

THE NODDING ONION

Newsletter of the Northeast Chapter of the Illinois Native Plant Society

Photo: *Viola pedata* by Anna Braum



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Photo: *Allium cernuum* by Mark Kluge

Welcome from the Board

Welcome to our first issue of the Nodding Onion. An apt name for an April 1st release, but we're sticking with it. In our recent plant poll, nodding wild onion (*Allium cernuum*) was the top-voted plant to represent the Northeast Chapter, followed by Kalm's St. Johnswort (*Hypericum kalmianum*) and eastern prairie fringed orchid (*Platanthera leucophaea*). Given the broader distribution and abundance of nodding onion throughout our chapter region, the association of the genus *Allium* with Chicago, and its ready availability for planting in home gardens, this pretty little flower seems a good fit for us. Kathy Garness is working on some artwork to accompany our selection.

Thank you to all who came out to our chapter meeting at Thatcher Woods in early March. We elected new board positions and began planning events for 2019. We also had our first "Field" trip of the year, a tour of the herbarium at the Field Museum. Iza Redlinski wrote up a full report for this newsletter.

Have an idea for an event? Get in touch with Iza, our new field trips coordinator, at:

izabella.redlinski@gmail.com.

Look for this newsletter in your inbox a few times a year, but you can also stay up-to-date with chapter happenings through social media and **our website**, which lists our upcoming events.

Want to submit an essay, article, artwork, or other content to The Nodding Onion? Reach out to Anna Braum, the newsletter editor, at: inpsnews@gmail.com

We hope to see you at an upcoming event. Happy botanizing!

—cassi, Mark, Jason, Kathy, Iza, Anna, and Sheri of the Northeast Chapter Board

Meet Our New Board

cassi saari, *President*: I am an ecological consultant and field botanist involved in planning and monitoring habitat restoration projects throughout the Chicago region. I take part in a lot of community science projects, such as serving as a volunteer curator on iNaturalist.org, organizing the Illinois Botanists Big Year competition, and monitoring Plants of Concern, as well as cutting brush as a roaming restoration volunteer. I was formerly a member of the state governing board of the Illinois Native Plant Society and I'm excited to start organizing locally.

Mark Kluge, *Vice President*: My interest in native plants started with restoration work at Ted Stone Forest Preserve in Hodgkins. In 2008 I trained as a Plants of Concern monitor, and I assisted Barbara Birmingham in a volunteer plant class for three years. I am currently a Key Steward, one of the volunteer stewards group that interfaces with the Forest Preserves of Cook County. I am an avid user of iNaturalist, and have recorded observations of over 1,100 plant species. In 2014 I was honored to receive the Habitat Project Conservation Leadership Award for strategic seed collection and compiling plant lists for several forest preserves. I have been a member of INPS since 2015.

Jason Zylka, *Treasurer*: I am an ecologist with the U.S. Army Corps of Engineers. I earned my Master's degree in Natural Resources from the University of Illinois as part of Dr. Brenda Molano-Flores's Plant Ecology Lab. I have been treasurer for the Northeast Chapter for several years now and am happy to be continuing in that role. I am also an at-large member of the INPS state governing board.

Kathy Garness, *Membership Chair*: I have met many of you through 18 years of Plants of Concern monitoring; helping with the Wild Things conference; Cook and Lake County stewardship work; and building regional collaborations through publishing the Common Plant Families of the Chicago Region rapid color guide on the Field Museum's website. (My orchid artwork is also featured by the Smithsonian.) I love to engage people in the many intersections between art and science, and bring people together who are committed to learning about and protecting our precious native flora.

Iza Redlinski, *Field Trips Coordinator*: I am an ecologist and nature lover. I first got into loving native plants by the way of restoration for ecosystem services but now fully embrace biodiversity for its own sake. I now garden with natives in my small Chicago lot and do guerrilla native plantings at family and friends' houses. I am also the volunteer steward at the Forest Preserves of Cook County's Brookfield Woods Prairie. I dream of the day when I will have no problems identifying sedges.

Anna Braum, *Newsletter Editor*: As an ecologist at the Chicago-based nonprofit the Wetlands Initiative, my work focuses on restoring diverse plant communities at a landscape scale. Previously, I monitored rare and listed plant species as a research assistant with the Chicago Botanic Garden's Plants of Concern program. I am looking forward to collaborating with the Northeast Chapter board and the wider membership to create engaging newsletter content concerning the flora of our region. I am also an at-large member of the INPS state governing board.

