserve appears well suited for Michigan Endangered Painted Trillium - *Trillium undulatum* known to occur on other sites nearby. Painted Trillium is one of nearly 40 species of trillium native to North America, about 10 of which are found in Michigan. Saint Clair County is an isolated outpost for Painted Trillium on the western edge of its range in North America, reflecting the Blue Water Area's unique natural history. Its primary range is the Appalachian Mountains at higher elevations on organic soils, in rhododendron and Mountain Laurel thickets or Red Spruce groves, but nowhere is the species considered common. In Saint Clair County, Painted Trillium is recorded only from mesic northern forest, on moist sands. Its occurrence strongly coincides with the interface of Rousseau fine sand or Chelsea-Croswell sand ridges and the lower and wetter Wainola-Deford fine sands, such as on the Michigan Road Preserve. Plants are often found along the base of sand ridges, near wetland. Painted Trillium also shows a strong affinity for distinct and dense tip-up mounds like those on the Michigan Road Preserve. Painted Trillium was first documented in Saint Clair County around 1900 by botanist, attorney, and city controller of Port Huron, Charles K. Dodge.



Atop a large sand ridge in northeast of the Michigan Road Preserve.



Royal Fern and Tag Alder (stem left) on the west edge of the shrub swamp.

A few small patches of Marsh Saint John's-wort - *Triadenum fraseri* occur in the shrub swamp in the central part of the preserve. This is a northern species not often encountered in Saint Clair County,

but more common in northern Michigan. Marsh Saint John's-wort is indicative of wet sandy soils, occurring in alder thickets, such as the Michigan Road Preserve, but also bogs and sedge meadows, suggesting it may be remnant of a more open, fire-maintained community.

Three invasive weeds are a management concern on the preserve, including Reed - *Phragmites australis*, Glossy Buckthorn – *Frangula alnus*, and Narrow-leaved Cat-tail - *Typha angustifolia*. Reed is limited to the open shrub swamp areas in the central and eastern parts of the preserve where it is mingled with Glossy Buckthorn, Black Chokeberry, and Tag Alder. Narrow-leaved Cat-tail covers far less area and is very limited, in only the few open patches in the north-central part of the preserve. Neither Reed nor Narrow-leaved cat-tail are spreading as they already occupy the full extent of open habitat on the preserve. Glossy Buckthorn, however, while fairly widespread across the open shrub swamp, is still spreading in the swamp forest. It is a co-dominant species of the forest understory across about a third of the preserve and is, by far, the greatest management concern.



Tangle of Black Chokeberry, Glossy Buckthorn, and Reed that dominates much of the shrub swamp on the preserve.

There appear to be few direct, recent human impacts on the Michigan Road Preserve. There are no trails on the preserve, being fairly well isolated by the North Branch of the Bunce Creek to the southwest, the Canadian National Railway to the north, and extensive forest to the east and south. Because wetland is so extensive in this area, there are few nearby residences, which is probably another factor in the lack of disturbance. Apparently for the same reasons, there is little refuse.

In the fall of 2011, land adjoining the west side of the preserve was completely cleared for the railroad crossing construction authorized by the same MDEQ permit that the Michigan Road Preserve provides wetland mitigation for. In response to the increased light, Glossy Buckthorn density and growth exploded along the west boundary of the preserve.

The adjacent forest clearing caused further degradation through yet more deforestation and by extending edge effects at least another 100 feet into the preserve. Forest quality is very dependent on maintaining large, unfragmented tracts that are less susceptible to invasion of edge and weed

species. Large unfragmented forests are better able to maintain interior forest species, remnants of prehistoric populations that thrived prior to European settlement 150 to 200 years ago. The loss of adjacent forest made the preserve that much more unsustainable in the long term. With less forest, full sunlight extends further into the remaining forest, favoring weedy edge species over the remnant native flora. Wind-throw of mature trees from prevailing west winds will extend further into the preserve. Interior forest birds such as Wood Thrush are particularly vulnerable to nest invasion and territorial displacement by Cowbirds and other birds of open habitat and edge woodlands.

