

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

> Volume 27, Number 4 Winter 2012

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# Gaillardia

The Oklahoma Native Plant Society Newsletter

#### **CALENDAR**

Note: the events dated below are followed by either a page number for further descriptions or the contact person.

Feb 2: Indoor Outing at the Tulsa Garden Center. Page 3

Fabulous Wildflower Fridays, the 3<sup>rd</sup> Friday of each month, Page 7

Note: all members are invited to all meetings, including board meetings, and are encouraged to bring guests.

## **ONPS THANKS THESE DONORS**

**General Fund** 

Patty Harrison Memory of Patricia Cotton

## PRESIDENT'S PARAGRAPH

## **Adam Ryburn**

This time of year always brings mixed emotions for me, and likely many of my botanist colleagues. While the holidays are here and we get to spend much needed time with our families and loved ones, we can't help but look at the leafless vegetation around us and look forward to the days of spring to usher in a new growing season. For some of us the only botanizing we will be doing in the months to come will be picking out that perfect Christmas tree to adorn the living room. Still others will take advantage of the occasional spring-like days during the winter to prepare their flower beds and gardens for the coming growing season. Some of us even spend time exploring nature and mastering our winter identification skills.

I hope that whatever your plans are to get through this winter, that one of them includes attending the 2013 ONPS Indoor-Outing on Saturday, Feb. 2 at the Tulsa Garden Center. Our Northeast Chapter always puts on a great Indoor-Outing and this year will be no exception.

If you are like me, you always find it hard to find that perfect gift for the person that already has everything. Might I suggest a gift membership to the Oklahoma Native Plant Society? Individual memberships start at \$15.00 per year, family membership at \$20.00 per year, and why not get that lifetime membership of \$250.00. And while you're at it, don't forget to renew your membership for 2013. Membership information can be found at the ONPS website: www.oknativeplants.org.

Best wishes in this holiday season!

## IMPORTANT GENERAL NOTICES

The Indoor Outing, hosted by the Northeast Chapter, will be Saturday, February 2, 2013 at the Tulsa Garden Center, 2435 S. Peoria, Tulsa at 10 Am to 3 PM.



**BOTANIST'S CORNER** 

Pollinator-Friendly Gardening with Native Plants
Janette Steets

Although winter is upon us, it is never too early to think about plants to incorporate in your home garden. When my husband, Jeff, and I purchased our home four years ago, we were struck by the abundance of nonnative plant species used to landscape our yard. Over the past few years, we have made a concerted effort to change our gardens into beds of native plant diversity, incorporating species such as prairie sage (Salvia azurea), American senna (Senna hebecarpa), and pale purple coneflower (Echinacea pallida). One of the benefits of landscaping with Oklahoma natives is that these species have evolved under the climatic and ecological conditions of the region. So, they typically require very little input, in terms of water, nutrients, and pest-control, to thrive.

One of my greatest joys in gardening is observing the myriad of beautiful flowers produced by the natives as well as the insect visitors of those flowers. Flowers serve an important role in the life of the plant, as they are the sites of reproduction. The majority of flowering plants rely on animal vectors, a.k.a. pollinators, to transport pollen grains (which house the male gametes) from anthers (male reproductive structure) to stigmas (female reproductive structure), so fertilization can take place. Animal pollinators also benefit from their relationship with plants. They visit flowers to feed themselves or their young the sugary nectar and protein-rich pollen produced by flowers. As a pollinator visits a flower to forage, the pollen sticks to their fuzzy

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bodies and some of that pollen is then rubbed off when the pollinator visits the next bloom. Because pollinators play a crucial role in plant reproduction, many wild plant populations could not persist without the activities of these critters. Bees are the most effective group of pollinators due to the special structures on their bodies that trap and carry pollen grains. Depending on where you live in Oklahoma, there may be more than 100 different species of bees in your neighborhood! Other animal pollinators in Oklahoma include birds, butterflies, moths, flies, and other insects.

