ANNOUNCEMENTS

New Board Member Selected to MONPS Board of Directors

Submitted by Paul McKinsey, President

Due to a recent resignation of a Board Member to MONPS' Board of Directors, President Paul McKenzie appointed Justin Thomas to complete the term of Allison Vaughn who had resigned on March 8. This appointment was made following our Society’s Bylaws and was unanimously endorsed by the MONPS Board of Directors.

Congratulations to Justin. Everyone within MONPS should welcome him to the BOD! Justin, his wife Dana and their family are well known by most members of MONPS and they are co-owners of the Institute of Botanical Training that provides plant identification workshops on a wide array of groups that includes both monocots and dicots. Justin is one of the top botanists in the state and his knowledge of Missouri's flora and natural communities will be a tremendous asset to the MONPS Board.

Both Justin and Dana have conducted plant surveys for multiple Federal, State, and private entities and their services are in high demand. Justin and Dana recently hosted a well attended and extremely successful second annual Botany Symposium on March 21 in Rolla, Missouri. Due to their excellent communication skills, sense of humor, and willingness to share their knowledge with others, they will be great ambassadors to promote the mission and goals of the Missouri Native Plant Society. We look forward to Justin working with the BODs in the future.

Dues are Due

By Ann Earley, Membership Chair

Membership renewals for the July 2014-June 2015 year are due. If you receive your newsletter by postal service delivery, please check the top line of your mailing label. If it shows the date 20140630, your dues are now payable. When renewing, please remember to include your contact information including email address, and your society and chapter dues preferences. Cut the renewal form from the bottom of this page.

If you prefer to get your Petal Pusher by email with color photos, please indicate that preference to Ann [membership] on your renewal form and email Becky [PP editor] with your request.

For those members receiving their newsletter by email without a mailing label, or for others with questions about their membership status, please contact me or your chapter representative (see back page for contact details) for information about your membership expiration date. We value our members and urge you to renew today! If you know you renew every year, simply highlight and print the membership form at the bottom of the page.

If you would prefer to not bother with annual renewal, we invite you to become a Life Member.

[This notice will be repeated in July and September.]

Information on joining Missouri Native Plant Society

<table>
<thead>
<tr>
<th>Society Dues</th>
<th>Columbia = $6</th>
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<tbody>
<tr>
<td>Circle all that apply</td>
<td>Kansas City = 5</td>
</tr>
<tr>
<td>[Chapter dues additional &gt;]</td>
<td>Osage Plains = 5</td>
</tr>
<tr>
<td>Student = $5</td>
<td>Ozarks = 5</td>
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<tr>
<td>Regular = 10</td>
<td>Southwest = 5</td>
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<td>Contributing = 20</td>
<td>Perennis = 5</td>
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<tr>
<td>Life = 200</td>
<td>St Louis = 5</td>
</tr>
<tr>
<td></td>
<td>Empire Prairie 5</td>
</tr>
</tbody>
</table>

Contribution to Hudson Grant Fund _$___________

**All contributions are tax deductible**

Make checks payable to MO Native Plant Society

Mail to: Missouri Native Plant Society

PO BOX 440353

ST. Louis MO 63244-4353

Name_______________________________________

Address______________________________________

______________________________________________

9-digit zip______________________________

Sometimes activities are changed at the last minute so we need a way to notify you.

Phone_____________________________________

Email______________________________________
MAY AND JUNE FIELD TRIPS
Information on events and lodging for the MONPS meeting May 2-4, 2014
Check the websites for updated information and maps to the field trip locations.

The Missouri Native Plant Society Spring Meeting and Field Trips will be held May 2-4, 2014 in and around Potosi, Missouri. Our meetings will be held in the Super 8 Potosi, and we will also have a brief introduction and orientation program in the same location Friday night. Please join us! Our Field Trips will include some spectacular state park properties.

For the most accurate and up-to-date details, please visit The Missouri Native Plant Society website and our Facebook Page. (or go to Facebook.com and enter Missouri Native Plant Society in the search box.)

Locator Map to Potosi, MO

Directions: From the West (Kansas City): via Google Maps
Take I-70 E toward St. Louis 191 mi
Take exit 193 toward Warrenton 0.2 mi
Turn right onto MO-47 S 31.0 mi
Turn left onto MO-47 S/US-50 E 0.5 mi
Turn right onto MO-47 S 6.2 mi
Turn right onto N Commercial Ave 1.0 mi
Slight left onto MO-30 E/W Gravois Ave 6.2 mi
Turn right onto MO-47 S 20.4 mi
Turn right onto MO-21 S/MO-47 S 9.7 mi
Continue to follow MO-21 S
From the East (St. Louis): via Google Maps
Potosi is at the intersection of Hwys 21 and 8.
The most direct route will be out Hwy 21 (Tesson Ferry Rd.) from the St. Louis area. Some traffic may be avoided by picking up Hwy 21 at MO 141:

Take I-55 S to MO-141 N
Take exit 191 for MO-141 N 0.3 mi
Merge onto MO-141 3.2 mi
Turn left to merge onto MO-21 S 20.0 mi
Turn left onto MO-21 S/State Hwy B 0.5 mi
Turn right onto MO-21 S 27.9 mi
To Potosi, MO

From the SW (Springfield): via Google Maps
Take I-44 E toward St. Louis 115 mi
Take exit 195 for MO-68 0.1 mi
Turn right onto MO-68 E/MO-8 E/N Jefferson St/US-66 E
Continue to follow MO-8 E 17.2 mi
Turn right onto MO-8 E/Main St
Continue to follow MO-8 E 36.2 mi
Potosi, MO

See also the Google Map Page for this event which is self-updating: http://goo.gl/maps/HsizG
Schedule: (We will optimize locations based on conditions; updates will appear on the websites.)

