

Letter from the President

Happy Holidays Great Lakes Chapter members. I hope you are enjoying and settling into the cold, or, for those of you in warmer climates, enjoy for us! Traverse City has been relatively snowless so far this season, with temperatures in the 40's forecast for Christmas, maybe some sleet. Though I'd like to get the skis out, the lack of snow gave me the opportunity to visit a local bog and pick cranberries for holiday meals and do some botanizing along the way.

In this issue of the newsletter, we review a couple of in-person events that we hosted in Leelanau and Grand Traverse. I realize we, as a group, are scattered around Michigan and North America, but it was still nice for a few of us to get together; Emily our treasurer, Angie our secretary, and myself all live in Leelanau County, and there are several members who live nearby or vacation here. For programming for those who do not live in Northwest Lower Michigan, the Huron Valley Chapter will continue to record their monthly presentations and post links to the videos on the Michigan Botanical Society Homepage: <https://michiganbotanicalsociety.org/>. Past presentations are archived here:

<https://michiganbotanicalsociety.org/online-programs>

If you have not joined our listserv, and would like to, please let me know and I will send you an invite (liananmay@gmail.com). The listserv is a nice way for people to share botany related events that may not be on the MBS radar; you can set it up to receive every email, or say, weekly digests.

If you would like to get more involved in the Chapter, we have a couple of open positions. Our treasurer, Emily Douglas, has a heavy workload and would like a break from the treasurer position. If this is something that interests you, please contact me or Emily. Duties include gathering member dues, updating the membership database, and paying state dues and other expenses. We also have one Director-at-Large position open. The Director-at-Large attends Chapter and State board meetings has voting privileges, and may get assigned various duties, such as contributing to the newsletter. We are a fun group of people, and it looks good on a CV!

- Submitted by Liana N. May, President

Michigan's 2023 Botanists Big Year Winners!

The 2023 Michigan Botanists of the Year are.....

Julia Miller of the *Great Lakes Chapter*, and
Skyler Principe of the *Southeast Chapter*!!

Julia observed 476 species and **Skyler observed 474 species**. Our reigning champion hailing from the Great Lakes Chapter, **Bob Kahl**, had a fantastic number of observations (5,206) of **523 species** this year, but following the contest rules that someone cannot win two years in a row, he

will have to take a back seat this year. Please keep up the great work! Cheers to Julia and Skyler both for winning \$100 and \$50, respectively. Any MBC member is eligible for an award, which is sponsored by the Great Lakes Chapter. Thanks to everyone who documented a plant in Michigan this year using iNaturalist—**there were 6,922 of us making over 80,522 observations!**

- Submitted by Liana N. May, President



Fall Foray 2023

This year's foray was held in the fall, and we all had a great experience hiking and botanizing in Indiana Dunes National Park. This was my first visit to the park, and I enjoyed the entire weekend. We had the excitement of visiting a ridge and swale topography that had formed as the glacial Lake Chicago receded. There were interdunal swales that are alkaline in nature, and this supported numerous plants that are found nowhere else in Indiana. It was magnificent! My next excursion was to the Cowles Bog Trail with Dr. Tony Reznicek. We walked through magnificent, forested swamps, dry black oak savannas, open meadows, and prairie remnants. Along the hike, I found one of my favorite tree species, *Nyssa sylvatica* (black gum). However, the specimens that I see are maybe 10 feet tall. This one towered over the trail, and I can guess it was at least 60' tall and the girth was incredible! I could not wrap my arms around the

trunk. I was in awe of this giant along the boardwalk. We hiked up and down the dune, finally resting on Lake Michigan. I wasn't prepared for all the industry on the lake, and I had to take a minute to realize that this park was spared by bulldozers. We were at the height of the Monarch migration as every few minutes we would see one fluttering past us heading south.

Before driving back to Michigan, we took the time to visit the Shirley Heinze Land Trust's Cressmoor Prairie. This is one of the rarest ecosystems in the state, the black soil prairie. This site was spared the plow and what an eye-opening experience! Big bluestem (*Andropogon gerardii*) that towered over the trails at nearly 9' high! Other species included *Liatris*, *Monarda*, and so many others. If you want to see what a black soil prairie looks like, I suggest you head to this area and experience it.

