



KANSAS NATIVE PLANT SOCIETY

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NEWSLETTER OF THE KANSAS NATIVE PLANT SOCIETY

OCTOBER 2021

CYNTHIA RHODES



Schemmerhorn Park gathering with Jen Rader, Brad Williamson, and Krista Dahlinger

2021 AWW SOUTHEAST KANSAS

A Big Brutus of a Weekend!

— CYNTHIA RHODES

The wildflower tours of the 2021 Annual Wildflower Weekend (AWW) were held in the southeastern region of Kansas and southwestern corner of Missouri on September 17 through 19. Members began happily gathering in Pittsburg's Lincoln Park Pavilion #3 after dinner on Friday evening. With the anticipation of a weekend full of wildflower walks, conversations, and photos ahead of them, those gathered departed to their various lodgings at the end of an evening of catching up with each other.

With excellent directions from President Krista Dahlinger, members gathered at **Tour Stop #1 Prairie State Park** in Missouri at 10:00 on Saturday morning. This park is Missouri's largest remaining tallgrass prairie landscape with four examples of tallgrass prairie within the park. Park Naturalist, Dana Hoisington, remarked that 80 to 85% of the park is virgin prairie due to the rocky layers close beneath the topsoil. More than twenty-five rare and endangered plant and animal species (including Mead's milkweed) have been recorded in the park, and a reintroduced bison herd of forty animals freely roams across the landscape shaping the earth with grazed patches, trails, and wallows. Purchased with the help of The Nature Conservancy, Prairie State Park preserves a unique and rare diversity of life.

After exploring the displays at the park's Regal Tallgrass Prairie Nature Center, members set out to explore the wildflowers along the six nature trails finding tall warm-season grasses such as big bluestem and Indian grass predominant among the goldenrods, sawtooth sunflowers, and blue sage. Finds of the stop included Emmett Sullivan's cardinal flower (*Lobelia cardinalis*) found near the camping area, and the rough white lettuce (*Prenanthes aspera*) located on the Gayfeather trail. Too soon it was time to depart for lunch, and members headed south to meet again in Galena. — CONTINUED ON PAGE 14

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OUR MISSION

The mission of the Kansas Native Plant Society is to encourage awareness and appreciation of the native plants of Kansas in their habitats and in our landscapes by promoting education, stewardship, and scientific knowledge.

The Kansas Native Plant Society Newsletter is published quarterly: Winter (January), Spring (April), Summer (July), Fall (October). Readers tell us how much they enjoy the newsletter in paper format. Contributions help us continue to produce a publication of this length in this form.

You may send your gift to KNPS at:

Kansas Native Plant Society
R. L. McGregor Herbarium
University of Kansas
2045 Constant Ave.
Lawrence, KS 66047-3729

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Check us out online at www.ksnps.org
Contact us by email at email@ksnps.org
Contact us by phone at 785-864-3453

KNPS Virtual Annual Membership Meeting

– CYNTHIA RHODES

Krista Dahlinger, President, called the virtual membership meeting to order at 6:15 on Thursday evening the 23rd of September with a welcome to those present. She thanked Past President, Brad Guhr, and the Dyck Arboretum for sharing their Zoom account with KNPS for this meeting.

The business of the meeting consisted of election of board members. The following members were nominated and re-elected for a three year term (2022-2024) on the KNPS board.

Earl Allen, Manhattan	Shirley Braunlich, Lawrence
Nadine Champlin, Sabetha	Craig Freeman, Lawrence
Brian Martin, Hesston	Matthew Richter, McPherson
Pam Tennison-Rindt, Maple Hill	

There were no new board members nominated to the board this year. Krista acknowledged and thanked the two board members stepping down from service on the board.

Mickey Delfelder, 12 years	Rondi Anderson, 6 years
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The program for the evening was a beautiful Powerpoint presentation of the 2021 KNPS Photo Contest winners by Anthony Zukoff. Anthony remarked that with 110 entries, the judges had a hard time selecting these winning entries. He encouraged all to take many wildflower photos in the upcoming year and enter next year’s annual KNPS Photo Contest.

The meeting was concluded with an announcement from Krista for all to think about next year’s Annual Wildflower Weekend and Spring Mini-AWW and where they should be held. The dates in 2022 will be selected once locations are determined. Ideas and suggestions for wildflower walks and talks can be sent to email@knps.org.

KNPS Virtual Fall Board Meeting

– CYNTHIA RHODES

Krista Dahlinger, President, called the virtual fall board meeting to order at 7:15 on Thursday evening the 23rd of September with a welcome to those present. She thanked Past President, Brad Guhr, and the Dyck Arboretum for sharing their Zoom account with KNPS for this meeting.

The Minutes of the May 20, 2021 board meeting were approved with one correction. Various committee reports were presented and discussed as outlined on the agenda.

Executive officers nominated from the board to serve for one year (2022) were presented and elected unanimously as follows. Krista requested for a board member to consider filling the open secretarial position for one year.

Krista Dahlinger, President	Anthony Zukoff, Vice-President
(Open), Secretary	Earl Allen, Treasurer
Brad Guhr, Past President	

The new business presented and discussed included location ideas for the 2022 Mini-AWW and AWW. Since an offer had been made to hold the Mini-AWW in Miami County, it was determined by consent to hold the spring get-together in that area. Upon further discussion, it was determined to investigate location of the fall AWW either in the Newton/Harvey County area or in the Emporia/Tallgrass Prairie Preserve area. Final determinations will be announced in future KNPS media sources.

Concluding the meeting, Krista announced that a new writer is needed for the wildflower articles in the Kansas Wildlife and Parks magazine. Interested writers should contact her for further information at email@knps.org. The meeting was adjourned after 9:00 PM. We look forward to meeting all together in person at some time soon!

