THE NODDING ONION

Newsletter of the Northeast Chapter of the Illinois Native Plant Society



WHAT'S IN THIS ISSUE:

From the President Our New Chapter Logo Illinois Botanists Big Year 2019 Results Fierce Competition & Friendly Rivalries Dixon National Tallgrass Prairie Seed Bank Calendar of Events



Thank you to Kathleen Garness for illustrating our new chapter logo, the nodding onion (*Allium cernuum*). Kathleen is a member of the Guild of Natural Science Illustrators and a scientific affiliate of the Field Museum and the Morton Arboretum. **Click here** to see her latest work, a dunesland habitat guide for the Chicago region.

From the President

I hope everyone who came to our Annual Chapter Meeting and Book Swap this past weekend had a great time. We'd love to hear your feedback; you can always reach us at northeast.inps@gmail.com. Thanks again to all the board members and other volunteers who helped make it happen. To those unable to attend, the book swap was such a success that we may do it again! The Northeast Chapter has a few events on the docket so far: the Field Museum Herbarium Tour on February 9th and the popular Memorial Day Hike at Illinois Beach State Park (May 25th). The Kankakee Torrent chapter has their Community Habitat Symposium on February 22nd and the statewide INPS Annual Gathering will be June 26–28th in Bloomington. Check the INPS website for details. Enjoy this issue of *The Nodding Onion* and stay warm!

—cassi





Searching for the perfect book during the first round of the Nature/Science Book Swap (photo by cassi saari) Book swap participants and their sedge books from Linda Curtis. Thanks Linda! (photo by Mark Kluge)



Derek Ziomber (left) and Jared Gorrell (right), winners of the Illinois Botanists Big Year 2019, with cassi saari, Northeast Chapter president (photo by Jeff Skrentny)



Northeast Chapter board: from left to right: Sheri Moor, cassi saari, Kathleen Garness, Anna Braum, Mark Kluge (not pictured: Iza Redinski, Jason Zylka; photo by Jeff Skrentny)



Illinois Botanists Big Year 2019 Results

by cassi saari

all stats as of 26 January 2020 photo by Jeff Skrentny Derek Ziomber (right) made 1,672 observations of 1,149 plant species in Illinois in 2019 and Jared Gorrell (left) made 4,202 observations of 1,136 species.

An awesome and recordsetting feat by both! The year 2019 marked the fourth annual **Illinois Botanists Big Year**, a friendly competition hosted by the Illinois Native Plant Society through the iNaturalist platform to see who can find the most species of plants in Illinois in one year.



- 1. Must be a wild plant
- 2. In Illinois
- 3. Observed in 2019
- 4. Research Grade

(uploaded to iNaturalist and verified by the community)

ALL STATS AS OF 26 JANUARY 2020

IN 2019... 4,040 PEOPLE MADE 58,000 OBSERVATIONS OF 1,930 SPECIES, WITH HELP FROM 1,470 IDENTIFIERS

Echinacea pallida (pale purple coneflower) by John Boldt



Most Observations

- 1. @wildlandblogger 4,202
- 2. @johnhboldt 3,626
- 3. @dziomber 1,672
- 4. @sanguinaria33 1,583
- 5. @sedge 1,416
- 6. @bouteloua 1,416
- 7. @skrentnyjeff-1,304
- 8. @elfaulkner 1,191
- 9. @taco2000 1,044
- 10. @kkucera 878

The 100 Sp. Club

People who observed 100 or more species

@andrewhipp @andrewstpaul @bouteloua @brdnrdr @brendanrattin @carolt-80 @conniecowan @d_coulter @dziomber @eattaway92 @elfaulkner @eriko @ewarden @geodude365 @grantfessler ALL STATS AS OF 26 JANUARY 2020

Most Species

- 1. @dziomber 1,149
- 2. @wildlandblogger 1,136
- 3. @sanguinaria33 881
- 4. @sedge 817
- 5. @elfaulkner 769
- 6. @johnhboldt 758
- 7. @skrentnyjeff 711
- 8. @bouteloua 527
- 9. @kkucera 489
- 10. @missgreen 372

The Sedgehead

Most species in the genus Carex

@dziomber with 63 species (@sedge close behind with 62)

The Grassmaster

Most species in the family Poaceae

@dziomber with 77 species

The Sporophyte

Most non-flowering plant species

@wildlandblogger with 71 species

@ja5 @jackassgardener @jakeskee @jawinget @jenhugstrees @joelmc @johnhboldt
@k2018lena @kennedy9094 @kkucera @matt167 @maureenclare @missgreen @mn2010
@naturalist_glenn @outdoorsie @owenkathriner @plantdruid @prairiehobbit @psweet
@randyshonkwiler @redadmiral98 @rgraveolens @rin_nd @rtriveline @sanguinaria33 @sedge
@skrentnyjeff @ssinn @stocksdale @taco2000 @tararat @timfelinski0251 @ty-sharrow
@vvoelker @whimbrelbirder @wildernessbarbie @wildlandblogger @woodridgejeff

