January—February 2023 Newsletter of the Missouri Native Plant Society Volume 38 No.1
“… to promote the enjoyment, preservation, conservation, restoration, and study of the flora native to Missouri.”

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MissouriPlants.com homepage.

**MissouriPlants.com—an Online Resource for Identification of Missouri’s Flora**

by Steve Turner

**History**

The MissouriPlants website (www.missouriplants.com) was begun around the year 2000 by Dan Tenaglia, a botanical student, photographer, and friend to many in MONPS at the time. Dan originally began documenting plants using a simple point-and-shoot camera, later graduating to more sophisticated and higher-quality SLRs and digital cameras. The site grew by leaps and bounds, evolving to include detailed, high-quality imagery of each species, along with detailed textual descriptions. At the height of Dan’s work, the site included an astounding 1,085 species. In 2004, the
Missouri Native Plant Society awarded Dan the Erna R. Eisendrath Memorial Education Award in recognition of his achievements. Dan also went on to begin a similar site for plants of Alabama during a time when he and his wife Karen were living there.

Tragically, Dan’s work on MissouriPlants.com was to end abruptly. On February 11, 2007, Dan and Karen were bicycling near their home when they were struck by a negligent driver. Karen recovered from her injuries, but Dan sadly passed away. A memorial service for this remarkable individual was held on February 20, in Winter Haven, Florida, and a celebration of his life for family and friends occurred on February 24 in Opelika, Alabama. A memorial tribute penned by George Yatskievych appeared in the MONPS Petal Pusher (Vol. 22 No. 3, 2007), and is reproduced on the MissouriPlants website. The issue is available (at this link) on the MONPS website.

Following Dan’s death, all further development of MissouriPlants.com ceased. Although the site remained online and available for use, it was slowly becoming outdated due to rampant taxonomic revisions taking place in botany. Naturally, no new species were being added.

In 2017, Karen graciously relinquished control of the site created by her former husband, and the Missouri Botanical Garden (MOBOT) assumed hosting and oversight. In 2018, the task of updating and expanding the site fell to MONPS, with a meeting held at the Garden in February 2018 to discuss future directions. I became the natural choice for this work, due to my interest in botany and photography, and also my fluency in computer operations. In fact, my own interest in botanical photography seemed remarkably similar to Dan’s, and I regret never having met the man. I also had some prior experience in plant photo-documentation, having produced and (with the help of Rex Hill) uploaded hundreds of detailed plant photos to Tropicos, which is MOBOT’s public data portal.

Since that meeting in 2018, I’ve updated the site with nearly 10,000 new images, added over 300 new species, corrected a number of minor mistakes, and updated taxa when appropriate (more on this later). This work continues, with the primary goal of expanding the number of species represented. At present, that number stands at 1,416, which is thought to be roughly half of the species extant in Missouri and perhaps two-thirds of its forbs.

An example of plants categorized by family.

One of the 1,416 individual species pages.

**Philosophy**

The primary objective of MissouriPlants.com is to aid interested non-experts in identification of plants they find growing wild in Missouri. More specifically, the site is designed to:

- Aid in identification of plants growing wild in Missouri, in environments ranging from pristine natural areas to disturbed urban landscapes.
- I have been asked why MissouriPlants.com included introduced species. The answer is simply because they are permanent occupants of our landscapes and must be included to allow proper identification of an unknown plant. A beginner would have no idea if the plant in hand was native or introduced, and the lack of means to identify that plant if it happened to be introduced would be a serious flaw.
• Stimulate interest in plants by presenting images which are not only relevant to identification but also visually compelling. Many changes to imagery have been made because I felt a new photograph better represented a particular aspect of the plant or was more beautiful than its predecessor. There is also strong emphasis on photographic technical quality, rather than contributing to the overabundance of blurry and/or poorly exposed images present on the Internet.

