Next state meeting will be 2 December 2017, 10 am – Columbia, MO

It is a planning meeting for 2018. Anyone and everyone who has an opinion regarding any aspect of our direction and especially suggestions for next year’s activities is invited to attend. We are a democratic organization and invite all members’ voices to be heard.

Driving Directions to the Columbia Missouri Field Office, U.S. Fish and Wildlife Service, 101 Park DeVille Drive, Suite A, Columbia, MO 65203

FROM I-70 (East or West bound)

From Interstate 70 Exit 124, head south on North Stadium Blvd / MO-740
Turn west (right) onto W Broadway/MO TT (fifth stoplight from I-70)
Turn north (right) on Park DeVille Drive (second stoplight) (across from HyVee)
Turn west (left) into second driveway (opposite west entrance to WalMart)
Drive all the way to the back parking lot and use west entrance
First door is open; ring buzzer for entrance through second
Our office is second door on right
Meeting is in first room on left as you come through the office door.

We are a Dues Paying Organization

If you appreciate information from our Facebook site, please consider paying for a membership. The cost is VERY LOW. If annual renewal is becoming a nuisance, please consider a Lifetime Membership.

We value our members in the hopes that they will teach what they have been taught, and urge you to keep your membership current.

Dues are Due now.

Membership renewals for the July 2017-June 2018 year are due. If you pay annually and have not paid this year, you will be deleted from our roster. If you receive your newsletter by postal service delivery, please check the top line of your mailing label. If it shows the date 20170630, your dues are now payable. When renewing, please remember to include all of your contact information including email address, and your society and chapter dues preferences. Membership renewal online is also available via our website at www.monativeplants.org which offers the option of online payment via PayPal.

For those members receiving their newsletter by email without a mailing label and you know you pay only once per year, your dues are due; send them to Ann Early. Or for others with questions about their membership status, please contact me or your chapter representative (see back page for contact details) for information about your membership expiration date. It doesn’t hurt to pay ahead so you don’t miss any first-hand information.

For Holiday Shopping, Please use Amazon Smile

The easiest way to support the Missouri Native Plant Society! Please consider using Amazon.com’s charitable site to do your shopping. On your first visit to AmazonSmile (smile.amazon.com), you need to select a charitable organization to receive donations from eligible purchases before you begin shopping. Choose Missouri Native Plant Society Inc. Amazon remembers your selection, and then every eligible purchase you make at smile.amazon.com will result in a donation. Every dollar you spend on the site generates a half cent for us. They gave us $115 last year. It doesn't seem like much, but every little bit helps, and the money comes from Amazon, not you! It is up to you to make the donation higher next year. Thanks for thinking about us.
Welcome New Members!

Is your friend’s name here? If you read us on Facebook – is your name here? Membership is easy and very low cost see http://monativeplants.org/membership/

St. Louis
Brittany Wehrle, StL
Sean Tracey, StL
Ken & Sarah Winter, StL
Michael Laschober, Arnold

Hawthorn
Richard Hart, Columbia
Belenda Fender, Columbia
Linda Wohleber, Columbia

Empire Prairie
Jason Simpson, Savannah

Paradoxa
Morgan & Leslie Bearden, Rolla
Osage Plains
South west
Ozark
Kansas City
Perennis

Welcome to new members.
We all hope your membership with Mo Native Plant Society is fulfilling. When you first sign up you need to do one more thing. You need to send your request for email delivery to the Petal Pusher editor, Becky [see Masthead]. Please do not wait several months to find out your address has been lost in the transfer. If you don’t get the information you need, let us know. If there is a wild area you think we should visit, let us know. This is a democratic organization; everyone is invited to all MONPS activities and all suggestions will be heard.

State Lever Membership
We hope these new members find a connection with a chapter nearby.
Kathy Quigley, Gardner KS Possibly with KC
Diana Blakemore, Van Buren Possibly with Ozark or Perennis

Petal Pusher Editor’s Note: Please be thoughtful of your volunteer editor and follow submission guidelines posted in Jan, Mar, May 2013. PLEASE ADD: Change plain text to _Italics_ when using scientific nomenclature for any biological being. Editor does not appreciate spending hours to make format changes [font, size, spacing, style, page layout]. Editor thanks all who submit articles and reports for publication in MONPS Petal Pusher. Special thanks to those who submit articles and reports early and in requested format. This edition those people were Rex, Pam, Liz, Michelle, Janice, Malissa, John, and Ann. This kind of cooperation is a team effort to make our newsletter readable and interesting.

Go my Sons, burn your books. Buy yourself stout shoes. Get away to the mountains, the valleys, the shores of the seas, the deserts, and the deepest recesses of the Earth. In this way and no other will you find true knowledge of things and their properties. Peter Severinus, 16th century Dane, educator

Ozark summer sky L Flenner

Go my Sons, burn your books. Buy yourself stout shoes. Get away to the mountains, the valleys, the shores of the seas, the deserts, and the deepest recesses of the Earth. In this way and no other will you find true knowledge of things and their properties. Peter Severinus, 16th century Dane, educator

Botanizing on glades B Erickson
Minutes from Missouri Native Plant Society
Quarterly Board Meeting, July 8, 2017
Clark County Historical Museum, Kahoka, Missouri
Respectfully submitted by Casey Burks

At 7:30, without a quorum present, the meeting was called to order by President John Oliver (JO).
The agenda was approved.
Mike Skinner (MS) volunteered to be the assignment recorder.
Minutes of the June 3rd West Plains board meeting submitted previously by Liz Olson were approved. {Reference September-October 2017 PP for full print of minutes.}
Treasurer Report: BSie reported $932 income from dues, sales of t-shirts etc. Currently $3,000 in acct.

