

September – October 2017 NEWSLETTER OF THE MISSOURI NATIVE PLANT SOCIETY Volume 32 No.5

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

ANNOUNCEMENTS

2017 AUTUMN FIELDTRIP INFORMATION

Organized by Dana Thomas

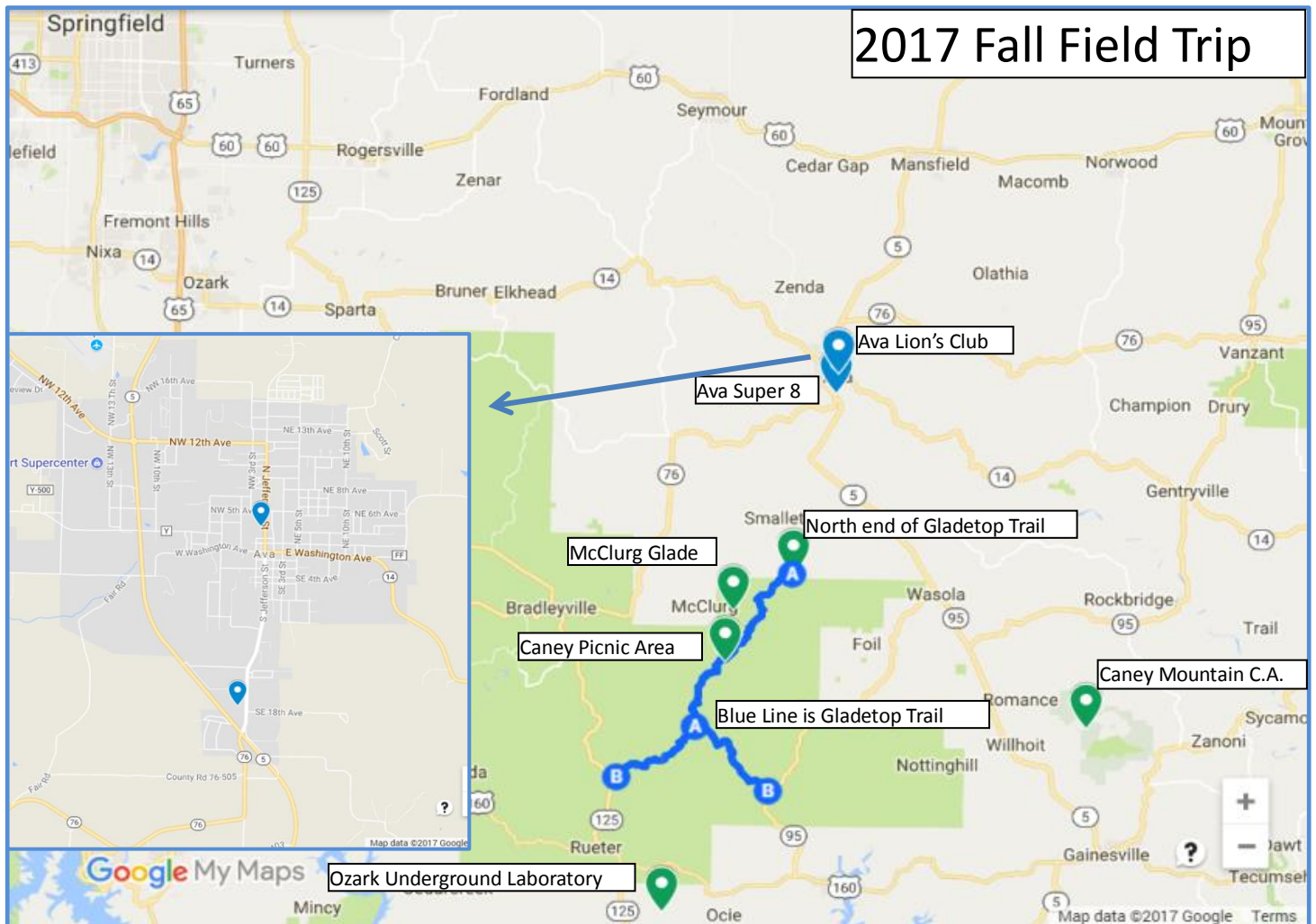
The MONPS fall field trip will take place on **September 22-24, 2017!**

Join us to see unique glades and various other botanically rich areas in southwest, Missouri!

Field trips will be based out of Ava, MO. We'll explore the plant diversity at Ozark Underground Lab, Caney Mountain Conservation Area, and several locales along and near the Forest Service's Gladetop Trail in the Ava/Cassville Ranger District.

Angela Sokolowski (Natural Resource Specialist, USFS) will deliver a presentation on Saturday evening entitled, *Ava's Glades: A Discussion on Management History, the New State Natural Area, and Rare Plants*. Join us for the whole weekend, or pop in on the days that fit your schedule.

*Don't forget to check your gas tank before you set out for the wilds, and remember to pack a lunch and plenty of water for the Saturday trip!



For a map of all sites, and detailed driving directions, visit this [Google Map](#)

Details could change!

For the most finalized and up-to-date info, and for maps and species lists, please visit [The Missouri Native Plant Society website](#) and our [Facebook Page](#)

Lodging: We have a block of rooms reserved at the Super 8 in Ava, MO at a rate of \$73.63.

Be sure to mention the block for the Missouri Native Plant Society when you call.

The deadline for making your reservation is September 8th!

Ava Super 8: 1711 S Jefferson St, Ava, MO 65608, [417-683-1343](tel:417-683-1343)

Camping: Beaver Creek Canoe Rental Campground & Cabins; 159 State Hwy W, Ava, MO 65608. 417-796-2336

<https://campnative.com/campgrounds/usa/mo/ava/beaver-creek-canoe-rental-campground-cabins>

FALL FIELD TRIP SCHEDULE

Friday, September 22nd

1:00-5:00 p.m. - Early Bird Field Trip Ozark Underground Laboratory. Meet at OUL at 1:00pm

Approximate parking area GPS: 36.563138, -92.822668 or 36°33'47.3"N 92°49'21.6"W

We will not be parking at the office of OUL. There is a shortage of parking spots there, so we will meet and park at the turn off to the "Myers Property". There will be a sign posted to indicate the location.