FIELD TRIP SCHEDULE
Friday, May 2
Early Bird Field Trip: Pickle Spring or Onondaga Cave State Park (TBA)
7:00 P.M. Meeting room Super 8 Potosi
Program: Orientation and Introduction to State Parks of East Central Missouri – Ron Colatskie of the Missouri Department of Natural Resources
**Patosi field trip continued**

**Saturday, May 3**

8:00 AM – Meet at Super 8 parking lot. – **Field Trip: Washington State Park**

**Directions: From Potosi**

Take MO-21 N 15.0 mi

Turn left onto MO-104 E 1.2 mi [Note: this is the second entrance to the park marked MO-104 you will come to]

**Washington State Park Visitor's Center** on the right

**Lunch:** Bring food and eat in the Park or return to Potosi for lunch.

1:00 PM – **Afternoon field trip – St. Joe State Park**

**Directions: From Potosi**

Take MO-8 E 15.7 mi

Turn right onto W Main St 1.7 mi

Turn right onto Chestnut St 423.0 feet

Continue onto Federal Mill Rd/Sports Complex Rd 0.2 mi

Slight right to merge onto MO-32 Bypass W 1.8 mi

Turn left to Pimville Rd 1.9 mi

Turn left 0.1 mi

St. Joe State Park Visitor’s Center

7:00 PM – **MONPS Board Meeting at Super 8 Meeting Room** (see directions above)

**Sunday, May 4**

8:00 A.M. – Meet at Super 8 parking lot – **Field Trip: St. Francois State Park or Pickle Springs (TBA)**

**Directions:**

Take MO-8 E 15.7 mi

Turn right onto W Main St 3.0 mi

Continue onto Woodlawn Dr 0.3 mi

Turn left onto MO-32 E 0.1 mi

Slight right to merge onto MO-32 E/US-67 S 3.7 mi

Slight left onto MO-32 E 2.8 mi

Turn left to stay on MO-32 E 4.6 mi

Turn right onto State Hwy AA 2.0 mi

Turn left onto Dorlac Rd 0.4 mi

To **Pickle Springs Natural Area**

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**Camping is available at:**

- All the State Parks shown on the map [Central Reservation System](#)
- [Council Bluffs Campground](#) (fee area; showers)
- [Berryman Campground](#) (free; primitive, no water)

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**Motels in the Potosi area:**

 Prices shown are lowest available online. [Note: “Advance Purchase” reservations are billed when booked and are not refundable.]

<table>
<thead>
<tr>
<th>Motel Name</th>
<th>Location</th>
<th>Contact Information</th>
<th>Website</th>
<th>GPS Coordinates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super 8 Potosi</td>
<td>[Google Local Info]</td>
<td>Phone: (573) 438-8888, (573) 438-2190 (Fax)</td>
<td>super8.com</td>
<td>37.928413, -90.774964 or 37°55'42.3&quot;N 90°46'29.9&quot;W</td>
</tr>
<tr>
<td>Super 8 Bonne Terre</td>
<td>[Google Local Info]</td>
<td>Phone: (573) 358-5888, (573) 358-1049 (Fax)</td>
<td>super8.com</td>
<td>37.923708, -90.536120 or 37°55'25.4&quot;N 90°32'10.0&quot;W</td>
</tr>
<tr>
<td>Hampton Inn Farmington</td>
<td>[Google Local Info]</td>
<td>Phone: (573) 760-8700, (573)-760-8701 (Fax)</td>
<td>hamptoninn3.hilton.com</td>
<td>37.793183, -90.441677 or 37°47'35.5&quot;N 90°26'30.0&quot;W</td>
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</tbody>
</table>
Information on events and lodging for the MONPS meeting June 13-15, 2014

Check the websites for updated information and maps to the field trip locations.

The Missouri Native Plant Society Summer Meeting and Field Trips will be held June 13-15, 2014 in and around Bethany, Missouri. Our meetings will be held in the Super 8 Bethany, and we will also have a brief introduction and orientation program in the same location Friday night. Please join us! Our Field Trips will include some unique Northwest Missouri marsh and prairie habitats.

For the most accurate and up-to-date details, please visit
The Missouri Native Plant Society website and our Facebook Page.
(or go to Facebook.com and enter Missouri Native Plant Society in the search box.)

From the West (Kansas City): via Google Maps
Take I-35 N, follow signs for Interstate 35 N/Des Moines 83.9 mi
Take exit 92 for US-136 toward Bethany/Princeton 0.2 mi
Turn left onto US-136 W/Miller St 0.8 mi
To Bethany, MO

From the East (St. Louis): via Google Maps
Take I-70 W/US-40 W toward Kansas City 160 mi
Take exit 49 for MO-13 toward Higginsville/Warrensburg 0.2 mi
Turn right onto MO-13 N 45.2 mi
Turn left onto MO-116 W/W Elm St at Polo, MO
Continue to follow MO-116 W 10.5 mi
Turn right onto US-69 N 8.0 mi
Turn right to merge onto I-35 N 43.9 mi
Take exit 92 for US-136 toward Bethany/Princeton 0.2 mi
Turn left onto US-136 W/Miller St 0.8 mi
To Bethany, MO

From the SW (Springfield): via Google Maps
Take MO-13 N/N Kansas Expwy 89.2 mi
Continue onto MO-7 N at Clinton, MO 36.5 mi
Continue onto E 275th St 0.2 mi
Turn right to merge onto I-49 N at Harrisonville, MO 26.4 mi
Take exit 184 to merge onto I-435 N toward Des Moines 19.2 mi
Take exit 52B to merge onto I-35 N toward Des Moines 79.5 mi
Take exit 92 for US-136 toward Bethany/Princeton 0.2 mi
Turn left onto US-136 W/Miller St 0.8 mi To Bethany, MO
Schedule: (We will optimize locations based on conditions; updates will appear on the websites.)

