

Northwest beckons for June field trip

The Missouri Native Plant Society heads to the northwest corner of the state and Squaw Creek National Wildlife Refuge for its summer field trip June 20-22.

The itinerary:

Friday, June 20, 8 a.m. — Meet at the Mound City Super 8 parking lot for a field trip to visit various sites on Squaw Creek National Wildlife Refuge to add to the plant species list begun last year.

Friday, June 20, 7 p.m. — Meet at the Squaw Creek NWR Visitor Center. Dr. David Ashley of Missouri Western State University will give us a presentation on his work with the federally listed threatened plant, western prairie fringed orchid.

Saturday, June 21, 8 a.m. — Meet at the Mound City Super 8 parking lot for field trip to Star School Hill Prairie, about 14 miles north of Rock Port on Highway 275. We should see a good assortment of loess hill prairie species as well as recently discovered wolfberry plants (*Symphoricarpos occidentalis*). We will later visit Little Tarkio Prairie, about 5 miles northwest of Mound City, to see western prairie fringed orchids (hopefully, in flower) as well as other prairie species. Bring a picnic lunch, as we will stop for lunch around midday and may not have good options for restaurants nearby. Return to Mound City by 5 p.m.

Saturday, June 21, 7 p.m. — Meet at the Squaw Creek NWR visitor center for the MONPS Annual Meeting followed immediately by a board meeting.

Sunday, June 22, 8 a.m. — Meet at the Mound City Super 8 parking lot for a morning field trip. Location not yet determined but will be an area south or southeast of Mound City so as to be on the way home for most folks.

Lodging: The Super 8 Motel at 109 West 8th St. in Mound City quoted a price of \$65.96 for a room with two people and two beds. Call (660) 442-4000.

SQUAW CREEK NATIONAL WILDLIFE REFUGE: The 7,350-acre refuge in the Missouri River floodplain was established in 1935 as a resting, feeding, and breeding ground for migratory birds and other wildlife.

LITTLE TARKIO PRAIRIE: Little Tarkio Prairie Conservation Area is about 5 miles northwest of Mound City. The Missouri Department of Conservation purchased 129-acre area in 1999. The area contains 15 acres of high-quality prairie, one of the last

Holt County

Squaw Creek National Wildlife Refuge

- To Mound City: On Interstate 29, take Highway 118, Exit 84, and turn right. Highway 118 T-intersects with Highway 59 and the Super 8 is on 59.
- To Squaw Creek National Wildlife Refuge, take Interstate 29 to Exit 79, and drive 3 miles west on Highway 159.

The western prairie fringed orchid occurs in moist tallgrass prairies and sedge meadows.

remnants of this type of habitat in the glaciated plains of northwestern Missouri.

STAR SCHOOL PRAIRIE: Dry prairie on steep loess mounds that support many species that have reached their eastern geographical range limit. We should find blue grama, hairy grama, large beard-tongue and scarlet gaura.

THE FALL MONPS FIELD TRIP: It is scheduled for Sept. 12-14 at the LaBarque Creek Watershed This Missouri Department of Conservation conservation opportunity area is a unique moist sandstone canyon area offering opportunities to see ferns, bryophytes and state-listed club mosses. The LaBarque Creek Watershed is on the outskirts of St. Louis.

Calendar of Events

Hawthorn Chapter

Sunday, May 4: Trip to Whitmire Wildflower Garden at Shaw Nature Reserve (a division of Missouri Botanical Gardens) in Gray's Summit, Mo. Depart Columbia from the MDC parking lot on College Avenue at 8 a.m. We will eat lunch at a local restaurant after our walk. ****Note:** the location changed from what was reported in the March-April *Petal Pusher*.

Monday, May 12: Regular meeting at 7 p.m. at the Unitarian Church, 2615 Shepard Blvd. Becky Erickson will give a program about the role of fire in historical and present habitats.

Thursday, May 15: Lunch with Native Plant Enthusiasts! 11:30 a.m. at Felini's, 700 E. Broadway.

Saturday, May 17: Hike to Auxvasse Glade in Callaway County The access to this spectacular area is through private property. John George, MDC regional naturalist, will be our guide.

Saturday, May 24: Visit to Audubon's Wild Haven. Columbia Audubon has been working to restore and enhance their wild area for several years.

Saturday, June 7: Forum Trail Side Nature Expo. 9 a.m.-noon. At the Forum Nature Area (MKT Trail parking lot). Please help with our booth.

Thursday, June 19: Lunch with Native Plant Enthusiasts. 11:30 a.m. at Felini's, 700 E. Broadway.

Thursday, June 26: Quail and Native Plant Field Day — Bradford Farm. Please help with our booth.

For more information contact Paula at (573) 474-4225.

Kansas City Chapter

Saturday, May 10: Field trip to Nease prairie near Hamilton, Mo. Meet at: northwest corner of Wal-Mart parking lot, at junction of Highway 152 and Interstate 35 at 8:30 a.m. Sack lunch is suggested. Karen and Joe Nease are sponsors for this trip. Phone: (913) 422-7686.

