



September-October 2004

1979 - 2004 Happy 25th Anniversary

Vol. 19, No. 5

Missouri Native Plant Society

September

- 10-11** **Fri. to Sat.**
3:00^{PM}-3:00^{PM}
St. Louis **St. Louis BioBlitz.** Join us as we survey the biodiversity of Forest Park. MONPS has agreed to help lead the plant portion of this first annual event for the region. The Blitz will start at 3:00^{PM} on the Friday and end at 3:00^{PM} on the Saturday, with groups going out at regular intervals to different parts of the park both days.
- 11** **Sat., 9:00^{AM}**
Columbia **Hawthorn Chapter Joint Field Trip with Wild Ones to Praire Garden Trust** in Callaway County lead by Ann Wakeman. Depart from MDC. Contact Nadia Navarrete-Tindall, 573-289-2018, <navarrenten@misouri.edu> for details.
- 13** **Mon., 7:00^{PM}**
Columbia **Becky Erickson, coordinator of the Missouri Ecotype Progam, Presents a Program on the Recent Prairie Conference in Wisconsin** at the Hawthorn Chapter Meeting, Unitarian Church, 2615 Shepard Blvd. Contact Nadia Navarrete-Tindall.
- 16** **Thurs., 7:00^{PM}**
Kansas City **Kansas City Chapter Meeting**, Discovery Center. Program to be announced. Contact Sue Hollis, 816-561-9419, <ferngro@worldnet.att.net> for details.
- 17-19** **Fri. to Sun.**
St. Joseph Area **MONPS Member's Get-Together, Field Trips and Society Board Meeting.** See Page 2.
- 18-19** **Sat. & Sun.**
10:00^{AM}-5:00^{PM}
Columbia **Heritage Festival in Nifong Park.** Please plan to help with the booth. Contact Nadia Navarrete-Tindall.
- 20** **Mon., 5:00^{PM}**
Osage Plains **Special Meeting and Dinner at Carolyn and Bud Henzlik's Farm, Appleton City, MO.** 5:00^{PM} view gardens and plant material; 6:00^{PM} dinner. Please bring a covered dish of food to share in the meal. Table service and drink will be provided. From the caution light in Appleton City, take Route P south about 3 miles to the 20 mph curve, then proceed south on the gravel road to the first mailbox. Take a left turn across the cattle guard and go another 1/2 mile down their lane and across another cattle guard to their home.
- 22** **Wed., 7:30^{PM}**
St. Louis **Jane Walker Presents "Growing Native Plants from Seed."** Learn tips and techniques on growing selected species for your garden at the St. Louis Chapter Meeting. Meet at the Powder Valley Conservation Nature Center, 11715 Cragwold Road, Kirkwood (off Geyer Road, between Watson and Big Bend).
- 25** **Sat., 9:00^{AM}**
Kansas City **Kansas City Chapter Field Trip to Jerry Smith's Farm** to see fall prairie wildflowers, including downy gentian and the eared false foxglove. Contact Sue Hollis. Meet at the Bannister Wal-Mart on Hilcrest Road; we will be near the street in front of the southern end of the store.
- 26** **Sun., 11:30^{AM}**
Columbia **Hawthorn Chapter Brunch in Rocheport at Marg McDermott's.** Optional hike, weather permitting. Contact Nadia Navarrete-Tindall.
- 30** **Thurs., 11:30^{AM}**
Columbia **Hawthorn Chapter Board Meeting** at Uprise Bakery, 816 Broadway. All are invited. Contact Nadia Naverrete-Tindall.



SEE PAGE 3 FOR OCTOBER EVENTS

MONPS Members' September Field Trip Schedule

ALL MISSOURI NATIVE PLANT SOCIETY MEMBERS AND FRIENDS ARE INVITED to attend our last field trip of the season as we visit the western Missouri prairie region of rugged loess river and bluff hills.

STAR SCHOOL HILL PRAIRIE CONSERVATION AREA is dry prairie on steep loess mounds in the Western Section of the Glaciated Plains Natural Division. The mounds support many prairie plants that are rare in Missouri, but more common to the western Great Plains: yucca, downy painted cup, blazing star, skeleton plant, blue grama, hairy grama, large beard-tongue, and scarlet gaura. Part of the area is a Designated Natural Area, and we can climb to the hilltops for a scenic view of the Missouri River Valley below.

SQUAW CREEK NATIONAL WILDLIFE REFUGE lies in the Missouri River floodplain and is mostly gumbo soil overlaid with rich silt. The area was once a large marsh with meandering creeks that were straightened for agricultural drainage. Here we will find some of the last remnants of native floodplain prairie.

JAMERSON C. McCORMACK CONSERVATION AREA, located near the southern end of Squaw Creek National Wildlife Refuge, is both prairie and forest on rugged loess mounds of the Western Section of the Glaciated Plains Natural Division. The prairie is on deep Napier and Hamburg soils, harbors plants typical of the Great Plains, and is jointly owned by the Missouri Department of Conservation and The Nature Conservancy.

WE HOPE TO SEE YOU IN THE PRAIRIE THIS AUTUMN!

ITINERARY

FRIDAY, 17 SEPTEMBER 2004 **7:00 to 9:00 PM** – Evening get-together at MWSC at the Evan R. Agenste Science and Math Building. The room number will be posted at the entrance. Dr. John Rushin, Chair Department of Biology Missouri Western State College, is our speaker, and the Star School loess hill prairie is his topic.

