

Letter from the President

First of all, I would like to extend gracious appreciation to all of our Chapter members! The Great Lakes Chapter currently has 98 members, spreading across 12 states, and 1 province. I joined the Great Lakes Chapter in 2018, when I attended my first foray in the Chain-of-Lakes region in Antrim and Charlevoix Counties and led a field trip to Fisherman's Island State Park – many of you have been in the Michigan Botanical Society for much longer. Coming into this new position, I have been learning a lot about the history of the Michigan Botanical Society, this Chapter, and my role. Although this is mostly an online chapter, in the coming years we hope to organize more in-person field trips in areas where members are concentrated. We had two successful field trips in the Traverse City area this summer and hope to expand to the UP next summer. We continue to maintain the member listserv via Google Groups¹, host the Michigan Botanist's Big Year on iNaturalist² and run our Instagram page (@greatlakesbotclub), and we would love for everyone to get involved in these web-based forums.

¹https://groups.google.com/g/michbotclub_glc,

²<https://www.inaturalist.org/projects/michigan-botanists-big-year-2022>

There have been two major changes at the State-level this year. Michigan Botanical Society is now formally the Michigan Botanical Society. The general membership vote to change the name was held at the foray this spring, passing by a large majority. The State Board also unanimously

voted to distribute the *Arisaema* digitally, instead of mailing out paper copies. Mailing hard copies will now be the responsibility of the Chapters, so be sure to let us know on your 2023 membership form if you would like a hard copy.

I recently heard the conclusions of the 2022 Living Planet Index: *vertebrate populations have fallen by 69% between 1970 to 2018 worldwide*. This index compiles data from around 32,000 species populations. Vertebrate populations have fallen by 18-20% within North America, Europe, and Central Asia, which seems intuitive to me, but they have fallen 55% in Asia-Pacific, 66% in Africa, and 94% in South America. I worry plant populations may show similar patterns, and I am always looking for ways to engage people in conservation. The Michigan Botanical Society promotes plant conservation in several ways - the excitement one feels seeing a native orchid for the first time, engaging with a community of other anthophiles (I had to look this up - people who love flowers), bringing that enthusiasm home to our friends, family, and neighbors, and of course, in direct action. We have included updates on two rare plant species that the Michigan Botanical Society assisted with this summer, the whorled pogonia orchid and dwarf lake iris. Additionally, the State Board is looking into how to promote plant conservation within Michigan's State Wildlife Action Plan, which will hopefully be receiving about \$27 million from Recovering America's Wildlife Act of 2022.

- Submitted by Liana N. May, President

Plant Conservation News

Dwarf Lake Iris

This May, foray participants contributed to a multi-year effort by MNFI to update the status and size of dwarf lake iris (*Iris lacustris*) populations in Michigan. They updated information for 58 of the 89 populations documented in the state, including 5 newly documented populations.

Foray participants helped relocate the colony of *Iris lacustris* forma *alba* noted in an old 1994 species observation form by W.D. Lewis. They also helped improve the map of the population in the Preserve section of Thompson's Harbor State Park. This colony is one of four MNFI has

documented in Michigan. Unexpectedly, the foray group also found more areas occupied by ram's head orchid (*Cypripedium arietinum*) than were mapped previously in the Preserve area.

MNFI found that overall, dwarf lake iris populations are stable, but the high Great Lakes water levels and sand deposition of recent years have reduced some individual populations on sandy and cobble shores. Populations in more protected habitats of boreal forests, fens, and glades are persisting. Continued monitoring will tell if the disturbed populations recover.

-Story, photo submitted by Rachel A. Hackett, MNFI



Iris lacustris forma *alba* relocated on May 18, 2022, at a 1994 collection site in Thompson's Harbor SP.