Directions to Ozark Underground Laboratory/Tumbling Creek Cave Foundation from Ava, MO:

From Jefferson St/MO-5 intersection, take MO-5 south 12.8 miles

Near Wasola, turn right on MO-95 south and continue 20.6 miles

Near Lutie, turn right on US-160 west and continue 8.5 miles

Turn left on Cave Road and continue 2 miles

Turn left on Aley Lane (over cattle guard)

Drive ca. 0.3 mi. until you see a sign for MONPS parking

We will botanize on right (south) side of Aley Lane on the Myers property.

7:00 p.m. – Evening Presentation at the Ava Lion’s Club. *Ava’s Glades: A Discussion on Management History, the*

New State Natural Area, and Rare Plants - Presented by Angela Sokolowski, USFS Natural Resource Specialist (Non-native Invasive Species, Botany, Fire)

Lion’s Club address: 309 N Jefferson St, Ava, MO 65608 **GPS: 36.954229, -92.660847 or 36° 57' 15.2"N -92° 39' 39.0"W**

Saturday, September 23rd

8:00 a.m. – All Day Field Trip – U.S. Forest Service’s Gladetop Trail. Meet in the parking lot of the Ava Super 8 at 8:00 am to carpool/caravan. Or meet the group at McClurg Glade at 8:30am. Note that McClurg Glade is not technically on Gladetop Trail, but is very close. We’ll start at McClurg and visit other sites along Gladetop Trail throughout the day. **Parking area GPS for McClurg Glade: 36.781534, -92.751839 or 36°46'54.0"N 92°45'07.1"W**

Directions to McClurg Glade from Ava, MO:

Head south out of Ava on MO-5 S and continue for 3.8 mi

Turn right onto State Hwy A and proceed for 3.7 mi

Turn left onto Co Rd 409/Co Rd A-409 and proceed for 3.2 mi

Take a slight right onto Co Rd 449 (which becomes Co Rd 932) and continue 3.9 miles

You will see the large glade opening on your right. There is an unimproved/rock/gravel road leading into the glade, where several cars can pull in and park. If we run out of room, park along Co Rd 932, being careful not to block road.

11:45 p.m. (approx.) – Field Lunch at Caney Picnic Area – THERE ARE NO RESTAURANTS NEARBY, PLEASE PACK A FIELD LUNCH, PLENTY OF WATER, AND A BLANKET OR LAWN CHAIRS! We will drive to the Caney Picnic Area for lunch. No running water, but a vault toilet available there. We can explore the glade at the picnic area after lunch, then will continue on to another glade/woodland after lunch. **Parking area GPS for Caney Picnic area: 36.745171, -92.758970 or 36°44'42.6"N 92°45'32.3"W**

7:00 p.m. – MONPS Board Meeting at the Ava Lion’s Club - Lion’s Club address: 309 N Jefferson St, Ava, MO 65608 (see map on page 1) **GPS: 36.954229, -92.660847 or 36° 57' 15.2"N -92° 39' 39.0"W**

Sunday, September 24th

8:00 a.m. – Morning Field Trip –Caney Mountain Conservation Area. Meet at Ava Super 8 parking lot at 8:00 a.m. to carpool/caravan. Or meet the group at Caney Mountain Headquarters at 8:45am.

Parking area GPS: 36.677409, -92.393065 or 36°40'38.7"N 92°23'35.0"W

Directions to Caney Mountain C.A. from Ava, MO:

From Jefferson St/MO-5 intersection, head southeast on MO-5 S for 29.4 mi

In the town of Gainesville, turn left onto US-160 E and continue for 1.2 mi

Turn left onto MO-181 N and continue for 5.8 mi
Watch for the brown cantilever sign on the left for the turn into Caney Mountain C.A.
Turn left at this road and proceed about 0.6 miles to parking area.

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 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.

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

Suzanne Smith, Columbia IL

Chris Hereford, StL

Paul Crombie, Marthasville

Robert L. King, Manchester

Rachel Becknell, Richmond Heights

Osage Plains

Robert L. King, Manchester

Paradoxa

Edith Starbuck, Rolla

Pam & Jerry Barnabee, Plato

Rhoda Parker, Rolla

Linda Frederick, Rolla

Dale Carpenter, Rolla

Helen Johnston, Rolla

Sheila Monk, Richland

Nancy Grandgeorge, Waynesville

Ellen Williamson, Rolla

Charlotte Wiggins, Rolla

Louise Wilkinson, Rolla

Brian Wall, Rolla

Emily Brown, Newburg

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.

Congratulations to "Paradoxa" the new chapter in Rolla. If you live near there and want to participate, get in touch with us.

State Level Membership

Sandy Stone, Wyconda

Katelyn Cashman, Lincoln NE

Missouri Native Plant Society Board Meeting Minutes West Plains – 3 June 2017

Attendees:
John Oliver
Becky Erickson
Liz Olson
Dana and Justin Thomas
Steve Buback
Michelle Bowe
Wayne Morton
Janetta (Jan) Smith
Doug Ladd
Bruce and Ann Schuette
Casey Burkes
Claire Ciafre
Brett Budach
Rick Gray
Jerry and Pam Barnabee
Rex & Martha Hill
Mike Skinner
others possibly present but not recorded

The meeting was called to order at 7:15 PM by President John Oliver, and a quorum was present. The minutes of the last board meeting (December 3, 2016 in Columbia) were approved. Dana Thomas volunteered to be the assignment recorder.

- Treasurer's Report – Bob Siemer was not present but he emailed the treasurer's report to the Board. It seems that we are now receiving more membership payments digitally through PayPal than by paper checks in the mail. We have a net increase in funds this year. The treasurer's report was accepted.

Casey asked if lifetime members have to pay extra to get the Petal Pusher newsletter in hardcopy by snail mail; John Oliver said (and others agreed) that yes, everyone who wants a hardcopy should pay the fee of \$5.00 per year to cover the cost of printing and mailing.

