

## Fall trip heads to Sedalia area in September

The fall meeting and field trips are planned for Sept. 9-11.

The fall meetings of the MONPS are planned to be at the MDC Sedalia office at 2000 S. Limit Ave. (this is Route 65 South) at the intersection with W. 20 Street, which is one of the east entrance roads to the State Fairgrounds. It is just south of the intersection of W. 20 Street and Highway 50 (Broadway). If you get to the intersection with Rt. B or the bridge over Flat Creek on Highway 65, you just missed it.

The Friday and Saturday night meetings are planned to begin at 7 p.m., with the doors opened at 6:30 p.m.

### Lodging

The main hotel will be the Super 8 on 3402 W. Broadway (Highway 50 east of Route 65) (660-827-5890). As of June 14, they had plenty of rooms.

An alternative is the Comfort Inn at 3600 W. Broadway near the Super 8 (660-829-5050).

A comfortable alternative in Lincoln (about 26 miles south of Sedalia) is the Bunkhouse Lodge at 23339 Highway 65 (660-547-3020). Paul McKenzie said he has stayed here before and it is very comfortable and relatively close to area prairies.

### Field Trips

The Saturday field trips will be to Paint Brush Prairie in the morning and to Hi Lonesome Prairie in the afternoon.

Paint Brush Prairie is about 10 miles south of Sedalia on Highway 65, then east on Manila Road about a quarter of a mile to the second parking lot that is on the right (south side of road). We will meet at the Super 8 parking lot at 8 a.m. and then at the Manila Road parking lot at about 8:30 a.m. Most folks will eat lunch in the field at Paint Brush but folks may eat lunch in Sedalia if they want.

We will meet at Hi Lonesome Prairie at about 1:30 p.m. at the area parking lot. It is about 1 mile west of Cole Camp off of Highway 52 (east of Route 65 about 2.25 miles) and north on Klink Avenue (also Benton County Road 221 NE) about a half mile. The parking lot is on the right (east) side of Klink Avenue. If you get to Hi Lonesome Road (also Benton County Road 950 NE), you missed the parking lot.

The Sunday field trip will be to Big Buffalo Creek Conservation Area on the Benton/Morgan county line for a change in pace to see Big Buffalo Creek Fen Natural Area that includes the fen, springs and adjacent forest.

It is south of Cole Camp about 13 miles on Route B, then east on Route WW to the end of hard top and then north on Big Buffalo Road about 1.25 miles. Anyone interested will meet at the Super 8 parking lot at 8 a.m. or about 9 a.m. on the area.

## New editor takes over the *Petal Pusher*

Janet Haworth has agreed to be editor of the *Petal Pusher* beginning with the next issue.

Send chapter reports and articles for the next *Petal Pusher* to her. The deadline is Aug. 1. Her e-mail address is [haworth\\_janet@yahoo.com](mailto:haworth_janet@yahoo.com).

The following is a brief introduction from her.

I was born in California among the poppies, lupine, buttercup, Indian paintbrush, and shooting stars, all of which I loved to pick. I remember trying to transplant

shooting stars as a very young girl, unsuccessfully; I was maybe 7 or 8 years old. My grandparents had unusual plants on the property, tamarisk tree (an invasive), and torch lilies (an exotic), as well as a few roses, and acres of fruit trees. There was a creek running along the property, across which were golden hillsides full of the above wild flowers. The creek and hills were where I spent much of my outdoor play.

My husband, Carl and I are in process of fighting the invasives on our property here

in Springfield — ailanthus tree, bush honeysuckle, Bermuda grass and a very aggressive split-leaf elderberry that does not fruit (though I was assured it would). We put native plants in as we find time and money, though also enjoy our shade garden with some exotics blended in with the natives.

I am a graduate of Missouri State University (bachelor of science degree in education, master of science degree in education administration) and retired this year from Springfield Public Schools as an early childhood special education teacher.

# Calendar of Events

## Hawthorn Chapter

**Monday, July 11, 7 p.m.** — Regular Meeting at the Unitarian Church, 2615 Shepard Blvd. Program not yet decided.

**Thursday, July 21, 11:30 a.m.** — Lunch with Native Plant enthusiasts, Uprise Bakery, 10 Hitt St., just south of Broadway.

**Saturday, July 23, 8 a.m.** — Mark Belwood Prairie restoration near Marshall Junction. Meet at the MDC Research Center for carpools to leave at 8 am. Bring camera, water, snack, sunhat and any other personal comforts. We can talk about habitat reconstruction and challenges. Lunch at Glenn's (Cajun) Restaurant at the Fredrick Hotel in Boonville.

**Thursday, Aug. 18, 11:30 a.m.** — Lunch with native plant enthusiasts, Uprise Bakery, 10 Hitt St., just south of Broadway.

**Saturday, Aug. 20** — Coakley Hollow and Ozark Cavern Natural Area (Camden County). Watch for details.

## Kansas City Chapter

Nothing scheduled in July or August.

## Osage Plains Chapter

**July 9** – Annual pot luck, wildflower tour and July meeting at Dale Jennings. 5:30 p.m. Bring a dish to share. For more information contact Emily Horner.

**July field trip** – TBA, await an email from our field trip coordinators who are on the lookout for a good location to see the blooms.

**August** – no business meeting, field trip TBA.

## Ozarks Chapter

**Tuesday, July 19, 6:30 p.m.** — Chapter meeting at the MDC Ozark Regional Office. We will have an informal plant identification evening. Bring plants and/or photos of plants that you would like to identify.

