

Gaillardia

The Oklahoma Native Plant Society Newsletter



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

Volume 31, Number 1

Spring 2016

INSIDE THIS EDITION

President's Column, Conservation Corner	2
Awards, Photo Contest, NE Chapter	3
Connections, Invasive Plants	4
Botanist's Corner—Notice the Change	5
Indoor Outing	6 & 7
Harriet Barclay	8
Evelyn Washburn, Books	9
Crossword	10

ONPS website: www.oknativeplants.org
oknativeplants@yahoo.com

Gaillardia email: thegaillardia@gmail.com

**COPY AND ART DEADLINE
FOR NEXT ISSUE IS
May 5, 2016**

"The seasons, like greater tides, ebb and flow across the continents. Spring advances up the United States at the average of about 15 miles a day. It ascends mountainsides at the rate of about a hundred feet a day. It sweeps ahead like a flood of water, racing down the long valleys, creeping up hill sides in a rising tide"

Edwin Way Teale

Upcoming Events/Activities

(check the ONPS website for more details)

March 7—Northeast Chapter Meeting at the Tulsa Garden Center at the Tulsa Garden Center at 7:00 pm. Speaker will be Pat Gwin from the Cherokee Nation.

March 6—3-6:00 Central Chapter trip to Prairie Wind Nursery, Norman, hot dogs etc, postcards will be mailed with directions and phone # for RSVP

April 7— Central Chapter 7:00 OSU-OKC Hort Building 400 N. Portland, Speaker tba, also discuss Martin Park Monarch Waystation project

June 4th or 5th—Central Chapter field trip to Lexington Wildlife Refuge, Details tba

June 11—10:00 ONPS Board Meeting at the Helmerich Hort Center near the Linnaeus Garden in Tulsa

Fabulous Wildflower Fridays, at 5:30 the third Friday of each month at Panera, 41st St and Hudson Avenue, Tulsa.

Save the Date! Wonderful Wildflowers Weekend is being planned for May 13-15 in Idabel. A separate flyer with more info will be mailed at a later date.

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



3rd place winner in Habitat

Lynn Michael

WELCOME TO THESE NEW MEMBERS

Beth Brown, OKC
 Melissa Burgett, Edmond
 Judith Burke, Yukon
 Cheryl Cheadle, Bristow
 Katherine Coburn, Muskogee
 Nancy & Roger Dowe, Broken Arrow
 Patricia Goode, OKC
 Emily Hiatt, OKC
 Patti High, Edmond
 Maryline Jourdon, Bartlesville
 Mary M. & Steven P. Lane, OKC
 Linda Luna, Edmond
 Debbie Melland, Edmond
 Ginger Mercer, Mustang
 Karen Nelson, Edmond
 Kathy Plant, Edmond
 Helena Randall-Duke, OKC
 Linda Raulston, OKC
 Darlene Switalski, Norman
 Susan Turner, El Reno
 Don & Geri Veher, Guthrie

Donations

White, JoAnn & David C. General Fund
 Price, Mary D. Harriet G. Barclay Fund
 and Anne W. Long Fund
 Amstutz, Sue Honor of Evelyn Washburn's
 100th Birthday and Harriet G. Barclay Fund

From the Editor

This may be the spring edition of the *Gaillardia*, but as I write this it is still January. Those tempting garden catalogs with pictures of impossibly lush plants are a great way to get through this time of year as long as we remember they are mostly fiction. In some other life I remember being intrigued by a Himalayan Blue Poppy. Did I honestly think it would have a chance growing in my Oklahoma yard? I believe I even planted some seeds. Expensive compost, ahhh, the evolution of a gardener.....

This will be the third *Gaillardia* since I became editor, if you have any suggestions, comments, criticisms, or if you would like to contribute to these pages please contact me at thegaillardia@gmail.com.

Gaillardia President's Paragraph article March 1st 2016

I hope this early spring is lifting the spirits of all you native plant enthusiasts. The recent Indoor Outing has hopefully inspired everybody to start a project that suits their budget and time, whether that be a couple of native plants in the garden or a restoration project on some land. Please keep records on your successes and failures, and consider adding your project to our new Native Gardening Blog (link on our website). Others may benefit from your story! Whatever the scale, I hope you are able to foster native plants in some way this year, and appreciate what they foster in you in return.

