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Hawthorn Chapter Officers:
President
Elena Vega
573-999-6123
elenavega@aol.com

Vice President
Nadia Navarrete-Tindall
nativeplantsandmore@gmail.com

Secretary
Emily Beckett
314-346-1537
emily@emilybeckett.com

Treasurer and Membership Paula Peters 2216 Grace Ellen Dr Columbia, MO 65202 pieridae1@gmail.com

Chapter Representative
Michelle Pruitt
michelle.pruitt@gmail.com

Web Master
Doug Miller
the.douglas.miller@gmail.com
Web site:
http://columbianativeplants.org

The Hawthorn Chapter of the Missouri Native Plant Society Newsletter is published monthly. Send submissions by the 26<sup>th</sup> of every month to:

Communications Editor
Becky Erickson
573-657-2314
beckyerick711@centurylink.net
PO BOX 496
Ashland, MO 65010

We would like to read about announcements, impressions, species accounts, photos, poems, links to scientific articles or other creative nature writing from you, too. Please submit during the second half of every month.

This is the 36th year Hawthorn has supplied a newsletter to chapter members.

# Missouri Native Plant Society Hawthorn Chapter Newsletter

November 2021

### **Future Activities Calendar**

Our traditional meeting time is second Mondays at 6:30. We will have a presentation by ZOOM 8 Nov starting at 6 for socializing with the presentation starting at 6:30. You will receive an email Friday 5 Nov with Zoom instructions which you must save to join the meeting Monday.

### Farmer to Farmer Program: Teaching about Sustainable Agriculture Around the World.

**Presenter:** Dr. William James Zimmerman is a retired Agricultural & Environmental Microbiologist and Botanist who travels around the world as a volunteer for the USA-AID to train farmers on topics related to sustainable agriculture. He has a PhD in Biological Sciences -microbiology and biochemistry emphasis- from the University of Missouri-Columbia.

He has done a variety of jobs through his career as a field science educator, project manager, and primary investigator. Some of his practical experience includes all aspects of conservation agriculture and he has conducted research on identification of agroecotypes of nitrogen-fixing symbionts, and odoriferous cyanobacteria in water reservoirs.

#### **Description of the presentation**

After an introduction, he will introduce us to various topics related to sustainable agriculture, starting with his work with the Peace Works in Nicaragua and

Liberia, followed by research centered on nitrogen-fixing cyanobacteria in Asia (China, Thailand, Philippines); Farmer to Farmer (F2F) Instruction to developing countries in Africa, the Middle East, Asia, Latin America, and the Caribbean (25 assignments in 18 countries) and domestic volunteer work including past and present activities at Lincoln University with compost operations, currently assisting the Specialty Crops/Native Plants program at the Finca EcoFarm under Dr. Nadia Navarrete-Tindall.

#### Additional notes:

The John Ogonowski and Doug Bereuter Farmer-to-Farmer Program (F2F) created in 1985; authorized by the Farm Bill and funded by USAID grants. This program sends US volunteers on technical assignments to support farmers and agribusiness professionals in developing countries to improve their livelihoods and food security.

His field assignments focus on food security and mitigation/adaptation to the effects of climate change by smallholder farmers. Dr. Zimmerman presentation will include some of the following: Brief global overview of his assignments (crops and objectives)

Example 1 – Nepal and tea (S Asia)

Example 2 – Uganda and maize (E Africa)

Example 3 – Senegal and fonio, Ghana with maize (W Africa)

Example 4 – Madagascar and rice (S Africa)

Example 5 – Guatemala w/ organic fruits & vegetables; Peru w/ organic coffee & cacao (Cent & S Amer) If time permits it, he will provide short summaries of the diversity of thermophilic composting methods, vermicomposting, and bokashi.

### **Announcements**

In an effort to revive the wreath workshop we used to hold every November, Nadia is offering us space at LU for a Holiday Ornament/Wreath Workshop using native plant materials. It is scheduled for Saturday December 4 from 11 am to 3 pm; 1204 Chestnut Street, Jefferson City. It is in google maps under Teaching Greenhouse/Finca EcoFarm Lincoln University. We'll have signs. Nadia is asking people to bring a sack lunch and/or a snack to share. Hot water and herbal teas are provided. She adds to dress for the temperature as the greenhouse classroom is not heated. We can bring space heaters, but that is minimal help in a large room.