The TLC conducted several management activities on the Michigan Road Preserve to control invasive Glossy Buckthorn and to improve the native flora by reintroduction of a natural fire regime that characterized this type of forest community prior to European settlement. With the assistance of the Port Huron Township Fire Department, the TLC conducted two small controlled burns on 2014 April 12. Subsequent inspections of the preserve indicated that the burning was moderately effective in eliminating Glossy Buckthorn seedlings. Based on this, the TLC conducted a much larger burn on the preserve the following spring, on 2015 May 01. The burn was conducted without the PHTFD, but with new TLC intern, Alex Roland, from Saint Clair County Community College, her friend, Brook, and a few TLC board members. The natural fuel load (leaves and twigs) was greater and weather conditions were much more favorable that day to sustaining a good burn. The results of the burn were evaluated later in August, with the assistance of TLC interns Alex Roland, Jeff Hansen, and Nicole Barth, all students at SC4. An additional decrease in Glossy Buckthorn was observed, but with a significant increase in Black Cherry seedlings. Whether most of these seedlings would survive and eventually dominate the forest understory was uncertain. This could be a negative effect of burning, as well as our inability to burn Glossy Buckthorn in the lower and wetter portions of the wetland. A positive effect however, appeared to be increased density of fire-tolerant northern plant species, such as Bunchberry and Gay-wings, which would originally have likely been a larger component of the forest community before European settlement.



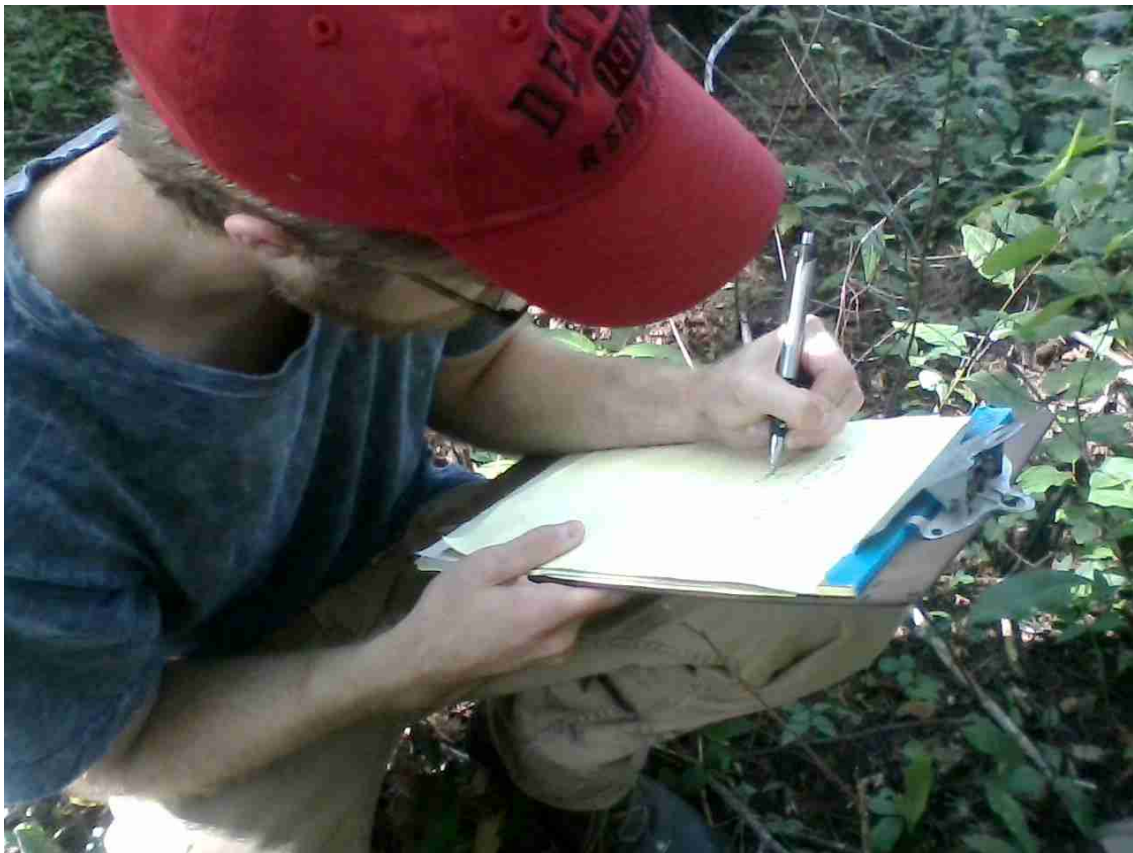
Port Huron Township Fire Department assisting with controlled burn on 2014 April 12.



