Editorial

With this issue, we welcome Marta Witt as Layout Designer. For those who don’t know her, she worked for 12 years at the Midewin National Tallgrass Prairie and retired from the U.S. Forest Service in 2015 after 38 years of editing brochures, writing speeches, and designing presentations in support of public lands around the country. Sensibly, she has moved to Arizona where, even in the mountains, winter is mild and sunny.

In This Issue
- President’s Message
- Welcome New Members
- Seed Collecting in Shawnee Part 2
- Super Sedges
- Amazing Frost Flowers
- Save the Dates
- News
I had the privilege of vacationing to Utah last October and while the landscapes are grand in scale, in general, they are not much different from many places in Illinois. In fact, the running joke with my wife throughout the trip was to look at sandstone alcoves or cliffs and say to each other, “eh, it looks just like Illinois.” 😊

All jokes aside, Illinois is a remarkable place that we all know and love. The state’s flora is outstanding, with over 3,500 vascular plant species. Few states of this size can boast about such a list. But we also know that relatively few people have the desire or ability to identify all these plants that occur in Illinois. And that is where the Illinois Native Plant Society comes in.

For over 30 years, we have been dedicated to the study, appreciation, and conservation of the native flora and natural communities of Illinois. Education is another main focus of INPS. Our newsletter (The Harbinger), journal (Erigenia), and monthly programming with seven chapters across the state are just some of the ways we reach our members.

Speaking of which, the state of INPS is strong. Membership is just under 600 members including 143 life members. Our financials are sustainable as well, a Biennial Report will be published later this year and will include a full financial statement. INPS is exclusively funded by membership dues and donations. Thank you to everyone who is a member or made a donation. I ask you to please renew your membership for 2017, by filling out the form at the end of this newsletter, or renewing online on our website at www.ill-inps.org/member. Also, consider asking a friend to join!

This is my last message as state president. Two years sure goes by quickly, but of course I am not going anywhere. I will serve in the past president role, Paul Marcum will take over as state president, and Janine Catchpole as president-elect. I am happy to turn things over to Paul and am confident he will excel in this role. I am also thankful Janine stepped up to have another term as president and INPS will benefit from her experience.

I am disappointed there was not an issue of Erigenia published during my term as president. However, the next issue is at the printer and is jam packed with articles. Plus, we have a plan to move forward and get back to a regular publication schedule (see below). So, I’d like to focus on the thing I’ve enjoyed the most during my term; traveling the state and meeting so many wonderful Illinois Native Plant Society members. I’ve been to events hosted by all the chapters and it’s been a true pleasure. Going forward, you can follow my speaking engagements on my website, www.illinoisbotanizer.com. I hope to see you again soon.
The end of the year brings the ballot of board members for 2017. This year we welcome Dr. John Taft and Susanne Masi to the board. John will take over as *Erigenia* editor for the 2018 issue. Susanne joined the board early in 2016 and will serve on the *Erigenia* committee. Both will make excellent additions to the board. I also just learned that Jim Payne has accepted to fill the Treasurer position. Jim is a life member of INPS and has served in this role for the Grand Prairie Friends previously. The webmaster position will remain vacant and we are considering a different approach to filling this crucial role. Stay tuned for more information there, but we are happy to report that Harv Koplo and his team have our website running smoothly again. Another crucial non-board member position has been filled as well. Marta Witt will be assisting Victor Cassidy as layout editor for *The Harbinger*. Special gratitude goes to resigning board members Cassi Saari and Keri Shimp.

To conclude, I’d like to thank all our members for their support and participation. I’d like to thank all the board members and volunteers at the state and chapter levels that make everything happen. And lastly, I’d like to thank my wife for her patience and understanding. It’s her hard work that allows me to be able to volunteer so much of my time to this great organization. We have come a long way in recent years and I am glad to have a part in continuing to grow the organization.

See you out there among the wildflowers and Happy Holidays!

