

Petal Pusher

July – August 2016 NEWSLETTER OF THE MISSOURI NATIVE PLANT SOCIETY Volume 31 No.4

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

ANNOUNCEMENTS

Summer Field Trip Updated Agenda - Southeastern Ozarks

June 24-26, 2016

Join us for field trips to some beautiful and unique botanical sites in the Ozarks on Friday, Saturday and Sunday. Friday evening will feature a presentation by Susan Farrington of MDC about Ozark natural communities and the role of fire in maintaining them. ***Field trip locations are significantly different than sites shown in the April issue of the Petal Pusher. Please use this updated version! Check the website and Facebook page for printable maps, directions and plant lists.**

Changes to the schedules could occur. For the most accurate and up-to-date details, plus maps and site species lists for both trips, please visit
[The Missouri Native Plant Society website](#) and our [Facebook Page](#)

Visit the self-updating Google Map Page for the
Summer trip at: <http://bit.ly/160624Map>

SCHEDULE:

Friday, June 24th

1:00-5:00 pm - Early Bird Field Trip to Markham Springs Recreation Area. Meet at the parking lot at Markham Springs at 1:00pm. Parking area GPS: 36°58'48.2"N 90°36'10.3"W, or 36.98011, -90.60324

7:30 P.M. – Evening Presentation at Poplar Bluff Holiday Inn Executive Meeting Room. Susan Farrington will talk about Ozark natural communities and the role of fire in maintaining them.

Saturday, June 25th

8:00 AM – Morning Field Trip – Rocky Falls and Klepzig Mill. Meet at the Poplar Bluff Holiday Inn parking lot at 8:00am to carpool/caravan. Please arrive promptly since this is a long drive. Or meet at the Rocky Falls parking lot at 9:30am. Rocky Falls parking area GPS: 37°05'41.7"N 91°12'37.5"W, or 37.09489, -91.21018

12:00 PM – If you'd like to make more time to explore in the field, please consider packing a field lunch. Or you can dine in Van Buren, MO. For an all-American experience, there's the Jolly Cone (a Van Buren classic) with a walk-up window that serves deep fried anything (cauliflower, mushrooms, pickles, okra), burgers, chili dogs and ice cream. Or try Stray Dog BBQ if you prefer an indoor table. We will have limited time for lunch due to the long drive between sites.

1:00 PM –Afternoon field trip – Watercress Park. Meet at the first parking lot on the left in Watercress Park (near the boat ramp) at 1:00pm. GPS: 37°00'00.8"N 91°01'08.9"W, or 37.0002, -91.01931

7:30 PM – MONPS Board Meeting at Poplar Bluff Holiday Inn Executive Meeting Room

Sunday, June 26th

8:00 A.M. – Morning Field Trip – Pump Hollow Natural Area. Meet at Poplar Bluff Holiday Inn parking lot at 8:00am to carpool/caravan. Or meet at the site at 8:30pm if driving separately. We will park at the end of the Forest Service Road that leads into Pump Hollow. Parking area GPS: 36°51'51.0"N 90°39'48.8"W, or 36.86421, -90.66347

LODGING:

We have reserved a block of rooms at the Poplar Bluff Holiday Inn. We would appreciate it if you would please plan on staying there if possible, so that we meet our minimum room requirement (15 rooms) and therefore qualify for a greatly reduced rate on their conference room for our evening activities. **DEADLINE FOR RESERVING A ROOM IN OUR BLOCK IS JUNE 10th**

Holiday Inn Poplar Bluff [\[Map\]](#)

2781 N. Westwood Blvd, Poplar Bluff, MO 63901, 573-776-1200

Website: <http://www.ihg.com/holidayinn/hotels/us/en/poplar-bluff/pofmo/hoteldetail>

\$89/night reduced rate. Be sure to mention the block of rooms for the Missouri Native Plant Society!

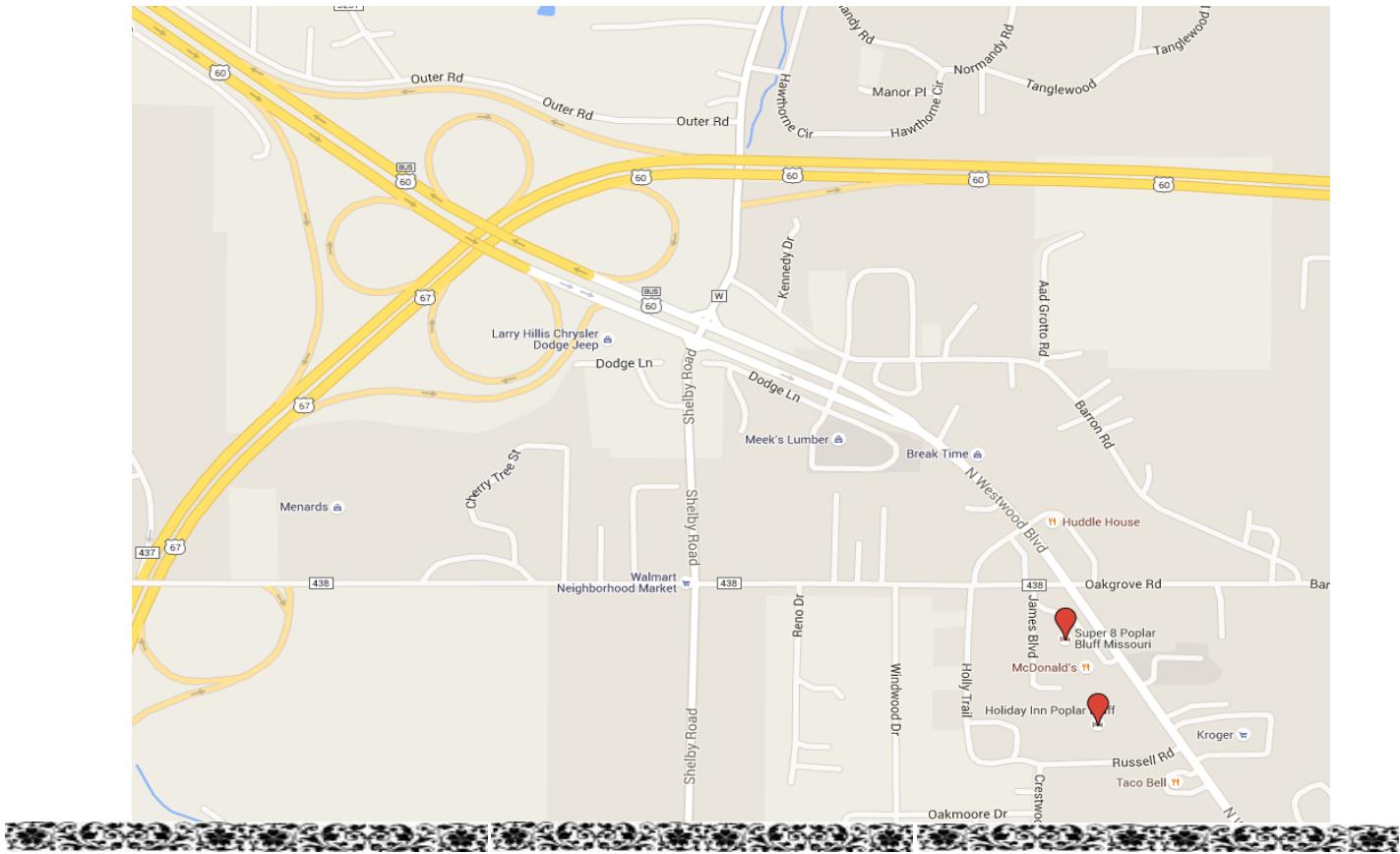
Super 8 Poplar Bluff [\[Map\]](#)