Thursday, May 15: Chapter meeting at the Discovery Center, 4750 Troost, Kansas City, Mo.

Saturday, May 31: Southfork Prairie to search for state listed Mead's milkweed. Sack lunch. Meet at K-Mart at 9 a.m. at the

northeast corner of parking lot across from the old Bannister Mall. David and Kathy Winn are sponsors for this field trip

Saturday, June 14: Field trip to Paintbrush Prairie near Sedalia to view wildflowers in bloom. Meet at northwest corner of Wal-Mart parking lot at Highway 40 and Blue Ridge Boulevard at 9 a.m. Bring a sack lunch or plan to stop to eat in Sedalia.

Osage Plains Chapter

Field Trips (meet at the Clinton Library parking lot.):

Saturday, April 26: Field trip to Deepwater Wildlife Area.

Saturday, May 31: Field trip to 25-Mile Prairie.

Saturday, June 14: Field trip to Mohr property.

Meetings (at the Missouri Department of Conservation offices in Clinton):

Monday, April 21: Missouri Tree Identification with Jacob McMain, MDC assistant resource forester.

Monday, May 19: Greater Prairie Chickens in Missouri — translocation and recovery update with Brent Jamison, MDC grassland biologist.

Monday, June 16 :Topic to be announced.

Ozarks Chapter

Chapter meetings are scheduled at 6:30 p.m. at the MDC Ozark Regional Office, 551 Joe Jones Blvd., West Plains. For information, contact Susan Farrington at (417) 255-9561 x 307.

Sunday May 18: Afternoon field trip somewhere in Shannon or Oregon counties. For info, contact Susan Farrington.

Tuesday, May 20: Chapter meeting. Chris Williams (former chief naturalist, for Ohio State Parks) will present "In a Naturalist's Footsteps." Her program will compare and contrast the plant communities of Ohio (Appalachian), northern Minnesota (Canadian shield boreal fringe) and the Missouri Ozarks.

Tuesday, June 17: Chapter meeting. MDC Forester Bryan Gragg will present a program on tree identification.

Other Field Trips: Bill Summers and/or Susan Farrington will likely be leading a few serendipitous field trips. If you are interested, be sure secretary Betty Queen (ozarksnps@yahoo.com) has your e-mail

address, and we will keep you informed of our plans.

Perennis Chapter

Sunday, May 18 — Field trip to Morris State Park to see buckeyes in bloom, ferns and mosses.

June field trip (date TBA) to Sand Prairie Conservation Area and Baptist Camp sand prairie.

St. Louis Chapter

Wednesday, April 23 — Meeting. Program by Valerie Vartanian: "Choosing the Right Plant." 7:30 p.m. at the Powder Valley Nature Center, 11715 Cragwold Drive, Kirkwood, Mo. Valerie is the horticulture and landscape profession's liaison for the Nature Conservancy's Invasive Species Initiative. She will talk about her program to move the industry voluntarily to using less-aggressive garden plants.

Friday, Saturday, May 9-10 — Shaw Nature Reserve Spring Plant Sale. The chapter will staff a booth. Sale starts at 4 p.m. Friday and continues at 9 a.m. on Saturday.

Saturday, May 17 — Field Trip to Razor Hollow Natural Area in Daniel Boone Conservation Area, Warren County. Leader Nels Holmberg. Meet at 9:30 a.m. From I-70, take Exit 183 (Jonesburg), go south on Highway Y through downtown Jonesburg; then right on Tower Road (at Oak Grove Baptist Church), past the conservation area sign for about a half mile and park on the roadside.

Wednesday, May 28 — Program by Curator David Bogler: "Poisonous Plants of the Missouri Botanical Garden." 7:30 p.m. at the Powder Valley Nature Center, 11715 Cragwold Drive, Kirkwood, Mo

Friday, Saturday, May 30-31 — Forest Park Bioblitz. MONPS will participate.

Saturday, June 7 — Field trip to the Al Foster Trail to see prickly pear and other sand-loving species. Leader: Mary Smidt. Meet at 9 a.m. at the trailhead in Glencoe on the east side of Highway 109, just north of the Meramec River.

Wednesday, June 25 — Twilight Walk. Meet at 6 p.m. at Emmenegger Park, which is reached by driving to Powder Valley, continuing west on Cragwold Drive and turning left at the T-intersection to the parking area at the end of the road.

Hudson Fund recipient to study glade pollinators

A doctoral student's study of plant pollinator interactions in Ozark glades has earned her the 2008 grant from the Missouri Native Plant Society's Stanton Hudson Memorial Fund.

The grant recipient, Nicole Miller, attends Washington University, St. Louis.

Her proposal is titled "Plant-Pollinator Interactions and Endemism in a Glade System."

Miller was chosen from a field of six applications by students at three Missouri universities by award committee of George Yatskievych, Paul McKenzie and Jay Raveill.

"We thank all of the students who applied and wish Nicole great success with her studies," Yatskievych said. "Congratulations!"

