The Harbinger

Newsletter *of the*
Illinois Native Plant Society

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"…dedicated to the study, appreciation, and conservation of the native flora and natural communities of Illinois."

Small white lady-slipper orchid*, Cypripedium candidum*. Photo by Louis Mulé.

Editorial

It's been a terrific spring season so far and everyone's excited for the Annual Gathering coming up on June 2-4 hosted by the Quad Cities Chapter at Augustana College. We rotate the gathering between the 7 chapters so members have an opportunity to see plants and natural areas in all parts of the state. I hope you will join us in Rock Island! ☙ Christopher David Benda

In This Issue

Message from the President

It is early May as I write this President's message. Like many native plant lovers, spring is probably my favorite time of the year. To me, there is little else that matches that soft, fresh, green color of new leaves unfolding in the spring. Not to mention all the lovely spring blooming wildflowers that we have longed for all winter. Now, the spring ephemerals in southern Illinois are starting to senesce, in central Illinois they are waning, and in northern Illinois some are still going strong. One of the great things about living and working as a botanist in a state like Illinois, with its great spread north to south, is the ability to enjoy multiple spring blooming seasons. No matter how many times I see Dutchman's breeches I have to stop and admire the uniquely-shaped flowers that are "the little pants."

Although I am a life member of INPS and a long-time board member I continue to be overwhelmed by what is accomplished by our all-volunteer organization. The passion that our members have for native plants is truly awe inspiring. In early April, I attended the Southern Chapter's Illinois Indigenous Plants Symposium. What a great event! Members from throughout Illinois, not just southern Illinois, came together to hear about Illinois native plants and the pollinators and pests that utilize and/or threaten them. We even had one visitor from the Iowa Native Plant Society! Then at the end of April was the Central Chapter's famous native plant sale. This was my first time attending and boy, was I ever blown away. Over 280 species of native plants, many cared for and grown by our own members. Even a cold, windy, and rainy day couldn't keep folks from throughout the state from attending this amazing sale. What a huge success!

We are pleased to welcome Jeff Nelson as our new webmaster. Jeff is an INPS member that lives just across the border in Kentucky, was IT Director for Paducah Public Schools, and loves native plants. He has already shown himself to be a vital member of the INPS team effort. Also, we welcome 3 new life members: Julia Olsen (Northeast Chapter), Mary Dresser (Southern Chapter), and Sarah Heyer (Southern Chapter).

Since the last *Harbinger*, our Chapters have led hikes, hosted speakers, or put on workshops to spread the enthusiasm for native plants and their conservation. Members and non-members throughout Illinois continue to participate in our Illinois Botanist Big Year event (https://www.ill-inps.org/illinois-botanists-big-year-2017/), our second year for this fun and friendly competition. This year some of the other Midwest native plant societies (Minnesota Native Plant Society) and botany clubs (Botanical Club of Wisconsin) have joined us in expanding this iNaturalist project as an enjoyable way for plant lovers throughout the Midwest to learn and communicate with one another. Soon there will be another major opportunity for members from throughout Illinois and the Midwest to come together at our Annual Gathering hosted this year by the Quad Cities Chapter. The big event will be held June 2 to 4 at Augustana College in Rock Island. Put it on your calendar and be sure to register soon at https://www.ill-inps.org/2017-annual-meeting/.

In wrapping up, INPS has also recently initiated an exciting partnership with the Native Plant Conservation Campaign (http://plantsocieties.cnps.org/index.php) by joining as an affiliate organization. Their mission and ours are aligned very well and it is our hope that partnering and collaborating with them and the network of other affiliates brings greater strength to our message of promoting the conservation of native plants and their habitats. Check them out at their website and stay tuned for future information on potential projects. The first expected project is a campaign to identify Important Plant Areas (IPAs).

Happy botanizing,
Paul B. Marcum,
President

INPS CHAPTER NEWS

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Check out the Illinois Native Plant Society Events Webpage for Chapter meetings and workshops:
https://www.ill-inps.org/event-calendar/

2017 INPS Annual Meeting: June 2-4, Augustana College, Rock Island, IL. The Quad City Chapter and the Officers of the Illinois Native Plant Society cordially invite you to the Society's 2017 Annual Meeting. This year's activities will take place at Augustana College and at numerous field locations in Iowa and Illinois. At this year's meeting, we warmly welcome members of the Iowa Native Plant Society and the Illinois members of the Society for Ecological Restoration (SER) to our meeting activities! Information about the agenda, speakers, field trips, banquet, silent auction, and lodging/camping options is available online at http://www.ill-inps.org/2017-annual-meeting/.

Kankakee Torrent Chapter: Meetings are the first Monday of every month at Camp Shaw-waw-nah-see 6641 N 6000W Rd, Manteno, IL 60950. Phone:(815) 933-3011. Business meeting, 6:30 p.m., Program, 7:00 p.m.