What to bring:

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### **GOLD LINKS**

.All new MPF/GN events posted here: https://grownative.org/events/

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### <mark>Sign up for MO</mark> Prairie Journal

https://moprairie.org/missio n/missouri-prairie-journal/ Find links to educational webinars every Wed afternoon on the MPF site.

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#### Christi wants to share:

https://news.yale.edu/2021/10/ 14/weed-winter-how-plantsdetect-seasonal-changes

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### Smithsonian's The Plant Press

Intriguing articles and essays from newly identified plants to artists found in archives. Sign up for newsletter delivery in upper right corner.

Elena offered to share this article on butterfly identification from MPF.

#### Excellent info from GN

Native Landscape Care
Calendar - for pros and
homeowners. Also - a brief
one-page care overview
And just added: extensive
Butterfly Host Plant list

You can now subscribe to
National Geographic
Magazine on line for \$19/year.

Ubiquitous Plastic from NatGeo weekly e-newsletter 27Aug 2021 . <u>Midway</u> through it explains the complete plastic cycle.

<u>ALBERTABERTABERTABERTABERTABERTA</u>

Before your garden skeletons are ruined in the weather or you are a fussy gardner and feel the need to 'clean up' your native skeletons, cut, dry, and save materials that would be attractive to form into a tree or wreath ornament. Examples are tops of Asclepias, Solidago, Pycnanthemum, Monarda, Penstemon, Baptisia, Cedar twigs, Rose hips, grasses, and with imagination, many others. Cut with enough stem to work with. As you cut these pods, there will be seed; tape the bottom seams of your paper shopping bag so seed doesn't fall out. Seed can be used in restoration areas. Bring enough to share. You will also need clippers/scissors, craft wire, perhaps a glue gun or elmer's glue, ribbon, small bells. If you are ambitious, bring a wreath base with enough cedar to cover.

13 December will be our next meeting. Please calendar and attend by ZOOM. If Nadia cannot find another person for a presentation, she will tell us about nitrogen-fixing legumes. Then we will vote for new officers: State Rep and Treasurer - and make an outline of activities in 2022. If you want to include your ideas in our activity schedule, please calendar and attend.

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It's hunting season 15 Sept thru 15 Jan. It would be prudent if bird-watching, seed hunting, or hiking to enter MDC CA's mid-day wearing an orange vest. Some are very inexpensive in most box store hunting/sports dept.

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Thanks to Nadia, Elena, Lea, Debbie, and Christi for submissions Thanks to Michelle for proofing this newsletter.

**Propagation Workshop Offered -** for members who want to learn to propagate native plants or want a stronger appreciation for the people who do. Soon after Thanksgiving, I will re-contact the <u>original 10 attendees to decide on the dates and location</u> in early December to learn methods of stratification and scarification. None of October's workshop will be repeated.

### VOLUNTEERING OPPORTUNITIES

Many of you have expressed interest in helping to manage the myriad of native plant gardens around town and at Columbia Public Schools as a reason to get outside and a process of education. Doing this community service is applicable to your MMN re-pay requirements. Even if you have not had MMN training, working in these gardens will help you learn how to recognize good native plants from undesirables. Lea is the leader for this volunteer group [named Volunteer of the Month by City of Columbia last summer].

Activities are announced weekly, so sign up now to know when and where to get started. Lea knows where all the gardens are and offers a schedule, received from her by email, when group weeding parties occur. If you have confidence in your knowledge of species recognition, don't be shy! — <u>ask Lea for a garden</u> and do what you can to remove 'bad plants' when you want to work. If you need assistance with id and technique, go with a group several times before you strike out on your own. <u>langtrea@gmail.com</u> call or text 864-7647.

### Lea's report on CPS Outdoor Classrooms

Russell School has a new native grasses area by a new butterfly bench next to their playground. The career center grew the grasses, and elementary school students have helped plant & mulch the area. It should look great when it grows up and fills in some.

Russell also had an old pond that no longer holds water. We have decided to call it a wetland. The plan is to plant it with lots of swamp milkweed, but meanwhile we found volunteer spike rush & soft rush, as well as an overabundance of white asters, and a few other plants planted by students many years ago (buttonbush, blue flag and rose mallow). While we are missing the frogs that used to populate the pond, we expect to see other wildlife make use of the area.

Blue Ridge 5th graders had a great time learning about invasive species and then pulling invasive honeysuckle and winter creeper in their woodland. There will be more to pull for years to come, but it is good to get students involved in the project.