Christopher David Benda

“One who does not know the plants he sees misses half the pleasure of life.” - Roland McMillan Harper

---

**INPS CHAPTER NEWS**

**NORTHEAST CHAPTER - Chicago**
Andy Olnas (President)
northeast.inps@gmail.com

**QUAD CITIES CHAPTER - Rock Island**
Bo Dziadyk (President)
bohdandziadyk@augustana.edu

**GRAND PRAIRIE CHAPTER - Bloomington/Normal**
Roger Anderson (President)
rcander@illinoisstate.edu

**FOREST GLEN CHAPTER – Danville**
Connie Cunningham (President)
conniejcunningham@gmail.com

**KANKAKEE TORRENT CHAPTER-Bourbonnais**
Trevor Edmondson (President)
trevoredmondson@gmail.com

**CENTRAL CHAPTER – Springfield**
Trish Quintenz (President)
trishquintenz@gmail.com

**SOUTHERN CHAPTER – Carbondale**
Chris Benda (President)
southernillinoisplants@gmail.com
Welcome New Members

At-Large
Richard Pearce

Central Chapter
Brad Bray & Patty Garrett
Annette Chinuge
Mark Imboden
Harv Kaplo
Mike Kennedy
Ann Klose & Rob Titone
Ruth Oliver
Gwen & John Podeschi
Dianna Smith
Michael Starasta
Kelly Vandersand

Quad Cities Chapter
Timothy Chambers

Grand Prairie Chapter
Marcia Sychra
Vanessa Voelker
Randy White

Southern Chapter
Mike & Joann Fricke
Paul & Sally Janssen
Linda Martin
Erin Medvecz

Northeast Chapter
Megan Beyer
Ruta Daugavietis
Benjamin Foster
Richard Glogowski
James Kourlas
Steven Mack
Sheri Moor
Heather Nelson
Julie Newfeld
Mary Pergander
Gary Sibio
Jacquelyn Whitler

Seed Collecting in the Shawnee National Forest
Part Two: What We Learned

By Susanne Masi
Photographs by Domenico D’Alessandro except where indicated.

This article continues Part 1, which was published in the September Harbinger. There the author described her experiences during the 2014 and 2015 seasons with her husband and photographer partner Domenico D’Alessandro, collecting seed of Regional Forester Sensitive Species (RFSS) in the Shawnee National Forest (NF). This was a joint project (Challenge Cost Share Agreement) between the U.S. Forest Service Eastern Region and the Chicago Botanic Garden’s Dixon National Tallgrass Prairie Seedbank. In this part, the author describes additional Shawnee NF species and places of interest as she reflects on what she learned from her experience.

*Sagittaria australis* (Southern Arrowhead; IL endangered)

We found this population in the acid gravel of springs in the Cretaceous Hills growing near the origin of a forested spring. A stoloniferous emergent species, it has distinctive winged petioles and a strongly recurved achene beak.
**Vaccinium stamineum** *(Deerberry; IL endangered)*

This rare one- to two-meter shrub differs from other blueberries in having exerted stamens and whitened leaf undersides. After much truck travel and work with topo maps, we found a robust population, but the shrubs in June were in green fruit on our first visit and still green on the second visit one month later, in July. I consoled myself with a herbarium specimen, loaded with green fruit.

---

**Hylotelephium telephioides** *(Sedum telephioides, American Orpine or Allegheny Stonecrop; IL endangered)*

This striking large succulent, loosely anchored in thin soil, hangs precariously over spectacular sandstone cliffs overlooking flat agricultural fields. It is a late bloomer. In August, we found only lovely pale violet flowers and in September very green seed. But the challenging climbs and hikes in both the first and second years were well worth the effort and provided plenty of auxiliary botanizing.
**Bartonia paniculata** (Screwstem; IL endangered)

We found a few, very inconspicuous screwstems with fading flowers and green seed. After counting 50 in a small area, I submitted an EO report for the FS and the State.

**Matelea obliqua** (Climbing Milkweed; IL threatened)

This is one of three rare vining milkweed species in Asclepiadaceae that grows in southern Illinois. Found in rocky barrens and woods, it has deep rose/maroon, narrow-petaled flowers and unique large, round leaves, alternately spaced along the vine and often overlapping at the base. We found only a single follicle after searching in both years.
I’ll mention a few other favorites.

**Oxalis illinoensis** (Illinois Wood Sorrel, IL endangered) has relatively large yellow flowers and large, soft, pale green clover-like leaves. It grows on wooded bluffs and slopes above streams. We found several populations, but no flowers, probably due to the dense shade in those locations.