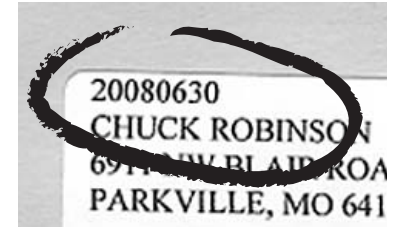
Miller's research work involves the examination of pollination and various physical features in three pairs of plants, one of which is a narrow glade endemic, or a plant found only in a certain area, and the other is a related but more widespread relative that also sometimes grows on glades. The genera included are

Scutellaria, Delphinium, and Echinacea.

One species in each pair is a glade endemic in the Ozarks and the other is a more widely distributed species in a wider range of habitats (including glades). Miller is interested in morphological and ecological specializations of the endemic species that might contribute to their restricted distributions. She is monitoring populations in the field, as well as captive populations in the greenhouse.

The Stanton Hudson Memorial Fund honors the late H. Stanton Hudson (1921-2002), a longtime member of the Missouri Native Plant Society whose passion for the flora of Missouri and its conservation inspired his friends and family to create a small grants program in his memory.

The fund provides a \$500 award each year to a student at a college or university conducting research that involves Missouri native plants in some way, but the study may have as its primary focus any pertinent subject area in plant biology, including conservation, ecology, physiology, systematics and evolution.



Dues are Due!

By Ann Earley
membership chair

Membership renewals for the July 2008-June 2009 year are now due. Please check the top line of your mailing label. If it shows the date 20080630, 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!

Car tags support conservation

Conservation Heritage license plates let you become a driving force for conservation in Missouri. You can pay for them wherever hunting and fishing permits are sold, such as Conservation Nature Centers and hunting and fishing equipment retailers.

For a \$25 annual donation to the Missouri Conservation Heritage Foundation, you will receive a Conservation Heritage License Plate Emblem Use Authorization Form that allows you to order the Conservation Heritage plate of your choice from the Missouri Department of Motor Vehicles. You may order Conservation Heritage plates any time, regardless of your current license plate expiration date.

The Missouri Conservation Heritage Foundation directs funds from license plate and other donations to conservation projects statewide, working with the Missouri Department of Conservation and conserva-

tion groups like Audubon.

The nonprofit MCHF was founded in 1997 to meet the increasing demand placed on Missouri's natural resources. The MCHF helps support Missouri's nature centers, outdoor classrooms and Stream Team, and helps acquire and protect biologically diverse lands

statewide.

In the past decade, it has raised and dispersed more than \$7 million for conservation work in Missouri.

In addition to displaying a Conservation License Plate on your vehicle, there are other ways you can contribute to MCHF.

Questions? Contact the Missouri Conservation Heritage Foundation at (800) 227-1488 or visit the Foundation's Web site at www.mochf.org.



Hawthorn Chapter

Submitted by Judy Turner, chapter representative

The Hawthorn Chapter held its annual propagation workshop at the end of January.

Becky Erickson conducted the workshop this year. It was attended by folks who came from Columbia, Booneville, Holt's Summit, Fulton, Ashland and Rocheport.

That was the last time members have been able to get together. We weren't able to do any hikes in February or March as the weather has not cooperated. There was hardly more than two days in a row when it wasn't raining, snowing or too cold to get out.

Meanwhile, things are moving along with our Stadium Boulevard project. Five hearty members spent an afternoon making wire cages for the 150 seedlings expected to be delivered from the State Forest Nursery in early April. Planting has been scheduled for the middle of April, weather permitting.

The program at our regular meeting in March was presented by Mrs. Dorie Draper, botanical drawer, from Hermann, Mo.

Mrs. Draper identifies herself as a "botanical drawer" because she believes this gives her more freedom to express "the soul of the plant" and that which makes the plant most unique. In her drawings she uses graphite and heavily waxed pencils. She works only from live plants, not photographs and spends approximately 20 hours on a drawing.

We were delighted by her samples, including her favorite wildflower, the dandelion.

Also, at the March meeting were initial discussions of possible chapter bylaw revisions. Our current bylaws were last revised in September 1999. There was much useful discussion. Suggested changes will be published in our next chapter newsletter.

Kansas City Chapter

Submitted by Daniel Rice, chapter representative

The Kansas City Chapter met March 20 for our second meeting of the year.

We started off with an excellent presentation by Richard Gentle, professor emeritus of geology at the University of Missouri-Kansas City. His presentation concerned the fossil flora of the Kansas City region. Quite interesting and eye-opening! We learned about the trees, seed ferns and other plants that existed 30 million years ago, some of the first native plants of the region.

After his presentation, we had a lively discussion about all the requests we have received to have display booths at various events in the Kansas City area.

We will be selling native plants at Lakeside Nature Center's Earthfest on April 19, having a display booth at the Sprint headquarters Earth Day celebration on April 18 and selling native plants and having a display table at the city of Independence's Waterfest in June. Definitely a busy spring!

At the end of the meeting, Ed O'Donnell gave away three birdhouses he had built from cedar scrap left over from a house project. All three were snapped up quickly!