The Indoor Outing was a success by any measure, and I think I can speak for the whole of the membership when I say THANK YOU! to all the volunteers who made it happen. You know who you are, and it wouldn't have happened without your collective enthusiasm and hard work. There are several events coming up this spring. We will try to get them all up on the website at www.oknativeplants.org. If your chapter has an event, please send the details to oknativeplants@yahoo.com as soon as it is finalized. We'd like for the "Upcoming Events" to be the one-stop shop for this information. Lastly, we are trying to update our membership email list. I sent a test email to the entire membership (those with email addresses at least) on February 12th. If you did not receive that email, then we don't have your correct address. Check your junk email folder as well, and if you didn't receive any email from us please let us know. If you just signed up, you may not have gotten the email either, but should receive a welcome email soon, so please don't worry.

Conservation Corner

The Indoor Outing was inspirational to the point that we decided at the following board meeting that we should update our website to include specific native plants for landscaping and helping out our pollinators, especially monarchs.

As a conservation project, I would like to have some members join in compiling lists of suitable plants with pictures and plant properties important for siting. Of course their ability to provide hosting of pollinators would be included. This will be a big task but we can start with a small collection on the website and add to it as we progress.

This is certainly the time to add this information to our website. As was mentioned several times at the IO, the plight of monarchs are the gateway for all this activity. Let's take advantage and get busy.

If you have an interest in this project, let me know.

Chadwick.cox@cox.net

2016 Anne Long Award

Please consider nominating an individual or group for the 2016 Anne Long Award. The Award is given at the Society's annual meeting in warm remembrance and honor of one of the ONPS founders, and an early advocate for wildflower protection. The Award recognizes individuals or groups who have made outstanding contributions to the stated purposes of ONPS. The first recipient was the Ninnekah High School Science Club, the most recent Jonna Tucker.

Nominations are being accepted for the Award from now through August 31, 2016. Include the complete names and addresses of both the individual(s) making the nomination and the nominee(s); a contact person if the nominee is an organization; and supportive documentation for evaluation by the Awards Committee.

2016 Betty Kemm Service Award

There is still time to submit a nomination for the 2016 Betty Kemm Service Award. Named for the first state president and founding member of the Society, the Award recognizes members of ONPS who have demonstrated service over and above that normally associated with expected levels of activity. Deadline for receipt of entries is August 31, 2016. The nomination must include in writing sufficient documentation to support the nominee's qualifications for receiving the Betty Kemm Service Award. Previous recipients include Ruth Boyd, Dr. Paul Buck, Betty Kemm, Patricia Folley, Joanne Orr, Chadwick Cox, Tina Julich, Dr. Sheila Strawn, Mary Korthase, Lynn Michael, Gloria Caddell, Dr. Ron Tyrl, Alicia Nelson, Elaine Lynch, and Karen Haworth. The 2016 Betty Kemm Service Award will be presented during the annual meeting of ONPS in the fall.

Send nominations directly to the Awards Chairman:
Sue Amstutz

4190 E. 46th Place
Tulsa OK 74135

(or email to:)
d-s-amstutz@cox.net.

Photo Contest

The photo contest is all new this year. All entries will be submitted digitally and there will no longer be advanced or first time categories. For 2016 there will be six categories; Big Trees, Wildflowers in the Garden, Native Plants in the Landscape, Close-ups, Flora and Fauna and Plant of the Year (*Tradescantia* aka Spiderwort). You may still enter up to six photos and entry fees are \$2 per photo. The deadline for this year's entries is August 15. Awards are \$50 for first place, \$25 for 2nd place and \$15 for 3rd place. A form can be found on the ONPS website. You may mail cd's to Lynn Michael, 9843 E 500 Rd, Claremore, OK, 74019-1361.

Northeast Chapter Semi-Annual Report

Constance Murray, Chairman

At the Winter Meeting of the Northeast Chapter December 7, 2015 our speaker was Todd Humphrey, a biology teacher from Jenks Public Schools and board member of the local Audubon Society. Mr. Humphrey shared with us his process of transforming a house lot behind the High School into Flycatcher Trail, a natural area and living laboratory. Flycatcher Trail is planted largely with native plants and attracts birds, insects and other wildlife. Scheduled for March 7, 2016 our speaker will be Pat Gwin from the Cherokee Nation. Mr. Gwin will speak on Native American uses of native plants. As always, our meeting will be at 7:00 p.m. at the Tulsa Garden Center, preceded by refreshments at 6:30.

Northeast Chapter is also participating in an event at the Tulsa Garden Center, representing ONPS at large. February 20th several members will host a booth at the Annual Info-Fair. Sponsored every year by the Tulsa Garden Center the Fair promotes awareness in northeast Oklahoma regarding its affiliate organizations, of which we are one.