**Cimicifuga rubifolia** (Black Cohosh or Appalachian Bugbane; IL threatened) grows on steep hillsides, a stately plant with large white-panicled inflorescences that glow in the dark woods. It flowers and sets seed late, and we could only collect a tiny amount of mature seed in mid-September.
Amorpha nitens (Smooth False Indigo) is limited to few locations in southern Illinois. It has branches and inflorescences similar to the more common shrub A. fruticosa (False Indigo), but differs in having glabrous (or nearly) leaflets and branches, and legumes without resinous dots. (Photo by John Taft.)

Chelone obliqua var. speciosa (Pink Turtlehead; Shawnee RFSS) is a lovely forb with a rose-purple-colored inflorescence. We found it sparsely scattered in swampy woods and along stream banks.

Lessons learned and issues encountered

I learned much about bloom and seed phenology. Late August to late September is the best time for collecting seed of most species, but early and very late bloomers and seed producers are important to capture. Some species have short seed windows, others persist much longer. It is ideal to check seed readiness regularly and to access multiple populations for genetic diversity. Therefore, local expertise is critical.

Some populations are largely vegetative, therefore mostly non-reproductive, such as Stenanthium gramineum (Grass-leaved Lily), and some are quite small, such as Rhyncospora glomerata (Clustered Beaked Rush). These factors are important for understanding life history and for listing recommendations. These lessons can be adapted to a rare plant monitoring program such as Plants of Concern at the Chicago Botanic Garden. This program is partnering with the Plant Biology Department at Southern Illinois University Carbondale to seek funding for rare plant monitoring and conservation in southern Illinois. The River to River Cooperative Weed Management Area is also a supportive partner of this project (Goad 2016).

It is no surprise to anyone, particularly on-the-ground FS and other managers, that the invasive species we observed are a significant issue, in particular Japanese Stiltgrass (Microstegium vimineum), Japanese Honeysuckle (Lonicera japonica), Sericea lespedeza (Lespedeza cuneata), Poison Hemlock (Conium maculatum), and others. Woody encroachment, deer browse, and insufficient fire impact many populations. In some cases, road runoff creates serious erosion problems. Human recreational usage on or off trail is quite extensive in such a diverse and beautiful area with abundant public lands, that attracts local and distant visitors and requires ongoing community outreach and education.
Land managers and agencies are acutely aware of these issues, and FS staff has recently updated the 2006 Forest Plan, Chapter VI, dealing with implementation, monitoring, and evaluation. FS staff is working on a comprehensive collaborative management approach to the Cretaceous Hills region. There are coalitions that address these issues cooperatively with the FS and IDNR, as well as with private landowners: the River to River Cooperative Weed Management Area, the Southern Illinois Invasive Species Strike Team, and the Southern Illinois Prescribed Burn Association.

We were inspired and encouraged to find a strong and active southern Illinois conservation community among public agencies and members of citizen groups such as the Illinois Native Plant Society, the Sierra Club, and the U of I Extension Master Naturalists program. These, along with regional college and university faculty and students, can form the basis of volunteer restoration work and ecological monitoring that is needed to expand on professional staff efforts.

The cooperative seed collecting grant I worked on ended in 2015, but I am confident that the long tradition of plant exploration work in southern Illinois will continue, and my hope is that seed collecting for restoration purposes can be included as an integral component in the management of both public and private sites. And speaking for ourselves personally, we will be back!
References


Goad, R. Email correspondence, July 31, 2016.