DIRECTIONS TO MWSC: From I-29, exit at Fredrick Blvd. and turn left (west) onto Fredrick Blvd., take the first left after the interstate which is Woodbine, go south on Woodbine to the second major intersection which is Mitchell Ave. Turn left (east) on Mitchell Ave. The college is on the left just past the interstate. The campus is on a single circle drive and the Science building is on the far side of the circle from Mitchell Ave so it does not matter which of the three entrances from Mitchell Ave is taken or which way one goes around the circle. There is parking available across the street from the Science building in Parking Lot H. Download a campus map from the college website at: [www.mwsc.edu].

SATURDAY, 18 SEPTEMBER **8:00 AM** – Leave Mound City Super 8 parking lot after signing field trip waiver sheet. Drive northwest on I-29 for about 45 minutes to second Rockport exit (intersection of Hwy 136). Go east on Hwy 136 for about 1.75 mi to intersection with Hwy 275. Turn left onto Hwy 275 and go north for about 14 mi to second parking lot for Star School Hill Prairie Conservation Area on right side of Hwy.

9:15 to 11:00 AM – Field trip on Star School Hill Prairie CA led by Dr. John Rushin.

11:00 AM – Leave Star School Prairie, driving back south on Hwy 275 to Rockport, then south on I-29 to about 4.5 mi south of Mound City to intersection with Hwy 159. Go west on Hwy 159 for about 2.5 mi to entrance to Squaw Creek National Wildlife Refuge. Take drive to area headquarters.

12:15 to 1:15 PM – Eat picnic lunch (which you provide) at picnic area near the Refuge headquarters. If you wish, you may stop for lunch at Mound City.

1:30 to 4:30 PM – From Refuge picnic area near headquarters, Paul McKenzie leads us to several interesting areas on the Refuge.

6:00 PM – Quarterly Board Meeting at Squaw Creek National Wildlife Refuge auditorium. **All members are invited!**

SUNDAY, 19 SEPTEMBER **8:00 AM** – Those wishing to participate in a field trip to Jamerson C. McCormack Loess Mound Natural Area (off Hwy 159 near south end of Squaw Creek NWR) will leave Super 8 parking lot.

LODGING

MOUND CITY SUPER 8, 109 W. 8TH STREET, TELEPHONE 660-442-4000

\$55.77 PER SINGLE ROOM; \$57.92 PER DOUBLE ROOM

A 10% discount will apply if at least 10 rooms are reserved by calling the motel. A town festival is going on that weekend, and they do expect to fill. **Call soon!**

DIRECTIONS: From I-29 take the Hwy 118, Mound City Exit, turn right on Hwy 118, then take the first right onto Hwy 59, then take the first right onto 8th Street.



October

- 1** **Due date for material for November–December *Petal Pusher*.** Please send meeting, field trip information and articles (typed double-spaced), photographs and graphics to the editor by this date.
Send E-mail to: Betty Walters, MONPS Newsletter Editor, at <bettyluvsinsects@yahoo.com>.
- 9** **Sat., 9:00^{PM}** **Kansas City Chapter Field Trip to Maple Woods Environmental Area** to see fall leaf color, persimmons, fall orchids and Indian pipes. Take North Oak Trafficway north to 76th Street; go east on 76th Street about 1.25 miles. There is a parking lot on the south side of the street. Contact Sue Hollis.
- 17** **Sun.** **Hawthorn Chapter Field Trip to Painted Rock; Lunch at Westphalia.** Contact
Columbia Nadia Navarrete-Tindall.
- 27** **Wed., 7:30^{PM}** **St. Louis Chapter's Annual Members' Night.** Show off your slides or other photographs from trips taken during the year. Photos of mystery plants are also welcome. Enthusiastic photographers should try to limit themselves to their 20 best shots to give every one a chance to share their treasures. Meet at St. Louis the Powder Valley Conservation Nature Center, 11715 Cragwold Road, Kirkwood (off Geyer Road, between Watson and Big Bend).
St. Louis **Reminder:** The St. Louis Chapter does not schedule Chapter Meetings during November and December.

Welcome to New Members

We are happy to welcome these new and returning members to the Missouri Native Plant Society. We hope you will join us soon at some of our upcoming meetings and field botany trips.

Mary and Ken Schoenholz,
O'Fallon

Anita Joggerst, Kirkwood

Jerry Payne, Clinton

Jeanne Gegg, Washington

Don Garvin, Rocheport

Bridget Early, Columbia

Trevor Harris, Columbia

James Harlan, Clinton

Joe Leverich, St. Louis

Mary-Eileen Rufkahr, Bridgeton



Visit Our Websites

Robin Kennedy, University of Missouri Herbarium, Columbia, is our Society's webmaster and does an excellent job of maintaining our site on the world wide web:
[http://www.missouri.edu/~umo_herb/monps].

CHAPTERSITES

Kansas City
www.angelfire.com/mo2/kcmonps/
Columbia
www.digmo.com/npsboco

SITES FOR MISSOURI BOTANY

Flora of Missouri Project:
<http://ridgwaydb.mobot.org/mobot/missouri/>
Atlas of Missouri Vascular Plants:
http://biology.smsu.edu/herbarium/atlas/atlas_of_missouri_vascular_plant.htm

OUR READERS' SITES OF INTEREST

KCWildlands: www.kcwildlands.org
GrowNative!: www.grownative.org
National Plant Conservation Campaign:
www.cnps.org/NPCC
~NEW~ Dan Tenaglia's Award Winning Website: <http://www.missouriplants.com/>

Society Bestows Two John E. Wylie Service Awards;

By Jack H. Harris, Awards Committee Chair

One of the great joys and most interesting and educational parts of being a Society member are the field botany trips—especially those that take us to remote places and rare plant species that would otherwise remain unseen by curious and appreciative eyes.