We continue our *Fabulous Wildflower Fridays*, at 5:30 the third Friday of each month at Panera at 41st Street and Hudson Avenue. We plan field trips and events, identify wildflowers and share fellowship between quarterly speaker meetings. Regardless of your Chapter, please feel free to join us!

"The air and the earth interpenetrated in the warm gusts of spring; the soil was full of sunlight, and the sunlight full of red dust. The air one breathed was saturated with earthy smells, and the grass under foot had a reflection of the blue sky in it."

Willa Cather

Connections

Claytonia virginica

Good Morning Spring, Springbeauty, Fairy Spud, One of the first wildflowers to bloom in the spring is *Claytonia virginica*, a lovely little star shaped flower with pink-streaked white petals and fleshy strap-like leaves. Perennial and only about 6-8" tall, it has always been considered a member of the Purslane family, but is now a part of the Montiaceae (Miner's leaf) family. Found in all of Oklahoma with the exception of the panhandle, it is common in North America from Georgia to Nova Scotia and west to Texas and Oklahoma. Linnaeus named this in honor of John Clayton, a naturalist during the 1700's in Colonial Virginia.

Historical medicinal uses for this plant are varied. It seems to have been used as a contraception, eye salve, hair tonic and as a treatment for convulsions.

The entire plant of Springbeauty is edible either raw or cooked and has long been sought by foragers and Native Americans. Squirrels and other small mammals also eat the corms. When the roots are cooked like potatoes they have a chestnut taste, but because the corms are fairly small (1-2" across) it can take quite a bit of digging to get enough for a meal. They are high in potassium and vitamin A and also contain calcium and vitamin C. As always, if you decide to try one, be sure to only take a fraction of any wild plant. In Massachusetts *Claytonia virginica* is considered endangered and like so many of our natives habitat loss is a real threat.

This was a favorite of naturalist Euell Gibbons and he wrote about it in Stalking the Wild Asparagus. "The tubers are good food for the body, but after a long winter, the pale-rose flowers in early spring are food for the soul."



Langeland/Burks book, *Identification & Biology of Non-Native Plants in Florida's Natural Areas*

Oklahoma Invasive Plants: *Lygodium japonicum*

This is first of a series of articles about the invasive plants deemed as plants to be watched in Oklahoma because of their potential to become a serious problem. I have reported in the Gaillardia on two of the plants listed on the Oklahoma Invasive Plant Council's Watch List; callery pears and kudzu.

The subject for this report is *Lygodium japonicum*, Japanese climbing fern, a federal noxious weed. Yes, it is a fern and climbs by twinning. Oddly enough, it is reminiscent of kudzu, not in appearance but in other ways: it is also a "gift" from Asia, grows to 90 feet in height, is killed back to ground in the winter, spreads through rhizomes, snuffs out other plants by covering them and was also introduced here as an ornamental. The original introduction was in Georgia in the 1930s and as many other invasive plants have done, this one marched across the south to Texas.

The earliest sighting of *L. japonicum* here in Oklahoma was by Larry McGrath, a botanist at USAO in Chickasha and an active ONPS member. The sighting was in McCurtain County, a county that borders Arkansas and Texas that have infestations of *L. japonicum*. Amy Buthod told me that she has not only looked for these plants at the designated site but not found any others anywhere else in the county. However, three newer sightings, registered with EDD maps, are located in McCurtain County.

Since *L. japonicum* may well be limited to McCurtain County and even limited in infestations there, this makes it a good candidate to be eradicated from Oklahoma. While it does warrant eradication, the State is unlikely to eliminate it even though the job would be relatively doable at this stage of its infestations.

L. japonicum, is a member of Lygodiaceae, the climbing fern family, has no flowers and is propagated by spores. Each vine is a frond and can be 90 feet in length. In the picture, each of the two branches off the rachis segment is a pinna and each pinna sub branch is a pinnule. The pinnules in the picture are sterile and fertile pinnules are blade like with comb toothed margins. The finger-like teeth bear the sori with the sporangia that produce very fine spores. Releasing spores on an Oklahoma windy day 90 feet up sounds like a great dispersal plan.

Notice the Change

Ron Tyril

“Notice the change” was a familiar exhortation to the legions of students enrolled in OSU’s field botany course for two and half decades. The late Jim McPherson, an ecologist, and I first offered the course in 1974 as a way of introducing individuals majoring in range management, wildlife biology, weed science, forestry, and conservation to the flora and vegetation of Oklahoma and North America. In addition, we stressed the ecogeographic—climatic, geologic, edaphic, topographic—factors responsible for species and vegetation type distribution.