Whorled Pogonia

Many of you will recall a DNR timber harvest destroyed one of Michigan's best populations of the rare orchid, whorled pogonia (*Isotria verticillata*), in Kalkaska County in 2019. This population was one of only 18 occurrences known to Michigan, and one of only six confirmed since 1979. The Michigan Botanical Society became involved when we surveyed the surrounding unlogged area after the foray this spring, albeit unsuccessfully. The failure to comply with the Michigan Threatened and Endangered Species Act prompted the DNR to fund a species review by the Michigan Natural Features Inventory (MNFI), which was completed this summer. Of the 18 occurrences, MNFI was able to relocate six, and added one newly recorded population, for a total of only seven known occurrences in Michigan today. Nine occurrences remain "historical," meaning recent field information verifying the continued existence of the occurrence is lacking and it may be extirpated; one occurrence remains known to be extant but unconfirmed; one occurrence was downranked from historical to extirpated, and the Kalkaska population was downranked to "poor viability," though many suspect it has been extirpated due to heat stress caused by the clearcut. The State-wide rank of whorled pogonia has been changed from "imperiled" to "critically

imperiled." There is hope that we can continue to document new populations of whorled pogonia in Michigan, so keep your eyes out for them on acidic soils (they like a pH of 4.5-5!) in tamarack bogs and sandy red maple stands next June.



Whorled pogonia with fruit in a sandy, seasonally wet red oak-red maple stand in Saginaw County 6/9/22.

-Story and photo submitted by Liana N. May

Michigan’s 2022 Botanists Big Year Winners!

2022 marks the fifth year that we have hosted the Michigan Botanist’s Big Year competition on iNaturalist. Members of the Michigan Botanical Society can win a \$100 first place prize and \$50 second place for the most species observed.

For those of you who have not jumped on the bandwagon, iNaturalist is a web-based community science platform where you can snap a picture of an organism with your cell phone, upload it, and record the species, location, and a myriad of variables such as phenology and habitat. It is great for amateurs, because the iNaturalist community can help you identify unknown plants (the algorithms are getting crazy good, but community members will chime in too). It is great for professionals too, because it is a convenient way to record data in the field or mine a worldwide dataset with 121,250,001 records of 403,039 species (as of December 2022). As of December 1st, we had 65,056 research-grade observations of plants in the State of Michigan.

For the fifth year in a row, common milkweed (*Asclepias syriaca*) continues to be the most observed species in Michigan (n=829). I assume this reflects the current public interest in milkweed as a host for monarchs, but perhaps there is an organized effort to record milkweed populations onto iNaturalist. Ghost pipe (*Monotropa uniflora*) trails milkweed to come in second place (n=601).

I was also interested to see where people are recording plants, or, actually, where they are not. A couple of patterns pop out: Largely privately-owned rural agricultural areas, such as the Thumb and mid-Lower Michigan, do not have much botanical activity; I would guess there is not a lot of interest in walking fallows between corn and soy fields. Secondly, large tracts of rural forested land, public and private, do not have a lot of activity, such as low population areas in the UP and Eastern Lower Michigan. Activity is concentrated near cities, parks, and universities.

A summary of participation in Michigan Botanist’s Big Year over the past five years

	2018	2019	2020	2021	2022
Observations	46,026	73,101	67,965	68,606	65,056
Species	2,483	2,437	2,077	2,028	1,898
Identifiers	1,668	2,026	2,303	2,189	1,865
Observers	3,221	5,718	6,343	7,254	6,572

**Note that we changed to Research Grade observations only in 2020.*

And the winners of the 2022 Botanist’s Big Year are...drumroll...**Bob Kahl (462)** and **Rob Routledge (365)**! Julia Miller and Ryne Rutherford had more species but won last year. Congratulations Bob and Rob!

The screenshot displays three columns of results from the iNaturalist competition. Each column has a title, a winner's name and count, and a list of other participants with their counts. Buttons for 'View All' and 'View Yours' are visible at the bottom of each column.

Category	Winner	Count
Most Observations	bob_kahl	3,781
	ken-potter	1,877
	evanaturalist	1,702
	juliakmil	1,698
	elliogreiner	1,303
	ryruther	804
Most Species	juliakmil	583
	ryruther	523
	bob_kahl	462
	ken-potter	444
	rroutledge	365
	bobcatbrad	331
Most Observed Species	<i>Asclepias syriaca</i>	829
	<i>Monotropa uniflora</i>	601
	<i>Phytolacca americana</i>	558
	<i>Cichorium intybus</i>	554
	<i>Lythrum salicaria</i>	541
	<i>Pteridium aquilinum</i>	539

*Kudos to Bob Kahl for a whopping 3,781 observations!