If you have regularly attended the trips over the last 10 years, you have been to an uncountable variety of habitats, scattered across and around every region of the State. The Society has enjoyed field botany in stormy, sunny, rainy, hot, humid, windy, and beautiful weather and explored in mud, sinkholes, glades, forests, sand hills, fens, Ozark streams, river sloughs, steep rocky terrain, and park-like serenity. We have seen and examined, or at least been exposed to, a large proportion of the total possible species that exist in the state.

Just to jog the memory, how about a canoe trip to see *Aconitum uncinatum* (Southern monkshood) and *Lemna trisulca* (Star duckweed) where we found the former, but not the latter, or a visit to a pristine tall grass prairie (Meads' milkweed & western prairie fringed orchid) that included a slide illustrated lecture performed under the stars on a remote county gravel road.

It's not that Tim Smith does not receive immediate and ongoing rewarding feedback on each field trip, he does. For example, we participants repeatedly and incessantly ask Tim "What is the name of this plant; what is the name of that plant?" Then, also reliably, we note "That name wasn't on the area plant list you just gave us."



John E. Wylie Award of Service presented to Tim Smith (R) by Jack Harris in appreciation for sustained dedication—10 years plus—to the planning and leadership of high quality field botany trips for the Missouri Native Plant Society. **Photo By Pat Harris**

Even though Tim may not have had anything to do with compiling the list, we kindly don't let on that we know that!

It is these trips that generate local interest, help attract new members, and keep old members returning again and again to the quarterly meetings. Tim Smith devotes a tremendous amount of time and energy into planning, coordinating, and then leading these field trips.

The John E. Wylie Award of Service was presented to Tim Smith at the Society annual meeting in West Plains, MO on 12 June 2004.



John E. Wylie Award of Service presented to George Yatskievych (L) by Jack Harris in appreciation for sustained dedication—11 years, plus—as editor of *Missouriensis* and for performing manifold leadership roles in the Missouri Native Plant Society. **Photo By Pat Harris**

George Yatskievych came to Missouri nearly 20 years ago. Shortly after arrival he joined the Missouri Native Plant Society and soon began an active and continuous participation in Society activities. Among his early official duties he served as a member of the Editorial Committee, *Missouriensis*—the scientific/technical journal of the Society—from 1987 to 1992. During this period he was the author or co-author of nine journal articles. Upon the retirement of the veteran Paul Redfearn in 1992, George assumed the position of Co-editor, *Missouriensis*. He has served in that role from 1993 to the present.

How can we measure the value of 11 years of production of the *Missouriensis*? One way is manifest in 13 separate issues of the journal containing about 83 articles, and for 13 of those, the editor was the author or co-author. This physical output occurs periodically with longer intervals of seemingly peace and quiet. But for the editor with the actual printing and distribution of the product comes a welcome sigh of relief. It is the final step of a cycle. A cycle that includes a long, frequently frustrating, struggle to solicit, nominate, coax, and extract articles from a well meaning, but otherwise busy field of mostly scientific writers, each with their own set of priorities with which to deal. In the end there is rarely any rest and tranquility for the editor.

Notwithstanding the foregoing and concurrent with persevering under the ambiance of being the editor, George has served the Society in a variety of other roles: member of the Society Board of Directors, 1989 - present; the Awards Committee; the Stan Hudson Committee creating the education grants program. He is the current President of the St. Louis Chapter, a field botany trip leader, the Scientific/Technical representative for the Society, lead coordinator for the joint meeting with the Illinois Native Plant Society, and has presented botany programs to other groups on behalf of the Society.

The John E. Wylie Award Of Service was presented to George Yatskievych at the Society annual meeting in West Plains, MO on 12 June 2004.

One Erna R. Eisendrath Memorial Education Award;



Erna R. Eisendrath Memorial Education Award presented to Dan Tenaglia for creative ability and resourcefulness in raising awareness of the flora of Missouri via the public media. **Photo from Dan's Webpage**

Dan Tenaglia began early with a Bachelor of Science in Biology from University of South Florida. He developed his public communication skills while he worked as an educator and animal keeper in zoological parks and guided botanical boat tours. While in Missouri he has worked as a field botanist for the Missouri Department of Conservation and the Ozark National Scenic Riverways.

Dan has discovered at least one plant new to the State: *Thlaspi alliaceum* (Garlic pennycress). He co-authored the report describing this in the 2002 issue of *Missouriensis*.

Until 2003, he worked at the Haw River Program, in Brown Summit, North Carolina. He apparently does not hesitate to take on lofty goals that might give pause to the more reticent. Such as: to provide an environmental education program committed to immersing students in an engaging, informative, entertaining, and inspiring curriculum that nurtures a lifelong respect for the relationships within our natural environment.

For Dan, the job of educating the public is never done. He has also been working on a photographic atlas of the plants of North Carolina. However, his true love is for the flora of Missouri. Dan's Missouri flora web site [www.missouriplants.com] is illustrative, graphically and literally, of an exemplary dedication to the belief that everyone should have the opportunity to learn and enjoy the wonders of our native flora.

This web page contains a very large number of unusual photos of plants of Missouri. They feature various physical characters from various perspectives, all of which will enhance the ability of the viewer to correctly identify the plant.

The Erna R. Eisendrath Memorial Education Award to Dan Tenaglia was announced at the Society annual meeting in West Plains, MO on 12 June 2004.

One Plant Stewardship Award!

Plant Stewardship Award presented to Larry Rizzo for initiative and community leadership in developing Kansas City WildLands, the Bioblitz and dedication to the restoration of area natural communities.

As a regional biologist employed by the Missouri Department of Conservation in the Kansas City region, Larry Rizzo soon recognized the need for some form of comprehensive community approach for the preservation and management of open lands in the area.

