

OBELISK

Ohio Bryology et Lichenology, Identification, Species, Knowledge
Newsletter of the Ohio Moss and Lichen Association. Volume 19 No. 1. 2022.

Carole Schumacher and Brandon Ashcraft, Editors
beschumacher@msn.com, bashcra2@kent.edu

LEFT HAND CORNER

DIANE H. LUCAS
(January 12, 1931 – July 16, 2022)



In the 2020 OBELISK (p. 2-3), I wrote a tribute to Diane H. Lucas of Wellington, Ohio. OMLA lost its founding member, friend and mentor. A verse that her family selected about her is as follows: “Do not stand at my grave and weep, I am not there, I do not sleep. I am a thousand winds that blow, I am the diamond glint on snow. I am the sunlight on ripened grain, I am the gentle autumn rain”. Diane is that next bryophyte or lichen we see.

MOSS MUSINGS: A TRIBUTE TO OMLA MEMBER, DIANE LUCAS

Every now and then you meet someone who lives by the philosophy that “you can do a lot if you don’t care who gets the credit”. That person is Diane Lucas. She is an integral part of the Ohio Moss and Lichen Association, often in the background, but playing important roles.

Diane Lucas entered my life 24 years ago when she signed up for a lower plant morphology class that I was teaching at Kent State University (KSU). Diane **REALLY** wanted to learn all she could about bryophytes. The course was offered shortly after the publication of *A Catalog and Atlas of the Mosses of Ohio* (Snider & Andreas 1996). Jefferson County was the only county with no reports of mosses. We decided to collect and publish the bryophytes of Jefferson County. About once a week, over several years, we drove to Jefferson County and found places to collect. That effort resulted in our first publication together (Andreas & Lucas 2006).

Having attained confidence, Diane took on projects like collecting the bryophytes of

Cattaraugus County, NY, and Bradley Woods, part of the Cleveland Metro Parks. She established and put on the Consortium of North American Bryophyte Herbaria (bryophyteportal.org), a bryophyte herbarium at the Cleveland Museum of Natural History.

For years Diane would come to KSU weekly to work on the identification of mosses. Together we traveled to various bryology events such as the Blomquist and Andrew Forays. Diane has attended all 15 of the Crum Bryological Workshops – few have been so dedicated. Diane is one of the founding members of the Ohio Moss and Lichen Association.

After the publication of the 1996 atlas, we continued to keep records of new county records of the distribution of Ohio mosses. We kept each new record in a notebook that Diane lovingly refers to as the “blue book”. However, she knew she could do better. Diane took a class to learn to use a database program, and soon the information in the 1996 atlas and all new records were put into a database. The OMLA digital maps (ohiomosslichen.org) occur because of Diane’s efforts.

Diane grew up in Olean, NY and graduated from Elmira College and St. Bonaventure University. She was trained as a chemist. Her professional career began at NASA. There she met and married Jim Lucas, and together they raised two daughters, Karen and Sandy. During that phase of her life, she developed an interest in astronomy and solar eclipses. She built her own telescopes and learned to grind the necessary mirrors. That interest took her all over the world chasing solar eclipses.

If you search the Consortium of North American Bryology Herbaria

(bryophyteportal.org), you’ll find that, as of 2020, Diane has submitted 6,147 herbarium records, which represents 500 species, scattered over 13 US herbaria. That’s quite an accomplishment for someone who never looked at a bryophyte until age 65.

Andreas, B.K. and D. Lucas. 2006. The bryophyte flora of Jefferson County, Ohio. *Castanea* 71: 160–169.

Snider, J.A. and B. K. Andreas. 1996. A Catalog and Atlas of the Mosses of Ohio. *Ohio Biol. Surv. Misc. Cont.* No. 2. Columbus, OH 105 p.

-Barbara K. Andreas

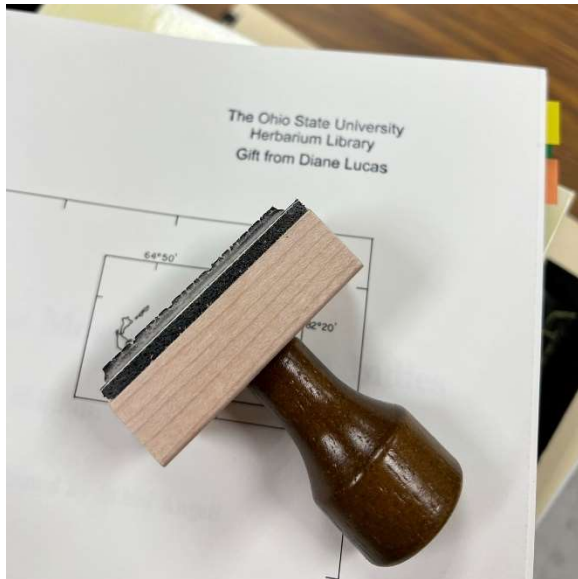
Diane Lucas’s Generous Contributions to the OSU Herbarium

Our beloved friend and colleague Diane Lucas passed away in July at age 91. While primarily a bryologist, she was interested in many aspects of science, nature and technology. A generous person, she always took the time to talk and be friendly. Here's a photo of Diane from about 10 years ago, at one of the Ohio Moss and Lichen Association annual meetings, mixing with the members as usual. We all miss her greatly.



In addition to having an extraordinarily warm character and an inquiring mind, Diane was an avid collector, not only of moss, liverwort and hornwort specimens,

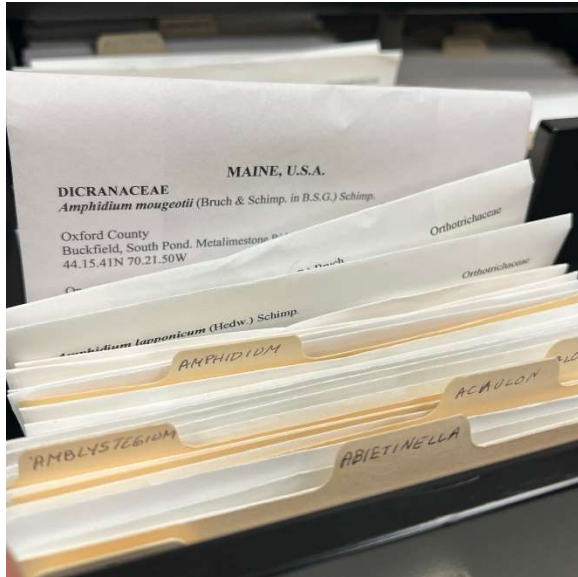
but also of literature about them, especially identification manuals. Her daughters Sandy and Karen are aware of the value of her collections to the botanical community and eager to have them put to good use, so they graciously donated her specimens to the OSU Herbarium (OS) and her books to the OSU Herbarium Library, which are housed in adjoining rooms at the OSU Museum of Biological Diversity. These collections are magnificent.



The books, rather than being common ones, readily available and already among the library holdings (as is often the case with donated books), are for the most part difficult to obtain and very practical illustrated floras of exotic areas, i.e., unique works that enable researchers to identify specimens that otherwise couldn't be. A few examples include "Mosses and Liverworts of Hong Kong," "The Moss Flora of Mexico," "Manual of Hawaiian Mosses," and "Bladmossor Kompaktmossor-kapmossor," the latter just one of several non-English works. The breadth of Diane's library is astounding and will greatly enhance our ability to tackle specimens from farther afield.