-Submitted by Liana N. May, President

Michigan Flora Photo Opportunity Still Open!

MBS members have a unique opportunity to contribute their plant photos to the University of Michigan online “Michigan Flora” catalog. There are 465 species on the “wanted” list, so there is plenty of opportunity to participate. Photos of high quality that are in focus and demonstrate the identifying features of species are most desirable. For a list of species currently in need of photos visit <http://www.michbotclub.org/great-lakes-chapter>. Members can then upload their photos to the iNaturalist project page at: <https://www.inaturalist.org/projects/updating-photos-for-mich-herbarium>.

Check out the contributions of our top photographers Rob Rutledge and Nathan Martineau who have already snapped 80 species. Noteworthy photos will be selected by Herbarium staff for inclusion in upcoming Michigan Flora updates. For a sneak-peak at the new Beta version of the Michigan Flora website visit:

<https://lsa-miflora-p.lsa.umich.edu/>

Contact: Liana May liana.n.may@gmail.com and Irene Eiseman eisemani@gmail.com for project details.

-Submitted by Irene Eiseman

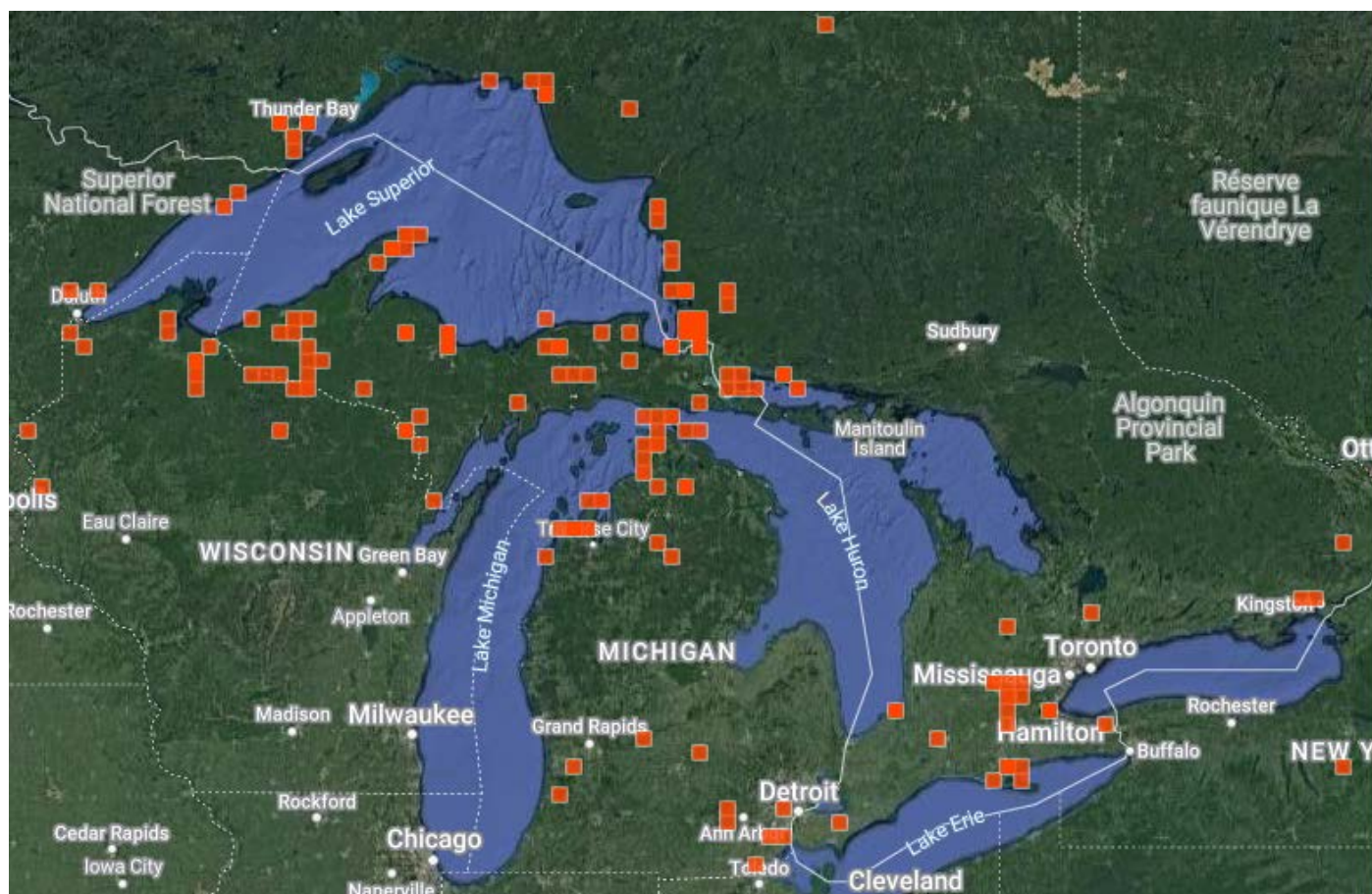


Photo sites already uploaded to the GLC Project Page. You are encouraged to contribute!



Back in the Field in 2022!

Spring Foray 2022

After a 2-year hiatus, we finally held our annual foray! We all gathered at the UAW Black Lake Lodge in Onaway, Michigan. There were smiling faces as we were able to gather, converse, and botanize with so many familiar faces again. Excursions to Grass Bay and Cheboygan State Park had us finding a variety of plants in the region, including Pitcher's thistle, dune grasses, bladderworts, sundews and numerous *Carex* species. This trip was led by Dr. Tony Reznicek and Liana May.

Another excursion that ran both days was at Thompson's Harbor State Park, where we explored a coastal fen and a dwarf lake iris survey. As for plant material, we again found numerous *Carex* species, along with butterwort (*Pinguicula vulgaris*), pitcher plant (*Sarracenia purpurea*), Kalm's St. John's-wort (*Hypericum kalmianum*), and

