

# Gaillardia

## **Oklahoma Native Plant Society**

The purpose of the Oklahoma Native Plant Society is to encourage the study, protection, propagation, appreciation and use of Oklahoma's native plants.

#### Volume 37, Number 4 Winter 2022-23

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#### **Upcoming Events/Activities**

(check the ONPS website or Facebook for more details)

Dec 5 - NE Chapter meeting, 6:30 socializing and 7 pm program at the Tulsa Garden Center, Tulsa.

Dec 16 - Fabulous Wildflower Fridays (details below)

Jan 20 - Fabulous Wildflower Fridays (details below)

Feb 2 - Central Chapter meeting, 6:30 socializing and 7 pm program at OCU Dawson-Loeffler Building

Feb 17 - Fabulous Wildflower Fridays (details below).

Mar 2 - Central Chapter meeting, 6:30 socializing and 7 pm program at OCU Dawson-Loeffler Building.

Mar 6 - NE Chapter meeting, 6:30 socializing and 7 pm program at the Tulsa Garden Center, Tulsa.

Mar 17 - Fabulous Wildflower Fridays (details below).

**Central Chapter**, 6:30 pm socializing and 7:00 pm meeting at Oklahoma City University in the Dawson-Loeffler Science Center, Room 208.

**NE Chapter**, 6:30 pm socializing and 7:00 pm meeting at Tulsa Garden Center, 2435 S Peoria Ave, Tulsa

**Fabulous Wildflower Fridays**, 3<sup>rd</sup> Friday monthly, 5:30 pm, casual, at Panera Bread, 5601 E 41st Street, Tulsa

Preview Chapter meeting topics inside. All members are invited to all meetings, including board meetings, and are encouraged to bring guests.

Dogwood (Cornus florida) by Gus Barksdale, Nov 6.

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Northeast

Mycology

Central

**Conservation Committee and statewide Tulsa Garden** Center Liaison positions retired.

#### **ONPS** website: www.oknativeplants.org

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### **President's Message**

#### By Patrick Bell, ONPS President

#### Thankful times...

The crispness of fall was in the air. The squirrels and jays, for weeks, had been busily storing or hiding the abundant crop of acorns. The source of those acorns, a magnificent Shumard (red) oak, was hinting at the changes to come with scattered, yet stunning twinges of scarlet. That stately oak, possibly from an acorn buried and forgotten a hundred years ago by an ancient squirrel ancestor, has provided unparalleled fall beauty for decades.

The autumn migrations, for our region, were mostly over. Though there was an occasional stray warbler or monarch, most were far south, completing the grueling, but ever-amazing journey to a more suitable habitat. For those that don't migrate, preparing for winter takes a different guise. One of those, the late fall caterpillars of the Bordered Patch butterfly, urgently munch away on golden crownbeard (Verbesina encelioides), among other host plants, literally until it freezes over. Then they litter, i.e., drop into the leaf litter, hibernate through the cold winter, and emerge the next spring to start the cycle anew. The reasoning is clear; leaving the leaves is immensely important for many of nature's life cycles.

As we approach winter, the holidays, and the new year, a sense of thankfulness often comes to mind. It's a perfect time to be thankful for, and enjoy, the natural beauty around us, either bundled up and out, or simply through a window. It's also a time for giving; while you're out, consider giving, and transplanting, that volunteer sapling Shumard oak (from last year's acorns) to a neighbor or friend; it will be an opportunity to discuss the wonders and benefits of native plants. And, perhaps most of all, it is a time to be thankful for friends, family, and life's many blessings. While you're at it, don't forget to be thankful for not having to rake up the leaves. And, of course, for those acorns, that the squirrel forgot...

2

Welcome New Members 8/19/2022 thru 11/15/2022 Randi Wright, Kathryn Ross, Sue Barbee, Ashlee, Seth, Milo, & Ella Mikesell-McCarroll, Angelique & Nathaniel Todd Angie & Eugene Sateren - Life Doug Tallamy, Gianna Barolin, Alex McCormick, Blair Rawlins Mary Tate, Jacqui James, Cheryl Cheadle, Paul & Becky Southerland, Solomon Torluemke, Rebecca Jeffery, Sharon Hardy, Airyn Cristiano Liz McKown, Pamela & Stephen Kaiser John Andoe, Jakob Warkentin Forrest Underwood, Carrie Cartwright, Paul Mays & Amanda Weathers, Blue House Urban Farm, Mary Hogan - Life, Jamie Mansell, Sam O'Dell, Kristi & Adrian Matthys, Jill Jefferson - renewed with Life



Migrating Monarach butterfly nectaring on golden crownbeard (Verbesina encelioides) photo by Patrick Bell.