-Submitted by Carolyn Miller, Vice President

Spring Foray 2024

Next year's foray will be held *the week after Memorial Day*. We will be stationed at **Adrian College** and will have an opportunity to visit areas

of **NW Ohio and NE Indiana**. There are some incredible places to botanize, so **mark your calendar folks!**

2023 Field Excursions

Visiting Hatlem Creek Preserve on a Fern Frolic

(Empire Township, Leelanau Co.)

Michigan Botanical Society members and Leelanau Conservancy docents enjoyed a "Fern Frolic" (Pteridophyte Trek?) at Hatlem Creek Preserve on July 7th near Empire in Leelanau County. Hatlem Creek Preserve is a 120 acre protected area situated at the base of 400 ft end moraine that drains to the Nipissing-era Big Glen Embayment lakeplain. The wetland complex that occurs here is known for numerous springs and streams, including a 100 square foot marl-bottom spring, a sub-population of the Glen Lake population of Federally endangered Michigan monkey-flower (*Mimulus michiganensis*), and nesting sites of State-threatened red-shouldered hawks and State-

special concern bald eagles. It is also the largest surface water source for Big Glen Lake. A recent floristic quality assessment recorded 416 (330 native) vascular plant species across the Preserve and calculated a **floristic index of 73.4**, indicative of an extremely high-quality, biodiverse flora, rare at the State level.

The Hatlem Creek Preserve also has **30 species of pteridophytes**, a richness relatively rare in Leelanau County. These ancient spore-bearing plants are descendants of the first land plants, first appearing 430-400 years ago in the mid-Silurian or

Devonian eras. Many of our species today are relatively “young,” diversifying in the late Cretaceous after the arrival of angiosperms, but some are relatively unchanged. Lycophytes (clubmosses, quillworts, and spikemosses) have the oldest fossil record of any surviving plant lineage, with some extant species sharing traits with some of these early fossils. Interrupted fern (*Osmunda claytoniana*) appears in the fossil record in the upper Triassic, appearing unchanged for over 200 million years!



Fertile pinnae of *Osmunda claytoniana*.

Led by Liana May, GLC President and Borealis Consulting Ecologist, and Emily Douglas, our trusted GLC Treasurer and Leelanau Conservancy Land Steward, a group of 14 or so attendees meandered down the old logging road, along the wet edges where the moraine meets the historical lakeplain, poking into the swamp here and there just enough to get our feet wet. The fern richness allowed us to compare frond shapes, scale size and

color, and identify different shapes and arrangement of sori, which can be helpful in constructing a “mental map” of fern taxonomy.



New York Fern with woodland horsetail, sensitive fern, and royal fern.

Highlights included silvery spleenwort (*Deparia acrostichoides*), New York fern (*Thelypteris (Amauropelta) noveboracensis*), and a regal show of ferns in the family Osmundaceae: cinnamon fern (*Osmundastrum cinnamomeum*), interrupted fern (*Osmunda claytoniana*), and royal fern (*Osmunda regalis*). One of my favorite pteridophytes, woodland horsetail (*Equisetum sylvaticum*), covers a delightful couple of acres around a meandering stream. We also examined a few lycophytes, including tree-clubmoss (*Dendrolycopodium obscurum*) and stiff clubmoss (*Spinulum annotinum*). Last but not least, we caught the Michigan monkey-flower in bloom.



Thinking about cinnamon ferns.



*Examining **Deparia acrosticoides**.*

If you'd like to visit Hatlem Creek Preserve in the future, you should also check out the impressive kettle holes in the end moraine off of Echo Valley Road, just a half-mile to the west. This is owned by Sleeping Bear Dunes National Lakeshore, and although there are no trails, you can spot the kettles on a topo map. The rich mesic northern

forest has a spectacular diversity of wildflowers, including giant cohosh (*Caulophyllum giganteum*), two-leaf miterwort (*Mitella diphylla*), and foam-flower (*Tiarella cordifolia*). Round out your fern viewing experience with narrow-leaved spleenwort (*Homalosorus pycnocarpus*) and Goldie's fern (*Dryopteris goldiana*) in the seepy ephemeral stream along Echo Valley Road, and Hickey's tree-clubmoss (*Dendrolycopodium hickeyi*) under beech and hemlock in the forest around the kettles.