Highway 67 North, Poplar Bluff, MO 63901, 573-785-0176, Website: www.super8.com

Additional hotels available in Poplar Bluff and camping is available at various locations in the area as well.

See also the Google Map Page for this event which is self-updating and which will include field trip locales:

<http://bit.ly/160624Map>



Dues are Due

Submitted by Ann Earley, Membership Chair

Membership renewals for the July 2016-June 2017 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 20160630, your dues are now payable. **When renewing, please remember to include 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. If you know how to do this, but have not yet requested Petal Pusher e-delivery, please do so by emailing both Ann Early and Becky Erickson [see masthead on address page].

For those members receiving their newsletter by email without a mailing label, or for others with questions about their membership status, please contact me or your chapter representative. See masthead on address page for contact information about your membership expiration date.

If annual renewal is becoming a nuisance, please consider a Lifetime Membership. We value our members and urge you to renew today!

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 Christmas 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 generates a half cent for us. They gave us \$38 last year. It doesn't seem like much, but every 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.

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Attending:
Andrew Braun
Ann Earley
Becky Erickson
Bob Siemer
Bruce Schuette
Doug Ladd
Hilary Haley
Jack Harris
John Oliver
Malissa Briggler
Merv Wallace
Michelle Bowe
Paul McKenzie
Rex Hill
Steve Buback

site
little

Minutes of the Board Meeting

December 5, 2015; FWS Ecological Field Station, Columbia, MO

John Oliver (JO) determined a quorum was present and called the meeting to order. Minutes from the September 19, 2015 meeting were approved and Steve Buback (SB) was appointed as assignment recorder.

TREASURER'S REPORT

Bob Siemer (BS) provided the Treasure's Report. Money has been budgeted for 2016 to cover a Missouriensis publication in the fall. There are now less than 100 members that have opted to receive hard copies of the PP. However, hard copies are still nice to have for chapters to hand out at events. Rex Hill (RH) will continue bringing copies of the PP to meetings for chapter representatives to pick up.

PUBLICATIONS & MEDIA

Petal Pusher: Becky Erickson (BE) reiterated that the DEADLINE FOR PETAL PUSHER ARTICLES is Monday, December 7, for any articles generated by the day's meeting. Chapter Reports should have already been sent. BE discussed concerns about computer viruses. As long as her e-mail and mailing list is secure, there should be no issues with people getting viruses on their computers by clicking on the link to get the pdf. There was discussion about posting the pdf on the website but there was concern that it might cause confusion and extra work on people. Therefore, it was decided to keep the status quo and continue including the PP issue as an attachment to e-mails.

Missouriensis: Doug Ladd (DL) has been soliciting papers for the next issue to be published in 2016. He would like to change the design and plans to bring some samples for board members to look at for the next meeting. There was also discussion of a fully digital format. The benefits discussed included quick turnaround time, full color, cheaper production and distribution, as well as increased readership (more access and more than just members having access). The benefits were discussed enough that a motion was moved and passed that Doug move forward with digital format of the Missouriensis. Doug would also like to see a regular "Noteworthy Collection" section in the Missouriensis. He would also like to improve the Book Review section.

The archives for Missouriensis that Doug has will need to find a new home. Bruce Schuette (BS) suggested the State Historical Society as a possible curator. The State Library might be another possibility.

Distribution: RH provided report that thanks to Leslie Limberg, distribution is going well.

Publicity Committee: Board members discussed the continuing necessity of this committee. Historically, it involved contacting local papers and other local publicity for various field trips. Now we've got Facebook and a website, so there's not as much of a need for a publicity chair. People within the local chapters have been taking care of more local publicity. It was motioned and passed to no longer have a publicity committee.

Website and Social Media: JO provided a report. Currently, the largest Social Media presence within MNPS is on Facebook with over 5,000 followers. There are still ways to explore the use of social media and the website to generate more members. Amazon Smile should also be promoted as it generates revenue for essentially doing nothing.