#### Northeast Chapter Update Kathy Doss, Chair

In September NE Chapter learned about the Tribal Alliance for Pollinators with an informative presentation from Brandon Gibson, TAP Program Coordinator.

October brought 2 field trips, led by Lynn Michael. The group visited Pathfinder Parkway in Bartlesville and Oxley Nature Center in Tulsa.



Photo at Oxley Nature Center by Sandy Graue.

December 5th Fran Stallings will delight us with "Tales of Plants on the Prairie", a program of stories ranging from personal experience and science fact-tales to tall tales.

NE Chapter continues to meet at Panera Bread on 41st St in Tulsa on the 3rd Friday of each month for our Fabulous Wildflower Fridays. We discuss plants in the wild and in our gardens, plan events and get to know each other. We will meet December 16, January 20, February 17, March 17, and April 21.

Our first 2023 NE Chapter meeting will be March 6 at the Tulsa Garden Center. We gather at 6:30 for fellowship and refreshments. Our program begins at 7 pm. The program is TBA.

> <u>Central Chapter Update</u> Micah Friedman. Chair

The ONPS Central Chapter will be in hibernation mode for December and January, but we will resume our monthly meetings in February. Over the past couple of months, we had amazing presentations from Amy Buthod and Ian and Amy Thompson. We look forward to having more plant walks and outside events this spring!

#### The Windy Jerusalem Artichoke

Article and photos by Becky Emerson Carlberg



You'd be surprised to know the Jerusalem Artichoke produces a large number of very edible white fleshed knobby roots, up to six pounds from one plant. The sunflower can grow to twelve feet tall with leaves eight inches long and three inches wide. Since most of this plant is consumable, the Jerusalem Artichoke is sought after by enthusiastic plant foragers.

Jerusalem Artichoke (*Helianthus tuberosa*) is a wild perennial sunflower native here in the central US, Mexico and all the way to the East Coast. With the prominent leaves and stems being allelopathic (producing chemicals that prevents the germination and growth of other plants that try to edge in), this plant is prolific and can become aggressive. Unless you are a person, bird or insect not particularly fond of sunflowers, I say let them grow and be fruitful, since many other plants aren't dealing so well with our drought.

So, the Jerusalem Artichoke is from

Jerusalem and a member of the artichoke family, right? The artichoke part is right. Let's first look at Jerusalem. Where in the world did that come from? The name Jerusalem could be contributed to an Italian calling the sunflower 'girasole', Italian for sunflower. Or perhaps from the Puritans, who considered New England their New Jerusalem. You may also call the plant other names such as the sunflower artichoke, earth apple, sunroot, or Sunchoke (a registered trademark coined by Freda Caplan



in 1965 as a new name to market her Jerusalem Artichokes). Be German and call it topinamber (toh-PEE-nahm-boor).



Native Americans first introduced early settlers to this important food plant. Tubers were sent to Europe in 1610 as a starvation food, but the potato that arrived in the 1500's became more popular. When French explorer Samuel de Champlain sent back samples to France, the flavor was said to have reminded them of artichokes. Makes sense. Artichokes (*Cynara scolymus*) are also in the sunflower family but native to the Mediterranean region. The artichoke is considered one the world's oldest foods and descends from the North African thistle (*Cirsium vulgare*), still growing in the wild today. Here in Oklahoma we know it as Bull Thistle, a non-native thistle that has been in the state for over 40 years but only grows in isolated pockets.

(see "Windy" continued on page 5)

#### ("Windy" continued from page 4)

Instead of starch and sucrose, the Jerusalem Artichoke tuber contains inulin, a fructose polymer digested in the large intestine. The tuber an excellent probiotic that supplies fiber and feeds the residents in the intestinal track. Because it doesn't cause a spike in blood sugar, this is a good choice for diabetics. The flavor is a blend between artichoke heart and potato with a slight nutty crunchy texture like a water chestnut. The only drawback is the tubers cause wind, thus also earning the name of Jerusalem Fartichoke.

Well-drained, slightly alkaline soil with lots of organic matter will assure a bountiful crop of sunflowers and tubers. The roughness of the sand-papery plant leaves and stems are due to multiple short hairs which protect the plant from sun, wind, rain, insects, microorganisms and other predators. This is another late blooming sunflower that helps fuel autumn migrating wildlife. The bright yellow flowers range from 2 to 4 inches across, each with 10 to 20 simple petals. The flowers smell like chocolate, a possible attractant to insects.

