

MAY 2021

THE NODDING ONION

Newsletter of the Northeast Chapter of the Illinois Native Plant Society

WHAT'S IN THIS ISSUE:

Illinois Botanists Big Year 2021
Tall Goldenrod Management in Prairies
Biography of Mary Agnes Chase
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Upcoming Chapter Events

Phlox divaricata by Mark Kluge

From the President

The Northeast Chapter's new Field Trips Coordinator Ingrid Felsl is off to a big start with numerous trips already done and many more planned for the rest of the year. First up was a hike at Deer Grove for a bit of "corpse botany" with Jeff Weiss – identification of plants in their winter garb. In late April we checked out the spring blooms at Trout Park with Sue Bohne. Also in April, we kicked off a partnership with the Chicago Ornithological Society with two virtual programs: "Beginning Birding for Botanists" and "Beginning Botany for Birders" as well as birding/botanizing trips at Big Marsh and planned for LaBagh Woods and Orland Grassland in May and June. Also, it was great to see so many of your faces at the Annual Chapter Meeting back in March – anyone up for another round of botany trivia? If you think it might be fun to lead a hike or other event, reach out to us at northeast.inps@gmail.com.

I am happy to share that the **Illinois Native Plant Society now has a Sponsored Membership option** for folks who need it. As you know, the cost of

membership is \$25 annually for individuals. Membership dues and donations fund all our organizational costs, activities, and grant programs, and come with perks like priority RSVP to events that have limited attendance, chapter and state newsletters, the *Erigenia* journal, and discounted prices for our annual statewide gathering (to be determined whether we will have one this fall). I remember when \$25 wasn't far off from my entire bank account balance and paying any amount for something that seemed "extra" just wasn't an option.

Thank you to our new At-large Chapter Board Member Eriko Kojima for the suggestion, which was adopted by the state governing board in April 2021. Please spread the word; I hope some new members are able to join us this year! If you haven't yet renewed your membership for 2021, you can do so at <https://illinoisplants.org/member>.

Happy botanizing!
—cassi saari

Mayapple city (*Podophyllum peltatum*) at Jarvis Bird Sanctuary by cassi saari



Field trip to Deer Grove to study "corpse botany", all photos by Ingrid Felsl



Monarda fistulosa (wild bergamot) at Deer Grove



Fruit of *Staphylea trifolia* (bladdernut) at Trout Park



Thalictrum dioicum (early meadow rue) at Trout Park



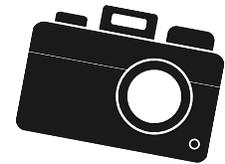
Illinois Botanists Big Year

The 2021 growing season is nearly in full swing! Learn how you can join in on the fun of the sixth annual statewide ILBBY.

Find the most plant species in Illinois in 2021 and rejoice in your victory! Anyone may participate, from professional botanist to plant identification novice, by uploading photographic proof of their plant sightings to iNaturalist. Each observation will automatically count toward the contest if you've joined the project and the observation meets the rules below.

Rules:

1. Must be a plant (bryophytes and vascular plants – native and non-native species are accepted),
2. Observed in Illinois,
3. Observed in 2021 (and uploaded by January 15th, 2022), and
4. Research Grade (that means it must be “wild/naturalized” and that you need a photo, date, location, and at least two people or >2/3 consensus on a species ID, in order to confirm the identification accuracy)



Join the ILBBY 2021 project on iNaturalist



Erigeron pulchellus
(Robin's-plantain)
By Daniel Pohl, CC BY-NC



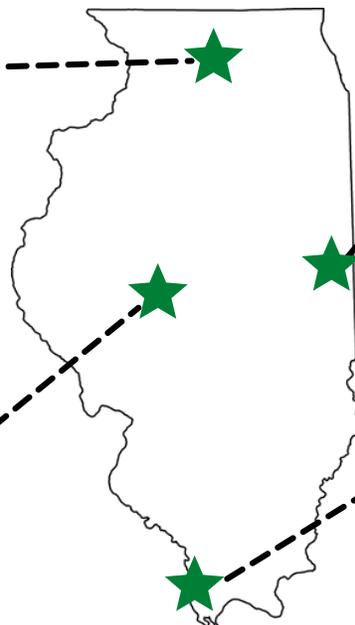
Viola pedata
(bird's foot violet)
By Paul Marcum, CC BY-NC



