

PETAL PUSHER

July-August 2022 Newsletter of the Missouri Native Plant Society Volume 37 No.4

“... to promote the enjoyment, preservation, conservation, restoration, and study of the flora native to Missouri.”

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Fall MONPS Field Trip

September 16 - 18

Our Fall Field Trip Weeknd will take us to the far northwest corner of Missouri. So far northwest, in fact, that we'll be headquartered in Lamoni, Iowa. The tentative plan is to visit **Chloe Lowry Marsh** near Princeton, Missouri, on Friday afternoon. This area is one of the best examples of the few remaining natural freshwater marshes in the state. At least six Missouri plant species of conservation concern occur here and the area is either home to, or provides migratory habitat for a variety of birds, mammals and amphibians.

On Saturday, our tentative itinerary includes visits to **Rolling Thunder Prairie** in Indianola, Iowa, and Timberhill Oak Savannah restoration near Leon, Iowa. Rolling Thunder Prairie is a 282-acre wildlife management area with a landscape dominated by native prairie. The western 200 acres have never been plowed and contain high quality prairie plant species.

On Sunday morning, we'll return to Missouri to visit **Helton Prairie** near Bethany, another example of unplowed prairie.

The Friday evening program and Saturday evening board meeting will be held at the Lamoni Community Center.

As plans are tentative at this point, be sure to visit monative-plants.org for the up-to date itinerary and detailed directions.



Young Brighton T and Julian E on a prairie in NW Missouri in 2016 - the last time we visited this area.

Fall field trip lodging options:

Rodeway Inn

2013 E. Main St
Lamoni, IA 50140
319-315-0080

Room block: Missouri Native Plant Society
Make reservations by August 31 to receive the discounted rate of \$75 per night (plus tax).

Cobblestone Inn

226 Spruce Dr., Lamoni

Camping: Nine Eagles State Park, Iowa

23678 Dale Miller Rd
Davis City, IA 50065
641-442-2855f

Summer Fun in the Sun, Part I:

A few of the many species of flora and fauna observed on the MONPS summer field trip weekend, June 3 - 5. All photos on this page by Brighton Thomas.



Top left: *Brachyelytrum erectum*, long-awned wood grass. Top right: *Echinacea simulata*, glade coneflower - note the yellow pollen! Bottom left: Plants aren't the only cool field trip finds. Bottom right: Another cool critter!

De Latino Botanico

(Concerning Botanical Latin)

James C. Trager, Ph.D.

Scientific Latin first had its origins 2700-1500 years ago, when Latin was a spoken language on the streets of Rome, Pompeii and other ancient cities in western Italy. Scholars and specialists of the time developed specific vocabularies and usage to suit their fields. Doctors, who used many plants in their medical practice, spoke and wrote about plants in Latin, using names of which some were passed along through the centuries to become modern scientific nomenclature. Most of the medics and other scholars were conversant, or at least could read the works of early and contemporaneous Greek colleagues, so many Greek words also entered their technical vocabulary.

During the Roman Empire's expansion, Latin was spread far beyond its original domain by Roman conquerors, leading eventually to the development of the modern Romance Languages spanning from Iberia to Romania, and now also dominant in Central and South America and parts of Africa. These languages all show influences of the other languages spoken in their respective regions, but they have in common basic Latin vocabulary and grammatical features, and more relevant to our topic, Greco-Latin technical vocabulary that is less modified from the original Latin than the language of everyday conversation.

Also worth noting is that Latin was the language of the powerful and even more geographically widespread Roman Catholic Church, the hierarchy of which was literate, and many of its clergy were *de facto* the scholarly class in society throughout the "dark" centuries from the fall of the Roman Empire until the Enlightenment.

And now, we jump abruptly to Carolus Linnaeus (= Carl von Linné). Linnaeus was the father of modern biological taxonomy, with its hierarchy of three kingdoms called *Animalia*, *Vegetabilia* and *Lapides* or as usually rendered in English, "Animal, Vegetable and Mineral". Each kingdom included increasingly subordinate classes, orders, genera (plural of genus) and species (singular and plural identical). The family level was added later. The system includes the familiar two-part scientific names consisting of a capitalized genus (always a noun) and lower-case specific epithet (= species name, most often an adjective, but can be another noun), mostly from Latin, with a healthy dose of Greek. In particular, many additional Greek words entered later in the history of biological nomenclature when thousands more names were coined beyond Linnaeus's original 12,000+. For those among us with no classical training, however, it's all Latin, and as any Latin scholar might tell us, it is a very strange form of Latin, indeed.