Wait until after frost to dig the tubers. Freezing weather converts the inulin to fructose, resulting in a sweeter tuber. When the tubers are briefly cooked, this reduces the level of explosiveness. The tubers can be purchased online or in stores. Eat them raw, pickled or mashed. There is even Jerusalem Artichoke flour available.

Grow Jerusalem Artichokes! Help the landscape come alive and make the wildlife happy. Eat a few raw J Chokes. Go stand outside in the Oklahoma wind. Be productive. Blow the dust away. No one will be the wiser.

#### Contributions

<u>General Fund</u> 8/8/2022 through 11/10/2022

- Nov 10 A. A. U. W. In Memory of Connie Taylor
- Sept 9 Danko, Carol A. & Sandridge, John -In Memory of Connie Taylor
- Sept 20 Dill, Sue In Memory of Connie Taylor
- Sept 20 Ewing, Margaret
- Sept 13 Kersey, Sara & Rick In Memory of Patricia Cox
- Sept 14 Partner Engineering & Science In Memory of Patricia Cox
- Oct 11 Stanton, Kimmel Memory of Connie Taylor
- Sept 1 Unknown
- Sept 1 Young, Tim & Susan

OVERALL TOTAL

<image>

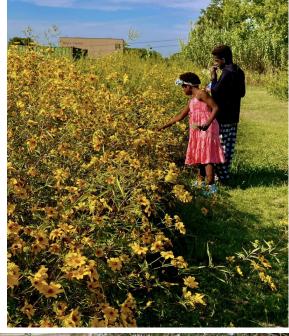
Maple (*Acer sp.*) at Beaver's Bend State Park by Sandy Graue, Nov 13.

\$1,136.00

#### Fall Colors of Oklahoma

Our members have been all over the state and brought us glimpses of the gorgeous colors our state has to offer in the autumn months. See our Facebook group for more color.

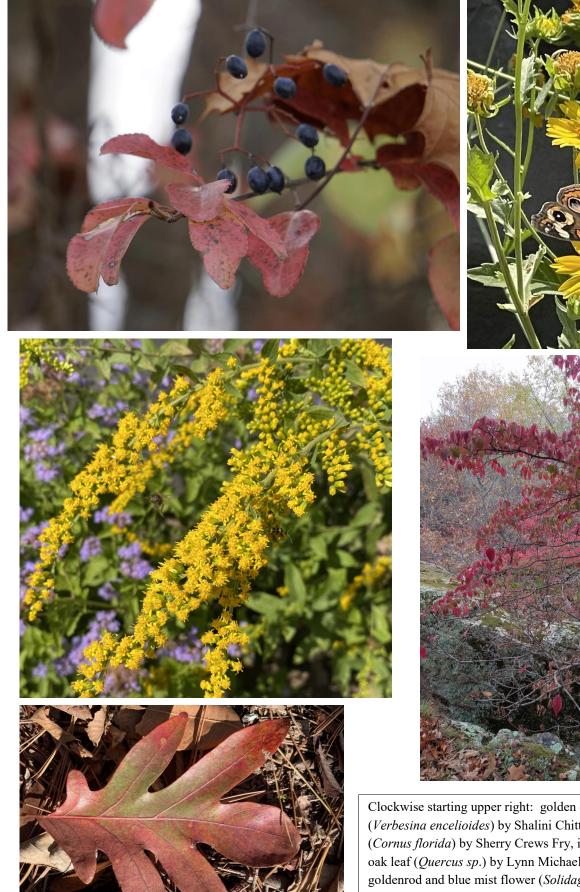








Clockwise starting upper right: American hophornbeam (*Ostrya virginiana*) by Gus Barksdale Oct 21; rusty blackhaw (*Viburnum rufidulum*) by Connie Arnold of Pryor, Nov 10; frost asters (*Symphyotricum pilosum*) by Megan Morris, Nov 10; bidens (*Bidens aristosa*) near Broken Arrow by Anita Foster Gillispie; Fall color on the Talimena Drive by Sandy Graue, Nov 13.





Clockwise starting upper right: golden crownbeard or cowpen daisy (Verbesina encelioides) by Shalini Chitturi, Oct 9; flowering dogwood (Cornus florida) by Sherry Crews Fry, in Seminole County Nov 10; oak leaf (Quercus sp.) by Lynn Michael, Beaver's Bend Nov 13; goldenrod and blue mist flower (Solidago nemoralis & Conoclinium coelestinum) by Garrett Riggs near Sallisaw Oct 8; rusty blackhaw (Viburnum rufidulum) by Garrett Riggs near Sallisaw, Nov 9.