Pollinators not only play a vital role in the life of native plants, but also for many of our agricultural crops. If you are like me, the majority of your diet is plant-based. We have to thank pollinators for the part they play in our diet. Without their services, we would not be able to enjoy almonds, pumpkins, blueberries, and many of the other fruits and vegetables that are a part of our diet. Just as pollinators increase fruit and vegetable production of our agricultural crops, these insects also increase the productivity of garden plants.

One of the best ways to make your gardens more attractive to pollinators and help to support healthy pollinator populations in residential landscapes is to provide pollinating insects with a rich array of plant life on which to feed. Pollinators need to forage spring through fall. By planting species in your gardens that have sequential, overlapping blooming times, there will be floral resources, in the form of nectar and pollen, available for the pollinators to forage throughout the entire growing season. Research indicates that native plants are more likely than non-natives to attract pollinating insects. Further, home gardens with eight or more pollinatorattractive plant species tend to attract a greater abundance and diversity of bee pollinators than less diverse gardens. So, the more species of native plants in your garden the merrier it will be for the pollinators!

As our temperatures are beginning to drop, now is the ideal time to sow some native wildflower seeds in your garden. The seeds will remain dormant in the soil during the winter and germinate in the spring, when conditions warm and precipitation increases. There are many great plant species native to Oklahoma to

consider incorporating in your garden. Some of my favorites include dotted gayfeather (*Liatrus puntata*; blooms summer to fall), fringeleaf wild petunia (*Ruellia humilis*; blooms early summer to fall), leadplant (*Amorpha canescens*; blooms early to mid-summer), and orange-flowered butterfly weed (*Asclepias tuberosa*; blooms late spring to summer). Experiment with a mixture of native annuals and perennials. The annuals will bloom next summer, while the perennials may take a few years before they begin to produce flowers.

Happy native gardening! Find some time to enjoy the beautiful dance between your native flowers and the critters that pollinate them!

2013 INDOOR OUTING—FEBRUARY 2, 2013
Native Oklahoma—The Plants, The People
Karen Haworth

Our 2013 Annual Indoor Outing will be held in Tulsa at the Garden Center. The ONPS Northeast Chapter is putting together a multicultural/educational event featuring representatives from Oklahoma Native American tribes. The focus will be on preserving and sustaining use of native plants —artistic, cultural, and medicinal—as well as food sources. There will be demonstrations and displays. Watch for your registration flyer in the mail later this month!

Various ONPS members have had booths at past Indoor Outings. If any ONPS members are interested in having a booth at the Outing, especially native plant related, please contact Alicia Nelson at aknlsn@att.net or 918-599-0085.

## **COLOR OKLAHOMA**

#### **Pearl Garrison**

Color Oklahoma selected two sites for this year's planting of native wildflower seeds, and for the second year packets of native seeds have been sent to 40 Oklahoma Garden Clubs. The photo above is of an employee of the Oklahoma Turnpike Authority sowing Indian blanket and black-eyed susan seeds on the Cimarron Turnpike at the Stillwater Y junction. Color Oklahoma has now planted 27 acres in the area. The second planting is near the Oklahoma City end of the Turner

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The other photo is of one of Color Oklahoma's new signs marking planting sites. Color Oklahoma provided the signs which turnpike employees are installing.

2012 ONPS Annual Meeting Gloria Caddell

The 2012 ONPS Annual meeting was held September 14th-15th at the University of Central Oklahoma's biological field station, the Selman Living Lab, located west of Alabaster Caverns State Park in Woodward County. Forty-four members attended, twenty-one of whom stayed at the SLL facilities site, in the trailer, bunkhouses, or tents. Participants checked in on Friday afternoon, and enjoyed the expansive view of the Cimarron Gypsum Hills from the site. Friday evening was too cloudy for stargazing, but just before sunset the clouds parted enough so that we were able to see solar flares through a solar scope. Paul Gilmore and Casey Hartgers from UCO's Pegasus Astronomy Club supervised that activity, then Paul gave a talk on neutron stars.