Linnaeus's *magnum opus* of description and classification of natural diversity and its nomenclature was his *Systema Naturae*. (Digital copy of the 10th edition: <https://www.biodiversitylibrary.org/item/10277#page/32/mode/1up>.) Each plant species name was accompanied by a formal description of its structures such as leaves, flowers, fruits, roots, and stems. Features of these parts were described such as shape, hairiness, spininess, smoothness or roughness, flower color, number of petals, etc. (Because animals are more anatomically complex, there are a lot more adjectives available to describe/name them, and good thing, since there are a lot more animal species than plant species.) Names may also have geographical referents, or they may be honorific (named for someone), and increasingly in modern taxonomy, there are names incorporating local-language words for the species. I'd add that with the decline of classical training, there are quite a few Latin-based names with some rather bad grammar or spelling! Even so, the rules of both botanical and animal nomenclature stipulate that however bad the spelling and grammar may seem to those who care about such things, the name as first published becomes permanently attached to that species, cringe factor for purists notwithstanding.

I will now give just a few of the plethora of possible examples of roots occurring in plant names, loosely based on the above list of commonly used characteristics. These are presented in Latin first, with Greek equivalents second, and lacking grammatical endings.

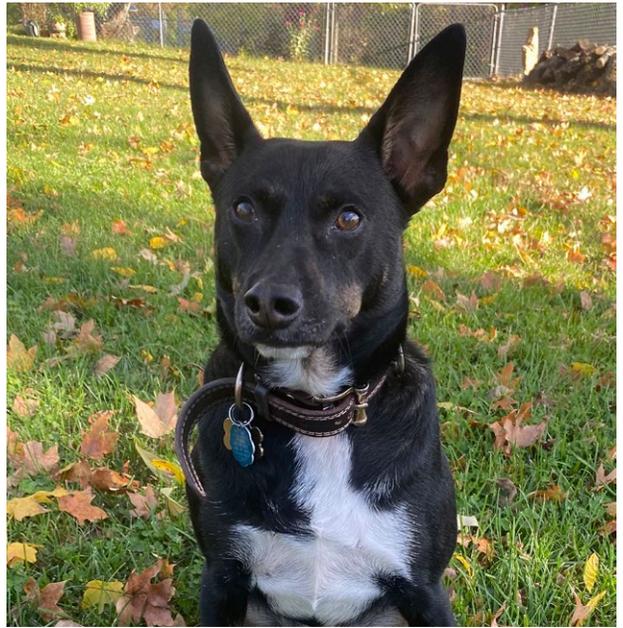
leaf – foli-, Greek phyll- (Note, the latter is pronounced FILL, **not** FILE ... Please!).

fruit – fruct-; carp-

root – radic-; rhiz-

flower – flor-; anth-

stem – caul-; corm- (the latter also meaning trunk of a tree)
 spine – spin-; acanth-
 narrow – tenu-, strict-; sten-
 wide – lat-; platy-
 round – rotund-; spher-
 star-shaped – stellat-; aster(isc-)
 toothed – dent(at)-, dens; odontat-, -odon
 smooth – laev-; leio-
 rough/wrinkly – rug(os)-; trachy-
 pale – pallid-; ochro-
 dark – obscur-; skoto-
 shiny – nitid-; polit-
 red – rud-, rubr-; rhod-, erythr- (and many others)
 golden or orange – aurant-; chrys-
 yellow – gelb-; xanth-
 green – virid-; chlor-
 blue – caerul-; ble-
 purple – purpur-; porphy-



Dr. Trager's dog, Harvey, after whom no species have yet been named.

Special treatment is owed the rich vocabulary of terms for hairiness, of which the following are only a few:
 fuzzy, straight-haired – pilos-; dasy- (sometimes written dasi-)
 eyelash (or eyebrow)-like – ciliat-; blephar-
 beard(ed) – barb(at)-; -pogon
 fluffy-haired – toment-
 wool, wooly – lan(at)-, lanos-; mallin-
 bristly, stiff-haired – hispid-; trich-, -thrix

A feature of both Latin and Greek is three grammatical genders: neuter, feminine, and masculine, each indicated by distinct endings. In general, with some exceptions and other less common endings, neuter genus names end in -um, and the specific epithets (usually adjectives) end in corresponding neuter endings -um, or -e, thus *Chasmanthium latifolium*, *Cynanchum laeve*. Feminine genus names usually end in -a, -e, -is (less often -o), and their species correspond in gender, thus *Verbena hastata*, *Silene stellata*, *Solidago patula*. Masculine genus names mostly end in -us, -on or -is, as do their species epithets, thus *Helianthus tuberosus*, *Erigeron annuus*. A common exception to the gender being recognizable from the ending of the genus name is trees that have classical Latin names, such as *Quercus*, *Prunus*, *Pinus* (oaks, plums/cherries, pines), which are feminine; thus, *Quercus alba*, *Prunus serotina*. Geographic specific epithets most often end in neuter -ense, -ensis, or -(i)anum, -(i)anus, -(i)ana; thus, *Asarum canadense*, *Solidago canadensis*, *Prunus mexicana*, *Helianthus californicus*.