President’s Message | KRISTA DAHLINGER

As I write this column for the fall issue, I am still immersed in the memories and images made over two days exploring the parks, roadsides, prairies, and woodlands in southeast Kansas and southwest Missouri. The prairies are in their final glory with tall grasses at full height, punctuated by late season yellows provided by goldenrod, sunflower, and bidens. Pinks are provided by liatris, agalinis; purples made possible by gentian and New England asters. Trees on the trails and roadsides gave us welcome shade for exploring vines and understory plants. The 2021 Annual Wildflower Weekend Outdoor Tours drew about twenty-five people to five locations, which included a cultural stop at Big Brutus in West Mineral, where Emmett Sullivan gave us an excellent history of the coal mining industry in the area, and then led us on roadsides to his favorite plant communities and to a private prairie. Thank you to Jenn Rader and Linda Phipps at Southeast Kansas Nature Center near Galena for guidance in the Nature Center and for leading the walk at Schermerhorn Park. Also thanks go to Wayne Bockelman for leading us through the upper and lower trails at Wilderness Park in Pittsburg. Our exploration time was too brief at all of these locations.

I remember going on first walks with KNPS twenty years ago, looking at “plants” out in the middle of nowhere, unable to associate a name with any of them, while receiving suggestions to look at leaf shape, leaf arrangement, branching patterns, shady or sunny conditions. So many patient people in those days took the time to show me the physical characteristics of different plants, and finally plants and their names came into focus for me. Last weekend when we saw that tall-ish plant in the shade, with long spear-shaped droopy leaves, lopsided bright yellow flowers, and fins on the lower edges of the stem, I was glad to point out these features for someone else to take note of, again and again, just sure that those details would suddenly come into focus for them. KNPS members have shown me there is as much desire to help others identify plants as there is a desire to begin learning to identify plants.

Every day is a good day to help others learn to identify native plants. Checking out the closest Kansas State Parks, local hiking trails, and Nature Centers are places to start looking at native plants in their preferred habitats. Take a friend and identify what you know, even if it is just a few plants. Join a group on a hiking event, or a wildflower or birding walk where everyone knows something and can share what they know. Be sure to bookmark www.kswildflower.org for plant identification by month in bloom, color of flower, common or scientific name, and read about identifying features and preferred habitat.

As gardening with native plants becomes more popular for home landscaping, there are misunderstandings about the identity of natives, leading to complaints about “weeds.” All landscapes require some amount of maintenance, whether it is the old-fashioned ankle height European origin grass with Asian origin shrubs, or a mix of Kansas native grasses, shrubs, and forbs. Street facing native landscapes with sharp edges, or fences, show that the landscape is intentional, is being maintained, and is planted with wanted plants. Signs that indicate a purposeful garden, such as “Monarch

Waystation” (www.monarchwatch.org) or “Pollinator Habitat” (www.xerces.org) or “Certified Wildlife Habitat” (www.nwf.org) help show that “weeds” are not welcome. Native plantings with a purpose can attract the curious; be sure to invite them in to talk about your purpose for planting native plants.

To get started growing a well-cared for, purposeful native plant garden, check out the Kansas Native Plant Society Facebook page for posts from native plant nurseries having sales around the state throughout the year. Open houses at plant nurseries and one-day sales events are increasing in Kansas. I invite all native plant nurseries or seed sources to send your information to krista.knps@gmail.com to help build a statewide listing and awareness of availability. Large or small seed suppliers or plant nurseries are encouraged to join in.



FROM TOP Downy gentian (*Eustoma puberulenta*) and New England aster (*Symphyotrichum novae-angliae*).

The Ronald L. McGregor Herbarium: Helping Support the KNPS Mission

— CRAIG FREEMAN

The Ronald L. McGregor Herbarium (official acronym KANU) at the University of Kansas is one of the largest collections documenting the diversity of plants in central North America. It also has a relationship with the Kansas Native Plant Society that dates back to the founding of the Society.

Established in 1865 and officially named the Ronald L. McGregor Herbarium in 1990 in honor of former curator Ronald L. McGregor, the herbarium is dedicated to the study of the Great Plains flora. A separate research unit at KU from 1892--1995, it now is a research division in the KU Biodiversity Institute. From its inception until the late 1950s, KANU botanists mostly focused on documenting the kinds of plants in Kansas. The research portfolio expanded in the 1960s and now includes regional floristics, plant systematics, phylogenetics, plant evolutionary biology, conservation biology, and natural resource management. Specimens preserved and managed at KANU help document that research. Ranked among the 100 largest herbaria in the world, KANU is the largest single collection documenting the distribution and diversity of plants in the grassland biome of central North America; roughly 65% of the specimens are from the region. The McGregor Herbarium also directly supports the Flora of North America project—an initiative to document and describe all of the flowering plants, ferns, and bryophytes in North America north of Mexico—serving as the North Central U.S. Coordination Center for the project.

The collection, housed in the Bridwell Botany Research Laboratory on KU's West Campus, contains approximately 452,000 specimens of flowering plants, ferns, bryophytes, lichens, and fungi. Since 1970, new accessions have averaged 5,500 specimens annually. Although the specimens come primarily from North America, KANU houses material from more than 70 countries and is especially rich in holdings from the Asteraceae, Cyperaceae, Fabaceae, Juncaceae, and Poaceae. Other resources housed in

Bridwell include nearly 30,000 library items, and more than 60,000 photographic slides and digital images.

KANU has an ongoing digitization program. Label data for essentially all of the 40,000 lichen specimens and 300,000 of the vascular plant specimens have been databased and are accessible digitally through public data portals, including GBIF, iDigBio, SEINET. Images of 130,000 of the vascular plant specimens also can be viewed in the data portals, with more images added each year.

Most dried specimens are stored in 320 steel herbarium cases. Bridwell Lab houses a wet lab, two dry labs, a specimen imaging room, and areas for preparing specimens. Resident and visiting researchers have access to workspace, computers, microscopes, and specimen storage cases for short-term and long-term study of specimens.

KANU's ties to the Kansas Native Plant Society go back to the Society's establishment as the Kansas Wildflower Society (KWS) in late 1978. Three KANU associates, Ronald McGregor, Ralph Brooks, and Janet Bare, played important roles in KWS from its inception until the mid-1990s. All were charter members of KWS. McGregor served on the board from 1979--1993 and as president elect in 1979 and from 1981--1982; Brooks on the board from 1979--1995, as president elect in 1992, and as president from 1993--1994; and Bare on the board from 1979--1983 and as president elect in 1980. All three were instrumental in promoting KWS education and outreach through the newsletter, wildflower walks, and other service activities. From 1981--1990, Carol Teale (Kuhn), a graduate student in the herbarium, contributed a series of beautiful line drawings that accompanied "Wildflowers in the Spotlight" articles and cover art for the KWS newsletter.

