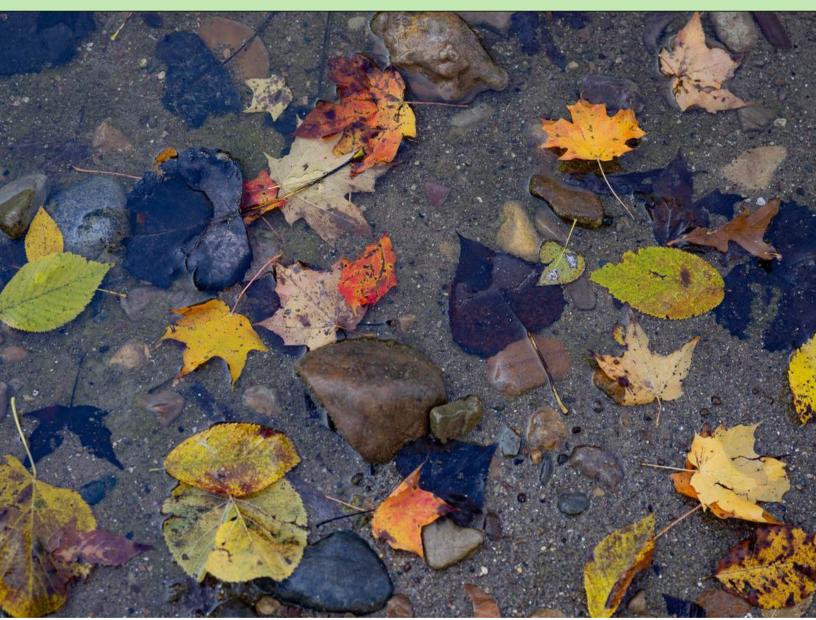


The Harbinger

Newsletter of the Illinois Native Plant Society

FALL 2024 VOL. 41, NO. 3

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



A mosaic of fallen leaves in the Vermilion River, Vermilion County, Illinois.

Photo by Brian Charles.

In This Issue

President's Message • INPS News

More Books for the Botanist

Botany 101: Plants and Their Environment

Patience is a Virtue • Two New Illinois Plant Records

Other News & Web Links • Botany Humor

Governing Board

Interim President

Dr. Emily Dangremond

Vice President

Susanne Masi

Secretary

Nancy Smith

Treasurer

Becky Croteau

Erigenia Editor

Dr. John Taft

Harbinger

Chris Benda (Editor) Brian Charles (Editor) Katie Kucera (Layout)

Membership

Kelsay Shaw

Webmaster

Kate Ahrens

At-Large Board

Angela Kerber Karen Larson Daniel Pohl Eric Ulaszek Nick Seaton Carolyn Villa

Message from the President

Greetings INPS members,

Happy Autumn!

We recently welcomed Nancy Smith as the new INPS state board secretary, and we thank Lailah Reich for her service in that role for the past two and a half years.

We had a successful Annual Gathering in July this year, hosted by the Northeast Chapter. The Southern Chapter will host next year's Annual Gathering in the late spring. The date will likely be April or May and we will send a save the date as soon as the date is finalized. If you like planning events, we are looking for a few members to join the committee to help plan the Annual Gathering. This is a new initiative that will allow some continuity year-to-year in planning the event, while continuing the tradition of chapters alternating as hosts. If you are interested, please contact illinoisplants@gmail.com.

Our website has been undergoing updates over the last several months. Please be patient as we continue to improve its security and "backend" issues. We hope to add an events calendar and more member resources soon.

There are quite a few fall plant sales around the state, which is exciting for anyone adding to their native garden (including me!).

On a personal note, I have moved back to Illinois and am happily settling into life in the Prairie State. I also published a plant-centric children's book called Meet the Trees this July. I hope every member can connect with INPS in some way this fall. Enjoy the cooler weather!

Sincerely, Emily Dangremond

Message from the Editor



I hope you are all having a lovely start to fall and enjoying the usual bounty of the Aster family. This issue recaps the Annual Gathering and Wilhelm Symposium, and features articles on resources for both identifying and restoring native species. We also have an article on the fascinating biology of plant responses to environmental cues just in time for the fall changes. Please enjoy, and let us know if there is any content you would like to contribute or see in a future issue.