Left to right, TLC President Cheryl Collins, TLC Stewardship Intern Alex Roland and her friend Brook at our 2015 May 01 burn.



Weather conditions and fuel load were very good for our 2015 May 01 burn.



TLC Intern Jeff Hansen collecting vegetation data during 2015 August 12 monitoring.



Bunchberry and Gay-wings in burned area.

TLC Mission

TLC Territory

The Thumb Land Conservancy is working to preserve natural areas in the Thumb of Michigan, a post-glacial landscape where northern forest blends with central hardwoods, bordered by Lake Huron, the Saginaw Bay, the Saint Clair River, and Lake Saint Clair. The mission territory of the TLC is Saint Clair, Sanilac, Huron, Tuscola, Lapeer, and Macomb Counties, but we can also work in adjacent areas as opportunities arise. The TLC will seek to work with local partners where our service territory overlaps that of other conservancies and similar organizations.



TLC Purpose and History

The Thumb Land Conservancy was formed in 2008 to provide an organization dedicated to filling the gap of nature preservation in Michigan's Thumb. Although much attention has been given to a few areas near Lake Saint Clair, the Thumb has been largely ignored. In recent years, we are happy to see that some new lands have been preserved, but so much remains unprotected.

There is a popular misconception that little is worth saving north of Detroit because of urban development and agriculture. While much of the landscape has been drastically altered, many high quality natural areas remain. A few places are nearly pristine, resembling conditions that existed before European settlement about 200 years ago.

The extensive destruction of natural areas in the Thumb makes preservation even more critical. Small, degraded fragments can be restored and expanded, and often serve as isolated havens for rare plant species. We believe all natural landscapes are important locally because they reflect a unique combination of history and features particular to that location. Many benefits of nature are obtained and enjoyed only locally. We believe it is especially important for children to have natural areas nearby where they can play, grow, and learn.

We have not forgotten what it's like to see a treasured woods in a neighborhood cut down, or wetlands carved up for more development. The TLC wants to work with any concerned individual before these places are lost.

The TLC is carrying on a legacy in the Thumb. In 1952, Macomb and Saint Clair Counties were the birthplace of what became the Michigan Nature Association, the first statewide land preservation group in Michigan. The MNA was led for many years by the late Bertha Daubendiek of Kenockee Township in Saint Clair County, and is one of a very few organizations that has protected land in the interior of the Thumb, with 18 sanctuaries here. Most of our board members personally knew MNA cofounder Bertha Daubendiek. Some are MNA members and did volunteer work for MNA. TLC President, Cheryl Collins, served on the MNA board from 2003 through 2008.



1970 - The MNA board goes statewide at the office of attorney Frank Giambone in Mount Clemens. Not exactly a radical looking bunch, but dedicated visionaries. Left to right, front: Bertha Daubendiek, Thelma Sonnenberg, Marie Moran Peter, Julius C. Peter, back: Frank Giambone, Rita Juckett, and Richard W. Holzman. Photo by Ralph Polovich.

TLC board members have been involved with environmental issues and natural area protection in the Thumb for many years. From 1989 through 2006, as members of the Mill Creek Coalition, we helped protect the Mill Creek, a major tributary of the Black River, from an 18-mile dredging and channelization project. In the 1990's, as members of the Thumb Bioregional Alliance, we opposed development of the roughly 800-acre Wingford Estate along the Black River in the middle of the Port Huron State Game Area, and supported the State of Michigan in protecting the Minden Bog, the upper headwaters of the Black River in Sanilac County, from an expansion of peat mining. Most of the TLC board members were involved in the Painted Trillium Tours in Saint Clair County from 2001 through 2004 and worked to acquire the MNA Sharon Rose Leonatti Memorial Nature Sanctuary in Kimball Township. Bill and Cheryl Collins co-founded the Macomb Land Conservancy in 2000, which merged with the Oakland Land Conservancy to become Six Rivers Land Conservancy. They monitored Michigan Threatened Pitcher's Thistle in Huron County in the late 1990's. As Huron Ecologic since 1998, Bill and Cheryl have defended natural areas across the Thumb on behalf of several citizen groups through the enforcement of State and federal environmental regulations.