**Tuesday, Aug. 16, 6:30 p.m.** — Chapter meeting at the MDC Ozark Regional Office. We will have another informal plant identification evening. Bring

plants and/or photos of plants that you would like to identify. Regular programs will resume in September.

## Perennis Chapter

Consult the website for upcoming field trips: [www.semonps.org](http://www.semonps.org)

## St. Louis Chapter

**July 27, 7:30 p.m.** — James Locklear will be discussing some of the results of his book "Phlox: A Natural History and Gardener's Guide." A description is available at [timberpress.com/books/phlox/locklear/97808881929348](http://timberpress.com/books/phlox/locklear/97808881929348). The program is scheduled at Powder Valley Nature Center, 11715 Cragwold Road, Kirkwood, Mo.

**Aug. 24, 7:30 p.m.** — Danelle Haake, restoration ecologist with the Litzsinger Road Ecology Center, will be speaking on some of the restoration and preservation work underway at the LREC. Additional topics may include some of her restoration work with the River Des Peres Watershed Coalition. The program is scheduled at Powder Valley Nature Center, 11715 Cragwold Road, Kirkwood, Mo.

**Sept. 28, 7:30 p.m.** — Allison Vaughn, natural resource steward with the Missouri Department of Natural Resources, will share the trials and triumphs of Ozark glade and forest management. The program is scheduled at Powder Valley Nature Center.

**Oct. 26, 7:30 p.m.** — Our annual show-and-tell session, where members share their best photographs of the year's botany trips. The program is scheduled at Powder Valley Nature Center.

## Southwest Missouri Chapter

**July 26, 6 p.m.** — Monthly chapter meeting. Topic TBD.

**Aug. 23, 6 p.m.** — Monthly chapter meeting. Topic TBD.

## Dues Are Due

**By Ann Earley**

*Membership Chairwoman*

Please check the top line of your mailing label. If it shows the date 20110630, your dues are now payable.

To renew, please look for the renewal envelope in this issue of the Petal Pusher. Please remember to complete your contact information and your society and chapter dues preferences.

If you have questions about your membership status, please contact me (see back page for contact information).

We value our members and urge you to renew today!

## New members

- Luke & Mikki Foster, West Plains
- Theresa Cline, Edwards
- Tina Heusler, Steelville
- Ray Nabors, Portageville
- Sam H. Crowe III, Caruthersville
- Frank Rose, Hayti
- JoAnn Atwill, Kennett
- Brenda Lawrence, Steele
- Robert M. Lee, Chesterfield
- Warren Taylor, New Bloomfield
- Jason Allen, Columbia, Ill.

## Juglans

The word Juglans is Latin, from jovis (Jupiter) and glans (an acorn), or "nuts of Jupiter." According to Roman legend, during the 'golden age', mortals lived upon acorns, while the gods dined upon the superior walnuts.

The Greeks were credited with cultivating and improving the size and quality of the Persian native species now known as "English walnut", and the Romans soon introduced walnut trees throughout most of Europe. Pliny documented the introduction of the Walnut into Italy from Persia. When it was introduced from Italy to Germany, it became known as "Wallnus" (foreign or wealthy) in German. It was later anglicized to the common name "walnut."

# Awards recognize efforts of four

At the past state board meeting in June, the Missouri Native Plant Society announced four awards recipients for the previous year.

MONPS has presented these awards since 1986. It is a simple way to thank individuals for outstanding accomplishments to increase the knowledge about native plants in Missouri; working to ensure the protection of Missouri's native plants through outreach, education, research; and countless field work hours.

## James William "Bill" Summers, Julian A. Steyermark Award

Bill was presented with the Steyermark Award for his vast knowledge of the native flora and many new plant discoveries in Missouri.

He wrote the book "Missouri Orchids," which was first published by the Missouri Department of Conservation in 1981, with a revised edition published in 1987 and a third edition in 1996.

Among other things, he has collected nearly 11,000 vascular plant specimens from Missouri and also has a number of scientific papers that were published in *Missouriensis* and other botanical journals documenting his finds.

## Rick Swopes, Plant Stewardship Award

Rick received the Plant Stewardship Award for his work on native prairie preservation. It is very hard to summarize all the work he has done to help preserve this disappearing ecosystem.

He has been the resource technician/Osage Plains native seed harvesting crew leader for the past nine years. His knowledge of plant identification may be surpassed by his ability to identify a plant by its seed.

In addition to this demanding job, he gladly offers impromptu prairie tour groups to young kids, conservation professionals, college wildlife students, and even a wandering visitor from another state.

The time spent working within the prairies also has allowed Rick to track existing populations and locate new populations of species of concern in Missouri and provide this information to the Missouri Natural Heritage Database.



Photos by John Oliver

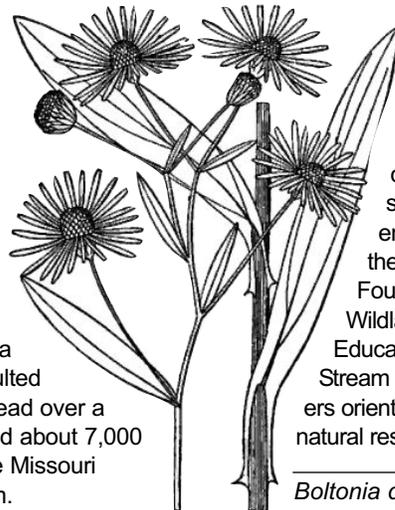
Bill Summers accepts the Julian A. Steyermark Award from George Yatskievych, president of the Missouri Native Plant Society, at the June 11 state board meeting.