• Present plants as they appear in their natural settings. Studio photography has a place, and has occasionally been used within MissouriPlants.com, but the primary image and most supporting images are those acquired in the field, without resort to “photoshopping” or other artificial techniques.

• Maintain emphasis on scientific naming to encourage its use among amateurs. The taxa presented on the site are those considered to be in use by the preponderance of practicing field botanists and -naturalists, rather than reflecting the very latest proposed changes. Very often, taxonomic revisions and classifications are transient, and tracking the cutting edge would be laborious, futile, and, in the end, simply confusing to the user. Knowing when a particular taxon has become permanently accepted and mainstream (at least until the next revision) is a judgment call which is not always easy to make.

• Present high quality, reliable information. With 1,416 individual species pages, it is nearly impossible for me to detect errors. Therefore, I rely on end users to contact me if they find a mistake. Corrections are made immediately to my site database; however, it is important to realize that, due to the way updates are applied, corrections will generally not become visible to the user for up to two weeks. This is an unfortunate consequence of the fact that we do not have direct access to MOBOT’s servers.

• Continue to expand. As mentioned above, a primary ongoing task is adding species, an endeavor which has taken me farther and farther afield in search of new plants. Currently, representation of trees and graminoids, for example, is weak. Grasses in particular are difficult to image in a way which is meaningful to amateurs, and trees very often hold their reproductive bits well out of reach. Workable ways of dealing with these more difficult groups need to be developed. I also appreciate hearing of nice populations of plants which are uncommon or currently missing from MissouriPlants, particularly if they are in bloom. I keep track of these locations and will either pay a photographic visit immediately or make a point to do so in the future, as time allows.

### Site Usage

The organization of MissouriPlants.com is designed to accommodate users ranging from neophytes to experts. For the latter, there is a full listing of species links according to scientific name, and also a listing organized by family. For the beginner, there are pages organized by flower color and leaf arrangement, similar to the organizational concept of most wildflower books. These links will quickly transport the user to the relevant species page. All species pages maintain a navigational pane at the left to facilitate movement within the site. All pages are intentionally kept clean and uncluttered, in the belief that Amazon-like complexity of individual pages would be unattractive, confusing, and counter-functional. We are fortunate in having MOBOT host our site, thus allowing us to present it without advertisements or a stiff annual cost.

Check it out at [www.missouriplants.com](http://www.missouriplants.com). I always welcome comments and suggestions from users via email, at [missouriplants@yahoo.com](mailto:missouriplants@yahoo.com).

We would like to recognize Steve Turner as the person responsible for continuing and updating MissouriPlants. Thank you, Steve, for your great and continued contribution to botany.

Photo by John Oliver
Chapter Events

Hawthorn

Date TBA: January Planning Meeting
Date dependent on weather; check your email.

1-19: Monthly Group Lunch
Join us at First Watch on Stadium Blvd.

2-13: Regularly Scheduled Monthly Meeting Via Zoom

2-16: Monthly Group Lunch
Join us at First Watch on Stadium Blvd.

See www.columbianativeplants.org for an updated posting of newsletters and activity details.

Paradoxa

1-24: Online Workshop, Tuesday, 7:00-8:30 P.M.,
Plant identification for Non-Botanists

No botany degree? No problem! Join Master Naturalist Rebecca Lexa as she shares beginner-friendly tools and skills for identifying plants wherever you may be. This is a casual identification class so technical terms will be at a minimum, and you'll also learn some resources for further exploration. The presentation will be approximately one hour, followed by time for questions. Once the Zoom meeting is set up, we’ll publish the link on the Paradoxa chapter page of monativeplants.org.
Chapter Updates

Hawthorn Chapter Update
by Cindy Squire, Chapter Representative

We had lunch at First Watch on Stadium Blvd. on November 17 and December 15.

On December 1, we had wreath making and a potluck at Lincoln University. The new Lincoln University President was in attendance. Wreaths were made with care by students, MONPS members, and community members.

Becky Erickson gave a presentation about seeds and processing them for planting on December 12. Elections were held.