As the course name implies, labs were most commonly conducted in the field. Four weekend field trips to the corners of the state were the cornerstones of the course. Students—as some ONPS members well remember—were required to recognize approximately 150 species on sight and be able to give both their scientific and common names. They were also required to recognize about a dozen vegetation types and plant communities and to have an understanding of the environmental factors contributing to their occurrence.

As we traveled on these field trips in the infamous botany bus, Jim and I continually asked our students to “Notice the change” as we passed from one vegetation type to another. With a diversity of ecogeographic conditions and vegetation types, Oklahoma is indeed a state of many “changes”. Many of you have seen them on ONPS field trips led by Paul Buck, Bruce Hoagland, Connie Taylor, Paul Nighswonger, Gloria Caddell, Monica Macklin, Pat Folley, Bruce Smith, and others.

At the end of the semester, students were, of course, asked to demonstrate their mastery of the information presented and their ability to use that information. One of our favorite final exam questions appears below. I invite you to answer it. Draw upon your knowledge of Oklahoma and what you have seen on ONPS trips. In the summer issue, I will share with you what information Jim and I expected to read in our students’ answers.

Question: As has been repeatedly emphasized, the diversity of environmental conditions, habitats, plant communities, vegetation types, and plant species in North America is reflected in the ecogeography and flora of Oklahoma. Imagine that you are dropped off at an unknown location in Oklahoma and walk more or less in one direction for several days. As you walk, you observe the vegetation and think about its relationship to its physical environment. You encounter the following groups of plants which are listed in order of occurrence. Where did you begin? Where did you go? What did you see? Why did you see it? In a series of well-thought-paragraphs, answer these questions. Be sure to incorporate in your discussion comments about vegetation types, habitats, climate, geology, and soils.

Site 1: *Taxodium distichum* (bald cypress), *Arundinaria gigantea* (cane), *Quercus nigra* (water oak), *Ilex opaca* (American holly), *Nyssa sylvatica* (black gum), *Zizaniopsis miliacea* (southern wildrice), *Lemna minor* (duckweed), *Spi-*

rodela polyrhiza (duckmeat)

Site 2: *Pinus echinata* (shortleaf pine), *Quercus alba* (white oak), *Quercus falcata* (southern red oak), *Carya tomentosa* (mockernut hickory), *Cornus florida* (flowering dogwood), *Vaccinium arboreum* (farkleberry)

Site 3: *Quercus stellata* (post oak), *Quercus marilandica* (blackjack oak), *Carya texana* (black hickory), *Sideroxylon lanuginosum* (chittamwood), *Celtis laevigata* (sugarberry), *Symphoricarpos orbiculatus* (buckbrush), *Smilax bona-nox* (greenbrier)

Site 4: *Andropogon gerardii* (big bluestem), *Sorghastrum nutans* (Indiangrass), *Silphium laciniatum* (compass plant), *Salvia azurea* (pitcher sage), *Amorpha canescens* (leadplant), *Lespedeza capitata* (roundhead lespedeza), *Schizachyrium scoparium* (little bluestem), *Panicum virgatum* (switchgrass)

Site 5: *Xanthium strumarium* (cocklebur), *Tamarix chinensis* (saltcedar), *Populus deltoides* (cottonwood), *Salix nigra* (black willow), *Salix exigua* (sandbar willow), *Acer negundo* (boxelder), *Cenchrus incertus* (sandbur)

Site 6: *Kochia scoparia* (summer cypress), *Salsola tragus* (Russian thistle), *Solanum rostratum* (buffalo bur), *Conyza canadensis* (horseweed), *Chenopodium album* (lambsquarters), *Helianthus annuus* (annual sunflower)

Site 7: *Artemisia filifolia* (sandsage), *Prunus angustifolia* (sand plum), *Calamovilfa gigantea* (giant sandreed), *Eragrostis trichodes* (sand lovegrass), *Senecio riddellii* (sand groundsel), *Andropogon gerardii* ssp. *hallii* (sand bluestem), *Eriogonum annuum* (annual buckwheat)

Site 8: *Buchloe dactyloides* (buffalograss), *Bouteloua gracilis* (blue grama), *Bouteloua curtipendula* (sideoats grama), *Bouteloua hirsuta* (hairy grama)

Site 9: *Pinus edulis* (pinon pine), *Pinus ponderosa* (ponderosa pine), *Juniperus monosperma* (one-seeded juniper), *Nolina greenei* (beargrass), *Quercus gambelii* (gambel oak)

I hope that these nine lists of taxa immediately bring to mind memories of “old friends”, specific parts of the state, vegetation types, and/or habitats encountered on ONPS or field botany trips. As Paul Harvey would say, “the rest of the story...” will appear in the summer issue.