## Alan Brant, Art Christ Research Award

Alan was presented with the Christ Research Award for his valuable work of searching and finding Missouri's state listed plants for the past 26 years.

His finds include state records for *Melica mutica*, (two-flower melic grass), and *Aneura maxima* (a thalloid liverwort). He has found innumerable new locations for state listed plants in his surveys, mostly for U.S. Forest Service and the Missouri Department of Conservation.

Alan, along with Roy Gereau, made their big find: *Boltonia decurrens* in an area of St Charles County that would be inundated by the new Lock and Dam No. 26. This didn't stop the building of the dam, but led to a rescue operation that resulted in *Boltonia* now being spread over a large area. Alan has added about 7,000 Missouri specimens to the Missouri Botanic Garden herbarium.



## Barbara Van Vleck, Erna Eisendrath Memorial Education Award

Presented to Barbara for her exceptional contribution in promoting the appreciation of Missouri native plants through outreach and education.

Barbara puts a great deal of her own resources and time into promoting the appreciation of Missouri native plants, wildlife, healthy streams and conservation. Her

devotion to nature and sharing of knowledge nurtures a commitment for our wild lands and wildlife in the lives of others for generations to come.

After retiring, Barb chose to pursue her passion and share it with others. She volunteers with the Missouri Prairie Foundation, Kansas City Wildlands, Kemper Outdoor Education Center and Missouri Stream Team, among many others oriented to the protection of our natural resources.

*Boltonia decurrens*

## Hawthorn Chapter

Submitted by John White, chapter representative

The Hawthorn Chapter regular meeting was March 21. Our guest speaker was Mark Belwood with a presentation on the history of North American prairie and restoration methods, using his efforts as examples. We have a trip scheduled for July 23 to tour the restoration plots on Marks farm.

Our booth at the Bradford Farm Plant Sale on April 9, brought in \$795. Then at the Earth Day Fair, in Columbia, we made \$671 selling plants and books. All the plants for our booth at Bradford Farm, except four dogwoods, were furnished by Becky Erickson as well as most of the plants on Earth Day. Good weather brought out people interested in native plant gardening and needing plants and planting information. As a result, these sales topped all our previous records.

On April 23, Mike Leahy, Missouri Department of Conservation natural areas coordinator, led seven of us on a field trip to Graham Cave State Park, Montgomery County. Afterward, two of us went on to Danville Conservation Area. At Danville we found a large area with Indian paintbrush. along the bluff base near the road, three of which were white. I had never seen white paintbrush although Julian Steyermark, in his "Flora of Missouri," indicated *Castilleja coccinea* could have red, orange, yellow or white bracts surrounding the flowers.

At the chapter meeting May 9, Lea Langdon, one of our members, presented a program on edible wild plants. We learned where to find certain edible plants as well as how to harvest and eat them. Lea provided several raw plant parts and one prepared dish, a frittata with chickweed, stinging nettle and wild onion, plus a mixed green salad, for us to sample. All were surprisingly tasty, including the black locust flowers.

Several members participated in a hike on May 14 at Paris Fork, in Callaway County, a U.S. Forest Service area between Ashland and Fulton. This is an area of deep woods, shaded glades and a creek bottom. We found golden seal, yellow lady's slipper, adam and eve orchid, wild comfrey and leatherwood, among others, all enlightening on a cloudy, rather dreary day.

Nine people made the trip to Clifty Creek on Sunday, May 22. This area in Maries County includes Clifty Creek Conservation Area (256 acres) and Clifty Creek Natural Area (230 acres). The area contains oak-hickory forest, mixed bottomland forest, limestone glades and cliffs, and sandstone glades. Clifty and Little Clifty creeks run through the areas with a natural bridge carved through Gasconade dolomite by a tributary of Clifty Creek.

A very scenic, moderately difficult, 2.5-mile loop hiking trail, with two creek crossings, leads through both areas. Changes in elevation exceed 200 feet, and there is great diversity along the trail.

Among the many plants seen were yellow ladies slipper, putty root, yellow honeysuckle, cliffbrake, spleenwort, climbing milkweed, golden seal and bladdernut. Some of the critters observed were a beautiful copperhead relaxing in the middle of the trail that didn't want to move and was taken away from the trail (one person failed see it and fortunately stepped over it), two male box turtles, a lizard, honey bees nesting in a den tree and one oven-bird.

This is an excellent hiking area.

## Kansas City Chapter

Submitted by Daniel Rice, chapter representative

The Kansas City Chapter had its final meeting of the spring on May 3.

Our intended speaker had to reschedule, so we were able to conduct all the chapter business in an unhurried fashion. We discussed the printing of T-shirts for the Botanical meeting in St. Louis this July, Sue Hollis being in charge of that. We also discussed the upcoming field trip and plant sale.

On Saturday, May 14, five members ventured out on a cold, blustery day to visit the farm of Doug Keever. The farm has a restored prairie where paintbrush, prairie ragwort, prairie phlox, dewberry and prairie wild hyacinth were in bloom. Other plants seen, but not yet in flower, were purple coneflower, pale purple coneflower, prairie clover and blazing star.

The farm also has several wooded hollows, where the rare (in Missouri) long-bract frog orchid (*Coeloglossum viride*) and *Galeares spectabilis* orchids were in bloom, along with lousewort, columbine, woodland phlox, mayapple and *Delphinium tricorne*. Ferns seen were sensitive fern, fragile fern, horsetail, grape fern, spleenwort and marginal wood fern. It was quite a day's worth of exploring!