SAVE THE DATE: Our 2017 Native Plant Sale is May 21st
Illinois Native Plant Society Kankakee Torrent Chapter Native Plant Sale
10am – 4pm, Sunday, May 21st, 2017
Small Memorial Park during Rhubarb Festival
S 8th Ave, Kankakee, Illinois 60901

Central Chapter: The Central Chapter hosts a monthly meeting on the second Thursday of each month, primarily at Illinois Audubon, 2315 Clear Lake Avenue Springfield, IL 62708 except for the month of April due to plant sale activities. In the event of a different venue, the meeting location is always listed in the chapter newsletter.

Welcome New Members

At Large
Margaret Bailey
Leigh Stewart

Central Chapter
William Bellot
Deborah Bruce
H. Dean Campbell
Carol Esarey
Jean Moser
Ezara Penning
Lois Stone
Douglas Swiatocha

Grand Prairie Chapter
Larissa Armstrong
Jesse Tinges
Dennis Wismer

Kankakee Torrent
Juanita Armstrong-Ullberg

Southern Chapter
Roger Beadles
Maeghan Butler
Mary Dresser*
Sarah Heyer*
Austin Szubryt
Toni Thompson
Lucy Walker

Northeast Chapter
Tony Assimos
Luke Dahlberg
Scott Fontaine
April Hughes
Matthew Joritz
Nathan Lamb
Sarah Makinney
Julianne Mason
Peter Nagle
Julia Olsen*
Jodi Palonis
Linda Paris
Ellen Raimondi
Christine Rayman
Roger Ross
Davide Sollenberger
Jan Sorensen
Wayne Svoboda
Lorrie Ward
Annette Weston

**** New Life Member***

In Memoriam: Lorna Konsis

Lorna J. Konsis
August 31, 1954 – February 2, 2017

Lorna and Ken Konsis

The Forest Glen Chapter was the first organized chapter that was formed from the parent Illinois Native Plant Society after it became a statewide entity in 1986. The very next day, the East Central Chapter was organized. In its fledging years, Ken Konsis was the first Forest Glen Chapter president. Therefore, obviously, his wife, Lorna became involved. During that time, the chapter put out their own newsletter, the *Bellflower*. Lorna became editor of that publication until it ceased in 2002. Ken also was editor of the INPS newsletter, *The Harbinger*, and Lorna was the typist of that publication until July of 2007. Being the *Harbinger* editor, Ken was a member of the INPS Board of Directors. Soon after Lorna became involved, the membership chair on the State INPS board became open. Lorna took on this position as well and served as the membership chair until 2008. Her first tasks were to overhaul the database, bringing up to date all of the paid members and reminding people to renew that were unpaid for several years, but were still receiving benefits. Lorna dutifully sent out reminders and worked very closely with all of the chapter presidents, keeping their databases current. Forest Glen was the headquarters for INPS, so all membership dues and correspondence came there.

Lorna was also very civic minded. She was a volunteer for the Presence United Samaritans Hospital Foundation, working many years with the Festival of Trees. This past summer, she served on the organizing committee for the foundation's Kickin' It Country event, held at Kennekuk County Park. Her favorite hobby was counted cross-stitch, where she and two friends organized a counted cross stitch show at Forest Glen Preserve. This endured for 20 years. She won numerous ribbons at the National show and grand champion at the Georgetown Fair. Ironically, that same year, she won grand champion with her photography exhibit.

Lorna was diagnosed with a rare form of breast cancer in May of 2015 and was not expected to live past that summer. But she did! She endured 23 chemo treatments of three of the harshest chemo drugs available. She also had major surgery in August of 2016. Through all of that, she and her husband Ken still took vacations, attended social events, and volunteered; she put out the Vermilion County Conservation District's newsletter, the *Conservationist*, in December of 2016. She packed as many activities as she could through her treatments, but it became too much in January of 2017. She will be missed by many, but no more than her husband Ken. She was his soul mate and partner in life, but we all must cherish everything that she has done for us and all of the lives that she has touched.

Chicago Ridge Prairie Nature Preserve

Article and Photos By Louis Mulé

The Chicago Ridge Prairie (CRP) is an Illinois State Nature Preserve in Cook County that contains a high-quality alkaline prairie. The CRP is the only gravel outwash, lake plain, black-soil prairie in the Chicago area. The site features over 150 native plant species, many of which are rare and restricted to alkaline soils. The Native FQI (using Swink & Wilhelm 1994) is 71.3. The remnant dependent insect fauna is diverse with high rarity coefficients. The nearly 13-acre triangular site is one of the last vestiges of intact-black soil prairies. An urban landscape surrounds the CRP and is bordered by a railroad, school, and residential land use.