Friday, June 13
Early Bird Field Trip: Dunn Ranch? (TBA)
Directions:
Take US-69 N 14.5 mi
Turn left onto Fir St 0.2 mi
Continue onto W 170th St 4.6 mi
Turn right onto W 180th Ave 0.4 mi
To Dunn Ranch

7:00 P.M. Meeting room Super 8 Bethany
7:00 P.M. MONPS Board Meeting at Super 8 Meeting Room (see directions above)

Program: Orientation and Introduction to Prairie and Marsh Habitat of NW Missouri – Steve Buback of the Missouri Department of Conservation

Saturday, June 14
8:00 AM – Meet at Super 8 parking lot. Field trip – Pawnee Prairie?
Directions:
Take US-69 N 17.6 mi
Turn left onto MO-46 W/W 140th St
Continue to follow MO-46 W 5.1 mi
Keep left to continue on MO-46 W/W 180th Ave
Continue to follow MO-46 W 4.0 mi
Turn left onto W 140th Ave
Pawnee Prairie Natural Area will be on the left 0.8 mi
We will eat lunch in Bethany. You may eat on your own or plan a picnic lunch.

1:00 PM – Afternoon field trip – Helton Prairie Natural Area
Directions:
Take US-136 E 9.7 mi
Turn right onto E 310th Ave 1.3 mi
Turn left onto E 315th St 0.4 mi
Turn right onto unnamed road and park. (NA is west of this road)

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Sunday, June 15
8:00 A.M. – Meet at Holiday Inn parking lot – Field Trip: Chloe Lowry Marsh

Directions:
Take US-136 E 27.7 mi
Turn left onto State Hwy FF/Prichard St
Continue to follow State Hwy FF 1.2 mi
Take the 1st left onto Fernwood Pl 1.9 mi
Park at Chloe Lowry Marsh Natural Area

See also the Google Map Page for this event which is self-updating: http://goo.gl/maps/p1d4m

Motels in the Bethany area:
Prices shown are the lowest available online. Note: “Advance Purchase” rates are billed when booked and are not refundable.

Super 8 Bethany [Google Local Info]
Phone: (660) 425-8881  Fax: (660) 425-8099
Website: super8.com
GPS: 40.262553, -94.014837 or 40°15'45.2"N 94°00'53.4"W

Comfort Inn Bethany [Google Local Info]
496 South 39th Street, Bethany, MO 64424
Phone: (660) 425-8006  Fax: (660) 425-8010
Website: comfortinn.com
GPS: 40.267150, -94.014285 or 40°16'01.7"N 94°00'51.4"W

Family Budget Inn Bethany [Google Local Info]
4014 Miller Street, Bethany, MO 64424
Phone: (660) 425-7915  Fax: (660) 425-3697
familybudgetinnmotel.com
GPS: 40.264305, -94.011277 or 40°15'51.5"N 94°00'40.6"W

Advance Purchase (online): $50.90/night (Single or Double)
Advance Purchase (online): $59.99/night (Single or Double)
Senior or AAA rate: $46.76/night (Single or Double)

Camping is available at:
- Crowder State Park (31.6 miles from Bethany) Central Reservation System
- Eagle Ridge RV Park (13.0 miles from Bethany; $20/night for tents)
- Grant Trace Conservation Area (8.0 miles from Bethany; 4 primitive campsites)

CHAPTER
What do YOU want from MONPS?
What do you expect from your MONPS membership?
What activities do you expect when you join MONPS?
What additional activities and information would you participate in?
The Board invites you to take a brief survey about field trips, workshops, the Petal Pusher delivery and other functions of MONPS. The survey is short and will help us make sure we are best representing you!
Your participation in this survey is essential to the future of offered activities.
https://www.surveymonkey.com/s/ZZ5ZSNC
Thanks for your continued membership and your participation in all the activities you choose!

Turn screen time to green time.
Get outside!!

REPORTS
Welcome to New Members!

Amette Howk, Kansas City
Ariel Paulson, Kansas City
Keith Pulles, Rolla
Mike Smith, Washington
Robert Fuerst, Lee's Summit
Akriti Dhakal, Cape Girardeau
Charles Marece, Cape Girardeau
Virgil & Patsy Beaty, Clinton
Penny Jones, Windsor
St Louis Chapter

Submitted by Rex Hill, Chapter Representative

In February, our chapter was treated to a showing of the movie, Green Fire. Unfortunately, Martha and I were on the road and missed this, but I took the liberty of lifting a few lines from the internet, and a quote from Aldo Leopold that inspired the title for the film. I had read Sand County Almanac a number of years ago, and the showing of the film, even though I missed it, has prompted me to retrieve my (now yellowing) copy and pledge to re-read it. Hope you do, too.

From the internet:
The first full-length documentary film ever made about legendary environmentalist Aldo Leopold, Green Fire highlights Leopold’s extraordinary career, tracing how he shaped and influenced the modern environmental movement. Leopold remains relevant today, inspiring projects all over the country that connect people and land. Green Fire describes the formation of Leopold’s idea, exploring how it changed one man and later permeated through all arenas of conservation. The film draws on Leopold’s life and experiences to provide context and validity, then explores the deep impact of his thinking on conservation projects around the world today. Through these examples, the film challenges viewers to contemplate their own relationship with the land community.

“We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes—something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters’ paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view.” - Aldo Leopold, A Sand County Almanac, 1949

Our meeting on March 26 provided a compelling presentation by A.J. Hendershott from the Cape Girardeau MDC office entitled “Uses of Missouri Plants by Native Americans”. Mr. Hendershott has spent a great deal of time researching the use of plants in the everyday lives of Native Americans, not only in Missouri, but in many regions around the US. He gave a very thorough picture of the use of nuts, berries, seeds, roots and tubers, and leafy green material in their lives, and the timing and availability throughout the calendar year. His charts of the relative food values of these materials illustrated the value of plant materials and their absolute necessity to supplement and enhance the diets of early people who were skilled hunters with ready access to meat from wild game. He did an excellent job relating the plants used by Native Americans to our present day use and appreciation of many of them, but also our loss of the knowledge and value of available wild foods.