In most cases, land that we fought to protect never became available for acquisition. However, we sometimes got to a point where we needed the help of a land conservancy. Lack of a conservancy dedicated to the Thumb proved to be a problem. While a few conservancies based outside the region could acquire land in our area, we have found a general lack of interest as they pursue acquisitions elsewhere. For some time, a local conservancy claimed to exist but never materialized. Finally in late 2007, with the potential of a land donation approaching, we decided it was time to form the TLC. Articles of Incorporation were filed with Michigan in October 2008 and the IRS confirmed the tax exempt status of the TLC in February 2009. Since late December 2008, the TLC has acquired three sanctuaries in Saint Clair County through donation.

Thumb Land Conservancy IRS Tax Exempt Confirmation

INTERNAL REVENUE SERVICE
P. O. BOX 2508
CINCINNATI, OH 45201

DEPARTMENT OF THE TREASURY

Date: **FEB 26 2009**

THUMB LAND CONSERVANCY
4975 MAPLE VALLEY RD
MARLETTE, MI 48453-8348

Employer Identification Number:
41-2247569
DLN:
17053358350038
Contact Person:
DEL TRIMBLE ID# 31309
Contact Telephone Number:
(877) 829-5500
Accounting Period Ending:
December 31
Public Charity Status:
170(b)(1)(A)(vi)
Form 990 Required:
Yes
Effective Date of Exemption:
October 29, 2008
Contribution Deductibility:
Yes
Addendum Applies:
No

Dear Applicant:

We are pleased to inform you that upon review of your application for tax exempt status we have determined that you are exempt from Federal income tax under section 501(c)(3) of the Internal Revenue Code. Contributions to you are deductible under section 170 of the Code. You are also qualified to receive tax deductible bequests, devises, transfers or gifts under section 2055, 2106 or 2522 of the Code. Because this letter could help resolve any questions regarding your exempt status, you should keep it in your permanent records.

Organizations exempt under section 501(c)(3) of the Code are further classified as either public charities or private foundations. We determined that you are a public charity under the Code section(s) listed in the heading of this letter.

Please see enclosed Publication 4221-PC, Compliance Guide for 501(c)(3) Public Charities, for some helpful information about your responsibilities as an exempt organization.

Letter 947 (DO/CG)

THUMB LAND CONSERVANCY

Sincerely,

A handwritten signature in black ink that reads "Robert Choi". The signature is written in a cursive style with a large, prominent "R" and "C".

Robert Choi
Director, Exempt Organizations
Rulings and Agreements

Enclosures: Publication 4221-PC

Thumb Land Conservancy Articles of Incorporation

MICHIGAN DEPARTMENT OF LABOR & ECONOMIC GROWTH
BUREAU OF COMMERCIAL SERVICES

FILED

Date Received	(FOR BUREAU USE ONLY)
	OCT 29 2008
	This document is effective on the date filed, unless a subsequent effective date within 90 days after received date is stated in the document.

Tran Info: 14361429-1 10/24/08
Chk#: 0199 Amt: \$20.00
ID: CHERYL COLLINS

Administrator
BUREAU OF COMMERCIAL SERVICES

Name	Cheryl Collins		
Address	4975 Maple Valley road		
City	State	Zip Code	
Marlette	Michigan	48453	

EFFECTIVE DATE:

Document will be returned to the name and address you enter above.
If left blank document will be mailed to the registered office.