Petal Pusher – Becky Erickson said that submissions are needed and are welcome from anyone in the Society. Reiterating: All chapter reports and creative submissions are due on the 27th of odd numbered months and no later than the 1st if the last meeting is after the 27th. Dana Thomas had an idea for a c

- column in the Petal Pusher: "Kid's Corner" – a column written by kids; all agreed it's a great idea. John Oliver had an idea to set up a Google page for folks to upload photos from field trips and of plants that they want to share for the Petal Pusher. Becky E. can then use those photos for the Petal Pusher, or others can use the photos for the website or Facebook. The next Petal Pusher issue will have details about the summer field trip. Additional details may also be posted on the society [website](#) closer to the trip weekend. John Oliver would like feedback on how we use the field trip information such as the trip locations and maps. Do we use the GPS coordinates? How can the information be improved? A lot of time is put into this so it should be both helpful and user-friendly. We discussed the things that active chapters do: plant sales, field trips, speakers, etc. These events engage citizens and make for a more interesting Petal Pusher when written up by the chapter representatives.
- Missouriensis – Doug Ladd said that the next issue should be ready towards the end of June/early July. It will include five papers and three book reviews; all were peer-reviewed by two reviewers. This will be the first issue published entirely online. We voted to make this and all future issues open access, meaning all content is immediately available online for all to enjoy. Each piece in the issue will be a separate, searchable pdf.
Doug is looking for someone to review the book [Guide to the Vascular Plants of Tennessee](#) by Chester et al., 2015.
- Distribution – Leslie Limberg was not in attendance. Rex brought copies of the Petal Pusher for Chapter Representatives to take. Rex expressed concern that the Petal Pusher is not getting to the Chapters until it's many months outdated; he recommended we go back to mailing 5-6 copies out to each chapter representative.
- Website and Social Media – John Oliver and Dana Thomas
 - State Website: monativeplants.org – Thanks to Rex, back issues of the [Missouriensis](#) and [Petal Pusher](#) are on the website. Rex says there are some real gems in the old issues and it's worth exploring them. John Oliver would like to see more photos on the website.
 - Facebook page – Our Facebook page now has over 11,000 members; most are residents of MO or neighboring states. Often folks who visit the website don't realize that we are an organization; we could put up a regular reminder to Facebook visitors to encourage them to become members. The outreach opportunity is there, but the potential is underutilized. Dana T. recommended looking into canva.com to make clickable 'join now' buttons for Facebook.
 - Status of Missouriplants.com – Proposal to work with the MO Botanical Garden to update and expand the Missouri Plants website. John O. would like to have representatives from our society meet with the garden's IT department and the new Flora of MO botanist to plan the work.
- Roadside Flower Posters – The [poster](#) is free; Malissa B. has a bunch left. Three years of hard work went into it, so we want to distribute it thoughtfully to make sure whoever gets it will appreciate it.
- Membership – Ann Earley was not present, but she sent a report. We have a total of 359 members. Membership has increased by 25 since December 2016. We have 91 lifetime members. Membership is fairly static; should we try to increase it through campaigning? Steve B. had a suggestion to increase membership: offer a free 1-year membership to the Facebook plant photo that gets the most likes within a certain timeframe. We could offer this regularly (monthly?).
- John O. opened a discussion about the overall goal of our society. Do we have a big-picture plan for the dues money? Some ideas are, for example, buying land or helping others buy land to conserve; education and outreach (our stated mission); invasive plant removal; lobby the horticultural and landscape industry to use native plants; donate to established native plant lobbyists; work with schools to establish outdoor classrooms and gardens; or sponsor school trips to learn about native plants. Rex mentioned these activities have historically been handled at the Chapter level. Could we foster collaboration between the state-level of MONPS and the local chapters to better fund and support activities? John O. said that if we do, we need to evaluate projects to ensure they're viable, similar to our use of the Hudson fund for worthy student projects.

Archives – Rex Hill said that while Jack Harris did a lot of archiving the minutiae of MONPS, Rex wants to focus on archiving the publications. Without George Y. at the Botanical Garden, we may need to think about a better place for our physical archives, so our documents are not accidentally misplaced or thrown away. Becky E. suggested the [MO Historical Society](#). Page 4

- Hudson Awards Committee
 - The 2017 [Hudson Award](#) (\$1,000 stipend) goes to [Brigette Williams](#), MSc, PhD Student, Biology (Plant Conservation Genetics). Saint Louis University, Missouri Botanical Garden Graduate Program.
- Awards Committee – Malissa Briggler, Rex Hill, Michelle Bowe. Two awards will be presented at the July meeting:
 - Erna [Eisendrath](#) Education Award
 - Plant [Stewardship](#) Award
- Nominations Committee – There are no additional nominations; all [board members](#) are continuing their service.
- New chapter petition: Rolla – Pamela Barnabee will establish a new MONPS chapter in Rolla; she knows approx. 16 people who are interested. We voted unanimously to approve the new chapter (despite the fact that Pamela neglected to prepare a skit or interpretive dance for us). We're excited to welcome new members!
- Brochures – Plenty of brochures are available.
- T-shirts – status, other merchandising opportunities – Rex has 10 orchid shirts left (size large). For the next meeting, we will think about possibilities to outsource our merchandising.
- MONPS Sponsored workshops – there are no workshops scheduled at this time.
- Meramec Community College Class: Botanical Wonders of Don Robinson State Park: June 13th, 17th, and 24th – this class is all booked up.

UPCOMING MEETINGS

- July 7-9, 2016 – Kahoka, MO
- September 22-24, 2016 – Ava, MO
- December 2, 2016 – Columbia, MO
- We may do a joint meeting with the [Illinois Native Plant Society](#) next year – more information to come at our next meeting in July.
- MISCELLANEOUS ANNOUNCEMENTS
 - New curator at the Missouri Botanical Garden for the Flora of Missouri Project: Aaron [Floden](#). We are looking forward to meeting him.
 - Request for us to affiliate with the [Conservation Federation](#) of Missouri – table this discussion until the next meeting.
 - We would have to pay \$500, but is this a one-time fee or a yearly fee?
- Assignments = Dana read the assignments.
- Steve B. or Dana T. will be the substitute secretary for Malissa at the next meeting in July.