Hawthorn Chapter

Submitted by Ann Wakeman, Chapter Representative

Membership meeting Monday, March 10. Bob Kremer, Professor of Soil Microbiology, University of Missouri presented "Healing & Building Soil At Prairie Birthday Farm". Bob Kremer has been doing research at Linda Hezel’s Prairie Birthday Farm near Kearney MO. Bob has been studying the diversity of soil microorganisms in various areas of her farm. Linda farms vegetables, fruits, fruit trees, honey, and fresh wildflowers for local restaurants. She is blessed to have a patch of native prairie among what she stewards and incorporates native wildflowers in marginal areas among the orchards and around the gardened patches. This was a 12 year research project to rebuild worn out loess soil in a natural way with native plants and methods compared to adjacent land using fertilizers and insecticides.

Saturday, March 8 Wild Ones invited us to view a video lecture: Dr. Doug Tallamy, “Make Room for Nature” at the Columbia main Library. This lecture is much like the lecture he presented previous summer at Lincoln University. A first see or revisit of his ideas for changing the way we landscape our yards does make a difference for wildlife, including birds. I personally like his view that we need to see plants in our landscape not as decorative, but as functioning parts of ecosystems we humans have shoved aside.

Kansas City

submitted by Hilary Haley, Chapter Representative

At our March 4th chapter meeting, Doug Martin presented a talk on how to grow hardy orchids. Doug is a professor at Penn Valley Community College in Kansas City and the past president of the Orchid Society of Kansas City. He has spent many years perfecting methods to grow orchids in containers and garden beds. As was evidenced by his many gorgeous photos, he has been quite successful at propagating and growing most everything from Ladies’ Tresses, to Grass Pink Orchids, and the always elegant Lady-Slipper Orchids. The trick to his success has been in understanding what each orchid requires to thrive in its natural environment and then effectively replicating this at home. His methods have relied primarily on providing his plants with consistent moisture, maintaining the right temperature, bright lights when appropriate, and the use of pure rain water with very little nutrients. Altogether, Doug made growing and keeping orchids seem like child’s play and made me want to try my hand at it someday. Who wouldn’t want to have a patio or garden bed filled with beautiful displays of orchids?

Empire Prairie Chapter (St Joseph)

Submitted by Steve Buback

Look for the latest activities in the next Petal Pusher.
Osage Plains
Casey Burks, Chapter Representative
Osage Plains President Elizabeth Middleton kicked off 2014 with a craft program on Feb. 24th: making blue birds boxes. Many members brought guests and it was an evening of camaraderie, conversations of pine vs. cedar, and happy pounding as 25 people nailed their boxes together. Many thanks to those who donated wood, cut and prepared kits or helped with the construction. Hearty soups, blackberry cobbler and other goodies made this an extra special meeting. LeeAnn Hamilton volunteered to be Chapter Secretary and Theresa Cline volunteered to be Chapter Historian, receiving the archives from past President Emily Horner. Thank you LeeAnn and Theresa. With enthusiasm for Spring around the corner, ideas and dates for future programs and field trips are taking shape. I’m SO eager to see a toothwort!!

March 24th: President Elizabeth introduced Scott Sudkamp, Small Game Coordinator MDC Wildlife Division, gave two excellent programs: one on what plants to plant or keep in order to attract backyard birds and butterflies; the other on providing the kind of habitat for quail survival. Scott pointed out that, in the past, farmers used wooden fence posts and there were long brush piles where the posts were cleaned of branches. This gave excellent habitat for both quail and rabbits. They also need the types of sturdy grasses that provide an umbrella. Foxtail easily goes flat. Seed of giant ragweed provided a large part of quail diet as well as insects close to the ground. He also gave information on many other topics: (trying to control) invasives such as Serecia lespedeza and Bradford pear, the need to burn eastern red cedars, timing of mowing, grazing cattle, using herbicides etc. It was hard to let him leave!

On a personal note, I’ve been eating the incredibly abundant chickweed and thinking of Nels Holmberg who shared his wisdom with me on a field trip several years ago: he said “chickweed is so nutritious, everyone should be growing it in their gardens.” Since it also has a great reputation for healing skin, it is also one of the herbs I infuse in olive oil all summer for later use making herbal balms.

Reminder: Any member who would like to receive the Petal Pusher by email needs to send their request to editor Becky Erickson beckyerick711@centurylink.net. Benefits of receiving the Petal Pusher by email include: earlier receipt of information; color pictures; savings in printing costs for MONPS, and use of fewer trees.

Perennis Chapter
submitted by Andrew Braun
Look for the latest activities in the next Petal Pusher

South West Chapter
Submitted by Brian Edmonds Chapter Representative
Our February meeting featured Dr. Chris Barnhart, professor at Missouri State University, speaking about the grim situation with the emerald ash-borer (EAB) in the upper Midwest. Although the EAB is not widespread in Missouri, it appears to be only a matter of time. In other states, EAB have nearly eliminated live ash trees and there is no reason to think they will have less of an impact here.

The EAB has been recently confirmed in a handful of counties in the southeast part of the state, Pulaksi County (south-central), and in two counties in the vicinity of Kansas City. Very recently, EAB has also been confirmed in the Joplin region.

There has been some talk of our recent brutal winter having some positive effect on EAB (and other invasive insects), but the true impact of cold weather on the species still needs to be determined.

By the time this report reaches the membership, spring will be well underway. However, I’m happy to report that the first spring beauties and toothworts have made an appearance at our farm. Spring is here!

Check the calendar section for upcoming events. Be sure to watch the Facebook Events page and your email inbox for details about upcoming trips and events! In case of bad weather, watch Facebook for cancellations or call ahead of time and we'll call back with more information.