Paradoxa Chapter Update
by Pam Barnabee, President

Saturday, December 10, was our final meeting of 2022, our annual seed swap and members’ meeting to make plans for the coming year. We came away with a long list of potential places to visit and several ideas on how to best use the funds we raise from membership dues and plant sales. Our officers’ committee will be getting together this month to make some definite plans, and I’ll communicate those through email, future issues of the Petal Pusher, and the Paradoxa page of the MONPS website.

Perennis Chapter Update
by Stephen Sutter, Chapter Representative

On September 25, a few of us from the Perennis Chapter got together for a beautiful afternoon walk at the Mingo National Wildlife Refuge located near Puxico, Missouri. We also had some guests join us as we went out on the west-side trail of the Refuge to explore the foothill region of the Ozarks. We did see several fall-blooming plants, a lot of composites. We also saw a lot of insects pollinating the plants. See attached photo. We did see the effects of the drought in southeast Missouri as the drainage ditches were low and Monopoly Lake was also down. Maybe that’s the reason we did not see as much in bloom as usual. But, a good time was had by all as we were able to get outside and enjoy a very comfortable and sunny day. Those that attended included: Debbie Deneke, Charlene Christian, Gail and Stephen Sutter.

In October we tried to schedule a trip to Pine Hills in southern Illinois, but were unable to find a date that would work.

We will meet again in the Spring. Maybe a trip to MDC Cape Nature Center; I was told that they have several good trails around the Center where you can find native plants. Other possibilities include Trail of Tears or Pickle Springs.

If you would like to join us, please contact Stephen Sutter at stephen.sutter@sbcglobal.net.

2023 MONPS Field Trip Weekends—Mark Your Calendars!

Dates and general locations for our 2023 field trips are set. Details and lodging information will be published in the Petal Pusher and on our website (monativeplants.org) as we get closer to the dates, so stay tuned for updates! Field trip weekends include botany walks on Friday afternoon, Saturday morning and afternoon, and Sunday morning; a Friday evening speaker; and a Saturday evening MONPS Board Meeting. You’re welcome to attend any or all of the scheduled events.

April 21-23: Our Spring trip will be held in the Camdenton/Lake of the Ozarks area with potential visits to Lead Mine Conservation Area, Ha Ha Tonka State Park, Coakley Hollow, and Rocky Top Glade.

June 23-25: For Summer, we’ll be headquartered in the vicinity of Columbia or Jefferson City. Among the sites we may visit are The Pinnacles, Tucker Prairie, and a sinkhole pond.

September 15-17: Our Fall trip will take us to the Osage Plains region of Missouri, headquartering in Clinton. Possible places for visits are Truman Lake; Thoh-Dah Prairie, recently purchased by Missouri Prairie Foundation, and other prairies in the area.
There are many links in the following article which lead to files and pages embedded in our Missouri Native Plant Society Facebook page. A Facebook account and joining our page may be required to view some of them. Remember, if you are a member of a “Private” page like ours, and don’t accept friendships from random people, you will minimize your exposure to the unpleasant parts of Facebook.

About 12 years ago, I started a Facebook page for the St. Louis Chapter to promote upcoming meetings and field trips. The Columbia and Springfield Chapters also made similar Facebook pages. We quickly realized that interested members of one chapter would like to see the posts of all of them, and to consolidate our information, we decided to close down the chapter sites in favor of a statewide Missouri Native Plant Society page. Kevin Bley, the publicity chair of MONPS at the time, had already started such a page and we all got on board.