Hatlem Creek has long been a priority for protection because of its importance to the water quality of Glen Lake and Michigan monkey-flower population. The Leelanau Conservancy has been working with landowners in the area for many years, slowly building the size of the preserve. There are no formal trails, and much of the acreage is fairly inaccessible, dense swamp, but visitors can follow an old logging road into the preserve, where you can easily view many of the highlights. For more information on Hatlem Creek Preserve, please see the Leelanau Conservancy's web page: <https://leelanauconservancy.org/naturalarea/hatlem-creek-preserve/>.

- Submitted by Liana N. May, President

Maplehurst Natural Area

On Saturday, May 20th, 2023, the **Grand Traverse Regional Land Conservancy** and the **Great Lakes Chapter** hosted a botanical hike and an inventory of vascular plant species at the Maplehurst Natural Area, located just north of Elk Rapids on Torch Lake in Antrim County.

Led by Liana May and Angie Bouma, this was an opportunity to get out in the field with other plant enthusiasts and learn some common and some not-so-common species. Botanical highlights along the trail included walking through a beautiful mesic northern forest with spring ephemerals as well as steep ravines with small populations of the uncommon *Homalosorus pycnocarpus* (narrow-leaved spleenwort; C value of 10). Additionally, a portion of the hike followed the trail along the

edge of a rich conifer swamp perched on the edge of a steep slope that flows into Torch Lake. From observations made by attendees and hike leaders, we **increased the overall species list from 134 to 156 species, with 18 native plants added**.



Hike attendees at Maplehurst. (Angie Bouma)



Aerial image of Lake Maplehurst at Maplehurst Natural Area. (GTRLC)

Maplehurst Natural Area is owned by Milton Township and was home to the beloved Camp Maplehurst from 1955 to 2011. It has 150 acres of steep hardwood forested bluffs that drain into Torch Lake, and open meadows that surround Lake Maplehurst, which is a 60-acre spring-fed

lake. There are excellent views of Torch Lake, Elk Lake, and Grand Traverse Bay. The public trail system is open to the public all year long. To see a trail map, or learn more about this natural gem, see <http://gtrlt.org/> for more information.

- Submitted by Angie Bouma, Vice President

Exploring Michigan's Barren Landscapes in Oscoda and Crawford Counties

While reading the latest edition of the Great Lakes Botanist, I became enthralled in the barrens ecosystems of northern Wisconsin (The Barrens Flora of Wisconsin's Sands Ecological Landscape, Anderson et al 2023). While it is, perhaps, easy to fall in love with the rich floral displays of spring ephemeral wildflowers, lush ferny glades, or bogs spotted with neon pink orchids (or I may be assuming too much), barrens are comparatively incredible landscapes.

Barrens are typically formed on glacial outwash plains and lakebeds with infertile, well-drained sand or loamy sand. Tree recruitment is limited because of droughty summers and, particularly in

the high plains of Oscoda and surrounding counties, growing-season frost pockets. Poor edaphic conditions are combined with historical fire intervals to create a patchwork of stunning rolling prairie and woodlands.

Fire is critical to maintaining diversity by opening the canopy, returning nutrients to the soil, and promoting seed microsites and establishment. Species are typically fire-adapted, such as jack pine (*Pinus banksiana*), with cones that require substantial heat to open, and blazing stars, with corms that are often buried deep and holding enough nutrients to send up fresh shoots.



Liatris cylindracea



Liatris scariosa



State special concern *Cirsium hillii*

Today, the largest landowner of barrens in Michigan is the Huron-Manistee National Forest. Although fires have been repressed for decades, they are in part “replicated” by maintaining openings through timber harvest. Some controlled burns are conducted, but not on the scales fires would have historically occurred.

The Michigan Natural Features Inventory has been working with the US Forest Service staff to identify “recoverable fire-dependent systems” (MNFI Report 2022-45; link below) with the goal of restoring barrens in historical locations.