Our next meeting is scheduled for May 15, starting at 7 p.m. at the Discovery Center. Before then, however, we have

two field trips.

The first is to Isley Park Woods on April 12 to see the great display of spring wildflowers there.

On May 10, we have a field trip to Hamilton, Mo., to visit the new 125-acre property of members Karen and Joe Nease. They are planning to restore most of the land to prairie, so we are going to help by identifying the natives that are still present there.

May 13 will find members at Southfork Prairie, helping Kathy and Dave Winn count the Mead's Milkweed found there.

MONPS members have taken part in this annual tally of Mead's at Southfork for seven consecutive years, and are responsible for the identification of many other native species growing there. Join us on this Saturday to take a count of Mead's stems, and to enjoy the multitude of blooming plants that will be peaking at this time. This is a great prairie/glade area with lots of great plants on it!

Then on June 14, members will venture to Paintbrush Prairie, about one hour east of Kansas City. Paintbrush Prairie is known for its high level of diversity in native species and of course, for the beautiful Indian paintbrush (*Castilleja coccinea*) that grows there.

Join us for this spring excursion to a truly unique and visually stunning Missouri prairie.

That's all for now from Kansas City!



Mead's milkweed

Osage Plains Chapter

Submitted by Marlene T. Miller, chapter representative

We had our first meeting of the year at the Conservation Department office in Clinton, Mo. There were nine members present. We spent a little time enjoying visiting and being together again. We got to see pictures of our President Emily's new baby boy.

Marlene Miller did a very informative presentation on the native plants of Hawaii along with their history and uses. Many of the pictures were from the Limahuli Garden and Preserve in Hanalei, Kaua'i, Hawai'i which is a National Tropical Botanical Garden. These were taken when she was there in October 2007. Much of the information she gave was from their research. About half way through we broke for refreshments and then continued.

After the presentation, we spent a short time in organizing for the upcoming year.

Before we left, Emily gave each of us a Key to Quail Habitat 2008 calendar.

While the plants are still waiting for warmer days, the Osage Plains chapter placed their eyes upward. Spring is a great time to do a little birding and watch a little courtship display.

At our March meeting on March 17, we learned about the mating behavior and display of the American woodcock. Why

does the male timberdoodle undertake such an elaborate sky dance? It is a sight to see and behold. And that is just what we did. After a brief description of the bird, it's mating behavior, as well as its habitat and sound-a-like — the nighthawk — we took to the field and watched the woodcock spiral up to the sky and plunge back to earth.

Our business meeting followed — not much news to report. We confirmed our field trip list for the spring, welcomed a few new visitors and discussed local flower vendors in the area.

We are all getting the planting bug and awaiting spring!

Ozarks Chapter

Submitted by Susan Farrington, chapter representative

Our March 18 chapter meeting was cancelled because of the major flooding that began that day. Chris Williams' program was re-scheduled for May 19.

At our late March field trip to Blue Hole Spring on Dry Creek, we observed toothwort (*Cardamine concatenata*), white trout lily (*Erythronium albidum*), spring beauty (*Claytonia virginica*), and spicebush (*Lindera benzoin*).

We also took a detour to see the hepatica blooming at Noblett Lake. The water level of so-called "Dry" Creek was still very impressive a week after the flooding.

It was also interesting to see how happy the bottom-land wildflowers looked with all the accumulated leaf litter cleared away by the flood waters. While flooding can be very destructive, particularly in a degraded eco-system, it can also be a great renewing process in a healthy system.



Toothwort (*Cardamine concatenata*)

Perennis Chapter

Submitted by Allison Vaughn, chapter representative

We finally elected officers:

- President Kent Fothergill (entomologist and author of the monthly cartoon);
- Vice President Andy West (Missouri Department of Conservation-Duck Creek Conservation Area);
- Secretary-Treasurer Jennifer Picker (one of Dr. Journet's students, who wrote her master's thesis on wet mesic flora of Big Oak Tree State Park);
- Board Member Allison Vaughn.

Newsletters have been published monthly, usually within the first two weeks. In it, we continue to highlight various plants, how to manage native plant beds and at least one terrestrial natural community in southeast Missouri. And, of course, a cartoon with the Splitter and the Lumper appears

every month.

We held a meeting March 28 at River Ridge Winery on Crowley's Ridge to discuss goals and field trips.

The April field trip to Big Oak Tree was cancelled due to flooding. This will be rescheduled in time to see *Clematis crispa* and *Senecio glabellus*.

The next field trip, May 18, is planned to be a trip to Morris State Park to see buckeyes in bloom, ferns and mosses. Nels Holmberg will be conducting a bryophyte study here this summer. The park was burned April 2007 and the fieldtrip will focus on the response to fire.

A June field trip is in the works to Sand Prairie Conservation Area and Baptist Camp sand prairie. The date and other information have yet to be worked out.

St. Louis Chapter

Submitted by Martha Hill, chapter representative

At our February meeting, held on Wednesday the 27th, Anna Strong gave an interesting talk about her work with "Star Cacti and the Animals That Love Them."