Erysimum capitatum
(western wallflower)
By Jeff Skrentny, CC BY-NC



Phacelia purshii
(Miami mist)
By Erin Faulkner, CC BY-NC



Tall Goldenrod Management in Tallgrass Prairies

By Alexis Balog

Tall goldenrod (*Solidago altissima*) is an aster family species native to a large portion of North America and introduced to Europe and Asia. This species has the beautiful golden-yellow flowers typical of other goldenrods, and blooms from late summer into the fall. The plants tend to stand out at the end of their flowering period after other species have gone to seed, and beyond that when the tall goldenrod flower heads turn into white puffballs of seeds.

Tall goldenrod is a common sight for restoration ecologists and land managers hoping to improve prairie and old field plant communities. It often thrives in disturbed areas where other species have not yet established. This species may also deter invasive species growth via its rhizomes and allelopathic chemicals. However, once rooted, tall goldenrod is liable to become highly aggressive. It can easily choke out not only invasive species, but other native species important to the plant community. Studies in the U.S. and abroad have investigated the effect of tall goldenrod on the community and how to curb its spread.

Here in northeastern Illinois, tall goldenrod is a concern for land managers and researchers with the Chicago Botanic Garden (CBG) and Forest Preserves of Cook County (FPCC). It occurs in high densities in numerous tallgrass prairie and old field habitats in the Chicago area, including two FPCC properties where I am researching tall goldenrod management methods. These properties include Bartel Grasslands and Bobolink Family Area, both of which have been the focus of restoration and management activities, but to differing degrees. At Bartel, tall goldenrod has been mowed every fall for multiple years, and anecdotal reports suggest this has decreased the overall density of the species in many areas. At Bobolink, mowing has not recently occurred, and the density of tall goldenrod is quite high in multiple areas.

My research studies the effects of mowing and seeding treatments on tall goldenrod populations at these two sites. I am testing four treatments: 1) fall mowing, 2) seeding, 3) fall mowing and seeding, and 4) no mowing and no seeding (control). Treatments were performed in areas where overall tall goldenrod cover was at least 50%. For the mowing treatments, FPCC conducted mowing in October 2020. For the seeding treatments, I used twelve native species selected after consulting land managers, other researchers, and species lists from past surveys at Bobolink provided by the FPCC. The seeds included species shown to perform well with tall goldenrod in experimental prairie plots at the Morton Arboretum, based on research conducted by PhD student Adrienne Ernst. I collected and purchased seeds from September to October 2020, cleaned and weighed the seed at the CBG science center to achieve a more accurate estimate of Pure Live Seeds sown per square meter, and I sowed seeds in December 2020 to allow them to overwinter naturally.



Prior to implementing the treatments, I counted tall goldenrod stems and conducted vegetation surveys within each study plot. This summer I will work with an undergraduate intern as part of Chicago Botanic Garden's summer Research Experiences for Undergraduates program to conduct additional vegetation surveys, and to investigate differences between the tall goldenrod populations at Bartel and Bobolink. I will also conduct final vegetation surveys in the fall to see if the imposed treatments explain changes in the tall goldenrod population. While my Master's research will conclude after this Fall, we know that restoration is a long-term process, and CBG will continue to monitor these plots over the long-term to ultimately share our findings with the community.

Alexis F. Balog is a Master's student in the Plant Biology and Conservation program at Northwestern University and the Chicago Botanic Garden. She studies tall goldenrod management around Chicago under Andrea Kramer, the Director of Restoration Ecology at the CBG.

Want to learn more about tall goldenrod management? Check out Karen Glennemeier's research on tall goldenrod in oak woodlands in the Spring 2021 issue of [The Harbinger](#), the statewide newsletter of the Illinois Nature Plant Society.