In 1992, Virginia Hocker, the original Executive Secretary of KWS, was forced to resign due to health problems. While the Mulvane Art Center at Washburn University continued to serve



CRAIG FREEMAN PHOTOS

TOP The Bridwell Botany Research Laboratory on KU's West Campus
BOTTOM, L TO R A typical herbarium case containing herbarium specimens; Genus folder open showing specimens; One of the 450,000 preserved specimens in the collection.

as the organization's sponsor, day-to-day administrative functions of the Society were migrated to Lawrence, Kansas. Jane Freeman took on the duties of Administrative Assistant that year, a position she still holds. On June 3, 1994, the McGregor Herbarium became the official business office of the Kansas Wildflower Society, where it remains today. While some administrative functions of the Society are more decentralized now than when the Society was established, the McGregor Herbarium still serves as the primary

base of operations for KNPS. Membership processing, merchandise shipments, archives, and many general inquiries are all handled through the McGregor Herbarium.

You can find out more about the history, collections, and research of the R.L. McGregor Herbarium by visiting <https://biodiversity.ku.edu/botany>, and detailed information about the databased records is available at <https://www.gbif.org/> or <https://www.idigbio.org/>.

Guerillas in Our Midst: Part II

— LORNA HABEGGER HARDER

The stack of small cardboard boxes has grown at my house this summer. They are filled with the cleaned, dried seed of native wildflowers and grasses collected over the spring and summer months. These seeds are the essential ingredient for bomb-making — seed bomb-making, that is — seed bombs that will be thrown into my pasture and the roadsides around our farm, to increase the biodiversity in these spaces. This is Prairie Guerilla Gardening at its best!

Seed bombs or seed balls have a history going back to the ancient Egyptians, who used them to reseed the Nile River banks after annual floods. Across Asia and the Americas, seed balls have been used over the centuries. In the mid-twentieth century, the Japanese natural farmer, Masanobu Fukuoka, reintroduced the use of seed balls to grow crops with minimal soil disturbance. The concept gathered momentum in 1973, when a group of horticulturally-minded citizens decided to plant an abandoned lot in New York City. Branding themselves the "Green Guerillas," these citizens seed bombed the lot, transforming it into a beautiful green space for the community. They also started a national movement, providing a template for an alternative way to plant landscapes.

The material of seed bombs is simple and inexpensive: soil, clay, and seeds, with just enough water to hold the seed ball together. After drying, the seed balls are ready to be thrown into field or garden under the appropriate seasonal and climate conditions that will meet the unique germination requirements of the seed.

Seed balls provide a great alternative when introducing native plants in the prairie. The clay/soil mix protects seeds from predators, wind and desiccation. It also provides a soil matrix for germination. Seed balls can be used when soil tillage is not an option, both in urban and rural settings, on sloping, shallow or rocky soils, or for those hard-to-get-to spots. They can also be tossed into existing spaces without damaging the existing soils and plantings.

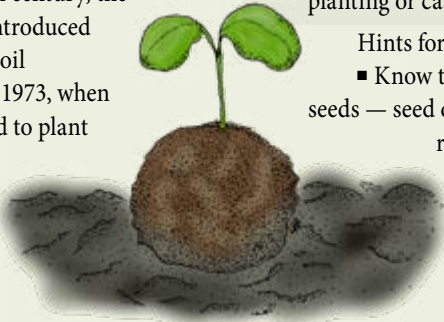
A basic seed ball recipe (additional home-made recipes are located in the references below):

- 3 part unscented, clay kitty litter
- 3 parts potting soil
- 2 parts water or enough to hold seed balls together
- 1 part native plant seed

Additional ingredients can be added that further protect the seed and enhance establishment:

- Compounds that deter pests — artemesia, allium, mint and black pepper have strong aromas that discourage insect predators
- Mycorrhizal and rhizobial inoculants — purchased, or obtained from the rhizosphere of the parent plants

Seeds can either be added to the clay/soil mix before adding water, or they can be added to each seed ball individually. Form into balls, from pea to walnut size (see below hints). Then air dry for at least 24 hours. Seed balls can be stored in a cool, dry place until planting or cast into the planting area after the initial drying.



- Hints for native plant seed balls (seedballs.com)
- Know the germination requirements of the seeds — seed depth, moisture, temperature and seasonal requirements will influence seed germination and establishment from seed balls.
 - Place tiny or light-sensitive seeds on the surface of the seed ball. These seeds are generally produced in abundance and may have relatively low native viability. Use more of the tiny seeds.

- Place seeds that are animal food favorites, e.g., legumes and sunflowers, inside the seed ball where they will not be sniffed out so easily.

- Sow small-seeded wildflower seed balls on the surface, and make those seed balls smaller, closely mimicking the plant's evolved reproductive strategy.

- Time of year makes a difference. A helpful rule of thumb: plant near the time the species usually goes to seed. Harvest, clean and dry wildflower seed, make and sow the seed balls, all within several weeks.

Seeds are in hand and fall is here. It is the season to bomb our landscapes with the seeds of the native plants we love. It is the season to be a Prairie Guerilla!

References:
<https://seed-balls.com/wildflower-seed-balls>
<https://www.permaculturenews.org/2014/06/18/making-seedballs-ancient-method-till-agriculture/>
<https://www.naturespath.com/en-us/blog/guerilla-gardening-diy-seed-bombs/>



FRIENDS OF THE KAW

De Soto Native Plant Restoration

— KIM BELLEMERE

Friends of the Kaw and their partners, the Rotary Club of De Soto and Native Lands, LLC, are returning native plants to the Kansas Riverbank at Riverfest Park in De Soto. The restored area will not only be beautiful with an abundance of native grasses and forbs, it will also provide many important benefits to the river, the people who enjoy it, and the wildlife that call it home.