#### This Past Summer

#### Article by Marilyn Stewart

This past summer, while memorable, will not be remembered as my favorite summer of all time. At our house we only got about a half inch of rain during June, July, and August and only a few more drops in September. And the heat! Oh my, it was brutal, and if you live in Oklahoma I imagine your experience was much the same. The old Bee Gees song "Stayin' Alive" ran on a constant loop through my brain as I tried to keep plants in black pots from giving up.

But there *were* some bright spots. Doug Tallamy came for three presentations with fresh information, and all were well attended. As with every Tallamy talk I've gone to over the years I've come home and either ripped out a plant (goodbye, Crepe Myrtle, Nandina, and Spirea) or changed a behavior and this time it was changing my outside lightbulbs to yellow. We went mothing with a great group in Norman and were in awe at how



brilliant and dedicated those people are who can identify moths as tiny as the end of a pencil lead and tell you which native plants they utilize. Talking to others who love native plants always gives me a lift, and there are more and more of us every day. At a plant conference a couple of weeks ago several of us had the opportunity to visit with horticulture students and we were more than pleasantly surprised that their interests were in native plants.

Now it's fall, and while the native grasses in our little prairie are certainly on the short side, they are alive and will survive. The Compass Plant I see by the side of the highway on our way to Ada grew

tall and bloomed despite the summer conditions. Berries are thick on the Rusty Blackhaw and Possumhaw and Beautyberry. The fall colors of the Post Oaks and Sumacs and Sycamores and Hickorys and all our gorgeous

native trees give me hope for the new year. I see little leaves of Indian Blanket sprouting and they will bloom next spring.

As we go into fall and winter, keep in mind that THIS is the best time to plant not only wildflower seeds, but also trees, shrubs, and even perennials. Plant a keystone plant for the birds. Leave the leaves, don't even grind them up. Leave the stems of the plants in your garden, not only do those stems provide habitat for bees and other native insects, but they also protect the roots of the plants. Take a minute and join The Homegrown National Park, homegrownnationalpark.org. Change an outside lightbulb to yellow. Grab a catalog of native plants and dream of spring. Above: rusty blackhaw berries (*Viburnum rufidulum*) by Nancy Cox in Cleveland County, Nov 2. Below: female smooth sumac (*Rhus glabra*) by CR Ledford of Pawnee, Nov 10.



Each of us has the power to make a difference.

#### Meet the Members: Gloria Caddell

Article by Fran Stallings



Gloria Caddell grew up in Mobile AL on the Gulf coast with no air conditioning. She says you could hardly see across the street due to the tall, thick vegetation -- very different from Oklahoma's small trees and persistent winds.

The second of seven children (three sisters, three brothers) in nine years, "We never equated happiness with money." Her father managed a factory for the National Gypsum Company (Gloria jokes that a gypsum connection may have been fore-ordained for her) and often took the family to ice-cold creeks to swim. Nothing phased him, Gloria says, teaching her to be completely calm in the midst of chaos. Mother lead a Girl Scout troop in lots of camping and hiking; living into her 90s, at 85 she still taught Girl Scouts to swim. "She was a role model," says Gloria, who always enjoyed the outdoors.

During high school, Gloria attended a Girl Scout sailing camp in New York and an archaeology experience that included two weeks of field work. A high school biology teacher cemented her interest in plants by giving each student a plot in the school yard. They had to identify every plant and animal, noting changes. She says this made her start to notice things more. She decided to become a botanist.

But at a high school career fair her senior year, the new chair of

the biology department at a local university said he would never hire a woman because "at any time she could throw her test tubes at me and walk out the door" with a husband to support her. Discouraged, Gloria decided on archaeology/anthropology instead. With BS and MA degrees in anthropology with a specialization in archaeological botany from the University of Alabama, she worked analyzing charred plant remains from Central and South American, Alabama and the Midwest. To her knowledge, she was the first woman they paid (vs volunteers) to work in archaeology in Alabama. Most important, she says was that she learned to observe – in any field.