Most IDs

Identifications of plants for other people (Needs ID & RG observations in Illinois in 2019)

- 1. @mcaple 9,040
- 2. @evan8 8,317
- 3. @wildlandblogger 7,325
- 4. @prairiehobbit 4,764
- 5. @bouteloua 4,544
- 6. @sedge 3,904
- 7. @dziomber 3,253
- 8. @naturalist_zeb 2,713
- 9. @elfaulkner 2,182
- 10. @missgreen 1,313

Most Improving IDs

First ID the community subsequently agreed with (Needs ID & RG observations in Illinois in 2019)

- 1. @mcaple 2,293
- 2. @bouteloua 902
- 3. @prairiehobbit 783
- 4. @evan8 766
- 5. @sedge 743
- 6. @wildlandblogger 731
- 7. @elfaulkner 398
- 8. @k2018lena 360
- 9. @dziomber 332
- 10. @naturalist_zeb 319

Floerkea prosperinacoides (false mermaidweed) by Katie Kucera

ALL STATS AS OF 26 JANUARY 2020

Some New Finds in 2019

Species observed for the first time on iNaturalist in Illinois. Many more are listed on the Illinois Botanists Big Year Project on iNaturalist.



Aeschynomene indica (Budda pea) by Jared Gorrell, @wildlandblogger in Alexander County



Desmodium marilandicum (Maryland ticktrefoil) by Erin Faulkner, @elfaulkner in Peoria County



Persicaria filiformis (Asian jumpseed) by @ryedawg in DuPage County



Carex oxylepis (sharpscale sedge) by Paul Marcum, @sedge in Hardin County



Euphorbia peplus (petty spurge) by @halt645 in Cook County



Stylisma pickeringii (Pickering's dawnflower) by @hao103 in Henderson County

Participate in the Illinois Botanists Big Year in 2020

To join the 2020 project, go to iNaturalist.org, search for "<u>Illinois Botanists Big Year 2020</u>", and click "Join" in the upper right corner. All observations that meet the project rules with *automatically* be counted toward the competition (no need to manually add to the project). Congrats to all in 2019 and happy botanizing in 2020!



About

Find the most plant species in Illinois in 2020 and rejoice in your victory! 1. Must be a plant, 2. Observed in Illinois, 3. Observed in 2020, and 4. Research grade ⇒<u>HELP IDENTIFY</u> Read More >

🔔 NEWS

Join 🔒 45

or head straight to inaturalist.org/projects/illinois-botanists-big-year-2020



Fierce Competition & Friendly Rivalries: the Illinois Botanists Big Year 2019

By Derek Ziomber

I went into the 2019 Illinois Botanists Big Year knowing that I'd learn a lot. And I was prepared for the possibility that it would be a tough contest. But I hadn't expected to make so many friends along the way.

For many years, botany and seeking an understanding of the natural world were mainly solitary pursuits for me. Most of my time spent botanizing was time spent alone, and I had few outlets to share my interests as a budding naturalist. It wasn't until after college that I heard about volunteer habitat restoration happening in my local forest preserves, but after my first workday I was immediately hooked. I had finally found a community of people who really cared about nature.

When I decided to take a serious stab at the Big Year, I knew I couldn't rely solely on my own knowledge. I'd have to call on people I'd met in the preserves to help me. I already considered some of those people to be friends, particularly Jeff Skrentny. We had already embarked on quite a few bird, botany, and mushroom trips by that time. There is no single person who I could thank more for helping me in the last year than Jeff. We became good friends and shared some amazing experiences. Jeff jokes that his knowledge of plants is mostly just an aggregation of the knowledge of others, which is technically true of all of us. So I'd also like to thank Mark Kluge, who I know has provided a lot of guidance to both of us.

More surprisingly, in the course of this contest I ended up befriending two people who were strangers before 2019. I met James Hansen at a Somme Woods workday. Jim mentioned some interesting plants I'd never seen and was extremely gracious in sharing his extensive knowledge of spring flora. We began the year on a whirlwind mission trying to see as many spring wildflowers in northern Illinois as we could. While we obviously missed a number of species, especially the rarest trilliums—*Trillium* erectum (red trillium) and Trillium cernuum (nodding trillium), which foiled us on numerous trips—we saw more than I could have imagined. I'll forever remember that cold spring day on a high, gravelly, windswept, morainal ridge surrounded by farm fields where we saw pasque flower blooming by the thousands, as if nothing had changed in the time since Europeans bridled the land.