Saturday, May 21, was our annual plant sale in Kansas City. Members donate extras from their gardens and we then offer them for sale to the public in Kansas City. Last year the weather didn't cooperate; this year it did. By the end of the day we had raised a total of \$505 for the Hudson fund. Not bad for donated plants!

Our next meeting will be on Tuesday, Sept. 6, at the Discovery Center. We will be meeting at 7 p.m. The topic will be about pressing plants specimens. If you have any questions, please feel free to contact me, either by telephone or e-mail.

## Osage Plains Chapter

Submitted by Emily Horner, chapter president

Our annual first rite of spring, the field trip to Carl Peterman's property in Henry Co., was a success once again. April kindly gave a beautiful, warm day for the excursion. We walked the path to Honey Creek (and back up!) and were especially pleased to find a couple of the last bloodroot blooms and the beginning of the bluebell blooms. Numerous dogtooth violets (Trout Lily), trilliums, and spring beauties carpeted the dry-mesic/mesic woodland. After a short break from plant finding to allow the Horner boys to throw rocks in Honey Creek we made our way back among ferns, bellworts and Kentucky coffee trees. While not ones to ignore wildlife while out, we managed to find a very friendly gray tree frog resting on a fallen log. It was a great way to welcome spring.

As you might have gathered by now, there are some fans of milkweeds in our chapter. Everyone knows of Mead's milkweed in our chapter after my obsessing for the last several years. Now we welcome Casey Burks, who has a fondness for all things milkweed, with a special fascination for *Asclepias quadrifolia*. During our April meeting, our chapter's entomologist pre-

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sented on the many different *Asclepias* species she has found and photographed in Missouri. She detailed as well the very important role milkweeds play in the life cycle of monarch butterflies.

Casey has planted hundreds of seeds and transplanted many milkweeds around her property in Henry County to develop her monarch butterfly and larvae way station. She even brought us some of her newly emerged seedlings so we could plant some as well. After her presentation we held elections and filled every position! Thanks to those who volunteered—it will be a great year ahead.

In May, we had the pleasure to visit her property, monarch gardens and woodland to see the coveted *A. quadrifolia* in full bloom. It wasn't the best of days, as it rained. But when didn't it rain in May—we were used to it. It was awesome to see that there were already monarch caterpillars within her garden of milkweeds and nectar plants.

The monarch butterflies are lucky to have Casey. She and her husband graciously provided lunch while we held our May meeting, which was somewhat solemn as we were updated on the cancer treatments of two of our brave members, and the husband of a third. Many prayers go out to them.

## Ozarks Chapter

Submitted by Susan Farrington, chapter representative

Our April meeting was a combined meeting with the West Plains Master Naturalists chapter. Susan Farrington gave a presentation on the natural communities of Missouri, and focused especially on wetland natural communities. The evening got especially exciting when severe storms forced us to move to an interior room, but we were able to continue the program as the hail pounded the roof above us!

Our May meeting was a field trip to tour the Mountain View Rotary Park Nature Park and Outdoor Classroom. This park is still being developed and showcases natural habitats and plants native to the Howell County area. Jack and Marty Toll have been working hard to bring this project on board, and their efforts are paying off!

## Perennis Chapter

Submitted by Allison Vaughn, chapter representative

Big Oak Tree State Park, located outside of East Prairie, has long been one of the Perennis Chapter's favorite haunts. The open woodlands and bottomland hardwood forests of the designated Big Oak Tree Natural Area represent the last remaining tract of uncut intact forest in the Southeast Missouri Lowlands. Though damaged by many years of altered hydrology, the park's native flora remained among the richest in the region with assemblages of giant cane, *Clematis crispa* and a suite of plants commonly associated with the Gulf Coastal Plain region.

In early May, the U.S. Army Corps of Engineers dynamited the Bird's Point levee roughly a half mile from Big Oak Tree State Park, flooding 300,000 acres of farmland and the park. Aerial photos revealed sediment laden waters nearly covering the canopy.

The damage caused by the force of floodwaters remains unknown, and the impacts of standing water for weeks on end and the resulting sediment load to the park's fragile flora may be detrimental. At the time of this writing, the park remains flooded and closed to the public.

## St. Louis Chapter

Submitted by Pat Harris, chapter representative

The scheduled speaker for the St. Louis Chapter meeting on April 27 had to cancel at the last moment.

On very short notice, James C. Trager, biologist-naturalist at Shaw Nature Reserve, Gray Summit, Mo., rose to the occasion and offered to present a program on his observations regarding restoration of various natural communities in Missouri. Trager has been a key figure in the design and implementation of the continuing restoration at the 2,500 acre Shaw Nature Reserve for the past 20 years.

A general overview of the history, distribution and often misunderstood landscape condition of oak savanna woodland in North America was presented. The essential role of fire in maintaining the vegetative structure which, when intact, is also a strong deterrent to the invasion of exotic species, was discussed in some length. While much historical information and data about fire, its frequency and intensity, has recently been compiled, the best fire regime, at any particular site, to replicate the historical history of this natural phenomenon is still controversial and requires further study.