The existence of the prairie today began over 40 years ago when local educators and residents argued publicly for the preservation of the site, which was about 30 acres and two lots then. After a developer purposely plowed the 17-acre lot for an apartment complex, efforts continued to save the remaining acreage. In 1994, as part of a U.S. Army Corps of Engineers (USACE) wetland enforcement case, the prairie was purchased by the Oak Lawn Park District and dedicated as a Illinois Nature Preserve the following year. Today there are two management units: the wet mesic/mesic prairie natural area (9 acres) and the restoration prairie (4 acres). The latter is an area formerly "filled" with natural soil from the 17 acres development. With the fill removed, this unit was re-graded to replicate its original topography (swell and swale) and restored as a wet mesic prairie. This unit contains public trails and interpretive features.

A central feature of the Chicago Ridge Prairie is its high diversity of calciphile species in a relatively compact 8-acre footprint. Plant density in many areas is 10-14 species/m^2. The soil pH runs from 7.8 to 8.1 throughout the silty clay loam soils developed on the gravel outwash plains of Stoney Creek on the edge of post-glacial Worth Island. The site is also home to 43 conservative (remnant dependent) insect species (Panzer 2010 personal communication), 4 species of snakes (including smooth green snake), native crayfish, and a large meadow vole colony.

The site contains one of the largest populations of the small white lady-slipper orchid (*Cypripedium candidum*) in the Chicago region, which produce a spectacular bloom in May (and recently in April, too; see the cover photo of this newsletter). Other notable calcareous species present are tobacco root (*Valeriana edulis* subsp. *ciliata*), small skullcap *(Scutellaria parvula*), club sedge (*Carex buxbaumii*), rigid sedge (*Carex tetanica*), Riddell's goldenrod (*Solidago riddellii*), prairie goldenrod (*Aster ptarmicoides*), stiff gentian (*Gentiana quinquefolia*), prairie brome (*Bromus kalmia*), Indian paintbrush in both yellow and reddish color forms (*Castilleja coccinea)*, and wild savory (*Satureja arkansana*), which is especially fragrant and widespread when in bloom. Drier portions of the site contain prairie panic grass (*Panicum leibergii*), green milkweed (*Asclepias viridiflora*), porcupine grass (*Stipa spartea*), wood lily (*Lilium philadelphicum* var. *andinum*), and lead plant (*Amorpha canescens*). A small population of Hill's thistle (*Cirsium hillii*) also persists. The main legume is purple prairie clover (*Dalea purpurea*). The wetter sections feature a mosaic of sedge and grass communities with balsam ragwort (*Senecio pauperculus*) around the edges. Coupled with shooting stars *(Dodecatheon*

meadia), downy phlox *(Phlox pilosa),* hoary puccoon *(Lithospermum canescens),* yellow-star grass *(Hypoxis hirsuta),* blue-eyed grass *(Sisyrinchium albidum),* and bastard toadflax *(Comandra umbellata)* nearby in the mesic areas, one gets a glimpse into the field experience that early naturalists must have enjoyed while botanizing in the Chicago region.

Rare insect species include the prairie cicada (*Okanagana balli*), the geometric moth (*Itame amboflava*), the two-spotted skipper (*Euphyes bimacula*) and two species of leafhoppers (*Prairiana kansana* and *Memnonia panzeri*), known in Illinois only here.

When the site was designated as an Illinois Nature Preserve, the management plan included the removal of fill from the back 4 acres and restoration to the original grade with native reseeding of 30 local species. The unit was irregular in surface topography and overgrown with buckthorn and cottonwoods. The natural soil was still mostly undisturbed under this fill. In 2013, the Park District acquired funding to restore the unit. Nearly 1,000 truckloads of fill were removed and re-graded close to original soil profile. Six small remnant prairie "islands" were left in situ as a natural "embedded" seeding source for the newly created swell and swale. In 2016, 29 of the original planted species now have good populations. Additional native species are spreading into the unit from those islands and the adjoining prairie unit. After four years, the restoration unit has developed a grassland plant community contiguous with the natural prairie. As for habitat value for birds and insects, the two units are now functioning as one enhanced wildlife area.

The Oak Lawn Park District, using prescribed burns, stewardship, and invasive species control, actively manages the prairie. Stewardship challenges remaining include management of edge-effect disturbances that encourage expansion of weedy goldenrods and woody *Rosa* sp. Despite such disturbance, the prairie is remarkably resilient with little species loss.

This prairie, along with the Santa Fe Prairie, remains one of the most important extant remnants of the once great prairie expanses on the southwest side of the Chicago lake plain. Today the Chicago Ridge Prairie is still a functioning ecosystem, a beautiful piece of the Chicago Wilderness embedded in the urban landscape. Feel it yourself!

For more info about CRP, visit www.chicagoridgeprairie.org and www.olparks.com.