70398K

ARTICLES OF INCORPORATION
For use by Domestic Nonprofit Corporations
(Please read information and instructions on the last page)

Pursuant to the provisions of Act 162, Public Acts of 1982, the undersigned corporation executes the following Articles:

ARTICLE I

The name of the corporation is: Thumb Land Conservancy

ARTICLE II

The purpose or purposes for which the corporation is organized are:
To implement educational programs of natural history and conservation; Acquire, protect, and maintain natural areas and examples of flora and fauna in the Thumb region of Michigan and adjacent areas; and conduct activities as permitted by the Michigan Nonprofit Corporation Act

ARTICLE III

1. The corporation is organized upon a Nonstock basis.
(Stock or Nonstock)

2. If organized on a stock basis, the total number of shares which the corporation has authority to issue is _____ . If the shares are, or are to be, divided into classes, the designation of each class, the number of shares in each class, and the relative rights, preferences and limitations of the shares of each class are as follows:

AK

page 1

ARTICLE III (cont.)

3. a. If organized on a nonstock basis, the description and value of its real property assets are: (if none, insert "none")
none

b. The description and value of its personal property assets are: (if none, insert "none")
none

c. The corporation is to be financed under the following general plan:
grants, fundraising, donations, contributions, and gifts from the general public

d. The corporation is organized on a Directorship basis.
(Membership or Directorship)

ARTICLE IV

1. The address of the registered office is:
4975 Maple Valley Road Marlette, Michigan 48453
(StreetAddress) (City) (ZIP Code)

2. The mailing address of the registered office, if different than above:
_____, Michigan _____
(Street Address or P.O. Box) (City) (ZIP Code)

3. The name of the resident agent at the registered office is:
Cheryl Collins

ARTICLE V

The name(s) and address(es) of the incorporator(s) is (are) as follows:

Name	Residence or Business Address
William Collins	4975 Maple Valley Road, Marlette, MI 48453
Terry Gill	8168 N. Bricker Road, Greenwood, MI 48006
Traci Brown	1707 Whipple Street, Port Huron, MI 48060
Dan Rhein	1327 20th Street, Port Huron, MI 48060

Use space below for additional Articles or for continuation of previous Articles. Please identify any Article being continued or added. Attach additional pages if needed.

ARTICLE VI - EXEMPTION REQUIREMENTS

At all times the following shall operate as conditions restricting the operations and activities of the corporation:

1. No part of the net earnings of the organization shall inure to the benefit of, or be distributable to its members, trustees, officers, or other private persons, except that organization shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purpose set forth in the purpose clause hereof.
2. No substantial part of the activities of the corporation shall constitute the carrying on of propaganda or otherwise attempting to influence legislation, or any initiative or referendum before the public, and the corporation shall not participate in, or intervene in (including by publication or distribution of statements), any political campaign on behalf of, or in opposition to, any candidate for public office.
3. Notwithstanding any other provisions of this document, the organization shall not carry on any other activities not permitted to be carried on by an organization exempt from federal income tax under Section 501(c)(3) of the Internal Revenue Code or corresponding section of any future tax code, or by an organization, contributions to which are deductible under section 170(c)(2) of the Internal Revenue code, or corresponding section of any future tax code.

ARTICLE VII - BOARD OF DIRECTORS

The management of the affairs of the corporation shall be vested in a board of directors, as defined by the corporation's bylaws. No director shall have any right, title, or interest in or to any property of the corporation. the number of directors constituting the initial board of directors is four (4); their names and addresses are as follow:

- William Collins, 4975 Maple Valley Road, Marlette, MI 48453
- Terry Gill, 8168 N. Bricker road, Greenwood, MI 48006
- Traci Brown, 1707 Whipple Street, Port Huron, MI 48060
- Daniel Rhein, 1327 20th Street, Port Huron, MI 48060

I, (We), the incorporator(s) sign my (our) name(s) this 18th day of September, 2008.

Traci Brown

Terry A. Diez

William C. Collins

Daniel G Rhein

CONTINUATION SHEET

ARTICLE VII — BOARD OF DIRECTORS, continued

Members of the initial board of directors shall serve until the first annual meeting, at which their successors will be duly elected and qualified, or removed as provided in the bylaws.

ARTICLE VIII — PERSONAL LIABILITY

No member, officer, or director of this corporation shall be personally liable for the debts or obligations of this corporation of any nature whatsoever, nor shall any of the property of the members, officers, or directors be subject to the payment of the debts or obligations of this corporation.