PUBLICATIONS & MEDIA
PP Editor: BEr reported that she hasn’t received any reports for the PP from several Chapters. Please write something to shine a light on your chapter and inspire your members.
Distribution going well.
JO and Dana Thomas: Website has place to put things in. Send impressions of this weekend. Deadline is the end of this month. Dana put in mega hours getting arrangements made for Kahoka and submitted to PP for everyone. She was not able to attend this meeting so we send out a hearty THANKS DANA! They are also working on updating the website calendar and include the archived Petal Pushers.
Latest report on FB: 12,000+ followers!
Doug Ladd is waiting for re-writes from authors. Everything is set up for electronic version.

COMMITTEES & TASK FORCES
Membership: AE reports 15 new members, many from the new Paradoxa Chapter. Total to date is 377 (94 Life members)
Archives: RH can put the plant list from any chapter on the website. Some people want a person’s name to contact on the website.
Hudson Award : RH Announcement of next year’s award should go out in November. Should email mid-August. JT working on this.

SOCIETY BUSINESS
Notes: We may be able to join with the Illinois group; hopefully one location can be at Rolla
MONPS sponsored workshops: Grass ID workshop Sept 1 and 2, 2017 at Central Missouri State Univ. in Warrensburg
Contact Joe Ely of CMSU
Meramac Community College August 24-26 DYC class and field trips
Opportunities for Merchandising: Need good Quality material for shirts etc. What vender to go with? JO will see about getting samples from Travis Moorman.
CHAPTER REPORTSF ull reports from each chapter are published in the Petal Pusher from chapter representatives.

UPCOMING MEETINGS
Fall Quartly meeting September 22-24 at Ava, Missouri: many excellent field trip places to choose from including the Ozark Underground Lab.
Winter Quarterly meeting December 2nd, Columbia to Plan for 2018.

MISCELLANEOUS ANNOUNCEMENTS
Send PP reports to Becky by the 27th of each odd-numbered month.
Congratulations to the Briggler’s on the birth of their son.
Octoberfest/Prairie days Oct 14th by Cole Camp on Dr Morton’s Prairie. Osage Plains Chapter In conjunction with Hi-Lonesome chapter of Mo Master Naturalists and the MPF.

ASSIGNMENTS/COMMITMENTS REVIEW {from MS}
Everyone send Becky your impressions of this weekend’s field trips and/or meetings
Everyone send Rex plant lists for your favorite places to visit in your area
JO: Ask Brian about adding a question tab on the website
Justin: Submit Hudson Awards announcement month
Justin: Find a place to meet in Ava on Fri and Sat Eve
Justin: Contact Angela Sokolowski
JO and Justin: Investigate new merchandise possibilities
Submit written reports to Becky in the next 3 weeks.

Attending:
Jo Bryant (JoB)
Ann Earley (AE)
Mike Skinner (MS)
John Oliver (JO)
Andrew Braun (AB)
Rex Hill (RH)
Martha Hill (MH)
Casey Burks (CB)
Cecile Lagandre(CL)
Jerry Barnabee (JB)
Bruce Schuette (BSch)
Claire Ciafre (CC)
Rick Gray(RG)
Becky Erickson (BEr)
Justin Thomas (JT)
Bob Siemer (BSie)
Paradoxa

Submitted by Pam Barnabee, chapter president; Herbarium trip report and photo by Helen Johnston

On September 7, Chapter members carpoled to the Monsanto Center in St Louis, where Rex Hill showed us around the Herbarium and introduced us to several of the staff there. We visited the “stacks” where the specimens are kept in a cool environment. In all, the MOBOT herbarium houses seven million specimens and is one of the foremost herbariums in the world. It was interesting to see how they were stored in open files by genus…stack upon stack upon stack. From the stacks, Rex took us to the room where the specimens are mounted. Here we met with Anna Spencer, who has been working at the herbarium for many years. She showed us how she mounts the specimens, and let us in on a few of her secrets. She is truly a fount of inspiration and information. While visiting the mounting room we were able to view the oldest specimen they have, which was mounted in 1692, as well as a specimen mounted in 1894 by Charles Darwin. On from the mounting room, we viewed an original copy of a book written in 1756 by Carl Linnaeus in the center’s library.

Our next stop was the mapping division of the Missouri Botanical Gardens. Kayla Flamm spoke with us about the importance of knowing where all the plants are at all times. She works at creating maps to make that possible. The mapping division also compiles information about the plants housed at the Gardens. Maps are also being made that identify where any plants are mounted. It is tedious work with so many benefits. It is definite interest in native plants in this part of Missouri! It is tedious work with so many benefits. It is definite interest in native plants in this part of Missouri! P Barnabee shot this group with a stately Chinquapin Oak.

Chapter members met again on September 12 (busy week!) at St James City Park. The dolomite glade habitat there offered up plants we immediately recognized as well as plants that had us poring over our identification materials. In our hour-and-a-half tour, we checked off 18 species from plant lists provided by MDC’s Susan Farrington and Mike Leahy, and 2 species (Eupatorium altissimum - tall boneset and Heliopsis helianthoides - oxeye sunflower) to add.

Perennis

Submitted by Andrew Braun, Chapter Representative

Members of the Perennis chapter met at Holly Ridge Conservation Area on August 27. This area is one of the few publicly owned properties on Crowley’s Ridge in the state, and features many of the regionally rare coastal plain species found in this ecoregion.

The group stopped by a seep and saw many state rare plants, including axilflower (Mecardonia acuminata), netted chain fern (Woodwardia areolata), twinwing screwstem (Bartonia paniculata), and halberd-leaved smartweed (Persicaria arifolia), as well as other more common seep species. The group hiked down a trail and noted several more species characteristic of this part of Crowley’s Ridge, such as cherrybark oak (Quercus pagoda) and beech (Fagus grandifolia), among others. An old gravel pit on the top of the ridge featured characteristic dry sand woodland/savanna species like jointweed (Polygonella americana), bristly flatsedge (Cyperus hystricinus), narrowleaf bluecurls (Trichostema setaceum), and others. The group was enthusiastic about seeing this interesting area, and afterwards discussed future field trip possibilities.