After a hearty breakfast on Saturday morning, Gloria Caddell led a field trip to the SLL's 320acre natural area of mixed-grass prairie with gypsum outcrops, riparian areas, cave entrances, and sandsage grassland. Although most of Oklahoma to the east was being drenched by rain that weekend, we had beautiful weather for our field trips! We hiked across the area, spending most of our time looking at the unique native plant community on the gypsum outcrops. Although it was late in the season, we were able to find a few plants of gypsum phacelia, Phacelia integrifolia, in flower. This is one of the true gypsophiles at the site, i.e. plants that grow only on gypsum. Other plants in flower included James' nailwort (Paronychia jamesii), and composites such as the stiffleaf false goldenaster (Heterotheca stenophylla), woolly paperflower (Psilostrophe tagetina var. cerifera), dotted blazing star (Liatris punctata), broom snakeroot (Gutierrezia sarothrae), and Hopi tea greenthread (Thelesperma magapotamicum). Participants were impressed with the sand lily (Mentzelia *nuda*), a member of the stick-leaf family, whose leaves stick like Velcro to clothing.

After the hike we enjoyed a barbecue lunch catered by Stables Cafe and Cantina. Then Bill Caire, the Director of the SLL and a mammalogist at UCO, gave a talk on the history of the SLL, the research done there over the past 30 years, and its uses for education and outreach. The research includes studies of the bats, cave invertebrates, plants, bat flies, fish, and the fungus that causes White Nose Syndrome in bats. The Business Meeting followed, during which Ron Tyrl was presented with the ONPS Service Award, and Marilyn Stewart with the Anne Long Award for Promotion of Native Plants.

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In the afternoon we went to Alabaster Caverns State Park, where some participants chose to tour the large public cave and others hiked along the rim of Cedar Canyon. We then packed a picnic dinner and Bill Caire led us southeast to a ranch in Major County, still in the Cimarron Gypsum Hills, to view a Mexican free-tailed bat flight. The sand lily flowers were now fully opened as it approached dusk, and we sat on the rim of a canyon and eagerly watched the cave entrance while we ate our dinner. The bats cooperated (whew!) and came out just before sunset, and we were able to see bats close-up that were netted by Dr. Caire and his students. For some members, this was their first field trip to this part of the state. And in attendance were some brand-new members who had joined ONPS just the week prior to the annual meeting! I believe everyone enjoyed their weekend of immersion in the rugged Cimarron Gypsum Hills landscape.

#### **CHAPTER ACTIVITIES**

Cross-Timbers Chapter Ron Tyrl, Mark Fishbein, Elaine Lynch

ONPS was represented at the 11th Annual GardenFest at The Botanic Garden at Oklahoma State University on Saturday, October 6<sup>th</sup>. Members of the Cross-Timbers chapter set up a booth with information about ONPS and Color Oklahoma (CO). The booth featured brief descriptions of ONPS statewide events, the different chapters, and Cross-Timbers fieldtrips and potlucks. There were also lots of colored pictures of wildflowers and CO roadside plantings courtesy of Ron Tyrl. Many GardenFest attendees stopped by to enjoy the pictures and picked up membership forms and CO brochures. We had a successful day despite the somewhat less than pleasant temperatures, wind, and on-and-off rain.

On Oct 13 members of the Cross-Timbers chapter joined with members of the Oklahoma State University Botanical Society to conduct an inventory of the plant species present at the Cow Creek restoration area at the OSU Botanic Garden. In a collaborative project conducted by **OSU** departments of Biosystems and Agricultural **Engineering and Horticulture and Landscape** Architecture, Cow Creek has been "reengineered" to stabilize the streambank. Following construction, the new streambank and constructed wetland were revegetated by planting and seeding woody and perennial plants. However, the project did not include a vegetation monitoring plan. ONPS and OSUBS volunteered to conduct an initial inventory of the species present at the site, to determine the success of the revegetation efforts and monitor the establishment of native and non-native species. Four members of ONPS and five members of OSUBS surveyed the site during the fall's most dramatic thunderstorms, making for an exciting and soggy field trip! The compiled list included over 100 species, many of which were seeded and planted as part of the revegetation project. The list was subsequently used as the basis for a laboratory exercise in Mark Fishbein's Field Botany course at OSU, in which additional species were documented at the site. All told, 174 species have been documented, including numerous native riparian species, several non-natives planted intentionally to stabilize the streambanks, and, unfortunately, a few unwelcome invasives. Notably among these is the variable flatsedge (Cyperus difformis), a species not previously documented from Oklahoma and one that is considered among the worst agricultural weeds in

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the tropics. It is not clear how the species got to Cow Creek and efforts will be taken to eradicate it. The Cross-Timbers chapter plans to revisit the site early next summer to document species that had already senesced by this fall's outing and to evaluate the persistence of species that were planted and seeded.