He initiated a partnership with the Nature Conservancy that grew into the highly successful Kansas City WildLands program which now has 30 WildLands partner organizations representing a wide cross-section of the community. He helped the growing number of program partners organize funding and subsequently hire staff.

Larry is the lead author of the highly attractive book **Kansas City Wildlands**. This colorful document has directed the attention of many visitors and residents to the inspiring complexity and beauty of the various landscape communities in the Kansas City region. It is one more example of how his leadership efforts have attracted wide public support.

Also, Larry suggested the Bioblitz as an activity that would involve citizens in a way that would help them develop a feeling of "stake holder" in the biological health of the few remaining open spaces.

And last, but not least, he made a Friday evening presentation and led a Saturday field trip to selected examples of the "WildLands" for a quarterly Society meeting and otherwise has frequent interactions with the Kansas City Chapter.

In these ways, among many others, Larry Rizzo has distinguished himself and reflects great credit on MDC, Missouri, and the community at large that values and cherishes our natural heritage.

The Plant Stewardship Award to Larry Rizzo was announced at the Society annual meeting in West Plains, MO on 12 June, 2004.



Congratulations to all of our winners this year!

Gardening With The Natives

By gardeners possessing a passion for Missouri's diverse indigenous flora



“You can plant in the fall?”

By Dan Drees, Owner of Blooming Paradise Nursery

I was shocked by how often I heard that question the first time I sold native plants at the Prairie Day Event at Shaw Nature Reserve. Stores everywhere were selling mums and tulips, so why was the concept of planting native perennials in the fall surprising?

Actually, most of the people understood that fall was a good time to plant native perennials, but a significant number of people did not. Granted, during the first two to three weeks of September temperatures can be high and soil moisture is often minimal; however, with a hose and a sprinkler, the possibilities are enormous.

If fall rains have not softened the ground for planting, use the sprinkler a day or two in advance and digging is a cinch. Besides, it is much easier to add water for fall planting than to get rid of it during a wet spring.

Most native plants do extremely well when planted in the fall. Indeed, fall is typically a better time to plant many drought sensitive species than late spring. Since the soil is moist—perhaps, with your help—and warm, conditions for root growth are often favorable.

Also, in many species, the top of the plant is starting to relocate energy reserves to the roots. This is especially true for many native trees, shrubs, and wetland forbs. Personally, I prefer to do my fall planting between September 9 and October 10. This provides ample time for most species to get their roots down below the frost line before winter.

Very few plants used in the Missouri native plant trade are vulnerable to winterkill. In fact, many that only grow naturally in southeast Missouri (where winter is mildest) are hardy much farther north. For instance, Bald cypress is hardy in northern Minnesota.

Many of the plants that are now native to Missouri faced much colder and longer winters just a few thousand years ago during the end of the Wisconsin glaciation. If you visit a native plant nursery in late March, you will

find an amazing variety of plants that are sending up new shoots—despite the fact they spent the entire winter unprotected in small plastic pots and their soil was frozen solid.

Those that are cold sensitive, like Passionflower vine, benefit greatly from just an inch of finely shredded bark mulch. Be cautious not to over mulch. A little mulch does a lot of good, but a lot of mulch can cause serious problems for some plants.

I believe the biggest obstacle to overcome in fall planting is winter root rot. Many of our showiest and most popular native wildflowers are adapted to sunny places where they have evolved against drought. Typically, they thrive in poor, rocky, well-drained soil too.

Missouri evening primrose, Missouri black-eyed Susan, Aromatic aster and Butterfly milkweed are a few examples of our drought hardy beauties. All of these are considered “clay busters” because of the ability of their roots to penetrate the moist clay that typically underlies the porous soil on top. Indeed, one reason many glade plants thrive is because of their ability to tap the moisture holding deep clay.

If “glade plants” are planted in the fall, a few simple steps greatly increase their success. First, be sure to provide a sunny location with good drainage. Yes, you can plant them in soil with considerable clay, but not in a solid clay bowl that holds water through the winter.



When planting glade plants in clay soil, it is important to dig a deep hole, especially when planting on level ground. If water is going to puddle in the bottom of the hole, it needs to be well below the main root mass. Use the trowel to cut slits in the sides of the hole so the roots have a crack to grow into.

In heavy clay soil, replace about 20 per cent of the soil from the hole with cactus mix or pea gravel to improve drainage. Maintain most of the continuity of the original soil, do not discard all of the “junk soil” or several problems can occur. Besides, glade plants typically do well in “junk soil.”

Plant glade plants high, and wetland plants low. Glade plants will do best if the top of the roots are on a shallow mound where winter moisture can drain away in all directions. Remember, fresh dug soil will settle after a few hard rains.

Butterfly milkweed sometimes suffers from root crown rot in winter. Topping its shallow mound with cactus mix or pea gravel is preferable to shredded bark mulch. I have seen fall planted Butterfly milkweed break dormancy from early April until late May. Tag it and be patient—it's worth the wait.

Although precautions to prevent winter root rot are advised for fall planting glade wildflowers, do not be reluctant to water them. To maximize their fall root growth, they may need occasional watering depending on the weather.

You may not see much top growth on plants installed in the fall, but those wonderful roots are doing their magic. A quart-sized plant will typically have a gallon-sized root system by late March. They'll have roots you could visit in China by the time you say, “Adios!” to your plants for a well-earned summer vacation. Okay, I exaggerated. Make that Arkansas.