Sheri Moor, *Member-at-large*: I'm excited to have the opportunity to help out in the re-launch of the INPS NE chapter! My botanical education and experience include restoration work locally, both professionally and as a volunteer with the Forest Preserves of Cook County. As a transplanted Wisconsinite and relatively new member of INPS, I've explored just a small fraction of the great field sites throughout Illinois, mostly on solo treks. While I've benefited tremendously from the botanical expertise of the virtual iNaturalist community over the last two years, I've often missed the camaraderie of wandering a newly discovered site with fellow botany enthusiasts. This year, I'm looking forward to rectifying that situation, helping to promote fun field trips, exchange information about our flora, and support the NE chapter members in getting out into the field together.

How to Learn Your Flora in 2019

by cassi saari

Crunchy brown leaves, drab gray skies, and a lot of snow didn't stop Illinois plant enthusiasts from botanizing this past winter.

Over 130 people have logged 1,800+ observations of around 400 different plant species already in Illinois in 2019. Top dog as of April is Jared Gorrell (@wildlandblogger), a student at Southern Illinois University in Carbondale, but Derek Ziomber (@dziomber) and Sheri Moor (@missgreen) of northeastern Illinois are on his tail like spring.

The Illinois Native Plant Society has run the Illinois Botanists Big Year competition each year since 2016, using the [iNaturalist.org](https://www.inaturalist.org) platform. Anyone may participate, from professional botanists to plant identification novices, by uploading photographic proof of their plant sightings. Through the website or mobile apps, botanical enthusiasts upload photos, a species identification, GPS location, date of sighting, and field notes. Since other users and iNat's automated image recognition feature can help with identification, participants don't need to be plant experts.

Past participants have used the contest as a personal challenge to learn previously overlooked groups of plants or ecosystems. In 2018 we collectively found almost 1,500 different species of plants. Erin Faulkner (@elfaulkner) documented the most species: over 860 verified by the community! View the [full results on the INPS website](#) and flex your ID skills by helping identify plants for other participants.

Want to join in the fun? Just add your plant photos to the [iNaturalist.org](https://www.inaturalist.org) website or iPhone/Android app and it'll automatically count toward the contest if it meets the rules below:

- Must be a plant (bryophytes and vascular plants – native and non-native species are accepted).
- Observation must be within Illinois.
- Must be observed between the dates of January 1st, 2019 and December 31st, 2019.
- Observation must be “research grade.” That means it must be “wild/naturalized” and that you need a photo, date, location, and at least two people to agree on the species, to confirm the identification accuracy.



Photo: *Passiflora incarnata* by Erin Faulkner

Botanists Find *Thismia*

by Iza Redlinski

...at the Field Museum herbarium, that is! On March 17th, instead of watching the Chicago River being colored green and enjoying green carbonated beverages, a group of local botany enthusiasts from the Northeast Chapter of the Illinois Native Plant Society visited the Field Museum herbarium to look at rare plant collections, including the exclusive and elusive *Thismia americana*.

Thismia americana, or banded trinity, is (we refuse to use the past tense) a plant first described over 100 years ago by Dr. Norma Pfeiffer after she found it on Chicago's South Side, while doing research near Lake Calumet. The holotype and a few other samples of the plant are found in the Field Museum herbarium. Local botanists and nature enthusiasts have been doing periodic *Thismia* hunts since 1948 in an attempt to find this enigmatic species once again, as it has not been seen for over a century.



Photo: *Thismia americana* by cassi saari



Photo: Field trip participants by cassi saari

The herbarium tour took 26 people behind the scenes of the Museum to view highlights of the collection, and to hear about the herbarium's history and its strengths as a collection. Members of INPS took interest in the herbarium's local collections, including rare, threatened and endangered plant specimens. These included an Illinois endemic plant species, the Kankakee mallow (*Iliamna remota*), described by E.J. Hill, a local naturalist.

The trip was organized by conservation ecologist and INPS member Iza Redlinski. It was greatly enriched by the presence of Michael Huft, a research associate in the collections who worked at the herbarium through the 1990s, as well as Matt von Konrat, Head of Botanical Collections, who showcased and explained the digitization process. The trip was a great start to the upcoming growing season and got many plant enthusiasts out of their winter funk!