<https://mnfi.anr.msu.edu/publications/reports>

There are still some great pockets of barrens that you can easily access on public land. I recommend visiting mid-July through August when showier wildflowers are in bloom and the wood ticks have calmed down.

Large swaths remain undeveloped in Crawford and Oscoda Counties. **Graying is a good hub to begin your barrens exploration** - grab a sandwich and a donut at Goodale’s Bakery (or lunch at Spike’s Keg-O-Nails) and start heading **east on M-72 towards Mio**. There are a few quick stops (or long hikes!) off of M-72 where you can see iconic barrens flora. In fact, a lot of the flora you can spot along the side of M-72 and connecting roads, where they thrive in the disturbed sandy soils.

The **Mason Tract Pathway** is a non-motorized trail that heads south from M-72 to the South Branch of the AuSable River, and an easy stop on the side of M-72. From the trailhead you can poke around the openings and see the typical pine barrens plant community of jack pine, sand cherry (*Prunus pumila*), blueberry (*Vaccinium angustifolium*), poverty-oaks grass (*Danthonia spicata*), little bluestem (*Schizachyrium scoparium*), big blue-stem (*Andropogon gerardii*), smooth aster (*Symphotrichum laeve*), harebell (*Campanula rotundifolia*), hawkweeds (*Hieracium venosum*, *H. scabrum*), and sweet fern (*Comptonia peregrina*). https://www2.dnr.state.mi.us/publications/pdfs/RecreationCamping/Mason_Tract_Pathway.pdf

This is an area where, with fire suppression, woody species have encroached. Explore this area further by back-tracking about a half mile to Oxbow Road on the north side of M-72. This road accesses a “man-made” barrens, a clear cut pine-oak stand dominated by short shrubs and herbaceous species.

Though this example is not a high-quality natural community, there are good populations of forbs, such as white flat-topped goldenrod (*Solidago ptarmicoides*), cylindrical blazing-star (*Liatris cylindracea*), northern blazing-star (*Liatris scariosa*), several species of goldenrod, racemed milkwort (*Polygala polygama*) and june grass

(*Koeleria macrantha*). Look for the diminutive blue toadflax (*Nuttallanthus canadensis*) and jointweed (*Polygonum articulatum*) in sandy borrows. Along the powerline easement you can find state special concern Hill's thistle (*Cirsium hillii*).

For a nice diversity of wildflowers in a natural pine barren, I enjoy **Hagaman Trail Road**. This is a little further, about 30 minutes from Grayling, and runs **north off of M-72**. I typically park where the road straightens and the jack pine canopy opens, on the valley floor. At first glance, this seems like a small, unimpressive jack pine barrens, but get out of the car and walk around and you will find wood lily (*Lilium philadelphicum*), western sunflower (*Helianthus occidentalis*), woodland sunflower (*H. divaricatus*), lance-leaf coreopsis (*Coreopsis lanceolata*), blazing stars, butterfly-weed (*Asclepias tuberosa*), bluets (*Houstonia longifolia*), and hairy puccoon (*Lithospermum caroliniense*). Look for three-toothed cinquefoil (*Sibbaldiopsis tridentata*) arrow-leaved violet (*Viola sagittata*) and birdfoot violets (*Viola pedata*) along the sandy roadside.

There is a nice oak-dominated hillside if you walk west from the Hagaman Road valley, behind the old USFS sign. A lone Allegheny plum (*Prunus umbellata*, state special concern) grows at the

corner of Hagaman Trail and M-72. To further explore this area, take **Meridian Road south from M-72 to Markle Road**. Here you will find rolling open prairie. Markle road is quite lovely if you follow it east.

If you love grasses, **Chase Bridge Road** is an excellent place to view state threatened rough fescue (*Festuca altaica*), a disjunct from Canada and Asia. It grows profusely on the side of the road. I have it noted just north of the junction of East 4-mile Road and Chase Bridge Road but the population extends along the road in both directions well beyond that. Associates include state special concern Hill's thistle, white flat-topped goldenrod (*Doellingeria umbellata*), showy goldenrod (*Solidago speciosa*), and big bluestem (*Andropogon gerardii*).