The Columbia Early Learning Center (CELN) is looking better and better! The prairie seeds that were sown around the fence 2 years ago are up and flowering, and volunteers have spent many hours weeding out the grass and clover and weeds, and putting down mulch so the native plants can thrive. And inside the fence, native plants are in particular sections with labels. Students there got to see the caterpillars (I think they were swallowtail) and to help weed and mulch with us.

To learn more about **Deep Roots KC or to view previous educational webinars,** visit
<a href="https://deeprootskc.org/">https://deeprootskc.org/</a>

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### Public Enemy #1 I have killed eight this fall.



PLEASE be aware and act.
Perfectly camouflaged, this oriental mantis waits on flowers to eat
EVERYTHING

that lands on it: all beetles, butterflies, bees, other mantids, hummers, and finches who come for seed. It is imperative to rid your area of this ecological menace. Catch and kill the bird-sized adults. Egg cases look like a tan foam golf ball stuck on any vertical twig or wire. Put them in a jar over a year, or soak them in something flammable and light on fire to be sure they are dead before disposing in the trash.

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Link to

### **Braiding Sweetgrass**

by Robin Wall Kimmerer. If you want to assist Robin's cause with a purchase of one or more of her books, please do. If you cannot afford this purchase at this time, this link is a gift of a free download.

If you ever want to participate in these activities, please contact Lea at <a href="mailto:language-la

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### The FINCA Project at Lincoln University in Missouri.

Submitted by Nadia Navarrete-Tindall Nadia's photo of Prunus americana at LU>>>

A finca is a small farm in Latin America where native plants, fruits, flowers and vegetables are produced for consumption and income.

The Project FINCA -Families Integrating
Nature, Conservation and Agriculture was created with funds from a NIFA-Capacity
Building Grant from 2012 to 2017. Three pilot finca farms, one on campus and two in the Bootheel, were established. These served to accomplish the main goal of creating



demonstration areas to showcase multipurpose native plants as specialty crops for education and research in backyards or small farms. The fincas are examples of diversifying small tracks of land, especially non-productive urban spaces with useless resource demanding turfgrass into productive, environmentally friendly and beautiful areas. Fincas can be vibrant corridors than can feed people and protect pollinators and other wildlife.

The Finca EcoFarm is part of the FINCA Project that was established in 2012 and contains more than 50 native plants for diverse uses. Finca tours are offered for groups upon request. Send email to: <a href="Mayarrete-TindallN@lincolnU.edu">Navarrete-TindallN@lincolnU.edu</a>

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### News From Stateside Report from the September 24-26, 2021 MONPS state field trip

Submitted by Elena substituting for state representative Michelle

The state field trip was based in the Ozarks area of Missouri and centered around Eminence. The field trip started with a visit on Friday afternoon to a Virgin Pine Stand owned by the L-A-D Foundation that is managed by Pioneer Forest, LLC. The area along highway 19 north of Eminence features one of the few old-growth shortleaf pine stands that was not almost completely logged.

Friday evening Dan Drees, Fire Ecologist for the National Park Service, spoke to the group about successful restoration of glades, woodlands, and fens in the Current River watershed.

The second day started with a tour of the wildflower area around Alley Mill Spring. The flow from Alley Mill Spring averages 81 million gallons of water per day. The walk around the mill area goes through seeps, limestone outcroppings, and stands of old-growth white oak and short-leaf pine trees.

Elena was able to join the group on Saturday afternoon for a tour of a prairie fen area along the trail to the Mill Mountain Shut-in, which is east of Eminence. The MDC webpage notes that "Mill Mountain is a rugged igneous knob formed of rhyolite that rises 400 feet above Rocky Creek at its base" and points out that this area "contains igneous glades and associated dry woodlands and cliffs on steep, rocky northwest facing slopes." Several knowledgeable members pointed out and identified fall blooming wildflowers including several asters along the route. The group got to enjoy the calm water cascading through the shutins and the wildflowers and grasses growing right on the rocks.

On Sunday morning the group toured the Lick Log Hollow Trail, a part of the Angeline Conservation Area, which is north of Eminence not far off of highway 19 by way of county road 205. The group followed the one-mile Lick Log Hollow Trail through an oak-pine forest. We were able to see a fen, a very small shut-in, and a dolomite glade. On Lick Log Hollow Trail we observed a wooden bridge, benches, and nature signs identifying a few of the trees and plants. Most of the signs were very helpful identifying specific types of trees and plants although we were entertained by one sign identifying "Post, Oak." Later we discovered that one sign incorrectly identified a group of plants as Rattlesnake master (*Eryngium yuccifolium*), but the plants were actually American aloe (*Manfreda virginica*, formerly known as *Agave virginica*). Malissa planned to ask for a new sign with the correct name. As we headed back to our cars we found several very healthy native orchids along the trail and *Parnassia grandiflora*, a rare and unusual plant in a fen.