Anna is the Missouri Botanical Garden's conservation projects coordinator, but her interest in the elusive cactus from southern Texas and Mexico gave us a look at her passion for this endangered genus that few people know about, and even fewer would be able to spot it on the desert floor.

Her talk was inspiring and interesting and we enjoyed the slide show with pictures of this plant, shown from propagation to flowering.

The March meeting was a program given by Matthew Albrecht, conservation biologist and curator at the Missouri Botanical Garden, on Wednesday the 26th, on "The role of seedling recruitment in the distribution of medicinal woodland herbs along environmental gradients."

The title is a bit of a tease, making one wonder just what exactly was he going to talk about. No one was disappointed to learn that he had a great talk lined up, giving us the scoop on the propagation of plants such as ginseng and goldenseal, and whether they are more likely to multiply by seed, cloning, or stem fragmentation.

It was a very good talk and everyone enjoyed seeing his pictures and learning more about the plants that we don't normally get to find in the woods on our field trips. His photos were borrowed from Dan Tenaglia's files (with permission, of course).

On another note, our organization is only as good as its members, and everyone is important not only to the chapter they belong to, but also to the organization as a whole. It is with sadness that we note the passing of one of the St. Louis Chapter's members, Gene Clauson. He was a good friend to many of us, and we extend our sympathies to his wife, Jeanne.



Goldenseal

Quarterly Board Meeting

By Ann Schuette Secretary

The following notes were taken at the Dec. 1, 2007, board meeting of the Missouri Native Plant Society in Columbia, Mo.

President Rex Hill called the meeting to order at 9:04 am. Quorum was established. No additions were made to the agenda. Robin Kennedy volunteered to serve as assignment recorder until John Oliver arrived.

By consensus decision, the December 2008 board meeting will start at 10 a.m.

A motion to approve the minutes from the Sept. 15, 2007, quarterly meeting in Camdenton, Mo., was made by Tim Smith, seconded by Bob Siemer and passed.

Treasurer's Report — Bob Siemer reviewed the Treasurer's report for the year. He noted that we were in the black even though dues income was down. The expenses for the year were less due to the work Bill Knight has done with the Petal Pusher distribution.

PUBLICATIONS & MEDIA

Petal Pusher — Judy Turner asked about e-mailing the Petal Pusher to Columbia chapter members, but after some discussion Pat Harris recommended that Judy forward her e-mail copy to those who wanted it.

Jack Harris brought up that in a prior year the Society had voted that a membership list should be published every three years as well as the bylaws every five years. George Yatskievych motioned and Marlene Miller seconded that the policy be discontinued. The motion passed.

Publicity Chairman — Rex (filling in for Kevin) asked that everyone keep the Blazing Star requests coming.

MONPS Website — The website is now working fine. Dave Winn of the Kansas City chapter would like to donate his time as webmaster and perhaps make blogs and question/answer available. RK stated that she would be glad to help him. After discussion, it was decided to ask Dave for a budget for the additions to the website and then decide via an e-mail vote whether it will be pursued.

COMMITTEES & TASK FORCES

Membership — Ann Earley's report stated that there are currently 345 members

including 44 life members. Since the September meeting 11 new memberships have been received. Early said that a chapter roster had been sent to the reps noting those who had not renewed and would be deleted from the Petal Pusher list. The president asked the chapter reps to look at the list and encourage any who haven't yet to renew.

Archives — Jack Harris reported that one copy of each Petal Pusher, one copy of each set of board minutes, and one copy of each Missouriensis are on file. He is now working on the agendas and annual meeting minutes. After that is completed he will tackle the financial statements and miscellaneous matter. He requested that no additional material be sent to him. When he is ready he will contact the chapters about what to send. President Hill thanked Jack for a tedious task well done.

Awards Committee — President Hill requested a volunteer to relieve Jack Harris of his chairman's position. Jack will put together an article about what the committee does. There have not been many nominations received recently, and the president sent out guidelines to help alleviate that. Hill thanked Harris for his service.

Nominating Committee — Kathy Thiele is chairwoman of the committee. The terms of board members Robin Kennedy and James Traeger are up. George Yatskievych will talk with James to see if he would like to continue or be replaced.

CHAPTER REPORTS

The following presented reports which are on file with the Secretary.

Hawthorn — Judy Turner
Kansas City — Dan Rice
St Louis — Rex Hill for Martha Hill
Osage Plains — Marlene Miller
Ozark — Susan Farrington

Allison Vaughn is organizing a new chapter in southeast Missouri. Allison felt that at least eight individuals are interested. George Yatskievych made a motion, seconded by Bob Siemer, that we accept SEMO as a new chapter. It was confirmed that the new chapter may use the state bylaws.

President Hill told Allison that upon request \$50 is given to new chapters for start-up expenses.

SOCIETY BUSINESS

Possible 2009 meeting places discussed included southeast Missouri in the spring and southwest Missouri in the summer as a joint meeting with the Arkansas Native Plant Society.