Indoor/Outing 2016



It was a packed room at OSU-OKC for the Indoor Outing hosted by Central Chapter. More than 275 Monarch and native plant enthusiasts were treated to a wonderful program which not only offered information about the status of the Monarch butterfly in North America, but also focused on Oklahoma's role in their survival and how critical we each are in providing habitat.



Dr. Chip Taylor, founder of Monarch Watch, speaks to the crowd about the Monarch migration, reasons for their decline and concrete ways individuals can have a positive impact to save this iconic animal.



The roundtable discussion gave the audience an opportunity to ask questions. The presenters from left to right: Jane Breckinridge (Seven Tribe Restoration), Dr. Kristen Baum (OK's Monarchs, a State Perspective), Grace Barnett (Mayor's Monarch Pledge), Adam Sarimiento (Ecolandscaping), Susan Chambers (Rose Rock Landscaping), Dr. Chip Taylor and (standing) Patrick Bell.

Monarchs, Pollinators, Native Plants



The ONPS table was joined by several vendors and informational booths; The Kerr Center for Sustainable Agriculture, Blue Thumb, K and K Nursery, Olthia Garden Design, Johnston Seed, Prairie Wind Nursery and Wild Things Nursery.



Indoor Outing organizer and Central Chapter Chair Patrick Bell with Dr. Chip Taylor.



Central Chapter was fortunate to have so many enthusiastic volunteers manning the registration and ONPS tables and keeping the day running smoothly.

Remembering Harriett Barclay

by Sue Amstutz

Foreword: This is the second in a series of articles for the *Gaillardia* in which the individuals for whom ONPS's various awards are named are highlighted. Dr. Harriet Barclay is this issue's featured botanist.

To generations of wildflower lovers, plant and botany enthusiasts, and especially to ONPS, the name "Harriet Barclay" stands for the best in scientific endeavors. Born in 1901, Harriet's death at the age of 88 years prompted a beautiful "In Memoriam" written by her protégé, Dr. Paul Buck, for the 1990 July/August issue of *The Gaillardia*.

Paul writes in a portion of that tribute:

"It would be improper to refer to her simply as an environmentalist. She was much more. Those of us who knew and loved Harriet saw her as an outstanding plant ecologist, a stimulating but demanding teacher, a supportive friend and colleague, a skilled photographer and artist, and a kind and gentle person always willing to give of herself when needed. Much of the time I spent with Harriet was out-of-doors in our roles as field botanists. A skilled camper completely at home cooking in the field and sleeping on the ground, she also demonstrated the finest of social graces. She was just as comfortable at professional meetings, formal dinners, ballets, symphonies or teas. She was an unusual individual, unique, truly one of a kind."

Barclay's life as teacher, academician, and giant in the field of botany prompted ONPS to name an award in her honor. A charter member of ONPS, she served as Director-at-Large until her health forced her to resign. She wrote in her letter of resignation, "My association with ONPS has not only been educational and rewarding but a treasured one as well.....It is gratifying to think I may have had a small part in the development of the organization and I pray it continues to grow, becoming as strong statewide as it currently is in Tulsa and Oklahoma City" (*Gaillardia*, Sept/Oct, 1989, p.7)

Following her departure from the directorship, the Board named her Emeritus Director-at-Large, a title she accepted and held graciously until her death several months later.

The Visitor Center in Redbud Valley would be named in honor of Dr. Barclay. She was instrumental in the drive in northeast Oklahoma to preserve Redbud Valley as a treasure trove of special environments, ecologically important habitats, and the wonderful array of wildflowers and native plants which are found there.

The Harriet Barclay Award

The Harriet Barclay Award was inaugurated in the spring of 1989.

The award was (is) an unencumbered cash prize given to a high school or middle school student. As originally described, the winner was to present the most outstanding botany paper/project at the Oklahoma Junior Academy of Science state meeting.

The first award was presented to James Caldwell of McCloud High School. His paper, "Vegetation at Island #2, Lake Texoma 1960-1988", represented field work conducted at the Oklahoma University Biological Station in southern Oklahoma. The award was particularly appropriate due to the extensive research and field work done by Dr. Barclay herself at the station.