Empire

Steve Buback Chapter Representative

No report at this time.
St Louis
Submitted by Rex Hill, Chapter Representative
At our August meeting, Chris Benda, a past president of the Illinois Native Plant Society, made a presentation on Illinois Natural Areas. His talk covered natural areas in eight of the fourteen Natural Divisions of Illinois with many beautiful photographs and personal observations from his work with the Illinois Natural History Survey. Chris is most active with the Southern Illinois Chapter and covered many of the areas familiar to our members in the St. Louis and Perennis Chapters including LaRue Pine Hills, Cache River, Heron Pond, and many others in the Shawnee National Forest. To learn more about Chris and Illinois botany, go to his website at www.illinoisbotanizer.com. He has a remarkable biography with many and diverse interests in natural history. Check out a few of the publications he has sponsored such as the Guide to Spring (and Summer) Wildflower Hikes in Southern Illinois.
In September, John Brinda gave a presentation on bryophyte conservation. The short biography that follows was taken from the Fall 2017, Missouri Botanical Garden Bulletin.
Dr. John Brinda joined the Garden in 2012 as a postdoctoral fellow in the bryology program, digitizing label data for the North American moss collection. In addition to collecting mosses from around the world, he is now a curator continuing to advance the understanding of this plant group. Dr. Brinda was working for the U.S. Forest Service in the Pacific Northwest when he got hooked on bryophytes. While earning his PhD from the University of Nevada–Las Vegas, he started working on desert bryophytes. “Bryologists usually want to go where there are lots of lush bryophytes, so the deserts have been kind of ignored,” he says. Dr. Brinda has continued collecting and classifying specimens throughout North America. He recently described a new moss species that a hiker found in California and discovered a rare species that was previously unknown in North America. “That’s just how it is,” he says. “They’ve all been there for millions of years, but nobody is looking at them. They’re really amazing plants.” Though he did not set out to be a taxonomist, Dr. Brinda knows being a better taxonomist means being a better collector. “The two work together. The time you spend with a microscope teaches you what to look for when you’re out in the field,” he says.
In his talk, John presented his observations and reasons for answering the following question in the affirmative. “Can bryophyte conservation efforts achieve parity with those of other groups?” He covered the basics of bryophyte physiology, particularly their ability to recover when hydrated after long periods of desiccation and how that mechanism may someday be useful in applications to crop plants. He emphasized their contributions to soil building, erosion protection, and primary succession. He also stirred some thoughtful consideration when he related his position

Osage Plains
Submitted by Casey Burks, Chapter Representative
[No meeting or field trip during August.]
September 25th 6:00pm MDC Building: Herbal Balm workshop by Casey Burks. Such a wonderful evening of lively conversation and group participation while preparing herbs and waiting for beeswax to melt. Everyone present took home a container of herbal balm. Janetta Smith brought biscuits and muffins to go with her zucchini preserves. Such a treat!

Southwest
Submitted by Michelle Bowe, Chapter Representative
At the September meeting, Andy Thomas presented an interesting talk on Native Edible Woody Plants. Andy works for the MU extension office in Mt. Vernon and has been developing methods for cultivating native species for about 20 years. We learned how some species were just cultivated from wild plants with unusually large fruit (pawpaws and persimmons), while others have been genetically crossed or grafted. We were able to sample some of the “fruits of his labor” such as pawpaws, persimmons, black walnuts, and see examples of Chinese chestnuts and the Ozark Chinkapin.

Book Suggestion
Dave Schilling
There is a new book on the "New Book" Shelves at the library entitled "Thoreau's Wildflowers"...a collection of botanical entries condensed from Thoreau's Journals...edited by Geoff Wisner. Among the many interesting entries is:
"I am interested in each contemporary plant in my vicinity -- and have attained to a certain acquaintance with the larger ones. They are cohabitants with me of this part of the planet and they bear familiar names. Yet how essentially wild they are... June 5, 1857 (page 84)
Remembrance of Pat Harris
Submitted by John Oliver MONPS President. Photos by Rex Hill.
Pat Harris, wife of Jack Harris and long-time member of the Missouri Native Plant Society died on September 20, 2017. She was 81.

Most of you will need no reminder of Pat’s importance to our Society. She served for nine years as editor of the Petal Pusher, and two years as assistant editor of the Journal of the Native Orchid Conference. She actively participated for more than twenty-five years in weekly field botany trips of the Webster Groves Nature Study Society and the quarterly field trips of the Missouri Native Plant Society. Her focus was nature study with strong emphasis on native wildflowers and nature photography, and she loved traveling and exploring nature’s wonders.

She and her family explored all fifty states and four provinces and one territory in Canada, participating in such activities as a four-day river raft trip down the Green River in Utah. She was a 50-year Sierra Club member and in the early years was the active leader (with husband Jack as her assistant) of the popular annual Spring Wildflowers of the Ozarks field trip. Pat took frequent weekend hikes in the Ozark mountains and camping/float trips on several of the sparkling, clear and cold Ozark streams with the family in their two canoes, and she received a FIRST JUMP Certificate of Award for a parachute jump.

Her service activities included twenty years as a Volunteer Naturalist at the Missouri Department of Conservation’s Powder Valley Nature Center, for which she received a service award, and she also was an independent contractor for many years with the Flora of North America Association (FNA) at the Missouri Botanical Garden.

In short, Pat was a dedicated and dependable volunteer for causes that she believed in, most of which were related to conservation and the environment. Those of us who share these beliefs can thank people like Pat whose efforts helped MONPS and other similar organizations grow and prosper. Many people give lip service to conserving our natural world and the science that supports it, but a few do something about it. Those are the people who change things and make a difference. Pat made a difference.