Barker Bluff Natural Area: A Test of Time

By Jody Shimp

While I was an unclassified graduate student at Southern Illinois University at Carbondale, I received an amazing offer from Dr. Phil Robertson, a forest ecologist in the Plant Biology Department. "How would you like to get a degree in plant biology and conduct research in three Shawnee National Forest Research Natural

Areas?" he asked. You see, this was an amazing offer because I had been developing a passion for plants and natural quality and was struggling to find the perfect thesis project on my own. Dr. Robertson explained that the project would involve collecting baseline vegetation data and classifying the existing natural communities and plant community types. "Perfect," I thought—especially if I could also conduct floristic inventories at each site. Dr. Robertson agreed and sent me off to prepare a full research proposal to study Barker Bluff, Dennison Hollow, and Panther Hollow Research Natural Areas (RNA).

For the next two years, I spent nearly all my time, outside of class, cataloging plants and collecting vegetation data at these three wonderful and very different natural areas. Barker Bluff is part of the Barker Bluff Illinois Natural Area Inventory (INAI) site. This area is owned in part by the Shawnee National Forest and in part by Lafarge Corporation. Lafarge is a large producer and distributor of aggregate construction materials and a big landowner in Hardin County. Lafarge has an active mine on this land and it is not on the INAI. The Shawnee National Forest established their portion, approximately 60 acres, of the Barker Bluff INAI as a Federal Research Natural Area in 1990. RNAs are federally protected areas which are set aside for non-manipulative research, observation, and study. RNAs are afforded the highest protection of federal lands, much like the State's Nature Preserve system. The National RNA system represents a broad array of North American ecosystems, biological communities, and habitats. Barker Bluff RNA was established to represent a high quality limestone glade/dry upland forest complex.

At first glance, Barker Bluff RNA seemed to be degraded and overgrown because the site is shifting to a more shade-tolerant plant community. It is well documented that due to dry soil conditions and occasional fire, the woodlands and glades were much more open in early settlement, and sun-loving grasses and wildflowers were able to thrive. Naturally occurring fires were soon suppressed after the area was settled, and fire-intolerant species (many of which are shade-producing trees) increased. The limestone glades and open dry upland forests were soon grown up in woody shrubs and vines and more shade-tolerant forest species, due to the change in available light. Many of the sun-loving plant species that once thrived in open woods and glade openings were non-flowering and spindly because of the shady conditions and tangled catbriers and other vines.

Ovate catchfly, *Silene ovata*. Photo by Casey Galvin.

However, the search for plants at Barker Bluff was truly a treasure hunt. Ovate catchfly (*Silene ovata*), golf ball sedge (*Scleria oligantha),* and the hairy variety of sharp-scaled sedge (*Carex oxylepis* var. *pubescens)* were found and all new additions to the Illinois flora. Ovate catchfly in particular is rare throughout its limited range in North America; few populations are known. The five catchfly plants discovered at Barker Bluff were in heavy shade near the boundary between the Forest Service and Lafarge tracts. Other conservative sun-loving plants were scattered in the natural area. Species such as crested coralroot orchid (*Hexalectris spicata),* hoary puccoon *(Lithospermum canescens),* Mead's sedge (*Carex meadii),* marbleseed *(Onosmodium hispidissimum*), heartleaf noseburn (*Tragia cordata*), false boneset (*Brickellia eupatorioides*), green milkweed (*Asclepias viridiflora*), and anglepod climbing milkweed (*Matelea gonocarpa*) were still hanging on in the low light conditions.

After I completed the field work in 1995, I knew that Barker Bluff was a special botanical area, but in dire need of restoration to "Let the Sunshine In." As a new biologist with the Illinois Department of Natural Resources (IDNR), I began to work with others to see whether restoration was possible. In most cases, prescribed fire and selective tree removal are used to open up glades and woodlands. However, the Shawnee National Forest was in a legal battle over prescribed fire and tree removal so there was little hope that restoring Barker Bluff could

be started anytime. In addition, Lafarge Corporation was focused on their mining operations and was developing a long-range plan for the quarry. For many years, it wasn't clear what the mining interests were at the INAI. For the next 15 years, little progress was made on the ground, but efforts continued with the Forest Service and Lafarge to invest in the site's recovery. In the meantime, Barker Bluff INAI continued its shift to shade, and the sun-loving plants began to disappear.

After many conversations, field trips, and events with Lafarge plant managers and regional environmental staff, Lafarge began to value their INAI site and agreed to work with IDNR to restore and protect the INAI site. On September 30, 2012, the Lafarge Barker Bluff Land & Water Reserve was registered with the Illinois Nature Preserves Commission. This was a huge conservation action by Lafarge, and the plant manager was eager to restore their portion of the natural area.