As suggested earlier, some specific epithets are not adjectives, rather, are nouns which do not change endings to match their genus names. The most common use of nouns as specific epithets is honorific names, naming a species to honor someone, usually with a noun ending in -ii or -i if honoring a man, or -ae if honoring a woman. These are the Latin equivalent of adding -'s to a name. So, to name a new species of dogwood after someone called Mr. Harvey, the name would be "*Cornus harveyi*", and the "*harveyi*" part would never change in ending, even if the species got a new genus name, as now seems likely with some dogwoods. Summarizing, "A noun that serves as a specific epithet remains invariant in form, irrespective of the grammatical gender of the corresponding genus". If you want to sound like a genuine Latin linguist, just drop that line into the conversation!

Alrighty then, let's talk about proper pronunciation of Latin names. ... No, I'd rather not!

Well, how about those annoying name changes? ... Okay, now I'm interested. Taxonomy was originally based on

relatively impressionistic, observational science, but has over the years come to rely ever more on meticulous laboratory studies and analysis of large amounts of data, especially from the rich resource of genetic sequencing. Genetic data can be discovered, rapidly analyzed, and visualized with the aid of computing tools available today to an extent not even imagined just a decade ago. Another advance in taxonomic science is the availability of a vastly larger number of study specimens, leading to much greater appreciation of both the variation within species, and of characteristics which hold up, and which do not, for distinguishing species. To make a long and complicated story short and simple, when a plant species that with superficial and less data-rich information appeared to belong in one genus, but is shown with modern analysis to have its closest genetic relatives outside of the genus in which it has been traditionally placed, it must be moved to another genus to join its relatives. Then follow two possible monkey-wrenches: 1) The genus to which the species is moved has different grammatical gender, requiring that the ending of the specific epithet must be changed to match. (Think of all those *Aster* – masculine, moved to *Symphotrichum* – neuter), or 2) Even worse, there's already a species in the new genus placement which has the identical specific epithet, requiring the coining of a new specific epithet (or finding an old one that was once properly applied to the same population, buried in the arcane world of the older botanical literature) for that species. (Think *Dentaria laciniata* -> *Cardamine concatenata*.)

Well, I'm dangerously close to my word limit now, so let us finish up ... The most comprehensive book on Botanical Latin is William Stearn's *Botanical Latin*. Less complete treatments, including *Latin for Gardeners*, *Plants and Their Names* and others are easier to pick up however, both physically and mentally. Another one particularly useful to the general naturalist, because it includes many roots and terms applied to animals as well as to plants, is *Dictionary of Word Roots and Combining Forms* by Donald J. Borror.

Editor's note: there isn't really a word limit, but we appreciate the sentiment! Also, we see what you did there with "dogwoods".

From the Editor

Thank you for bearing with us during these continued unprecedented times. If you noticed the color scheme in this issue, you might remember that it's the same scheme as the previous issue, and is the color scheme of the Ukraine flag. As I write this, the world stands on edge, wondering what's next. I wanted to pay homage to Ukraine and other parts of the world where life is anything but stable, and existence itself is not a given. As we hope for a better tomorrow, we are probably expecting the worst. So let us at be thankful for what we have today.

Thank you to our Assistant Editor, Pam Barnabee for getting everything in good shape before it came to me. Thanks also to our Board members who proofread each issue and all authors, chapter representatives, and other contributors. Please consider making a submission for a future Petal Pusher! Here is some information for submissions:

A. The theme for the September Petal Pusher is "All about the Fall," (what happens to leaves and other plant parts in the Autumn) but other submissions are encouraged, especially Genus or Family descriptions ("Better know a genus/family"), Conundrum Corner, Invasive Tip of the Month, Name Change of the Month, Terminology, and Poetry Corner.

B. Send ONE email saying "here is my contribution on _____," and attach (don't embed) the following:

- 1) an article in Word format with photo captions at the end (no photos in the Word document) and your name in the text.
- 2) Images, in JPEG format--NOT in a document file.