The area under restoration is a bioswale and rain garden that was completed about ten years ago. It was created to slow and retain stormwater runoff from a boat ramp parking area. While it did its job in retaining much of the runoff, it contained many non-native plants and native species that were not appropriate for the area. As a result, the garden had become unsightly and overgrown with non-natives species (and some natives) that were also becoming invasive and infiltrating the riparian area on the riverbank. They also were not providing many of the ecosystem benefits that appropriately sited natives should provide.

The Friends of the Kaw (FOK) group was asked by the Rotary Club of De Soto to oversee a native plant restoration to help ensure that the area functioned in a more ecologically appropriate way. The City of De Soto provided funding for the project, and work got underway in the summer of 2021.

Courtney Masterson, owner of Native Lands LLC, was contracted to design the restoration plan and assist with volunteer education. To start the removal of the unwanted plant species, the City of De Soto staff mowed the entire area in July of 2021. After that, FOK staff and volunteers from the De Soto Rotary, a local scout troop, and the local community placed tarps over most of the area. The tarps were left in place from mid-July to mid-September to solarize and kill any remaining plants underneath. Also, during that time, any invasives that were not under the tarps were spot sprayed with herbicide to knock them back.

In September, FOK and Native Lands staff and De Soto Rotary volunteers pulled up the tarps, dug out any remaining unwanted plants, and planted approximately 500 native grasses and forbs. About fourteen new species were added to the handful of existing desirable natives which included cup plant (*Silphium perfoliatum*), button bush (*Cephalanthus occidentali*), and wild blue indigo (*Baptisia australis*). Some of the new natives include palm sedge (*Carex muskingumensis*), switchgrass (*Panicum virgatum*), golden Alexanders (*Zizia aurea*), cardinal flower (*Lobelia cardinalis*), and swamp milkweed (*Asclepias incarnata*).

The plants in the sunniest part of restoration will be watered through the end of September, and the entire area will be seeded with native grasses in late-winter to fill in the areas that could not be planted. By spring of 2022, the area should start to look alive with native flowers with grasses beginning to grow and, hopefully, visiting pollinators and wildlife. Over time, its function as a bioswale will improve as the deep-rooted natives will allow runoff to better infiltrate the soil, lessening the time the water sits in the retention area.

One important part of the project to note is the emphasis placed on educating volunteers about the role of the native plants in the restoration. During each workday, volunteers learned about why the existing plants were not working, how a bioswale is supposed to function, and why it is important to use natives appropriate for that particular space. With luck, they will use that new knowledge in their home landscapes and share it with their friends and neighbors. Most importantly, their expectations for what a native, riverbank bioswale should look like have changed.

Friends of the Kaw would like to thank Lori Murdock with the De Soto Rotary Club for her leadership and hard work in getting the project started. We would also like to thank all of the volunteers and helpers along the way. Ecosystem restoration takes time and a lot of hard work, and great volunteers make it possible.

Please contact FOK Program Manager Kim Bellemere at kim.bellemere@kansasriver.org with questions or for more information.

ABOVE, FROM TOP Prior to restoration, the bioswale contained some undesirable and/or invasive species such as this Giant reed grass (*Aduro* sp). This was planted intentionally in the past, but it doesn't provide the water retention and wildlife habitat benefits that natives provide. In July 2020, the area was mowed by De Soto Parks and Recreation staff after which volunteers with the De Soto Rotary Club and a local scout troop tarped the berms. The tarps were left in place until the fall so they could solarize and kill the non-native vegetation underneath. Community volunteers and members of the De Soto Rotary Club planted over 500 native grasses and forbs in the Fall of 2021. The plants on the west-facing side of the berm will be watered through the warmest days of the fall and the site will be monitored over the winter. The entire site will then be seeded with native grasses and forbs in the winter of 2022.

FEATURED NATIVE PLANT

Tall Thistle | (*Cirsium altissimum*)

— LORNA HABEGGER HARDER

Autumn in the tallgrass prairie brings the wondrous world of waving bluestems and Indiangrass, punctuated by goldenrods, gayfeathers, asters, AND the fluffy lavender globes of tall thistle. For the past month, I have been anticipating the thistle blooms that provide late summer nectar and pollen to countless bees, butterflies, moths, and skippers. A recent walk revealed monarchs, sphinx moths, skippers, and bumble bees with full pollen baskets luxuriating in the flowering heads! In our pasture, tall thistles are one of the first species to appear where trees have been removed. They fill the void created by tree shade, and become part of the procession of colonizing species that initiate the process of succession to a more mature tallgrass prairie. From year to year, we watch the thistles move from opening to opening, anticipating the insect activity they inevitably bring.

Tall thistle is a biennial in the aster family. It is native to the eastern U.S. and west to North Dakota and Texas. Stems are generally hairless and without spiny wings. Flowering heads produce numerous pink to purple disk florets that appear at the tips of branches from August through October. Individual plants may bloom as long as six weeks or until the first hard frost. Seeds are achenes with tufts of hair that disperse in the wind. Alternate leaves are elliptical and unlobed or toothed. The surface of the leaf does not contain spines, but the edges of leaves have spiny prickles. The underside of the leaf is covered with woolly hair. A native species, tall thistles are found in sunny or lightly shaded bottomlands, prairie uplands and openings, old fields, railroads and roadsides in moist to mesic, well-drained soils. As a biennial, tall thistles grow as basal rosettes of leaves the first year, and send up their tall flowering stalks the second. Each plant has a single tap root rather than spreading rhizomes, so it is not difficult to control.

Tall thistles play an important role in the prairie ecosystem,

providing abundant pollen and nectar to diverse pollinators. Seeds are eaten by small prairie mammals and finches. In fact, the late nesting of American goldfinches coincides with the peak season for seeds from the aster family. The silky hairs of the achenes also provide nesting material.

Humans have also historically benefitted from tall thistle. The roots, leaves and stems have been used extensively for food and medicinal purposes by a number of Indigenous tribal groups as well as settlers. However, Kindscher (1987) notes, "Thistles are literally a pain to collect. When the stems are gathered, gloves should be worn and the spiny leaves stripped off in the field . . . The raw, peeled stems have a taste resembling artichokes and their texture is similar to that of celery. When cooked they are tender and flavorful..."