—Brian Charles, Co-Editor



Prairie restoration in Champaign, IL.

Submissions to the newsletter are always welcome!

Please contact editors Chris Benda
(botanizer@gmail.com) and Brian Charles
(brianmc4@illinois.edu). Deadlines are March 1, June 1,
September 1, and December 1 for the spring, summer,
fall, and winter issues respectively.

INPS Chapters

CENTRAL CHAPTER Springfield

Trish Quintenz (President) trishquintenz@gmail.com

KANKAKEE TORRENT CHAPTER Bourbonnais

Floyd Catchpole (President) fcatchpole@comcast.net

FOREST GLEN CHAPTER Champaign/Urbana, Danville Paul Marcum (President)

marcum@illinois.edu

NORTHEAST CHAPTER Chicago

vacant (President) northeast.inps@gmail.com

SOUTHERN CHAPTER Carbondale

Nick Seaton (President) southernillinoisplants@gmail.com

GRAND PRAIRIE CHAPTER Bloomington/Normal

Joe Armstrong (President) jearmstr@ilstu.edu

QUAD CITIES CHAPTER Rock Island

Samantha Chavez (President) sjchavez0@gmail.com

INPS News

Annual Gathering 2024: Tribute to Schulenberg Prairie By Susanne Masi

It all came together beautifully. After much planning and organizing by the Northeast Chapter Board and Annual Gathering Committee, coordinated by Kevin Scheiwiller and his support team: Kathy Thomas (Benedictine liaison), Ali Touloupas (field trips), Dom Amato (tech expertise) and Kathy Garness (all around consultation), more than 60 members gathered from July 12-14 at Benedictine University in Lisle, IL. Many participants stayed in Benedictine's comfortable student housing and, according to many, the food provided throughout the Gathering was interesting and quite delicious.

After a warm welcome by INPS President Emily Dangremond, Friday night was devoted to presentations by 2023 Research and Survey Grant recipients introduced by Grant Committee lead, Susanne Masi. We learned about Butterfly Weed's genetics in remnant populations (Mary Ashley), fire history and functional plant diversity in Illinois forests (Dan Marshalla), competition among introduced herbaceous plants in woodland restorations (Rory Schiafo), Canebrake population ecology and forest cover in Southern Illinois (Thanchira Suriyamongkol), and surveying for rare species and pollinators in Illinois' sand prairies (Brian Charles).*

Saturday's (and Sunday's) field trips* brought attendees to diverse and interesting sites throughout northeastern Illinois, including Schulenberg Prairie at the Morton Arboretum - the focal theme of this Annual Gathering. Saturday evening's events began with the annual Membership Meeting and buffet dinner. President Dangremond spoke of the past year's accomplishments and plans for the upcoming year. The co-keynote speaker, Pat Armstrong, spoke movingly about the history of Schulenberg Prairie, its creator Ray Schulenberg, and his prophetic vision of prairie restoration which has had significant ripple effects throughout the region and beyond. This story – presented through fascinating historic photos – included botanical and restoration greats like Robert Betz, Gerould Wilhelm, Floyd Swink, Pat Armstrong herself, and, preceding Ray, May Watts. Pat's presentation was followed by co-keynoter Kurt Dreisilker, Head of Natural Resources and Collections Horticulture at the Morton and current manager of Schulenberg Prairie. Kurt spoke of the status of the Prairie today and the impact of Ray Schulenberg's work as its influence has spread regionally over the decades, and now globally through Botanic Gardens Conservation International.

The camaraderie found in connecting with old and new friends and colleagues who share an enthusiasm for native plants and involvement in the natural world is always a highlight of any Annual Gathering! See you all at next year's AG!

* Check the INPS website: <u>www.illinoisplants.org</u> for more detailed information about the grant presentations and field trips, led by Pat Armstrong, Kurt Dreisilker, Ken Klick, Mark Kluge, Scott Kobal, Eriko Kojima, Julie Mason, Susanne Masi, Ed Max, Alayna Mikulski, Stephen Packard, Laurie Ryan, and Sara Schultz. Thanks to the Morton Arboretum for free access all day Sunday for AG participants.