C. Use only one space between sentences

D. Even short notes with pictures would be great!

E. Send to: pamela.barnabee@gmail.com (don't send them directly to me!)

F. Due date for the next issue is: August 20

**Thank you so much,
Michelle Bowe**

Summer Fun in the Sun, Part 2:

A few more of the many species of flora and fauna observed on the MONPS summer field trip weekend, June 3 - 5



Top left: Valley View Glades with John & Jerry; top right: Saturday morning, bluff habitat near Sandy Creek with Justin & John; middle left: Julian - caught by surprise at Valley View Glades; middle right: bandwing grasshopper, possibly? Photos by B. Thomas. Bottom right: *Oenothera macrocarpa*, Missouri evening primrose - what a peduncle! Photo by P. Barnabee

Let's Talk About Pronunciation of Scientific Names (even though James would rather not!)

by Ted C. MacRae

As botanists, most of us understand and accept the reasons for using latinized scientific names. Firstly, they offer a degree of precision and accuracy that cannot be matched by common names, no matter how much effort is put into standardizing the latter. Does “green milkweed” refer to *Asclepias viridis*, *Asclepias viridiflora*, or *Asclepias hirtella* (I've heard the name used in reference to all three)? Further, the use of binomials (i.e., “two names”) helps to emphasize evolutionary relationships of closely related species (singular and plural) by grouping them into genera (plural of genus). Who would suspect that royal catchfly and fire pink are close relatives—a relationship that is immediately obvious when discussing *Silene regia* versus *Silene virginica*? Why, then, do many of us break out into a cold sweat when it comes to using scientific names in conversation with other botanists? Why do we offer sheepish apologies for mangling the pronunciation after attempting to use them, or abandon them altogether and resort to the more comfortable common names?

I'm here to let you in on a little-known secret—scientific names are easy to pronounce! Now, before you go out and make a mocking meme out of my words, hear me out. It is true that few of us are trained in classical Latin and that even fewer of us have attempted to systematically apply the tenets of Latin pronunciation to scientific nomenclature. Still, I'm willing to bet that few (if any) of the readers of this article would have any trouble at all pronouncing scientific names like gorilla... or rhododendron... or *Tyrannosaurus rex*!

The truth is, since Latin is a dead language, there is still considerable debate about exactly what are the rules for pronunciation (the language may have survived in written form, but there are no audio recordings of it being pronounced!). What rules that do exist have been surmised, at least in part, through study of its surviving descendants (the Romance Languages, especially Italian and Spanish). In the case of scientific names, however, we are not actually speaking Latin—

we are, instead, simply utilizing *latinized* names. While it may seem desirable to pronounce those names as they would have been pronounced in Latin, the primary objective is to provide a name that always refers to a given species regardless of region or language. How the name is pronounced will, by necessity, vary among users—especially considering its use in different languages, and that is okay.

All that said, the more harmonious we can be in our pronunciation of latinized names, the more helpful this will be for those of us engaging in discussion about the species to which they refer. In that light, I offer a few helpful suggestions on “how to pronounce scientific names like a pro!” Before I do, however, let's get one thing cleared up—“Because so-and-so is an expert in such-and-such group and that's how they pronounced it” does not mean that “so-and-so's” pronunciation is correct and that any alternate pronunciation is incorrect! Even widely adopted pronunciations can be wrong, e.g. *Aloe* is most correctly pronounced “uh-LOW-ee”, even though most botanists pronounce it “AL-oh” (although I have conceded to using the latter pronunciation for the common name at least). There are a few general guidelines that will help you determine the best way to pronounce nearly all the scientific names you are likely to encounter. My suggestion, after reading these guidelines, is to sound out words to yourself one syllable at a time and make them your own. If your pronunciation ends up differing from someone else's, nobody is going to think you don't know what you're talking about. In fact, the more confidence you display when saying scientific names, the more likely others are to believe you do know what you're talking about! Here are those guidelines:

-The accent is generally placed on the penultimate (next to last) syllable (e.g., *Solidago* = “so-lih-DAH-go”), except when the name ends with a double vowel, in which case it is placed on the antepenultimate (before the next to last) syllable (e.g., *quinquefolia* = “kwinkweh-FOL-ee-uh”).

-All vowels are pronounced. Most are pronounced short rather than long (e.g., math, ethics, fish, box, bus, and cyst), but there are exceptions, especially with the vowel “i” (see below).

-The diphthongs “ae” and “oe” are pronounced as a single vowel EE (e.g., *laevis* = “LEE-vis”, *Ipomoea* = “ih-po-MEE-uh”). All family names end with the diphthong “ae” and are, thus, pronounced “AYE-see-ee” (e.g., La-

miaceae = “la-mee-AYE-see-ee”).

--A double “ii” is pronounced “ee-ih” when occurring in the middle of a word (e.g., *artemisiifolia* = “ar-te-MEE-see-ih-FOL-ee-uh) and “ee-eye” when occurring at the end of a word (e.g., *drummondii* = “DRUM-und-ee-eye”).

--“Ch” is pronounced as a hard K (e.g., *Chasmanthium* = “kas-MAN-thee-uhm”).

--“G” and “c” are pronounced as hard consonants except when followed by the vowels “i”, “e”, or “y” or the diphthongs “ae” or “oe” (e.g., *Ajuga* = “uh-JEW-guh”, *Gymnocladus* = “gym-no-CLAD-us”, *coccinea* = “kock-SIN-ee-uh”, *coelestinum* = “see-less-TEEN-um).