Over 400 students were involved in twelve regional OJAS competitions; 98 papers were presented at the state level drawn from the regions for the initial contest. ONPS received high accolades for our involvement in launching the award, with Dr. Jimmie Pigg, Director of OJAS writing, "Your award helped the OJAS to have its best state contest since 1936, the year the junior academy was formed.....without your support, this contest would be impossible."

The second award was presented to Stacy Allen, an eleventh grade student at McCloud High School. The award was made at the OJAS state meeting which was held in Ada on April 7, 1990. The research paper entitled "Cevallia sinuata (stinging cevallia): a gypsophilic plant", drew congratulations from ranking botanists across Oklahoma, including kind words from Dr. Paul Buck.

Funding for the first two Barclay awards was provided by Irene McKee, Dr. Paul Buck, and Jack R. Jones. Held in the State ONPS Treasury, the Harriet Barclay Award Fund continues to grow, and tax-deductible donations are encouraged to provide funding for future presentations of the award.

In May of 2008, the Harriet Barclay Award was further explained by the Executive Board of the Society. With the demise of the Oklahoma Junior Academy of Science, the presentation of the award moved its venue to the State Science Fair. In current practice, the award is \$50.00 for a middle school student and \$100.00 for a high school student, with the consulting teacher receiving the same amount as that awarded to the winning student.

Contributions to the Harriet Barclay Award Fund may be sent to:

Oklahoma Native Plant Society
PO Box 12474
Tulsa OK 74159



Evelyn Washburn, a charter member of ONPS and a TU colleague of Harriet Barclay celebrated her 100th birthday on January 22nd.

Congratulations!

Native plant book recommendations from Elaine Lynch,
Take Along Guide series

Berries, Nuts, And Seeds

September 1, 1996

Age Range: 7 - 10 years

ISBN-13: 978-1559715737

Gives information on how to identify various berries, nuts and seeds. Suggests interesting activities.

Trees, Leaves & Bark

December 1, 1995

Age Range: 8 - 12 years

ISBN-13: 978-1559716284

Describes the leaves, bark, and seeds a various trees, tells what habitat they prefer, and gives their lifespan and uses. Includes fun activities.

Wildflowers, Blooms & Blossoms

March 1, 1998

Age Range: 7 - 10 years

ISBN-13: 978-1559716420

Gives descriptions of 29 flowering plants, where to find them and what eats them. Includes projects. Recommended for any child that likes to explore outside.