Ozark Submitted by Liz Olson Chapter Representative.
For our September chapter meeting, we highlighted those Darn Yellow Composites (DYCs) that are blooming so beautifully at this time of year. A fun group of 22 people enjoyed learning about the species that Susan Farrington collected and brought in.

We started with the goldenrods. These have tiny yellow flowers, and are often blamed for allergies, although the real culprit at this time of year is ragweed (Ambrosia spp.). Although they all look so similar it first, it helps to notice the differences in shape and texture of the basal leaves and stem leaves, and whether the stem is hairy or not. We had tall goldenrod (Solidago altissima), stiff goldenrod (S. rigida), elm-leaved goldenrod (S. ulmifolia), old field or gray goldenrod (S. nemoralis), and we discussed showy goldenrod (S. speciosa) which is more likely to grow in prairies to the west and north of the Ozarks.

Next we had four of the ‘eyed-Susans’: common black-eyed Susan (R. hirta), brown-eyed Susan (Rudbeckia triloba), a glade specialist called Missouri Black-eyed Susan (Rudbeckia Missouriensis), and sweet black-eyed Susan (R. subtomentosa) which commonly grows in prairies and its flower has an anise scent.

Next we looked at sunflower type plants: Jerusalem artichoke (Helianthus tuberosus), Maximillian sunflower (Helianthus maximiliani), woodland or bristly sunflower (Helianthus hirsutus), and ox-eye sunflower (Helioptis helianthoides).

Two species of Silphium: Prairie dock (Silphium terebinthinaceum), which is easy to identify by its large basal leaves. And rosinweed (Silphium integrifolium), which can be confused with ashy sunflower (Helianthus mollis) but the hairs on the stem and the seed arrangement are different.

And finally a few more DYC species: yellow ironweed (Verbesina alternifolia) is a type of wingstem. Golden aster, in the genus Heterotheca, has leaves that are small and kind of twisted. Bitterweed (Helenium amarum) is a non-native and can cause milk to taste bitter if cows graze on it. Swamp marigold (Bidens aristosa) is in the group often called tickseeds, beggar-ticks, stick-tights, or Spanish needles, referring to the awned seeds that attach to clothing and animal fur.
**Hawthorn** Submitted by Cindy Squire Chapter member

On August 12, 2017 our chapter was invited to a garden tour at the home of Gary and Linda Shillito. They transformed a challenging suburban lawn into an urban native garden wonderland. It was a wonderful guided tour! Their landscaping is just lovely on a site that is quite challenging with a large drainage running through their property. They opened their basement as a B&B for the rock layers for a week while they worked on the hard scaping. Ann Wakeman helped them choose appropriate native forbs, vines and bushes that enhance and beautify their property and succeed in this situation. We were served yummy homemade scones and tea. This is an inspirational garden for native plant enthusiasts residing in the city. Thank you Gary and Linda!!

Janice Albers attended a Grass ID Workshop on Sept 1-2 at Missouri State University in Warrensburg. She wrote an article for our chapter Newsletter [included later in this document]. It is very informative; I encourage you to check it out [here on Page 13].

Several of us helped MMN collect seed for MDC reconstruction areas. We were at Auxcasse Glade, part of Reform CA in Callaway Co. I snapped this photo of a very unusual caterpillar. Good thing none of us touched it since it is the caterpillar of the Stinging Rose Moth; it can be red, orange or yellow.

Our regular chapter meeting was held Sept 11. We welcomed 4 new members: Dr. Alan Hillard, Mary Studer-Lodgson, Dr. Richard Hart and Bob Bailey. Becky Erickson supplied potted plants and expertise to make this meeting a success. Thank you for your preparation work. About 18 members brought 20 plants for identification. We tested our skills in an identification contest. This ID can be quite difficult when the plants are smaller and are not in flower. I was able identify quite a few more than last year, so I believe this chapter was successful in its goal of education. Janice Albers and Lea Langdon were our winners. We also discussed financial issues and decided to let go our Stadium Blvd plant since it is so overwhelmed with aggressive aliens.

In November, Becky Erickson has agreed to present a plant propagation workshop. I went to her workshop in Jan ’17; I was so appreciative of all the information presented. I plan to attend this one also since there was so much information to be absorbed. I look forward to this event and encourage others to attend, you will learn lots.

Both the August 17th and Sept 20th monthly lunches at the Uprise Bakery on 10 Hitt Street in Columbia were quite well attended. There is good food, lively conversation, and an immense appreciation of native plants. As a newer member, I look forward to the warm friendly environment these lunches provide.

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**Dear MONPS Members,**

We are pleased to announce the latest issue of our journal, *Missouriensis*. As previously announced, *Missouriensis* will henceforth be published as an online, electronic journal with color pictures and other extras only possible with this format. The issue will soon be available on our website, [monativeplants.org](http://monativeplants.org) as links to the separate articles.

Those who get e-delivery for PP will get *Missouriensis* personally in a separate message. We hope you will enjoy it.

Doug Ladd, *Missouriensis* editor
John Oliver, MONPS president

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**2017 Missouri Botanical Symposium**

The 2017 Missouri Botanical Symposium will be held in Rolla, Missouri on Friday Nov 3, 2017.

Speakers start at 9 Sharp and retire after 3. Mark your calendar for a great day of fascinating botanical presentations about the flora of our state and region, guaranteed to be enjoyed by professionals and amateurs alike! A few titles are [paraphrased for brevity]:

- **New Species!**
- Ecotypes of Buffalo Grass
- Succession of Prairie Restoration
- MO Invasive Species Taskforce
- Gasconade River Wetlands
- “When Fungi Discovered Agriculture” By Doug Ladd

Fee (includes lunch) is $45 regular, $30 student. To register, visit [www.missouribotanicalsymposium.org](http://www.missouribotanicalsymposium.org) and see updates and news about the symposium on Facebook.