A major caveat to these general guidelines regards the pronunciation of patronymics (i.e., latinized names honoring a person or place) because the original pronunciation of the person’s or place’s name is always conserved, even in latinized form. For example, *Solidago gattingeri* was named after the German-born botanist Augustin Gattinger (1825–1903), whose surname was latinized by adding an “i” to the end. Were normal guidelines to be followed, the species epithet might be pronounced “guh-TIN-jur-eye”. However, Augustin’s surname very probably was actually pronounced “GAH-ting-er”, thus, conserving that pronunciation in latinized form would result in a species epithet pronounced “GAH-ting-er-eye.”

This exception for patronyms holds true even in the case of misspellings. The specific epithet of *Symphotrichum olentangiense* derives from the Olentangy River in Ohio (pronounced “OH-len-TAN-jee”), but the person who named the species erroneously added an extra “o” to the beginning of the species name. As annoying as it may seem, the rules of nomenclature demand that original spellings be conserved—even those that turn out to be misspellings (unless certain special conditions are met). Thus, the name cannot be corrected to *olentangiense*, and since all vowels must be pronounced the extra “o” at the beginning of the name must be pronounced in addition to the “o” at the beginning of the root “olentang”. As a result, the species name is pronounced “oh-OH-len-TAN-jee-IN-see.”

Okay, I will concede that not ALL scientific names are easy to pronounce!

We Welcome Member Submissions!

The Petal Pusher wants YOU ... to write articles for the newsletter.

Consider these possibilities to get your creative juices flowing:

- Conundrum Corner: Tips on how to distinguish between tricky, look-alike species.
- Invasive Tip of the Month: How to identify and eradicate a particular invasive species.
- What’s Cooking: Recipes using native Missouri plants.
- Name Change of the Month: Latin names, they keep on a-changin’; help us all stay up-to-date.
- Poetry Corner or Quotation Corner: Give us your suggestions for poems or quotes, or submit your original poetry. (Note that for poems, we must have permission from the publisher.)

amazonsmile

Donate to MONPS When You Shop!

AmazonSmile is an easy way to support MONPS. Every time you shop on smile.amazon.com, the AmazonSmile Foundation donates 0.5% of your purchase of eligible products to MONPS.

Simply visit smile.amazon.com and search for Missouri Native Plant Society Inc. After you finish shopping, Amazon will automatically donate to MONPS. You may also click the AmazonSmile link on monativeplants.org.

Make sure to navigate to smile.amazon.com each time you shop. The default amazon.com will not result in a donation, and your smart phone application may not support AmazonSmile. Visit [About AmazonSmile](#) to read more about the AmazonSmile Foundation.

Summer Fun in the Sun, Part 3:

A few more of the many species of flora and fauna observed on the MONPS summer field trip weekend, June 3 - 5



Top left: *Malaxis unifolia*, green adder's mouth, C value = 9.; top right: Hickory Canyon Natural Area.; middle left: Hickory Canyon Natural Area - fern paradise!; middle right: *Clematis fremontii*, Fremont's leather flower in fruit. C value = 10; bottom left *Diphasiastrum digitatum*, running ground cedar, Don Robinson SP.; photos by P. and J. Barnabee. Bottom right: Meg with *Galium*. Photo by M. Briggler

2022 MONPS Awards

by Malissa Briggler

Three people were recognized at the 2022 MONPS Annual Meeting on June 4.

Michelle Bowe received the John E. Wylie Service Award for the significant contributions she has made to MONPS over the past 12+ years. The nomination received from Paul McKenzie highlighted Michelle's exceptional work as Editor of the Petal Pusher newsletter and long-time leadership with the Southwest Chapter. She has also assisted with many MONPS initiatives and committees through the years.

The Erna Eisendrath Memorial Education Award was given to Dana Thomas. Dana has been extremely active in MONPS as well, serving a term as Vice President and a term as President. However, her nomination for this award came from Whitney Wiese of The Summit Preparatory School in recognition primarily of the work Dana has done to educate and enhance knowledge, appreciation, and enjoyment of native plants in their school community. Dana is a member of the school's Board of Trustees and has spearheaded efforts to advance STEM programming. She led an initiative to convert the landscaping at the school to native species while engaging the students in design and implementation. Dana's work has inspired and educated students about the value and responsibility of native plant conservation.