The growth of the page has been nothing short of phenomenal. From those early days, our membership on the page has grown to over 38,000 participants of which just over half are considered “active” by Facebook. This is one of the largest groups on Facebook dealing with the native plants of a particular state or region. From what I can tell, the groups of this type that are larger than ours are all “Public” groups whereas ours is “Private.” The distinction between Public and Private Facebook groups is one instituted by Facebook in May of 2020 which made it possible for groups to grow more rapidly. In Public groups, anyone on Facebook can see all the content, posts, and photos. In a Private group, only current members can see the content. Anyone can join a public group (including internet trolls and bot accounts); to join a Private group, you must make a request and answer qualifying questions posted by the administrators. This process makes it easier for the administrators to assess whether the requesters are real people who care about our subject matter and to weed out the trolls and bots. In our group, the current ratio of declined requests to approved requests is about 4½ to 1. Without this step, our membership would be far larger but cluttered with fake accounts and people who are not native plant enthusiasts. Of course, the downside of a private group is the labor-intensive job of moderation, and the real heroes that make the Society page a low-drama place to find answers to
questions and post photos are the administrators. Riding herd on over 38,000 people is almost a full-time job in itself. Most weeks we get hundreds of membership requests. These requests come from real Missourians with an honest interest in native plants on or for their property, internet trolls who belong to thousands of groups and have no interests other than mischief, and “bot” accounts from all over the world. Our administrators sift through all the membership requests, remove inappropriate posts, arbitrate squabbles, and soothe hurt feelings. All this, in addition to being our most consistent and expert plant identifiers and question answerers. Here are the people Facebook identifies as our most active administrators, and I thank them for their hours of effort on our behalf:

After a dozen or so years, The Missouri Native Plant Society has established a large community on our Facebook page where thousands of people discuss native plants, ask related questions, and share photographs. Most of these activities relate to our primary mission of educating the public about the plants, native and non-native, around us. Many of the “posts,” as the Facebook entries are called, are either requests for the name of a plant that has been observed (and photographed) or inquiries as to the “friend or foe” status of a plant on their property. As our numbers grow, we get repeated questions that our administrators cheerfully answer repeatedly. Poison ivy and its look-alikes, pokeweed, mullein, Albizia, and bush honeysuckle make frequent appearances, but we also see some surprising and much more desirable plants. Range extensions and new locations for plants with high C values have occurred. We have now included the paperwork to report sightings of species listed in the Missouri Species and Communities of Conservation Concern Checklist.

Another area of the site that will repay a closer look is the “Files” tab, which has the following links:

- **What is a C-Value?**
- Susan Farrington’s guide to recognizing native and non-native thistles, [Thistle ID pdf](#), and also her guide to [Distinguishing Callery pear from native look alikes.pdf](#)
- The Missouri Invasive Plant Task Force’s (MoIP) [2021 List of Expanding Invasive Plants](#)
- Dana Thomas’ [Recommended Missouri References.pdf](#)
- The invaluable resource, [MOFEP 2013 Botany Manual.pdf](#)
- A guide to [Identifying Oaks and Hickories in Missouri](#)
- [Identifying Morus rubra and Morus alba from leaves](#)
- Alan Brant’s index to Grass Genera in the Flora of Missouri, [Volume 1: Grass Genera – Flora Missouri](#)
- An invitation to [Explore Our Publication Archives](#)
- Two out-of-print books, [Central Region Seedling ID Guide for Native Prairie Plants](#) and Jan Phillips’ [Wild Edibles of Missouri](#) among other treasures.

The general attitude we hope to project is summarized in the [Rules for the Page](#) which we ask prospective members to read and agree to, and the welcoming [A Message from the Administrators](#). We invite all Petal Pusher readers to join us and contribute your photos and expertise!
Invitation to Plant Conservation Alliance (PCA) General Meeting

You are invited to attend the January 11, 1:00 to 3:00 P.M., online meeting of the Plant Conservation Alliance. The speaker will be Sara Fitzsimmons, Chief Conservation Officer, The American Chestnut Foundation, The Pennsylvania State University, who will discuss Restoring the American Chestnut for Robust Forests in the Eastern US: Considerations and Challenges for the Next 200 Years. Please RSVP by Monday, January 9, to elizabeth_krone@fws.gov. The meeting login details will be shared with all respondents via calendar invite and email by Tuesday January 10. This meeting will be hosted using Microsoft Teams. You will be able to join the meeting from the web or via the Microsoft Teams app.