30 Year Anniversary in 2009 — President Hill reminded the board that our 30th anniversary will be next year.

Jerry Brown's Proposal — The chapter had received a proposal from Jerry Brown concerning his land near Hawk Point, Mo. President Hill will contact Jerry and thank him for the offer, but decline it and offer suggestions as to other organizations that might be interested.

Missouri Wilderness Coalition — President Hill had not received anything, but had seen an article in the *Post Dispatch* Sunday paper. He sent a message to the board and to Paul Nelson. Paul's response was close to the majority view that it was fine in theory, but not in practice. It was decided to lay low for now, but keep an ear to the ground.

MISCELLANEOUS ANNOUNCEMENTS

Tim Smith had made a flier to make people aware of *Perideridia americana*.

Teaming with Wildlife — President Hill needed to check with the group about signing on with this political movement to support wildlife funding. A discussion was held. Hill will probably respond positively, but will do more research.

Wonders of Wildlife — Paul McKenzie noted that this will be held in Columbia in May. He will be doing a class in plant identification and would like someone to help.

Marlene Miller asked about the possibility of listing prime land for sale in the Petal Pusher. George Yatskievych said that it had been done before.

Paul McKenzie said that if anyone is interested in helping with Mead's Milkweed surveys May 19-June 6 should contact Emily Homer.

Emerald Ash Borer has been attacking ash trees in the east. President Hill may send out specs on collecting ash seeds in the coming year.

Native clematis bears name of Detroit leading light

By Chuck Robinson
Petal Pusher editor



Clematis pitcheri

Many a gardener is awestruck by the pictures of clematis that can be bought at nearly any garden center. With the amazing cultivars and retouched photos, a gardener perhaps may be forgiven for not realizing Missouri has a native clematis.

Clematis pitcheri is the most common clematis native to Missouri. It gets 10 feet tall, is partially woody and has drooping purplish-blue bell-shaped flowers that are small, maybe an inch long. The plant is called Pitcher's leather plant or leather flower for the leathery sepals (no petals) of the flowers. It blooms in midsummer and has entertaining seed head puffs in the fall.

It grows in Missouri, Nebraska, Iowa, southern Illinois, Oklahoma, Texas and Tennessee.

C. pitcheri memorializes a former leading light of Michigan, Dr. Zina Pitcher (1797-1872). His contributions to the University of Michigan also are memorialized by a street named for him in Detroit, the city where he once was mayor (1840-43), and at the University of Michigan Medical School, where a building is named in his honor.

Pitcher had a 15-year career with the Army, being appointed assistant surgeon by President Monroe, surgeon by President Jackson and becoming president of the Army Medical Board. He left the Army's service in 1835.

Like many early physicians, Dr. Pitcher was an accomplished botanist.

In Missouri, blue sage also goes by

Pitcher's sage to commemorate Dr. Pitcher. Its scientific name is *Salvia azurea* var. *grandiflora*, but a synonym is *S. pitcheri*.

Blue sage is a Missouri native perennial that occurs in dry soils on limestone glades, prairies and open ground. Its fuzzy stems grow 3 to 5 feet tall. It has two-lipped azure blue flowers that bloom summer to fall. The leaves are narrow, lance-shaped and gray-green.

Blue sage is in the mint family, Lamiaceae. It can be recognized as a mint relative by its opposite leaves, square stem in cross-section and two-lipped flowers.

Gardeners are glad to note that blue sage is easily grown in average, dry to medium-dry, well-drained soil in full sun. They will probably remember to pinch the plant back in June so it doesn't get floppy. It's nice that a native plant is getting some traction in garden center sales.

There is also a thistle that bears Pitcher's name (*Cirsium pitcheri*), but its range is limited to the sand dunes near the shore of lakes Michigan, Huron and Superior.

The year after his Army service ended, Dr. Pitcher was appointed a regent of the University of Michigan, where over 15 years he helped develop the school's medical school. He also was a director of Detroit Savings Fund Institute, which became Detroit Bank and Trust, and was a trustee of the Kalamazoo Asylum, later Kalamazoo State Hospital.



Salvia azurea var. *grandiflora*

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
Kansas City	.....\$5
Osage Plains	.....\$5
Ozarks Native Plant	.....\$5
Perennis	.....\$5
St. Louis	.....\$5

Make checks payable to Missouri Native Plant Society

Mail to: Missouri Native Plant Society

P.O. Box 20073

St. Louis, MO 63144-0073

Name: _____
 Street: _____
 City, state: _____
 9-digit ZIP: _____ Phone: _____
 E-mail: _____

(Circle all above that apply)

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

* All contributions are tax deductible *

Watch for this fall woodland oddity

By Eric Sundell
Arkansas Native Plant Society

One of the real eccentrics among flowering plants of the temperate zone is Indian pipe (*Monotropa uniflora*).

Indian pipes are ghostly plants with clusters of waxy white six inch stems, white flowers, and even white leaves. They emerge in the fall—when most plants are shutting down—from a knotty underground root ball.