Tall thistles can be used in borders, cottage gardens, naturalized areas, and prairies and meadows. However, if there is concern for undesired seed dispersal into neighboring yards and gardens, simply cut and remove flower heads from plantings. Flowering heads also make lovely cut flowers that last several days. All in all, tall thistles are easy to grow from seed, wildlife friendly, habitat-building, and beautiful to behold. Why not give it a try in your prairie planting?

Additional references and Wichita State University research:
<https://mdc.mo.gov/discover-nature/field-guide/tall-thistle>
<https://www.gardenia.net/plant/cirsium-altissimum>
<https://www.nrs.fs.fed.us/data/il/ilpin/spp/?spp=801>
https://www.wildflower.org/plants/result.php?id_plant=CIAL2
Kindscher, Kelly. 1987. *Edible Wild Plants of the Prairie*. University of Kansas Press. Lawrence, KS.
https://www.researchgate.net/publication/226362307_Combined_effects_of_folivory_and_neighbor_plants_on_Cirsium_altissimum_tall_thistle_rosette_performance
https://www.researchgate.net/figure/Cirsium-altissimum-on-its-native-habitat-tall-grass-prairie_fig5_269221325

— LORNA HARDER ILLUSTRATION



AWW-some Weekend!



Dee Scherich and Marilyn Armstrong after discussing which sunflower this is.



What is better than sharing native plants with other Kansas wildflower enthusiasts? Our Oklahoma and Texas friends were a most welcome addition to our AWW outings in Pittsburg!



BRIAN L. MARTIN PHOTOS



OPPOSITE PAGE; L TO R A sea of scarlet globe mallow, Drummond's wild onions, and lemon paintbrush. White penstemon.
ABOVE, Scarlet globe mallow; lemon paintbrush; Lambert's crazyweed.

FEATURED NATURAL AREA

Big Basin's Bountiful Spring

— CYNTHIA RHODES & BRIAN MARTIN

Where do you go to botanize in the southwest part of Kansas after the area has had a bountiful rainfall in spring? The correct answer is Big Basin, of course, which is where Brian Martin and I headed on an early, cool mid-May morning this past spring. We thought the rains the area had received prior to our visit would mean plenty of prairie blossoms to admire, inspect, and enjoy. But, wow, were we delightedly awed by the plethora of prairie plants that displayed their blossoms as we made our way slowly along the basin road. And here are the details, albeit a few months later, as a pleasant memory to recall.

First of all, if you have never been to Big Basin, you might be wondering, "What is this big basin and where is it?" The Big Basin Prairie Preserve Wildlife Area is a nature preserve owned and managed by the Kansas Department of Wildlife and Parks located in Clark County along Highway 283 a few miles south of Minneola. This area is in the Red Hills region and consists of 1,818 acres of native mixed grass prairie set among rolling hills with both level uplands and small canyons.

The preserve includes an intermittent stream, Keiger Creek, and two non-draining basins that make the preserve topographically and geologically unique. The first feature, and the one that gives the preserve its name, is Big Basin, which is about a mile in diameter and about 100 feet deep. Little Basin, the second feature, is found

east of Big Basin and is about 280 yards in diameter and thirty-five feet deep. A small permanent pond known as St. Jacob's Well is found within Little Basin and has never been known to go dry. The well has been the subject of many local legends with no evidence yet to confirm its ongoing mysteries.

Next, you might wonder, "Well, what did you see that was so special?" Oh baby! Was that place putting on a show for us! Let me provide brief descriptions of a few of the wildflowers that were the stars on this day. It took us over two hours just to progress 1/2 mile into the preserve. We were absolutely stunned by the bounty and beauty of the scene. Brian said, "By far, the most blooming plants in terms of sheer numbers I've seen in Kansas." We saw white penstemon (*Penstemon albidus*), yucca (*Yucca glauca*), lemon paintbrush (*Castilleja purpurea*), and plains hymenoxys (*Tetranneuris scaposa*). The lemon paintbrush was so brilliantly yellow that Brian observed the blooms seemed to be "plugged in!" Mingled in with these neon-yellow blossoms were additional color variations with shades of pinkish to orangish tips. Sprinkled into this yellowish hue were large clumps of violently-violet Lambert crazyweed (*Oxytropis lamberti*) and a field full of Drummond's wild onions (*Allium drummondii*) with delicate blossoms colored from white to pink to raspberry, plus a hillside literally covered by scarlet globe mallow (*Sphaeralcea coccinea*); we filled a small notebook full of names as we ever-so-slowly made our way forward. A couple of finds of the day were: lavender leaf evening primrose (*Calylophus lavandulifolius*) and plains spring-parsley (*Cymopterus acaulis*) fruit. The basin put on a show for us that day, and we had front-row seats to see it all!

Finally, you might be disappointed because you did not attend this Big Basin Theater last spring. But that is the everlasting beauty of this place: it never looks exactly the same; each show is a little different. It is the anticipation of what we might find in Big Basin that draws us back. And it is the beautiful memories of the glorious wildflowers on display that we hold dearly, measuring each memory against another that urges us to say, "Do you remember Big Basin when...?" And then, "Let's go again today!"



Drummond's wild onions were plentiful in multiple shades of color.



Thank You Note From Leavenworth County EMG

We have a report for you from the Leavenworth County Fairgrounds Native Plant Garden.

We had to put our plans aside during the 2020 gardening season, but despite delays and continued vigilance towards keeping our gardeners safe, we were able to install our Native Plant Garden in time for the 2021 Leavenworth County Fair.

Many people worked very hard on this EMG (Extension Master Gardeners) Class of 2020 project - native plant garden at the Leavenworth County Fairgrounds in Tonganoxie. From the inspiration of a native plant garden surrounding the gazebo, to rebuilding the planter box, to researching and choosing plants, to grant writing, to purchasing plants, to transplanting several non-native shrubs, to putting the plants in the ground, to weekly weeding and watering, it has been a big job!

We are extremely grateful to the Kansas Native Plant Society and the Leavenworth County Conservation District for their generous grants. Also, thanks go to the Leavenworth County Fair Board for allowing us to use the fairgrounds for our project. Happy Apple's Farm in rural Tonganoxie was our source of an abundance of native plant information and was our source for eighty plants of twenty-four varieties, all native to either Kansas or Missouri.