## Links to two of our Chapter Autumn Zoom Presentations

<u>Lea's Outdoor Native Plant</u> <u>Classrooms</u>

Becky's Pollinator ID & Garden Plants:

(the NOTES show up in the bottom; you need to click "notes" at the bottom of the screen to see verbiage).

St Louis chapter presentations are posted on the state website.



Eryngium yuccafolium
Debbie's photo above
Below, Becky explains how to
extract milkweed seeds:
Elena's photo



### Report from the September 25, 2021, State Board Meeting.

I attended as Michelle's alternate and our meeting had a quorum. Several items were agreed to be consent and we received the treasurer's report. The Hawthorn chapter challenge to the State MNPS to donate \$500 to the Missouri Prairie Foundation and \$500 to Grow Native! was accepted unanimously as everyone agreed it is a great benefit to the State group and all members of MNPS. The Board also discussed diversity and inclusivity noting that the Facebook group is an avenue for reaching these goals.

In response to questions about how the local chapters can try to reach a more diverse audience and work towards inclusivity, I mentioned some of the Hawthorn Chapter's activities. For example, I mentioned Nadia's work with Lincoln and classes about native plants that she has taught in Spanish. I also

reported about Lea's work organizing volunteers to plant and maintain native plant gardens at schools in Columbia, which exposes teachers, children and parents to native plants. John Oliver also mentioned that Nadia has spoken about native plants at some churches.

We were informed that a new automated membership renewal reminder system has been started.

The next state board meeting is set for Saturday, December 4 and will be via Zoom.

Elena posted several photos in the Hawthorn October Newsletter from field trips near Ellington 25 and 26 Sept.

Her most interesting discovery in a fen is this *Parnassia* grandiflora, found in protected limestone fens across the southeastern US.

Apparently it has a <u>unique pollinator</u>. [click for full article.]



LOCAL COLLEGE COLLEGE

### Seed Collection: First Part of Propagation Workshop; 10 Participants

Photos from Debbie and Elena

The Hawthorn chapter hosted the first day of a propagation workshop on Sunday October 17, 2021.

Elena reports: Ten of us gathered along the road beside the northeast corner of the Hundred Acre Woods where native prairie had been released from cedar woods 13 years before. Becky gave us some tips and pointers and we checked to make sure we had necessary supplies including envelopes and carefully taped paper bags to collect seeds in, pens or markers to write what we collected, gloves to handle very spiny things like *Eryngium yuccafolium* [rattlesnake master], and scissors or clippers to cut tough plant stems. We then entered an area where we had seen *Liatris* in full bloom on a visit in May this year, we



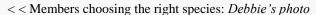
found it very easy to identify and collect those seed. Almost immediately we found good stands of native plants and started to gather seeds.

Debbie: It was a perfect day for learning about seed collection from Becky. What I would once have looked at as a "weed" or odd fuzzy plant I now see the beauty of the structure and the way nature has evolved to ensure that the life of the plant continues.

Lea: We had an amazingly lovely day for seed collecting and as usual, even though I do know lots about native

Above *Liatris pycnostachya* and *Schizachyrium scoparium*: Debbie's photo

plants, I find that I can still learn more. Plus I enjoy sharing what I do know with others.





<u>NANGERANGERANGERANGERANGERANGE</u>

After several presentations and discussions on soil mycology [mycorrhizae] over the last 5 years, the following should be enhanced information for you.

From: Rangeland Ecology & Management

Title: Biological Soil Crusts of the Great Plains: A Review

By: S.D. Warren, R. Rosentreter, N. Pietrasiak

Published: 2021 Full Article Available Open Access: https://doi.org/10.1016/j.rama.2020.08.010