Gradually becoming more interested in living plants than in charred remains, Gloria earned a PhD from the University of North Carolina at Chapel Hill. In her first year of grad school her major professor, an expert on pollination of camellias in Japan, got her funding from the Japanese Ministry of Education to study population genetics and bird pollination of *C. japonica*. She spent two and a half years in southwestern Japan amidst towering tree camellias. She says the snow with evergreen trees and red flowers, yellow birds, and waves on the shore were heaven!! The only American at that university, she roomed with a fellow student and became fluent enough in Japanese to write and present papers in Japanese.

Returning to UNC, Gloria wrote her dissertation and taught there for two years as a visiting lecturer, a position reserved for a UNC grad student or post doc. The University of Central Oklahoma (UCO Edmond) needed a pollination biologist, and Gloria wanted to teach rather than write grant proposals. During her interview visit, they took her to the Wichita Mountains and northeast Oklahoma to show off the diversity of the state. Won over, she was happy to come to UCO in 1990 with her two-year-old son.

At UCO she has taught general biology, plant biology, plant taxonomy, environmental biology, plant ecology, pollination ecology, and introduction to biological research. In summers she taught Oklahoma Field Biology, which spent two weeks on plants. In the fall, she sometimes taught a course focused on grasses and composites for groups of interested students.

Her own research has been in the gypsum hills of northwest Oklahoma, where UCO's field station is located. Her husband, a mammalogist, founded the Selman Living Lab. A 1998 grant funded by the Oklahoma legislature let UCO purchase a large cave system on the Selman family land, and NSF grants

helped build facilities. With her graduate students, Gloria compiled plant species lists there and now directs the lab. The lab has astronomy facilities and offers star shows year-round with the Starcreek Astronomical Society. Her husband retired five years ago and is busy rewriting *The Mammals of Oklahoma*. He does occasional bat talks and they sometimes do field work together.

"I love the gypsum outcrops because when you step on them, everything is native" in contrast to the surrounding grazing lands which are overrun with non-native grasses etc. Perhaps, she suggests, nothing but natives can survive on the alkaline gypsum CaSO<sub>4</sub>·2H<sub>2</sub>O.

How did Gloria become involved in ONPS' Journal? "Sheila can be very persuasive." Gloria had done reviews for the journal, but got talked (eventually) into taking over as managing editor in 2018. She says faculty and students at several of our state universities contribute, and it is more useful specifically to OK than if the articles were published in a national journal. She particularly cites the local plant lists.

Gloria does not have much time to garden. Once or twice a year she visits national parks with her sisters, hiking and photographing. She says she always buys local field guides to support the authors.

She appreciates that ONPS keeps her involved with plants because she is now UCO's Dean of the College of Math & Science, having advanced from faculty; to Biology Department Chair; then Associate Dean, teaching only plant taxonomy. The Biology Department hired someone to replace her just as the pandemic hit. She was grateful not to have had to teach on-line!! Now as Dean she oversees 3000 students, and 200 full & part-time faculty and staff. She finds the Dean's job satisfying though "not a full joy like teaching." She is glad to move things forward. Her College includes nursing, computer science, and engineering, i.e., job training as well as pure science.

Gloria still does research on the gypsum hills, edits ONPS journal, and leads field trips for OAS, ONPS, and other groups. UCO will at last fulfill her long-time dream by installing a pollination garden, which she designed with landscape architect Connie Scothorn. Named after a former UCO provost who studies bee pollination in Turkey and Greece, it will feature about 45 pollinator species and be used by many classes.

Gloria Caddell has come a long way from the Gulf Coast to the gypsum hills of Oklahoma.

#### Button bush

*Oh, Button bush, Oh Cephalanthus, How intriguing are you?* 

Puffs of space balls radiate as the white corollas amalgamate and the antenna of pistles emanate

The Titan Sphinx trusts you with her progeny, The Monarch breaks the nectary monotony The Swallowtail savors your unique botany

You fool the human eye as a covid virion, Your woody arches host the many avian and papillon, As You silently flourish in the moist environs.

Written by Shalini Chitturi



Buttonbush, *Cephalanthus occidentalis*, photo by Steve Owens on Facebook June 6, 2022.



#### For joining or renewing use this form

Membership is for Jan. 1 – Dec. 31 of current year (Please Print Clearly) RE	ENEWAL NEW MEMBER (All dues are tax deductible)
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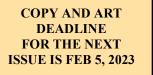
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#### Winter 2022-23 Issue

DUES ARE PAYABLE NOW. If 2023 dues are not paid by March 1, 2023, this could be your last *Gaillardia* issue. Don't miss out!







Photos L to R: Redbud Valley by Lynn Michael, November 15; wahoo (*Euonymus atropurpureus*) by Robert Harrell, Nov 9.