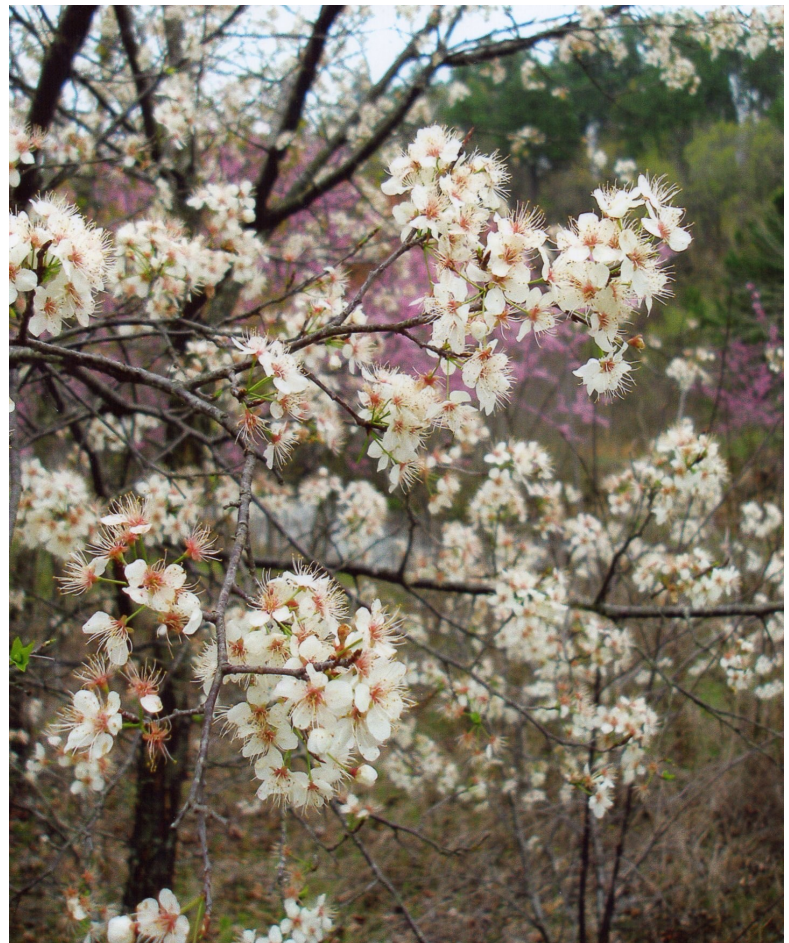
by Diane Burns

Cooper Square Publishing



Close-up 3rd Place Jack-in-the-Pulpit

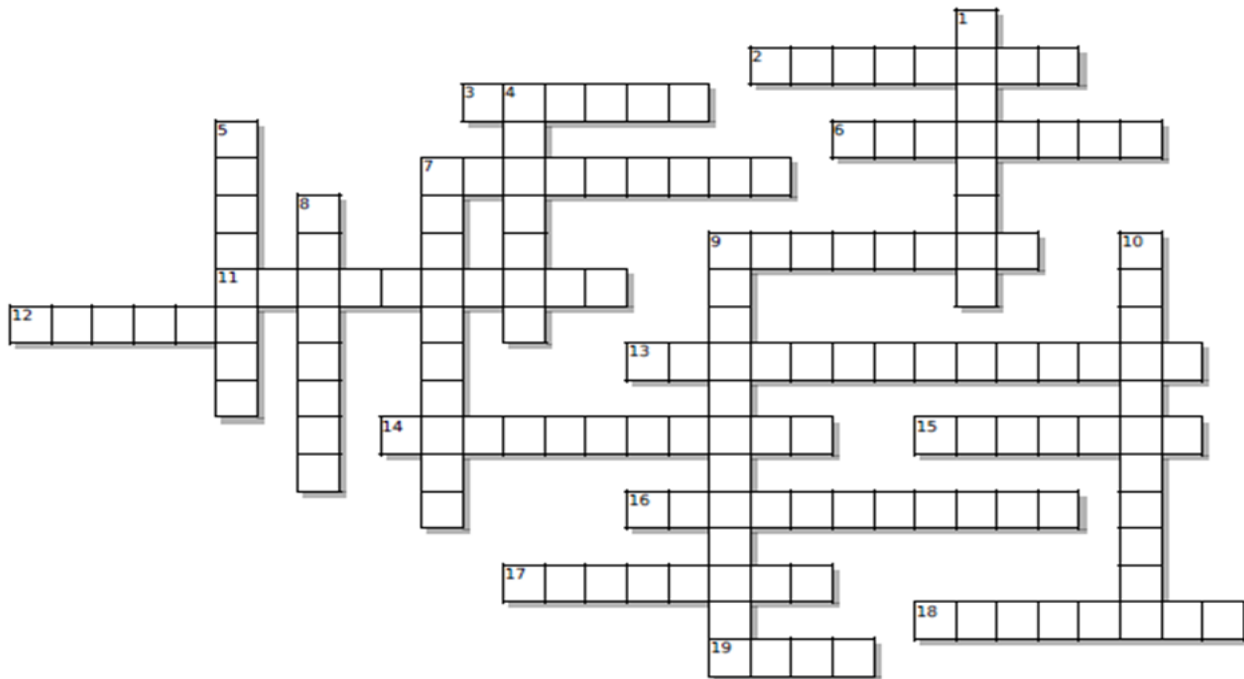
Dale Amstutz



Flowers of Trees 2nd Place Plum

Sallie Webb

Spring 2016 Puzzle



ACROSS

- 2 this plant with deep purple blooms isn't metallic at all
 3 annoying soft bodied insect that sucks juices from plants
 6 this fruit makes a pretty and tasty jelly
 7 this fern looks good all year, not just the holidays
 9 flower and bird
 11 this yellow flower in the aster family has a common name which makes people think it's bad for the sinuses
 12 don't be a shrinking one
 13 common name for the food plant of the Gulf Fritillary butterfly
 14 one of the three dominant grasses of the tall-grass prairie, common name
 15 this plant really can help with directions

- 16 this "master" full exotic looking plant has soft barbs on the edges of the leaves
 17 someone who studies plants
 18 host plant for a butterfly with royal lineage
 19 fragrant square stemmed family, common name

DOWN

- 1 what to do to keep a plant blooming longer
 4 the Black Swallowtail butterfly will lay eggs on some members of this family, common name
 5 grass that is both big and little
 7 native purple flower found in many flower beds
 8 baby plant
 9 you can't fish with this grass
 10 this invasive vine can cover a forest