Plants of Concern: www.plantsofconcern.org


Shawnee National Forest: www.fs.usda.gov/shawnee


Acknowledgements

Chicago Botanic Garden
Pati Vitt, Emily Yates, David Sollenberger, Rachel Goad,

US Forest Service
Elizabeth Shimp, Jan Shultz, Kris Twardowski, Shannan Sharp, Audrey Sweet, Daryl Kirtley, Angela Rose

Illinois Native Plant Society
Chris Benda, Jean Sellar

Illinois Department of Natural Resources
Jody Shimp, Tara Keininger, Bob Edgin, Chris Evans, Judy Faulkner Dempsey (retired), John Schweegman (retired)

Illinois Natural History Survey
John Taft, Eric Ulaszek

River to River Cooperative Weed Management Area
Karla Gage

Carex Corner #7: The Super Sedges

By Lindaeus

The super sedges are appealing garden clumps with large seed heads raised above their arching leaves. Even though sedges have no showy petals, the spikes offer textural interest. The main choice for gardens is Carex grayi (Figure 1), which usually has one radiant spike per culm. Known as Mace Sedge in the UK, its common name in the US is Gray’s sedge as it was named for Asa Gray, an American botanist.
Gardeners enjoy *C. grayi* or its variety in their gardens, but also for bouquets. *C. grayi* is not for trowel-using gardeners. It’s for foot-on-the-shovel gardeners since the plants become stout perennials that should be divided every two or three years. That may not exhaust a gardener as does the annual split-ups of Hostas, but they are tough enough.

**Head-Bonking Weapon**

Gray’s Sedge is a splendid “teach-me” plant as the story of Asa Gray makes the plant of historical interest. The common name “mace sedge” is horribly historical as it refers to a head-bonking weapon of yore.

The super sedges grow in semi-shade in gardens, and also can be pot grown with lower bright annuals and placed where some eye-candy is needed on the patio. No one will know what it is but you will sweetly smile and say, “Oh, that’s a historically named sedge.” After an unsuspicious pause, you ask, “Would you like a part when I divide?”

Two sedges that require moister soil are *C. lupulina*, hop sedge and the similar *C. lupuliformis*, hop-like sedge (Figure 2).

They both have two or more long female spikes and like *C. grayi*, they all have a narrow upright male spike. Bees do not visit, and pollen from stamens falls by gravity and wafts in the winds.

While hop sedges’s spikes are 1–2 inches long, the larger hop-like sedge has 2- to 4-inch-long spikes. If in doubt, roll a mature dry perigynium between the thumb and forefinger and dislodge the single three-sided achene.

An achene of *C. lupuliformis* has knobbed or elbow-like edges while *C. lupulina* has rounded edges. They both have looped styles that connect their achenes to the openings in its perigynia. That’s where the sticky stigmas hung out and caught airborne pollen. The pollen had a long journey down the looped style before it reached the ovum in the achene.

In the southern Illinois forested swamps, *C. gigantea*, giant sedge (Figure 3), has 2- to 3-inch-long spikes with long-necked perigynia. The three-sided achenes are about a half-inch long and have extended elbow-like margins.

While hop sedge and hop-like sedge grow in many counties in Illinois, giant sedge grows in only four southernmost counties including the LaRue-Pine Hills, a protected area in the Shawnee National Forest. A life-list of “must visit” botanical delights, that forest is surely high on the list for sedgers.
Fig. 4. A perigynium of Carex lupuliformis is subuloid with a long tapering beak.

Fig. 5. Inside a perigynium of C. lupuliformis is an achene with 3 knobbed margins.

Fig. 6. Carex lupulina has smoother margins on its three-sided achene.

Fig. 7. Carex gigantea has wider achenes with abrupt attachment to its style.

Fig. 8. Carex grayi’s achenes are rounded on their three angles.

All photos by Linda Curtis. Lindaeus, Linda Curtis, has written two books on Carex. www.curtistothethird.com

Amazing Frost Flowers

The last several mornings have been perfect for frost flowers. Before the ground is frozen, water is still being taken up by plants. Freezing conditions overnight cause the water in the stem to freeze and expand, cracking and splitting the stem tissue. Capillary action continues to draw water up the stem where it freezes upon contact with the air, creating delicate ice ribbons called "frost flowers." These typically form on two species in extreme southern Illinois and areas south: frostweed (Verbesina virginica) and wild oregano (Cunila origanoides). I saw hundreds in some areas, they looked like snowballs! – By Chris Benda, the Illinois Botanizer.
Save The Dates

Local INPS chapters sponsor numerous wildflower walks, presentations, and volunteer workdays. Visit the website of your local chapter for information.