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**Kansas City** Submitted by John Richter, KC Chapter Pres

No Report at this time.
Stories and Impressions of the Glades at Ava during Fall Equinox 2017

Andrew Braun Perennis:
The group got to see some good representative sites of the unique glade communities of the White River hills that feature many southern and western species not found elsewhere in Missouri, including several that are considered rare in the state. Turnout and enthusiasm was exceptional. Interesting discussions about the flora and ecology of the area made for good conversation.

Malissa Briggler Hawthorn, Missouri Natural Heritage Botanist: *Tragia cordata* (heart-leaved tragia) was found by Brett Budach while attending the MNPS field trip near Glade Top Trail. It is considered a Species of Conservation Concern and populations are tracked in the Missouri Natural Heritage Database.
The database is used to inform conservation planning, environmental review, scientific research, land acquisition and planning for economic development. Heart leaved tragia can easily be confused with another common plant known as naseburn (*Tragia betonicifolia*), but is distinguished by its heart shaped leaves and twinning habit found in bottomland forests or mesic upland forested ravines. The Missouri Ozarks represent the northern range of this species and it is also considered rare in OK, TX, FL, GA, IL and ID. This rare find will be the third population now tracked by the Natural Heritage Program. Thank you, Brett!

Frances Albano Hawthorn: I would like to add Louise Flenner, Gail Raskin, Laura Hillman to the Hawthorn attendees. The following are some comments about the Caney Mt. C.A. trip: Long Vistas to Arkansas!! . . .

with displays of colorful Liatris, goldenrods and glade onion in pockets. This area provided me with a visual example of the progression from glade to woodland to woods. I also observed the “control area” across the road as an example of a non-maintained area left full of cedars and other weedy species. This was the first time I participated in a State Field Trip. The experience of being immersed in the glades for 3 days was amazing & gave me “hands-on” appreciation for the sheer diversity of life contained in these areas I have never experienced before. It was worth every chigger bite I got!

Casey Burks Osage Plains: This week several of us were freshly back from attending the Fall MONPS meeting in Ava getting to explore Caney Mountain. This adventure held so many highlights. Friday evening Angela Sokolowski gave a background of the area along with Forestry Service challenges such as prescribed burns of hundreds of acres and trying to prevent poaching of rare plants with only a handful of employees covering a huge area. One poacher was caught with 50 pounds of yellow coneflower roots (*Echinacea paradoxa*) they could have sold to a pharmaceutical company. Of course, the Forestry people needed to replant what roots they could.

Susan Farrington led the huge group to the special areas of Caney Mtn. We enjoyed seeing so many beautiful plants as well as breathtaking vistas along the top trails. I have such a difficult time learning botanical names but one lady helped me learn the *Palafoxia callosa* plant by telling me she thinks “pale fox”. I was so in love with this small plant with its tiny pink blooms it was wonderful to be able to call it by name as I saw it in all the areas we visited. Another plant that was such a joy was *Grindelia lanceola* with its cheery yellow flowers. Its name “gumweed” is well deserved!

< < < Winged elm and smoke trees, a different ladies’ tresses orchid (*Spiranthes magnicamporum*) > > > are a few of the other special plants. One green briar plant drew a crowd to look at the beautiful larva of a curved-lined owlet moth. It has a long “spike” protrusion on its rear-end and swings back and forth like a leaf. I’d never seen anything like it.

Sunday morning Susan led the caravan of 15 plus cars on another path on Caney Mtn. We stopped to look at the log cabin where Starker Leopold, son of Aldo, lived while doing his conservation research. Several people, more agile than yours truly, scampered though the creek and up the steep hill to look in the windows. Such a beautiful setting in the trees; we all appreciated that it has been restored and available for visitors to touch the place where the Leopold family lived.

I loved everything about this weekend: getting to visit with friends from other chapters, having so many esteemed botanists in our midst who patiently answer questions, having the opportunity to see such an interesting and beautiful area in Southern Missouri. It was inspiring to all of us from Osage Plains. We so appreciate all the effort that goes in to planning the quarterly MONPS meetings and special places to visit. THANK YOU!!
John Oliver STL/President: Besides all that beautiful scenery, my favorite part of the field activities was seeing and learning about highly conservative species which don’t grow around St. Louis. All of the following have a coefficient of conservatism of 7 to 10: *Acaciella angustissima* (prairie acacia), *Agalinis purpurea* (purple false foxglove), *Ionactis linariifolius* (flax leaf aster), *Oligoneuron album* (white flat-topped goldenrod), *Solidago gattingeri* (Gattinger’s goldenrod), *Solidago petiolaris* (downy or savanna goldenrod), *Cotinus obovatus* (smoke tree), and *Solidago caesia* (blue-stemmed goldenrod).

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Rex Hill StL/past Prez: Confessions of a past president – or what I did in Ava at the last MONPS Quarterly fieldtrip

I attend these trips with several goals in mind. I like to see new places, see different aspects of Missouri habitat, get together with old friends, meet new people (which, at my age, I do every day), and, oh yes, maybe see a few interesting plants. Ava did not disappoint. I have never had the enthusiasm and drive to identify every plant that I come across, nor will I ever develop those skills. The challenge to do so is there, but I am distracted by the other things that I mentioned above. These fieldtrips over the years have provided me with great pleasure and have expanded my horizons for exploring Missouri.

I had never driven the Glade Top Trail and there were beautiful scenes everywhere and places to explore, or just sit and reflect. McClurg Glade was a wonderful spot to visit, and I enjoyed talking with Amy Hamilton, who I hadn’t seen in a few years, and her grandson Jake. It was great to see this spot after having Angela Sokolowski from the US Forest Service give a talk Friday evening on her efforts at protecting and restoring places in the area, in spite of the daunting challenges she faces. Her enthusiasm never seemed to wane.