The award of greatest honor given by MONPS is the Lifetime Achievement Award. Paul Nelson was announced as the 2022 recipient of this award for his outstanding and lasting contributions to the conservation of native flora in Missouri. As a 2009 recipient of the Steyermark Award, Paul had already been recognized for many accomplishments. In the 13 years following that recognition, Paul has continued to make significant contributions including extensive mapping of over 237,000 acres of glades in Missouri and Arkansas, extensive floral inventories of important natural communities, and preservation of species of conservation concern. Paul McKenzie submitted the nomination for this award and will present Paul Nelson with his plaque at a later event.

Thank you to the award recipients for their contributions and those who submitted nominations for their recognition!



Left to right: Julian, Michelle and Malissa at the summer meeting (photo by Cindy Squire), Dana and Malissa at the same meeting (photo by M. Bowe), and Paul's plaque (photo by M. Briggler.)

CHAPTER REPORTS and EVENTS

HAWTHORN

by Cindy Squire, Chapter Representative

Past and Future Chapter Events

Plant Sales. A big Thank You to all members who helped with plant sales and festivals!! Public education about native plants is our purpose and our members make it possible.

1 May. Guided mosey at the Pinnacles led by Joanna and Eric. Ten members enjoyed hiking while viewing glade and stream flora.

19 May. Member lunch at Pierpont Store.

4 June. Memorial service for Carolyn White Terry, a longtime Missouri Native Plant Society member. See December Columbia Daily Tribune for obituary.

13 June. The Hawthorn regular business meeting was held at Elena's House. A tour of the new native gardens preceded the meeting.

16 June. Member lunch at Uprise Bakery inside Ragtag Theater lobby.

11 July. No Meeting

21 July. Monthly Lunch get together. Location TBA.

Adopt a Spot Work Days are dependent on weather - check email.

8 August. Regularly scheduled monthly meeting via Zoom. Presentation TBA.

18 August. Monthly Lunch get together. Location TBA.

Moseys. Moseying is dependent on the weather forecast - check email.

See www.columbianativeplants.org for an updated posting of newsletters and activity details.

PARADOXA

by Kathy Gallagher, Chapter Secretary

The May 5 Paradoxa walkabout was a second visit to the Edgars' prairie, south of Rolla, to observe Indian paintbrush at the peak of bloom. It was fascinating to observe the several different colors: red, yellow, peach and several others. We also observed cream indigo,

wild hyacinth, blackberry, buttercups and many other plants in bloom.

On May 14, Paradoxa co-sponsored a native plant sale with the Meramec Hills Chapter of the Missouri Master Naturalists. Members assisted at the sale, helping with set-up, customer questions, sales, and tear down. Many also donated plants, and shopped! The true success of the sale is that hundreds more native plants will now populate Rolla-area landscapes as we continue to educate folks on the importance of Missouri native plants to our environment.

Our June walkabout saw a small band of us brave the 90+ temperatures on **June 21** to observe the native-plant field prepared and planted two years ago at Maramec Spring Park. Wes Swee, regional manager for The James Foundation and wife Kendra, park naturalist, spoke to us about the native garden near the entrance, describing what is planted there, and pointing out plants doing well and those which are not performing as hoped. They next led us along a path cut in the much larger wildflower field, and we saw many, many natives and many pollinators visiting them. There is a planting of crown vetch along the highway that borders the park, and it is showing up in the midst of the native plants. Wes is pondering how best to address that issue. Wes also spoke about the several funding sources that contributed to this project and related educational resources for park visitors, and about future plans to expand the area to 150 acres over the next years.

Paradoxa's phenology project at Audubon Trails Nature Center continues weekly. The list of plants observed blooming increases each week. We are currently seeing at least 35 species [in early May]. We will continue to walk our trail and document what we observe until there is no longer anything in bloom.