Top row, from left to right: Field trip to Wright Woods Nature Preserve high-quality mesic woodland and northern flatwoods (photo by Ken Klick); Two-striped Planthopper (*Acanalonia bivittata*) (photo by Brian Charles).
 Middle row, from left to right: Hosah Prairie field trip participants searching for plants; *Liatris cylindacea* (photo by Brian Charles); Kendall Winter guiding Hosah Prairie tour (photo by Kathleen Garness). Bottom row, from left to right: *Lobelia kamlii* (photo by Brian Charles); Laurie Ryan giving a tour of Glacial Park (photo by Bernstein Smith); Laurie Ryan at Glacial Park pointing out Pale Indian Plantain (photo by Bernstein Smith).

Chapter News

Wilhelm Symposium, August 2024

By Susanne Masi

On August 5, 112 enthusiastic plant people—professional botanists/ecologists and savvy volunteers—gathered for four days at Potawatomi Inn at Pokagon State Park in Steuben County, Indiana. The occasion was the symposium to honor Gerould Wilhelm's lifetime botanical work in our region, organized by Bill McKnight of the Indiana Academy of Sciences. Not only did Jerry catalogue in comprehensive detail the flora of the Chicago Region—with co-authors, the renowned Floyd Swink (2004), and then Laura Rericha (2017)—he developed a system for systematically evaluating the natural quality of preserves and other sites. The Floristic Quality Assessment (FQA) has been adopted and adapted in numerous states and provinces of North America and beyond.

The Symposium featured a who's who of speakers from regional botanical circles. Doug Ladd, who gave a powerful keynote address, Paul Rothrock, Tony Reznicek, Bill McKnight, Scott Namestnik (Indiana State Botanist), Greg Spyreas, Justin Thomas and Jerry himself reminisced about Wilhelm's life and the significance of his work. There was a spirit of fun and camaraderie among friends and colleagues, coupled with serious discussion. In more informal sessions, people whose lives had been touched and influenced by Jerry spoke, including Ken Klick, Stephen Packard, Linda Masters, and John Bacone.

INPS was well represented at the Symposium. Twenty INPS members attended, and INPS's Paul Marcum and Chris Benda led exciting field trips to some remarkable natural areas—the type of trip where participants stop every few feet to examine a new plant. Y'all know what I mean. Everyone agreed that the food was amazing—gourmet, really—a standout presentation unrivaled by most other conferences. Bill McKnight really did an excellent job organizing the symposium, along with help from many others, including Kathy Garness, who assisted substantially with the planning and implementation of this event.

INPS supported the Symposium as a co-sponsor with a substantial gift; Susanne Masi was the chosen INPS representative, hosting a well-signed table featuring a variety of INPS documents, including the most recent issue of *The Harbinger*.

Susanne Masi is Vice President of the INPS statewide governing board and the founder of the Plants of Concern program at the Chicago Botanic Garden.







More Books for the Botanist

By Jack Shouba

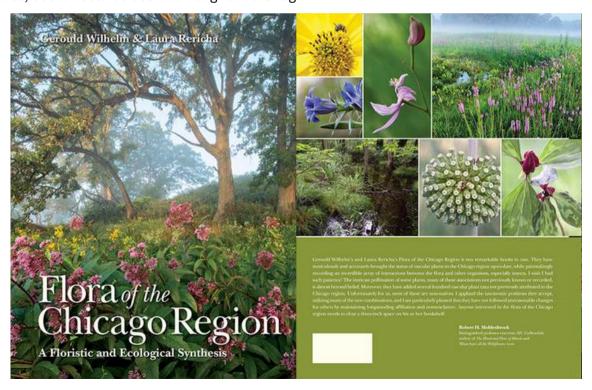


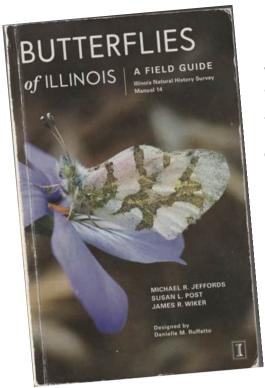
In a previous issue, we discussed field guides to wildflowers, books small enough to carry in the field and complete enough that there is a good chance that you can identify most flowers that you are likely to see. Now we'd like to suggest some very useful books that are either too heavy to carry in the field or that don't include all of the plants you are likely to see. Since guides to wildflowers generally don't include grasses, sedges, rushes, trees, shrubs, or ferns you probably want some more specialized books on your desk or bookshelf.