They have no chlorophyll and make a living by parasitizing hardworking soil fungi, extracting their food and even their water and minerals from fungi captured and entangled in their roots. At least some of those fungi are involved with the roots of forest trees in another association—a mutualistic one—called a mycorrhiza (“fungus root”): the fungi supply the trees with minerals while the trees pass carbohydrates to the fungi.

Practitioners of the Indian pipe lifestyle are known to botanists as mycotrophs (“fungus feeders”). (No, you cannot qualify for mycotroph status by just eating a mushroom pizza.) In effect, Indian pipes make a living siphoning resources from surrounding trees through the filaments of the trees’ mycorrhizal fungi!

So, if they can find food underground,



why they cameo appearance into the light every fall? It’s that old black magic: the birds and the bees!

Indian pipes are true flowering plants (closely related to rhododendrons, in fact), and they reproduce by using insects as cross-pollinators. Bumblebees are attracted to the flowers; seeds are set and dispersed; necessity met, plants soon blacken and die back to the roots like the herbaceous perennials they are.

It is probably not our idea of an inspired life — 10 or 11 months in the dark every year! — but the bizarre adaptation apparently works just fine.

A second, less common species of *Monotropa*, pinesap (*M. hypopithys*), emerges a bit earlier with more of a coral

Monotropa uniflora is widely distributed in Arkansas and Missouri. Indian pipe has short, stubby roots that contain fungi, which extend like a web-through rotting leaves. The fungi provide the food to the Indian pipe, which has no chlorophyll and can’t make its own sustenance.

pink coloring to the stems and even the flowers. Both species occur in forests across North America and in the Old World as well.

The unrelated coral root orchids (*Corallorhiza*) are also devoid of chlorophyll and share the same mycotrophic nutrition as *Monotropa*.

Like flight — in bats and birds, for example — mycotrophy has evolved more than once.

Eric Sundell is a past president and former longtime membership chairman for the Arkansas Native Plant Society and professor emeritus at University of Arkansas-Monticello, where he taught botany and dendrology.

KCWildlands marshals volunteers for conservation

By Daniel Rice
Kansas City Chapter

KCWildlands has been active and growing this winter. The highlights:

■ An October workday requested by a local corporation. We had 250 volunteers help with trail development and erosion control at the Hidden Valley Natural Area.

■ Our seed collectors have been extremely active. They are a group of Master Naturalists that have taken it upon themselves to monitor and collect the seed of 70 species for re-distribution among the natural areas identified by KCWildlands. This year, the seed was separated from the chaff for the first time. Some of it was distributed to several volunteer greenhouses for growing out, and some of it has been sown

directly in the natural areas.

■ KCWildlands was the recipient of the Missouri Environmental Education Award for 2007. Quite an honor and a complete surprise!

■ A conservation opportunity area had been developed for the Blue River south of Brush Creek. This area includes Rocky Point Glade, Blue River Glade, Jerry Smith Park, and the Blue River Parkway, all areas where KCWildlands works.

■ A Wildlife Conservation Society/Doris Duke Foundation Grant was just received to hire a half-time person to help develop the master plan for the COA.

■ We received a large donation of work gloves that will be very much appreciated by our volunteers.

■ We have now officially destroyed 90

acres of honeysuckle in the Blue River Riparian Flyway/Parkway!

Upcoming events include:

■ Blue River Rescue on April 5. This is an annual event attracting hundreds of volunteers to help clean up the Blue River. The group also plans to plant 500 small trees in the Blue River Parkway at the same time.

■ Annual planting: We plan to have our annual seedling planting May 3. The group plans to plant 1,700 seedlings at Rocky Point Glade, with lesser amounts being planted at Jerry Smith Park in Missouri and Ernie Miller Park in Kansas.

These are the highlights from KCWildlands, an active and growing environmental coalition covering the Kansas City metro area. If you want more information about KCWildlands, please contact me.

Botanical Inquiry

By Retha Meier
St. Louis Chapter

Missouri bladderpod (*Physaria filiformis*) is the focus plant of this article. It is of interest because of its threatened status, restricted habitat, limited range, attractive appearance and unusual name. This article will address an overview of the plant's physical appearance, where and how it grows, as well as ecological concerns.

The common name, Missouri bladderpod, is a rather unattractive name for a real natural beauty. The name "bladder" originates from the appearance of the spherical fruit that looked like a bladder to someone important enough to name it.

Missouri bladderpod is an herbaceous, annual plant belonging to the mustard family. The mature plant reaches an average height between ten and twenty centimeters. Its silvery-gray appearance is due to its hirsuteness – fine hair-like structures covering the leaves and stems. Brilliant yellow flowers bearing four petals are produced during the months of April and May.

Small, green, spherical fruits form during May and June. As fruits mature, they turn brown. Each fruit contains four brown, flat seeds that drop to the ground during May and June. Seeds remain dormant until fall, at which time germination occurs and a small rosette forms. The plant survives the winter months in this stage. Stems and flowers emerge during the spring.