ARTICLE IX - DURATION/DISSOLUTION

The duration of the corporate existence shall be perpetual until dissolution. Upon the dissolution of the organization, assets of the corporation shall be distributed for one or more exempt purposes within the meaning of Section 501(c)(3) of the Internal Revenue Code, or corresponding section of any future federal tax code, or shall be distributed to the federal government, or to a state or local government, for a public purpose.

ARTICLE X - INCORPORATORS In witness whereof, we, the undersigned, have hereunto subscribed our names for the purpose of forming the corporation under the laws of the State of Michigan and certify we executed these Articles of Incorporation this September 18 of 2008.

Trace Brown
Signature (Incorporator 1)
1707 Whipple Port Huron, MI 48060
Address, City, State, Zipcode

Jerry A. Dill
Signature (Incorporator 2)
8168 Bricker Rd. Greenwood, MI 48006
Address, City, State, Zipcode

William C. Collins
Signature (Incorporator 3)
4975 Maple Valley Road, Marlette, Michigan 48453
Address, City, State, Zipcode

Daniel G Rhein
Signature (Incorporator 4)
1327 20th St Port Huron, MI 48060
Address, City, State, Zipcode

Thumb Land Conservancy Bylaws

BYLAWS OF THUMB LAND CONSERVANCY

ARTICLE 1 - NAME

Section 1: The name of the organization shall be Thumb Land Conservancy. It shall be a nonprofit organization incorporated under the laws of the State of Michigan.

ARTICLE 2 - PURPOSE

Section 1: Thumb Land Conservancy is organized exclusively for charitable, scientific and education purposes that will benefit the citizens of the State of Michigan. These purposes include:
To preserve natural areas through negotiation, acquisition, obtaining conservation easements and/or securing development rights;
To educate the public on the importance of maintaining natural areas for environmental protection, wildlife habitat, and for enhancing the quality of life of area residents;
And, overall, to promote, preserve, and maintain our resources for the benefit of present and future generations.

ARTICLE 3 - MEMBERSHIP

Section 1: Membership shall consist of the Board of Directors

Section 2: The Board shall have the authority to establish and define nonvoting categories of membership.

ARTICLE 4 - BOARD OF DIRECTORS

Section 1: The Board is responsible for the overall policy, direction of the association property and business of this non-profit charitable corporation shall be managed by the Board of Directors. The Board may have up to seven members but not fewer than four. The Board receives no compensation other than reasonable expenses.

Section 2: Two founding members shall serve a one-year term and two founding members shall serve two-year terms. Thereafter, terms of office shall be for two-years.

Section 3: If for any reason the position of any Director becomes vacant, nominations for new members may be received from present Board members by the Secretary two weeks in advance of a Board meeting. These nominations shall be sent out to Board members with the regular Board meeting announcement, to be voted upon at the next Board meeting. These vacancies will be filled only to the end of the particular Board member's term.

Section 4: During the last quarter of each fiscal year of the corporation, the Board of Directors shall elect Directors to replace those whose terms will expire at the end of the fiscal year. This election shall take place during an annual meeting of the Board of Directors, called in accordance with the provisions of these bylaws.

Section 5: **Election Procedures**
New directors shall be elected by a majority of directors present at such meeting, provided there is a quorum. Directors so elected shall serve a term beginning on the first day of the next fiscal year.

Section 6: **Quorum**
For the purpose of doing business, a quorum shall constitute a majority of Board members.

Section 7: **Meetings, Special Meetings and Notice**
The Board shall meet at least quarterly, at an agreed upon time and place. An official Board meeting requires that each Board member have either written notice at least 10 days in advance unless it is a Special Meeting. Directors may participate in an official meeting by conference call if they are not able to attend in person.

Special Meetings may be called by either the President or three Board members.

Any action by the Directors may be taken without a meeting if all directors thereto give consent and filed by the Secretary in the permanent record of the Board. Verbal consent or electronic mail shall be considered a valid form of written consent for this purpose. Such consent must be reaffirmed at the next meeting of the Board.

The Annual meeting shall be held in the second quarter of the fiscal year at a time and place determined by the Board.