The "Why Native Plants?" educational panel was placed in the garden in support of the KNPS initiative for contributing to "the education, stewardship, or research on native plants of Kansas" and to explain why natives can be valuable and important parts of a landscape. The KNPS website was cited on this informative panel.

We plan to give ongoing support and possible expansion of this garden in the future, and are thankful to all contributors and benefactors.

With warm regards,

Marge Connell & Sheila Lesler
Project Chairpersons

Information provided by Kansas Native Plant Society, see more events on our website: www.kansasnativeplantsociety.org
Please share this information and contact us about additional events to note. Thank you! email@KSNPS.org
Sturdy shoes, long pants, a hat, insect repellent, sunscreen, and water are recommended for outdoor events.
Mark your calendar now and plan to attend some fabulous happenings!

Before you travel, use the contact information to confirm an event is still happening and not cancelled or rescheduled.

OCTOBER | 30

BLACK JACK BATTLEFIELD PRAIRIE RESTORATION WORK DAY, 1:00pm to 4:00pm. Black Jack Nature Park is located east of Baldwin City and adjacent to the Ivan Boyd Prairie, 163 E 2000 Rd, Wellsville. Be prepared for working outdoors; bring a water bottle, snacks, bug spray, sun block, and a hat. Wear long pants and sturdy, close-toed shoes. **R.S.V.P. required, contact: grasslandheritage@gmail.com**

OCTOBER | 31

PICNIC ON THE PRAIRIE at Missouri Prairie Foundation's Carver Prairie, 11:00am to 2:00pm. Newton County, MO. Spend the day exploring this 163 acre tract near Joplin, MO, including 65 acres of remnant prairie and 26 acres of prairie reconstruction. **To register please go to moprairie.org/prairiepicnics/**

NOVEMBER | 5-7

CELEBRATION OF CRANES hosted by Audubon of Kansas, Hudson, KS and Quivira NWR. Self-paced tour with experts at key locations along the route. Speakers and topics include: The Personal Prairie (virtual) with John Price (Professor of English at UNO), The Beauty and Mystery of Wetlands with Dave Haukos (PhD., Kansas State University), Wetland Ecology: How Plants Cope with the Unique Conditions of Wetland Soils with Irene Unger (Ph.D., Baker University), and more! **For info: aok@audubonofkansas.org, 785-537-4385**

DECEMBER | 14

NATURE BOOK CLUB hosted by Lawrence Public Library in Lawrence, KS. Join us to talk about fiction and nonfiction connected to the natural world. New book recommendations from co-leaders Jake Vail and Shirley Braunlich and other book club members. Meet 6:30-8 pm at Lawrence Public Library or via Zoom. **Contact Shirley to RSVP: sbraunlich@lplks.org, 785-843-3833**

FEBRUARY | 15

"CERRADO, THE KANSAS OF BRAZIL" at 7:00 pm at Great Plains Nature Center, 6232 E 29th St N, Wichita. Sponsored by Wichita Audubon Society, this presentation by Rachel Roth will describe the vibrant birdlife, dynamic ecology, and unique residents in Brazil's grassland heart. In-person meeting, but check the website www.wichitaaudubon.org for updates and links. **More info call 316-683-5499**

MARCH | 8

NATURE BOOK CLUB hosted by Lawrence Public Library, Lawrence. Join us to talk about fiction and nonfiction connected to the natural world. New book recommendations from co-leaders Jake Vail and Shirley Braunlich and other book club members. Meet 6:30-8 pm. **Contact Shirley to RSVP: sbraunlich@lplks.org, 785-843-3833**

MARCH | 15

"YOUR BRAIN ON NATURE" at 7:00 pm at Great Plains Nature Center,

6232 E 29th St N, Wichita. Sponsored by Wichita Audubon Society, this presentation by John Gallagher, Superintendent of Dillon Nature Center in Hutchinson, will look at some of the latest research connecting the links between the human brain and the natural world. In-person meeting, but check the website www.wichitaaudubon.org for updates and links. **More info call 316-683-5499**

MARCH | 28

JAYHAWK AUDUBON SOCIETY PROGRAM, 7-9 pm, "Gardening with native plants" by Lenora Larson. Location: TBA. Contact Pam Chaffee pkchaffee@yahoo.com, jayhawkaudubon.org

APRIL | 7-10

THE FIRST ANNUAL PRAIRIE-CHICKEN FESTIVAL hosted by Audubon of Kansas, Hays. The main attraction will be viewing Greater and Lesser Prairie-Chickens. These two species have unique breeding displays where males gather in a small area to attract mates. They are declining throughout most of their range, but populations are stable or increasing in western Kansas. Their populations overlap in only a few counties in western Kansas, so this is a unique opportunity to see both species. **aok@audubonofkansas.org, 785-537-4385**

Join the KNPS email list to receive the latest event announcements: www.kansasnativeplantsociety.org/email_list.php



WILDFLOWER OF THE YEAR

1ST: COMPASS CLOSE-UP – TERRY OLSEN
2ND: KONZA COMPASS – TERRY OLSEN
3RD: COMPASS PLANT – PHYLLIS SCHERICH



FAUNA

1ST: GOLDFINCH TREASURE HUNT – HEATHER CWACH
2ND: BUSY BEE POLLINATING ECHINACEA – SAMUEL STEPP
3RD: WILD BERGAMOT WITH AMERICAN GOLDFINCH – BARBARA CLARK