For 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 \$58 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.



And more information on our website
www.monativeplants.org
www.monativeplantsociety.org

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 **Casey, Rex, Pam, Dana, Liz, Cindy, 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

St Louis

Text and photos by Rex Hill, Chapter Representative

In June, we held our annual evening wildflower walk at Shaw Nature Reserve. About 25 members and Facebook friends joined our hosts James Trager and Meg Englehardt on a mile-or-so walk around the restored wetland at the Reserve. There were numerous plants



in bloom and I've included photos of a few. I believe there were several others shared on Facebook. Our thanks to James and Meg for graciously giving up their evening for us.



Melanthemum virginicum

Lilium michiganense

In July, Aaron Floden, the new Midwest and Missouri botanist at the Missouri Botanical Garden, joined us at our chapter meeting and talked about his interests and his plans for his new position at the Garden. He has a keen interest in locating plants that have fallen off the radar in more recent time, and discovering plants that have not been previously identified. Many of us knew his name from his discovery of *Dirca decipiens*, and he has also added *Clematis vinacea*, *Monarda austroappalachiana*, *Stachys glandulosissima*, and *Trillium tennesse* to midwestern botanical checklists. He expressed interest in updating the Missouri checklist of plants, particularly regarding current nomenclature (funny how that changes so regularly and quickly) and making Missouri botanical information more readily available on the web, both regional or habitat relative checklists and photographic results. Sounds like we could have another 30-year project in the making.

In August, another Master Naturalist Class at Meramec Community College will be offered by the St. Louis Chapter. Led by Rick Gray, our Chapter President, it will be a class on identifying those DYC's (darned yellow composites) that bloom principally in the late summer and early fall. Rick says that he will also include as many goldenrods as can be seen at that time. The class is titled "Wildflowers of Late Summer" and details can be found at: <http://www.stlcc.edu/Continuing-Education/classes/index.asp?Cat=XNAT> .



Empire

Steve Buback Chapter Representative

No report at this time.

Hawthorn *Text by Cindy Squire Chapter member; BE photos*

Becky Erickson attended the MONPS state field trips and spring meeting on June 2-4. She wrote a report for our chapter newsletter.

Our regular chapter meeting was held July 10, at the Unitarian Church in Columbia. We welcomed Ann Koenig, MDC Community Forester. Ann gave an enthusiastic and informational presentation about Native Tree Orchards which can be grown in Columbia, Missouri. Did you know that folks are foraging for wild food inside our towns and cities? Ann suggested several trees to help foragers and homeowners alike in the quest for native foods in the landscape. The following trees are attractive to both wildlife and people. Just be careful when locating nut trees because falling nuts can damage property or persons underneath their limbs.

Trees to plant include: Shell Bark Hickory (*Carya Laciniosa*), Serviceberry (*Amelanchier sp.*), Persimmon (*Diospyros virginiana*), Pawpaw (*Asimina triloba*), Black Walnut (*Juglans nigra*), and Pecan (*Carya illinoensis*). Happy Foraging!!



On July 15, our chapter was invited to a garden tour at Becky's home. It was an outstanding experience!! Becky has over 300 species of native plants in her landscape and nursery. The beautiful

forbs, grasses and trees attract a wide variety birds, bees and wildlife. We learned the difference between *Helianthus* and *Silphium*. *Liatris pycnostachya* and



L. squarrosa were blooming everywhere!

Hummers, bees, and swallow-tails competed for *Monarda fistulosa*, and *Phlox paniculata*. We got to experience a buffalo grass lawn and learned about proper location and care of

many natives. There was tasty food and great conversation about the natives following the tour. This is an inspirational garden for native plant enthusiasts!

Both the June 15th and July 20th monthly lunches at the Uprise Bakery were quite well attended with 8 to 12 members. There is good food, lively conversation, and an immense appreciation of native plants. As a newer member, I am impressed at the warm friendly environment these lunches provide.

I am looking forward to the next meeting on Sept 11, in which we will have a plant identification meeting. This meeting is challenging and fun. It helps us all grow as native plant enthusiasts. [Continued on next page] Page 6



Osage Plains

Text and photos by Casey Burks, Chapter Representative



< *Buchnera americana*



> *Polygala sanguinea*

June 26th: 6:00pm We met at the Conrad-Neuenschwander prairie for a combination Field Trip and Meeting. It was a beautiful evening for Chapter members to convene and enjoy walking this lovely private prairie. We were joined by Kathy Conrad and several of her friends which expanded our fun.

I love the tiny purple milkwort that holds it's own among the tall grasses. *Penstemon* was waning but scaly *Liatris squarrosa* and many other species had fresh blooms. As we were heading back up the hill after sunset, we started seeing several plants with delicate blue flowers that none of us remembered seeing there before. Finally, someone found it listed in their book: blueheart! Standing around our cars we had a short meeting while enjoying Kathy's peanut butter cookies made with local honey.

July 24th 6:30pm Meeting at the MDC building. Five of us who went on the summer MONPS field trips at Kahoka enjoyed sharing our pictures to each other and our guest. Kahoka is in extreme North East Missouri and this area offered some unusual plants due to being covered by glaciers. Experiencing and learning more about Reed's Canary grass, Prairie cordgrass, unusual sedges, whorled milkweed, soapwort (bouncing bet), **spotted bergamont** < [*Monarda punctata*], a rare evening primrose, yellow puccoon, wafer ash, and black maple was very interesting.



While walking at the Crawford Estate CA, Ann Earley pointed out a **juniper hairstreak** >>> nectaring on flowers of a slender mountain mint. Most of us had never seen one before and it posed for pictures like a model for perhaps ten minutes; a treat for photographers. At the close of our Chapter meeting, Janetta filled us up with her delicious cupcakes and Casey shared iced willowbark tea brewed with candied ginger.



[Hawthorn cont.]

On July 29, the weather cooled to the low 80's, so 3 Hawthorn members and 2 guests visited 3 tall grass prairies in the northeastern Osage Plains just south of Sedalia.