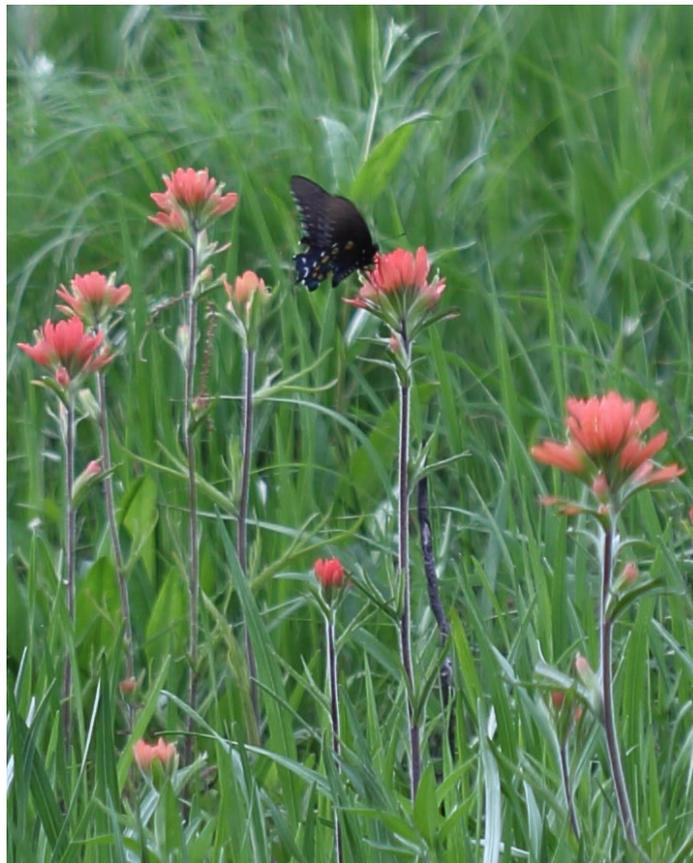
Upcoming Events

Saturday, July 16, Shaw Nature Reserve, 10:00 am - 2:00 pm: Meg Englehardt, Seed Bank Manager for the Missouri Botanical Garden, will give us a tour of the seed bank at Shaw Nature Reserve and tell us about their mission and the work they do there. Following that, we'll take a stroll through the Whitmire Wildflower Garden at Shaw. We'll carpool from the Rolla Kroger parking lot, leaving NLT 9:00 a.m.

Monday, **August 15**, Walkabout at Little Prairie Conservation Area, 6:00-7:30 p.m.

Saturday, **September 10**, Bird & Pollinator Festival and Native Plant Sale, Audubon Trails Nature Center, 8:00 a.m. - 2:00 p.m.:Volunteers are needed on Friday evening to set up canopies, and on Saturday to help with the plant sale and staff our Paradoxa booth. Bring the whole family, enjoy the activities and displays, and buy a few plants!

Monday, **September 12**,Walkabout at Ozark Research Field Station (Mill Creek), 6:00-7:30 p.m.



Indian paintbrush at the Edgars' prairie, photo by T. Pilkenton

• “Education is the key to unlock the golden door of freedom.”
• —George Washington Carver

2021 Missouri Botanists’ Big Year Grand Prize Winner

Congratulations to Joanna Reuter of Hawthorn Chapter, shown here with her supportive husband, Eric. Joanna is holding the hand lens and plant press she was awarded in the 2021 Missouri Botanists’ Big Year competition. She recorded 431 plant species and 1,090 plant observations on iNaturalist.

The 2022 Missouri Botanists’ Big Year is underway. Join this friendly competition and help document the amazing, diverse flora of our state! Read all about it at [the Missouri Botanists’ Big Year Website](#).

Photo by C. Squire.



Seeking Donations for the Stan Hudson Research Grant

Could you help us support students who are conducting botanical research in Missouri? The Stan Hudson Research Grant is available to assist with funding for research projects conducted by college or university students under the supervision of a faculty member. The grant honors the late H. Stanton Hudson (1921–2002), a long-time member of the Missouri Native Plant Society whose passion for the flora of Missouri and its conservation inspired his friends and family to create a small grants program in his memory. The grant is usually given annually.

To qualify for the Stan Hudson Research Grant, research must involve Missouri native plants in some way, but may have as its primary focus any pertinent subject area in plant biology, including conservation, ecology, physiology, systematics and evolution, etc. The grant may be used for any non-salary expenses relating to the proposed research, including travel, equipment, and supplies. At the conclusion of the project, grant recipients will be expected to prepare research results for publication in a scientific journal and to present their research at the Missouri Botanical Symposium, which is held in Rolla, Missouri each Fall. To learn more about the grant, check out this link to the **Missouri Native Plants website-Hudson Fund**.

[Click here to make a donation](#) to the Hudson Fund
Any amount is appreciated!

The button above links to the [Missouri Native Plant Society's donation site](#).

"I wanted to know the name of every stone and flower and insect and bird and beast. I wanted to know where it got its color, where it got its life - but there was no one to tell me."

— **George Washington Carver**

New Members

St. Louis

Nancy Gelb, St. Louis
Norma Fanara, St. Louis
Tina Cheung & Keith Woodyard, St. Louis

Hawthorn

Jennifer Hollman, Columbia
Lesley Flaherty, Columbia
Maggie Johnston, Columbia
Paul Nelson, Bonnots Mill

Kansas City

Brittany Edmondson, Kansas City

Paradoxa

Laurel Zito, Holts Summit
Nathan Aaron, Springfield

Southwest

Debra Grim, Berryville, AR

State Level Membership

Savanna Schaefer, Webster Groves

Botanist Big Year 2021 Winners

Lee Elliott, One Year Membership in Hawthorn Chapter
Jared Gorrell, One Year Membership in Perennis Chapter

Not getting the Missouri Native Plant Society organizational emails?

Most email clients have a "safe senders" mechanism for you to make sure that your email server always sends mail from our MONPS server to your inbox.