On April 1, 2014, the first ever recorded prescribed fire was conducted at Barker Bluff on 150 acres owned by Lafarge. The burn was by a 23-person crew consisting of the IDNR, Southern Illinois University Fire Dawgs, Southeast Illinois Prescribed Fire Association, The Nature Conservancy, and contractors from the Shawnee Resource and Development Area. A few months after the burn, we found hundreds of ovate catchfly plants where the first five were discovered. They were all on the burned area; none was on the unburned Forest Service portion. Once again the plants were flowering! Also to our joy, the State threatened climbing milkweed (*Matelea obliqua*) was seen blooming on the fire-line and later set seed. A welcome sight indeed.

Fire crew. By Jody Shimp.

Climbing milkweed, *Matelea obliqua*. By Jody Shimp.

Soon after, the Shawnee National Forest was cleared to implement management on Barker Bluff RNA. The Forest Service, Lafarge, and the IDNR began to coordinate a joint burn on the entire INAI site. The Barker Bluff Land & Water Reserve and Barker Bluff RNA prescribed burn was on March 16, 2016. The area encompassed 240 acres. Within this burn unit is an Illinois Natural Area Inventory site; 77 acres that includes a high quality, Grade A and B limestone glade community, a Grade B dry upland forest/limestone glade community, and a Grade C dry upland forest. By summertime of that year, glade and barren Indicator species such as wild petunia (*Ruellia humilis*), purple milkweed (*Asclepias purpurascens*), climbing milkweed (*Matelea obliqua*), shooting star, (*Dodecatheon meadia*), and gray-headed coneflower (*Ratibida pinnata*) responded well to the burn. Oh, and ovate catchfly was in full glorious bloom on the Forest Service side where it had not been seen before the burn.

Barker Bluff is a special place that is now on the mend. It's true that conservation doesn't happen overnight and may take time and lots of energy but as in the case of Barker Bluff, it's worth the wait!

Toward a Savanna Flora

Article and Photos by Gregory T. Rajsky, True Nature Consulting

This article is based on the author's presentation of the same name at the Wild Things Conference held February 18, 2017 in Chicago.

Oak savannas are utterly enchanting places; we are drawn to their mystique in part because they represent a local expression of the African savannas in which the human species evolved. Our local savannas are important plant communities that are intrinsic to the natural history of much of Illinois, yet they remain poorly understood. This article is intended to deepen our appreciation of the floristic denizens of the community, as well as to challenge our understanding of the Midwest oak ecosystem on the whole.

There is a general understanding of the predominant floristic composition of various types of prairies, forests, and wetlands. That there are plant species characteristic of such plant communities is widely accepted. However, there seems to be no general consensus with regard to such indicator species for some of the Midwestern oak savannas.

The focus of this article is on the savannas of the northeast morainal district of Illinois (sand savannas are not addressed here). The Chicago Wilderness Community Classification System refers to these morainal savannas as fine-textured-soil savannas; John Curtis (*Vegetation of Wisconsin*) called them oak openings; others have referred to them as prairie groves. Canopy cover is often used as a general guide to differentiate between timbered communities, with savannas said to have anywhere from 10 to 80% canopy cover (less than 10% canopy cover considered prairie and more than 80% canopy cover considered forest). Most authorities today seem to have settled on a range of 10 to 50% canopy cover for savannas, with 50 to 80% canopy cover classified as woodland, and greater than 80% canopy cover classified as forest. Looking at canopy cover as a criterion, it is important to recognize two things: the scale of the site may include numerous areas where the cover is locally greater or less than the average, and since the time of European settlement in northern Illinois the canopy areas of our timbered sites have been steadily filling in. Most of our savanna remnants may look more like woodlands today, while other areas may now lack trees and appear as prairie.

Curtis' work in vegetation ordination during the 1950s helped to describe the structure of an oak savanna—generally a plant community where the most conspicuous species are the trees, while the most *important* species are the grasses. Importance, in this sense, is meant in the context of vegetation ordination—i.e., the significance of a plant in a given community based on relative density, relative frequency, and relative dominance. One might say that, in a local oak savanna, the trees are prominent and the grasses, dominant. One of the challenges faced by Curtis, and faced by botanists in the Chicago Region today, is that there remain few, if any, pristine examples of an oak savanna with its ground-layer vegetation intact. With no reference ecosystem available, we are left looking for clues.

My own experience in the study and restoration of fine-textured-soil savannas is in northeastern Illinois (counties of Cook, DuPage, McHenry, and Lake) where ice-contact landforms include ground moraines, kettles and kames with predominantly clay soils, and mostly dry-mesic and mesic uplands. The most prevalent canopy trees are bur oak (*Quercus macrocarpa*), white oak (*Q. alba*), Hill's oak (*Q. ellipsoidalis*), and red oak (*Q. rubra*), along with shagbark hickory (*Carya ovata*), bitternut hickory (*Carya cordiformis*), and black walnut (*Juglans nigra*).