Upper right: Tall goldenrod by nickwd on iNaturalist, CC BY-NC
 Bottom left: Stand of tall goldenrod gone to seed at the Bartel Grasslands site. The white frame marks the quadrat for a vegetation survey and tall goldenrod stem count. By Alexis Balog.
 Bottom right: Stand of tall goldenrod after mowing at the Bartel Grasslands site. By Alexis Balog.

Botanist Biographies: Mary Agnes Chase

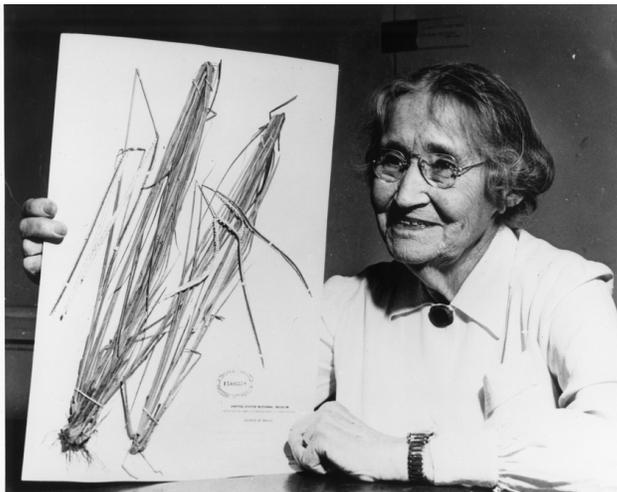
By Kathleen Garness

While researching an article for *Erigenia*, the peer-reviewed journal of the Illinois Native Plant Society, I ran across a notation about a "Mrs. Chase." Since she was the only woman mentioned amid many eminent male botanists, my interest was piqued. A cursory internet search for her yielded no immediate helpful results so I dropped it for a while. But then the trail grew warm again and I found out more about this fascinating woman.

Born April 20, 1869, in Iroquois County, Illinois, Mary Agnes Meara's life was touched by tragedy and struggle from the very beginning. In late July 1871, her mother left their farm in Onarga Township with her five young children (Sarah, 13; Rose, 8; Joseph, 5; Mary Agnes, 2; and a newborn, whose fate is not recorded) after the untimely death of her husband Martin, traveling at least one hundred miles to her uncle's home in Chicago, where her widowed mother was living.

Three months later, Chicago would go up in flames, in the famous Chicago Fire of 1871. It's hard to imagine the impression of these unsettling times would have had on young Mary Agnes and her family, so I will leave it to the reader to mull for now.

She worked for newspapers as a typesetter and a proofreader to help support her mother. In 1888, she married William Ingraham Chase, the editor of the *School Herald*, but he died less than a year later from tuberculosis. She returned to proofreading in the evenings to pay off his debts, studying at the University of Chicago during the day. A trip to the plant exhibits at Chicago's World's Columbian Exposition in 1893 with her nephew Virginius Chase rekindled her interest in plants.



Above: Mary Agnes Chase and an herbarium specimen. Courtesy of the Smithsonian Institution Archives.

Right: Herbarium collections made by Chase around Chicago, from top to bottom: *Thelypteris palustris* (marsh fern) in 1896, *Dalea purpurea* (purple prairie clover) in 1901, seeds of *Heracleum maximum* (cow parsnip) in 1896, and *Asarum canadense* (wild ginger) in 1898. Courtesy of The Field Museum.



The earliest digitized specimen on vPlants by Agnes Chase is that of *Woodwardia virginica*, 12 July 1891. The earliest numbered digitized specimen is Chase's collection #436, from her series "Flora of Lake Michigan" of *Cyperus houghtonii*, dated 9 August 1897. A quick glance at vPlants records allows us to contrast Agnes' collection numbers with Virginius' #4419 in his 29 July 1895 collection of *Asclepias incarnata*, for his series "Flora of Stark County Illinois," to see Virginius had had a much earlier start on his work than his aunt.