Roadside Flower Poster: Posters were distributed to chapter representatives. Additional copies are available by contacting Malissa Briggler.

COMMITTEES & TASKFORCES

Membership: Ann Earley provided a report. The Society currently has 394 members including 72 life members. There are 84 members have not renewed. So unless a lot renew very soon, there will be a significant drop in membership. Only 47 members are paying for hard copies of PP. Of the institution members, only 9 have contacted Ann and only 3 of those wanted to continue receiving a hard copy of the PP.

Archives: RH provided report that things are going well.

Hudson Awards Committee: Paul McKenzie (PM) provided a report. Hudson awards are scheduled to be given late summer 2016. Some updates will be necessary in the announcement for the Hudson Award so that applications will now go to PM.

Awards Committee: Michelle Bowe, RH, and MB will be on the 2016 Awards Committee with Michelle serving as Chair. MB will send an announcement for the PP calling for nominations.

Nominations Committee: SB offered to chair the nomination committee.

SOCIETY BUSINESS

Board Membership: Robin Kennedy has resigned after many years of service. Thoughts and suggestions were discussed. JO will contact potential new board members.

Brochures: JO has the brochures and are available if anyone needs them.

T-shirts: The need for additional merchandise was discussed and board members decided that none is needed until we get rid of what we have.

MONPS Sponsored Workshops: PM will be giving a grass id workshop in 2016. There will also be a butterfly and skipper id workshop at the Truman Lake Visitors Center at Warsaw. Anyone interested should contact PM or SB. BE mentioned upcoming propagation and garden installation workshops in Columbia. There will be plant id courses at Maramec College in Spring 2016. JO and Nels Holmberg are coordinating them and will have more details soon.

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CHAPTER REPORTS

Written reports were submitted to the Petal Pusher. Michelle Bowe offered to serve as chapter rep for the SW chapter, which will open up another board member position soon.

MISCELLANEOUS

2016 Meeting locations and dates were determined.

There is a plant id application project underway by MBG in which MNPS had contributed about \$700. There is still some necessary work that needs to be completed. BS will contact George regarding the status of the project.



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 Michelle, Janice, Casey, Andrew, John, Hilary, Ann, and Dana. This kind of cooperation is a team effort to make our newsletter readable and interesting.

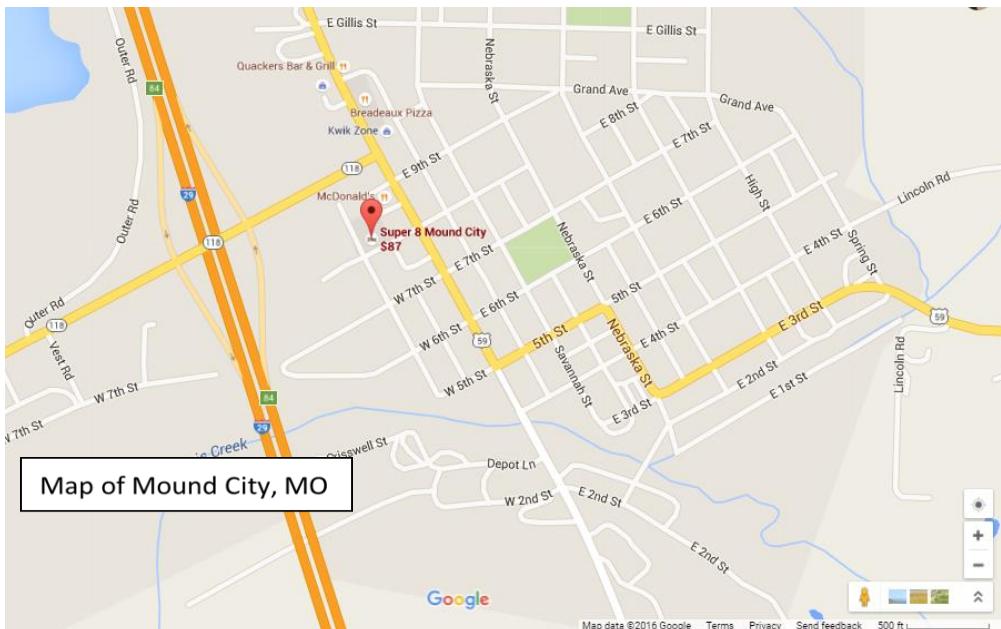
Fall Field Trip - Loess Hills and Missouri River Sand Communities

September 23-25, 2016

Our fall field trip will take us to some unique and spectacular prairie sites near Mound City, in Northwestern Missouri. Stay tuned for upcoming details on the [Missouri Native Plant Society website](#) and [Facebook page](#). Field trip locations are still being finalized, but potential sites include such compelling options as Star School Hill Prairie, Brickyard Hill Natural Area, Corning Conservation Area, Thurnau Conservation Area, Rulo Bluffs Preserve and more! Steven Buback will be the speaker on Friday night. Check the events page and the September issue of the Petal Pusher for finalized details. Meanwhile, see the lodging information below and make your reservations now for this fantastic trip!

For the most accurate and up-to-date details, please visit
[The Missouri Native Plant Society website](#) and our [Facebook Page](#)

Visit the self-updating Google Map
Page for the Summer trip at:
<http://bit.ly/160923Map>



HOTELS:

Hotel options are limited in Mound City, make your reservations soon! Camping is also available at Big Lake State Park.