Our first stop was Goodnight-Henry Prairie. This small prairie is a blooming jewel amongst the agricultural landscape. We were greeted by blooming prairie blazingstar, beebalm, rattlesnake master, ashy sunflower and an abundance of other forbs. Tucked into a central ravine we spied blooming pink gentian and the foliage and dried stems of wood betony.

Our next stop was Paint Brush Prairie. We were welcomed at the parking lot by a Regal Fritillary Butterfly (*Speyeria idalia*) perched on blooming curly ironweed! The dicksissels and cicadas were calling as we investigated the mima mounds scattered amongst the hilltops. There was an abundance of sensitive briar, sedges, and sumac mixed with the forbs and grasses. We were unable to find a pink katydid so we will have a reason to come back to see this cute pink insect.



Our last stop was Rock Hill Prairie. This prairie consists of a loamy upslope and gravelly downslope. The loamy upslope is closest to the road where we noticed large quantities of New Jersey tea, goat's rue, lead plant, compass plant, ashy sunflower, big bluestem, gamma grass and rosinweed in this area. The gravelly downslope, which looked like a barrow pit or blow-out, contained prairie dock, scaley blazingstar, MO black-eyed susan and wild quinine among other glade type plants. A red jumping spider hitched a ride into the car. It was wonderful outing for all!!



Southwest

Submitted by Michelle Bowe, Chapter Representative.

No report at this time.



Perennis

Submitted by Andrew Braun, Chapter Representative

No report at this time.



Kansas City

Submitted by John Richter, KC Chapter Pres

No Report at this time.





Ozark *Submitted by Liz Olson Chapter Representative.*

The Ozark chapter is enjoying another summer of plant ID nights. Folks bring in plants from yards, pastures, woods, roadsides, and gardens. We usually have 10-15 people attend and enough plants to discuss for an hour and a half. It's not uncommon for our discussions to lead from one plant to another as we talk about look-a-likes and similar species. Two elm twigs prompted us to go through the differences among American, winged, slippery elms, which are all common in the Ozarks. Winged elm can be tricky because the twigs do not always form the corky wings or ridges. We then had both white and red mulberry twigs. Red mulberry is native, while white mulberry is a non-native from Asia. Mulberries flowers are imperfect, meaning that the flowers have only male or female parts. Usually a mulberry tree is monoecious, meaning that it has both male and female flowers, but sometimes a mulberry tree will be dioecious, meaning that all its flowers are either male or female. The pretty and showy Dame's rocket (*Hesperis matronalis*) is a non-native in the mustard family doesn't fit the mental image you may have of most mustard plants with small yellow or white flowers. This species has large showy flowers with white, pink, or purple petals. Many of us had noted that it seems to be a great year for elderberry (*Sambucus canadensis*) which was flowering prolifically in June. That sparked a discussion about the many uses for elderberry as both food and medicine, and the different ways folks have found to clean and process the ripe berries.



Seed Workshop at Shaw

Submitted by Susan Wrasmann

On July 19 we met at Shaw Nature Reserve for a class on native seed collection and processing given by Scott Woodbury, Curator of the Whitmire Wildflower Garden.

Seed Collection: Scott led us to a woodland comprising six acres that had been cleared of thick stands of bush honeysuckle, selectively thinned, and seeded with species collected elsewhere on the property. Seeds ready for harvest that day were Virginia Wild Rye, Bottlebrush Grass, and Woodland Brome. Scott explained why these grasses are important in early succession plantings for carrying fire to control or set back invasive shrubs in woodlands and as nurse crops, crowding out weeds while seeded forbs are building root systems. Virginia Wild Rye is particularly useful for this purpose as it is a short-lived perennial. Everyone tried simple methods of stripping grass seeds. We also were helped with identifying forb species in this woodland and discussed when seeds might be ready. There was a lot of purple coneflower that is an exception to the rule of waiting until seed heads are thoroughly dry before collecting. These need to be harvested while they still have some color or the goldfinches will get to them first!

[next column]



Paradoxa

Submitted by Jerry Barnabee Chapter Representative

Hello from the newest MONPS Chapter, and thank you MONPS Board of Directors for your warm welcome!

After our petition to form a Rolla chapter was approved at the June 3 Board meeting, we hit the ground running with an organizational meeting on June 12 at Bray Conservation Area, where we elected officers, chose a chapter name, and took suggestions for future field trip locations. Business concluded, we took a brief stroll to identify some of the Ozark native plants to be found at Bray CA.

Our July walkabout was held at Audubon Trails Nature Center in Rolla. After a briefing on characteristics of 3 plant families - *Asteraceae*, *Fabaceae*, and *Lamiaceae* - we set out to find examples of each, as well as identify any other plant that caught our eye. A few of the many plants we found were our namesake yellow coneflower (*Echinacea paradoxa*), gray-head coneflower (*Ratibida pinnata*), tall coreopsis (*Coreopsis tripteris*), ox-eye sunflower (*Heliopsis helianthoides*), prairie dock (*Silphium terebinthinaceum*), Arkansas ironweed (*Vernonia arkansana*), partridge pea (*Chamaecrista fasciculata*), pointed tick trefoil (*Hylosdesmum glutinosum*), wild bergamot (*Monarda fistulosa*), germander (*Teucrium canadense*), and lots and lots of rattlesnake master (*Eryngium yuccifolium*) which we learned is in the carrot family (*Apiaceae*) - go figure! Our local Audubon chapter has devoted much time and effort to restore native habitat, and the Nature Center is a gem.

On July 19 we met at Shaw Nature Reserve for a class on native seed collection and processing given by Scott Woodbury, Curator of the Whitmire Wildflower Garden. See the next article on a seed workshop for the full explanation.