On Sunday, the trip to Caney Mountain Conservation Area was a real treat. Driving around the property made me think about returning at some point where Martha and I might camp and have a more in depth exploration of the property. Talking with Bob and Ruby Ball about our similar experiences and trips at one of the stops was a treat. I enjoyed watching Doug Ladd explaining in a very complete way the reasons for the presence of the plants that the group was finding, and I enjoyed walking ahead of the group on the nature trail with Martha and looking at things thorough our naive eyes and discussing what we saw. Did I make a plant list? Can I tell you what specifically we saw? Not really, but it was a most enjoyable weekend.

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Angela George [MDC Forester] found this great black widow spider on McClurg Glade and this yellow sphinx type caterpillar on a post oak [we still don’t have the species].
Chapter Calendars

Hawthorn from Cindy Squire
Chapter meetings held on odd-numbered months on the second
Monday at Unitarian Church, 2615 Shepard Blvd., Columbia.
Third Thursday lunch at Uprise Bakery [RagTag] 10 Hitt St,
Columbia continues to be well attended by members for informal
discussions about native plants and environmental issues. See
www.columbianativeplants.org for postings of newsletters and activity
details. For folks interested in hiking and wildflower sightings around the
state, check chapter newsletter on the website for details. Otherwise you are
encouraged to participate in outings with other MONPS chapters and MPF.
We will email chapter members interested in outings.
19 Oct Thur – 11:30 Lunch at Uprise Bakery.
5 Nov Sun – noon to 4, MDC Office on Discovery: propagation
workshop given by Becky Erickson. Bring a quartz dairy container with lid. $10. Door prizes. Contact Lea
for details: langtrea@gmail.com . No walk-ins.
13 Nov Mon – 6pm Bimonthly Meeting at Unitarian Church.
Program from Columbia’s Naturalist Danielle Fox. Also
volunteers needed for officer positions
16 Nov Thu - 11:30 Lunch at Uprise Bakery.
21 Dec Thur – 11:30 Lunch at Uprise Bakery. Take a break
from shopping. Meet us downtown for lunch!

Osage Plains from Casey Burks
This year we will be changing our meeting location to the MDC
building 2010 South Second St. in Clinton. Regularly scheduled meetings are held the 4th Monday of the month at 6:30 pm.
However, no meetings are held during the months of August,
December or January. Activities are open to the public and our purpose is to enjoy learning about and sharing information about
native plants. Current information available from President
Elizabeth Middleton Elizabeth.Middleton@MDC.gov or Chapter Representative Casey Burks mobugwoman@gmail.com. Field Trip
coordinators are Bernie Henehan berniehenehan@yahoo.com
and Dan Henehan danhenehan@embarqmail.com
No meeting scheduled in August.
23 Oct 6:00pm MDC Building. Special Propagation
workshop by Becky Erickson. (Note earlier start time).
Attendees need to bring long dried stems w/seeds of species they want to learn to grow, and a quart dairy container w/lid.
27 Nov 6:30pm MDC Building. Edible native foods dinner. Please bring something made with a Missouri native plant to share. Tuxedos optional ☺. This is the last meeting of this year.

Ozark from Liz Olson
The Ozark Chapter meets at 6:30 pm on the third
Tuesday of each month MDC, Ozark Regional Office, 551
Joe Jones Blvd, West Plains, MO 65775.
No meetings Dec and Jan. For more information, contact chapter president Susan Farrington at 417-255-9561. We take suggestions for speakers at our meetings.
17 October = TBD
21 November = TBD

Upcoming Events

St Louis from Rex Hill
Chapter meetings are held on the fourth Wednesday of the month at the Sunset Hills Community Center, 3939 South
Linbergh Blvd., Sunset Hills, MO. Google Map:
http://goo.gl/maps/K3PR

All Friends and newcomers are welcome at meetings.
Look to the Saint Louis Chapter page on the MONPS website
at for any announcements.
http://monativeplants.org/chapters/saint-louis/

Kansas City from John C. Richter
Meetings are usually held at MDC Discovery Center 7 pm,
1st Tuesday of odd-numbered months. No meeting in July. https://nature.mdc.mo.gov/discover-nature/places/gorman-anita-b-conservation-discovery-center ; mid-town on Troost between Cleaver and Volker Blvds.
Kansas City Chapter 2017 Calendar
Submitted by John C. Richter, MONPS KC Chapter Pres
For questions about upcoming field trips contact the field trip leader, otherwise contact John Richter via e-mail:
RichterJC@bv.com, or cell phone 816-519-8201. Please RSVP
with the field trip leader or John Richter for all field trips. We
use RSVP information to plan car pool logistics and to
determine if a field trip will have any attendance. This is
important for making decisions based on severe weather, etc.
Our events are open to all who would like to participate,
members and non-members alike; please bring a friend.

7 Oct – Maple Woods woodland walk. Easy walking on a path, enjoy the fall colors and late blooming flowers. If
interested please RSVP with Hilary Haley hhaley@tno.org.
9 Oct 7:00PM, MDC Discovery Center: Chapter Meeting - Meeting activity TBD.

Southwest from Michelle Bowe
Meetings will be at different locations in Spfgld, 4th
Tuesday, 6pm. Refer to each date for location In case of
bad weather, watch Facebook for cancellations or call
ahead of time and we’ll call back with more information.
Michelle Bowe Mbowe@MissouriState.edu 417-836-6189
24 Oct 5pm: Annual cookout and social at 5 pm at the
Lovett Pinetum. Bring a dish to share. Bring seeds, stories, and photos to swap.