Specimen-wise, Diane assembled a collection of the same high quality and uniqueness as her library. Rather than being mainly duplicates of already well-represented species, perhaps with scanty location, habitat and substrate data (as is sometimes the case with donated personal herbaria), the gift includes both her reference collection and recent collections from forays. (Note: The Consortium of North American Bryophyte Herbaria already includes will over 6,000 specimens for which Diane H. Lucas is either the primary collector or an associated one. This includes about 2500 at Kent State (KE), 1000 at OS, and, perhaps most importantly because her approximately 2400 specimens comprise more than half of the total housed there, the Cleveland Museum of Natural History (CMH). The specimens are neatly packeted with typed labels in standard herbarium label format, including ecological data and G.P.S. coordinates.



Would you like to help cement Diane’s legacy as a preeminent bryological collector? Assistance is needed entering data from her specimen labels into the electronic record-keeping system used by OS, The Consortium of North American Bryophyte Herbaria (CNABH) “portal.” Presently there is a student volunteer, Camryn Ford, who is imaging the specimen packets and uploading them onto the CNABH portal along with mere “skeletal” data consisting of species, collector, state and county. It is hoped that some OMLA members might wish to finish the process by joining the Consortium, receiving editing privileges for the OS collection, and, working remotely if desired, typing the remaining data from the imaged labels into the respective fields on the collections management system. This volunteer work is fun, relaxing, and educational, and the results will be a tribute to our friend we miss so dearly.

-Bob Klips

WATCH YOUR HANDS AND FEET

Not long ago, I was showing a friend some of the sights in Vinton County. One of the places we visited was Lookout Rock in the

Zaleski State Forest. This was also visited by folks on the OMLA 2006 Summer Foray to Vinton County. Lookout Rock is a massive sandstone outcrop on a steep hill, with smaller outcrops on around the hill. My friend and I hadn’t gone far before I saw a copperhead coiled beside a log. Had I stepped over the log without looking I might have gotten an unwanted surprise.

This snake looked like it was getting ready to molt, so the hourglass-shaped bands across its body were not very colorful or distinct, but the broad, copper-brown head made identification easy. Copperheads are generally not aggressive unless disturbed, so we watched for several minutes, took a photo and moved on.



Eastern Copperhead
Photo by Mark Runyon

If you want to learn more about copperheads, or snakes in general, [Reptiles of Ohio](#) (Jeffrey Davis *et al.* 2021. Ohio Biological Survey) is an excellent, up to date source. I have seen copperheads near dry rocks on several other occasions, so when looking for lichens or mosses in this habitat, also look where your hands and feet are going. An unexpected bite would certainly ruin a field trip.

– Ray Showman

Fall Foray to Athens County

On a nice fall Saturday morning, we met at Marie J. Desonier State Nature Preserve, near Coolville, Ohio, for a day of collecting. The 491-acre preserve “encompasses a variety of habitats typical of Appalachian Ohio. The area is diverse in vegetation and ranges from various successional stages to mature forests in the deep ravines and on the steep hillsides. The area is dissected by Jordan Run, a tributary of the Hocking River, and has steep topography, varying from 680 to 900 feet in elevation. Large beech and oak trees are found in the cool moist ravines while the drier uplands are dominated by oak hickory forests, typical of the region.” (odnr.gov).

According to the Ohio Geology Interactive Map, the bedrock of the uplands at the preserve is the Dunkard Group of Permian and/or Pennsylvanian age. It is mainly sandstone, siltstone and shale, with minor amounts of limestone and coal. In the ravines, the bedrock is the Monongahela Group of Pennsylvanian age. It consists of shale, siltstone, limestone, sandstone and economic coal beds.

After the day of collecting we spent the evening at Parkersburg, West Virginia, where we had a microscope room at the Quality Inn.

On Sunday morning we collected at the Utah Ridge area of Wayne National Forest. The bedrock here is the Conemaugh Group of Pennsylvanian age, consisting of shale, siltstone, sandstone, mudstone and lesser amounts of limestone and coal.

We had planned to collect all morning at Utah Ridge, but severe weather forced us to retreat from the ridge. We then stopped at the Glen Ebon area of Wayne National Forest. The bedrock there is the Allegheny and Pottsville Groups Undivided, of Pennsylvanian age. It consists of shale, siltstone, sandstone, conglomerate, and

small amounts of limestone, clay, flint, and coal. We explored vertical rock faces and other habitats before heading home.

In all, we found 77 lichen taxa, 60 of which are new records for Athens County. For bryophytes, we found 78 moss taxa (18 new county records) and 16 liverworts (8 new county records).

SPECIES LIST

Abbreviations:

N = new record for Athens County

DE = Desonier State Nature Preserve

UR = Utah Ridge, Wayne National Forest

GE = Glen Ebon, Wayne National Forest

LICHENS

<i>Anisomeridium polypori</i>	N	DE
<i>Arthonia sp.</i>		DE
<i>Bacidia schweinitzii</i>	N	DE
<i>B. soorediata</i>	N	DE
<i>Bacidina arnoldiana</i>	N	DE
<i>Biatora pontica</i>		DE
<i>B. printzenii</i>	N	DE
<i>Botryolepraria lesdainii</i>	N	DE
<i>Buellia erubescens</i>	N	DE
<i>Caloplaca cerina</i>	N	DE
<i>Candelaria concolor</i>	N	UR
<i>Candelariella efflorescens</i>	N	DE
<i>Catillaria fungoides</i>	N	DE
<i>C. nigroclavata</i>	N	DE
<i>Chaenothecopsis debilis</i>	N	DE
<i>Chrysothrix caesia</i>	N	DE
<i>Cladonia apodocarpa</i>	N	UR
<i>C. macilenta</i>	N	UR
<i>C. ochrochlora</i>	N	DE
<i>C. parasitica</i>	N	DE
<i>C. peziziformis</i>	N	UR
<i>C. squamosa</i>	N	DE
<i>Crespoa crozalsiana</i>	N	DE
<i>Dictyocatenuolata alba</i>	N	DE
<i>Flavoparmelia baltimorensis</i>		UR
<i>F. caperata</i>		DE/UR
<i>Graphis scripta</i>		DE
<i>Heterodermia speciosa</i>	N	DE