On Tuesday evening, November 13, the chapter hosted a dessert potluck. Although the number of attendees was small, the desserts were large, delicious, and enjoyed by all. Mark Fishbein, Professor of Botany and Director of the Herbarium at OSU, was elected Chair of the chapter. Elaine Lynch will continue to serve as secretary. In a presentation titled Have You Sown Any Wild Seeds Lately?, out-going chair, Ron Tyrl, described the origins and activities of Color Oklahoma. A project of ONPS, its mission is "beautification of Oklahoma's turnpikes, highways, parks, and public lands, and preservation of the state's native plant heritage." Planting of native wildflowers began in 2004. Ron described CO's activities—plantings throughout the state, creation of a matching wildflower planting grant program, and development of a website. Income for CO is primarily from the sale of a specialty license plate (CO receives \$20 per plate). In a series of photos, he illustrated the project's successes. Information about CO appears regularly in the Gaillardia.

TOYOTA RATES

**Central Chapter Joe Roberts** 

The Central Chapter met on September 24<sup>th</sup> at Oklahoma City University to listen to Adam Ryburn's presentation titled "Know Your Fall Foliage." We brushed up on the plants likely to be seen in the autumn months around central

Oklahoma, and Adam threw in a few "quiz plants" to keep everyone on their toes. This meeting was the first in our new meeting place at OCU's Dawson-Loeffler Science Building, room 102. We aren't planning another meeting until next year. If anyone has an idea for speakers, field trips, or other activities for next year, call Joe at (405) 820-6851 or email at joeroberts13@cox,net and we'll put it together.

Northeast Chapter Alicia Nelson

The NE Chapter will meet on December 3<sup>rd</sup>, at the Tulsa Garden Center beginning at 6:30 pm for light refreshments. If you love wildflowers, want to identify wildflowers, love beautiful landscapes, come, you will learn and be delighted with our guest speaker.

Our speaker, begin her pursuit and appreciation of wildflowers with her spouse in Colorado early in their marriage in the 1970's. After retiring as an accomplished musician and teacher, she joined ONPS in 1989 and has contributed to our organization in many ways, as NE Chapter President, Poster Curator, and many various duties as an active board member.

She has travelled throughout OK and Colorado each year to specific sites, recording, photographing, and identifying each native plant by common and scientific nomenclature. There are literally 1000's of wildflower photos cataloged, dating from 1974 to the present. If you want to find a particular species, ask her I bet she will know. Yes, as many of you have guessed by now, Sue Amstutz, will present to our group a program called "Twin Meadows, Colorado: 2010, 2011, and 2012".

Election of new officers for 2013 will precede the presentation.

Our Indoor Outing committee is working hard to a have a fun, interactive, educational event for all members statewide on February 2, 2013 at the Tulsa Garden Center, titled *NATIVE OKLAHOMA: Plants and People.* The focus will be on the importance of native plants to Oklahoma's cultural heritage as a means of sustainable living, food sources, and art. Have you ever tasted a blue dumpling? Please put this

Page 7 date on your calendar, you won't want to miss out on this event!

Join us for "Wildflower Friday's" on the third Friday of each month at Panera Bread on 41<sup>st</sup> and Hudson in Tulsa at 5:30 pm. It's a great way to learn and identify wildflowers and socialize with friends. You can reach me at aknlsn@att.net or 918/599-0085.

## WELCOME THESE NEW MEMBERS

Raymond and Maryhelen Luth, Tulsa Phyllis Pennington, Oklahoma City

Here are examples of flower pictures on our Facebook. Take a look at the many there.