Orchid t-shirt reprints available.

Same gorgeous print on a beige t-shirt. Order your size while it is available! Contact your chapter rep.

PP photo

Please Friend us on Facebook

And more information on our website

www.monativeplantsociety.org
Ozark Chapter
Submitted by Liz Olson, Chapter Representative

On February 17th the Ozark chapter learned about a Department of Conservation research project from the Silviculturist Dr. Matthew Olson. Matt presented on the Missouri Ozark Forest Ecosystem Project (MOFEP), which is located in Shannon, Carter, and Reynolds counties in southeast Missouri. The principal objective of the project is to evaluate the effects of forest management practices on multiple biotic and abiotic components of our oak and hickory dominated woodlands and forests.

MOFEP scientists research the landscape scale effects of uneven-aged, even-aged, and no-harvest management on neotropical migrant birds, ground flora, tree species composition and growth, amphibians, reptiles, small mammals, nutrient cycling, and microclimates. In addition, many short-term projects are initiated and conducted by students and faculty from universities and agencies. The MOFEP experiment unique in that it is large in scale (approx. 9000 acres) and designed to run for at least 100 years, which is a common duration of an even-aged forest management rotation in the Ozarks. The project began in 1989, so it is still in the early stages. Early results have already been published in over 65 peer-reviewed papers, many in top-tier science journals.

Analyses of the tree composition and regeneration show that uneven-aged harvest methods will likely lead to a shift in oak composition from red oak to white oak, and that fire-sensitive maples are increasing in the understory of no-harvest sites, which have not been burned since the 1940s. Both uneven-aged and even-aged harvesting methods resulted in an increase in herbaceous richness, cover, and FQI, but these effects were short-lived. The woody vegetation are robust sprouters; within 7-13 years the tree community formed fairly dense young stands, shading out much of the ground flora and reducing herb cover, but richness and average CC value did not decline as much. Dr. Olson also shared the interesting research results from the bird, small mammal, and herpetofauna research projects. An engaging discussion ensued after his talk.

On March 18th our chapter was delighted to host Dr. Ginger Allington, Seed Biologist and Seed Bank Manager at the Missouri Botanical Garden. Dr. Allington is leading the Shaw Nature Reserve Seed Bank project, an effort to collect and preserve seeds of Missouri’s native flora for long term conservation and preservation. The seed bank is an ambitious project started in 2012 designed to save seed from all of Missouri’s native plants. Ginger led the first season of seed collection last year.

The project will initially focus on the Ozark Highlands region—the most diverse area of the state. Ginger and her team have devoted much time and effort into planning this project. They have prioritized species based on considerations such as CC value and rarity. They will collect from species populations that are robust/not in danger of local extinction. There is also a great effort to collect from many spatially-distinct populations for each species to achieve high genetic diversity.

Preparation for storage is detailed and time-consuming. All seeds must be cleaned, dried, and frozen; if the seeds are not properly dried, the moisture will expand upon freezing and damage cell structures. Each species’ seed collection is labeled with an ID linking it to the original geographic location of the source population. Ginger identified some of the challenges faced by her team, such as needing to re-visit a population multiple times before the seed is ready to be harvested. Those plants follow their own schedule, and it can be hard to predict! Ginger encouraged everyone to assist the Shaw Nature Reserve Seed Bank project by contacting her by email ginger.allington@mobot.org when we notice seed of wild plants maturing over the next year.

“Go my Sons, burn your books. Buy yourself stout shoes.
Get away to the mountains, the valleys, the shores of the seas, the deserts, and the deepest recesses of the Earth. In this way and no other will you find true knowledge of things and their properties.”
Peter Severinus, a16th Century Dane educator.

PETAL PUSHER BY EMAIL
From Becky Erickson PP editor.

One hundred eighteen[of 350] MONPS members have sent me their permission to start electronic delivery and stop paper delivery.

I must have your permission to receive the email edition. Copy this address into your email ‘to’ line beckyerick711@centurylink.net and I will respond.

When renewing, or joining for the first time, please remember to include your contact information including email address, and your society and chapter dues preferences.
Kansas City  
Submitted by John C. Richter, Chapter President
For questions about upcoming field trips contact the field trip leader, otherwise contact John Richter via e-mail: jrichter@ene.com, or cell phone 913.217.0432. Please RSVP with the field trip leader or John Richter for all field trips. We use RSVP information to plan car pool logistics and if a field trip will have any attendance. This is important for making decisions based on severe weather, etc.

26 April Sat: Rocky Point Glades. No car pool required, but details on meeting time and location TBD. Contact person is Bill Fessler: fessler01@aol.com. This area is maintained by the Kansas City Missouri Parks and Recreation Dept. and has been the focus of ongoing restoration activities. Come see the beauty of this local and publically accessible natural area.

2-3 May – Powell Gardens Native Plant Sale: This event comprises our annual fundraiser activity. Located at Powell Gardens, the KC MONPS Chapter makes a negotiated percent from the sale of plant material from the Missouri Wildflower Nursery, owned by Mervin Wallace. We can always use volunteers to help us sell plants - Friday evening and all day Saturday. For information contact Sue Hollis: ferngro@att.net or Dan Rice: drice95875@aol.com.

17 May – Ogg Road Prairie, Shawnee Mission Park: Contact person is John Richter. The Ogg Road prairie is a remnant prairie that continues to improve with management activities. This is a publically available site located in Shawnee Mission Park. Close to home!

7 June – Leavenworth Bottomland Forest: Car pool location and meeting time TBD. Contact person is John Richter: jack_0_lantern@hotmail.com. The Leavenworth bottomland forest is located on federal property (Ft. Leavenworth). Your RSVP is required for this trip. This forest represents one of the best examples of mature hardwood floodplain forest along the Missouri River in the state of Kansas. This forest is located directly across the river from Weston Bend State Park.