During the early days of ecological restoration of savannas in the Chicago Region, the importance of woody shrubs was, perhaps, underappreciated. Today land managers are more actively including shrub species in their restoration work. Table 1 presents a list of some of the understory trees and shrubs suited to fine-textured-soil savannas.

Table 1. Understory Trees and Shrubs

American hazelnut	*Corylus americana*
Ironwood (hop hornbeam)	*Ostrya virginiana*
Pagoda dogwood	*Cornus alternifolia*
Gray dogwood	*Cornus racemosa*
Wild plum	*Prunus americana*
Chokecherry	*Prunus virginiana*
Illinois rose	*Rosa setigera*
Elderberry	*Sambucus canadensis*
Maple-leaved arrowwood	*Viburnum acerifolium*
Nannyberry	*Viburnum lentago*
Black haw	*Viburnum prunifolium*
Prickly ash	*Xanthoxylum americanum*

Notably, hazelnut was frequently cited in the Public Land Surveys conducted in northern Illinois during the 1830s and 1840s.

Underscoring the absence of ground-layer indicator species is Curtis' observation, "Of the prevalent species… only one, *Heliopsis helianthoides* [false sunflower], reaches its optimum in the oak openings…" Yet a number of characteristic species might come to mind. Based on 25 years of experience and observation I developed a sense of what I might expect to see in a local savanna.

For the Wild Things presentation, I consulted a number of sources, including restoration seed mixes, published articles, presentations, and other lists from southern Wisconsin and northern Illinois. I determined which species had the greatest degree of commonality among those lists and I applied a weighted factor to support local relevance. Admittedly, this was a subjective assessment, not intended to be a scientifically rigorous

evaluation. The results yielded short lists of what might be considered the most characteristic species of fine-textured-soil savannas. Other species of importance also emerged and are some of the forb species generally expected to found in these savannas, though not necessary the most characteristic (Table 2).

Table 2. Common or Occasional Savanna Forbs

Yellow giant hyssop	*Agastache nepetoides*
Purple giant hyssop	*Agastache scrophulariifolia*
Thimbleweed	*Anemone virginianum*
Columbine	*Aquilegia canadensis*
Wild hyacinth	*Camassia scilloides*
Tall bellflower	*Campanula americana*
Purple Joe Pye weed	*Eutrochium purpureum*
Feathery Solomon's plume	*Maianthemum racemosum*
Starry Solomon's plume	*Maianthemum stellatum*
Wood betony	*Pedicularis canadensis*
Brown-eyed Susan	*Rudbeckia trilobum*
Early horse-gentian	*Triosteum aurantiacum*
Late horse-gentian	*Triosteum perfoliatum*

Wood betony, *Pedicularis canadensis*.

The most important graminoid species are presented in Table 3.

Table 3. Top-Ranking Graminoid Savanna Species

7.	Broad-leaved panic grass	*Panicum latifolium*
6.	Straight-styled wood sedge	*Carex radiata*
5.	Short-headed bracted sedge	*Carex cephalophora*
4.	Common oak sedge	*Carex pensylvanica*
3.	Bottlebrush grass	*Elymus hystrix*
2.	Spreading oval sedge	*Carex normalis*
1.	Silky wild rye	*Elymus villosus*

The most important forb species are listed in Table 4. In addition to the top ten, I list four as honorable mentions (HM).

Table 4. Top-Ranking Savanna Forbs

HM	Short's aster	*Symphyotrichum shortii*
HM	Late figwort	*Scrophularia marilandica*
HM	Violet wood sorrel	*Oxalis violacea*
HM	Michigan lily	*Lilium michiganense*
10.	Common carrion flower	*Smilax lasioneura*
9.	Pale Indian plantain	*Arnoglossum atriplicifolium*
8.	Starry campion	*Silene stellata*
7.	White wild lettuce	*Prenanthes alba*
6.	Purple milkweed	*Asclepias purpurascens*
5.	Yellow pimpernel	*Taenidia integerrima*

Purple milkweed, *Asclepias purpurascens*.

Michigan lily, *Lilium michiganense*.

4.	Golden Alexanders	*Zizia aurea*
3.	Elm-leaved goldenrod	*Solidago ulmifolia*
2.	Culver's root	*Veronicastrum virginicum*
1.	Shooting star	*Dodecatheon media*

Undoubtedly, other methods of assessment would yield other results. Perhaps your favorite savanna denizens were omitted. This is just one step *toward* recognizing a savanna flora. Some of the species listed may achieve higher levels of importance within other plant communities, and not all the species cited would be present at all—or even most—sites. It is my hope that these compilations bring us a little closer to understanding the composition of an important plant community that was nearly lost before we recognized it as something special. We'll need all the help we can get in learning how to put the pieces back together.

Greg Rajsky is the proprietor of True Nature Consulting, based in Woodstock, Illinois (www.true-nature.us). He has been engaged in ecological restoration of natural areas since 1990.