[Seed workshop . . . } Seed Processing: Back at the head building (and out of the near 100-degree heat) Scott showed us the room where seeds are spread onto large cardboard trays to dry while waiting for cleaning. Shaw is processing restoration quantities (10# per acre) for another woodland project they are getting ready to seed in early December, this one 60 acres. He pointed out the enemies of seed preservation: sunlight and fluctuating temperatures and humidity. Seed processing varies by species but Shaw uses a variety of tools including some that can be made by hand out of readily available hardware supplies: large wooden frames with different mesh screens as big as 1/4" hardware cloth, soil sieves of different sizes, household fans to get rid of chaff (in lieu of the fancy Oregon seed blower that neatly captures the heavier seeds and blows the chaff into collectors), paper bags of assorted sizes for holding seed heads and shaking to dislodge the seeds, and ziplock bags for storing seeds of spring ephemerals in damp sand in the fridge until they can be planted or berries of woody plants that must be washed and rubbed on a screen to remove pulp and juice that contain growth inhibitors. These techniques would also apply to Solomon's Seal, Green Dragon and Jack-in-the-Pulpit.

[continued on next page]



From Casey's Kitchen Medicine Chest

Casey Burks, Osage Chapter

Throughout the Spring and Summer, I gather several different medicinal herbs such as New Jersey tea, elderflowers, dandelion leaf, stinging nettle, lemon balm, heal-all, slender mountain mint and other mints to dry then later use for tea. It only takes three to five minutes to steep (infuse) these in hot water.

Recently I started drinking willow bark tea to see if it might help cut down on the number of meds I take for arthritis. According to Medical Herbalism by David Hoffmann, willow [*Salix* spp.] was used even in ancient times to treat rheumatism, gout, fever, and aches and pains of all kinds. By now I think it's common knowledge that willow bark contains salicin which was synthesized into acetylsalicylic acid (aspirin). I'm not totally sure yet how much this tea is helping me, but I can say I practically crave it every day! I cut willow branches that are approximately 1/2" diameter then strip off the brown outer bark and finely chop. I also buy willow bark at our local Amish store for \$1.45 for 2 oz. I like my tea stronger than the two teaspoons per cup of water so I use a tablespoon and also add several chunks of crystallized ginger. Ginger not only sweetens and flavors the tea, it aids to settle the stomach. Then simmer three cups worth for fifteen to twenty minutes. Making tea by boiling bark takes longer to get the full flavor and benefit because it is tougher than leaf material; this is called making a "decoction"; such a fun word for boiling bark!

If you have access to a willow tree or can buy already cut willow bark, I highly recommend trying this tea that I think tastes simply delicious. It just takes a little longer to brew. I would certainly welcome hearing from anyone else who has used this for pain relief. (mobugwoman@gmail.com)



2017 Missouri Botanical Symposium



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

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! Presenters and titles will be listed on the website in the coming weeks.

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

[Seed Workshop cont.] Processing prickly, tight seed heads can most easily be done by setting the screen frame on a concrete floor and stomping and scraping to break them apart. Then a series of screenings separate seed from chaff. It can be difficult to tell what is seed and what is chaff with some species. An indispensable resource is the *Seedling ID Guide for Native Prairie Plants* from NRCS, MDC and Grow Native! In the back of this handy, spiral bound field guide are photos of seeds and a measuring scale. Armed with this reference and a jeweler's loupe or hand lens, identification will be a lot easier. Of course these essential skills of identification are only developed with time and observation while the plants are growing.

Scott had specialized techniques to tell us about: one highly desirable species, *Baptisia australis*, sets attractive seedpods that turn black when ready to harvest. But the pods contain weevils that will destroy the seed. Pour them onto a concrete surface in the hot sun for two hours and watch the weevils scatter! For seeds of *Monarda* use fine screen to keep seed and pass through dust, then a screen size that will pass the seed through but keep bigger particles. A seed collection tool that was unexpected but perfectly logical—a broom and dustpan. Keep all your chaff and scatter it where the seeds that were left behind can grow.

Storing Seed: Dry seed will keep up to five years in ambient temperatures. At 40° seeds can be kept for ten or 20+ years. They can be kept in paper for short-term storage or plastic bags or containers when completely dry and in a cool place where temperature and humidity added together do not exceed 100. Missouri Botanical Garden and Shaw Nature Reserve are doing seed banking at lower temperatures, joining institutions at Kew Gardens, Chicago Botanical Garden, the USDA in Boulder and Svalbard, Norway. At Shaw, seeds are vacuum-packed in aluminum. Seed banking has only been going on for about 30 years but has become ever more important with monoculture of agricultural crops, habitat destruction and changing climate.



New Native Nursery in Kansas City



Sow Wild Natives, new native wildflower nursery, is opening this fall in Kansas City. The nursery is located at 6201 Noland Road, KC, MO 64133.

Grand Opening Labor Day weekend: Fri & Sat, Sept 1 & 2, 9 to 6. On Grand

Opening weekend, we want to "showy" our appreciation for new customers by offering a free Showy Coneflower (*Rudbeckia fulgida*) with each purchase, while supplies last. We will be open the 1st and 3rd Fri and Sat of each month during the growing seasons. The nursery focuses on growing and selling 1.5 quart and gallon pots of MO and KS native wildflowers and grasses. Seeds are sustainably sourced from MO and KS prairies, forests, and gardens. For more information: www.SowWildNatives.com or Facebook page @SowWildNatives. Open by appointment - contact Tracy Twombly 816.974.6201 or [913-775-3557](tel:913-775-3557). email address tracy@sowwildnatives.com.

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, see 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.

17 Aug Thurs – 11:30 Lunch at Uprise Bakery.

11 Sept Mon – 7pm Bimonthly Meeting at Unitarian Church. Plant ID: Bring samples of plants you cannot identify.

21 Sept Thurs – 11:30 Lunch at Uprise Bakery.

19 Oct Thurs – 11:30 Lunch at Uprise Bakery.

13 Nov Mon – 6pm Bimonthly Meeting at Unitarian Church.

16 Nov Thur - 11:30 Lunch at Uprise Bakery.

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.

25 Sept 6pm MDC Building. Special Propagation workshop

23 Oct 6pm Location TBA. Herbal Balm workshop

27 Nov 6pm MDC Building. Edible native foods dinner

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.