Super 8 Motel, Mound City [\[Map\]](#)

109 W 8th St, Mound City, MO 64470,
660-442-4000

[Super 8 Website](#)

Big Lake State Park [\[Map\]](#)

204 Lake Shore Dr., Craig, MO 64437,
660-442-3770

[Big Lake State Park Website](#)

See also the Google Map Page for this event which is self-updating and which will include field trip locales:

<http://bit.ly/160923Map>

From Casey's Kitchen Medicine Chest

Casey Burk

I'm sure a lot of you are label readers like me. Since my husband can have very little salt, we check every jar for sodium. Coming from an entomology background, I'm always interested in the newest rendition of pyrethrin on cans of wasp spray. During the winter I also make herbal balms from plants with healing qualities that I gather all summer and submerge in olive oil. I'm always interested in researching of a new healing Missouri plant to include. Lately I spent at least an hour in front of the shelves of anti-itch remedies comparing ingredients and prices. This one intrigued me:

"Tecnu" reg trademark - Active Ingredients:

Grindelia robusta Gumweed: In 1863, the use of gumweed as an external remedy for poison ivy, boils and other dermatitis was learned from Native Indians.

[Medicinal Wild Plants of the Prairie by Kelly Kindscher and Medicinal Plants of North America by Jim Meuninck]

Plantago major Pigleaf plantain Leaves and seeds of plantain are confirmed antimicrobial, also stimulates the healing process [Peterson Field Guides Eastern Central Medicinal Plants by Steven Foster and James Duke]

Calendula officinalis Calendula A traditional remedy for burns, wounds, grazes and rashes, calendula has been documented as encouraging skin healing. [from Skin Conditions chapter of the Reader's Digest The Complete Illustrated Book of Herbs. 2011]

Inactive Ingredients:

Melaleuca alternifolia Tea tree oil One of nature's most important antiseptics, and its activity against an extensive variety of bacteria, viruses and fungi is well documented. [from Skin Conditions chapter of the Reader's Digest The Complete Illustrated Book of Herbs. 2011]

My herbal balms include Plantain, both the narrow leaf and pigleaf, as well as *Calendula* which I grow. I also include Tea Tree Oil and am surprised it is listed as an inactive. The ingredient that sparked my curiosity is *Grindelia robusta*. I've been enjoying gathering information on this species which seems to be mainly on the West Coast. However, from articles I've read, the *Grindelia* spp. exhibit a lot of the same qualities and *Grindelia squarrosa Curly top gumweed* is listed for Missouri. So this weed has now become another medicinal plant on my list to find. And the quest to learn about Missouri plants continues.....



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/>

Kansas City

Brendan Dulohery, Kansas City

St. Louis

Bill Hoss, Webster Groves

John Warmbrot, Villa Ridge

Hawthorn

Ted Millard, Jefferson City

Cindy Squire, Centralia

Southwest

David & Jenny Middleton, Thornfield

Osage Plains

Janetta Smith, Clinton

Perennials

Karel Edgar, Cape Girardeau

State Level Membership

Wendy Martin, St Louis

Maureen McHale, Kirksville

Judy Oetting, Levasy

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 the Petal Pusher editor, Becky, your request for email delivery. 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.

Chapter

St Louis

Rex Hill, Chapter Representative

At our April meeting Dr. Kyra Krakos, Assistant Professor of Biology at Maryville University, and a Research Associate at the Missouri Botanical Garden, talked about her work on pollination in the Onagraceae family, namely in the Oenothera genus. It was an interesting talk on plant and insect relationships, and the adaptability of plants during unusual year-to-year weather events. Oenothera has long been thought of as an exclusively night pollination plant, and yet can seemingly adapt to special situations when the abundance of night pollinators falls off. This night to day and insect species to species adaptation is difficult to ascertain and she presented results that supported the occurrence of these adaptations.

Kyra is a very enthusiastic and inspirational educator and, as she did last year, brought two of her students, Adam Rork and Grant Czapla, to a talk about their adventures stalking the Oenothera with her in the west Texas desert. Who knew that attempts to locate and verify a species of Oenothera that has evolved from a possible hybridization could be mixed with the purported extraterrestrial phenomenon known as the “lights of Marfa” in the barrens of west Texas near Big Bend NP.

On Mother’s Day weekend, Joan Featherston, John Oliver, and Martha and I manned the MONPS booth at the annual spring plant sale at Shaw Nature Reserve. One notable observation (mine) is the number of attendees who know and use the MONPS Facebook page, and are very complimentary to those who provide them with answers to their plant questions. This actually pushed me over to the dark side, and I joined Facebook. Will wonders never cease?

Also, in the month of April, Rick Gray, Nels Holmberg, and John Oliver taught a successful and very well received class at St. Louis Community College at Meramec on spring weed identification. The class consisted of two weeknight lectures followed by two Saturday fieldtrips. Many non-MONPS members were in attendance and were quite impressed with the knowledge of plants shown by the instructors, and the kindness with which they were treated.

At our meeting on May 25, Justin Lee, the Wild Species Propagator at the Missouri Botanical Garden, gave a talk titled – Propagation: Packets to Plants. The Garden receives seed packets from all over the world, including Missouri for those of you who want to talk only native plants. These must be processed, stored, and treated carefully to remain viable until they are propagated. Justin described a myriad of strategies to accomplish successful propagation. Not only stratification and scarification techniques, but soil and artificial medium materials, potting techniques, and environmental control. This is Justin’s second career, coming from a computer background. He says he was unfulfilled, and from his enthusiastic and thorough presentation, he has obviously found his niche.

Reports

Kansas City

Submitted by John Richter President and Hilary Haley, Chapter Rep

Over the first weekend of April, several members of the KC Chapter attended a field trip to view a privately owned property in Kansas City that is affectionately called, “Bluebell Valley”, so named for the carpets of Bluebells that bloom there in early spring. The crew that went to Bluebell Valley were not disappointed as they were treated to the sight of hundreds of beautiful, blue blooms. The weather was also beautiful, adding to the thoroughly enjoyable day.



On May 21, we held a second spring field trip, this time to Ogg Road Prairie located in Shawnee Mission Park, in the southwest portion of Kansas City. This wonderful little prairie holds many treasures including Antelopehorn, also called Spider Milkweed (*Asclepias viridis*), which was in full display [photo]. Although it had been about two years since the area last saw a prescribed fire and there was quite a bit of thatch on the ground, we



spied Prairie Phlox (*Phlox pilosa*), Rose Vervain (*Glandularia canadensis*), Foxglove Beardtongue (*Penstemon digitalis*), and Cream Wild Indigo (*Baptisia bracteata*) all in bloom.