About the Presentation

The American chestnut (Castanea dentata) was once a primary component of many forests in the eastern US. In the 1800s, plant importation brought with it a devastating fungal disease that all but eliminated the American chestnut from its original range. Researchers with The American Chestnut Foundation and affiliate organizations have been on the forefront to restore this species, exploring the many facets required for reintroduction of disease-resistant populations. The Appalachian forest ecosystem is vastly different now than it was over 100 years ago when American chestnut was often the dominant species of a stand. Invasive and exotic vegetation, introduced diseases and pests, ravenous and excessive deer herds, overdevelopment, and threats of climate change face a species made effectively dormant by introduced disease. Given all those hurdles, one might think working toward chestnut restoration is simply a setup for defeat. Luckily, current research suggests populations of American chestnut could be self-sustainable, despite changing pressures, within the next 50 to 100 years.

The Plant Conservation Alliance (PCA) is a partnership among 17 U.S. Federal Agency members and more than 300 Non-Federal Cooperators, both state agencies and private organizations, including MONPS. PCA members and cooperators work collaboratively to solve the problems of native plant conservation and native habitat restoration.

The PCA general meetings are open to everyone and follow this format:

• Updates on PCA Activities—learn about and get engaged in the Plant Conservation Alliance
• Invited Speaker
• Native Plants Roundtable—all participants are encouraged to share information on national native plant events and activities
Nominations Due May 15 for 2023 MONPS Awards

The MONPS Awards Committee seeks nominations of people who have supported the preservation of Missouri’s flora. MONPS offers five awards:

1. Erna Eisendrath Memorial Education Award, recognizing individuals who, through teaching, writing, or other activity have conveyed to others a significant appreciation and knowledge of Missouri’s native flora.

2. Arthur Christ Research Award, recognizing an individual’s significant contribution in furthering the knowledge of Missouri flora.

3. Plant Stewardship Award, recognizing an individual or organization for the preservation of important elements of Missouri’s flora through purchase, registry, and/or management practice.

4. The John E. Wylie Award, recognizing individuals who have provided exceptional service to the Society.

5. Plant Conservation Award, recognizing an individual or organization for outstanding contributions to the conservation or preservation of native plants or plant communities in Missouri. This award differs from the Plant Stewardship Award in that it is not tied to direct acquisition or management of tracts of land, but instead may recognize various types of outstanding achievements or efforts, such as conservation planning, advocacy, or new ways of looking at old problems.

6. Julian A. Steyermark Award, the Society’s highest award, given to an individual who has made outstanding contributions to any and all aspects of Missouri botany.

The deadline for nominations is May 15. Nominations should contain the full name of the nominee and the name of the person making the nomination, and they should set forth the contributions of the individual or organization that merits recognition. Award recipients need not be members of MONPS.

Please submit nominations to Awards Committee Chairwoman, Malissa Briggler.

Malissa Briggler
State Botanist
Missouri Dept of Conservation
2901 W. Truman Blvd.
Jefferson City, MO 65102

Phone: 573-522-4115 ext. 3200
New!: Shop Online for Embroidered MONPS Logo Apparel

A new feature has been added to the MONPS website: from the “Shop” link on the menu bar of our home page (monativeplants.org), you’ll be able to access our online store. Short-sleeved and long-sleeved t-shirts, sweatshirts, and ball caps with embroidered MONPS logos are available in five colors. There’s also a booney hat with embroidered logo, in dark brown. The tote bag has a direct-to-garment print of our logo. Our vendor, Fast Yowi, is located in Columbia, so you can pick up your order there if it’s convenient, or have it shipped.

Click the Shop New tab (above next to the red arrow) on the MONPS homepage to access the store.