Priest's Love of Nature Knows No Boundaries

By Joseph Kenny, Review Staff Writer

EDITOR'S NOTE: First published in the on-line *St. Louis Review* 16 July 2004, and republished here, in part, with permission thereof. [<http://www.stlouisreview.com/article.php?id=6642>]



ABOUNDANT BOTANIST

Father Sullivan checks out some of the foliage on the parish grounds. Father Sullivan is an accomplished amateur botanist who has been quoted in material published by the Missouri Department of Natural Resources. **Photo By Marian Brickner**

Some people assume priests want to go to Rome or the Holy Land on their vacation. "I'd rather go to the rain forest," said Father James M. Sullivan, pastor of Our Lady of Mercy Parish in Hazelwood. The cathedrals and ancient sites can be impressive, he agreed, but so too is God's work of nature.

Father Sullivan has an interest in botany that he has kept up since he was a child, and he has since added an interest in entomology. That combination has made him a source for other scientists. He has been quoted in material from the Missouri Department of Natural Resources, which called him "a serious amateur naturalist." Another group calls him "an outstanding naturalist."

His interest in botany goes way back, Father Sullivan, 63, explained. Until he was about 10 years old he didn't pay much attention to nature, he said. "Our folks were living on Henrietta in St. Louis city, and the three boys, who were the oldest in the family, had the whole back yard trampled down to nothingness. "If you saw a green blade of grass you got real excited — 'Wow, there's a green plant, step on it quick!'" he recalled with some exaggeration and laughter. His family moved to a home in Richmond Heights with a deep back yard, with trees, bushes, vines and other green plants. "I decided to learn about them. It was a short walk to the public library where they had the Steyermark guide to spring flora of Missouri. My name was on that (library) card over and over because I kept renewing it, using it to identify all the plants in my back yard."

In high school he was a day student at St. Louis Preparatory Seminary South, and he continued his interest in plants. Later as a seminarian, he and some classmates occasionally would venture into the woods to identify plants. As he neared ordination, which took place in 1966, he was told it was best to find an activity for his day off. "I tell people that since I was going to be a priest I'd better learn to golf — that's what priests do. But when I hit the ball into the rough and went into the woods, I thought that was more interesting than the fairway."

His day off each week soon turned into an occasion for "a trip to the country," often to nature sites near St. Louis such as Busch Wildlife Area and Rockwoods Reservation.

"I would take notes on the different plants as I tried to figure out what they were," Father Sullivan said. "I developed a small number of books I was using to identify plants." Also, he learned about organizations interested in the topic, and he found the Webster Groves Nature Study Society. He and another naturalist, the late Art Christ, a science teacher, would lead a group looking for wildflowers. The group continues to go out once a week on Father Sullivan's day off. If the weather is good and the site is close by, a large group will turn out, Father Sullivan said. "All of a sudden it looks like a funeral procession" due to the number of cars, Father Sullivan said jokingly.

His favorite spots include Shaw Nature Reserve in Gray Summit. He enjoys going to St. Louis County and St. Charles parks, nearby state parks such as Castlewood and the Katy Trail, which follows the edge of wetlands. He noted that at Mastodon State Park near Kimmswick, a little-known theory is that trees there, called the Osage orange, produce a big green fruit called the hedge apple which is believed to be what attracted the mastodons and other large mammals to the site centuries ago.

Some people would be bored silly looking at tiny plants with microscopic flowers, he said. "We get all excited and talk about the plants" using scientific language. Recently, he said, he stood back and observed the people in his nature group. "I used to give them advice. Now, these people are botanists. They notice these things on their own. It's remarkable how much they've learned."

His hobby works out perfect for him as a priest, he said. "It's an interesting way for me to spend my day off because I do get exercise going out and walking places. It also expands my knowledge." He has a room in the rectory with books and notes on plants on the one side and on insects on the other. The data he compiled has been of interest to scientists, and some of it has been published. Once when he and his naturalist friend Christ were exploring the wilds of Ste. Genevieve County they came upon a species of club moss unknown to them. In checking on it, they found that it had been reported in only one spot in the state — the same place they had rediscovered it. It is an example of a plant that came to the state because of glaciers, he said. A number of plant species are being lost in the state, he said, because of warm weather.

He praises the establishment of the Meramec Greenway, which has set aside land for preservation. He worries, however, about development that has been allowed in other floodplain land. On his vacations, Father Sullivan has mostly visited places in Missouri, Arkansas or adjoining states, but he did accompany a friend and his wife to Ecuador four times. He and his friend would tour the jungle while his friend's wife visited her relatives there. "The richness of species there is unbelievable," he said.

So, is Father Sullivan's yard and rectory full of plants? "I have a brown thumb," he said with a smile. "There's an artificial plant in my house." He said he forgets to water real plants. "I don't care well for plants that depend on me. I like to find the ones that are depending on God."



Janice Maloney (third from left, front) of George O. White State Forest Nursery, near Licking, MO, shows MONPS June Field Trip participants the native perennials planted at the nursery during a guided tour of the site. Members were delighted by blooming yellow and pink coneflowers, orange butterfly weed, swallowtail and sulphur butterflies, and a male ruby-throated hummingbird. Photo By Pat Harris

BioBlitz

September 10 & 11, 2004

The first **ST. LOUIS BIOBLITZ** will take place from 3:00^{PM} on September 10th until 3:00^{PM} September 11th in Forest Park. A welcome tent will be set up by the newly renovated Visitor Center, and there is no charge for participation.

For more information visit [www.STLBioBlitz.com].



PRAIRIE DAY AT SHAW NATURE RESERVE will be held 11 September, 10:00^{AM} to 4:00^{PM}. Activities and demonstrations include portraying prairie heritage, guided hikes, entertainment, buffalo burgers and more.