<i>Hypotrachyna livida</i>		DE	<i>Strigula jamesii</i>	N	DE
<i>H. minarum</i>	N	DE	<i>Usnea mutabilis</i>	N	DE
<i>H. showmanii</i>	N	DE	<i>Viridothelium virens</i>	N	DE
<i>Lecanora appalachensis</i>	N	DE	Lichenicolous fungus, parasitic on <i>Lecanora</i>		
<i>L. hybocarpa</i>	N	DE	<i>strobilina</i> growing on bark of <i>Prunus</i>		
<i>L. strobilina</i>	N	DE	<i>serotina</i>		
<i>L. thysanophora</i>	N	DE			
<i>Lecidea varians</i>	N	DE	MOSSES		
<i>Lepra pustulata</i>	N	DE			
<i>Lepraria caesiella</i>	N	DE	Amblystegiaceae		
<i>L. cryophila</i>	N	DE	<i>Amblystegium serpens.</i>	N	DE
<i>L. finkii</i>	N	DE	<i>Calliergonella lindbergii</i>		DE
<i>L. hodkinsoniana</i>	N	DE	<i>Campylium chrysophyllum</i>		DE/UR
<i>L. sp.</i>		DE	<i>Hygroamblystegium varium</i>		DE
<i>Micarea prasina</i>	N	DE			
<i>M. soralifera</i>	N	DE	Anomodontaceae		
<i>Micareopsis irriguata</i>	N	DE	<i>Anomodon attenuatus</i>		DE
<i>Mycobilimbia berengeriana</i>	N	DE	<i>A. minor</i>		DE
<i>Myelochroa aurulenta</i>	N	DE/UR	<i>Haplohymenium triste</i>		DE
<i>M. galbina</i>	N	UR			
<i>M. metarevoluta</i>	N	DE	Aulacomniaceae		
<i>Nadvornikia soorediata</i>	N	DE	<i>Arrhenopterum heterostichum</i>		DE
<i>Opegrapha vulgata</i>	N	DE	<i>Claopodium rostratum</i>		DE
<i>Parmelia sulcata</i>	N	DE/UR			
<i>Parmotrema gardneri</i>	N	DE	Bartramiaceae		
<i>P. hypotropum</i>		DE/UR	<i>Bartramia pomiformis</i>		DE/GE
<i>Peltigera canina</i>	N	UR	<i>Philonotis fontana</i>	N	DE
<i>P. phyllidiosa</i>	N	DE			
<i>Pertusaria pustulata</i>	N	DE	Brachytheciaceae		
<i>Phaeocalicium polyporaenum</i>	N	DE	<i>Brachythecium acuminatum</i>	N	GE
<i>Phaeophyscia pusilloides</i>	N	DE/UR	<i>B. falcatum</i>		DE
<i>P. rubropulchra</i>		DE/UR	<i>B. laetum</i>		DE
<i>Phlyctis petraea</i>	N	DE	<i>B. plumosum</i>	N	DE/GE
<i>Physcia americana</i>		DE	<i>B. rivulare</i>		DE
<i>P. millegrana</i>		UR	<i>Bryhnia graminicolor</i>		DE
<i>P. pumilior</i>		DE	<i>Bryoandersonia illecebra</i>		DE
<i>P. stellaris</i>		DE/UR	<i>Oxyrrhynchium hians</i>		DE/UR
<i>Pseudosagedia cestrensis</i>	N	DE			
<i>Pseudosagedia sp.</i>		DE	Bryaceae		
<i>Punctelia caseana</i>	N	DE/UR	<i>Bryum pseudotriquetrum</i>		DE
<i>P. rudecta</i>		DE/UR	<i>Rhodobryum ontariense</i>	N	DE
<i>Pyxine soorediata</i>		DE			
<i>P. subcinerea</i>	N	DE/UR	Callicladiaceae		
<i>Scoliciosporum pensylvanicum</i>	N	DE	<i>Callicladium haldanianum</i>		GE
<i>Scytinium dactylinum</i>		DE	<i>C. imponens</i>		DE
<i>S. lichenoides</i>	N	UR			

Climaciaceae*Climacium americanum* DE**Dicranaceae***Dicranum scoparium* DE*Orthodicranum fulvum* DE*O. montanum* DE/GE*O. viride* UR/GE**Diphysciaceae***Diphyscium foliosum* DE**Entodontaceae***Entodon cladorrhizans* DE*E. seductrix* DE/UR**Ephemeraceae***Ephemerum crassinervium* N DE**Fissidentaceae***Fissidens adianthoides* N DE*F. bryoides* DE*F. bushii* N DE*F. dubius* DE*F. minutulus* DE*F. osmundioides* DE*F. subbasilaris* N GE*F. taxifolius* DE**Funariaceae***Physcomitrium serratum* UR**Grimmiaceae***Schistidium apocarpum* UR**Hypnaceae***Campylophyllum hispidulum* UR*Platygyrium repens* DE/UR*Taxiphyllum deplanatum* N DE*T. taxirameum* N DE**Leptodontaceae***Forsstroemia trichomitria* N DE**Leskeaceae***Leskea gracilescens* DE/UR/GE**Leucobryaceae***Leucobryum albidum* N DE*L. glaucum* N DE**Leucodontaceae***Leucodon julaceus* DE**Mniaceae***Plagiomnium ciliare* DE*P. cuspidatum* DE/UR*Pohlia nutans* GE*P. wahlenbergii* DE**Orthotrichaceae***Orthotrichum ohioense* N DE/UR*Ulota crispula* Bruch DE**Plagiotheciaceae***Plagiothecium cavifolium* GE*P. laetum* DE*Pseudotaxiphyllum elegans* GE**Pottiaceae***Barbula unguiculata* DE/UR*Gymnostomum aeruginosum* DE*Hymenostylium**recurvirostrum* N DE/GE*Hyophila involuta* (Hook.) N DE*Tortula porteri* DE*Tortella humilis* UR*T. tortuosa* N DE**Polytrichaceae***Atrichum angustatum* GE*A. crispulum* DE*Pogonatum pensilvanicum* DE*Polytrichastrum ohioense* DE**Ptychomitriaceae***Campylostelium saxicola* GE**Pylaisiaceae***Calliargonella curvifolia* DE*C. lindbergii* DE*Homomallium adnatum* UR

Pylaisiadelphaceae

Pylaisiadelphpha tenuirostris DE

Sematophyllaceae

Sematophyllum demissum DE

Thuidiaceae

Thuidium delicatulum DE

LIVERWORTS

Calypogeiaceae

Calypogeia muelleriana N DE/GE

Cephaloziaceae

Cephalozia bicuspidata N GE

Conocephalaceae

Conocephalum salebrosum DE

Fossombroniaceae

Fossombronia cristula N DE

Frullaniaceae

Frullania asagrayana DE

F. eboracensis N DE/UR

F. sp. DE

Jubulaceae

Jubula hutchinsiae N DE

Lejeuneaceae

Cheilolejeunea clypeata N DE

Cololejeunea biddlecomiae N DE

Lophocoleaceae

Lophocolea heterophylla DE

Pelliaceae

Pellia epiphylla DE/GE

Radulaceae

Radula obconica DE

Scapaniaceae

Diplophyllum apiculatum DE

Scapania nemorea DE/GE

Solenostomataceae

Solenostoma crenuliforme N DE

Trichocoleaceae

Trichocolea tomentella DE

-James Topin

SCENES FROM DESONIER STATE

NATURE PRESERVE Photos by Bob Klips



Orthodicranum fulvum



Fissidens bushii



Gymnostomum aeruginosum



Cheilolejeunea clypeata



Callicladium imponens



Trichocolea tomentella



Jubula hutchinsiae



Hyophila involuta



Rhodobryum roseum



Tortula porteri



Peltigera and friends

New Moss and Lichen species for Ohio found in the year 2022

Tomás J. Curtis, tcurti12@kent.edu

Introduction

The year 2022 was a good year for the study of mosses and lichens in Ohio. Several new species were added to the moss and lichen flora of Ohio including one moss and nine lichens. Lichens are especially understudied and it is not unexpected when several new species are found. In addition, there are several active lichen and moss experts that reside within Ohio and contribute towards representation of these cryptogams each year, and the state is well studied in comparison to other states.

In the text below, each of the new species are addressed as well as the circumstances in which they were found in Ohio for the first time. Note that remarks pertaining to distribution and records are based off of the Consortium of North American Lichen Herbaria (CNALH) database. Several of the new species are continentally, if not globally rare. Most specimens cited here were deposited at the Tom S. and Miwako K. Cooperrider Herbarium (KE), but some duplicates were also donated to the New York Botanical Garden (NY).