- *Some just have you add our server to your "Contacts"
- *Some have you create "Rules".
- *Some have an actual "Safe Senders/Domains" area in the settings.

To ensure that you get the organizational emails please add these two domains to whatever your email's "safe senders" process is: monps.org and webapps.monps.org

OR: You may simply need to update your email address with us. If so, click this link: <https://monativeplants.org/ask-a-question/>

Do You Have a Plant Story?

Learn more about Missouri native plants at the newest feature on the MONPS website (monativeplants.org): Plant Stories. Do you have a favorite Missouri native plant? A photo you're particularly proud of? Please submit your story to pamela.barnabee@gmail.com for posting.

Missouri Native Plant Society Membership Form

Name	
Address	
City, State, ZIP	
Phone	
Email	

Membership Level (check one):

	Student	\$5
	Goldenrod	\$10
	Sunflower	\$25
	Bluebell	\$50
	Blazing Star	\$100

Chapter dues (optional, check all that apply):

	Empire Prairie (Saint Joseph)	\$5
	Hawthorn (Columbia)	\$5
	Kansas City	\$5
	Osage Plains (Clinton)	\$5
	Ozarks (West Plains)	\$5
	Paradoxa (Rolla)	\$5
	Perennis (Cape Girardeau)	\$5
	Saint Louis	\$5
	Southwest (Springfield)	\$5

Newsletter Delivery (normal delivery is via email):

	Check here if you prefer to receive your newsletters via postal mail!	\$10
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Other contributions (optional, check all that apply, specify amount, tax deductible):

	Hudson Grant Fund	
	Other contributions	

Total:

Total amount	\$
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Make checks payable to the *Missouri Native Plant Society* and mail to:
 Missouri Native Plant Society
 PO Box 440353
 Saint Louis MO 63144-4353

Visit us on the web (monativeplants.org) and join us on Facebook!



Missouri Native Plant Society

PO BOX 440353
St Louis, MO 63144-4353

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RETURN SERVICE REQUESTED

President

Malissa Briggler
10297 CR 371
New Bloomfield, MO 65063

Vice President

Hilary Haley
17376 West State Highway W
Eagleville, MO 64442

Secretary and Petal Pusher

Assistant Editor
Pam Barnabee
34653 White Oak Rd
Plato, MO 65552

Treasurer

Bob Siemer
74 Conway Cove Drive
Chesterfield, MO 63017

Membership

Ann Earley
P.O. Box 440353
St. Louis, MO 63144-4353

Past President

Dana Thomas
1530 E Farm Rd 96
Springfield MO 65803

Board Members

Justin Thomas (2020–2023)
1530E Farm Rd 96
Springfield MO 65803

Mike Skinner (2020–2023)
167 South Peachtree
Republic, MO 65738

Bruce Schuette (2019–2025)
303 Spring Church Rd.
Troy, MO 63379

Rick Gray (2021–2024)
6 Montauk Court
St. Louis MO 63146

Steve Buback (2021–2024)
MDC NW Regional Office
701 James McCarthy Dr
St. Joseph, MO 64507

Meg Engelhardt (2022–2025)
Meg.engelhardt@mobot.org

Missouriensis Editor

Doug Ladd
Missouri Botanical Garden
4344 Shaw Blvd.
St. Louis, MO 63110

Petal Pusher Editor

Michelle Bowe
901 S. National
Springfield MO 65897
mbowe@MissouriState.edu

Distribution Manager

Rex Hill
4 Grantwood Lane
St. Louis, MO 63123

Archives

Rex Hill
4 Grantwood Lane
St. Louis, MO 63123

Webmaster

Jerry Barnabee
34653 White Oak Rd
Plato, MO 65552
www.monativeplants.org
www.monativeplantsociety.org

Environment and Education

John Oliver
4861 Gatesbury Dr
St. Louis, MO 63128

Chapter Representatives

Empire Prairie
Steve Buback (Board Member)
701 James McCarthy Dr
St. Joseph, MO 64507
816-271-3111

Hawthorn
Cindy Squire
cysquire@me.com

Kansas City
Cécile Lagandré
6040 Wornall Rd., KCMO 64113

Osage Plains
Casey Burks
1080 SE 915P Rd
Deepwater, MO 64740

Ozarks
Susan Farrington,
Interim Rep.

Paradoxa
Jerry Barnabee
34653 White Oak Rd
Plato, MO 65552

Perennis
Andrew Braun
apbraun1s@gmail.com

Saint Louis
Position open
Interested?
Contact Rick Gray

Southwest
Michelle Bowe
901 S. National
Springfield MO 65897

To contact the Missouri Native Plant Society, please **click the "Have a Question" link** on our website.

"In nature nothing exists alone."

--Rachel Carson