15 Aug – Plant ID night: bring samples of plants or clear photos for discussion.

Southwest *from Michelle Bowe*

Meetings will be at different locations in Spgfld, 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

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 Lindbergh 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/>

23 August – 7:30 PM – Chris Benda (President of the Illinois Native Plant Society) will make a presentation titled Hidden Natural Treasures – A Selection of Southern Illinois Natural Areas

27 Sept - 7:30 PM: Title and Topic to be Announced

25 Oct - 7:30 PM – Every year this is the meeting where chapter members are invited to share their photographs from the past field season. Power Point presentations, digital images, and even old-fashioned slides are welcome (if we can still find the projector).

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.

August: Canoeing anyone? Location TBD. If interested please contact John Richter RichterJC@bv.com, cell phone 816-519-8201

21 Aug - Total Solar Eclipse, Ray County, Missouri. If you are interested in viewing this from the epicenter of the totality path, John Richter owns two parcels of property, and the centerline of the eclipse path runs through each of them. For information contact John Richter RichterJC@bv.com, cell phone 816-519-8201.

5 Sept 7:00 PM, MDC Discovery Center: Chapter Meeting - Meeting activity TBD.

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@tnc.org.

7 Nov 7:00 PM, MDC Discovery Center: Chapter Meeting - Meeting activity TBD.

Perennis from Andrew Braun

Watch for announcements by e-mail, Facebook, and the MONPS website.- 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

Curator's Corner, Tools of the Trade (part 2)

The twelfth in a series about herbarium curation by Michelle Bowe who is an Instructor and Curator of the Ozarks Regional Herbarium (SMS) at Missouri State University in Springfield MO. She is also President and Treasurer of the SW Chapter of MONPS and is on the state MONPS Board. This is a regular column on herbaria and herbarium curation, written from her small, warm, windowless office next to the herbarium in Kings Street Annex. E-mail: mbowe@missouristate.edu

Back in March 2017, I wrote Part 1 of this *Tools of the Trade* column, but felt that there was more to say. For example, what happens once the label information for a new (flat, dry) specimen is entered into the **Access** database? First, we have special acid free bond paper that is scored into 8 rectangles that are the size of the labels and we use a regular computer printer to print the labels.

Glue or fixative—as it is often called—is then used to glue the specimens onto the **archival herbarium cards**—currently, we just use good old Elmer's glue, but in the future, we will probably switch to the Missouri Botanical Garden's proprietary mixture. Once the specimen and label are glued to the paper, special **weights** are used to make sure various parts of the specimen stay stuck to the paper. Our weights are actually old tire weights and other random lead objects (they predate this botanist's arrival to the herbarium). The weights are checked every few minutes to ensure that the specimen does not stick to the weight. Many a leaf has been torn due to user weight error.

Glued specimens are given at least twenty-four hours to dry at room temperature. After that, it is time to complete the process. First, their place in the herbarium is located to see if there is an existing **genus folder** for them. Genus folders are actually just really large pieces of paper that are approximately twice the size of an herbarium specimen. They are folded in half (hence "folder") to make something that will hold herbarium cards. I assume that different herbaria use different systems, but ours uses the following. Manila folders are from Missouri (so most of the folders are plain manila), green folders contain specimens from nearby Arkansas and red folders have specimens from anywhere else. Within a genus, the Arkansas folder is placed first, then Missouri and then the red folder (see photo) so that the folders are basically in alphabetical order.

Finding the genus folder would be a challenge if we didn't post the **List of Families** "cheat sheet" on most of the herbarium cabinets. Some herbaria alphabetize their entire collection, but our collection is in "phylogenetic order" by family number (an order which is supposed to reflect the relationships among the families). This is helpful because closely related families (and families whose names have changed or are constantly changing) stay together (for example, Scrophulariaceae, Antirrhinaceae, Plantaginaceae—the snapdragon relatives).

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.

August: No meeting

9 Sept Sat 8 – 1: Native Plant Sale, Birding & Pollinator Festival; Audubon Trails Nature Center, Rolla. Featured presentations will be Nadia Navarette-Tindall of LU Cooperative Extension speaking on Native Plants for Native Pollinators (11am) and hummingbird banding with Lanny Chambers (10am-Noon.) Guided birding and wildflower walks, booths and food vendor. Paradoxa will have a booth; contact Pam to volunteer.

12 Sept Wed 6pm, James City Park: Walkabout at the dolomite glade, the centerpiece of the 56-acre park. Restoration began in November 2014 as the capstone project of the graduating class of Meramec Hills Chapter, MMN. About 7 acres were cleared that first year; 5 tons of biomass was removed. Come with us to discover more native plants.

Empire Prairie from Steve Buback:

Nothing submitted at this time.

The "cheat sheet" of the families in alphabetical order with the number next to the family name helps us find the family since most of us have memorized the alphabet, but not the family number. The genus folders are in alphabetical order within the family. Once the correct genus folder is found (or a new one made), the specimens are placed into the large herbarium cabinets in perpetuity.

Finally, there is the trade of trading or loaning. Often herbaria will loan or gift specimens to other herbaria. Since herbarium specimens are somewhat fragile, they are often wrapped in plain newsprint and then again in brown paper, often in genus folders, and almost always with ubiquitous < **specimen ties** that are re-useable and easy to untie (just pull the string, and viola, an opened package; shown in photo). Visit any herbarium, and I am willing to bet that you will find a drawer full of these useful tie devices that, while being as low-tech as you can get, are a vital part of the herbarium.



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 with natives."

"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 have thought several weeks about this statement.

Yes. It is extremely important to identify plants in wild places and understand how they fit in the ecosystems where they are found.

Wild places are MUCH harder to find and much smaller now than they were even 20 years ago. We who are reading this, must plan full day trips and weekend trips . . . even 2-3-week trips to other parts of this continent and to others to find wild places to learn from. These wild areas, even small ones, are no longer right in our back yards.

It has come to a time on this Dear Planet Earth to re-build some acres, even some smaller patches to replace the expanses that were once our Native Ecosystems. The central Tall-grass Plains & Prairies are gone to bean deserts, fescue deserts, and asphalt deserts. A large majority of our population is completely detached from anything resembling a truly wild area. Some of us can replace some of the natives only in our own yards or in a vacant acre near a school or town park. In observing and caring long-term for these native 'gardens', we can learn a great deal about the importance of these gardens as we observe the interdependence of plants, invertebrates and vertebrates.