Our annual spring native plant sale fundraiser at

Powell Gardens was a success. A special thank you goes to all those who volunteered their time and efforts to help support our chapter. Thank you!

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Ozark

Perennis

Submitted by Andrew Braun Chapter Representative

Members of the Perennis met at Horseshoe Lake near Olive Branch, IL on April 10. Horseshoe Lake is an oxbow lake formed from a now disconnected channel of the ancient Mississippi River. Numerous swamp trees were found, including water tupelo (*Nyssa aquatica*), bald cypress (*Taxodium distichum*), swamp red maple (*Acer rubrum* var. *drummondii*), overcup oak (*Quercus lyrata*), and swamp cottonwood (*Populus heterophylla*). Mosquito fern (*Azolla mexicana*), floating liverwort (*Ricciocarpus natans*), sensitive fern (*Onoclea sensibilis*), lake sedge (*Carex lacustris*) and other plants were also found. The group examined an oak in a picnic area that was heavily



infested by American mistletoe (*Phoradendron leucarpum*, see photo).

The MONPS state spring field trips were also attended by members of the Perennis chapter. Chapter representative Andrew Braun and Natural Resource Steward Jen Weaver (Missouri State Parks) gave a presentation May 13 in Poplar Bluff introducing the group to the flora and fauna of Missouri's Mississippi River Alluvial Plain (commonly known as Swampeast Missouri). Perennis members joined other state members in visiting Otter Slough Conservation Area and Allred Lake Natural Area the following day.



Southwest

Submitted by Michelle Bowe, Chapter Representative.

For the last month or two, we have focused on field trips. The Kipfers (Bob and Barb) hosted us on their property (Bull Mills), and several Missouri State University students were able to attend.

I gave a slide show from field trips at our monthly meeting in April and plan to do a BioBlitz presentation in June. Our members (a special shout out to Barb Kipfer) have also been diligently working in the native plant areas of the Springfield Botanical Gardens.



Empire

Submitted by Liz Olson Chapter Representative.

On April 19th, the Ozark Chapter was pleased to have speaker Jeri Dias provide an update on the progress of Health Haven Botanical Gardens (HHBG) in West Plains, MO. Construction is well underway on a seven acre lot, with the help of a fantastic AmeriCorps crew.

This project is the brainchild of Jeri and her husband Don. Jeri had a rewarding career in the health industry and Don in landscaping. In retirement they decided to combine their interests in a way that would give back to the community. They formed a board of directors and began the planning in 2014. Region-wide surveys have shown two prevalent themes: a deep love of nature and high levels of chronic illness. Health Haven Botanical Gardens will strive to address both. With the guiding motto "Health through Horticulture," they plan to provide outreach to folks in a 50 mile radius of the city.

HHBG plans to become a pleasing and healing place for the public to feel renewed and inspired by.

Elements to the HHBG will include:

- Native prairie (16,000 ft sq)
- "Bird Pond" with surrounding shade garden = approx. 21,200 ft sq
- "Dragon Pond" with surrounding sunny wetlands and "Veterans Amphitheater"
- Memory Garden for seniors to stimulate memories
- Demonstration gardens with raised beds
 - Keyhole garden
 - Vertical garden
 - Pallet gardening
 - 3-sisters (Native American-style garden)
 - Herb garden
- Therapy animals (miniature horses, donkeys, etc.). The first animal was already donated: Jenny, a female burrow who is 20 months old.
- Horticulture activities for children with special needs (esp. kids with autism)
- Children's Nature Playground (theme based on the Wizard of Oz)
- Exercise stations
- Meditation area
- Craft sales (must be related to nature, gardening, or health)
- Garden center with greenhouses

The opening is planned for 2020. There is still much work to do; as Jeri said, right now it's the "Garden of Weed-en." They are using lots of donated and repurposed materials, and will gladly accept donations of supplies or plants. The Ozark Chapter was pleased to donate \$250.00 to HHBG.

Check out Health Haven Botanical Gardens on Facebook to learn more and find out how you can help!

No report was submitted at this time.

Hawthorn

Submitted by Janice Albers acting Chapter Rep

At our bimonthly chapter meeting on May 9th, our chapter treasurer, John George gave a presentation describing Ozark habitat from the notes taken in 1818-1819 by Henry Schoolcraft and Levi Pettibone who traversed from Potosi to Springfield. Fire played a more significant role in the habitat present at that time, with many more acres of glades and prairies, with forest structured more as a woodland/savana with minimal understory shrubs and more grasses and prairie forbs. Over time as the canopy closed, more woodland species that we associate with Ozark habitat appear and more understory shrubs and trees. Today's landscape of ridge upon ridge of closed canopy woods with an understory was rare.

Plant sales were quite brisk this year, with the native plant craze really getting a foothold in Mid-Missouri. All three plant sales were well attended with numerous opportunities for outreach about native plants, pollinators, and butterflies.

Randal Clark concluded his spring wildflower walks May 19th in Rock Bridge State Park. A wonderful array of Columbine (*Aquilegia canadensis*), rose verbena (*Glandularia canadensis*), blue-eyed Mary (*Collinsia verna*), and four-leaved milkweed (*Asclepias quadrifolia*) were giving the participants a show. After working up an appetite with the end of the spring season of botanical learning, participants were quenched with brats, burgers, and side dishes in the nice outdoors.



stood yellow lady slipper orchids (*Cypripedium calceolus*) in full bloom, about a dozen individual plants; most with two blooms on a stem.

Osage Plains

Submitted by Casey Burks, Chapter Representative

Our chapter gratefully received a \$100 contribution from the Appleton City Women's Health Program as a token of

[Hawthorn cont.]