Wild Things – February 18, 2017

The Wild Things Conference 2017 will be an all-day event at the University of Illinois Chicago (UIC) Forum on February 18. The UIC Forum is located at 725 Roosevelt Road, a few steps from the UIC-Halsted station of the CTA. There will be a plenary session for all attendees and seven breakout sessions, each with as many as eight presentations to choose from. There will be a one-hour poster session from five to six p.m. and for those still standing, a “Habitat 2030 Wink and Swillhelm After Party.” For details and to register, visit www.wildthingscommunity.org/wild-things-conference-2017.

INPS Members will be all over the place at Wild Things. Louis Mulé will talk about the seven streams that run through Orland Park and Trevor Edmundson will participate in a panel discussion called “100 Years of Thismia Hunting” (if the Cubs could do it, why not Trevor?). Chris Benda will talk about Illinois pioneer cemetery prairies and tireless Trevor will describe Lobelia Meadows, a restored wetland system at the Midewin National Tallgrass Prairie.

Bill Glass will also talk about Midewin and Chris Benda will introduce “a novel card game” that makes restoration fun. Katherine Garness will counsel listeners to “Grab Your Pencils – Drawing as a Restoration Strategy.” Apologies to any INPS members we have missed.

Fifth Annual Indigenous Plants Symposium - March 31 – April 2, 2017

John A. Logan College, Carterville, IL. Conference Presentations on April 1. This event is sponsored by the Southern chapter of INPS and details are still being worked out. Visit their website for updates.

INPS Annual Gathering – June 2 to 4, 2017

Bohdan Dziadyk and the Quad Cities Chapter of INPS will host the INPS Annual Gathering at Augustana College in Rock Island. The meeting will kick off on late Friday afternoon in the college’s Augustana Hall with “heavy hors d’oeuvres and adult beverages” followed by two 45-minute presentations.

The organizers are planning numerous Saturday and Sunday field trips on both sides of the Mississippi River following the schedule that has served the state organization well for many years.

The major events of Saturday evening will take place in the Wilson Center. These include a silent auction, the traditional banquet, and a plenary speaker on the topic of “plant blindness” in modern society.

More details will follow in the spring Harbinger and on the INPS website.
NEWS

Yet Another Reason to Destroy Buckthorn

The Friends of the Chicago River are providing reproductive assistance to numbers of animals that live next to water in forest preserves. To help bats, the Friends constructed large maternity colonies. The ospreys got 80-foot-high nesting platforms that replace dead trees.

To reproduce successfully, turtles need open space in a sunny place where they can dig holes for their eggs. The river-edge habitat where they once laid their eggs is now covered with buckthorn that overshadows native plants. The turtles end up nesting along roadways and trails where they can be harmed or killed by hikers, bikers, and even motorists. Predators discover the nests with predictable results.

Once the Friends understood the problem, they found resources, both financial and volunteer, to clear out large tracts of buckthorn along the river system. Over a three-year period, the Friends have cleared 75 acres of prime turtle habitat across five different river-edge sites.

Whatever It Takes…

During this past summer, Linda Curtis, the INPS sedge guru, found several Carex species at Nachusa Grasslands that nobody knew were there. Some of these grow on the sand ridges where the bison eat them. Prudently, Curtis stayed on the other side of the fence.

Using dung analysis, which is “not as awful as you’d expect,” Curtis is working to identify the sedges that the bison eat.

“The dung is put in water until pieces of leaves and seeds float apart,” she writes. Bathroom tissue pieces dissolve into water and the resulting solution is poured over a fine screen until water drains out. After drying, the sheet of paper is pulled off and cut into study sheets. Then microscope analysis reveals the perigynia of the sedges.

“Ah well,” she concludes, “whatever it takes.”

Have You Heard?

Nachusa bison herd with new calves. Photo by Jim Curtis.

Chris Benda has created and administers a group on Facebook called Illinois Botany where you can ask plant ID questions, post observations, and share your plant experiences. Visit https://www.facebook.com/groups/illinoisbotany/.

According to Rachel Goad, the National Bobwhite Conservation Initiative has developed a map-based tool (NatiVeg) to help people identify native vegetation to plant in their area. Rachel reports that she played around with the tool a bit and concluded that the recommendations for Illinois are fairly scant and focused on cultivars at present.