Flora of the Chicago Region by Gerould Wilhelm and Laura Rericha is too heavy to carry in the field so it sits on my desk. With its keys and technical terminology, it's not for beginners, but it contains a wealth of information. For the 22-county Chicago region, it shows every plant species ever collected in each county (though the plant may have been extirpated). If I want to review the differences between Fringed Gentian (*Gentianopsis crinita*) and Small Fringed Gentian (*Gentianopis virgata*), it's in there. It tells me that *Gentiana procera* and *Gentianopsis procera* are names that have been used for the Small Fringed Gentian, which is very helpful since many of my other books use the older names.

Wilhelm and Rericha also describe the habitat, other associated plants, and which bees, ants, butterflies, or other insects visit the plant, pollinate it, or lay eggs on it. They include the wetland category, from Upland to Obligate Wetland, and the C value, or Conservatism value, from 0 to 10. The meaning of the scientific name and the person who named it are included.

I should point out, though, that with a 2017 publication date, it doesn't contain the latest taxonomic changes, and it sometimes disagrees with iNaturalist, FNA, or other sources. The book covers only 22 counties, but it would be useful throughout the region.

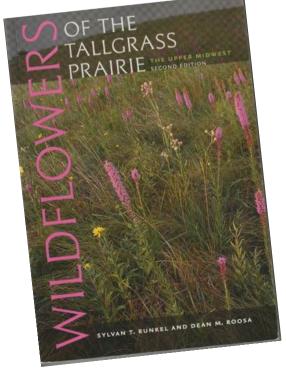




While I'm out photographing wildflowers I also photograph "flying flowers" and use the book *Butterflies of Illinois: A Field Guide* by Michael R. Jeffords, Susan L. Post, and James R. Wiker. The inside front cover has photos of the upper side of all of the butterflies and the inside back cover contains photos of the underside, making it easy to use.

Grasses, Sedges, Rushes: An Identification Guide by Lauren Brown and Ted Elliman features both drawings and photographs and is aimed at the beginning-to-intermediate botanist. (Note: this is an update to Brown's Grasses: An Identification Guide; you'll want this newer edition.) It is small enough to carry in the field and includes many of the common species you are likely to find, though it is by no means complete.





A book specific to prairies that I like is Wildflowers of the Tallgrass Prairie: The Upper Midwest (Second Edition) by Sylvan T. Runkels and Dean M. Roosa. Written in 2009, names are mostly up-to-date, the photos are large, and it contains over 260 species, including a few grasses. The arrangement is more-or-less by flowering date, with pasqueflower first and aster last (but asters are combined onto one page). It includes Native American uses of plants, additional common names, and other interesting features of the plants.

Botany 101: Plants and Their Environment

By Jason Koontz and Todd Linscott



To complement the turn of the seasons we are experiencing, we thought we'd focus our Botany 101 lesson on how plants respond to their environment, and especially in Illinois, how they prepare to go dormant for the winter.

Just like animals, plants have hormones that help them respond to stimuli from the environment. Hormones, generally, are a chemical produced in one part of the body that has a response elsewhere. That said, other chemical products can have hormone-like effects on living beings. Here is a non-exhaustive list of several common plant hormones: Auxins, Cytokinins, Gibberellins, Abscisic Acid, Ethylene, Brassinosteroids, Salicyclic acid, Systemin, Jasmonic acid, and even sugars.