Turning to reflections on the prescribed fire regime work done at Shaw Nature Reserve as an example, Trager observed how the pre-settlement distribution of *Juniperus virginiana* (red cedar) was originally restricted to bluffs and edges versus the present ubiquitous invasion across the midwest due to fire suppression. Also how *Quercus shumardii* var. *schneckii* (Schneck's oak) and *Quercus muehlenbergii* (chinkapin oaks) have tended to be found at the lower edges of glades whereas *Quercus stellata* (post oak) is on the ridges above glades.

The glades at Shaw are on dolomite substrate but glades can occur on any rock type. He presented a few images of animal life on glades such as the tarantula, six-lined race-runner and the plains striped scorpion.

The prairies and prairie marsh maintained at Shaw Nature Reserve are all reconstructed after great efforts over the years by many dedicated people who have an interest in preserving elements of our natural history.

Many thanks to Dr. Trager for filling in.

Our speaker for May, was Nick Krekeler, project manager for DJM Ecological Services. He concentrated on work done for his master's degree. He evaluated several treatments to establish oak reproduction in an existing bottomland, in particular a *Quercus palustris* (pin oak) forest at Duck Creek Conservation Area and Mingo National Wildlife Refuge.

He gave a short history of bottomland forest in the Southeast region of the United States about the transition from the largest

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# Savannah blazing star

By Susan Farrington

While working as a botanist for the Missouri Ozark Forest Ecosystem Project, one of the things I enjoyed most was finding rare species in our study plots. The most diverse plots are those located on dolomite glades, which might feature over 100 species in a half acre! Also very diverse are the rich dolomite woodlands found below such glades, which might feature up to 80 species in a half acre. These woodlands feature sun-loving species at the edge of the glade and more shade-tolerant and moisture-loving species lower on the slope.

One species that we found in a rich dolomite woodland is savanna blazing star (*Liatris scariosa* var. *nieuwlandii*).

This is an especially beautiful species of blazing star, featuring very large shaggy ball-shaped flowers in September. It is listed as state imperiled in Missouri and is considered uncommon or rare throughout its range in the Midwest and Northeastern United States.

When we found it in one of our MOFEP plots, we saw only the basal leaves, since it blooms after our sampling season. And although it is more shade tolerant than all the other *Liatris* species in Missouri, this woodland was becoming much too heavily overgrown from the long absence of fire. We did, however, find one or two struggling flower stems, so I returned in September to see it in bloom and confirm that our vegetative identification of the species was correct.

To identify this species in bloom, note that the bracts at the base of the flowers are not swollen, as they are for rough blazing star (*Liatris aspera*). Another very close look-alike is southern blazing star (*Liatris squarulosa*), which has fewer florets per head (11-28) than does savanna blazing star (28-80 florets per head). When counting these florets, use the largest flower head, which appears at the top of the inflorescence and is the first to bloom. The peduncles (flower stalks) at the base of each flower head tend to be longer for savanna blazing star, but I have occasionally seen some overlap in this character on southern blazing star, so I prefer to count florets (even if it does make me cross-eyed!)



Photos by Susan Farrington

*Savanna blazing star is a very showy species to grow in your garden, growing in half sun to full sun. Migrating monarchs and many other species of butterflies flock to the blossoms.*

Vegetatively, this species has much wider and often more ovate leaves than either of the other two species, 2-5 cm across compared to 1-2 cm for the other two narrower-leaved species.

In my neck of the woods in Shannon County, I generally see the three species in different habitats, with rough blazing star usually on open dolomite glades, southern blazing star preferring dry chert woodlands and savanna blazing star preferring somewhat more mesic dolomite woodlands. In other areas of the state and country, savanna blazing star is found in prairies. I

am guessing that at a minimum it needs a deeper and somewhat moister soil, which is available in dolomite woodlands and prairies, but not in dry chert woodlands or dolomite glades.

Accompanying our exciting find in that study plot was a very beautiful and not very common native grass called silver plume grass (*Erianthus alopecuroides*). I don't see this grass often, but one place to see it by the thousands is at the recently restored Coppermine Hollow Glade on Angeline Conservation Area in Shannon County, just north of Eminence. It is truly spectacular in mid to late September. In our little plot, however, it was struggling to find sunshine and showed no sign of getting ready to bloom.

To help these two unusual species, botany crew members Chad Doolen and Dustin Cramer hauled chainsaws down a steep hill to the plot, and we set about thinning the young woody trees and shrubs that were invading the woodland and glade in the absence of fire.

Because this plot is part of a long-term experiment that does not include a fire treatment at this time, we will not be able to burn here. But forest management practices such as our thinning are part of the

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study. We hope that by giving these species some additional light, they and the whole natural community will benefit, and we will track their progress.

*Susan Farrington is the Ozark Region natural history biologist for the Missouri Department of Conservation.*



*The bracts at the base of the flowers of Liatris scariosa var. nieuwlandii are not swollen, as they are for rough blazing star (Liatris aspera).*



*The basal leaves of Liatris scariosa var. nieuwlandii.*

## CHAPTER REPORTS

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contiguous forest thru the exploitation period leading up to today's condition where Duck Creek and Mingo are the only remaining representative landscapes in Missouri.

He included a brief political history on how the state of Missouri came to have a "bootheel" as part of its boundaries.

Nick also gave a summary of native orchid and other plant tissue culture work along with a few examples of these placed into various native habitat reconstructions and restorations in eastern Missouri. Some of his successes were: *Aplectrum hyemale* (putty root); *Cypripedium calceolus* var. *parviflorum* (small yellow lady's slipper) and *C. calceolus* var. *pubescens* (large yellow lady's slipper); *Platanthera peramoena* (purple fringeless orchid); *Calopogon tuberosus* (grass pink); and several varieties of *Spiranthes* (ladies' tresses).