There are a lot more places for exploration in this area. **Valley Road, south of M-72**, offers expansive views of sand prairie dominated by graminoids and the pine forests in this area host slender lady's tresses (*Spiranthes lacera*). **Kneff Lake Campground** is close to Grayling, and has similar flora, though I have yet to visit. There are numerous two tracks to explore, but cell service is patchy, so get a paper map from the Forest Service and plan your route ahead of time!

- Submitted by Liana N. May, President



Sand prairie at Markle and Meridian Rds., Oscoda County.

Introducing the North Woods Native Plant Society

The North Woods Native Plant Society (NWNPS) was organized in 2004 as a group of both professional and amateur botanists with an interest in learning about and conserving native plants and ecosystems in the western Upper Peninsula of Michigan and northern Wisconsin. Retired ecologist Sherry Zoars was the instigator and coordinator for the first few years, with a core group of mainly agency botanists serving as trip leaders. We have no official membership program, officers, or dues.

Availability of trip leaders fluctuates but we schedule summer field trips to visit some of the unique and remarkable plant communities of the north woods. The trips are free (unless a site has an entrance charge) and open to anyone who wants to learn more about our native ecosystems and pledges not to destroy, remove, or disturb them. Sometimes trips are limited in size due to site rules or logistics. Most summers a paddling/aquatic focus trip is included as well as the terrestrial trips.



In 2008, we provided multiple field trips and presentations to serve as a mini-foray for the Michigan Botanical Club (now Michigan Botanical Society), with exploration on the Ottawa National Forest and Porcupine Mountains State Park, focusing on the Trap Hills but ranging east to Sturgeon Gorge. In 2014, some NWNPS trip

leaders helped with the MBC foray held in Houghton and, in 2019, some helped with the MBC foray held in Marquette. NWNPS leaders have also organized National Public Lands Day events, provided slide presentations at the Ottawa NF Visitor Center, and helped with other area botany and ecology events.



NWNPS was asked early on to consider becoming a chapter of MBS, but we declined due to the requirement to send a representative downstate—a 10 to 12 hour drive--periodically for meetings, the distance from most MBS members and other chapters, and our cross state-line focus. However, we welcome participation in our trips by MBS and WBC members.

Example events in 2023:

Saturday May 27 (Rain date May 28) Sue Trull
Spring wildflowers family friendly walk at Wolverine Ski Club Trails, Ironwood, MI.

Saturday June 10 (Rain date June 11) Alex Graeff
Cedar swamp exploration, off Hwy 2 near Marenisco, MI, to focus on orchids, lichens, and Carex species.

Sunday June 25 Rod Sharka and Quita Sheehan
Paddle trip on Border Creek east of Arbor Vitae, south of Big St. Germain Lake, WI. Bring your own canoe or kayak and note there will be beaver dams and ponds to negotiate.

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Outing details including meeting place and time will be provided 1-2 weeks in advance on the group's Facebook page at:

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

Inquiries may be made as comments to that page or by contacting the trip leader if listed on the page; we do not have an email address to use for general contacts. Last minute updates or

cancellations, such as due to weather, will be posted on the Facebook page so plan to check that page the morning of the hike. All outing participants will be asked to sign a waiver of liability since NWNPS trip leaders are all volunteers in this informal group of local botanists.

- Submitted by Alex Graeff

Curious about where our Members are Located?

Irene Eiseman, a long time board member, has been tracking the distribution of the Great Lakes Chapter members – below is her map showing our current distribution.



A Note about Beaver Island!



Did you know that that Beaver Island is rich with rare species and significant natural communities? It has Pitcher's thistle, Lake Huron tansy, clustered broomrape, butterwort, Houghton's goldenrod, English sundew, dwarf-lake iris, ram's-head orchid, calypso orchid, Michigan monkey-flower, and American shore-grass. Natural communities include open dune, interdunal wetland, mesic northern forest, rich conifer swamp, poor conifer swamp, hardwood-conifer swamp, poor fen, and bog. Islanders have been very proactive in land use planning and have an ambitious invasive species control program and birding and hiking trails. Take a step back in time and visit – it's well worth your time! I am happy to provide travel and exploration tips: (higmanphyllis@gmail.com).