12 July – Rosedale Park: Fern walk, appreciation of urban landscapes blended with native ferns. Field trip leader and meeting time/place TBD.

Empire Prairie
May 31st Larry Maher’s restored prairie. Larry has many wonderful plants on his property and is very enthusiastic and knowledgeable about techniques of prairie restoration. We will leave from the St Joe MDC office at 9am. For directions or more information, please contact Steve steve.buback@mdc.mo.gov. If there is interest we may do a cook-out at Larry’s following our expedition.

June meeting will be up near Bethany MO due to the State Field Trip being held in NW MO. I strongly encourage anyone who can to attend, and see the details in this issue of the Petal Pusher.

Ozark
The Ozark Chapter meets at 6:30 pm on the third Tuesday of each month at the Missouri Department of Conservation, Ozark Regional Office, 551 Joe Jones Blvd, West Plains, MO 65775.

15 April Tues: Susan Farrington will present a program highlighting some of the state-listed Species of Conservation Concern and other rare plants that could be found in our neck of the woods. We need more eyes on the ground looking for and reporting these rare plants! Attendants will receive a printed description of each of the species to aid in identification.

20 May: The May meeting is always a field trip for the Ozark chapter. We plan to visit Galloway Park in West Plains. We hope for a cool and pleasant spring evening. Wear your walking shoes; the path is fairly level.

CALENDARS

Osage Plains
Starting February 2014, regularly scheduled meetings will be changing from the 3rd Monday to the 4th Monday
Regularly Scheduled Chapter meetings are held the 4th Monday of each month, 6:30pm, at the Henry Co. Library, Clinton. Meetings are open to the public and our purpose is to enjoy learning about and sharing information about native plants. For further information please contact President Elizabeth Middleton Elizabeth.Middleton@MDC.gov; past President Emily Horner Emily.Horner3@yahoo.com or Chapter Representative Casey Burks mobugwoman@gmail.com Contact Bernie Henehan berniehenehan@mc.com or Dan Henehan danhenehan@embarqmail.com for fieldtrip information.

19 April: Field trip to Peterman’s. This is an April tradition to see the beautiful spring ephemerals. Meet at the Henry Co. Library parking lot 9am to caravans.

28 April: Chapter meeting, Program “Rain Barrels” presented by Emily Horner. (Back by popular demand!)

17 May: Combined Field Trip and Chapter Meeting. OP President Elizabeth Middleton will teach grass identification on site at a prairie. Details TBA.

Perennis
12 April Saturday, 8:45AM: Pine Hills Ecological Area (near Wolf Lake) or Little Grand Canyon (near Etherton, IL.). Meet at the parking lot for the River Campus in downtown Cape Girardeau. We will be departing at 9AM.

26 April Saturday, 8:45AM: Sam A. Baker State Park. Meet at the parking lot for Scully, Rhodes Hall, and Dempster Hall on the campus of Southeast Missouri State University located off Henderson between Broadway and New Madrid.

All fieldtrips will be led by Dr. Alan Bornstein. For more information, weather restrictions, rescheduling visit http://www.semonps.org or contact Allison at allisonjv@yahoo.com.

Ozark

The Ozark Chapter meets at 6:30 pm on the third Tuesday of each month at the Missouri Department of Conservation, Ozark Regional Office, 551 Joe Jones Blvd, West Plains, MO 65775.
St Louis
Chapter meetings are held on the fourth Wednesday of the month at the Sunset Hills Community Center, 3939 South Lindbergh Blvd., Sunset Hills, MO 63127. Google Map: [http://goo.gl/maps/K3PR](http://goo.gl/maps/K3PR)

28 May – 7:30 PM – John Brinda, of the Missouri Botanical Garden, will recount the highs and lows of a recent bryology expedition to Chile, and introduce our group to the Garden’s new digitization project – an effort to digitize the lichen and moss collections of U.S. herbaria into a massive online database.

25 June – 6:00 PM – This is the month for our annual evening wildflower walk, to be followed by dinner for those that wish to retire to a local restaurant after the walk. Watch Jack Harris’ Emails and otherwise keep your ear to the ground for the location of this walk.

Southwest
Greene Co Botanical Center, Spgfld, 4th Tuesday, 6pm
12 April Sat 9am: Accompany Dr. Michelle Bowe and the MSU Plant Taxonomy class on a day field trip to Bull Shoals Field Station in Taney Co MO. Meet at Missouri State University, Bear Park South, 3rd floor. Bring a lunch!
19 April Sat 9am: Master Naturalist / MONPS field trip, hosted by Bob and Barb Kipfer. Justin and Dana Thomas will lead through the hills and valleys of Bull Creek.
22 April Tue 6pm: Work in the native gardens at the Springfield-Greene County Botanical Center.
26 April Sat 9am: Accompany Dr. Michelle Bowe and the MSU Plant Taxonomy class on a day field trip to Bull Shoals Field Station in Taney Co MO. Meet at Missouri State University, Bear Park South, 3rd floor. Bring a lunch!
17 May Sat 8am: Wire Road Conservation Area. Meet at the northeast corner of the Sunshine / West Bypass Walmart parking lot. Bring a lunch!
27 May Tues 6pm: Dr. George Yatskievych will talk about the Flora of Missouri Project. He’ll take some time to sign copies of the newly-published Volume III of Steyermark’s *Flora of Missouri*. You won’t want to miss this special event. Keep your calendar open on Monday and Tuesday for a possible field trip in the area with Missouri’s No. 1 botanist!
31 May Sat 8am: Lead Mines Conservation Area. Meet at the southeast corner of the Kansas Expressway Lowe’s Parking lot. Bring a lunch!
7 June Sat 2pm: Missouri Prairie Foundation BioBlitz at Gayfeather Prairie, Vernon Co MO. Bring your camping gear and spend the night on the prairie!
21 June Sat 8am: Twenty-Five Mile Prairie. Meet at the southeast corner of the Kansas Expressway Lowe’s Parking lot. Bring a lunch!
23 August Sat: Join Missouri Botanical Garden President Emeritus Dr. Peter Raven in Springfield MO for a Missouri Prairie Foundation Fundraiser Dinner. You won’t want to miss this event!