MEMBERSHIP NEWS

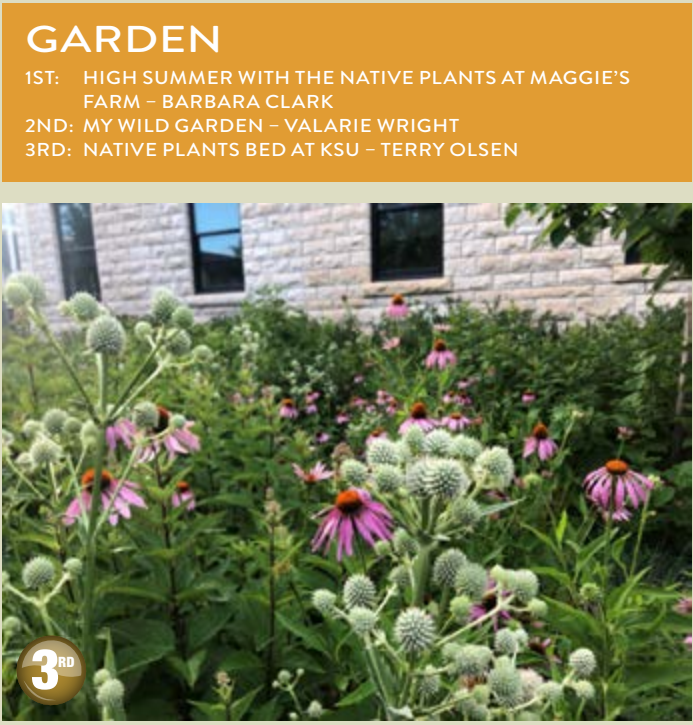
NEW MEMBERS FROM 6/13/21 TO 9/18/21

Rosalie Ast – Lenexa
Scott & Jill Bean – Manhattan
Karen Brock – Lawrence
Barbara Clark – Lawrence
Robin Colgrove – Tonganoxie
Megan Corrigan – Pittsburg
Bill Dodd – Lawrence
Terri Farwell – Fredonia
Elizabeth Fischer – Roeland Park
Betsy Fromm – Overland Park
Grant Glenn – Mission
Marilyn Graham – Fredonia

Cynthia Green – Lenexa
Karen Hibbard – Manhattan
Sheryl Janda – Overland Park
Susan Kloosterman – Wichita
Mellanye Lackey – Lawrence
Shane Lutz – Overland Park
Sara MacLeod-Arena – Overland Park
Siri McGuire – Concordia
Anastasia Mellott – Bonner Springs
Kent Miller – Beloit
Vernon Montgomery – Scranton
Kip Nixon – Wichita

Theresa Olson – Manhattan
Bitsey Patton – Lawrence
Jodi Pollom – Tecumseh
Julie Rounds – Shawnee
Marcia Scurfield – Derby
Nancy Skelton – Lansing
Rebecca Stevenson – Topeka
Linda Strieby – Stilwell
Liz Weslander – Lawrence
Ellen Zipf – Merriam

2021 KNPS PHOTO CONTEST WINNERS



FLORA

- 1ST: BERLANDER'S FLAX NESTLED IN BUFFALO GRASS – PHYLLIS SCHERICH
- 2ND: THE BRILLIANCE OF THE MASTER AT DUSK – APRIL COZINE
- 3RD: CARDINAL FLOWER – EMMETT SULLIVAN

PEOPLE

- 1ST: FLINT HILLS HIKE – JIMMY SUE PONCHILLIA
- 2ND: EXPLORING LITTLE JERUSALEM WITH WILDFLOWER ENTHUSIASTS – PHYLLIS SCHERICH
- 3RD: A LITTLE BURGEONING BOTANIST IN NATIVE PRAIRIE HABITAT – BARBARA CLARK



SCENERY

- 1ST: PRINCE'S PLUME IN BLOOM AT LITTLE JERUSALEM – PHYLLIS SCHERICH
- 2ND: VIEW FROM CORONADO HEIGHTS – SAMUEL STEPP
- 3RD: MISSOURI EVENING PRIMROSE SUNSET – VALERIE WRIGHT



Annual Wildflower Weekend

The Southeast Kansas Nature Center in **Schermerhorn Park Tour Stop #2** overlooks Shoal Creek in Galena. Members gathered under the trees on the east side of the nature center for announcements by Jen Rader, current Center director, and a historical presentation by Linda Phipps, past director. This park exemplifies the fifty-five square mile Ozark Plateau geologic region of far-southeast Kansas where the oldest surface rocks in the state are found. The thirty-two acre Shoal Creek Wildlife Area nearby typifies the wooded hills, streams, wet limestone crevices, and caves found in the Ozarks. With botanical highlights and tips offered by Brad Williamson, the group set out for their nature walks throughout the oak and hickory trees to see what they could find. Some members enjoyed a cool side-foray into the nearby Schermerhorn Cave. Other members explored the nature center finding drawers with hands-on materials, bird viewing windows, and native animal and plant exhibits with live insects and reptiles. Stop #2 wildflower highlights included: white sassafras (*Sassafras albidum*), white snakeroot (*Ageratina altissima*), and sea oats (*Uniola paniculata*).

To round out this hot, sunny, late summer day of wildflower tours, **Tour Stop #3 Wildcat Glades** found members south of Joplin, Missouri along Shoal Creek to the east and upstream of Schermerhorn Park. Located in Wildcat Park overlooking the largest remaining area of globally unique chert glades in the world, this area is a place where specially adapted plants and animals thrive in a dry, desert-like habitat of thin soils and towering chert-rock bluffs. Shoal Creek is the third largest tributary of the Spring River watershed and hosts a variety of endangered species and contains

one of the highest levels of aquatic diversity left in the Western Ozarks. The KNPS group botanized along a paved natural trail next to the eastern side of Shoal Creek to experience this unique variety of Ozark landscape. Specific finds of this stop included witch hazel (*Hamamelis virginiana*), blue mist flower (*Conoclinium coelestinum*), and spice bush (*Lindera benzoin*).

A Conservation and Audubon Center was located nearby, but it was closed due to the late hour of the day. Members disbanded eventually and headed back to southeast Kansas for their evening

CONTINUED FROM PAGE 1

repast at various restaurants, including the famous Chicken Annie’s near Frontenac.

Sunday’s outings began at Pittsburg’s **Wilderness Park Tour Stop #4** where members gathered and grouped at 9:30. The local Casaletto family donated the Wilderness Park area to the City of Pittsburg to preserve its diverse ecosystem. The goal of the park is to be a recreational and cultural resource for residents and visitors of the entire southeastern Kansas region to enjoy. There are over four miles of trails in the park that cover a diverse natural environment including challenging trails which rise high above on ridges created by open-pit mining. Members botanized along the Casaletto Loop, which meandered on the wooded, west side of Cow Creek and returned to the parking area by the Cross Creek Trail since the hour allotted for this stop went by all too quickly. Botanizing produced finds of brown-eyed Susan (*Rudbeckia triloba*), wingstem (*Verbesina alternifolia*), and jump seed (*Persicaria virginiana*).