Pulsatilla nuttaliana (eastern pasqueflower) in Winnebago County, photo by Derek Ziomber

From the beginning of the year, it was evident that there would be at least one other serious contender in this contest: Jared Gorrell (@wildlandblogger). In a somewhat strange turn of events, Jeff, Jim, and I ended up on an early spring trip to southern Illinois led largely by Jared. I can at least speak for myself in saying that there was a bit of tension upon our meeting considering that it was only once we were on the road that Jeff sprang the information that we'd be meeting Jared. But we had a great time. Jared showed us much more than we would have been able to see on our own. Even though it was obvious that he'd be a worthy opponent, we all tried as much as possible to return the favor when he visited northern Illinois a few times later that year.

While there was a definite rivalry between us, it was ultimately a friendly rivalry. I'm sure we both pushed each other to accomplish more in this Big Year than we initially anticipated. I went into it thinking that I'd be happy observing 900 species. Jared and I both ended up with over 1200 species, a record-setting year. Near the very end, the identification period got surprisingly heated, and I hope that no relationships were strained.

It was a close contest which came down to strategy and sportsmanship—I have to thank Jared not only for his help in southern Illinois and elsewhere, but also for the fact that he identified far more of my observations than any other person. I look forward to more forays with Jared in the coming years.

I may have learned more this past year than at any other time in my life and I feel more connected to the natural world than ever before.

There are many more people who helped along the way, particularly members of the Illinois Native Plant Society. I owe a debt of gratitude to all of them as well as to iNaturalist and the iNaturalist community. I may have learned more this past year than at any other time in my life and I feel more connected to the natural world than ever before.

While this was an incredible experience, I must say it was also grueling. It might be a few years before I get the desire to compete in another Illinois Botanists Big Year, but I fully intend to continue exploring the natural world with all the great people who helped me this past year.





Carex sparganioides (bur reed sedge)



The Dixon National Tallgrass Prairie Seed Bank: Conserving Native Plant Diversity

By Dave Sollenberger

The ability of seed banks to successfully store seeds of economically important crops for long periods of time has been adopted by plant conservationists as a method for conserving dwindling plant diversity across the globe. The premise of seed banking is that if seeds are dried to 15-24% relative humidity and stored at -20°C, many species can be held in a dormant state for decades to hundreds of years. The Dixon National Tallgrass Prairie Seed Bank (DNTPSB) at the Chicago Botanic Garden has embarked on a project to conserve taxa of the tallgrass prairie, a globally threatened ecosystem, by systematically collecting and banking seeds of species important for habitat restoration. Using techniques established at the Millennium Seed Bank Project (MSBP), a project in the UK to conserve native plants globally, we focus on collecting seeds of species on our target list from each of 12 ecoregions that comprise the heart of the tallgrass prairie ecosystem.

In 2004, the Royal Botanic Garden at Kew in the UK initiated MSBP to collect and bank seeds of 10% of the world's flora by 2010. The decline of biodiversity around the world was the impetus for MSBP to expand *ex-situ* conservation for all plants globally. They partnered with the Bureau of Land Management's Seeds of Success (SOS) Program. SOS expanded to include several more botanic gardens and similar institutions to collect seed across the country to help with this project. Shortly after joining SOS, the Chicago Botanic Garden established the DNTPSB.

At left: Some of the remaining species targeted for seed bank collection in northeastern Illinois.

The tallgrass prairie is a globally threatened ecosystem, so it seemed especially important to continue the work that the MSBP started in the Midwest. Unlike MSBP. DNTPSB's approach to *ex-situ* conservation is to make multiple collections of species across their geographic range to conserve the adaptive characteristics of those plants to their local environments. For instance, a population of Andropogon gerardii in the sand hills of Nebraska has adapted to local environmental conditions that differ from a population of A. gerardii in the Grand Prairie region of central Illinois. The strategy that we chose to conserve these adaptive characteristics in the Seed Bank is to collect species across the tallgrass prairie region by ecoregion (ecologically distinct regional designations).

We focus on collecting seeds of species on our target list from each of 12 ecoregions that comprise the heart of the tallgrass prairie ecosystem.

There are over 3000 taxa of native vascular plants in the tallgrass prairie ecosystem. Eventually we hope to have collections of all of those species in the bank, but for now we have prioritized our collecting efforts on a smaller list. We target species that are important for the restoration of common habitats in the ecoregion, i.e. prairies, woodlands, and wetlands. Using NatureServe's comprehensive lists of plant taxa for 12 ecoregions (Omernick, level III) that comprise the core of the tallgrass prairie ecosystem, we developed a numbering system where taxa in each ecoregion were designated a number ranging from one to three based on a set of criteria that considered a species' conservatism, geographic range and restoration suitability. This resulted in a target list of 545 native species.