so much more. The highlight of this trip was looking for populations of ram's head lady's slipper (*Cypripedium arietinum*) and did we find it! At first we were finding a few individuals here and there, but then we found a patch that contained in excess of 20 individuals, many of them blooming. Dr. Tyler Basset, trip leader (Sunday) and botanist with MNFI, recorded the location of these plants for future monitoring. Dr. Rachel Hackett led Saturday's field trip.

Fall Mini-Foray 2022

Around 30-40 people gathered at the Eddy Discovery Center (Waterloo Recreation Area) for a day of botanizing. Dr. Jo Latimore led the morning trip on aquatic plants. The afternoon trips were an oak forest & wetland margins led by Dr. Tony Reznicek and a kettle-hole lake & bog ecology led by Bill Brodovich.

-Submitted by Carolyn Miller, Vice President

More Field Excursions in 2022!

Although the Great Lakes Chapter is primarily an online group, we have been experimenting with organizing field trips where membership is concentrated. This past summer, we met twice in the Traverse City area, once on Leelanau Conservancy protected land, and once on Grand Traverse Regional Land Conservancy protected land.

Clay Cliffs Natural Area

On an unseasonably hot day in mid-May, eight members of the Great Lakes Chapter, and a few prospective members, met at the Clay Cliffs Natural Area, just north of Leland in Leelanau County. The Leelanau Conservancy has protected this property, since 2013; it is characteristic of the County. It encompasses an old farmstead, fallow fields of smooth brome, secondary forest, as well as a mature second growth mesic northern forest with rolling hills, steep slopes, and seeps. Its namesake, the steep cliff composed of clay and loamy clay, perches over Lake Michigan and affords sweeping views of the Manitou Passage and, on clear days,

the Fox Islands. This is one of 7 sites in Michigan that supported the addition of *Clay Bluffs* to the MNFI natural community classification. It is currently a BC-ranked occurrence in Michigan's Natural Heritage database.