Section 8: **Resignation, Termination, and Absences of Director**
Resignation from the Board must be in writing and received by the secretary. A Director may be dismissed from office by the Board of Directors if three consecutive Board meetings are missed without due cause. The removal of a Director requires a three-fourths vote of the remaining Directors.

ARTICLE 5 - DUTIES OF DIRECTORS

Section 1: **Officers and Duties**
Officers shall be elected annually by the Board of Directors and shall include President, Vice-President, Secretary and Treasurer. All officers shall have a vote on the Board of Directors.

Section 2: **President**
The President shall preside at meetings, work with committees, coordinate strategies of action for the Board to consider, set the agenda for the next board meeting, and represent the Conservancy at public functions, land negotiations, etcetera unless otherwise delegated.

Section 3: **Vice President**
The Vice-President shall assist in the duties of the President and preside in his/her absence.

- Section 4: **Secretary**
The Secretary shall be responsible for keeping of records of Board actions, including overseeing the taking of minutes at all Board meetings, sending out meeting announcements, distributing copies of minutes and the agenda to each Board member, and assuring that corporate records are maintained. The Secretary may sign in the name of the corporation for those instances required by law or by position.
- Section 5: **Treasurer**
The Treasurer shall make a report at each Board meeting. The Treasurer shall chair the finance committee, assist in the preparation of the budget, help develop fundraising plans, keep track of all assets of the Conservancy, keep a record of all receipts and expenditures and make financial information available to Board members and the public.
- Section 6: **Other Positions**
The Board of Directors may establish other officer positions as deemed necessary.

ARTICLE 6 - FISCAL YEAR

- Section 1: **Fiscal Year**
The fiscal year shall be the calendar year.

ARTICLE 7 - COMMITTEES

- Section 1: **Committee Formation**
The Board may establish committees as needed. Volunteers for committees shall be sought from the general public. Committees shall elect Chairpersons and make recommendations to the Board of Directors.
- Section 2: **Executive Committee**
The four officers serve as the members of the Executive Committee. The Executive Committee may meet periodically and discuss recommendations that will be presented to the full Board at either the next regular meeting or special meeting.
- Section 3: **Finance Committee**
The treasurer is the chair of the Finance Committee which includes three other Board members. The Finance Committee is responsible for developing and reviewing fiscal procedures, fundraising plan, and annual budget with other Board members. The Board must approve the budget and all expenditures must be within budget. Any major change in the budget must be approved by the Board. Annual reports are required to be submitted to the Board showing income, expenditures, and pending income. The financial records of the organization are public information and shall be made available to Board members and the public.

ARTICLE 8 – BENEFIT

Section 1: **Benefit**

No part of the earnings of the corporation shall inure to the benefit of, or be distributable to its members, directors, officers, or other private persons, except that the corporation shall be authorized and empowered to pay reasonable compensation for services rendered and to make payments and distributions in furtherance of the purposes set forth in Article 2 hereof. No substantial part of the activities of the corporation shall be carrying on propaganda, or otherwise attempting to influence legislation, and the corporation shall not participate in, or intervene in (including the publishing or distribution of statements) any political campaign on behalf of any candidate for public office. Notwithstanding any other provisions of these articles, this corporation shall not, except to an insubstantial degree, engage in any activities or exercise any powers that are not in furtherance of the purposes of this corporation.

ARTICLE 9 - AMENDMENTS

Section 1: **Amendments**

These bylaws may be amended when necessary by two-thirds of the board of directors.

ARTICLE 10 - PROPERTY HOLDINGS

Section 1: **Holdings**

It will be the policy of the Thumb Land Conservancy not to sell their land once it has been acquired.

ARTICLE 11 - DISSOLUTION

Section 1: **Dissolution**

In the event of dissolution, all debts and liabilities shall first be paid according to their respective priorities. Any remaining assets shall be contributed to a similar non-profit charitable organization which is exempt from income taxes under Section 501(c) 3 of the Internal Revenue Code.

CERTIFICATION

These bylaws were approved at a meeting of the board of directors by a two-thirds majority vote on

Secretary: 

Date: 11-15-08