Seed banking native seeds is not an alternative to habitat restoration. Unlike insitu conservation, seeds stored in seed banks under stable environmental conditions have been removed from their natural habitat and, therefore, are unable to evolve with a changing environment. Despite this limitation, seed banking is an efficient way to preserve the genetic diversity held within wild populations. One important way seed banking can support habitat restoration is by assisting in the migration of plants to new areas, a process which can be impeded by habitat fragmentation. Seeds can be selected from the bank from a nearby region to establish a new population or augment an existing one. This is especially important in today's world where climate change is occurring at such a rapid pace that plants in isolated habitats need to move or perish.

The UN recently committed to scaling up ecological restoration of degraded habitats for the next decade (2021-2030). The impact of this action on conserving biodiversity globally and curtailing climate change could be substantial. Seed banks will play an important supporting role in these restoration efforts. The ability of most temperate native plant species to survive for long periods of time as dormant seeds and the efficiency of storing large numbers of seeds of numerous taxa in a relatively small place makes seed banking an effective conservation strategy.

Remaining Target Species for Seed Bank Collection in Northeast Illinois

The Seed Bank is still in search of a few species in the two ecoregions encompassed within northeastern Illinois. If you are aware of large populations (over 50 individuals) for the species listed below, please contact seed bank manager, Dave Sollenberger, at dsollenberger@chicagobotanic.org. Thank you!

Agastache scrophulariifolia Apios americana Aquilegia canadensis Asclepias purpurascens Baptisia lactea Bidens cernua Cardamine bulbosa Carex cephalophora Carex sparganioides Chelone glabra

Cirsium altissimum Comandra umbellata Hylodesmum glutinosum Lactuca floridana Lathyrus palustris Lathyrus venosus Lonicera reticulata Lysimachia thyrsiflora Micranthes pensylvanica Moehringia lateriflora Penstemon calycosus Poa palustris Sagittaria latifolia Sium suave Spiraea alba Stachys pilosa Uvularia grandiflora

Photo by Mark Kluge

Become a Friend of Illinois Nature Preserves

A new group is forming to support the Illinois Nature Preserves System through education, raising funds, facilitating partnerships, and volunteerism. Join us!

Advocating for and raising funds for the Illinois Nature Preserves System Promoting and training volunteers to care and watch over Nature Preserves where needed Informing officials, taxpayers, & policy makers of the benefits the Nature Preserves provide current & future citizens of Illinois

Photo by Michael Jeffords

Would you like to be a part of Friends? Just tell us and you're a member. We, and the preserves, need help. And by "we"— we mean you, and me, and all of us. We: Friends of Illinois Nature Preserves.

friendsofillinoisnaturepreserves.org



Illustration by Kathleen Garness



Contribute to The Nodding Onion

Want to submit an essay, article, artwork, or other content to *The Nodding Onion*?

Contact Anna Braum, Newsletter Editor, at: inpsnenews@gmail.com

Northeast Chapter Board

President cassi saari Vice President Mark Kluge

Treasurer Jason Zylka Membership Chair Kathy Garness

Newsletter Editor Anna Braum Field Trips Coordinator Iza Redlinksi

Member At-Large Sheri Moor

Calendar

Upcoming events: check our website for the most up-to-date info.

Northeast Chapter Board Meetings

Tuesday, February 11 & April 14 7:00 p.m. - 9:00 p.m.

If you are interested in attending these planning meetings or receiving meeting notes, please contact us at: northeast.inps@gmail.com.

Field Museum Herbarium Tour

Sunday, February 9 1:00 p.m. - 3:00 p.m.

Come visit the Field Museum's herbarium, a huge collection that houses millions of specimens. Although specializing in the Neotropical region, the herbarium has quite a few local specimens from the Chicago area too. Come see different types of local orchids and other rare plants. *Thismia americana* might make an appearance too. Afterwards, attendees will enjoy complimentary entrance to the remainder of the museum.

This tour is currently full, but you can add yourself to the waitlist here: <u>http://bit.ly/fieldherbarium2020</u>

Hike at Illinois Beach State Park

Monday, May 25 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. Some areas may have standing water, though there are options to walk on dry trails instead.

After a lunch at Culver's (or bring your own) we usually 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/lupine2020

Join/Renew/Follow



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: <u>https://ill-inps.org/member</u>

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.



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.



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Photos: Anna Braum (first and second from top), Brett Whaley (bottom), CC BY-NC 2.0