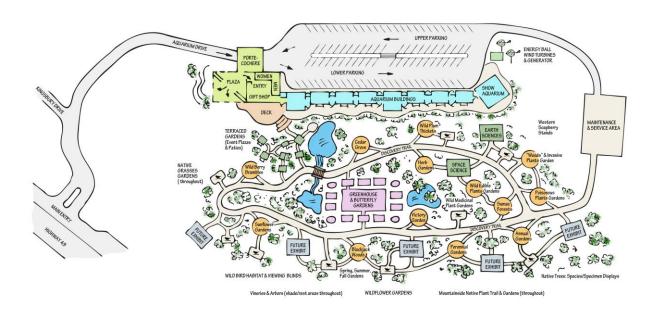


Coming soon...



The Aquarium and Natural Sciences Center is designed as a "living museum" and science center featuring Oklahoma's plants and animals and their environments ... a native wildlife zoo, aquarium and botanical garden.

Medicine Park Aquarium and Natural Sciences Center 8-Acre Site Plan - Exhibits Legend



The Center is perceived as a long-term development in with plans for *phased* growth and expansion over a twenty-plus year period. Phase I, scheduled for opening in late 2013, includes a major Aquarium and Aquatic Science Center complex featuring Fishes of Oklahoma and a number of selected "exotic" freshwater and marine displays. Phase I also includes an Earth Sciences pavilion with various geological exhibits and a working weather station, a Space Science Center featuring a powerful state-of-the-art telescope and HDTV system, several life sciences exhibits featuring bugs, amphibians, reptiles, wild bird observation gardens and a number of other biological exhibit programs.

Another major feature of Phase I is an extensive Botanical Gardens with a year-round Greenhouse & Butterfly Center, again featuring native plants but with several other selected garden themes.

Aquarium Exhibits –

Fishes of Oklahoma & Other Exhibit Themes Botanical Gardens and Trails - Exhibits and Themes

Game Fishes of Oklahoma Earth Sciences Pavilion w/WX Station

SunfishesSpace SciencesCenter PavilionBassesBird ObservationGardens & Blinds

Perches

Catfishes Event Decks and Terraced Gardens

Trout Greenhouse & Butterfly Gardens w/Garden Arbors

Other Oklahoma ExhibitsWildflowers GardensBig Waters – Rivers & ReservoirsAnnuals GardensJurassic FishesPerennials Gardens

Forage Fishes Spring, Summer, Fall Gardens

Gars, Minnows, Suckers & etc. Sunflower Gardens

Vinery Arbors

Diversity & Adaptation ExhibitsNative Food Plants GardenPiranhasNative Medicinal Plants Garden

Electric Eel Native Grasses Gardens

Archer Fish Native Shrubs & Trees (various ssp.)
Four-eyed Fish Sumac Forests

Lungfish Plum Thickets
Berry Brambles
Cedar Groves
Blacktip Reef Sharks Soapberry Stands

Stingrays Touch/Feed Pool Victory Garden
Seahorses Herb Garden

Octopus Poisonous Plants Gardens

Moray Eels Discovery Trail Mountainside/Prairie Native Plants

Corals and Marine Invertebrates Trail

Tide Pools/ Touch Tanks w/ I.D. Labels & Interpretive Graphics

The Mission is "Conservation Through Education ...bringing people, nature and science together". The Center is working with a number of partners in the development and expansion of coordinated conservation and science programs throughout our state but especially in the 20-county area of Southwest Oklahoma which includes about 111 Independent school districts and ten institutions of higher learning representing over 150,000 students. In addition to these, other official support and program partners include the

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Oklahoma Department of Wildlife Conservation, Oklahoma Department of Forestry and Agriculture, the Oklahoma Geological Survey, the Oklahoma Historical Society, the Wichita Mountains Wildlife Refuge and many others.

Another important education and conservation partner The Center was interested in working with was the ONPS. And, we are pleased to be involved in development and to be the "host" of the newly formed Southwest Oklahoma Chapter of ONPS.

We hope the Center will become a center piece in southwest Oklahoma for native plant education and conservation interpretive programs and invite all ONPS Members to join with others in offering ideas, expertise and support in helping to make the Center a premier institution for botanical sciences and horticulture.

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