Members were able to observe a full display of spring ephemerals, with all of the usual suspects – trillium, *Dicentra* species, trout lilies, spring beauties, and several violets. One highlight of this site is that it has large populations of plants in the family *Convallariaceae* growing together, including the three upland species of *Maianthemum*, rose twisted-stalk (*Streptopus lanceolatus*), bellwort (*Uvularia grandiflora*), and downy Solomon's-seal (*Polygonatum pubescens*). There is also a large population of the dioecious early meadow-rue (*Thalictrum dioicum*) and a fully upland population of bulblet fern (*Cystopteris bulbifera*). Clay Cliffs Natural Area is open to the public and has a well-maintained trail system, for those who wish to venture out next spring:

<https://leelanauconservancy.org/naturalarea/clay-cliffs-natural-area/>

South Long Lake Forest Conservancy

In early June, the Great Lakes Chapter partnered with the Grand Traverse Regional Land Conservancy (GTRLC) staff to conduct an initial plant survey at the 228 acre South Long Lake Forest Natural Area, owned and managed by Long Lake Township in Grand Traverse County. This was the second of such partnerships; in 2021, the Great Lakes Chapter partnered with the GTRLC to inventory Maple Bay Natural Area in Antrim County. The event was well attended and included MBS members Chris and Anita Scussel who are also GTRLC donors of an adjacent 40-acre parcel to the natural area. In 2021, Long Lake Township accepted the wooded acreage with a conservation easement, so it is permanently protected.

The group ambled along the upland forested trail of oaks, red maple and white pine, and observed 56 native species, including a new occurrence on

GTRLC property, poke milkweed, *Asclepias exaltata*, which you can read more about in the milkweed section of our newsletter. Using michiganflora.net as their identification guide and community science reports through iNaturalist, GTRLC curates flora and fauna inventories on their protected lands and, to date, has roughly 950 plant species recorded.

Local Conservation District Forester Ellie Johnson, also a Great Lakes Chapter member, joined the hike and gave an overview of oak wilt to the attendees as well. It was a great day for making connections and enjoying a beautiful forest open for the public to enjoy. For more information on the South Long Lake Forest Natural area, or other protected lands in the GTRLC service region, check out this link:

<https://www.gtrlc.org/recreation-events/preserve/south-long-lake-forest/>



Excursion at South Long Lake Forest Conservancy, Grand Traverse County

We are heartened by the turnout at the field trips this summer, and we plan to offer more, similarly informal, fun, and educational trips in the future. If you have any burning desires of places to take

fellow frolickers or would like to volunteer to lead a trip in your region, feel free to reach out!

- Submitted by Liana May and Angie Bouma



Milkweeds of Michigan

With the upcoming winter season well on its way, it is time to bid farewell to the last of the milkweed seeds as they drift loose from their pods into the sky and share some fun facts about these unique plants with flowers that some posit are second in complexity only to the orchids.



Common milkweed (P. Higman)

Milkweeds are named for the white latex sap that seeps out of the plant when injured. This defense is a well-known example of mutualism where the insect species has evolved to utilize toxins in the plants' leaves to create warning colors to fend off would-be predators. In return, the milkweed receives pollination services. Monarch caterpillars are not the only insects that rely upon milkweeds. Milkweeds are a food source for many other insect species, including the Milkweed Beetle and Milkweed Tussock Moth. Common milkweed (*Asclepias syriaca*) is perhaps the best-known milkweed species and the preferred larval food source for the Monarch Butterfly. This butterfly is a candidate for listing through the USFWS and listed as endangered by the IUCN, partly due to loss of the host plant it most relies upon. Efforts to protect dwindling insect populations have brought

common milkweed, rightfully so, to the minds of many. But perhaps less well known are the “other milkweeds.”

In Michigan, there are 11 native milkweed species; common milkweed (*Asclepias syriaca*) and butterfly-weed (*Asclepias tuberosa*) are perhaps the most well-known. The one and only obligate wetland species, swamp milkweed (*Asclepias incarnata*), is also fairly common. Less common are species like poke milkweed (*Asclepias exaltata*), which is the only milkweed in Michigan that can grow in shaded forest understories. The remaining milkweed species generally prefer various habitat types that are open, sunny, and have well-drained soils. Some, like green milkweed (*Asclepias viridiflora*), can tolerate harsh conditions of dune habitats where temperatures in the summer can reach 150 degrees thanks to reflective “hairs” on its leaves, which help the leaves retain water and reflect heat.