Missouri bladderpod grows in the Ozarks. It is only found in southwest Missouri and northern Arkansas. Populations have been documented in the Missouri counties of Dade, Greene,



Missouri bladderpod (*Physaria filiformis*)

Christian, and Lawrence and in Arkansas counties of Washington, Garland, and Hot Springs. The restricted habitat and limited range are probably linked to the plants favorite growing sites which include limestone glades in Missouri and Arkansas and a dolomite glade in Arkansas. Plants have also been observed growing along roadsides and rocky open areas in this region.

Threats include habitat loss, competition, and overgrazing. Residential development and highway construction impose real threats to this species. Competition from red cedar, fescue, and cheat grass poses a different kind of threat as glades are invaded and taken over. Livestock overgrazing can convert native grasslands into "cool season grasses" which threaten the survival of Missouri bladderpod populations.

Missouri bladderpod is listed as endangered by the state of Missouri and as threatened by federal authorities. The U.S.

Fish & Wildlife Services developed and implemented a recovery plan because the genus was listed in 1987 on the federal list of endangered and threatened plants.

The focus of this plan was to protect, monitor, survey, identify new populations, and provide education to the general public.

The plan worked. The success of this plan led to reclassification from the Federal status of endangered to a label of threatened in 2003.

The noteworthy increase in a small population of Missouri bladderpod clearly illustrates this extraordinary achievement. Between 2002 and 2006, a small population of Missouri bladderpod growing in a glade in Washington County, Arkansas, increased to a few hundred plants. Estimates of thousands of plants were made in 2007 in this restored glade. Glade management, which included cedar clearing, was a major factor of this success story.

Identification of new populations has brought encouragement to those concerned with the recovery of this species. For example, additional Missouri bladderpod populations have recently been located in the Ouachita Mountains in northern Arkansas. Continuing surveys, protection and management, as well as research will be beneficial.

Dr. Peter Bernhardt and Dr. Retha Meier of Saint Louis University are willing to conduct pollination ecology research on this plant pending permission from the Missouri Department of Conservation and acquisition of funding. We welcome suggestions for possible research funding sources at RMEIER3@GMAIL.COM.

Data collectors needed for Project Budburst

By Marlene Miller
Osage Plains Chapter

For those of you who are not familiar, there is a national project called Project Budburst.

Each state has a list of plants, trees, etc. that we are to watch for the first bud. You

are to identify one or two plants that you can watch each day and report the first inkling of a bud.

It is a little late for most of the species this year, but check the list. There is a list available on the website for each state and the availability of picture, phenological events to observe and a printable identifi-

cation guide.

These plants were chosen because they are easy to identify and widespread, spanning the continental United States. Take a look and familiarize yourself with the project at

www.windows.ucar.edu/citizen_science/budburst.

Great time in Arkansas!

Photos from the April 4-6 trek to north-central Arkansas on a field trip co-sponsored by the Missouri and Arkansas native plant societies.



Photo by Brian Chadwick

ABOVE: The yellow flowers of bellwort, *Uvularia grandiflora*, nod at Turkey Mountain Sunday morning. The flowers are 2 inches long. The leaves and the tepals of the flower are gently twisted.



LEFT: Nancy Morrison of MONPS ; Theo Witsell, botanist for the Arkansas Natural Heritage Commission; Larry Morrison of MONPS and Paul McKenzie of MONPS and the U.S. Fish and Wildlife Service gather steam to take on the hike at the Ozark Natural Science Center next to Bear Hollow Natural Area.

BELOW: Arkansas alum-root, *Heuchera villosa* var. *arkansana*, at Bear Hollow.

Photo by Brian Chadwick



Justin Thomas looks for the next photographic subject.

Photo by David Moore



Photo by Brian Chadwick

LEFT: Matthew Albrecht (left) and George Yatskiyevych photograph *Claytonia ozarkensis* during Friday's trip to Greer Ferry Dam.

BELOW: Fresh air is good for romance, according to Martha and Rex Hill.



Photo by David Moore

BELOW: Tim Smith takes in the view and notes his place in the world via GPS at Greer Ferry Dam.



Photo by Martha Hill



Photo by David Moore



Photo by Martha Hill

David Moore (left) and Nels Holmberg during Friday's trip to Greer Ferry Dam.

Petal Pusher welcomes articles

It is the members that make the Missouri Native Plant Society special. When we're on field trips, everyone is very willing to share their native plant knowledge. Many are willing to share it in print, too.

The Petal Pusher welcomes news of native plant or conservation-related events. It also offers the opportunity for essayists to elaborate on a genus, plant or habitat. It takes a little research as well as some inspiration, but you learn as you write and the rest learn from what you provide for the Petal Pusher

Contact the editor at chuckrkc@kc.rr.com.

New members

- Jeff Wright, Poplar Bluff, Mo.
- Billy Ginnings, Buffalo, Mo.
- Valerie Dalton, Ballwin, Mo.
- Chad Doolen, Cape Girardeau, Mo.
- Wanda and Rod Doolen, Patterson, Mo.

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- Botanical Inquiry: Missouri bladderpod

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