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Perennis from Andrew Braun
Watch for announcements by e-mail, Facebook, and the MONPS website. Visit www.monativeplantsociety.org
Be sure your email is registered with Andrew, your Chapter Rep, and with Becky = PP editor, and with Ann Early = membership Chair.

Field trips and other events for the Perennis chapter are currently being planned. Watch for announcements by e-mail, the MONPS website, and the MONPS Facebook page. As always, ideas are welcome! Contact Andrew for updates on activities apbraun1s@gmail.com

Paradoxa from Jerry Barnabee
Paradoxa schedules meetings/walkabouts at a variety of locations in the Rolla area. Watch our chapter page on the www.monativeplants.org website for updates, or email us at paradoxarolla@gmail.com and ask to be added to our email list. Work on the Bray CA Botanical Collection and Herbarium Project holds workdays on the first and third Thursdays of the month, 9am.

28 October, 1-3pm - Our final meeting for 2017 will be at Bray CA. We’ll hope to catch the last of the woodland asters and goldenrods in bloom and/or identify plants vegetatively and collect seeds. If you would like to participate in a seed exchange, please bring seeds you’ve collected from home.

5 Nov Sun all day: possible carpool to Columbia for propagation workshop by Becky Erickson. Get details from Pam Barnabee or Lea Langdon langtrea@gmail.com

Empire Prairie from Steve Buback:
Nothing submitted at this time.

Editorial: All Members Need to Discuss
Submitted by Becky Erickson
As a member of the board of MONPS I attended the Annual Membership Meeting at Kahoka this summer. I heard a statement that made me think hard about the mission of our group. It was presented in a thoughtful, respectful manner: “We advance the knowledge of native plants in the wild; we do not cater to gardening.”

“Restoration” is clearly one part of the mission statement of MONPS, so promoting landscaping with natives is surely something we support. [The Missouri Native Plant Society (MONPS) was founded in 1979 as a non-profit organization devoted to the enjoyment, preservation, conservation, restoration, and study of the flora native to Missouri]. Is gardening part of restoration? Or not part of restoration?

I will not re-print the whole thought; read it in the last issue.

Let me be clear: I do not, will not, go on Facebook because of the harassment and flooded mailbox after a visit. So – I do not know what conversations evolve on the MONPS Facebook page.

BE A CITIZEN SCIENTIST!!
Many, many retired and people with interest in nature supply data to several organizations needing data from across the country and around the world. I won’t supply links here because it is so easy to Google names.

Bud Burst is a database of DATES of perennial emergence, buds, flowers, seedset.

Cornell Ornithology Lab gives several dates around the calendar when you can submit bird counts, just in your back yard or on vacation trips.

Monarch Watch and Missourians for Monarchs both need data points for wild and planted milkweeds, prairie plantings and wild nectar areas; then they need monarch sightings in all stages of development.

Dave Shilling:
One recalls the famous plea from that fictional Lorax character: “I speak for the trees. "No cladistic problems being dealt with there. Just ecological problems of dwindling botanicals. Here’s to those working more down to the dirty “roots” of botanical matters. And if that be called "horticulture”, I admire it more than mere "academics". And hope to have it remain in the goals of the Native Plant Society!

Malissa Briggler:
Some of our members probably have never spent time learning about native plants “in the wild” but are avid gardeners and want to support a society devoted to native plant conservation and education. And yes, our field trips are to wild areas, not gardens [Ed note: Prairie Garden Trust and SNR are all ‘gardened’ in the broad sense]. However, individual chapters have their own trips and events and it’s likely some have more emphasis on native gardening and landscaping than others.
Dear Becky, thank you for the thoughtful editorial published in the September 2017 issue of the Petal Pusher. Gardening with native plants is a wonderful way to achieve the mission of the Native Plant Society. We focus more on preservation, conservation, and restoration in wild places. However, native gardening lends itself nicely to the other components of our mission by promoting the enjoyment and study of native flora.

Jeff Cantrell: I value your thoughts about restoration (sustaining our native botanicals – good point) and even further addressing the mission statement for native flora and plant communities. I’m sure many of our peers appreciate you bringing it to our attention in the editorial.

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

Gardening in the broader sense like you pointed out is management and restoration. It fits our mission as we are the mentor on an ecology walk or good steward role models with our own land. We strive to be and provide a little education and appreciation for any budding botanist and naturalist. Have the opportunity on a hike or in a program to showcase what the restoration area should be.

I believe in the education value of a native in the flowerbed and schoolyard, I’ve seen its usefulness a thousand times over. I appreciate the reminder of our mission statement; there is a “feel good” responsibility there to remind us of the enjoyment and purpose for a cause we love. This will help build the conservation ethic with our audience for our plant communities. Your editorial is much appreciated.

Paula Diaz: It is my perspective that if we want people to preserve our native plants, then we need as many of those people as possible to KNOW our native plants. People, sadly, do not care about that which they do not know. For instance, I was a gardener who grew to love natives based on their interconnections with the fauna in our ecosystems. The more I learned, the more fascinating those relationships are. Building this knowledge gave me a passion for native plants that I have shared with others through educational presentations, as well as through designing and installing gardens filled with native plants for clients, and simply sharing with friends and family the importance of our native plants in supporting the web of life.

So although MONPS was not perhaps established with the intent of including gardening with native plants, and perhaps should continue to be most strongly focused on the scientific aspect of the wild natives, it seems beneficial to include those who "garden" or create habitat using native plants- beneficial for the learners and perhaps even for the teachers.

Apparently, what inspired the primary comment was some horticultural gardeners asking horticultural questions; no we do not cater to gardeners. So I back down from my defense understanding now that MONPS does promote any use of truly native species in any appropriate situation.

As promised I will publish comments sent to me using the most relevant passages, all of which supports this discussion.