She must have persuaded Virginius to head east to chase orchids because there is his record of *Platanthera ciliaris* from a "thicket bordering slough, Miller, IN" 2 August 1897. Agnes had been "west of Wilson, Lake, IN" earlier in the month and found what was originally identified as *Platanthera clavellata*. (Mike Homoya updated that in 1990 to *Platanthera flava* var. *herbiola*). The original label on this is "Herbarium of Virginius H. Chase" but Agnes is listed as the collector, so a collaboration, even a joint visit, is implied here.

In 1898, while collecting specimens in a swampy area near Chicago, she met Ellsworth Jerome Hill, a botanist specializing in mosses and liverworts. He encouraged her enthusiasm for botany, taught her to use a microscope to illustrate new species that he had discovered. Charles Frederick Millspaugh, curator of botany at the Field Museum of Natural History, then persuaded her to illustrate (for free) two new publications: *Plantae Utowanae* (1900) and *Plantae Yucatanae* (1904). She monetized her skill in microscopy, working as an inspector for Chicago's meatpacking industry. But Hill thought she could do better. In 1903, she got a job as a botanical illustrator for the U.S. Department of Agriculture's Bureau of Plant Industry in Washington, D.C. Because she was a woman, she was not encouraged to go on field expeditions with male scientists, so she organized and funded her own. When her mother died, she moved her sisters to Washington to look after them. Chase built an international community of women scientists, welcoming them to her home when they visited the U.S.A.

**"Grass is what holds
the earth together."
Agnes Chase**

Chase is well known for publishing the title First Book of Grasses: The Structure of Grasses Explained for Beginners. She became the senior botanist and head of the USDA Systematic Agrostology department, and was an Honorary Fellow of the Smithsonian Institution.

For a fuller treatment of Chase's story, see the Mary Agnes Chase [Wikipedia page](#). Chase's adventures are also featured in two books by [Marcia Myers Bonta](#).

Chase's field books are in the collection of the Smithsonian Institution and many of her original pen and ink illustrations are housed at the [Hunt Institute for Botanical Documentation](#).



Elymus hystrix (bottlebrush grass) illustration by Agnes Chase, from the Hitchcock-Chase Collection of Grass Drawings. Courtesy of the Hunt Institute for Botanical Documentation.

An Overview of The Morton Arboretum Natural Areas Conservation Training Program

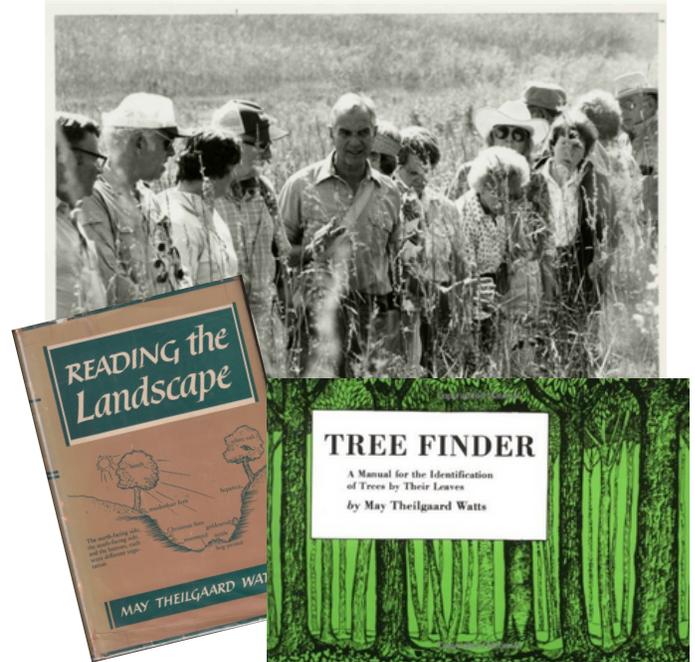
By Kathleen Garness

The Morton Arboretum is iconic for many reasons. And I'm not sure founder Joy Morton had any idea that his grand idea would evolve into an international center for tree research, centered in its labs and respected herbarium, almost 100 years later. In 1940, their first superintendent, Clarence Godschalk, hired teacher May Theilgaard Watts. May was an artist, author, and naturalist, famous for her books *Reading the Landscape*, *Tree Finder*, and many others. But she was most loved for her hands-on education and conservation work, including the establishment of the Prairie Path. One of my first classes at the Arboretum was with Jack Schouba, who taught us the "Know your oaks" song that May had taught him. Clarence also hired Ray Schulenberg to establish a "native planting" on the Arboretum grounds, which prairie is now named after Ray himself.