Chris reminds INPS members that they can manage their subscription preferences to the INPS statewide listserv. Here is a link that explains how to edit them. https://wiki.illinois.edu/wiki/display/maillists/Subscriber+Account+and+List+Management.

---

**You Might be a Botanist**

*An original poem by Illinois Botanizer*

If you take the time to identify lawn and garden weeds before pulling them out…
If you know at least a dozen different terms to describe “hairy” …
If you store a dissecting microscope on your kitchen table…
If you have no problem remembering botanical names, but keep forgetting common names…
If you have botany manuals in your bathroom as reading material…
If you tell your family you spent all week looking at plant specimens in the herbarium, and they give you a funny look…
If you go out looking at plants during your day job, and then go out looking at plants on your day off…
If you wear your loupe out in public… (my wife calls it my nerd necklace)
If there are *Desmodium* seeds on your bath towels, (and you know what *Desmodium* seeds look like)…
If you open up random books and plant leaves fall out…
If you are terrible at yard work and only mow your lawn once a month…
If your bookshelf is overflowing with plant field guides…
If you pick seeds off your clothes and identify them before tossing them away…
If the book to the flora of your state is always within arm’s reach…
If you have bags of plants in the crisper drawer of your refrigerator…
If everyone who hears about your occupation thinks you grow marijuana…
If the phrase “scarious margins on the involucral bracts” makes sense to you (and you know what species I might be referring to!) …
If you are out all day collecting plants, and then come home, shower, eat, and then return to looking at plants…
Oxalis illinoensis
Illinois Wood Sorrel

Winter Harbinger December 2016
You can renew/join by filling out the form below or online at our website at www.ill-inps.org/member
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!!!

<table>
<thead>
<tr>
<th>Join us!</th>
<th>□ New Member</th>
<th>□ Renewal</th>
<th>□ Address Change only</th>
<th>□ Additional Donation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Street</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>City</td>
<td></td>
<td>State</td>
<td>Zip</td>
<td></td>
</tr>
<tr>
<td>Phone Number</td>
<td></td>
<td>Membership Year</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Email</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

PLEASE MAKE CHECKS PAYABLE TO: Illinois Native Plant Society
INPS, Membership, P.O. Box 271, Carbondale, IL 62903-0271

The Harbinger Newsletter is sent electronically by email.
☐ Check here to receive the newsletter BY MAIL.

Erigenia, our scientific journal, is now available digitally as well as in print.
Please indicate your preference for receiving the journal.
☐ Email only  ☐ Postal Mail only  ☐ Both

<table>
<thead>
<tr>
<th>Membership Categories</th>
</tr>
</thead>
<tbody>
<tr>
<td>□ Student.................. $15.00</td>
</tr>
<tr>
<td>□ Individual.............. $25.00</td>
</tr>
<tr>
<td>□ Family.................... $35.00</td>
</tr>
<tr>
<td>□ Institutional (nonvoting) $20.00</td>
</tr>
<tr>
<td>□ Supporting............... $50.00</td>
</tr>
<tr>
<td>□ Patron.................... $100.00</td>
</tr>
<tr>
<td>□ Business............... $125.00</td>
</tr>
<tr>
<td>□ Life.................... $500.00</td>
</tr>
<tr>
<td>□ Illiana (life)........... $1,000.00</td>
</tr>
<tr>
<td>□ Dodecatheon (life)..... $2,000.00</td>
</tr>
<tr>
<td>□ Erigenia (life)......... $3,000.00</td>
</tr>
</tbody>
</table>

Chapter Affiliation
□ Central (Springfield)
□ Forest Glen (Westville)
□ Grand Prairie (Bloomington)
□ Kankakee Torrent
□ Northeast (Chicago)
□ Quad Cities (Rock Island)
□ Southern (Carbondale)
□ Other/Uncertain

I would like to help with:
□ Leadership & Organization (serving on board at State or Chapter level)
□ Leading Field Trips & Tours
□ Organizing Workshops &/or Seminars
□ Giving Workshops &/or Seminars
□ Public Speaking
□ Fund Raising
□ Website Assistance/Management
□ Public Media/Communications
□ Writing/Submitting articles
□ Photography
□ Other: ___________________