Genetic Health of the State-Endangered Downy Paintbrush (*Castilleja sessiliflora*) in Illinois

By Katie Wenzell, PhD candidate
Northwestern University, Chicago Botanic Garden

Downy paintbrush (*Castilleja sessiliflora*) is a wildflower native to dry prairies in the central United States. Though considered secure throughout most of its range, downy paintbrush is endangered in Illinois.

Troublingly, recent research has indicated that downy paintbrush experiences low fruit set in Illinois, meaning it may be struggling to produce healthy seeds. While this could be due to a number of reasons—stressful environmental conditions or a lack of available pollinators—one concern for rare plants in particular is poor genetic health. This is because downy paintbrush, like many species of paintbrush, is believed to be self-incompatible, meaning it cannot set seed by self-pollination or by mating with a close relative.

Photo: *Castilleja sessiliflora* by Sadie Todd



INPS Grants Research

The Illinois Native Plant Society Research Fund was developed to promote the conservation of Illinois native plants and communities through scientific research.

This occurs if nearby plants are too genetically similar to mate with each other. For this reason, rare species growing in small populations with low genetic diversity may be at risk for inbreeding depression and low reproductive success, which can ultimately lead to population decline.

I undertook a study, with the support of the Illinois Native Plant Society Research Grant, to characterize the genetic health of downy paintbrush both in Illinois, where it is endangered, and across its range, where it is common. Using genetic markers developed by my advisor Dr. Jeremie Fant, and with help from undergraduate interns Kristen Manion and Marina Malone and high school student Jasmine Uruchima, I measured the genetic similarity among downy paintbrush plants growing all the way from southwestern Texas to Minnesota and Illinois. Using these genetic fingerprints, I calculated the genetic diversity of downy paintbrush across its range, as well as its levels of inbreeding (the likelihood that a plant is descended from closely related individuals).

I learned that downy paintbrushes in Illinois have experienced inbreeding in the past, but these levels are lower here than elsewhere in the range, suggesting this is probably not due to living in small, endangered populations. I also found that genetic diversity is in fact lower in Illinois and that the northern range as a whole is less genetically diverse than the southern range. This pattern might be due to the species' history of colonizing the northern range more recently, after the glaciers retreated, or it may relate to the lack of suitable prairie habitat in the Upper Midwest, due to the region's fragmentation and conversion to croplands. However, despite genetic diversity being lower in the Midwest, overall levels of diversity remain moderate across the range. This means that downy paintbrush is not genetically impoverished and is unlikely to be experiencing severe negative consequences as a result of its genetic health.

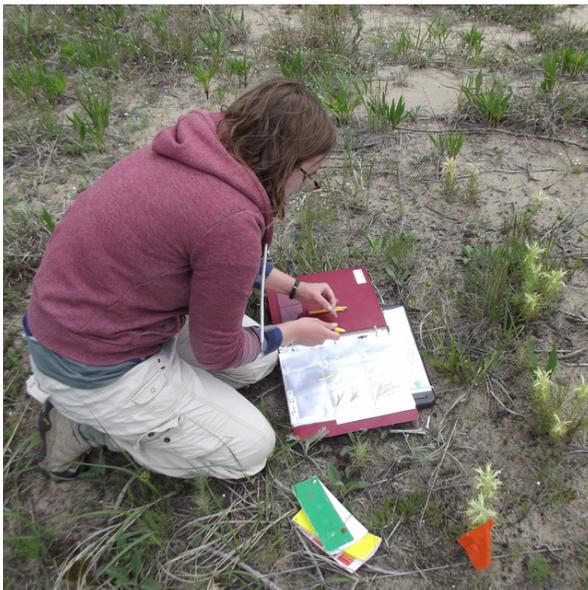


Photo: Katie Wenzell by Krissa Skogen

In conclusion, despite being endangered in the state, downy paintbrush remains in good genetic health in Illinois compared to the rest of its range. While reports of low seed set in Illinois could signal low reproductive success, a severe lack of genetic diversity is unlikely to be the cause. Other ecological drivers, such as low pollination rates, could instead be to blame.