Carex Corner #8 by Lindaeus: The Fuzzy Sedges

Fuzzy is not in the eye of the beholder. Fuzzy is in the hand of the holder.

At least until you use your magnifier to see what the fuzz is about. Some *Carex* species with softly hairy leaves also have fuzzy perigynia (seed sacs). Illinois sedge genus *Carex* has many pubescent species, and Dr. Mohlenbrock's *The Illustrated Flora of Illinois: Carex, 2011 2nd ed* begins its identification keys with those first. Here are my favorite three species.

◄ In the wetlands, woolly sedge, *C. pellita*, is easily spotted as its seed heads with separate male spikes stand tall above its waving leaves. The fuzzy perigynia or seed sacs are ovoid and only 3 mm long. Each has a red and green scale in the female spikes. At the base, look for the ladder fibrillose sheaths with fine fibers. However, neither the sheaths nor leaves have hairs (Fig. 1-3).

◄ In sandy oak savannas, you must finger comb stands of sedgy and grassy leaves to find seed heads of downy green sedge, *C. swanii*. No separate male spike terminates the seed heads. Instead, the stamens are in scales at the base of the uppermost female spike. The lower spikes have only sacs. Broadly ovoid, the three-sided sacs are 3 mm and have fine nerves, if you can see them through the fuzz (Fig. 4-6).

◄ In woodlands, look for low growing tufts of hairy wood sedge, *C. hirtifolia*, in between the eye-catching wildflowers such as trilliums. Stoop and bend to touch this *Carex* species, one of six species in Illinois with both fuzzy sacs and soft fuzzy leaves. A narrow male spike terminates the seed head and slightly overtops two or three female spikes. The sacs are 3-5 mm long and fusiform, tapering to the apex and to the base (Fig. 7-9).

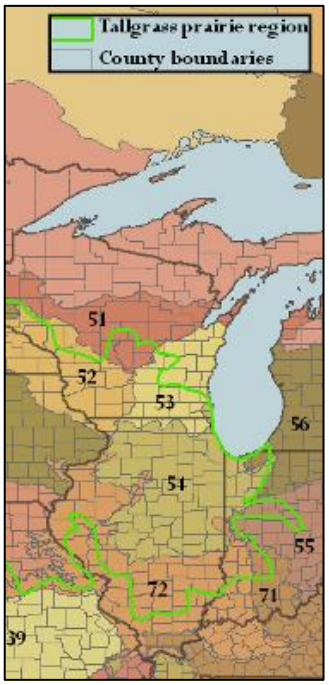
Lindaeus is INPS life member Linda Curtis who has written two books on Carex. www.curtistothethird.com.

News

Seed Bank is looking for Seed Collectors in Illinois

The Dixon National Tallgrass Prairie Seed Bank is an ex situ conservation program dedicated to the long-term conservation of native plant species of the tallgrass prairie. With the uncertainty of the impacts of climate change and other perturbations on our natural environments, long-term conservation strategies such as seed banking are increasingly being considered.

Based at the Chicago Botanic Garden (CBG) in Glencoe, Illinois, we seek to preserve the flora of the tallgrass prairie by systematically collecting seeds in 12 ecoregions that comprise the primary range of the tallgrass prairie biome. Of the over 3,000 native vascular plants that inhabit this region, 545 species have been targeted for collection in each of the 12 ecoregions. The species targeted were selected for their importance in habitat restoration. None are federally listed as threatened or endangered. The four Omernick level IV ecoregions that fall within the tallgrass prairie region in Illinois are #52, 53, 54 and 72 (Link from our website for a map of these ecoregions and our target list: http://www.sciencecollections.org/content/restoration-collection-target-species.)



Our collecting protocols are based on those developed by the international Millennium Seed Bank Project at Kew, UK. These protocols, listed below, were established to capture the breadth of genetic diversity within a plant population:

- Collect no more than 20% of mature seeds from perennial plant populations consisting of at least 50 individuals (10% of annuals).
- Collect a minimum of 3,000 seeds and ideally greater than 10,000 seeds.
- Collect across the population without bias for taller or more robust plants.

In addition to seeds, a complete collection includes 2 herbarium specimens, 3 photographs, one leaf sample for a DNA bank and a completed field data sheet. Most of our collections are made by contracting native plant enthusiasts from across the region that are familiar with the native flora of their area and the location of good native populations. For each collection, contractors are paid between $125 and $135.