Doug Ladd: Spoke at the Ava meeting that another expert [didn’t catch the name] wrote a column this summer addressing exactly the same issue. Doug said my editorial is timely and he supports small and large scale “gardening” with natives.

[Next column > > >]

**LINK IN!!**

Members who receive this by email can Ctrl+Click on links to open for allot of information.


Paula Peters found a great website [www.gardenswithwings.com](http://www.gardenswithwings.com). As she says, “It has a place to enter your zip-code to get a list of food plants to plant for the butterflies in your area, and it has lots of other handy information too. “This is just in time for Spring; they need food all summer and fall, too—enjoy!”

WREN SONG [http://nativeplantwildlifegarden.com](http://nativeplantwildlifegarden.com) Blog on native gardens and ecology

In response to those who requested information on weed control, particularly of invasives, the following download may provide some assistance; [https://www.fs.fed.us/foresthealth/technology/pdfs/FHTET-2016-04_Biocontrol_Field_Guide.pdf](https://www.fs.fed.us/foresthealth/technology/pdfs/FHTET-2016-04_Biocontrol_Field_Guide.pdf)

There is a guide to plants supporting monarch Butterflies, *Important Plants of the Monarch Butterfly (Danaus plexippus)* available for download at: [https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/plantsanimals/pollinate/?cid=nrcsprod402207](https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/plantsanimals/pollinate/?cid=nrcsprod402207)

Search for USDA monarch butterfly initiative. Try to get the Midwest edition (179 pages in pdf form) not the southern great plains one. There are very good color photographs of plants.
Grass Identification Workshop taught by Paul McKenzie, USFWS Sept. 1-2, 2017

Submitted by Janice Albers, Hawthorn

This workshop was a crash course in grass identification, with a focus on describing structure terminology and understanding grass reproductive structures especially those used for species identification. The class had about 20 participants ranging from undergraduate students, private land owners, and professionals. We used the book, Agnes Chases’s First Book of Grasses 4th edition by L.G. Clark and R. W. Pohl to assist with terminology and general overview, but keyed species using Steyermark’s Flora of Missouri, Vol. 1 by G. Yatskievych. There are multiple levels used to identify grasses; inflorescence arrangement, leaf blade structure (sheath and junction of sheath and leaf blade, i.e. ligule) and flower structure. A combination of these will help you determine what species you are examining.

At the macro-level, inflorescence arrangement and can easily be used to determine some family/genus/species from a distance. The three main inflorescent types are panicle (with branches), raceme (with pedicels) and spike (flowers are attached directly to stem). Turkey foot (a.k.a. Big Bluestem Andropogon gerardii) is species that can easily be determined by inflorescence structure, usually having three racemes, similar to a turkey’s foot. Indian grass (Sorghastrum nutans) is another species that I identify by the golden inflorescence on a blueish stem, and to me always looks like a candle flame.

Moving down the plant, the leaf blades, blade sheaths, nodes, and ligules (membrane flap that sticks out when the leaf is pulled back) are other structures used to determine grass species (Fig. 1). The leaves of the invasive Reed Canary Grass (Phalaris arundinacea) have a curved pointed ligule that can be used to confirm this species identity. And the infamous cutgrasses (Leersia sp.) that have needlelike hairs on the leaves that act like tiny sawteeth, which I first encountered walking Ozark streams and found my legs bleeding from all the cuts.

Fig. 1. [Plate 12] Structure of grass plants, spikelet and floret.

Moving down the plant, the leaf blades, blade sheaths, nodes, and ligules (membrane flap that sticks out when the leaf is pulled back) are other structures used to determine grass species (Fig. 1). The leaves of the invasive Reed Canary Grass (Phalaris arundinacea) have a curved pointed ligule that can be used to confirm this species identity. And the infamous cutgrasses (Leersia sp.) that have needlelike hairs on the leaves that act like tiny sawteeth, which I first encountered walking Ozark streams and found my legs bleeding from all the cuts.

Fig. 2. [color] Flower structures of the grasses (Poaceae), sedges (Cyperaceae) and rushes (Juncaceae).

But one of the most definitive ways to determine grass species is to use flower structure, even though a hand lens is usually needed and flowers only occur during part of the season. Grasses, a.k.a. the Poaceae family (Fig. 2), are identified by three main flower structures: palea (lower bract), lemma (upper bract) and ovary; using their characteristics and arrangements as distinctions between species, and from sedges Cyperaceae and rushes Juncaceae. Groups of individual flowers on the same pedical are termed spikelets and contain two additional bracts at the base called glumes (Fig. 1); River Oats (Chasmanthium latifolium) are a good example of a spikelet.

Once we got a handle on the terminology and what to look for, we did what any good botanists would do, went to the field. We visited a nearby restored prairie, Turkey Foot Prairie, where we saw many of the warm-season prairie grass species in bloom such as Big Bluestem, Little Bluestem (Schizachyrium scoparium), Greasy grass (a.k.a. Purple top, Tridens flavus, known for the greasy feeling inflorescence), and Virginia wild rye (Elymus virginicus); and nearby an old waste area that had Windmill grass (Chloris verticillata), Bermuda grass (Cynodon dactylon), Witch grass (Panicum capillare), Headless or Rough dropseed (Sporobolus compositus), and Sand burs (Cenchrus longispinus). On the second day we visited Pertle Springs, an old CCC camp that was once open grassland, but now has grown up in trees and contains shade loving grass species. We saw Deertongue panicum (Dickanthelium clandestinum), Beaked panicum (Panicum anceps), River Oats and Wood reed (Chinna arundinacea).

In conclusion, Paul McKenzie conducted a very educational workshop; explaining difficult terminology in an easy-to-understand format. I would recommend this workshop to anyone, even beginning botanists.

Split rail fence at USFS Glade - L Flenner

Rock landscape – B Erickson
"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." Aldo Leopold