New Mosses for Ohio

Tortella fragilis (Hooker & Wilson) Limpricht, Laubm. - Primarily a northern moss species, *Tortella fragilis* was discovered for the first time in Ohio in June of 2022, during the 2022 OMLA Summer Foray held at Ringneck Ridge Wildlife Area in Sandusky County. It was collected by the author from calcareous soil in a cedar barren otherwise surrounded by mesic forest, and was later determined to represent *T. fragilis* in the lab. This determination was confirmed by

Dr. Barbara K. Andreas. This species differs most notably from other *Tortella* species in its long, subulate leaves with fragile apices that break off as a method of asexual propagation (Zander & Hoe 1979). SPECIMEN EXAMINED: U.S.A. OH. **SANDUSKY CO.:** Washington Twp., Ringneck Ridge Wildlife Area, approx. 3.6 mi. N of Helena, 18 Jun. 2022, *T.J. Curtis* 536.

New Lichens for Ohio

Acarospora oligospora (Nyl.) Arnold - *Acarospora oligospora* is a widespread species, but it is scarcely collected east of the Mississippi River in North America. It is diagnostic among other saxicolous *Acarospora* species in its larger ascospores and preference for acidic substrates (Nash et al. 2007, Knudsen et al. 2021). It was discovered for the first time in Ohio in August of 2022 during some surveying efforts conducted within Lake Katharine State Nature Preserve in Jackson County. The specimen was collected by the author from a sandstone rock embedded within a rock wall while exclaiming “well, this is probably something new!” He was accompanied by Dr. Barbara K. Andreas, Ray Showman, Coleman Minney, and Brian Gara. SPECIMEN EXAMINED: U.S.A. OH. **JACKSON CO.:** Lake Katharine State Nature Preserve, 13 Aug. 2022, *T.J. Curtis* L7.

Bacidia crenulata R.C. Harris and Ladd ined. - On an unusually warm day in March of 2022, the author decided to do some collecting at Salt Fork State Park in Guernsey County, Ohio. There he collected an odd specimen from a young elm in a bottomland hardwood forest. After combing through the literature, the author determined the specimen to represent *Bacidia crenulata*, a tentatively named species that has yet to be formally described

and is only known by a few confirmed collections from the Ozarks (Harris & Ladd 2005). A duplicate specimen was sent to the New York Botanical Garden where Dr. James C. Lendemer compared it with the Ozark material. It was a perfect match, and the species is now back on track for being formally described in a peer-reviewed journal. SPECIMEN EXAMINED: U.S.A. OH. **GUERNSEY CO.:** Monroe Twp., approx. 2.9 mi. W of the Freedom Rd./Broadhead Rd. Jct., 1 Mar. 2022, *T.J. Curtis* s.n. (KE L6689).

Cladonia scabriuscula (Delise) Nyl. - In September of 2022, the author took the opportunity to survey a large property in Coshocton County, Ohio that had a past of heavy mining activity and disturbance. After decades of mining, massive cliff faces were carved out of the landscape, which created an abnormally dark and humid environment at the bottoms of the cliffs. This environment proved to be quite conducive to the growth of several rare and unusual moss and lichen species. Among the lichens found was *Cladonia scabriuscula*, which had never before been collected from the state. Primarily more northern in its distribution, this conspicuous species is not easily missed, so the absence of prior records in Ohio may indicate genuine rarity there. SPECIMEN EXAMINED: U.S.A. OH. **COSHOCTON CO.:** American Electric Power (AEP) III property, 25 Sep. 2022, *T.J. Curtis* L177.

Epigloea soleiformis Döbberler - With only three other records from North America, *Epigloea soleiformis* is very rarely encountered, and perhaps heavily overlooked due to its small size. This species was collected in Ohio for the first time in March of 2022 by the author while accompanied by Barbara K. Andreas and Ray Showman. It was found during a survey of a mostly forested property in Adams County. This property, though not striking

in its physical features, proved to be quite diverse as further explained here in the paragraph under *Vezdaea retigera*. SPECIMEN EXAMINED: U.S.A. OH. **ADAMS CO.:** Meigs Twp, property of Dayton Power & Light, approx 4 mi WSW of Peebles, 24 Mar. 2022, *T.J. Curtis s.n.* (KE L6916).

Ochrolechia mahuensis Räsänen - In eastern North America, there are scattered records of *Ochrolechia mahuensis* across the Appalachian Mountains. In Ohio, this species was discovered for the first time in Hocking County in March of 2022. It was collected by the author, accompanied by Barbara K. Andreas and Ray Showman, while surveying a property owned by a private conservation group. The specimen was taken from sheltered bark of a large, mature oak in a xeric, Appalachian oak forest above a cliff system. It was later found again in July of 2022 in almost identical circumstances, this time in the adjacent Fairfield County. There it was collected by the author while accompanied by Robert Curtis. SPECIMENS EXAMINED: U.S.A. OH. **FAIRFIELD CO.:** Berne Twp., “Stone Canyon,” approx. 2.8 mi. NW of Sugar Grove, 2 Jul. 2022, *T.J. Curtis s.n.* (KE L7583). **HOCKING CO.:** Laurel Twp., 1.9 mi. SW of Gibsonville, 23 Mar. 2022, *T.J. Curtis s.n.* (KE L6882).

Porina heterospora (Fink ex J. Hedrick) R.C. Harris - *Porina heterospora* is a relatively diagnostic and conspicuous species that is endemic to southeastern North America. This said, its discovery in Ohio was quite unexpected. This species was found for the first time in the state in February of 2022. It was found by Shaun Pogacnik at Davis Memorial State Nature Preserve in Adams County while accompanied by the author. Recognizing it as something unusual, Shaun got the attention of the author who, after looking at it, exclaimed “what is that

doing all the way up here?” Indeed, this Ohio record is the furthest north in the world. SPECIMEN EXAMINED: U.S.A. OH. **ADAMS CO.:** Davis Memorial State Nature Preserve, 18 Feb. 2022, *T.J. Curtis s.n.* (KE L6627).

Verrucaria phloeophila Breuss - *Verrucaria phloeophila* has a scattered eastern North American distribution where it is perhaps most abundant in the Ozark Mountains. It belongs to a relatively small group of *Verrucaria* species that grow on bark, but itself contains quite a bit of variability (Lendemer & Breuss 2009). It was found in Ohio for the first time in August of 2022. It was collected by the author while surveying private property in Fairfield County. See the paragraph under *Verrucaria quercina* for more information. SPECIMEN EXAMINED: U.S.A. OH. **FAIRFIELD CO.:** Sugar Grove Twp., Buckeye Sullivan property, 14 Aug. 2022, *T.J. Curtis L20*.

Verrucaria quercina Breuss - Similar to *Verrucaria phloeophila*, *V. quercina* differs primarily in its more evident involucrellum and its more areolate thallus (Lendemer & Breuss 2009). It was discovered in Ohio for the first time in April of 2022. It was collected by the author in Huron County from the base of a cherry in a seral, lowland forest surrounded by agriculture, indicating it is disturbance tolerant. This record represents one of 11 in North America. SPECIMEN EXAMINED: U.S.A. OH. **HURON CO.:** Richmond Twp., Willard Marsh Wilderness Area, approx. 4.3 mi. SW of the OH-99/US-224 jct. in Willard, 2 Apr. 2022, *T.J. Curtis s.n.* (KE L6992).