## Southwest Missouri Chapter

Submitted by Brian Edmond, chapter representative

Dr Ioana Popescu, associate professor of biology at Drury University, presented an overview of culture and botany in her native country of Romania. During her presentation, we learned of the Romanians love of cut flowers for every occasion. She also talked about botanical surveys in the country's park system and saw some habitats and wildflower species adapted to a dry, karst region, much like the Ozarks.

May's meeting consisted of a brief period weeding the native wetland at the Botanical Center. Also, Rhonda Rimer, Natural History Biologist with the Missouri Department of Conservation, gave a great talk about Virginia sneezeweed. As it turns out, the plant should really be renamed Missouri Sneezeweed since we appear to have more populations of the species than Virginia.

Our chapter will be searching for Virginia sneezeweed in Greene and surrounding counties beginning this July. An identification guide will be distributed to the e-mail list and our Facebook page along with likely habitat to find the plant.

The area's elevation and the presence of numerous sinkhole and artificial ponds presents a high probability of extending the range of the Virginia sneezeweed into several areas of southwest Missouri.

The woodland garden at the Springfield Botanical Center is under construction. The area has been cleared of underbrush and automatic pop-up sprinklers are being installed. With soil enhancement and the placement of walking stones and mulch, we will soon be ready to proceed with the transplants provided by Sue Hollis of Kansas City.

The rain garden planting at the botanical center has made a successful transition into the spring. The excessive rainfall over the past month has resulted in optimal growing conditions for the garden.

# Doctor finds a needle in haystack

By Emily Horner

It was a cool day, in comparison to the week that proceeded. The Osage Plains Chapter members congregated in the parking lot of the Valley View Church outside Lowry City to join the owners and stewards of a beautifully diverse dry-mesic sandstone prairie for a morning walk among the flowers.

Last year we were blessed with grass pink orchid and a county record for cancer root. Hoping to relocate the orchid, we had our eyes set for the last remaining blooms. Alas, we only were deceived by phlox and sensitive briar from afar. The pale purple coneflowers delighted, as did the leadplant and goat's rue.

This prairie has been kept from plowing by the very shallow soil and the stewardship of the Conrad and Neuenschwander families. Primarily hayed each year, this past year portions were burned, rested and hayed, which allowed for us botanists/prairie ecologists to look at how different the prairie was based on management. And it was different. Burning led to blooms, resting led to grass and haying was in between.

We had reached the furthest west point of our outing and were headed back to the church parking lot to complete the wonderful morning with lunch. Still on the lookout for new plants to list, we had slowed our enthusiasm a bit. However, the native planters of the Osage Plains chapter, like many others, never do give up wanting to learn, especially wildflowers. So when Dr. Bernie Henehan asked for us to turn back and look at one last flower, we did.

I knew what it was immediately even from 15 feet away. I had seen this plant in my sleep the last eight years while doing surveys every spring. I had always thought it should be here on this impeccable prairie. And it was. *Asclepias meadii*



Dr. Bernie Henehan at a new location of Mead's milkweed.

(Mead's milkweed). I screamed. So loud I made others wonder if we had been snake bit. Bernie was so calm about it all. I just kept screaming.

This was the second prairie in eight years where a new population of Mead's milkweed was discovered on a prairie in Missouri. All others were relocating known sites. For those who may not be familiar with Mead's milkweed, it is endangered in Missouri, threatened federally and really only known from prairies and igneous glades in Missouri and Kansas.

It was blooming, but about done. When I touched the plant flowers fell to the ground, not pollinated. We took photos, finished being in awe and started towards the church again. We were about there

when Bernie looked down and said, "Here is another one."

He was so calm and matter of fact. Here I was the Mead's milkweed recovery leader for Missouri for six years — never saw one the entire two hours of looking for it. And here was Bernie, a doctor who really likes plants, out to learn and enjoy the day, discovering a needle in a haystack. It was awesome.

Thanks, Bernie, for making our day and being diligent in your native plant searching and for joining our chapter last year!!!

In total we found two plants, six stems. Each plant had a flowering stem. How many more are out there? Maybe next year we can discover the answer... or at least find more.

# Fire shaped Missouri's natural communities

By Allison Vaughn

Naturally occurring and anthropogenic wildfires helped to shape Missouri's diverse prairie, savanna, woodland, glade and wetland natural communities for thousands of years.

It is widely accepted that following European settlement, large, landscape-scale fires seldom occurred to the degree in which they did previously. The suppression of wildfires coupled with devastating open-range overgrazing and poor agriculture resulted in the rapid degradation of wide swaths of Missouri's ecosystems.

For the past 30 years, Missouri land managing agencies continue to restore natural communities by implementing prescribed fire and cutting undesirable woody vegetation across distinctive ecological landscape types.

In 1983, after witnessing the positive effects of prescribed fire in a small patch of woodlands at Cuivre River State Park, then-chief of the Natural History Program (division of Missouri State Parks) Paul Nelson lit the first match on a 40-acre tract of woodlands at Ha Ha Tonka State Park, thus ushering in the institutionalization of prescribed fire in Missouri's woodlands. Even before the 1980s, private landowners throughout the Niangua Basin burned their lands each spring, often following Easter Sunday services. The diverse open woodlands in the region, woodlands managed with fire continuously for the past 5,000 years, served as testament to the importance of sustaining an ancient natural process on a landscape level.