Hawthorn
For folks interested in hiking and wildflower sightings around the state. See chapter newsletter for details; also available on [www.columbianativeplants.org](http://www.columbianativeplants.org) Otherwise you are encouraged to participate in outings with other MONPS chapters and MPF. Chapter meetings held on odd-numbered months on the second Monday at Unitarian Church, 2615 Shepard Blvd., Columbia: 12 May Mon 7pm; 14 July Mon 7pm; 8 Sept 7pm. Third Thursday lunch at Uprise Bakery continues to be well attended by members for informal discussions generally centered around native plants and environmental issues. See [www.columbianativeplants.org](http://www.columbianativeplants.org) for postings of newsletters and activity details.
12 April Sat 10 – 2 Bradford Farm Plant Sale.
Since it is our first sale, there will be much work to do to clean up and tag plants for about two weeks prior to the sale. Contact Becky.
27 April Sun 9 – 6 Earth Day Booth and plant sale in Columbia. We have the same space as last year. Contact Paula to learn about volunteering.
2-4 May Fri - Sun State Fieldtrip to wild areas around Potosi. Look for details in this Petal Pusher and on the MONPS Facebook page.
10 May: Mosey and pot luck at Becky’s: weather dependent. Spring things at Baskett Research Area. Also buy plants you missed at the April sales.
12 May Mon 7 PM Membership Meeting at UU Church. Bill Ambrose will talk about glade restoration.
13-15 June Friday thru Sunday: State Meeting and field trips from Bethany MO
15 June Saturday: Gather at Boyd Terry’s for persimmon treats & see their 40 acres and 6 miles of trails thru various native habitats.
Why I am Going Native in My Garden

Ross Murray owns a farm in Kentucky, and will be converting his office landscape to native plants this spring. He’s a member of the Kentucky Native Plant Society. © 2014, Guest Author. All rights reserved. This article is the property of Native Plants and Wildlife Gardens. We have received many requests to reprint our work. Our policy is that you are free to use a short excerpt which must give proper credit to the author, and must include a link back to the original post on our site:

Ecosystems all over the country and all over the world are being degraded and destroyed by our bulldozers and other directly destructive behavior. This is the stuff that we see on TV and get asked to give to this cause or that cause so that small islands of native plants, insects, and animals can be protected and preserved in those little islands called nature preserves and wildlife sanctuaries.

But this doesn’t seem to be working and we wonder why. Plants and animals move and ebb. Life has to move and if we confine them to these small places they are vulnerable to disease and disaster.

A bigger problem than all of this direct destruction are the nonnative plants, insects and animals that are being transported by human beings all across the globe. Each and every island that we are trying to protect is failing. They are all being invaded by non-native invasives and we don’t seem to be getting it. Intact ecosystems seem to do okay in battling the invaders, but all it takes is an “in” for them….a tornado….a hiker carrying in seeds on her shoes……a tree dying and a bird dropping a seed.

Every time you plant something that has a chance of spreading is liking setting a bomb off in the ecosystem. The more easily it is spread, the larger the explosion and the more damage it does. But in the end, if a nonnative plant will spread at all or even if there is a chance it will spread, it should not be planted.

To do so, means that you are not only standing by and letting the world slowly lose its regional uniqueness, you are participating in its death. One plant that produces 100 viable seeds will exponentially spread into the surrounding environment.

If we instead chose to make a stand against the darkness and never plant anything that will spread and displace our natives and only plant natives, then suddenly those islands of native plants, animals and insects are no longer islands but part of a greater ecosystem that suddenly stretches far and wide across our country and world.

In order for us to keep “alive” the wonderful diversity that we still have, we have to stop thinking about what we want and ourselves exclusively. We have to develop a new paradigm. We have to figure out how to have something closer to a 0 impact. If we don’t, then we might as well give up and stop trying to protect our native plants and animals. Otherwise we will continue to provide enemy troops with a safe haven while they assault all that we hold dear. We are providing comfort to our own enemies. We are carrying for and pampering the progenitors of our enemies as our beloved children. Giving them special fertilizer, watering them and keeping the weeds down so they can grow and produce seed.

This is the reason that I’m about to take out all of the non-natives out of my office yard and replace them with all natives. If I do plant a nonnative, it will be one that I am sure isn’t going to spread and cause havoc with the ecosystem around me.

I know some of you will think that I am being melodramatic. But ask yourselves if what I am saying has the ring of truth to it. I believe it does. I welcome you to try to find holes in it. It will help me perfect my argument.

No grass to mow here. But constant patrolling for non-natives. If only the neighbors could listen.
How wildflower study shows complex effects from global warming

A research team found that over four decades, global warming has added 35 days to the wildflower season in the southern Colorado Rockies. But the team’s data reveal nuances that other studies have missed.

By Pete Spotts, Staff writer Christian Science Monitor

An early season Trout Lily wildflower is found during a wildflower survey at Breckenridge Park, in Richardson, Texas, in this March 5, 2014 photo illustration.
LM Otero/AP

During the past 39 years, global warming has added more than a month to the wildflower season in the southern Colorado Rockies, according to a new study tracking the local effects of global warming on plant life there.

It may be good news for hikers and wildflower enthusiasts to have meadows sprinkled with glacier lilies, mountain bluebells, and yarrow for more extended periods. But it’s a new regime that is likely to radically alter the plant communities themselves, as well as the creatures that support them or rely on them for food, researchers suggest.

A more broadly, the study highlights a need to carefully track changes throughout a growing season to draw a more complete picture of warming’s effect on ecosystems, the researchers involved say.