Vezdaea retigera Poelt & Döbbeler - *Vezdaea retigera* is a rare species that is unique from other *Vezdaea* species in its simple ascospores, 8-spored asci, sparse paraphyses, and gonicystate thallus (Lendemer 2011). It was found in Ohio for the first time at the same locality and on the same day as *Epigloea soleiformis*.

Furthermore, like *E. soleiformis*, this Ohio record of *V. retigera* represents the fourth record in North America. The discovery of both of these species, as well as several other rare and interesting species not outlined here, are a testament to the conservation value of the property they were found at. SPECIMEN EXAMINED: U.S.A. OH. ADAMS CO.: Meigs Twp, property of Dayton Power & Light, approx 4 mi WSW of Peebles, 24 Mar. 2022, *T.J. Curtis s.n.* (KE L6977).

Literature cited

- Harris, R.C. & D. Ladd 2005. Preliminary draft: Ozark Lichens. Enumerating the lichens of the Ozark Highlands of Arkansas, Illinois, Kansas, Missouri, and Oklahoma. New York Botanical Garden Steere Herbarium. http://sweetgum.nybg.org/images3/314/592/Harris_Ladd_2005.pdf.
- Knudsen, K., J. Hollinger, A. Götz & E. Hodková 2021. A new name for a common desert lichen. *Bulletin of the California Lichen Society* 28(1), 1-4.
- Lendemer, J.C. & O. Breuss 2009. *Verrucaria thujae* (Verrucariaceae, lichenized Ascomycetes), a new corticolous species from the Great Lakes Region of North America. *Opuscula Philolichenum* 7, 13-16.
- Lendemer, J.C. 2011. *Vezeada schuyleriana* (Vezeadaeaceae, Lichenized Ascomycetes), a new species from eastern North America 484, 1-4.
- Nash, T.H., B.D. Ryan, C. Gries & F. Bungartz (eds.) 2007. *Lichen Flora of the Greater Sonoran Desert Region* vol. 3.
- Zander, R.H. & W.J. Hoe 1979. Geographic disjunction and heterophylly in *Tortella fragilis* var. *tortelloides* (= *Sarconeurum tortelloides*). *Bryologist* 82(1), 84-87.

Hoosier Foray

A spring foray is being planned for late April or early May. It is being planned for northwest Indiana in Laporte and Porter counties. Specific dates and other details such as lodging, maps, etc. will be forthcoming, after discussion at the OMLA annual meeting.

It should be noted that this will be a special foray, it will not displace the annual summer or fall Ohio forays.

Introduction



Ambler Nature Preserve. This boreal flatwoods natural community is found nowhere else in Indiana. It contains plants typically found much farther north. At least 39 state-listed plant species and many others considered rare in the Chicago region are found here

The foray will be in the Northwest Moraine Natural Region of Indiana. This is an area of high native plant diversity and a high percentage of rare plants. No other part of the state has such a diverse and rich flora.

This diversity is due to a number of factors: topographic relief, many niches and microclimates. It is also a region where three major ecological areas meet: prairie, eastern deciduous forest and northern boreal forest. The proximity of the cold waters of Lake Michigan help keep weather cooler,

providing conditions for plants that normally live much further north to live in the area.

There are three sections of this natural region: a) Valparaiso Moraine characterized by high rolling hills and a large variety of soil types and textures in a relatively small area; b) Chicago Lake Plain characterized by flat poorly drained areas with sandy and mucky soils, and numerous different types of wetlands; c) Lake Michigan Border characterized by high dunes and wetlands. This is an interesting part of the state for sure.

Fortunately, even being relatively close to Chicago, many areas have been preserved. The foray will be looking at a number of these preserved areas, discussed below.

Potential sites for the Hoosier Foray

Laporte County

Ambler Nature Preserve. This is a large boreal flat woods, just south of Lake Michigan in Laporte County, with large areas of mature trees (area 500+ acres). Its flat poorly drained soils are of a coarser texture with numerous areas of vernal pools and areas with mature trees and hummocks with Sphagnum mosses in places. Trees include red maple, northern pin oak, black gum, tulip tree, and white pine.

Wintergreen and Sebert Nature Preserves. These are two much smaller areas within a few miles of Ambler Preserve.



They are in many ways similar to Ambler. Wintergreen is only 20+ acres. It is wet much of the year due to poorly drained soils. It is a mature forest with paper (white) birch as a common tree, with numerous large individuals scattered throughout the woods, along with American beech, basswood, red maple, and a variety of oaks. Sebert seems drier and has some open sandy areas and numerous small wetlands. It is 40+ acres. Both are boreal flatwoods with hundreds of native plants including a number of threatened and rare plants.



Sebert Woods Nature Preserve

Little Calumet Headwaters Nature Preserve

This area protects some of the headwaters of the Little Calumet River. It contains seeps, spring runs, and upland forest. It is 100+ acres.



Two views of Little Calumet Headwaters Nature Preserve

Porter County

Moraine Nature Preserve

There are three areas of this large preserve that will be looked at: a) an upland forested gorge complex, whose mature forested gorges have numerous erratics and boulders; b) a calcareous fen and forested kame area; c) a large mature oak-hickory forest tract added to preserve from the University of Chicago, sharing part of a bog with adjoining property.

John Merle Coulter Nature Preserve

This state-dedicated nature preserve of 80+ acres features a complex of sand prairie, oak savanna, and wetlands. More than 400 species of plants have been identified, many of them state-listed. This preserve is adjacent to Indiana Dunes National Park and Indiana Dunes State Park. Although the parks have been studied intensively, this preserve is fairly new and has no bryophyte or lichen records yet.



Logistics

While more details will be coming soon, they will be first discussed at the annual meeting. Motels are plentiful in the area and range from budget to higher end establishments. Indiana Department of Natural Resources (IDNR) has offered space to meet and set up scopes at Moraine Nature Preserve, north of Valparaiso. In addition to motels, there is room to set up tents at Moraine State Park, near the scope room. In addition, other campgrounds are located nearby.

As soon as plans are finalized, they will be added to the OMLA website.

-Bill Schumacher

There is a low mist in the woods—it is a good day to study lichens.