Auxins were some of the first plant hormones discovered by how plant seedlings bend towards the light (see Figure 1). Auxin stimulates cell growth via elongation of individual cells. It promotes apical dominance where the lateral buds along a stem are kept in a dormant state. When you prune your plants to encourage "bushier" growth, you are releasing those lateral buds from apical dominance and they start growing, filling in the plant. Auxins also stimulate vascular tissue development in tissue culture as well as lateral and adventitious root formation. Ever use rooting powder when taking cuttings of your plants to propagate more? You were probably using an auxin like Indole-Acetic Acid (IAA). Auxins also have been linked to ethylene production, so they work in concert with other hormones. One of the chemical components in various plant herbicides is actually an auxin: 2,4-D. It effectively makes a plant grow itself to death.

Cytokinins, like auxins, also promote growth, but through cell division and differentiation. They can also help delay aging. Cytokinins are extensively in tissue culture in concert with auxins.

Different ratios are used to promote the development of plant organs from the mass of cells that are being cultured to produce plants in the horticulture trade.

In 1926, Japanese scientists discovered that a fungus in the genus *Gibberella* causes what they called "foolish seedling disease." What these scientists were witnessing is rice plants growing much sooner and becoming too tall too quickly so they fell over and died (see Figure 2). The fungus made a hormone that promotes cell elongation and seed germination. Additional experiments show isolates from the fungus could be used to reverse dwarfism in short growing varieties of different plants (see Figure 3). These chemicals were named Gibberellins after the fungus and there are several different kinds. Some are used to promote flowering in place of cold treatment.

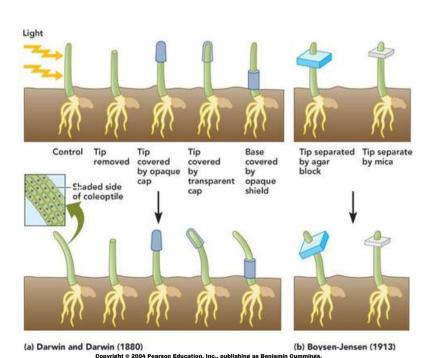


Figure 1. (a) Shows how Darwin of natural selection fame demonstrated the effect of Auxin on plant seedlings bending towards light. **(b)** Boysen-Jensen took it one step further and demonstrated that the "signal" came from the apical tip of the shoot because it could diffuse through agar, but not the mineral mica.



Figure 2. Rice seedlings: "normal" on left, those exhibiting "foolish seedling disease".



Figure 3. A dwarf pea cultivar that when treated with Gibberellin grows like regular sized pea plants.

Ethylene is actually a gas that acts like a hormone. It is usually involved in various aging responses like fruit ripening, stress, and leaf abscission (more on this in a bit). Have you ever noticed various fruits ripening faster if they are also near ripe fruits? They often give off ethylene, and it's another reason why unripe bananas ripen more quickly if you put them in a paper bag. Abscisic Acid, contrary to its name, does NOT promote leaf abscission. At one time it was implicated, but current work suggests it is really involved in promoting dormancy as well as stomata (pores in leaves) closing during water stress.

Leaf abscission is the process of shedding leaves which we will witness soon, unless autumn has already arrived in your area. A plant prepares to shed its leaves with the development of the Abscission Zone (see Figure 4) which is a specialized region of cells that break down and prepare for the leaf to be removed from the plant. It is similar to a wound healing response before the wound actually happens!



Figure 4. Close-up of the leaf abscission zone.

Jason Koontz and Todd Linscott are biology professors at Augustana College and Black Hawk College, respectively.

Brassinosteroids were so named because these hormones were first isolated from various *Brassica* genera (cabbage, broccoli, etc.). Their action is similar to Auxins in that they also promote cell elongation and division, but they have also been shown to play a role in differentiation of xylem, as well as to delay leaf abscission.

The remaining plant hormones collectively have been shown to play various roles in plant defense whether they are wound responses to starting production of other chemicals that communicate to neighbors that the plant is under attack. These hormones include Systemin, Salicylic acid (isolated from *Salix*, genus of willows; we use it as a pain reliever), Jasmonic acid, and even sugars.