Common milkweed (Scott Warner, Botanist, MNFI)



Butterfly weed (Liana N. May)



Swamp milkweed (P. Higman)

Sullivant’s milkweed (*Asclepias sullivantii*), is a State Threatened species of lakeplain prairies. Phyllis Higman, GLC Director-at-large, reports that in 2018, MDOT, in collaboration with DNR Parks and Recreation Division, transplanted plants from the I-75 ROW in Monroe County to nearby Sterling State Park, in partial mitigation of impacts from the

I-75 reconstruction. A second transplant to Sterling SP was planned by MNFI for 2022, but due to the lack of rain, the clay soils were like cement and the plants could not be effectively dug up! MNFI hopes to follow-up in 2023 under Amanda Klain’s leadership. The DNR Parks Stewardship Program manages the lakeplain prairie sites at Sterling SP



Sullivant’s milkweed (P. Higman)



An emerging Sullivant’s transplant (Amanda K. Klain)

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In northwestern lower Michigan, two “new” milkweeds were observed for the first time during GTRLC inventories on protected land, including green milkweed and poke milkweed. These species are not rare but are uncommon in the region, and GTRLC hopes to monitor these populations to

ascertain what level of stewardship they may need in the future. Removal of the pernicious and invasive babies' breath (*Gypsophila paniculata*) is an ongoing task at many nature preserves and maintaining intact habitats benefits milkweeds and insect species that rely upon them.



Poke milkweed (Liana N. May)

Other milkweeds native to Michigan, include whorled milkweed (*Asclepias verticillata*), clasp milkweed (*Asclepias amplexicaulis*), tall green milkweed (*Asclepias hirtella*; State Threatened), purple milkweed (*Asclepias purpurascens*; State Special Concern), and dwarf milkweed (*Asclepias*



Green milkweed (R. Schipper)

ovalifolia; State Endangered). One occurrence of the western showy milkweed (*Asclepias speciosa*) was documented in Mackinac County in 1994. To learn more about these fascinating species, check out the links below:

-Submitted by Angie Bouma, Secretary

Sullivant's Milkweed: <https://mnfi.anr.msu.edu/species/description/13386/Asclepias-sullivantii>

Poke Milkweed: <https://michiganflora.net/species.aspx?id=155>

Insects: <https://hort.extension.wisc.edu/articles/common-milkweed-insects/>

Introducing “Milkweeds of Michigan” Author and GLC Secretary, Angie Bouma

Angie is a Senior Land Steward at the Grand Traverse Regional Land Conservancy (GTRLC) where she leads habitat mapping, restoration, management planning, and floristic quality

inventories on nature preserves and sanctuaries within their 5-county service area. Prior to her work at GTRLC, she lived and worked in the Upper Peninsula for various organizations, on various

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projects, including measuring old-growth hemlock trees for the USGS at the Seney National Wildlife Refuge, managing a native plant greenhouse for the Hiawatha National Forest, mapping rare plants for Pictured Rocks National Lakeshore as a vegetation technician, and at The Nature Conservancy as a coordinator of the local cooperative invasive species management area. She has a B.S. in Geography and Biology from Northern Michigan University in Marquette, Michigan, and lives in Leelanau County.



-Submitted by Angie Bouma, Secretary



Time sequence of common milkweed visitors (Liana N. May)



Whorled milkweed (P. Higman)



Purple milkweed (B. S. Walters)

2023 MBS State Spring Foray Update

Looking ahead to 2023, we usually hold the foray over Memorial Day weekend. The State Board decided to hold the foray over Labor Day weekend, with a visit to Indiana Dunes National Park, located on the south shore of Lake Michigan. At least this is the plan. The Board has run into a few challenges

trying to secure a venue to stay at, and our chosen date is anticipated to be a very high-visitor day for the park. The Board is doing their best to push forward with this location, but it may change. We will keep you informed on the decisions.

-Submitted by Carolyn Miller, Vice President

Do not miss the 2023 Winter Lecture Series!