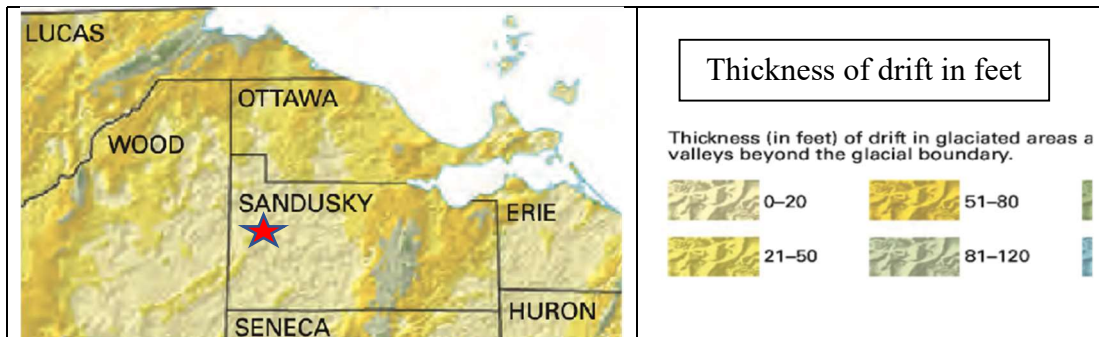
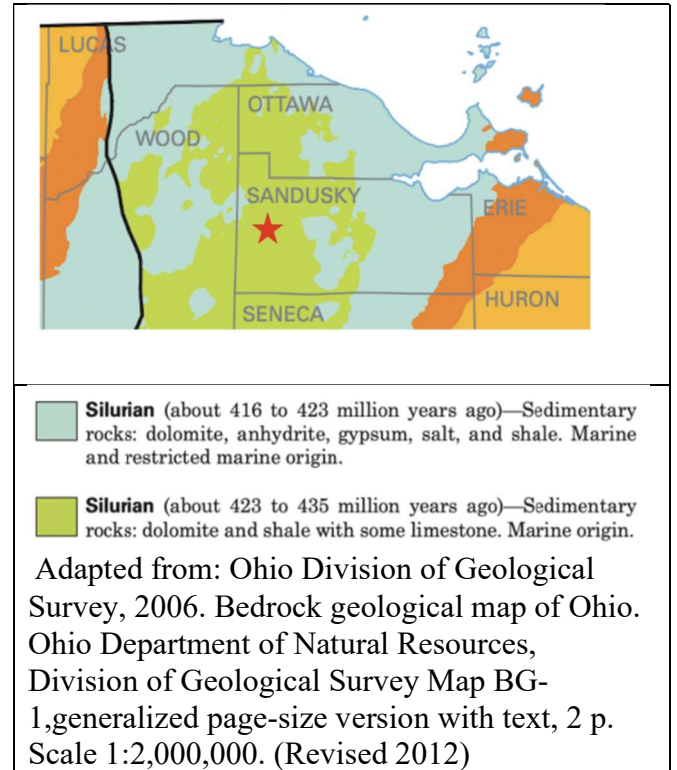
-Henry David Thoreau

SPRING FORAY IN SANDUSKY COUNTY

Our 2022 Spring Foray to Sandusky County was held on Saturday, June 18 at Ringneck Ridge Wildlife Area, a few miles east of Gibsonburg. The day turned out to be one of the coolest in June, with a nice dip into the 60s between peaks of 90-degree days.

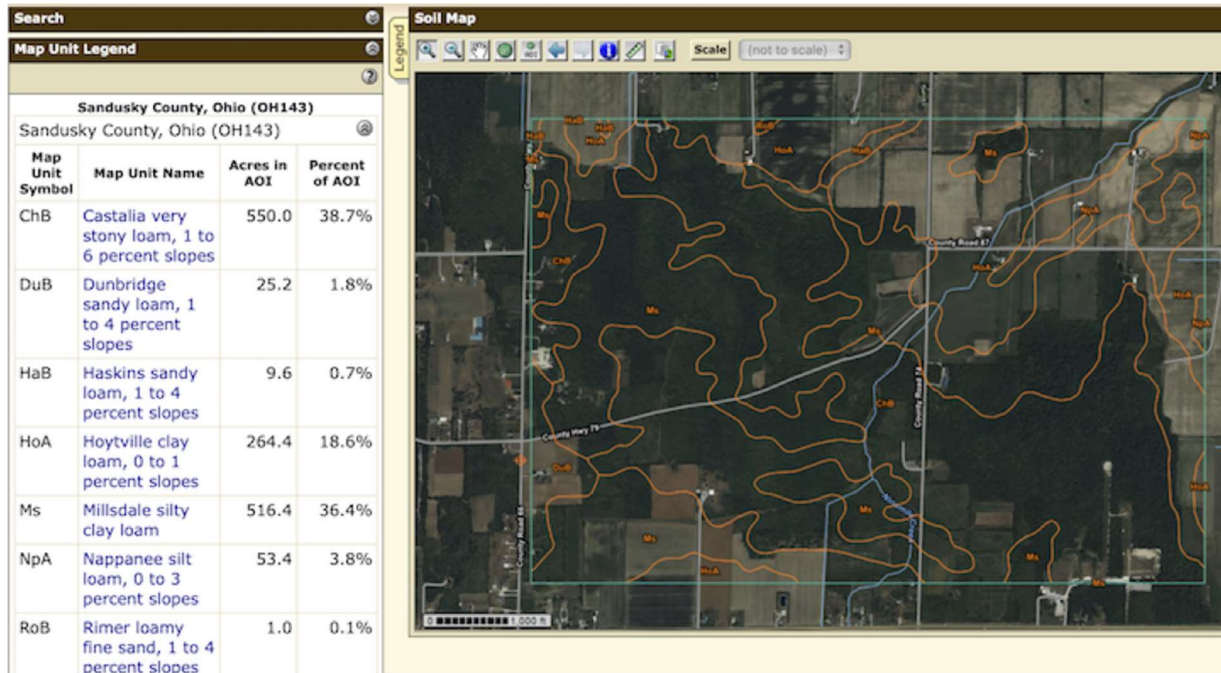
We're very grateful to the Sandusky County Park District for giving us permission to collect at Ringneck Ridge. Formerly a private hunt club, the 340-acre site has diverse habitats including open fields, woodlands, wet meadows and limestone barrens. The bedrock is Lockport dolomite of Silurian age. This fossiliferous dolomite contains minor amounts of limestone, chert and shale. It is bluish gray to gray, weathering to reddish gray to gray. The bedrock is less than 20 feet below the soil surface in this general area, hence there are a number of operating and abandoned quarries nearby.

BEDROCK GEOLOGY



Adapted from: Ohio Division of Geologic Survey, 2004. Shaded drift-thickness map of Ohio. Ohio Department of Natural Resources, Division of Geological Survey Map SG-3, generalized page-size version with text, 3 p. Scale 1:2,000,000.

SOILS



Downloaded from: <https://websoilsurvey.sc.egov.usda.gov/App/WebSoilSurvey.aspx>

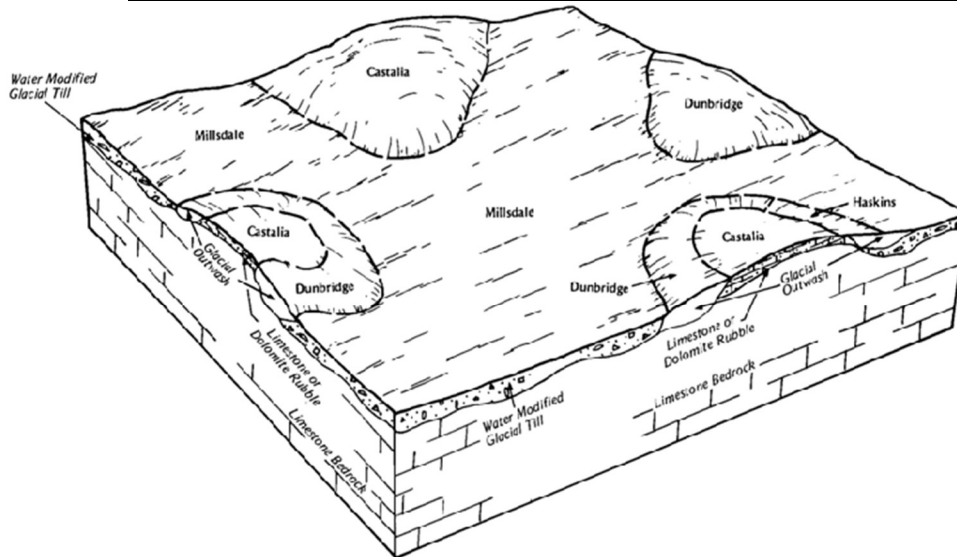


Figure 4.—Typical pattern of soils and parent material in the Millsdale-Castalia-Dunbridge association.