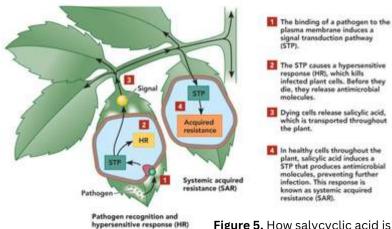


Figure 5. How salycyclic acid is used in plant defense.

Patience is a Virtue

By Fred Delcomyn



Have you ever thought about starting a little prairie of your own? You don't need hundreds of acres. A plot of less than 100 feet on a side, less than 1/4 acre, will do. It's been done by lots of people, so it can't be that hard, right? Maybe you even know someone who has done it.

It should be simple enough. After all, more than 60% of Illinois was once covered by tallgrass prairie, so it's not as if the soil and climactic conditions would not be conducive to such a project.

So how do you get started? There are plenty of articles and books that can help you with that, to say nothing of first-hand advice available on the internet. This article is not one of them. Instead, whether you like to research a topic for years before starting a big project or you prefer to forge ahead with only basic information, this article is about tempering your expectations.

First, you can't just get a plot of land and let it go. Farming in Illinois for nearly 200 years has removed any seeds of native prairie plants from the soil, so you can't leave the land unattended and expect it to produce a prairie. You have to spread new seeds for native grasses and flowering prairie plants (called forbs).

Once you seed it, though, your prairie will just grow, right? Not quite. You may be thinking to yourself, 'articles on germination say most germination takes place within a year, so I should get a profusely blooming prairie by the first or second year.' It is true that germination usually takes place in less than a year. However, most germinating prairie forbs do not flower in the year in which they first germinate. Most prairie plants are perennials, living for many years. During the first few years of life, these plants invest their energy into putting down deep roots, roots that are often at least as deep as the plant is tall. It takes a while for 7' to 8' tall compass plants to grow root systems extensive enough to support the plants so they can put resources into flowers. What this means in practice is encapsulated in the title of this article. You're going to need patience to see your prairie thrive.

In fact, in your first year you may think all you're doing is growing weeds—mare's tail, lamb's quarter, pigweed, giant ragweed, velvetleaf—the list of unwanted plants that may be growing where you seeded prairie seems endless. Don't despair, though. If you spread the seeds of black-eyed Susan (*Rudbeckia hirta*) or partridge pea (*Chamaecrista fasciculata*), you will be rewarded by flowers within 12 months, because these two plants reliably produce flowers the first year after seeding. Seeing their colorful yellow flowers among all the weeds should give you some hope that your prairie will eventually thrive.



Figure 1. A typical prairie recreation project the first year after seeding. Only the yellow black-eyed Susan plants are flowering from the seeding. Instead, the site is dominated by several weeds, including mare's tail and a variety of weedy grasses like giant foxtail. The plants in the background in front of the trees are giant ragweed.

In your second year, your prairie will be looking a bit better, with fewer weeds and more prairie flowers. You may see false sunflower (*Heliopsis helianthoides*), rattlesnake master (*Eryngium yuccifolium*), rosinweed (*Silphium intergrifolium*), and goldenrods (*Solidago* sp.), among others. That's progress, though you will still see plenty of weeds.





By years three and four, you're likely seeing foxglove beardtongue (*Penstemon digitalis*) and pale purple coneflower (*Echinacea pallida*), as well as Silphium species like compass plant (Silphium lacinatum) and prairie dock (*Silphium terebinthinaceum*). By this time many of the weeds have abated, and you are unlikely to see mare's tail, lamb's quarter, velvetleaf and others in your prairie.

Five or six years after you seeded your prairie, it is finally beginning to look like a prairie. Weeds that may still be present, like giant ragweed, are easily controlled. You may still be seeing new plants blossom, though, so your patience will still be tested. Royal catchfly (Silene regia) may not bloom until year five, and blossoms on white wild indigo (Baptisia leucantha) may appear even later. Your specific growing conditions may influence the time to first flower as well.

Figure 2. A prairie recreation project the third year after seeding. Black-eyed Susan are still blooming, now joined by rattlesnake master (white flowers in the top center) and gray-headed coneflower (yellow flowers at the far left) as well as other forbs. There are significantly fewer weeds.