Between May and Ray, generations of naturalists developed a deep connection to our flora. And Ray, in partnership with botanist Floyd Swink, was also intimately involved in the development of a several editions of a catalogue—*Plants of the Chicago Region*—of all the plants naturalized here in our preserves. And that in turn, inspired Dr. Gerould Wilhelm and Laura Rericha to write the encyclopedic *Flora of the Chicago Region*, which not only contains the plants but also many insects and other associated species.

This history underscores the strong foundation the Arboretum has provided for ... understanding the complexity and value of our remnant landscapes, and helping us develop an ethic of stewardship for them.

Ray Schulenberg (center) and students in the Schulenberg Prairie.
Courtesy of The Morton Arboretum.



This history underscores the strong foundation the Arboretum has provided for ongoing, essential work in understanding the complexity and value of our remnant landscapes, and helping us develop an ethic of stewardship for them. An influential group of natural areas advocates emerged from this community. But educational methods that worked in the past needed to be retooled for new audiences. In-person classes gave way to online programming or blended learning experiences.

As a graduate of their Scientific and Botanical Art Certificate at Morton in the early 2000s, and a natural areas steward at two sites since 2003, I wondered what would their new classes be like? Could I recommend them to our seasoned as well as new stewardship volunteers? So I signed up for the Natural Areas Conservation Training Program.

Dr. Megan Dunning, Manager of Adult Learning Programs, summarizes the program here:

"The Natural Areas Conservation Training (N-ACT) Program, formerly known as the Woodland Stewardship Program, was established by The Morton Arboretum in 2008 as an in-depth training and certification program with the purpose of empowering regional volunteers and professionals to restore and manage our natural heritage. The role of volunteer leaders in the success of managing and restoring our natural areas has been proven throughout the Chicago region as well as in many other parts of the world. Supporting the health and conservation of the natural resources that support our communities and trees through empowering community leaders is an essential part of the Arboretum's work.

In 2015, the program was retooled to offer both interactive online learning and hands-on experiences with experts in the field. With this change, we've seen a notable increase in learners from all over participating in the program. Through courses in forest, prairie, and wetland ecology, plant identification, invasive species management, and volunteer leadership, we see participants developing their skills as restoration leaders. Graduates have become site stewards, started grassroots environmental organizations, become elected Forest Preserve Commissioners, entered careers as restoration professionals, and written and advocated for restoration. Over 950 individuals have participated in classes in this program, while partnerships with volunteer organizations in Kane County, Cook County, Wisconsin, and Missouri, as well as a scholarship program for current volunteers through The Nature Conservancy have expanded the program's reach far beyond the boundaries of the Arboretum."

"The role of volunteer leaders in the success of managing and restoring our natural areas has been proven throughout the Chicago region as well as in many other parts of the world."

So far I have completed eight classes in their program and found them excellent. There's a level of depth in the links to each class's additional resources that makes the program suitable for a range of interests and experience. Christopher David Benda, former president of INPS, teaches Botanical Names Demystified; and I loved seeing many familiar faces as part of our community of natural areas' leaders featured in others. While I sometimes miss the casual social contact offered by in-person classes, I appreciate the opportunity to go through the program materials at my own pace, spend way less time in my car, and spend more time hands-on in natural areas with other volunteers.

[Click here for more information about the Natural Areas Conservation Training \(N-ACT\) Program.](#)

Online and in-person classes offered by The Morton Arboretum Natural Areas Conservation Training Program include:

- Introduction to the Natural Areas Conservation Training Program
- Basic Plant Identification
- Basic Tree Identification
- Native Plant Identification
- Invasive Plant Identification
- Woodland Ecology
- Plants of Wetlands
- Sedge Identification
- Applying Herbicides in Natural Areas



Left: A stewardship workday at Theodore Stone Forest Preserve.
Above: Prairie at Bluff Spring Fen Nature Preserve.