Does "gardening" include replanting 600 acres of ag field with a seed mix of 100 native species? Does gardening include managing a 30-acre field of trees with thinning, burning and seeding some appropriate native flowers? Does gardening include educating school children on the value of a school or home plot of purchased wildflower species for the benefit of insects and birds?

If we treasure the native plants we study and they are disappearing to habitat destruction, why do we not cater to gardening? Missouri Native Plant Society needs to update our mind set to teach not only about identification in wild ecosystems, but to provide information about how to rebuild some of our ecosystems. Even if it can involve upgrading only a suburban back yard, or 2.5 acres of three available in some suburban areas.

In 1996 I worked for Tim Smith [the state botanist before Malissa Briggler]. I worked to survey the re-establishment of running buffalo clover [*Trifolium stoloniferum*] into several places around southern MO. A friend went with me to hunt for the species in an appropriate wild place. The friend queried what made this plant species so important that I was hired to hunt for it. I explained some of the details of its being part of the whole ecological web of life, and it is rare. The friend informed me that if it has no direct importance to humans and not of economic benefit, it won't survive.

[Next column]

I have thought about this idea for 20 years. I believe that to retain the rare plant species still available, most of us must grow them on our land and manage them as they have been accustomed for the last +/-20,000 years. These little patches all around the state will be the botanical repositories of our natural heritage - I guess a type of botanical garden, or plant zoo. "Gardening" or not, reconstruction with native vegetation is a necessity for any vitality of life to remain intact. MONPS could offer, as part of our mission platform, techniques in learning and mastering the nuances to sustain our native botanicals without giving up any of the efforts to learn from wild areas.

Send comments to beckyerick711@centurylink.net
I will compile all of the points of view in the next Petal Pusher.



Rare Finds at the New Crawford CA

Submitted by Claire Ciafre

The first field trip Saturday from Kahoka was to the Crawford Estate Conservation Area. Interestingly – MDC knew nothing about this property before learning that it had been donated to them by the estate of the Crawford family. Jason Jacobson (Resource Forester, MDC) and his son guided the group through the 88 acre area next to the Des Moines River.

The upland [99%] of the area displayed a mix of formerly thinned and grazed woodlands as well as some old field and crop areas and some less disturbed woodland and forest. The flora was mostly typical and expected for this part of the state; great dismay in seeing large quantities of invasive plants so far from urban areas.

The remaining 1%, however, was stellar. Claire Ciafre writes "The north-facing slope of the Crawford CA was steep, threatening a tumble into the Des Moines river. The rich array of shade-loving species, however, made the risk worth it. Doll's eyes (*Actaea pachypoda*) were decorated with the eerie fruits for which they're named, and the berries of the nearby blue cohosh (*Caulophyllum thalictroides*) were just starting to turn a creamy powder blue to match its glaucous leaves. Prickly wild gooseberry (*Ribes cynosbati*) was ripe, and several of us carefully enjoyed its heavily-spined fruits- they were delicious and worth the effort. Prickly ash (*Zanthoxylum americanum*) had ripe fruits as well, providing a citrus-y tartness before numbing my tongue and making me drool for half an hour. Wild ginger (*Asarum canadense*) formed a large colony on the eastern side of the slope, covering the dull leaf litter with vibrant, heart-shaped leaves.

False hellebore (*Veratrum woodii*) added a primeval flair to the slope with its broad, veiny leaves, and it complimented the nearby ferns well by contrasting with their daintiness. A variety of sedges graced this slope, ranging from the delicate and soft Swan's sedge (*Carex swanii*) to the bold, broad-leaved white bear sedge (*C. albursina*). Hitchcock's sedge (*C. hitchcockiana*) honored us with its presence as well; it was the most conservative plant we found on the property (c=9). We found twenty species of sedge at this site, and most of them were only found on this slope."

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.

MORE LINKS!

Article on the effects of neonics on insects in Sept 2015 Wild Ones! Journal

<http://wildones.org/Neonics.pdf>

Linda Hezel strongly suggests reading the article on page 4. This explains how virgin land is tilled to make organic farms when they should be preserved.

<http://www.cornucopia.org/wp-content/uploads/2016/06/Summer2016-Cultivator-Web.pdf>

Paula Peters found a great website 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/> Blog on native gardens and ecology

In response to those who requested information on weed control, particularly of invasives, the following down load may provide some assistance; 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=nrcseprd402207>

Search for USDA monarch butterfly initiative. Try to get the Mid-west edition (179 pages in pdf form) not the southern great plains one. There are very good color photographs of plants.

LINK IN!

Missouri Native Plant Society: our own website
<http://monativeplants.org/>

Birding Trails Website from Becky Erickson
Just because it says "Birding Trail" doesn't mean that's all it is. Just because you go into the fields to find birds, doesn't mean you can't assess the landscape and practice some plant identification; or vice versa. There is a lot of excellent information on this site. Use it; share it; put it on your Facebook page. Open it up; talk it up.
<http://greatmissouribirdingtrail.com/Wordpress/birding-trails/>

Monarch Larva Monitoring Project video
www.mlmp.org

Missourians for Monarchs
<http://missouriansformonarchs.blogspot.com/>

Xerces Society: nfp-ngo for invertebrate conservation
<http://www.xerces.org/>
<http://www.pollinator.org/>

Backyard biodiversity to replace wild areas by Tallamy
<http://www.americanforests.org/magazine/article/backyard-biodiversity/>

Linda Hezel's organic farm emphasizing biodiversity to maximize production.
<http://www.prairiebirthdayfarm.com/learning/resources.html>
Naturalist's blog on the wild lands of southern MO
<http://allisonjvaughn.blogspot.com/>

Naturalist's blog on a native garden in the suburbs
<http://nadiasyard.com/>

WildOnes! Website full of articles on native habitat restoration
<http://www.wildones.org/>



Monarda punctata by Casey Burks



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www.monativeplants.org



The Petal Pusher is printed on recycled paper

RETURN SERVICE REQUESTED

**"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**

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