If you're impatient to see what is coming up in your little prairie, you can take a look at various books and online resources that picture prairie plant seedlings and see if you can identify any in your own prairie. The book, *Prairie Seedling and Seeding Evaluation Guide*, is a good source. You can also temper your expectations by checking out the appendix in this book that lists the time it takes for many common prairie plants to blossom after seeding. The book is available to download free from an Iowa state government site, https://publications.iowa.gov/43148/.

Figure 3. Royal catchfly, a spectacularly showy plant may not blossom until the fifth year after seeding.

Identifying seedlings is not for the faint of heart, though. Quite a few forbs resemble one another closely when they first germinate and even over the course of the first year. Fortunately, for the impatient among us, there are exceptions. Among these, compass plant, prairie dock, and white wild indigo (*Baptisia leucantha*) all have leaves that

are uniquely distinctive. This enables the plants to be identified years before they begin to flower. So even if you have to wait six or seven years for white wild indigo to bloom, you can still track the development of the plants, wondering each year if this is the year in which they finally show flowers.

Patience is definitely a virtue when it comes to establishing a prairie, but it is patience well rewarded. It's always exciting to see a new forb bursting into bloom in your prairie and seeing the showy visitors it attracts. Keep a written and photographic record of what blooms each year, and you can look back in later years and see just how your prairie developed. I guarantee you will be astonished!

Figure 4. An eastern swallowtail butterfly feeding on wild bergamot in an established prairie.



Two Plant Records New to the State!

By Christopher Benda



If you're really interested in wild plants in Illinois, and if you are reading this then you probably are, then you know that there is still plenty to observe and learn regarding the flora of Illinois. Previous issues have documented a few species observed in recent years that are new to the state, meaning they had not previously been documented as occurring within the state boundary of Illinois. Now that the field season is winding down, I'd like to introduce you to a couple species that have very recently been documented as new to the state.

I was walking with the Shawnee National Forest botanist and ecologist and spotted a plant along an old dirt road in southern Pope County with small purple flowers that looked like a small Beefsteak plant (*Perilla frutescens*). My colleagues Clarice Esch and Nick Seaton told me that they had seen it the week before on the other side of the road. The app iNaturalist suggested an identification of *Mosla scabra*, called Mini-shiso. This species is native to East Asia and is very similar to *Mosla dianthera*. Care should be taken when identifying these species, as both are documented as occurring in North America. There is reason for concern of this non-native species, which is spreading quickly in some states. Hopefully, the climate will prove inhospitable for large infestations to take hold in Illinois. There are no observations of this species in Illinois on iNaturalist, nor are there any herbarium specimens that I'm aware of.

Then, just last weekend my friend Abel Kinser and I were travelling along Church Road in Perry County, just east of



Mosla scabra (Mini-shiso, Lamiaceae)

Pyramid State Park, when we saw a tall grass with a purple inflorescence blooming in the ditch along a corn field. We turned around and went back to look at it and determined it must just be an odd-looking clump of *Tridens flavus*, a very common grass species called purpletop. Next to it we observed *Tridens strictus*, a grass species that is uncommon in Illinois, as well as typical looking *Tridens flavus*. Scratching our heads, we collected some and went on our way.



Abel did some sleuthing and found posts on iNaturalist and a paper by Theo Witsell in Arkansas (Witsell and Baker 2013) that document what we saw as *Tridens* x *oklahomensis*, the naturally occurring hybrid of *Tridens flavus* and *Tridens strictus*. This taxon is known in states farther south and west of Illinois, but to our knowledge, has not been collected or observed in Illinois before.

In conclusion, it pays to know the local flora, and as you travel around, keep one eye on the road and one eye in the ditch!

Citation: Witsell, C. T. and Baker, Brent (2013) "Status of *Tridens* x *oklahomensis* (Poaceae) and Updated Treatment of the Genus *Tridens* in Arkansas," Journal of the Arkansas Academy of Science: Vol. 67, Article 26. https://doi.org/https://doi.org/10.54119/jaas.2013.6721

Tridens x oklahomensis (Poaceae)

Other News, Articles, Web Links, & Videos



Mark your calendars for a day of exploration, learning, and community as we dive into Illinois' flora, fauna, and natural history. Wild Things brings together a community of nature enthusiasts, conservationists, volunteers, and natural resource professionals.