16 January: The Miniature World of Bryophytes; *Presenter: Robert Klips*

20 February: Biological Collections: From Dark Data to a Global Accessible Digital Resource Documenting Life on Earth; *Presenter: Reed Beaman*

20 March: Flora of Middle-Earth: Plants of J.R.R. Tolkien’s legendarium; *Presenter: Walter Judd*

17 April: Plants of the Galapagos Islands: the wretched-looking little weeds that troubled Darwin; *Presenter: Conley McMullen*

Link: meet.google.com/zaj-htvw-wte Log on a little bit early to get familiar the meeting platform. Be sure to check your e-mail the day of the talk to ensure the link has not changed.

Update in Great Lakes Chapter Board Members

We welcome Carolyn Miller as our new Vice President, Angie Bouma as our new Secretary, and Anne Vande Water as a new Director-at-Large, stepping in to finish out Carolyn’s term. Emily Douglas has served as our Treasurer since 2019 (THANK YOU!) and will be stepping down, so we are looking for a new Treasurer to start in January for a two-year term. We also are looking for a third Director-at-Large, which is a three-year term. Please contact greatlakeschapter.mbs@gmail.com if you would like to be considered or if you have someone to nominate.

President	Liana May	Jan 2022-Jan 2024	liananmay@gmail.com
Vice President	Carolyn Miller	May 2022-Jan 2024	miller94@msu.edu
Secretary	Angie Bouma	May 2022-Jan 2024	angiebouma@gmail.com
Treasurer	Emily Douglas	Jan 2019-2022 (stepping down)	emsuedouglas@gmail.com
Director-at-Large	Anne Vande Water	May 2022-Jan 2024	eisemani@gmail.com
Director-at-Large	Phyllis Higman	Jan 2016-2026	higmanp@michigan.gov
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 of the following members who have provided additional funding through their memberships. THANK YOU!

John P. Case	Robert A. Kahl	Betty and Art Seagull
Irene and Tim Eiseman	Robert and Judy Kelly	Ken Stewart
Janet Ekstrum	Linda Rehorst	Susan Trull
Robert and Sheridan Haack	Dana L Richter, PhD	Laurie Yahr & Rich Kahl
Louise Westcott & James Hewett	Anita Scussel	

MBC-Great Lakes Chapter Treasurer’s Report, November 30, 2021

Balance carried forward from 2020:	\$6,970.84
Income:	
Membership Dues and Donations:	\$3,550.00
Total Income:	\$3,550.00
Expenses:	
State Membership Dues:	\$1,368.00
Great Lakes Botanist:	\$1,224.00
Newsletter Postage and Photocopying:	\$72.97
Total Expenses:	\$2,664.97
Current Balance:	\$7,855.87

---Submitted by Emily Douglas, GLC Treasurer, November 18, 2022

2022 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 MBC state membership, the Arisaema, The Great Lakes Botanist, and supporting Botanical research and Botany students in the Great Lakes. We hope to see you in the field in 2023!

Online Option for Membership Dues

As a reminder, we have an account through *Cheddar Up* which allows members to pay by credit card online. If one chooses this route, there is an easy membership form to fill out along with the membership/payment option. Just to note, *Cheddar Up* also charges a small convenience fee of 3.5% plus \$0.45 which comes out to \$1.50 if

one is paying for the \$30.00 Individual Membership option. We will send out a reminder email with the *Cheddar Up* link in January for 2021 dues. Of course, any member can still submit their yearly dues by filling out the form on the last page and mailing a check to Emily Douglas at the address noted on the form.

Please fill out the next page and mail to:

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

US members make checks payable to: **Michigan Botanical Club* - Great Lakes Chapter**, or try the *Cheddar Up* online payment option: <https://my.cheddarup.com/c/michigan-botanical-club-great-lakes-chapter>

***Note:** we have not yet changed the bank information that reflects our change to the Michigan Botanical Society

Canadian members please send a check or money order in U.S. funds or try out *Cheddar UP*.

Thank you for your continued support!

Michigan Botanical Society – Great Lakes Chapter 2023 Membership Dues

Name: _____

Address: _____

City: _____ State/Province _____

Zip code + 4-digit code _____ + _____

Telephone: _____ Email: _____

Starting in 2023: 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 _____