To this end, I'm currently undertaking additional studies to examine pollinator visitation rates to downy paintbrush in Illinois and elsewhere, with support from the Friends of Nachusa Grasslands and the Illinois State Academy of Science. Early results show that pollinator visits to this species may be infrequent, though further work is needed to conclude whether low pollination, rather than low genetic diversity, is driving low fruit set. Whatever the cause, only by conducting detailed research on rare and endangered plants can we understand the factors that may help or hinder their persistence in Illinois. Thanks to the support of the Illinois Native Plant Society and others, we have gained valuable knowledge about the genetic health of the endangered downy paintbrush, thus informing future management decisions and contributing to INPS's mission of understanding and conserving the native plants of Illinois.

"Overall levels of diversity in downy paintbrush remain moderate across the range of the species."

Calendar

Upcoming events in our region..

NE Chapter Meetings

Tuesday, April 9 & June 11

7:00 - 9:00 p.m.

Our organizing team is meeting every other month in 2019. If you are interested in attending these planning meetings or receiving meeting notes, please feel free to contact us at: northeast.inps@gmail.com.

Silver Springs Superbloom

Saturday, April 20, 9:00 a.m. - 12:00 p.m.

Join us on an informal stroll through Silver Springs State Fish & Wildlife Area west of Yorkville in Kendall County to ogle the woodland wildflowers coming into bloom.

Say hi to all your old friends—*Dicentra*, *Erigenia*, *Hydrophyllum*, *Geranium*, *Floerkea*, *Phlox*, *Mertensia*, *Sanguinaria*, *Trillium*, *Symplocarpus*, *Caltha*, *Enemion*, *Thalictrum*, *Hepatica* and more! After our hike, head over to another nearby preserve like Maramech or Milbrook, or join others for a coffee or lunch.

RSVP here: <http://bit.ly/geminifolium>

Meeting point:

<https://goo.gl/maps/2UHPTKuajfu>

Contact: [cassi saari, cassisaari@gmail.com](mailto:cassisaari@gmail.com)

Hike at Illinois Beach State Park

Monday, May 27, 9:30 a.m. -2:00 p.m.

Hike the trail at Illinois' first nature preserve with your fellow native plant enthusiasts! See dozens of rare natives and spring wildflowers in multiple unique and rare habitats including beach dunes and pannes. You already have the day off, come join us at 9:30 AM at the Nature Center, rain or shine! Dress for the weather and bring good boots. It's usually not wet along the trails at IBSP. After a lunch at Culver's (or bring your own) we often drive a few minutes north to Chiwaukee Prairie for the afternoon, which often has wet trails. The trip to Chiwaukee is optional, but spectacular.

RSVP to: <http://bit.ly/puccoon2019>

Flora and Ecology of Deer Grove West Forest Preserve

Saturday, June 1, 1:00 - 3:00 p.m.

The first Forest Preserve in Cook County, Deer Grove West contains fine examples of oak woodland, forested ravines, and moranic depressional wetlands. This tour will focus on the site's ecology and highlight some of the rich flora that can be found throughout this preserve.

RSVP here: <http://bit.ly/deergrove2019>
(Space is limited, priority given to INPS members)

Contacts: David.Bart@stantec.com, (608) 301-7173 , [Pete Jackson](mailto:Pete.Jackson@stantec.com) (224) 612-1803

More upcoming events

Harms Woods Sedges and Woodland Wildflowers

Saturday, June 8, 9:30 a.m. -12:30 p.m.

Harms Woods is a floral tribute to three decades of active habitat restoration by the North Branch Restoration Project. This fine oak woodland is a part of the Forest Preserve of Cook County and lies on the west side of the North Branch of the Chicago River in the village of Glenview. It is notable for its rich native flora, including a diverse mix of of *Carex* species.

We'll be on the lookout for *Carex formosa*, *C. woodii*, *C. shortiana*, *C. crinita* and *C. crus-corvi*, among others. Other woodland highlights in early June may include *Triosteum aurantiacum* (Orange-fruited Horse Gentian), *Aralia nudicaulis* (Wild Sasparilla), and *Dichanthelium latifolium* (Broad-leaved Panic Grass).

Meet at the forest preserve Glenview Woods parking lot on the west side of Harms Road, just south of Glenview Road: <https://tinyurl.com/y4bej8fa>

Contact:

Hike leader: John Balaban, Steward,
North Branch Restoration Project
(balx2@comcast.net)

Other Contact: Katie Miller, Volunteer,
North Branch Restoration Project
312-505-1719, katie.l.manion@gmail.com

Jon J. Duerr Forest Preserve

Sunday, June 8, 1:00 - 3:00 p.m.