Adam and Eve orchids (*Aplectrum hyemale*) were also found in full bloom.

At our next bimonthly meeting 7:00 pm July 11, we will have a book discussion led by Louise Flenner, 'Teaming with Microbes, the organic gardener's guide to the soil food web' by Jeff Lowenfels and



Wayne Lewis. Have you ever wondered what is going on underground in your garden? This fascinating book explaining the soil food web, which are the ecosystems we try to create with our native plants above ground. We will focus on Part 1 which summarizes the basic groups of organisms found in soil. Fred Young, a soil scientist, will join us as a consultant for questions and comments. The book is available at the Daniel Boone Regional Library as both a paperback and ebook.

As part of our local outreach with schools, Lea Langdon assisted Rock Bridge Elementary to celebrate the 40th anniversary of their outdoor classroom this month with a week of activities that the whole school participated in. They honored those who had started the outdoor classroom in an assembly on Monday. Each class then got a guided tour of the whole outdoor classroom, which includes prairie, pond, native pollinator garden, woodland and vegetable garden. Then each class had another project to help the outdoor classroom where we worked with several volunteers to help clear out grasses and other weeds from their pollinator garden, and then help 4th &



5th grades plant about fifty plants. Other grades helped mulch the area, and made colorful stepping stones of a caterpillar. The transformation of the native garden was amazing, and the students all had fun exploring and learning about different aspects of the natural world.

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This species has been losing its breadth of diversity. Acorns are collected by tree nurseries before birds and

their appreciation for Dr. Wayne Morton's assistance there for many years. The staff had often heard Dr. Morton talk about how much he enjoyed the Osage Plains field trips and programs.

Dr. Morton again opened his savannah for enjoyment and a comparison to the plants we had seen in the same area last summer. Indian paint brush, rose verbena, yellow lousewort, purple phlox, white indigo were just a few of the variety of plants that have emerged from his efforts such as prescribed burns, constantly beating back serecia lespedeza, and cutting trees. Wayne's passion is contagious in our Chapter as well as in the Missouri Prairie Foundation.

May 23rd Chapter program was given by Jo Mohr on her latest adventure: Easter Island. She related that it is a very small island, only 63 sq. miles. The huge figures (some weigh 14 tons) the Polynesians made centuries ago were moved from the quarry to the edge of the island by rolling them on palm trees. It is believed that, because they cut down all the trees, and rats ate the seeds needed for replanting, the island declined to the point life couldn't be sustained.



May 13th – 15th Four members, including our new member Jan Smith, journeyed to the Poplar Bluffs area for the First MONPS quarterly meetings and field trips. (The Second quarterly meeting will be held in the same area but branching out to the other direction.) Friday night's presentation on Swampeast Missouri by Andrew Braun and Jen Weaver, who work at the Big Oak Tree State Park, gave us interesting highlights of the area and an added appreciation when we saw them on Saturday and Sunday excursions. With all the previous rain, most of us were glad for the boardwalk through Otter Slough; the Thomas children joyously romped alongside. The Allred NA was another opportunity to see stately cypress and tupelo poplars.

Sunday we learned about the Conservation efforts to increase the population of Cherrybark Oaks at the Poplar Bluff CA and NA. Cherrybark oaks are only found in the Missouri boot heel. They are such a beautiful tree, and prized for their strong, straight grained wood.

animals get them. Then seedlings are started and 'stick-trees' are returned to the area.

In the Acid Seep area we saw Indian pinks



and the Twayleaf Orchid.



Before leaving the area we saw the gorgeous white milkweed (*Asclepias perennis*) in bloom. So many treats!



Chapter Calendars

Hawthorn *from Ann Wakeman*

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.

16 June Thurs - 11:30 am: Lunch at Uprise Bakery.

23 - 25 June State field trips Poplar Bluff

16 June Thur 11:30 am: Lunch at Uprise Bakery. 10 Hitt St., just south of Broadway.

23 June Thur: Native Pollinator Symposium, Columbia.

More information about this Symposium will appear in the June newsletter.

11 July Monday 7:00 pm: Bimonthly Meeting at Unitarian Church. Book discussion—"Teaming with Microbes".

21 July Thur 11:30 am: Lunch at Uprise Bakery. 10 Hitt St., just south of Broadway.

31 July Sat 10:00 am: PGT Butterfly Walk. Prairie Garden Trust will be hosting a butterfly walk. Visit their website at <http://prairiegardentrust.org/> for more information

18 August Thur 11:30 am: Lunch at Uprise Bakery. 10 Hitt St., just south of Broadway.

12 Sept Mon 7:00 pm: Bimonthly Meeting at Unitarian Church. Plant Id and door prize for plant quiz. Hosted by Becky Erickson.

15 Sept Thursday 11:30 am: Lunch at Uprise Bakery. 10 Hitt St., just south of Broadway.

Perennnis *from Andrew Braun*

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

Join us at the State field trips 23 – 25 June

Empire Prairie *from Steve Buback:*

Nothing submitted at this time.

Kansas City *from John C. Richter, KC Chapter President.*

For questions about upcoming field trips contact the field trip leader, otherwise contact John Richter via e-mail: RichterJC@by.com, or cell phone 913-217-0432. Please RSVP with the field trip leader or John Richter for all field trips. We use RSPV 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

18 June – Brick Prairie, Lance Jessee, leader

6 Sept 7:00 PM, MDC Discovery Center: **Chapter meeting September [?], Prairie Birthday Farm,** Linda Hezel, leader

Curator's Corner:

Upcoming Events

St Louis *from Rex Hill*

Chapter meetings are held on the fourth Wednesday of the month at the Sunset Hills Community Center, 3915 South Lindbergh Blvd., Sunset Hills, MO. Google Map: <http://goo.gl/maps/K3PR>
All Friends and newcomers are welcome at meetings.