The weekend’s botanizing culminated in a “big” way at the final gathering location at **Big Brutus Tour Stop #5** south of Pittsburg near West Mineral, saving the absolute best of a wonderful weekend of botanizing for last! With the avid flora and fauna photographer, Emmett Sullivan, longtime KNPS member, retired coal miner, and lifelong resident of southeast Kansas, as our guide, we saw the absolute best of what the mined area had to offer that weekend! The Mined Land Wildlife Area (MLWA) includes 47 tracts of successful habitat restoration totaling approximately 14,500 acres containing a diversity of habitats including native grasslands, woody shrub areas, oak-hickory forests, and wetlands. Several hundred water-filled pits dot the MLWA, creating some 1,500 acres of public waters, some managed for fishing. Emmett first guided the curious KNPS group to two of his favorite roadside stops in this MLWA area. Roadside #1 yielded slender false foxglove, crownbeard, white snake root, and frog fruit. Roadside #2 produced hanging burr cucumbers, passion flower maypop vines, buckwheat, and ripe paw paws which several members sampled and remarked the taste was citrus-y with an avocado texture. The last stop was Emmett’s favorite prairie; he called Jim Pender’s Prairie, a virgin prairie in the middle of this mined-land terrain. It was hot and windy, yes indeed, but the veteran botanizers eagerly roamed this rich pasture, diligently identifying blue hearts (*Buchnera Americana*), flowering spurge (*Euphorbia corollata*), violet wood sorrel (*Oxalis violacea*), prairie milkweed (*Asclepius hirtella*), and slender ladies tresses (*Spiranthes lacera*) tucked within the waving green grasses.

All too soon, this fabulous weekend of botanizing and gathering with friends drew to an end, and the KNPS members were guided back to Big Brutus to explore the museum site and climb the stairs of Brutus, or to continue on their ways back to various home communities. Many sincere wishes of gratitude were spoken to Emmett and Krista for a memorable weekend get together richly filled with new and renewed visions of wildflowers and landscapes as we said our goodbyes. If you missed this year’s AWW, we hope to see you in person at one of next year’s KNPS wildflower walks and the 2022 September AWW. Come with us and see for yourself!



The Golden Rain Tree: A Summer Burst of Yellow

— JIM EARNEST

A beautiful time in Kansas comes in early spring when our flowering redbud, crabapple, and dogwood trees begin to bloom, showing us their stuff over several weeks. Then summer arrives and many of our flowering trees have finished showing off, along comes the traffic-stopping golden rain tree (*Koelreuteria paniculata*), also known as ‘Pride of India’ or ‘China Tree.’

A native of China, Japan, and Korea, it was introduced to North America in the 1700’s, and now, according to the USDA can be found in every county in Kansas and Missouri. According to the Kansas Forest Service, the state champion golden rain tree is located in Lawrence, and in 2015 it stood forty-six feet tall with a circumference of eleven feet two inches.

The genus name *Koelreuteria* commemorates the eighteenth century German natural history professor Josef Gottlieb Koelreuter. *Paniculata* refers to the inflorescence of beautiful yellow flowers covering the tree.

The golden rain tree is one of the very few yellow flowering trees, and it is virtually unrivaled in its beauty. The small center of each yellow flower is a brilliant red color and four tiny yellow petals surround it. Very showy, these half-inch flowers are perfect (both male and female parts in the same flower). They are borne on twelve to eighteen-inch long panicles, literally covering the tree in late June and early July. Bees and other pollinators love the rain tree flowers. Each flower develops into a three-sided papery straw-colored capsule resembling a Chinese lantern containing three hard, black seeds. The hanging capsules are initially green, and then turn dark pink or brown as fall approaches.

The feathery compound leaves of the rain tree are up to eighteen inches long, dark green with seven to fifteen coarsely serrated leaflets that are also of interest. The tree grows to thirty to forty feet with a similar spread. The falling blossoms are abundant and remind one of ‘golden rain,’ forming a pretty yellow carpet of flowers beneath the tree.

Asians have used the flowers as eyewash for conjunctivitis. The seeds are edible only when roasted, but only eaten during periods of famine (not tasty). The Chinese used the decorative seeds to make necklaces.

The golden rain tree is tough, tolerating heat, drought, and automobile exhaust. Few pests bother it. You can view them at

Black Bob Park in Olathe, at the wonderful Linda Hall Library Arboretum, and two of these beauties about 150 yards west of Leawood City Hall.

You can hardly miss a golden rain tree in bloom, making it easy to understand why it is a popular ornamental and street tree throughout the world.



TOP, L TO R Golden rain trees at Leawood City Hall; leaves of the golden rain tree.

ABOVE Golden rain tree flowers and fruit.

JIM EARNEST PHOTOS

KANSAS NATIVE PLANT SOCIETY

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MEMBERSHIP APPLICATION AND RENEWAL GUIDELINES

Annual dues are for a 12-month period from January 1 through December 31. Dues paid after December 1 are applied to the next year. Note to new members: the first year of annual membership is effective from the date of joining through December 31 of the following year. See upper right of mailing label for expiration date.

Please complete this form or a photocopy.
Send the completed form and a check payable
to the Kansas Native Plant Society:

Kansas Native Plant Society
R. L. McGregor Herbarium
University of Kansas
2045 Constant Ave.
Lawrence, KS 66047-3729

A membership to the Kansas Native Plant Society makes a great gift for friends and family members. Recipients of gift memberships will receive notification of your gift membership within two weeks of receipt of your check. The Kansas Native Plant Society is a 501(c)(3) non-profit organization. Gifts to KNPS are tax deductible to the extent provided by law.

Kansas Native Plant Society welcomes everyone to join our membership. Read our full Statement of Diversity, Inclusion, and Non-Discrimination Policy on the website, ksnps.org.

MEMBERSHIP APPLICATION/RENEWAL FORM

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☐ Student \$15.00
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