Update in Great Lakes Chapter Board Members

All current board members have agreed to serve another term. Emily Douglas our Treasurer since 2019, has agreed to serve another term, but due to a heavy workload would like to step down, so we are looking for a new Treasurer to serve a two-year term. We also are looking for a third Director-at-Large, which is a three-year term. Contact greatlakeschapter.mbs@gmail.com if you are interested or have a nominee.

	Liana May	Jan 2022-Jan 2026	lianamay@gmail.com
Vice President	Carolyn Miller	May 2022-Jan 2026	miller94@msu.edu
Secretary	Angie Bouma	May 2022-Jan 2026	angiebouma@gmail.com
Treasurer	Emily Douglas	Jan 2019-2025	emsuedouglas@gmail.com
Director-at-Large	Anne Vande Water	May 2022-Jan 2025	annebmcnamara@yahoo.com
Director-at-Large	Phyllis Higman	Jan 2016-Jan 2025	higmanphyllis@gmail.com
Director-at-Large	Vacant	Jan 2023-2026	This could be you!

Sustaining Members Recognition

The Great Lakes Chapter of the Michigan Botanical Society gratefully acknowledges the generous support members who have provided additional funding through their memberships:

John P. Case, Irene & Tim Eiseman, Janet Ekstrum, Robert & Sheridan Haack, James Hewett & Louise Westcott, Phyllis Higman, Robert & Judy Kelly, Chris Loedler, Julia Miller, James Northey & Sonia Goltz, Victoria J. Paul, Linda Rehorst, Dana L. Richter, Anita Scussel, Betty and Art Seagull, Brad Slaughter & Eric Victory, and Susan Trull.

MBC-Great Lakes Chapter Treasurer’s Report, December 11, 2023

This year’s membership was made up of 86 members, 20 of which were new.

Balance carried forward from 2020:	\$7,855.87
Income:	
Membership Dues and Donations:	\$4,135.00
Total Income:	\$4,135.00
Expenses:	
State Membership Dues:	\$828.00
Great Lakes Botanist:	\$1,650.00
Newsletter Postage and Photocopying:	\$63.17
iNaturalist winners award (pad '21 and '22)	\$300.00
Bank Charge (Account lull for 6 months of inactivity June-Dec. '22)	5.00
Total Expenses:	\$2,846.17
Current Balance:	\$9,144.70

- Submitted by Emily Douglas, GLC Treasurer, December 11, 2023

2024 MBC – Great Lakes Chapter Dues

A New Year is here, and **it is time to pay your Chapter dues!** Dues remain at \$30, which includes MBS state membership, the Arisaema, The Great Lakes Botanist, and supporting Botanical research and Botany students in the Great Lakes. ***Please note our new name (in red next page) for banking purposes.***

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Online Option for Membership Dues

We encourage members to try online renewal this year using **Cheddar Up** (*see link below*). There is a small convenience fee of 3.5% plus \$0.45 (a total of \$1.50 for the \$30.00 Individual Membership). We will send out a reminder email with the *Cheddar Up* link below in January for 2024 dues.

<https://michigan-botanical-society-great-lakes-chapter.cheddarup.com>

If you prefer paying by check, please fill out the form below and mail to:

Emily Douglas, Treasurer
MBC-Great Lakes Chapter
13420 S. Cedar Road
Cedar, MI 49621

US members, please make checks payable to: **Michigan Botanical Society, Incorporated**
Canadian members, please send a check or money order in **US funds**, payable to the same.

Thank you for your continued support!

Michigan Botanical Society – Great Lakes Chapter 2024 Membership Dues

Name: _____

Address: _____

City: _____ State/Province _____

Zip code + 4-digit code _____ + _____

Telephone: _____ Email: _____

Starting in 2024: The Arisaema and the GLC Newsletter will be emailed electronically to help save paper. However, if you need to opt in for paper, please circle here: PAPER PLEASE

Sustaining membership _____ \$50.00 (or more)
Individual membership _____ \$30.00
Family membership _____ \$40.00
Student membership _____ \$15.00 Name of University _____