From: Soil Survey of Sandusky County, Ohio, by J.E Ernst and R.L. Hunter, Ohio Department of Natural Resources, Division of Soil and Water Conservation, 1987

After a morning of collecting, we had lunch just south of Gibsonburg, at the nearby White Star Park, which includes an abandoned quarry that is a popular scuba diving site.

We collected 47 moss taxa, of which 22 were new records for Sandusky County. *Tortella fragilis* is the second record known from Ohio, the other was collected by Henry S. Conard in 1950 at White's Gulch,

Jackson County. The only previously known sites for *Sanionia uncinata* in Ohio are in Cuyahoga, Erie, Lancaster and Ross counties. One of the two liverworts collected was a county record.

We collected 52 lichens, of which 38 are new county records. *Agonimia opuntiella* is particularly interesting. Ringneck Ridge is only the second record in Ohio for this species. The other specimen was collected by James Lendemer in Adams County in 2015.

SPECIMEN LIST

(N = New record for Sandusky County)

MOSSES

Amblystegiaceae

Anacamptodon splachnoides (Froelich ex Bridel) Bridel N

Calliergonella lindbergii (Mitten) Hedenäs
N

Campyliadelphus chrysophyllus (Bridel) Kanda

Drepanocladus aduncus (Hedwig) Warnstorff

Hygroamblystegium varium (Hedwig) Mönkemeyer var. *varium*

Leptodictyum riparium (Hedw.) Warnst.

Sanionia uncinata (Hedw.) Loeske N

Anomodontaceae

Anomodon attenuatus (Hedwig) Huebener

Claopodium rostratum (Hedw.) Ignatov

Brachytheciaceae

Brachythecium campestre (Müller Hal.)

Schimper N

B. falcatum (Grout) H.A.Crum N

B. laetum (Bridel) Schimper

B. rotaeantum De Notaris N

Bryoandersonia illecebra (Hedwig)

H.Robinson

Sciuro-hypnum plumosum (Hedw.) Ignatov & Huttunen N

Oxyrrhynchium hians (Hedwig) Loeske N

Bryaceae

Gemmabryum caespiticium (Hedw.)

J.R.Spence N

Ptychostomum pseudotriquetrum (Hedw.)

J.R.Spence & H.P.Ramsay

Climaciaceae

Climacium americanum Bridel

Dicranaceae

Dicranum scoparium Hedwig N

Entodontaceae

Entodon cladorrhizans (Hedw.) Müll.Hal. N

E. seductrix (Hedwig) Müller Hal.

Fissidentaceae

Fissidens adianthoides Hedwig

F. dubius P.Beauv. N

F. taxifolius Hedwig

Funariaceae

Physcomitrium serratum (Wilson & Hooker)

Müller Hal. [*Aphanorrhagma serratum*]

N

Grimmiaceae

Schistidium apocarpum (Hedwig) Bruch & Schimper

S. rivulare (Brid.) Podp.

Hedwigiaceae

Hedwigia ciliata (Hedwig) P.Beauvois

Helodiaceae

Helodium paludosum (Austin) Broth.

N

Hypnaceae

Campylophyllum hispidulum (Brid.) Hedenäs

N

Platygyrium repens (Brid.) Schimp.

Leskeaceae

Haplocladium virginianum (Bridel)

Brotherus N

Leskea gracilescens Hedwig

Mniaceae

Plagiomnium cuspidatum (Hedwig)
T.J.Koponen
P. ellipticum (Brid.) T.J.Kop. N

Orthotrichaceae

Lewinskya sordida (Sullivant & Lesquereux)
F.Lara, Garilleti & Goffinet N
Orthotrichum ohioense Sull. & Lesq. N

Pottiaceae

Gymnostomum aeruginosum Sm. N
Hyophila involuta (Hooker) A.Jaeger N
Syntrichia papillosa (Wilson) Jur.
Tortella fragilis (Hook. & Wilson) Limpr. N
T. humilis (Hedwig) Jennings
Weissia controversa Hedwig

Pylaisiaceae

Homomallium adnatum (Hedw.) Broth.

Thuidiaceae

Thuidium delicatulum (Hedwig) Schimper
T. recognitum (Hedwig) Lindberg

LIVERWORTS

Frullaniaceae

Frullania eboracensis Lehmann N

Lophocoleaceae

Lophocolea heterophylla (Schrader)
Dumortier

LICHENS

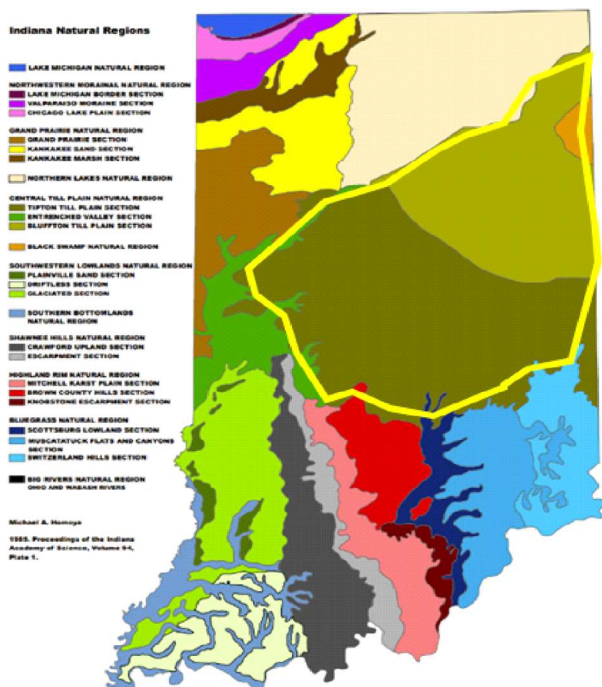
Agonimia opuntiella N, second Ohio
location, locally abundant
Alyxoria varia N
Bacidia granosa N
Bacidia suffusa N
Candelaria concolor
Catillaria fungoides N
Catillaria nigroclavata N
Chrysothrix caesia
Cladonia chlorophaea complex N
C. cylindrica N
C. furcata

C. macilenta var. *bacillaris* N
C. ochrochlora
C. peziziformis N
Coppinsidea croatica N
Crespoa crozalsiana N
Endocarpon pallidulum
Flavoparmelia caperata
F. baltimorensis N
Flavopunctelia soledica N
Hyperphyscia adglutinata N
Ionaspis alba N
Lecaniella naegelii N
Lecanora strobilina N
Lepraria finkii N
Melanelixia subaurifera N
Parmelia sulcata N
Parmotrema hypotropum N
Peltigera praetextata N
Pertusaria pustulata N
Phaeophyscia adiastrata
P. ciliata
P. insignis N
P. pusilloides N
P. rubropulchra
Physcia adscendens N
P. millegrana
P. stellaris
Placidium squamulosum N
Placynthium nigrum
Punctelia missouriensis N
P. rudecta
Pyxine soledata N
P. subcinerea N
Rinodina subminuta N
Scytinium lichenoides N
Traponora varians N
Verrucaria nigrescens N
Xanthocarpia ferracissima N
Xanthomendoza fallax
X. ulophyllodes N
X. weberi N