& Tuesday, June 16, 1:00 - 3:00 p.m.

Four cactus species are growing spontaneously in Illinois of which two can be found in Kane County. The Prickly Pear (*Opuntia cespitosa*) and Plains Prickly Pear (*O. macrorhiza*) were introduced into an abandoned gravel pit in a Kane County Forest Preserve and have naturalized. Mid-June is their season!

The gravel pit dates to the 1870s when mining began for ballast for the Ill. Central Railroad. Through the years various plants have established in the pit both naturally and purposely. Along with the cactus are Prairie Moonwort, Christmas Fern, Rough Pennyroyal, Narrow-leaf Panicgrass, Green-yellow Sedge, Wormwood, Large-leaf Aspen, Red Cedar, and more. The count of vascular plants growing at the preserve exceeds 270, although not all species are found in the gravel pit.

Follow signs to the central parking lot where Jon Duerr will meet the group. There are toilets and water at the preserve. It is easy walking, less than 1/4 mile but in full sun. Also, this preserve has access to Fox River where canoe or kayak may be launched. Three major bike trails intersect here with miles of paved pathways to explore.

RSVP at: <http://bit.ly/cactusday>

Contact: Jon Duerr,
jjduerr1331@gmail.com

Calendar

Even more upcoming events

INPS Annual Gathering

Friday, June 21 - Sunday, June 23

Illinois Valley Community College

This year's theme is "An Exploration of the Plants and Ecosystems of the Hennepin Bend Area." The conference will be hosted at Illinois Valley Community College in Oglesby, Illinois. For more info, visit our website at: <https://ill-inps.org/event-calendar/>

Lone Grove Prairie Fen

Sunday, June 30, 9:30 a.m. - 12:00 p.m.

Within Lone Grove Forest Preserve in Kane County is a very fine example of a prairie fen. Limestone bedrock is near the surface with water or seepage most of the year. Indian Plantain is the best indicator and other fen species present include Mountain Mint, Kalm's Lobelia, Blue Joint Grass, Cowbane, *Carex prairea*, and *Carex buxbaumii*. Many other specialized species are also present. A complete plant list for this preserve has not been updated in many years.

RSVP here: <http://bit.ly/lonefen2019>

Contact: Jon Duerr,
jjduerr1331@gmail.com

Montrose Beach Dunes

Tuesday, July 16, 9:00 a.m. - 12:00 p.m.

Join us for an in-depth exploration of the unique flora and fauna of Montrose Beach Dunes, an 11-acre foredune restoration located on Chicago's largest public beach.

Owned by the Chicago Park District and managed primarily by volunteers, the site received formal protection in 2001 and was placed on the Illinois Natural Areas Inventory in 2005. It features dunes, swales, and a globally imperiled, interdunal wetland type called a panne, characterized by a calcareous substrate and alkaline pH.

Currently 26 state-listed plant species thrive at the site, and in mid-July you will find a lovely selection of other forbs, sedges, grasses, and woody species such as *Sabatia angularis* (Rose Pink), *Oenothera clelandii* (Sand Evening Primrose), *Utricularia vulgaris* (Common Bladderwort), and *Calamovilfa longifolia* (Sand Reed).

The tour will be led by the steward with participation of Chicago Park District Department of Natural and Cultural Resources staff. The tour can accommodate a maximum of 20 participants, so please sign up early if you'd like to attend

Contact: Susanne Masi,
inpsnews@gmail.com

Join/Renew/Follow



The Illinois Native Plant Society is a volunteer-led organization with membership dues comprising the majority of our revenue. Please make sure to renew your membership and encourage friends to join. Sign up or renew your membership on the INPS website: <https://ill-inps.org/member>



As a member of INPS, you contribute to our mission of studying, appreciating and conserving the native flora and natural communities of Illinois.

You receive:

Erigenia: the peer-reviewed scientific journal of INPS
The Harbinger: the statewide quarterly newsletter
The Nodding Onion: our chapter newsletter

Notifications for events, including:
Annual Gathering of INPS at the statewide level
Meetings and events at the chapter levels
Annual sales of native plants
Guided field trips, presentations, and workshops



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