Calendar

View all event details and COVID-19 safety precautions on the [Northeast Chapter Events page](#).

Northeast Chapter Board Meetings

Tuesday, May 11 & Tuesday, July 13 from 7:00 PM – 8:30 PM

Our organizing team is meeting virtually every other month. If you are interested in attending these planning meetings, receiving meeting notes, or getting involved in other ways, please contact us at northeast.inps@gmail.com.

Powderhorn Prairie and Marsh Nature Preserve

Saturday, June 19, 2021 from 9:00 AM – 2:00 PM

RSVP

Powderhorn Prairie and Marsh is the only Illinois Nature Preserve in the Chicago city limits. It is home to about 250 plant species, 2500 species of insects, and 100 species of birds. Originally once part of the tallgrass prairie-savanna-wetland matrix in the Calumet region, 130 acres of the 192-acre preserve were designated as a Nature Preserve to protect its globally rare dune and swale topography. This event will start at 9am by joining volunteers in restoring Powderhorn Prairie and Marsh Nature Preserve. We will then break for lunch at 11:45am and resume a tour of the Nature Preserve at 12:15pm, ending around 2pm. Learn more about Powderhorn Prairie and Marsh and ongoing projects to connect Powderhorn Lake to the nearby Wolf Lake and Calumet River [here](#).



Moehringia lateriflora
(bluntleaf sandwort)



Hypoxis hirsuta
(yellow star grass)



Carex scoparia
(pointed broom sedge)

All photos by Jeff Skrentny, CC BY-NC

Birds and Botany Walk at Orland Grassland

Saturday, June 19, 2021 at 12:00 PM & 2:00 PM

RSVP

Join Chicago Ornithological Society and Illinois Native Plant Society, Northeast Chapter for a joint journey through one of the largest restored prairies in the county. Experts from both organizations will be on hand to highlight birds and plants that make this site such a popular destination for birders and botanists alike! This preserve can be muddy, so you may want to wear old boots, or preferably rubber knee-highs.



Spinus tristis
(American goldfinch)
By Ben Zerante, CC BY-NC



Dalea purpurea
(purple prairie clover)
By kstormblessed60, CC BY-NC

Illustration by Kathleen Garness



Contribute to *The Nodding Onion*

We're looking for submissions!
Do you have an article, artwork,
photos, or other content you'd like
to share with the *Nodding Onion*?

Contact Katie Kucera,
Newsletter Editor, at:
inpsnews@gmail.com

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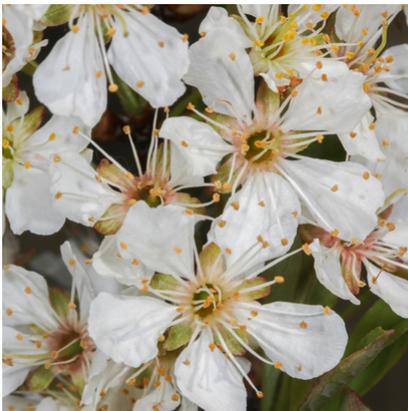


Viola cucullata (marsh blue violet)
by Katie Miller, CC BY-NC

The Illinois Native Plant Society is a volunteer-led, member-based organization with dues comprising the majority of our revenue. Please renew and encourage friends to join. Join or renew on our website:

<https://illinoisplants.org/member>

As a member of the Illinois Native Plant Society, you contribute to our mission of promoting the appreciation, conservation, and study of the native flora and natural communities of Illinois.



Prunus pumila (sand cherry)
by cassi saari

As a member, you receive:

Erigenia: our peer-reviewed scientific journal

The Harbinger: the statewide newsletter

The Nodding Onion: our chapter newsletter

Notification for and priority RSVP for events, including the statewide Annual Gathering, guided field trips, lectures, workshops, and other events.



Carex buxbaumii (Buxbaum's sedge)
by Susan Deans

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