Answers - Winter 2015 Puzzle

ACROSS

4. Species
 5. Bog
 8. Nut
 9. Invasive
 10. Nuttall
 12. Ovate
 13. Three
 16. Key
 17. Macrocarpa
 19. Tyrl

DOWN

1. Opposite
 2. Gaillardia
 3. Spore
 6. Winecup.
 7. Stamen
 8. Node
 11. Lutea
 12. Oak
 14. Rough
 15. Woolly
 18. Redbud

Winner of the Winter 2015 Puzzle contest is Sheila Strawn. Sheila will be receiving free garden gloves

The winner of the Spring puzzle contest will receive a copy of Life Cycles of Butterflies.

FOR JOINING OR RENEWING USE THIS FORM

Fill out this form or supply the same information. Make checks payable to Oklahoma Native Plant Society and mail to Oklahoma Native Plant Society, P. O. Box 14274, Tulsa, OK 74159.

Membership is for Jan. 1 - Dec. 31 of current year and dues include subscription to *Gaillardia*.

Name: _____

Affiliation: (School, Business, or Avocation) _____

Address: _____

Phone: Home _____ Cell _____ Office _____ Please do not list my phone ____

E mail: _____

Renewal __ or New Member __ Dues are tax deductible.

Annual Membership Choice: \$20 Individual __ or \$25 Family __

Life Membership Choice: \$300 Individual __ or \$350 Family __

Add \$5.00 __ to cover cost of copying and mailing a complete ONPS directory if desired.

Order form for Volume 15 of Oklahoma Native Plant Record

Send order form with your check to:

Oklahoma Native Plant Society

P.O. Box 14274

Tulsa, OK 74159-1274

(Need an invoice? sastrawn@hotmail.com)

Name _____

Or institution _____

Mailing address _____

State and Zip code _____

E-mail address _____

Print Volume 1 (free) _____

Print Volume 4 @ \$5.00 _____

Print Volume 5 @ \$5.00 _____

Print Volume 6 @ \$5.00 _____

CD Volumes 1-14 @ \$10 _____

Shipping charge + \$2.00 _____

Print Volume 7 @ \$5.00 _____

Print Volume 8 @ \$5.00 _____

Print Volume 9 @ \$5.00 _____

Print Volume 15 @ \$10.00 _____

Total enclosed \$ _____

Also available online at <http://ojs.library.okstate.edu/osu/>

Oklahoma Native Plant Society
P. O. Box 14274
Tulsa, Oklahoma 74159

Non-Profit
U. S. Postage Paid
Tulsa, Oklahoma
Permit No. 357

IF YOUR LABEL DOES NOT SHOW
2015, PLEASE PAY YOUR DUES

Return Service Requested

The Gaillardia
Published quarterly by the
Oklahoma Native Plant Society
P. O. Box 14274, Tulsa OK 74159
President Joe Roberts
Vice-president Sheila Strawn
Secretary Sandy Graue
Treasurer Mary Korthase
Historian Adam Ryburn
Directors at Large:
2015: Bruce Smith and Pearl Garrison
2016: Sara Souza and Mike Dunn
2017: Elaine Lynch and Jay Pruett

Chapter Chairs:
Constance Murray Northeast
Patrick Bell Central
Open Cross-Timbers
Helen Riley Southwest

Committee Chairs:
Publicity and Merchandize Alicia Nelson
Conservation Chadwick Cox
TGC Liason, BKSA Sue Amstutz
Awards Gloria Caddell
Membership Database Tina Julich
Photo Contest Lynn Michael
Mailings/Printings Karen Haworth

Gaillardia articles, except those reprinted here with permission from other sources, may be reprinted at will. Please acknowledge source and author.

Send all mail except contributions to the *Gaillardia* to:
Oklahoma Native Plant Society
P. O. Box 14274
Tulsa, OK 74159
oknativeplants@yahoo.com

For *Gaillardia* material only, use the editor's address:
Marilyn Stewart
114 Quail Run
Seminole, OK 74868
Email: thegaillardia@gmail.com

- All material accepted is with the understanding that it can be freely copied.
- Submit as txt, rtf or word files by disc or email.
- If submitted by hard copy, use Times New Roman or other standard font types for OCR.

ONPS is in need of a webmaster. The site is designed, what is needed is someone to do updates and maintenance of the site. If you are interested contact joeroberts13@cox.net