22 June Wed – 6:00 PM – This is the month for our annual evening wildflower walk to be followed by dinner for those that wish to retire to a local restaurant after the walk. We will be meeting at the Myron and Sonya Glassberg Conservation Area in Jefferson County near Eureka, MO.

27 July Wed 6:00 PM J. Leighton Reid, PhD, Center for Conservation and Sustainable Development, Missouri Botanical Garden

Topic: Tropical Forest Restoration

24 August Wed 6:00 PM Andrea Schuhmann, Natural History Biologist, MDC Topic: To be determined

Osage Plains *from Casey Burks*

Regularly scheduled meetings are held the 4th Monday of the month at 6:30 pm at the Friends Room of the Henry County Library.

However, no meetings are held during the months of August, December or January. Programs 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

Field trips in and around the Henry County area are scheduled during spring, summer and fall depending on weather and flora. Bernie Henehan and Dan Henehan are our Field Trip Coordinators. There are several trips in the works, dates yet to be determined. Meeting programs will include a talk from Jo Mohr about her trip to Easter Island.

Ozark *from Liz Olson*

The Ozark Chapter meets at **6:30 pm on the third Tuesday of each month** except December and January at the **MDC, Ozark Regional Office, 551 Joe Jones Blvd, West Plains, MO 65775**. For more information, contact chapter president Susan Farrington at 417-255-9561. We take suggestions for speakers at our meetings. Contact Susan Farrington for more discussion: 417-255-9561.
The Ozark chapter does not meet in December or January.

21 June: Plant ID night; bring in specimens or pictures and we will all assist in identifying and learning about the plants you've found.

In the summer months, we hold Plant Identification nights; bring in specimens or pictures and we will all assist in identifying and learning about the plants you've found.

Southwest *from Michelle Bowe*

Meetings are usually held at **Greene Co Botanical**

The Things We Think About

The tenth 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, Missouri. 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.

Okay, so this isn't exactly about the herbarium other than that doing herbarium work gives a person a lot of time to think. Also, my students gave me lots of ideas. These are a few of the problematic things I have run into over the years. Common names are also especially problematic, but I didn't list most of those issues. Hopefully you will find this amusing as well as informative.

Homophones and misnomers etc.

- Chyme (what's in your stomach; is not a plant term), Cyme (an inflorescence type usually consisting of three flowers with the center one being the most mature)
- Chordate (animals with a notochord, etc.), cordate (heart-shaped—for example, redbud leaves)
- Petals (often on flowers), pedals (usually on bicycles)
- Pistil (female part of the flower), pistol (something completely different)
- Viola (an instrument), viola (a flower). Voilà, a homophone that's also a homograph!
- Carpel (another term for the female part of the flower), carpal (a bone in your hand/wrist; both completely different from carpool)
- Purple dead metal (a great name for a band), isn't quite the common name for *Lamium purpureum* (purple dead nettle).
- Nor hindbit (or hindbent) for *Lamium amplexicaule* (henbit) (apparently hindbit looks like purple dead metal)
- Pome (apple), pomme de terre (potato—apple of the earth)
- Oxalis (wood sorrel)—nothing to do with Oxen
- Auxin (a plant hormone) also has nothing to do with Oxen.
- Not all “herbs” are herbs (Rosemary, for example).
- Not all “berries” are berries (strawberry, raspberry, blackberry; these are aggregates)
- Unlike pollen, stamen isn't plural.
- Pineapples aren't pines or apples.
- Keying a car is completely different and way worse than keying a plant. I mean, keying a plant is enjoyable and doesn't scratch anyone's car.
- Tomatoes really are fruit, as are cucumbers, squash, green beans, snow peas, rice, wheat, and loofah.
- Calculaceae doesn't have spines (just buttons), but Cactaceae does.
- And finally, one question remains: is periwinkle blue? [My class actually got into an argument about this one; I'm not sure who won.]

Center, Spfld, 4th Tuesday, 6pm. In case of bad weather, watch Facebook for cancellations or call ahead of time and we'll call back with more information.

21 May Sat. 8:30am. Field trip/help with BioBlitz at George Washington Carver National Monument. For all field trips, contact Michelle Bowe for more information and to let her know you plan to attend. mbowe@missouristate.edu

LINK IN!

Share with friends and neighbors

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

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—enjoy!

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/>

WREN SONG <http://nativeplantwildlifegarden.com/> Blog on native gardens and ecology

Article on the effects of neonics on insects in Sept 2015 Wild Ones! Journal
<http://wildones.org/Neonics.pdf>

Plant information database
<http://plants.usda.gov/java/>

Grow Native: Missouri's native resources organization
www.grownative.org

Why we need 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://allisonjaughn.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/>

Wetland plants for water gardens

<https://millpondplants.wordpress.com/>

Ephemerals – May 2016

By Jarrod Fowler,
Pollinator Conservation & Biocontrol Specialist writing for
Xerces Society <http://www.xerces.org/ephemerals-may-2016/>



above-ground and below-ground energies to wrest life from rest. Spring is a season of birth, marked by fertility and transience.

Youthful impermanence may be epitomized no more evidently than by evanescent wildflowers of rich, old-growth woodlands, also known as spring ephemerals. Temperate deciduous forest floors receive fleeting springtime sunlight before trees leaf-out and canopies close. Spring ephemerals escape shade by rapidly producing foliage, flowers, and seeds. These above-ground appearances quickly fade to below-ground bulbs, rhizomes, or roots, which wait dormant until subsequent springs.