**Abstract:** 

Biological soil crusts (BSCs), or biocrusts, are composed of fungi, bacteria, algae, and bryophytes (mosses, etc.) that occupy bare soil, entwining soil particles with filaments or rootlike structures and/or gluing them together with polysaccharide exudates to form a consolidated surface crust that stabilizes the soil against erosion. BSCs are common in arid and semiarid regions where vascular plant cover is naturally sparse, maximizing the exposure of surface-dwelling organisms to direct sunlight. Although less prominent and less studied there, BSC organisms are also present in more mesic areas such as the Great Plains where they can be found in shortgrass and mixed-grass prairie, in the badlands of several states, where burrowing animals have created patches of bare soil, on damaged road-cuts, strip-mines, gas and oil drill pads, military training areas, heavily grazed areas, and burn scars. Even where BSCs are not readily visible to the naked eye, many of the organisms are still present. BSC organisms are passively dispersed to the Great Plains as airborne organismal fragments, asexual diaspores, or sexual spores that accompany wind- blown dust from as far away as northern China and Mongolia. BSCs can best be studied and managed by 1) acknowledging their presence; 2) documenting their diversity, abundance, and functional roles; and 3) minimizing unnecessary disturbance, particularly when the soils are dry. This paper describes the current knowledge of Great Plains BSCs in an effort to heighten awareness of these cryptic but crucial ecosystem components and to encourage new research initiatives to better understand and manage them in this biome. Some specific actions may include refined taxonomic and ecologic studies of BSC organisms in underexplored areas, particularly those previously less or not recognized as BSC habitat, and incorporation of techniques to sample airborne organisms.

Received from PCA 27 Sept 21 [You, too, can receive these articles personally without waiting for a forward by signing up with PCA (Plant Conservation Alliance) for their information emails.]

LOCAL COLLEGE COLLEGE

### Topics for This Years' Petal Pusher

New topics will be announced after the next State Board meeting 4 Dec.

You don't need to be an expert, but if you have good repeatable experience as a naturalist on any of these subjects, you are welcome to offer your knowledge to the rest of us.

If we have members who are experts on any of these topics, Michelle Pruitt [on masthead] is willing to do an amateur proofread for you if that would be helpful.

ALWAYS - 20<sup>th</sup> of even numbered months. If you don't understand subjects, parameters, or submission format, contact Michelle Bowe, PP editor

MBowe@MissouriState.edu.

- Focus on a Plant Family could be used every year. Louise Flenner of Hawthorn chapter wrote a good article on this topic in 2019. Would be good to study that as a template.
- Potential Emerging Invaders. Have you seen a new plant invader? Someone from MoIP as contributor; Malissa Briggler volunteered. Any one of us could study invasive plants; MPF Journal featured invasives during 2020. Just search 'invasive plants' and pick one to report on.
- Favorite Natural Areas. <u>Suggested to also have chapters solicit</u> <u>articles from their members. This means YOU can write about your favorite Natural Area</u>
- Better Know a Genus. These are species accounts. You observe/research a species or genus and describe the whole life cycle including preferred habitat and vectors/predators.

### **Regular Recurring Columns:**

Conundrum Corner Contributors needed!

**Invasive Tip of the Month** Tips to identify and eradicate invasives, with a different species in each issue. Contributors needed!

Other Recurring Columns: Casey's Kitchen Casey Burks Name Change of the Month Justin Thomas. Other volunteers welcome.

**Poetry Corner or Quotation Corner** Send suggestions for poems or quotes for inclusion. Note that for poems, we must have permission from the publisher.

Where are we going Features we will see on the next field trip. Malissa Briggler?

And here's where you can become newsletter famous by submitting your questions: <a href="https://monativeplants.org/ask-a-question/">https://monativeplants.org/ask-a-question/</a>

**Ask a question** Questions from website, answered. Facilitated by Jerry Barnabee.

### **Please Step Forward For Service**

Please contact one of the officers to volunteer a little time to a very good environmental and educational service. We need people to serve as officers, to grow plants for fundraising, to man our information booth at events such as Earth Day and Bradford Plant Sale, and to care for native gardens in public places.

### MEMBERSHIP FORM Missouri Native Plant Society Hawthorn Chapter

How were you attracted to joi	How were you attracted to join MONPS?	
	nrough June. You must be a lative Plant Society (MONPS) in y send state and chapter dues to our	
membership chair, Paula Peters		
Please check membership categ Minimum required annual me is \$10 for students or \$15 for *These amounts include both st	embership per household non-students [state+chapter]	
Student \$10.00*	•	
Goldenrod \$15.00*		
Sunflower \$30.00*		
Blue Bell \$55.00*		
Blazing Star \$105.00*		
Surcharge for paper state	Petal Pusher by mail (+\$10.00)	
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Amount Paid		
Make checks payable to:  Missouri Native Plant So	ciety	
Mail payment and this fo	•	
Paula Peters		
2216 S Grace Ellen Dr		
Columbia, MO 65202		
Name:		
Address:		
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Telephone:		
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