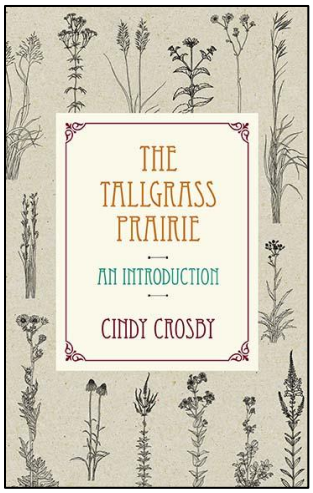
We are looking for trained botanists, land managers, or folks with a good knowledge of their local flora to assist us in making seed collections from Illinois. Information on the locations of large or small populations of species on our target list that have not yet been collected (no number registered in the ecoregion column for that species) is sought by Seed Bank staff. You can serve as a contractor for CBG and make the collections yourself or relay that information to us so that we can make the collection. On occasion, land managers will make collections for the Seed Bank in order to earn a little cash to support their management activities and by doing so, help preserve the genetic diversity of those plant species.

If you would like to get involved, please contact David Sollenberger, Seed Bank Manager, at dsollenberger@cicagobotanic.org or 847-835-6957. For more information on this project visit our website at www.sciencecollections.org and click on Seed Bank.

Your 2017-2018 Illinois Native Plant Society governing board!

In the top row (left to right): Jim Payne, Dr. John Taft, Susanne Masi, Dr. Bohdan Dziadyk, Amanda Pankau, Jean Sellar, Dr. Greg Spyreas.
Bottom row (left to right): Paul Marcum, Trish Quintenz, Rachel Goad, Janine Catchpole, Connie Cunningham, and Chris Benda.
Not pictured: Dr. Roger Anderson, Trevor Edmonson, and Jason Zylka.

***The Tallgrass Prairie: An Introduction* by Cindy Crosby**



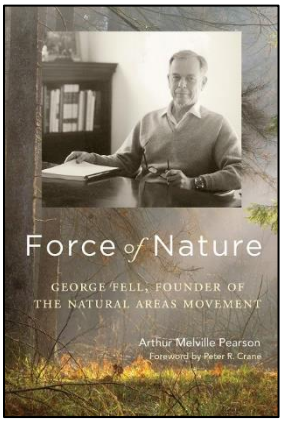
One of two exciting new books that INPS members are sure to find of interest.

"More than a region on a map, North America's vast grasslands are an enduring place in the American heart. Unfolding along and beyond the Mississippi River, the tallgrass prairie has entranced and inspired its natives and newcomers as well as American artists and writers from Willa Cather to Mark Twain. *The Tallgrass Prairie* is a new introduction to the astonishing beauty and biodiversity of these iconic American spaces.

"Like a walking tour with a literate friend and expert, Cindy Crosby's *Tallgrass Prairie* prepares travelers and armchair travelers for an adventure in the tallgrass. Crosby's engaging gateway assumes no prior knowledge of tallgrass landscapes, and she acquaints readers with the native plants they'll discover there. She demystifies botanic plant names and offers engaging mnemonic tips for mastering Latin names with verve and confidence. Visitors to the prairie will learn to identify native plants using the five senses to discover what makes each plant unique or memorable. In the summer, for example, the unusual square stem of cup plant, Silphium perfoliatum, sets it apart from its neighbors. And its distinctive leaf cups water after the rain."

More information about the book and the author is available on the Northwestern University Press website at http://www.nupress.northwestern.edu/content/tallgrass-prairie.

***Force of Nature: George Fell, Founder of the Natural Areas Movement* by Arthur Melville Pearson**



Another new book, about the foundation of the conservation movement in Illinois.

"Efforts to preserve wild places in the United States began with the allure of scenic grandeur: Yosemite, Yellowstone, the Grand Canyon. But what about the many significant natural sites too small or fragile to qualify as state or federal parks? George Fell was determined to save these places, too—prairie remnants, upland forests, sedge meadows and fens, ocean beaches, desert canyons, mountain creeks, bogs, caves and gorges, and the full spectrum of other habitats essential to biological diversity.

"*Force of Nature* reveals how a failed civil servant, with few assets apart from his tenacity and vision, initiated the natural areas movement. In the boom years following World War II, as undeveloped lands were being mined, drained, or bulldozed, Fell transformed a loose band of ecologists into The Nature Conservancy, drove the passage of the influential Illinois Nature Preserves Act, and helped spark allied local and national conservation organizations in the United States and beyond."

More information about the book and the author is available on the University of Wisconsin Press website at https://uwpress.wisc.edu/books/5609.htm#pk.

ILLINOIS NATIVE PLANT SOCIETY
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illinoisplants@gmail.com
www.ill-inps.org

Hoary puccoon, *Lithospermum canescens.* By Jody Shimp

The Harbinger May 2017

You can renew/join by filling out the form below or online at http://www.ill-inps.org/online-membership-form/. Please become a member and support this local non-profit organization dedicated to the preservation, conservation, and study of the native plants and vegetation of Illinois!!!

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I would like to help with:

- ☐ Leadership & Organization (serving on board at State or Chapter level)
- ☐ Leading Field Trips & Tours
- ☐ Organizing Workshops &/or Seminars
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- ☐ Other:_____

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