Spring ephemerals may be fleeting, but some native species host unique interactions with native pollen specialist bees. Pollen specialist bees associate with one host-plant family, a few related host-plant genera, or a single host-plant genus. For example:

- • Spring beauty (*Claytonia* spp.) hosts the spring beauty mining bee (*Andrena erigeniae*)
- • Trout lily (*Erythronium* spp.) hosts the trout lily mining bee (*Andrena erythronii*)
- • Waterleaf (*Hydrophyllum* spp.) hosts the waterleaf mining bee (*Andrena geranii*)
- • Bellwort (*Uvularia* spp.) hosts the rare bellwort mining bee (*Andrena uvulariae*)

Specialist bees of spring ephemerals are equally ephemeral: bees fleetingly fly and forage on above-ground host-plant flowers to provision below-ground nests, where bees rest quiet until successive springs. [Ed Note: Native bees are co-dependent on most flowers through all seasonal blooming periods. See the January 2016 Petal Pusher Page 6 for a short list of co-dependent bees and flowers. This is another reason why we need high diversity in our gardens and re-plantings.]

Specialist bee and spring ephemeral associations can benefit both bees and flowers from better foraging efficacy, pollen digestibility, and pollination rates. However, spring ephemerals and hosted specialist bees are often rare or uncommon, and thereby susceptible to harm from habitat degradation, fragmentation, and loss, phenological mismatch, or inclement weather. Threats such as urbanization, timber harvesting, and climate change potentially imperil pollen specialists and spring ephemerals with population declines and extinctions. Pollinator conservation projects in the temperate deciduous forests of the United States should prioritize actions that sustain abundant and diverse communities of native spring ephemeral host-plants.

If spring ephemeral host-plants are already present in a given habitat, then they should be protected or enhanced.

Protection from competing exotic plants, e.g., Norway

Please help gather information

Missourians for Monarchs

has a 20-year goal of establishing 385,000 acres of new pollinator habitat, both milkweed and nectar bearing plants, in Missouri. They are asking everyone for help in locating existing stands of milkweed.

Monarch and larva on swamp milkweed

Asclepias incarnata

BE photo



This includes

public/private prairies and your own home gardens.

Although the state goal is to increase habitat state wide, the main focus is in the “I-35 Corridor” a swath 200 miles on each side of I-35. This covers most of central and western Missouri including Camden, Miller and Morgan counties. Knowing where existing milkweed is located will assist them in knowing where to plant new habitat.

To make the recording of existing milkweed sites easy, there is a new website: www.MidMoMonarchs.info which has a page entitled “Plot Existing Milkweed.”

On this page, there is a form you can easily fill out and submit for each milkweed location you can identify.

. . . and submit it.



maple (*Acer platanoides*), garlic mustard (*Alliaria petiolata*), or lesser celandine (*Ficaria verna*), and browsing deer can support populations of spring ephemerals and their pollen specialist bees.

Enhancement of spring ephemeral communities should proceed according to best management practices as defined by local, regional, and national conservation authorities. Distinct from the design and establishment of early-successional wildflower meadows, spring ephemerals dwell and establish in late-successional forests. Contiguous and large habitat patches (e.g. ≥ 50 sq. meters) of abundant clumps or drifts (≥ 1 sq. meter) of spring ephemeral host-plants buffered (≥ 10 meters) from any areas treated with pesticides. Local ecotypes of native spring ephemerals should be sourced from trustworthy native plant propagators to avoid wild-harvested transplants.

Planting spring ephemerals in well-prepared understories with dappled deciduous shade and ample soil moisture will promote establishment. One recommended site-preparation technique for understory plantings of spring ephemerals is known as sheet mulching. Sheet mulching smothers weeds and mimics rich forest soil conditions, resulting in improved plant and soil health, plus increased nutrient and water retention. Maintenance of spring ephemerals occurs on both short- and long-term scales and can be performed by protecting, re-propagating, restoring, and weeding habitat areas. Any disturbance-based maintenance activities including division or pruning should be rotated through 1/3 of habitat areas during the fall.

Protecting spring ephemerals and associated specialist bees from population declines and extinctions identically provides wildlife with habitat, reduces weeds and erosion, improves water quality, and enhances aesthetics. Therefore, habitat conservation for native spring ephemerals works synergistically to sustain fertile and resilient forests.

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Grass Workshop

From one of the State's leading grass experts

Paul McKenzie

There has been an interest expressed from many for me to teach another grass id workshop. I was hoping to do it this spring/early summer but there were just too many things going on.

I am proposing Fri and Sat. Sep. 2-3, 2016 at Truman University in Kirksville. Yes, I know this is labor day weekend, but this is the best time I can do it So the realization of this workshop depends on how badly you want one. The purpose of this announcement is to find out how many folks would be interested in taking a workshop. If I get enough response, we will have it at Truman. I need to spread these workshops around a little across the state and I have not done one in NC Missouri.

The limit on participants will depend on how many dissecting scopes Lisa has x 2 (we always have people work in pairs), and space. My guess is about 40. I probably will not have time to put an elaborate workbook together other than give you a copy of my Power Point. Let me know if YOU are interested and no, I am not sending out a Doodle Poll to locate alternate dates.

Please pass this onto others you believe might be interested. If there is not enough interest, the workshop will be cancelled.

So sign up with me early as it takes about a month to put a workshop together. I will contact you as the date nears with more specifics.
paul_mckenzie@fws.gov

In order to teach the workshop well, I will need your help by simply pressing some of the spring flowering stuff now that won't be in bloom in Sep.- This includes Bromus spp., Poa spp., Panicum spp., Dichanthelium spp., Agrostis spp., Elymus spp., Festuca spp., etc., Triticum spp.

If there are enough folks interested, I will be glad to teach it. If not, I will get ready for deer bow season.

More Photos of Swampeast Mo Courtesy of Janice Albers

cross vine
(*Bignonia capreolata*), with a close relative, trumpet creeper
(*Campsis radicans*) in the background



stiff
dogwood
(*Cornus foemina*)



baldcypress
(*Taxodium distichum*)

leather flower
(*Clematis pitcheri*)





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www.monativeplants.org



The Petal Pusher is printed on recycled paper

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**"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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