Activities are included with regular Shaw Nature Reserve admission (\$3 adults, \$2 seniors) and are free for Garden members, Nature Reserve passholders and children age 12 and under.

THIRD ANNUAL HARVEST FESTIVAL will be held 10 October, 11:00^{AM} to 5:00^{PM}. Activities include Bluegrass and folk music, food by top local restaurants, local brew and Missouri wine, farmers' market, family games, hayride, petting zoo and self-guided Nature Reserve tours.

Shaw Nature Reserve of the Missouri Botanical Garden, Gray Summit, MO, 25 miles west of St. Louis on I-44, exit #253, 11:00^{AM} to 5:00^{PM}, \$5 adult, \$4 seniors, \$3 Garden members, free for children 12 and under. Additional charge for food and beverages. No pets, please.

Presented by **Sauce Magazine**, Schlafly Beer and Shaw Nature Reserve of the Missouri Botanical Garden. Family activities area sponsored by the Bank of Washington. Sponsored by the Washington Missourian and Mount Pleasant Winery.

HAVE YOU EXPIRED?

By Ann Earley, Membership Chair

We certainly hope you have not expired! Please check the top line of your mailing label. If it shows the date 20040630, we have not received your dues for our new membership year, which begins in July and ends in June. Unless we receive your dues renewal very soon, this issue of the *Petal Pusher* may be your last.

To renew, please use the form on the inside back page of this newsletter. If you have questions about your membership status, please contact Ann Earley (see back page for contact information).

We value our members and urge you to renew today. Please don't expire!

MONPS SALUTES OUR SOCIETY PRESIDENTS

By Ann Earley, Membership Chair

In appreciation for their dedication and service to the Society, the Board of Directors at their December 6, 2003 meeting voted to offer a life membership to all who serve, or have served as President of the Missouri Native Plant Society.

To date, the following individuals have accepted the offer of a complementary life membership: Paul Redfearn; David Castaner; Bill Summers; Karen Haller; and Jack Harris. Past presidents, who were already life members of the Society, include Stephen Timme and Larry Morrison, as well as current Society President Kathy Thiele.

Other individuals who have served as Society President are Jon Hawker, Melvin Conrad, and Doug Ladd.

MONPS members salute all of our Society Presidents, who have so generously given their gifts of time, talents, and money in service to the Society. Thank you!

Kansas Area Wildflower & Native Plant Events

FLORA KANSAS GREAT PLAINS PLANT BAZAAR, 9-12 September—annually the 2nd weekend in September. This is the largest native plant sale in Kansas featuring hard-to-find native perennials, shrubs and trees, plus fun 'gardenabilia.'

Saturday offerings: classes, demonstrations, and tours from professionals. Hours: Saturday 8:00^{AM}-4:00^{PM}, Sunday noon-4:00^{PM}, and Monday 8:00^{AM}-8:00^{PM}. Admission charge is by donation.

Location: Dyck Arboretum of the Plains, 177 West Hickory Street, Hesston, KS. Hesston is 30 miles N of Wichita. [<http://www.dyckarboretum.org/>] <arboretum@Hesston.edu> (620) 327-8127.

Information provided by Kansas Wildflower Society, R.L.McGregor Herbarium, 2045 Constant Ave., Lawrence, KS 66047-3729. Online: [www.cs.Hesston.edu/kws] Email: <ccfree@ku.edu> Phone: (785) 864-3453.



Osage Plains Chapter Members Study Native Plants

Submitted by David Lindell, Osage Plains Chapter

Native plants were observed recently at several public prairies and at the Dale Jennings property near Coal by those attending the Osage Plains Chapter of the Missouri Native Plant Society. Native plant development is quite variable related to the location, soil and rainfall; however, there were a lot of plants for study.

These educational tours to observe native plants are open to all interested people, in addition to Chapter members. Those who appreciate native plants have an excellent opportunity to enjoy an outdoor environment.

Lichen Glade, five or six miles northwest of Osceola, was toured earlier this summer where the plant population is much different than a prairie sites. A glade is a natural area, with a rock layer, and has a distinctly different plant community as a result of the geologic formation.

Rock Hill, 6 miles north of Warsaw, provided an abundance of native plants. Within a radius of 10 feet, Carol Eaglesfield, identified the following plants: New Jersey Tea, Compass plant, Wild Petunia, Milk Wort, Prairie Coreopsis, Spiderwort, Scaly Blazing Star, Purple Prairie Clover, Early Goldenrod, Pale Purple Coneflower, and Wild Quinine (fever-few). Other species identified were Lead Plant, Rattlesnake Master, Canada Wildrye, Prairie Dock, Bee Balm, Slender Mountain Mint, Thread Leaf Sundrop, Butterfly Weed, and Wild Strawberry.

On the Dale Jennings farm, Carrol Eaglesfield identified Scaly Liatris and Hooked Crowfoot. Other native plants included: Yellow and Purple Coneflower, Brown and Blackeyed Susan, Rattlesnake Master, Prairie Clover, Mexican Hat, Upright Milkweed, Sunflower, Oxeye Daisy, Daisy Fleabane, QueenAnnes Lace, Mullen, Yarrow, Butterfly Bush, Slender leaf mountain mint, TickSeed Clover and native grasses—Big and Little Bluestem, Sideoats Grama, and Eastern Gamagrass. Scientific names have not been provided.

Osage Plains Chapter Announces Officers for 2004-2005

President - David Lindell

Vice-President - Jerry Payne

Sec-Treasurer - Lawrence Lewis

E-mail distribution - Willa Maynhart and Lawrence Lewis

"There was a time when meadow,
grove, and stream,
The earth, and every common sight
To me did seem
Apparelled in celestial light,
The glory and the freshness of a dream.
It is not now as it hath been of yore;—
Turn wheresoe'er I may,
By night or day,
The things which I have seen I now can
see no more."