Choose the color and style you like from a variety of shirts and accessories.
Help Us Wrap Up Missouri Botanists Big Year 2022

Our annual Missouri Botanists Big Year friendly competition, held on the online community science tool and website, iNaturalist, is coming to a close. You can help make this another successful year:

If you’re a participant in the 2022 contest, be sure you’ve posted all your 2022 photos of wild Missouri plants (native and non-native) to iNaturalist.

If you’re an expert in the field of botany in Missouri, please help us vet and identify the observations made. Log onto iNaturalist and help here:

https://www.inaturalist.org/observations/identify?verifiable=true&page=1&spam=false&place_id=any&user_id=&project_id=missouri-botanists-big-year-2022

As the final identifications for 2022 are made, statistics compiled, and winners determined, Missouri Botanists Big Year 2023 will soon be underway. Remember that each Big Year is a separate project, so you must join the current year’s project in order to participate. If you haven’t yet joined the fun, you can get started by creating an account on iNaturalist.org. The results for the 2022 competition and details on participating in 2023 will be posted on the MONPS website, monativeplants.org, and in the March/April issue of the Petal Pusher.

Donate to MONPS When You Shop!

AmazonSmile is an easy way to support MONPS. Every time you shop on smile.amazon.com, the AmazonSmile Foundation donates 0.5% of your purchase of eligible products to the MONPS Hudson Research Grant Fund, supporting student research on the biology of Missouri native plants.

Simply visit smile.amazon.com and search for Missouri Native Plant Society Inc. After you finish shopping, Amazon will automatically donate to MONPS. You may also click the AmazonSmile link on monativeplants.org.

Make sure to navigate to smile.amazon.com each time you shop. The default amazon.com will not result in a donation, and your smart phone application may not support AmazonSmile. Visit About AmazonSmile to read more about the AmazonSmile Foundation.
New Members

St. Louis
David M. Graham, Normandy

Paradoxa
Amy Whitaker, Rolla

Kansas City
Robert Lee, Kansas City

From the Guest Editor

Welcome to 2023! It was a joy to work with Pam Barnabee, Michelle Bowe and Dana Thomas to produce this issue. I wish for fantastic plant discoveries for all in the New Year.

Sincerely,

Erin Skornia, Petal Pusher Guest Editor
Join Us! Become a New Member or Renew

You may become a member online at https://monativeplants.org/membership/, or you may fill out this form and mail to:

Missouri Native Plant Society
PO BOX 440353
St. Louis, MO 63144-4353

First Name __________________________ Last Name __________________________

Street __________________________________________

City, State ZIP Code __________________________

Phone __________________________ E-mail __________________________

Company/Organization __________________________

Membership Status

Choose one: ☐ New member ☐ Returning member

State Membership

(Choose one):
☐ Student ($5.00)
☐ Goldenrod ($10.00)
☐ Sunflower ($25.00)
☐ Bluebell ($50.00)
☐ Blazing Star ($100.00)

Chapter Membership

In addition to society dues:
☐ Empire Prairie (Saint Joseph) (+$5.00)
☐ Hawthorn (Columbia) (+$5.00)
☐ Kansas City (+$5.00)
☐ Osage Plains (Clinton) (+$5.00)
☐ Ozarks (West Plains) (+$5.00)
☐ Paradoxa (Rolla) (+$5.00)
☐ Perennis (Cape Girardeau) (+$5.00)
☐ Saint Louis (+$5.00)
☐ Southwest (Springfield) (+$5.00)
☐ None

Optional Contributions:

Hudson Fund:
I wish to donate an extra amount to the Hudson Research Grant Fund.
$__________________

Other Contribution:
I wish to donate an extra amount to general Society business.
$__________________

Newsletter Delivery:

☐ I wish to receive the complimentary email newsletter
☐ I wish to receive my newsletter by postal mail (+$10.00)

Total Membership/Donation Amount: $__________

Make check payable to: Missouri Native Plant Society
In nature nothing exists alone.

—Rachel Carson