Today, land managing agencies across Missouri prescribe burn about 60,000 acres each year, a small fraction of the state's total land cover.

Taking a cue from private landowners and the frequent occurrences of wildfires in Missouri, prescribed fire events in the 1980s were often conducted in the spring. Wildfires continue to burn the landscape most every spring, but some land managing agencies recognize the importance of diversity in fire regimes that mimic natural patterns. Alternating seasons (spring, summer, fall, winter), fire return intervals, and burning under varying weather parameters are integral to emulating natural disturbance processes.

The diversity of the park's heteroge-



Photo by Allison Vaughn

*Controlled burns help Missouri land management agencies restore natural communities by eliminating undesirable woody vegetation.*

neous matrix of dry chert woodlands interspersed with dolomite glades and closed woodlands with their rich floral and faunal populations remains integral to the success of the fire program. About 43% of the park is in fire rotation, with fire return intervals stretching from one year to six. Park staff conduct burns alternating between dormant and growing seasons, and varying fire intensities derived from landform, weather and seasonal parameters. The woodland flora at Ha Ha Tonka remains some among the richest in Missouri.

In the 1990s, Becky Erickson, then a University of Missouri Master's candidate, conducted a three-year study on small mammals at Ha Ha Tonka State Park. In short, she discovered that animal abundance and diversity correlated positively with decreased shrubby cover and increased herbaceous cover. In areas of the park that are not managed with fire, animal abundance and diversity was lower. Small mammal species richness was highest in the Turkey Pen Hollow burn unit (site of the first fire event in 1983) because it was the most vegetatively heterogeneous region in the park. Patchy, dense

cover and areas of exposed rocky soil derived from the diversity in the fire regimes favored Eastern wood rats and white-footed mice. Seasonal and annual shifts also occurred during her study, with short-tailed shrews occurring more frequently in areas with dense leaf litter, while chipmunks depended on exposed, rocky soil for building tunnels. The study found that the availability of insects and seeds derived from a diverse ground flora and fire regime supported thriving populations of small mammals.

Upon glancing at the woodlands at Ha Ha Tonka, it may seem that the understory is dominated by native warm season grasses. However, based on many years of vegetation data collection, forbs account for over 60% of the total cover with as many as 300 species occurring within dry chert woodland alone. The park represents a historic landscape in the Niangua Basin, one managed with fire, with ancient landforms that dictate how fire moves across the landscape. Just as fire influences the vegetation at Ha Ha Tonka, the vegetation impacts how fire behaves in this remnant of an Ozark past.

# Quarterly Board Meeting

April 30 in Joplin, Mo,

President George Yatskievych (GY) called the meeting to order at 7:15 p.m. A quorum was present. One change and one addition to the agenda were made. John Oliver (JO) volunteered to serve as the recorder.

**Treasurer's Report** — Bob Siemer reported that our finances are in good shape. The Hudson Fund is responsible for the majority of the increase shown. Bob will put another \$1,500 in a CD designated for the Hudson Fund.

## PUBLICATIONS & MEDIA

**Petal Pusher** — Chuck Robinson who has done such a great job with the newsletter, needs to step down. GY asked the chapter representatives to check with their members to see if anyone was willing to assume the position.

**Distribution Chairman** — Bill Knight was not present. GY mentioned it was the post office that had delayed the delivery of the last *Petal Pusher* issue to some.

**Publicity Chairman** — No report.

**MONPS Website** — GY mentioned there were some problems with updating the website. He will contact David Winn and encourage him to try to update more frequently.

**Missouriensis** — GY has started to put together the 30th anniversary issue. He mentioned Doug Ladd's symposium manuscript is the only thing needed to complete the issue and it is half done. Once the 30th anniversary issue is published, the next will follow quickly. Both will be published after July 1 this year.

## COMMITTEES & TASK FORCES

**Membership** — Ann Earley reported that we have 20 new members since the last meeting for a total of 314. She also stated that the chapter representatives have received their updated rosters and they will receive their checks after this meeting.

**Hudson Award** — GY said five of the six applications for the award this year were top quality. The \$1,000 Award was given to Steve Kroiss from Washington University. Another project presented by an undergraduate at College of the Ozarks which requested only travel expenses totaling \$400 was funded from operating funds

after an e-mail vote by the board.

**Archives** — Jack Harris has finished organizing the early organic materials and continues to work on projects and programs.

**Elections** — The nominating committee's job is finished and the ballot is out. Jack and Pat Harris will be compiling the votes. The only contested race is that for vice president. GY thanked Susan Farrington for her service. The results will be announced at the annual meeting.

**Awards Committee** — Nadia Navarette-Tindall sent a report stating there were four nominations for the four awards. All received were accepted. Nadia will order the plaques.

## SOCIETY BUSINESS

**Poster** — GY attended a meeting in Columbia with MODOT focusing on printing a poster of roadside wildflowers — both native and non-native with an emphasis on native. Similar posters have been done in other states. MODOT will pay for the printing. A committee will be responsible for deciding which species to use, soliciting pictures from members as well as looking through the MONPS slides held by Steve Timme, and writing the text. GY felt it would be nice to have this work done by the end of the year. GY will send an e-mail to Steve about access to the archive of photographs. Chapter representatives were asked to encourage their members to volunteer for the poster committee.