~ William Wordsworth, *Ode on Intimations of Immortality from Recollections of Early Childhood*

Wildlife Public Use Areas Toured By Osage Plains Chapter Members

Submitted by David Lindell, Osage Plains Chapter

Native plant development is controlled by rainfall, temperature and soil properties that promote plant development; however, there were a lot of plants for study at each of the Areas managed by the Department of Conservation. Carrol Eaglesfield, Jim and Dorothy Harlan, Dale Jennings, and David Lindell attended the tours.

Broadleaf plants observed at the Deepwater Wildlife Area (4-24-04) included: Spring Beauty, Chickweed, Dead Nettle, Henbit, Trillium, Johnnie-Jump-Up, Golden Selenium, Saxifraga texana, Whitlow Grass, False Garlic, Sorrel, Corn Salad, Cream Indigo, Star Grass, Yarrow, Hop Clover, Dwarf Dandelion, Prairie Hyacinth, Sundrops, and Sandwort.

Some of the broadleaf plants observed at Chapel View Prairie public use area (5-8-04) were: Beard Tongue, Cinquefoil, Yellow Star Grass, Pussy Toes, Yellow Oxalis, False Penny Royal, Woods Lavender Sorrel, Rosinweed, Yellow Indian Paint Brush, Wood Betony, Lobelia specota, Shooting Star, Birdsfoot Violet, Cammasia scillodies (Wild hyacinth), Prairie Ragwort, Sqaw Weed, and Compass Plant. Sassafras and Sumac were observed.

On the field tour at Lichen Glade (5-22-04) the following were present: Deptford Pink, Coreopsis, Spider Wort, Yarrow, Venus Looking Glass, False Dandelion, Wood Sorrel, Simpson Snakeroot, Wild Onion, Fame Flower, Lance Leaf Sundrop, Fern, Lobelia, Prickly Pear Cacti, Lead Plant, Pussey Toes, Daisy Fleabane, Pencil Flower, Missouri Coneflower, Pine Weed, May Apple, and Yellow Corydalis. At the intersection of Hwy 13 and Rt B there were many Coreopsis and Missouri Primrose in bloom.



Thank you, Members, for paying your Society & Chapter dues for 2004-2005.

Species of Concern

MDC Expands Assessment to Include Terrestrial Natural Communities

By Jack H. Harris

The table (below) presents a numerical summary of the State's population status of lichens, liverworts, mosses, ferns, and native flowering plants as is presently known.

The Missouri Department of Conservation has recently expanded this assessment process to include Terrestrial Natural Communities by major community types. The table summarizes the status of that effort to date.

PLANTTYPE	RANK ⁽⁴⁾						TOTAL	TOTALMOTAXA-Est
	S1	S2	S3	SH	SX	OTHER		
Lichens	12	2		1		9	24	=436 ⁽¹⁾
Liverworts & Hornworts	10					11	21	
Mosses	49				1	33	83	=400 ⁽²⁾
Ferns & Allies	11	7		1	1	3	23	
Flowering Plant	191	100	18	87	4	58	458	=232 ⁽³⁾

NATURAL COMMUNITYTYPE	RANK							TOTAL
	S1	S2	S3	S4	S5	SH		
Forest	2	3	7	3			15	
Woodland	3	4	6	4	1		18	
Savanna	2					4	6	
Prairie	5	5	2				12	
Glade		3	2				5	
Cliff/Taulus		1	4	5	1		11	
Wetlands	5	7	1				13	
Stream Edge		1	2				3	
Cave				3			3	

Definitions of codes in the table: **S1**=Critically imperiled, highly vulnerable to extirpation, (typically fewer than 5 populations); **S2**=Imperiled due to rarity, vulnerable to extirpation, (6-20 occurrences or few individuals); **S3**=Rare and uncommon (21-100 occurrences); **S4**=widespread, of strategic concern; **S5**=widespread & abundant in MO; **SH**=Historically reported, subject to rediscovery; **SX**=Extirpated from the State; **Other**=aggregate of various other ranks & qualifiers.

(1) The total number of Lichens (taxa) in Missouri as reported in "Checklist and Bibliography of Missouri Lichens" by Douglas Ladd, 1996; Conservation Commission of the State of Missouri.

(2) The total number of Bryophytes (Liverworts and Mosses) in Missouri as estimated in "The Biodiversity of Missouri: Definition, Status, and Recommendations for its Conservation," 1992. Missouri Department of Conservation & the Mark Twain National Forest, USFS.

(3) The total number of taxa (ferns & flowering plants) estimated at the end of 1997. See Table 7, page 83 in *Steyermark's Flora of Missouri*, Revised Edition 1999, by George Yatskievych, Missouri Department of Conservation and the Missouri Botanical Garden.

(4) The S1 ... S4, etc., ranking system was developed by The Nature Conservancy, Conservation Science Division and adapted for use by MDC.

The table (above) is derived from The Missouri Department of Conservation Report *Missouri Species and Communities of Conservation Concern Checklist - January 2004*. Note that the **TOTAL MO TAXA-Est** totals are from other sources.

The source document contains complete species listings, state rankings (eclectic sampling presented above) and global rankings. Many listed plants with a high State ranking (S1/S2...) may be widespread/abundant (S5) when considered on a regional/continental basis.