"By and large, the timing of phenological events for a huge range of organisms is getting earlier," Mr. CaraDonna says. "As you ramp up the temperature, things start happening earlier in the season."

The team dug below the averages, they uncovered a wide range of responses among species.

For instance, despite the longer season, only 27 percent of species experienced a change in the length of time they were in bloom. Of all the species that saw significant changes to their flowering times, only 17 percent shifted their flowering checkpoints at the same pace. Some 27 percent of the species they analyzed showed big changes to peak and last flowering, but no change in the timing of first flowering.

Based on its results, the team concluded that current modeling estimates of the impact of global warming on plants based only on the timing of first flowering overestimate the magnitude of changes in timing of peak and last flowering. First flowering also fails to predict when last flowering will occur. And using first flowering as the sole benchmark for change underestimates the number of species affected.

Armed with this analysis, the team aims to uncover the effects these changes are having on the species that rely on these plants, CaraDonna says.

BEE A CITIZEN SCIENTIST

Please sign up for Bud Burst
Monarch Watch
and
NEW Bumble Bee Watch

Keep a calendar, or diary, or “list” of when you see plants emerging, when you see trees blooming or leaves erupting, when seeds are ripe. All the instructions are on the Bud burst web site. The site starts by asking you about common garden plants, but you can add anything you want.

If you also enjoy birds and herps and Monarchs and other pollinators, there are citizen scientist data reporting sites for frog calls and for bird counts all year around. Start by looking at the Cornell Ornithology website and the MDC website. Monarch Watch and Bumble bee Watch will give you the parameters for pollinator assistance and data reporting.

Learn more about BumbleBeeWatch.org:
• Watch this video to learn how to contribute your photos, http://www.youtube.com/watch?v=p7Kp3Awf2MQ
• Learn how to take helpful photos of bumble bees, www.bumblebeewatch.org/contents/photo-tips/
• Meet the Bumble Bee Watch partners, http://bumblebeewatch.org/contents/about/
• Watch the Bumble Bee Watch trailer video on YouTube, http://youtu.be/vTLKMAtXGnA
Read more about bumble bees at risk on Xerces’ Project Bumble Bee web page, http://www.xerces.org/bumblebees/
Editor’s Picks:
Newest pesticide - neonicotinoids – please inform your gardening friends.
http://www.xerces.org/2013/06/21/pesticide-causes-largest-mass-bumble-bee-death-on-record/

I just spoke with a representative of Proven Winners, a horticultural plant supplier. I asked her if the PW plants were treated with neonicotinoids. She told me they send tiny plugs to over 5000 greenhouses and retailers. PW had no say on what happens to the plants after they leave their own property. Then she stated there was nothing conclusive about the effects of neonicotins on pollinators. Xerces Society has different data. There are more stories on their site.

Neonic product list for reference
http://www.xerces.org/neonicotinoids-and-bees/

Got an opinion? MONPS wants to hear it.
Honest! Click here and tell it like it is!

Web links
An Ozark Naturalist’s Notebook
http://gbairdchem.wordpress.com/

Groton Open Space News
News from a community Nature park in CT

Nadia’s Yard
Musings about suburban native gardening
http://nadiasyard.com/

Ozark Highlands of Missouri
Observations from the hills to the back yard
http://allisonjvaughn.blogspot.com/

Wren Song
Weekly newsletter with links to several articles
http://www.ecosystemgardening.com/wren-song/

Wild Ones Landscaping
Healing nature one yard at a time
http://www.wildones.org/

Local ecotype guidelines
http://www.wildones.org/learn/local-ecotype-guidelines/

Plant identification www.plants.usda.gov

Plant Conservation Alliance
Info from every agency and most botanical gardens
Edibles, aliens, ecosystems, fire, landscape mitigation, and more. www.nps.gov/Plants

Xerces Society
Information on Bees, Monarchs, and most other insects. www.xerces.org

Please plant lots of swamp milkweed this spring.
Cultivate a spot in the sun where you can dig out a dish or raise a small dam to collect rainwater from a draw or a downspout. It is too late for seed, so find a nursery with local source plants. Right after planting potted plants, water until soggy, mulch well, and put up a fence that will keep deer, rabbits, and box turtles – yes really! – from eating them. Keep them wet/moist until they go dormant.

Never, NEVER put any kind of insecticide on the plants. When you get orange aphids, it is a temptation, but NO! Gently squeeze and wipe aphids every day or so and they won’t suck the life out of your plants. Lye soap spray will kill aphids. Also watch for praying mantises = kill them manually or they will eat any pollinator or bird.

Maybe you will be lucky enough to raise some of these and send them on their way.

One of our members in Eldon fighting for wetland and swamp milkweed:

MDC just released -
http://mdc.mo.gov/newsroom/monarch-butterflies-could-use-your-help

Monarchs Could Use Your Help
[last two paragraphs]
Planting milkweeds, especially in areas where they are currently scarce, can help monarchs be more successful in rearing new generations. Milkweeds are appropriate for use in home landscape plantings and several species are popularly used, especially by gardeners who enjoy helping monarch butterflies. Several milkweed varieties grow well in Missouri and range from 2 to 6 feet tall in a variety of colors. These include marsh milkweed, purple milkweed, common milkweed, and butterfly weed.

Nurseries that sell native plants often sell seeds and potted plants of those species. For a list of suppliers, see the Resource Guide on the Missouri Prairie Foundation’s Grow Native website at this link: grownative.org/resource-guide/. For a free brochure on the topic of butterfly gardening, email Pubstaff@mdc.mo.gov, or mail your request to Publications, Missouri Department of Conservation, PO Box 180, Jefferson City, MO 65102-0180.

Millpond Plants: Descriptions of available Missouri water plants. Located near Columbia. Has milkweeds.
http://millpondplants.wordpress.com/
"A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." Aldo Leopold