**Summary of Recent E-Business** — A request from Teaming With Wildlife was received asking that MONPS be listed as an organization requesting that funding for state wildlife grants not be dropped from the federal budget. There were no objections so GY wrote that it was OK to use our name. A request from Amy Hamilton was received concerning the Pollinator Habitat Specs. The current rules state that all materials be from Missouri. The Dept of Ag has suggested that out of state materials could be used 50/50. Amy requested we object to the proposed rule change. There was no consensus so GY did not send a letter. As mentioned in the Awards committee report a \$400 research project was okayed to be funded from operating funds.

**MONPS Tote Sacks** — Another 48

sacks which will sell for \$12 have been ordered in order to have some available for sale at MONPS booths.

**New T-shirts** — Paul Nelson has agreed to draw the design for a new T-shirt. He will incorporate orchids from different natural communities in different colors. MONPS will have all property rights with Paul retaining the original artwork. Doug Miller will be the graphic designer for the project. He and Allison Vaughn will put together a list of questions for various printers to determine the cost of six-color T-shirts, thickness of lines in the design, turn-around time, etc. Bids will be solicited from the Kansas City area by Sue Hollis, the Columbia area by Doug and the St. Louis area by GY. We would like to have the T-shirts by July 1st in order to have them for sale at the Botany 2011 Conference.

**Botany 2011 Conference** — The conference is scheduled for July 10-13 at the Chase Park Plaza in St Louis. Sue Hollis will staff the booth for the conference but needs one or two people to help. Chapter representatives are requested to ask their members if anyone is available and let GY know. Sue would like to have a variety of items to sell — the new T-shirt, totes and several other T-shirts. A discussion on which T-shirts to reprint in order to have a variety to sell was held. Bob Siemer motioned with Dan Rice seconding that three of the four presented be reprinted. The motion passed. Sue also requested each chapter to send all T-shirts currently on hand to her for sale at the conference.

**Patch-Burn Grazing** — JO gave an overview of patch-burn grazing in Missouri and a report on the March 29 meeting and the April 26 workshop.

**MONPS Statewide Locality Database** — Brian Edmond presented a prototype. His goals are to digitize and summarize the data available and have a site that the public can use. He will need volunteers to enter "paper" data and a system manager(s) to oversee usage based on the sensitivity of the information. Brian stated his next step is to get all possible species from Missouri entered in the database and then create a live database for those who are interested to enter data and try to pull out reports as a test phase. GY thanked Brian for all his work to date.

# Rose Turtlehead

By Barbara Fairchild

If you are looking for a plant that begins blooming in July heat, take a look at rose turtlehead (*Chelone obliqua*). One garden writer calls it the “pillar” of her garden. Its solid presence acts like a social glue, she writes. Many admire rose turtlehead for its, stiffly erect, semi-glossy, dark-green foliage that adds structure to a landscape all season long. Its appeal increases in mid- to late July, when flowers appear in clusters on spike-like stalks. These snapdragon-like flowers range in color from light pink to deep rose. A close relative, white turtlehead (*Chelone glabra*) has white flowers.

For some, the two lips of the flower conjure up a vision of a turtlehead, giving it the common name of rose turtlehead. Other common names include shell flower, balmony, snake head and turtlebloom. The scientific name *Chelone* (which, by the way, rhymes with baloney) is Greek for turtle. In Greek mythology, Chelone, a female nature spirit, insulted the gods either by not attending or by making fun of the marriage of Zeus and Hera. The insulted gods punished her by turning her into a turtle.

As do some turtle species, rose turtlehead prefers moist to wet soil and full sun to part shade. In Missouri it typically is

found in wet to moist floodplain forests, soggy meadows and partially shaded seeps and springs. In cultivated landscapes, turtlehead does best in rich, organic soil that receives some moisture when temperatures are high. It thrives in composted leaf mulch—especially if in full sun areas. The plant makes a good addition to woodland gardens, bog gardens and the banks of pond and water gardens.

When mature, rose turtlehead can reach heights of four feet, but typically is somewhat shorter. To ensure shorter heights, pinch back the ends of stem in spring. This is especially true for plants growing in full shade, where plants tend to grow taller and may need support unless pinched back.

The plant spreads slowly by rhizomes and provides nectar for bumblebees and hummingbirds. It also serves as a host for the Baltimore checkerspot. While the larvae of this butterfly thrive on the leaves, deer avoid its bitter foliage. Native Americans used portions of turtlehead to improve appetite, ease fevers and treat worms and sores. Tea made from the flowers was used as a laxative and some references point to use for jaundice and birth control.

If you decide to use rose turtlehead in your landscape, be aware that plants sold



*Rose turtlehead, Chelone obliqua, is a stiffly erect, clump-forming Missouri native perennial that typically grows 2-3 feet tall in moist woods, swampy areas and along streams.*

as *Chelone obliqua* in mass market nurseries may be hybrids rather than open-pollinated species. This is especially true for named varieties. To find the species native to Missouri, go to [www.grownative.org](http://www.grownative.org) and click on Buyer's Guide.

*Barbara Fairchild is the communications specialist for Grow Native.*

## INFORMATION ON JOINING THE MISSOURI NATIVE PLANT SOCIETY

### SOCIETY DUES

(Chapter dues additional)  
 Student dues .....\$5  
 Regular .....\$10  
 Contributing .....\$20  
 Life .....\$200

### CHAPTER DUES

Columbia .....\$6  
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 Perennis .....\$5  
 St. Louis .....\$5  
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St. Louis, MO 63144-4353

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(Circle all above that apply)

\$\_\_\_\_\_ Contribution for student research award (Hudson Fund)

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