Included in the table entries are (10) Missouri species that are federally listed under the Endangered Species Act (ESA): *Asclepias meadii* (Mead's milkweed); *Boltonia decurrens* (decurent false aster); *Geocarpon minimum* (geocarpon); *Helenium virginicum* (Virginia sneezeweed); *Isotria medeoloides* (small whorled pogonia); *Lesquerella filiformis* (Missouri bladderpod); *Lindera melissifolium*; *Platanthera leucophaea* (eastern prairie fringed orchid); *Platanthera praeclara* (western prairie fringed orchid); and *Trifolium stoloniferum* (running buffalo clover).

A companion publication that contains descriptions and color illustrations of 37 of the listed plants which are at greatest risk is *Missouri Plants of Conservation Concern*, by Tim Smith, 2000, MDC. This document may also be downloaded for viewing from: [<http://www.conservation.state.mo.us/nathis/endangered/>].

MDC publications are available upon request to Missouri Department of Conservation, PO Box 180, Jefferson City, MO, 65102-0180; 573-751-4115. (I recommend that all interested parties obtain a copy of the referenced document for ready reference and an enhanced appreciation of their field observations of our natural heritage.)



The Missouri Native Plant Society Celebrates 25 Memorable Years

Editor's Note: Five years ago, Larry R. Morrison, with forethought and determination, wrote a history of our Society. Now our readers will have the opportunity to witness how an idea becomes reality. It is with great pleasure we pay homage to our past by bringing you **PART (3)** of our story.

FROM GERMINATION TO FLOWERING:

The First Twenty Years of the Missouri Native Plant Society By Larry R. Morrison

The first meeting of the Board of Directors of the Missouri Native Plant Society was held at Montauk State Park on September 1, 1979. By then, the treasurer could report that the Society had 119 dues-paying members. At that meeting, the board members spent most of their time handling the normal kinds of "housekeeping chores" that needed to be done to get any fledgling organization off the ground. There were, however, three substantive issues decided.

First, the Board agreed that if the duly elected members of the Board did not have the "dual role" of also being a member of the Missouri Department of Conservation, the Missouri Department of Natural Resources, or the Missouri Botanical Garden, then the Board could appoint representatives from those three agencies who could then meet with the Board, but would not have voting rights.

Second, was the question of where the plant materials coming in about native flora should be kept. Eventually, the board members decided that the recipient of those materials should be the Missouri Department of Conservation because that agency had particular interest in the rare and endangered species of the state, so it should assume the responsibility for keeping records on all the native flora. Furthermore, the Board believed that the MDC would be a more stable repository than any individual could possibly be, even if that individual was closely associated with some teaching institution or scientific society.

Third, the board members decided that as soon as possible MONPS should set up some sort of fund to be used in making an annual award for outstanding work on Missouri flora, whether in the field, herbarium, or library. Also, they agreed that this award should be called the "Steiermark Award."

Shortly after this board meeting, Julian A. Steiermark returned to Missouri for a brief visit. While here, he was made the first "Honorary Life Member" of the Missouri Native Plant Society as a way of thanking him for the role he had played; however indirectly, in the creation of the society.

The Society reached another milestone on November 9, 1979, when it was officially recognized by the State of Missouri

as a "General Not For Profit Corporation." On that date, the Missouri Secretary of State certified the Articles of Incorporation of the Missouri Native Plant Society as submitted by its Board of Directors. Included in the Articles of Incorporation were the following provisions:

1. To promote and encourage the preservation and conservation of the wild plants and vegetation of Missouri.
2. To advance and promote the study of the wild plants and vegetation of Missouri for the purpose of aiding in the scientific education of the public.
3. To present lectures, discussions, panels and similar programs about the wild plants and vegetation of Missouri, and related subjects so as to instruct the public about their importance, benefits and usefulness.
4. To publish information regarding the wild plants and vegetation of Missouri, in a form available to the interested public.
5. To raise the necessary moneys to carry out the programs initiated by the Missouri Native Plant Society.
6. To have the power to acquire, lease, sell, receive by gift, etc., real and personal property to foster the purposes of the Society.
7. To encourage and support legislation for the preservation and conservation of the wild plants and vegetation of Missouri, and to advocate the rejection of legislation contrary to Society goals; but such activity shall not be a substantial part of the Society's activities.
8. To support charitable, educational, or scientific organizations whose purposes are in consonance with those of the Society.

9. To not engage in any political campaign on behalf of any candidate for a public office; and to not dedicate a substantial part of the Society activities in attempting to influence legislation, or to the distribution of campaign literature.

Three officers, John L. Hawker, Edgar Denison, and Erna Eisendrath, signed these articles on behalf of the Society.

At this board meeting and the one in March 1980, the most contentious issue centered on the question of collecting plant specimens. Eventually, after long discussion, the Board was able to adopt "a composite statement" which became the Society's policy on the related issues of collecting and transplanting wild plants.

In the next issue: The MONPS policy for collecting and transplanting native flora.

INFORMATION ON JOINING MISSOURI NATIVE PLANT SOCIETY

SOCIETY DUES

(Chapter dues additional)	
Student	\$5.00
Regular	\$10.00
Contributing	\$20.00
Life	\$200.00

CHAPTER DUES

Columbia	\$6.00
Kansas City	\$5.00
Osage Plains	\$5.00
St. Louis	\$5.00

(Circle all that apply)

Do not publish my name and address in the membership list.

Make check payable to: Missouri Native Plant Society

Mail to: Missouri Native Plant Society
PO Box 20073, St. Louis, MO 63144-0073

Name _____
Street _____
City, State _____
9 digit Zip _____ Phone _____
E-mail _____

Inside This Issue

- Members' September Field Trip Schedule
 - Society Bestows Four Awards
 - Guest Column: Planting Native Perennials
 - Missouri's Species of Concern Update
-

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