-James Topin

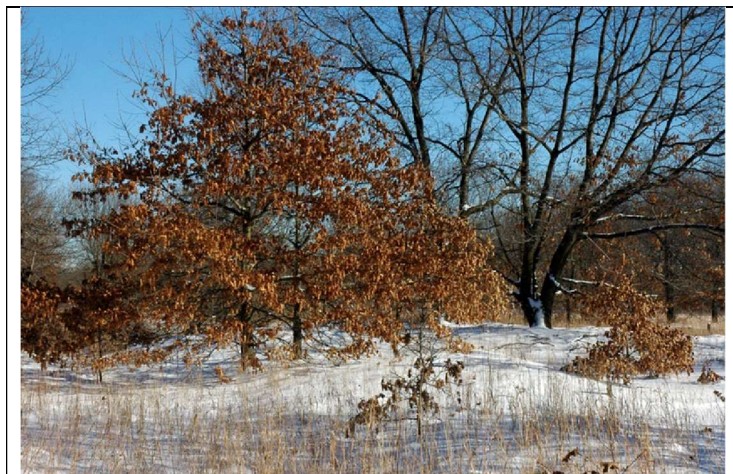
Exploring Indiana

This past year I got a yearning to explore Indiana. Why Indiana? It was the state my mom came from. I've had grandparents, an uncle and aunt and cousins who lived and still live there. I've visited them probably hundreds of times. My first job, as a soil scientist conducting a county soil survey, was in Indiana. I went to school there. I have learned that in many ways it is a beautiful state with friendly people, with about half the population of Ohio. Reading through the beautiful book "The Natural Heritage of Indiana" by the Indiana Academy of Science, made me want to explore the natural areas of Indiana more. Looking at it through the lens of two of my main natural interests, bryophytes (as well as other plants) and soils, seemed attractive to me.



Its natural areas, much like Ohio, are greatly underestimated and underappreciated. Like Ohio, when people think of Indiana, they often think of large expanses of cropland. For much of this erroneous thinking, blame I-70; it rolls across the natural regions that are presently mostly cropland in both Ohio

and Indiana, and peoples' thought tend toward "booooring". This area is bordered by the yellow line on the map of Indiana natural areas. Yet the other natural areas of Indiana outside this region have lots to offer. Even within the area that is largely cropland, once you get off the interstate, the country, even in farm country, becomes much more interesting. Even there, there are numerous small preserved and beautiful natural areas that are worth exploring.



John Merle Coulter Nature Preserve in northwest Indiana characterized by black savanna, wetlands, sandy soil, including sand dunes. Has a very diverse and large native flora.

The natural regions of Indiana are diverse and have numerous areas that are not represented or not well represented in Ohio. These areas include: Southern Bottomlands Region (large riparian areas near the Ohio River); Northwest Moraine Area (an end glacial moraine area with very diverse soil types and rugged glacial topography); Northern Natural Lakes Region (natural lakes, rough glacial moraine areas and large areas of glacial outwash); Entrenched Valley Area (numerous rock outcrops and ravines); and Southern Indiana (limestone or sandstone outcrops and cliff, deep ravines, karst areas, barrens, many small stream and other diverse habitats and substrates).



As far as cryptogam records in Indiana go, the short answer is they need work, lots of work. Of course, there are some areas that have been very well explored (the dunes area and well-known parks and areas with lots of cliffs, such as Turkey Run or Clifty Falls State Parks come immediately to mind). But many other areas, are under-explored for bryophytes, and certainly so for lichens.

A quick look at the Lichen Portal shows 4,000+ records (individual specimens donated to various herbariums) for Indiana; Ohio shows 23,000+ records.

A similar quick look for the Bryophyte Portal shows 21,000+ records for Indiana; Ohio shows 51,000+ records.



Moraine Nature Preserve in northwest Indiana. The 900-acre area has a combination of rolling hills, steep ridges, deep-woods gorges, muck pockets and potholes. Soils are very varied.

Talks with Indiana Department of Natural Resources Division of Nature Preserves; Indiana Herbariums, and others indicate little active work has been done for quite a while. The people I talked to seemed enthusiastic about the possibility of learning more about cryptogams and welcomed any interest OMLA might have.



A cypress swamp in the far southwest corner of Indiana. At Twin Swamp Preserve. The other in an overcup oak swamp. It is characterized by old growth forest. Including cherrybark oak, post oak, and sugarberry.

Although this is very much a personal interest, in talking to others, it seemed natural to invite them to join if they too are interested. I envision Indiana exploration remaining a strong interest for me, at least for a while. It is a way to explore new territory in a neighboring state that is a bit of a second home for me, without spending a lot of time or money doing so.

A special spring foray is being planned for the last weekend of April 2023. It will be held in northwest Indiana. See the accompanying article for more information.

-Bill Schumacher

BOB KLIPS BOOK NOW AVAILABLE

By now many of you already have Bob's book, but if you have not seen it, below is a paragraph that I wrote for the publisher to promote the book. Bob put several years of work into this project and the effort was certainly worthwhile. OMLA donated money to the publisher, as did many OMLA members, so that more of Bob's outstanding photographs could be included.

The book Common Mosses, Liverworts, and Lichens of Ohio by Dr. Robert A. Klips is a valuable addition to the library of every Ohio naturalist. The book is also very appropriate for surrounding states. The study of these usually-neglected organisms necessarily requires some technical jargon, but Klips' easy-to-read and frequently humorous writing style makes the process painless. While the book does not contain all the Ohio species of bryophytes and lichens, it covers the commonly seen ones with succinct descriptions and many 'gee-whiz' facts not found in more technical manuals. The identification keys are easy to use and each species is represented by exceptional photographs, both on the macro and micro scale. I would recommend this book to anyone interested in nature and wanting to know more about the fascinating world of mosses and lichens.

-Ray Showman

NEWS AND NOTES

OMLA Annual Meeting & Workshop

The OMLA annual meeting will be held Saturday, February 4, 2023, starting at 10 a.m. Please join us at the Portage County Park District Operations Center (8505 Nicodemus Rd., Ravenna, OH 44266). The operations center is in the renovated farm buildings and has an old silo out front. Please bring your own lunch.

There will be an afternoon workshop, open to members and non-members alike. It will cover the basics of lichens, mosses, and liverworts. Besides a presentation, there will be an open display of specimens, and equipment (microscopes, etc.) will be available for people to use and examine. Feel free to ask questions!

Addendum to SPRING FORAY IN SANDUSKY COUNTY

Just before publication time, one member submitted their moss species list from the Sandusky County spring foray. The five species below are all new for that foray list, as well as being new records for the county. They were mostly collected from limestone outcrops along Nine Mile Creek at Ringneck Ridge Wildlife Area.

Amblystegium serpens N
Cirriphyllum piliferum N
Fontinalis sp. N
Ptychomitrium incurvum N
Tortula mucronifolia N

-Carole Schumacher, co-editor



Spring Foray June 18, 2022

Back row left to right: Ian Adams, Dean Porter, Jim Topin, Barb Andreas, Ray Showman, Cooper Johnson, Sophia Soboro; Front row left to right: Bill Schumacher (with Benny), Carole Schumacher (with Cash), Janet Traub

-photo by Ian Adams



Fall Foray September 24, 2022

Left to right: Jim Topin, Dean Porter, Janet Traub, Ray Showman, Kathy Long, Bob Long, Becky Smucker, Shaun Pogacnick, Barb Andreas, Tomás Curtis, Megan Osika, Joshua Copen, Brandon Ashcraft, Bob Klips

-photo by Bob Klips