Good news! "Homeowner Associations Can't Ban Native Plants, Thanks to New Illinois Law"—read all about it in this article by Patty Wetli for WTTW: tinyurl.com/HOAsNativePlants

Watch a new PBS short documentary film released this August, *The Prairie Preacher: Preserving Appalachia's Grasslands.* From PBS: "The Prairie Preacher" follows Dr. Dwayne Estes, a botanist who earned his nickname for his passionate advocacy of grassland conservation. Once a child who found solace in nature, Estes now dedicates his life to saving America's most endangered ecosystem—Southeastern grasslands. Through the Southeastern Grasslands Institute (SGI), he works tirelessly to protect and restore these vital landscapes.

<u>pbs.org/video/the-prairie-preacher-preserving-appalachias-grasslands-cgyoyt/</u>

Read about the **rediscovery of pink lady's slipper**(Cypripedium acaule) in Illinois earlier in 2024 on the
Chicago Botanic Garden's blog:
chicagobotanic.org/blog/plant science conservation/
rare orchid rediscovered illinois



A new report documenting widespread herbicide damage to trees in Illinois has been published by the Prairie Rivers Network. Read the report, "Hidden in Plain Sight, Herbicide Drift and Chemical Trespass: A Summary of 6 Years of Monitoring and Tissue Analysis," here: tinyurl.com/ILHerbicideDriftReport





Forest Trees of Illinois

Published in 2021 by Don Parker and Justin Pepper, A Healthy Nature Handbook:
Illustrated Insights for Ecological Restoration from Volunteer Stewards of Chicago
Wilderness is a great resource for stewards across Chicago, Illinois, and the Midwest.

islandpress.org/books/healthy-nature-handbook



Published in 2023, *Demystifying Orchid Pollination: Stories of Sex, Lies and Obsession* by Adam P.
Karremans is "an engaging and authoritative account of the fertilization of orchid flowers." Check it out:
<a href="mailto:press.uchicago.edu/ucp/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/book/distributed/D/books/distributed/D/books/book/distributed/D/books/book/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/distributed/D/books/di

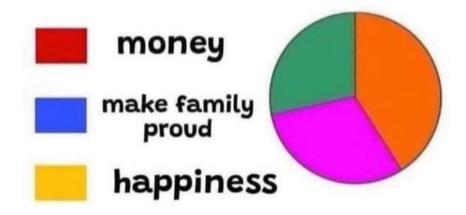
The 2021 edition of *Forest Trees of Illinois*, published by the Illinois Extension, is "the ideal resource for naturalists, homeowners, landowners, hunters, weekend campers, students, teachers, and natural resources professionals."

Learn more here:

<u>pubsplus.illinois.edu/collections/best-selling/products/forest-trees-of-illinois</u>

Botany Humor

The perks of keying out a Chenopodium





The Harbinger Fall 2024

You can renew/join by filling out the form below or online at <u>illinoisplants.org/online-membership-form/.</u>

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!

Join us! = =	Change Only	Membership Categories Student\$15°° Individual\$25°°
NameStreet State City State Phone Member Email		Family\$35°° Institutional (nonvoting)\$20°° Supporting\$50°° Patron\$100°° Business\$125°° Life\$500°° Iliamna (Life)\$1,000°° Primula (Life)\$2,000°°
PLEASE MAKE CHECKS PAYABLE TO: Illinois INPS, Membership, P.O. Box 60694, Chicage The Harbinger Newsletter is sent electronic. Check here to receive the newsletter BY MA	o, IL 60660 cally via email.	Erigenia (Life)\$5,000°° Id like to help with adership & Organization
Forest Glen (Westville) Quad C Grand Prairie (Bloomington) Souther	able digitally as ence for	erving on Board at State or Chapter Level ading Field Trips & Tours ganizing Workshops &/or Seminars ving Workshops &/or Seminars blic Speaking ndraising ebsite Assistance/Management blic Media/Communications viting/Submitting Articles otography her: