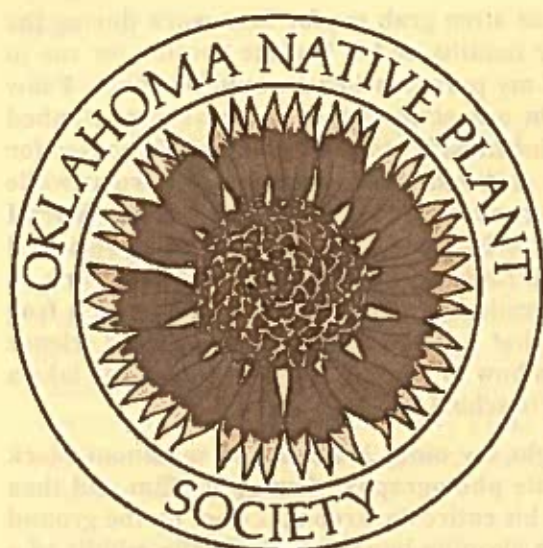




The purpose of the Oklahoma Native Plant Society is to encourage the study, protection, propagation, appreciation and use of Oklahoma's native plants.

Volume 23, Number 1
Spring 2008

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FOR NEXT ISSUE IS
15 May 2008**

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.

March 3: NE Chapter meeting, Kim Shannon tells about her work in wetlands. Page 8

March 7: Crosstimbers Chapter pot luck dinner with speaker Fred Schnieder. Page 9

March 9: Central chapter plant inventory at Lake Stanley Draper. Page 8

March 21: NE Chapter Fabulous Wildflower Friday. Page 8

March 29: NE Chapter plant inventory at Tenkiller State Park. Page 8

April 5: Crosstimbers Chaptr field trip to McPherson Botanical Reserve. Page 9

April 12: NE Chapter field trip to Okmulgee State Park. Page 8

April 18: NE Chapter Fabulous Wildflower Friday. Page 8

May 5: NE meeting, Amstutzes present a preview slide show of Beaver's Bend. Page 8

May 16: NE Chapter Fabulous Wildflower Friday. Page 8

May 17: NE Chapter field trip to Lynn Michael's home in Claremore. Page 8

May 31: Board Meeting at Tulsa Garden Center. Contact Kim Shannon.

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

ONPS THANKS THESE DONORS

General Fund

Sharon McCain in memory of Ruth Boyd

Color Oklahoma Fund

Brandon Miller

PRESIDENT'S PARAGRAPH

Greetings to all,

We are on the verge of spring again and many things have happened since I wrote last. First, the ice storm from hell hit numerous parts of Oklahoma and affected many of us. After two days of sheer anxiety and eight days without electricity, John and I began processing the damage to our property. With each passing weekend our yard looks less like a war zone, but it will not look the same for many years. The broken, mangled and missing trees sadden me. But, we do have *LOTS* of firewood for next year.

The other event is the recent death of Dr. Paul Buck. When I got the news that he had passed away I felt deflated. But since that day in mid-January I have remembered many good times with him, one of which I want to share with you. One of the first times I went out in the field with him, we visited a crossttimbers site. While we walked through the woods he stopped and backtracked. Of course I followed him. He stopped at a fresh shoe print in the dirt, I assumed one of ours. After a moment he asked if I had ever seen the tracks of a "200-lb buck". I remember nudging him and laughing. He looked at me with a big grin and a devilish sparkle in his blue eyes, and back to botanizing we went. I'm not sure why that has stuck with me for so many years but it was a true Dr. Buck moment. And it still makes me smile.

I was fortunate enough to have Dr. Buck on my graduate committee at OSU. He and his wife Lou Ann even drove me to my thesis defense. It was a nerve-racking day for me but I remember feeling calmed in his presence. His advice and input during graduate school and my early professional years was invaluable. One last thought from me, I always felt especially privileged when he greeted me with a hug. I will miss seeing him at our ONPS meetings, and his hugs. I would also like to share a few of my husband's thoughts about Dr. Buck. He was an important role model for John also.

I am very fortunate to have grown up with the Bucks as neighbors 4 doors away. I think if every child had a neighbor like Paul Buck the world would be a much better place. For years he rode his bike to and from work at TU. As he zipped down the small hill in front of our house at 40mph, he would always say hello. During the summers he would regularly leave bags of magazines and text books at our door for me to read. He would plant mysterious native flora in my mother's garden while she was not watching.

He would often grab me for field work during the summer months and it became routine for me to just tell my parents when I would be home. I saw places in our state that many have not, climbed loose flint hillsides to grab Chinquapin leaves for surveys and rode on the hood of his truck while fording swollen creeks near Marble City. When I was 12, he let me fly his plane while he reviewed notes en route to Stillwater to see Ron Tyrl; in fourth grade he taught me the anatomy of a frog so well that I went to school and taught 4 science teachers how to dissect. He even helped me take a live bat to school for show and tell!

He taught my older brother and me about black and white photography, developing film and then gave us his entire darkroom. I slept on the ground in just a sleeping bag to awake in the middle of a bison herd in the Wichita Mountain Big game patch, saw bald eagles when their numbers were not plentiful, observed elk bugle during the rut, watched a hog nose snake chase a toad across sand dunes, ate puffballs off the prairie, watched great Egrets fight for nests in a rookery, and saw meadows of wildflowers in bloom at Gothic Colorado. These are all things that were shown to me by Paul Buck. He made the world a better place and he will be greatly missed, but while he was here he had the ability to open many eyes to truly see what was going on in the natural world whether under a microscope or through binoculars. I feel very fortunate to have known the man and to have spent the time I did with him.

I know many of you have fond memories of Dr. Buck. He was important to many of us and an integral part of ONPS. To honor him, there will be a celebration of Dr. Buck's life on May 3rd at Redbud Valley. I know I will see many of you there that day.

Take time to smell the wildflowers,
Kim



IMPORTANT GENERAL NOTICES

The Oklahoma University Biological Station will be offering two summer sessions, May 18-31 and July 27-August 8. Bruce Smith will teach his basic botany class. For more information about these classes visit www.ou.edu/uobs. For specific questions contact Gail Barnes at (405) 325-53491 or gbarnes@ou.edu.

BOTANIST'S CORNER

Monica Macklin

YOUR MOTHER WAS RIGHT

Your mother may have known what she was talking about when she told you to eat your vegetables. The role that nutrition plays in human health has taken on an increasingly important role in the last several years. While most people get their vegetables from a grocery store, a number of people continue to grow and enjoy home-grown vegetables. Members of the Native Plant Society may also enjoy leafy green vegetable harvested from the wild!

A clinical dietitian at the W.W. Hastings Indian Hospital, Lou Bowers, also a member of the Oklahoma Native Plant Society, contacted me several years ago with a question about the Vitamin K content of poke and several other "wild" plants that some of her older Native American patients collected from the wild and consumed.

Vitamin K is a fat-soluble vitamin that exists in several forms. Dietary vitamin K is specifically known as vitamin K₁ or phylloquinone. Plants synthesize phylloquinone and provide the only important dietary source of this vitamin. Humans and other animals appear to synthesize menaquinones, from Vitamin K₁ in the intestinal system. It was not until the 1930s that Vitamin K was determined to be an essential nutrient.

Reports of Vitamin K₁ intake suggest that the amount widely varies in the United States. Persons over 65 tend to consume more Vitamin K₁ than persons between the age of 20 and 40. Iceberg lettuce contributes a majority of dietary vitamin K due not to a high vitamin K content but rather the number of servings consumed per week.

Vitamin K₁ plays an important role in the proper coagulation of the blood. Vitamin K₁ can interfere with the action of warfarin, a commonly prescribed medication in the treatment of atrial fibrillation and other problems associated with blood clotting. A crystalline sodium form of warfarin (Coumadin) is one of the most commonly prescribed drugs in the United States. High levels of Vitamin K₁ consumption, particularly due to diets high in green leafy vegetables, may contribute to under-anticoagulation (warfarin antagonism) in some patients and therefore, the

vitamin K₁ content is a concern. Persons 65 and older have the highest prevalence of AF; the use of warfarin may increase as the global population ages.

An exhaustive amount of food composition data is available from the USDA Food Composition Database

(<http://www.nal.usda.gov/fnic/foodcomp/Data/>). The database lists the Vitamin K₁ content of 200 food items. However, most of the plants harvested from the wild do not have values listed in the USDA database. These plants are typically collected from the wild and consumed as cooked greens.

The federal Recommended Dietary Allowance (RDA) is 65 -80 micrograms per day, however, this recommendation has not been re-examined since 1968. The Vitamin K₁ content of foods that do not appear on either of the nutrient content databases is estimated using foods of similar appearance. Values for broccoli are commonly used as an estimate for any dark green vegetable. The amounts are usually listed in micrograms of vitamin K per 100 grams of food. An "official" serving of 100 grams of broccoli is about one-half cup. The reported amount of vitamin K content can vary depending on the source. Broccoli values range from 137 to 250. Cauliflower comes in last place with a value of 12! On the other hand, spinach has very high, 1001, level. In general, darker green vegetables will have much higher levels of vitamin K.

New research suggests additional roles for Vitamin K₁. The Nurses' Health Study found that the risk of hip fracture increases when the dietary consumption of Vitamin K₁ is less than 109 micrograms per day. Participants in the Framingham Heart Study with the highest intake of Vitamin K₁ also had the lowest risk of hip fractures. Several stories in recent news indicate that vitamin K₁ acts as an anti-aging vitamin!

Lou's questions about vitamin K content prodded me to conduct a small research project to look at some of the plants that are commonly collected and consumed. Based on her suggestions, I looked at poke (*Phytolacca americana*), wild onion (*Allium canadense*), golden glow (*Rudbeckia lanceolata*), watercress (*Nasturium officinale*) and lambsquarters (*Chenopodium album*). The last two are not North American natives but have become naturalized.

The analysis required high pressure reverse phase liquid chromatography. Since my department at NSU did not have the facilities to conduct this type of test, I received a grant from the research group, Oklahoma Biomedical Research Infrastructure Network, to pay a commercial lab to run the samples.

So, how healthy are native (and naturalized) plants? I found that the average amount of vitamin K₁ is much higher than the number listed in the USDA database for grocery store vegetables. Poke had 500 micrograms per 100 gram serving, wild onions 377, watercress 454, lambsquarters 563 and golden glow 703!

As ONPS members you do not need to be convinced of the beauty and usefulness of native plants but now you also know how good they are for you.



COLOR OKLAHOMA

Pearl Garrison

Color Oklahoma – Sow Some Wild Seeds has asked the Oklahoma Department of Transportation to purchase and sow \$1,000 in wildflower seeds on a Tulsa site mowed last year while wildflowers were blooming.

Students and parents with Riverfield Country Day School raised \$500 for purchase of the seeds. Color Oklahoma contributed \$500 from its matching grant wildflower program. The seeds were sown on one acre on the west side of U.S. Highway 75 just north of the 61st Street exit in Tulsa.

A state wildflower sign is clearly visible at the mowed site.

The mowing was criticized by a teacher at the school who wrote, "Someone will need to explain to the children of Riverfield why adults could not pay attention to something as simple and obvious as this, mow down our wildflowers, and hamper our efforts to do something positive for the state."

Tina Julich and Marilyn Stewart

Spring 2007 was an unusual one, with lots of extra rain, which brought an abundance of colorful roadside wildflowers. Many ONPSians were upset when the state roadsides were mowed, many while

in full bloom, even mowing around the 'Wildflower Site' signs in designated wildflower planting areas. Adding to this, wildflower sites planted through the Color Oklahoma Matching Grant Program were mowed while in full bloom. The Color Oklahoma committee began working to find a way to persuade the Oklahoma Department of Transportation (ODOT) to stop this upsetting practice. Our research found that ODOT had instituted a mowing policy way back in the 70s (remember the first energy crunch?) to save money on fuel costs while mowing. In recent years this policy has been largely ignored and mowing has increased in frequency and in the dollar amount required to keep Oklahoma 'beautiful' (in some people's eyes).

Representative Jeannie McDaniel and Representative Ryan Kiesel have filed The Wildflower Protection Act, HB2990. This bill addresses the protection of wildflowers along our roadsides and reduction of mowing from fence-line to fence-line. At this time we don't have the complete wording of the bill, when it is available it will be sent via e-mail to all ONPS members. Please consider calling or writing your state representative in support of this legislation.

Kim Shannon

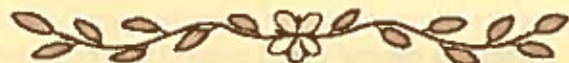
Matching grant program: Color Oklahoma will again have a matching grant program to plant wildflowers along Oklahoma roadsides in 2008, which will be the third year for the grant program. Grants can be awarded to an individual, a group, a community or a business and the only special requirement we have is that the proposed plot to be planted is on property maintained by ODOT. The 2008 matching grant information packet and application is on the Color Oklahoma web site. Check www.coloroklahoma.org for the required paperwork and contact information should you decide to take advantage of this wonderful program. We encourage everyone to take advantage of these matching grants to spread the beauty of Oklahoma's native wildflowers across the state.

Need volunteer for co committee: Are you interested in being instrumental in planting acres and acres of wildflowers along Oklahoma's roadsides? If so, a volunteer is needed for the Color Oklahoma team. We usually meet during the week in various locations around the state, so you will have to be available during the week.

What does one do on the Color Oklahoma Committee? We oversee the matching grant program; deciding what organizations will receive a matching grant, coordinate the ordering of wildflower seeds planted around the state, man information tables at festivals to give out information on Color Oklahoma and our wildflower planting programs. If you would like to help with this great job, contact Kim Shannon.

Car tags: Show your support for Oklahoma wildflowers by ordering a new Color Oklahoma special vehicle license plate. The tags are issued by the state Tax Commission and cost just \$35 plus a \$2 mailing fee, with \$20 of each tag going to our wildflower.

You can download a tag order form from the Color Oklahoma website; www.ColorOklahoma.org, or you can email a request for a form to wildflowers@coloroklahoma.org and we'll send you one by mail. Your local tag agent can also provide a form. Just fill in the blanks and mail your check for \$37 and the form to the state Tax Commission.



2008 PHOTO CONTEST

Tina Julich

Changes have been made to the 2008 photo contest, which has given more people a chance to enter their wonderful photos! Since the 2008 Wildflower Workshop will be held in September instead of May, the deadline for submission to the photo contest was extended to February 1, 2008. The winners will be announced in the summer issue of the *Gaillardia* and the awards will be presented at the ONPS Annual Meeting/Wildflower Workshop to be held in September.

Seventeen photographers submitted 83 photos for our 2008 contest. Several submissions were made in the Special photo category for 2008, "Fungi." Photo posters will be on display at the Omniplex in Oklahoma City, and at our annual meeting before they go into the poster rotation for display around the state.

Keep your eyes peeled and cameras ready when you hike the state at any one of our informative field trips and see plants in our 2009 Special category "ferns". Remember to make note of the

county where the photo was taken, as that is a requirement on each photo.



CONSERVATION CORNER

Chad Cox

In an earlier email to those for whom we have email addresses, I indicated that we will try to form a nonnative invasive plant council for Oklahoma. The plan is to follow what has been accomplished in other states, most recently in Texas, by having a conference in which all interested stakeholders are invited where the question of establishing a council here will be raised. ONPS and the Oklahoma Biological Survey are collaborating on this project. The first step is to create a web page for the OBS website. My draft copy can be viewed at <http://members.cox.net/chadwick.cox> and you will access also a description of the plan to create a council here. You will notice in gallery of the pictures of the worst of the invasive plants in Oklahoma that most were those taken by others. Hopefully, we can get more of our own pictures for the gallery. If you have some, send them to me as either digital pictures to my email address or slides to my home address. Thanks to Ron Tyrl, who has volunteered to scan the slides, we can use slide pictures as well. Please review the draft and send me your suggestions for improving the pages.

Invasive species threatens biological diversity second only to habitat loss. What is really unfortunate is that we purposely introduced many and unwittingly brought most of all the others. We brought in the ornamental water hyacinth, *Eichhornia crassipes*, which promptly clogged lakes and irrigation channels. We then introduced nutria to eat the hyacinths but they tunneled through the levies destroying them. So goes many stories about the invasive species and we do not learn well from our mistakes. In fact the line from Pogo of "we have meet the enemy and he is us" rings true again.

Our ability to transfer genes from one species to another is a technology that will be used ever increasingly to produce various new products. As with any technology, haste to use the technology without proper planning can be harmful. The transfer of a gene that confers resistance to glyphosate, a common herbicide best known as

Roundup, is a good example.

The following was taken from a report by the Union of Concerned Scientists. The U.S. Department of Agriculture (USDA) hit the Scotts Company with the maximum penalty of \$500,000 for allowing an experimental turf grass to become established in the wild. Scotts' negligence allowed the creeping bentgrass, which was genetically engineered to tolerate the herbicide glyphosate (Roundup), to escape from field trials in Oregon and interbreed with wild relatives. This is the company's second offense: Scotts was also fined in 2004 for not notifying the USDA on two occasions that winds had blown seeds out of its test plots. The company agreed at that time to take additional steps to control the escaped bentgrass. The transfer and persistence of herbicide-resistant genes in weedy species—and the potential costs to farmers, other landowners, and the environment—is one of UCS's major concerns about growing these crops.

The following is my edited version of the abstract from a scientific report by S. I. Warwack, A. Legere, M.-J. Simard, and T. James. The existence of transgenic hybrids resulting from transgene escape from genetically modified (GM) crops to wild or weedy relatives is well documented but the fate of the transgene over time in recipient wild species populations is still relatively unknown. This is the first report of the persistence and apparent introgression, i.e. stable incorporation of genes from one differentiated gene pool into another, of an herbicide resistance transgene from *Brassica napus* into the gene pool of its weedy relative, *Brassica rapa*, monitored under natural commercial field conditions. Hybridization between glyphosate-resistant [herbicide resistance (HR)] *B. napus* and *B. rapa* was first observed at two Québec sites, Ste Agathe and St Henri, in 2001. *B. rapa* populations at these two locations were monitored in 2002, 2003 and 2005 for the presence of hybrids and transgene persistence. Hybrid numbers decreased over the 3-year period. Most hybrids had the HR trait, reduced male fertility, intermediate genome structure, and presence of both species-specific amplified fragment length polymorphism markers. One introgressed individual, i.e. with the HR trait and diploid ploidy level of *B. rapa*, was observed in 2005. The latter had reduced pollen viability but produced ~480 seeds. Forty-eight of the 50 progeny grown from this plant were diploid with

high pollen viability and 22 had the transgene. These observations confirm the persistence of the HR trait over time. Persistence occurred over a 6-year period, in the absence of herbicide selection pressure (with the exception of possible exposure to glyphosate in 2002), and in spite of the fitness cost associated with hybridization.

In the first of these two reports, we see a company that fails to act responsibly while the latter report shows that transgenes can be transferred to related species with genetic stability. Indeed, as UCS suggests, a concern for how this technology is applied is real.



BOOK REVIEW

Chadwick Cox

Gilbert Waldbauer: *Insights from Insects: What Bad Bugs Can Teach Us*

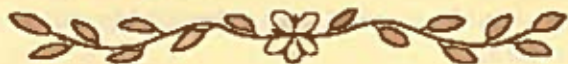
The combination of Kathy Furneaux's presentation about insects to the Central Chapter and the Conservation Corner offers a perfect segue way for this review. Much of the book concerns the failure of rushing in with insecticides in an attempt to control insect pests. The overriding theme of the book is that all truly worth while controls of insects have resulted from a thorough study of the life cycle of the insect with a well planned attack of a vulnerable stage of the insect. Twenty insects are examined although *drosophila* is presented for their use in genetic studies. The rest are pests that harm us directly or indirectly through their effect on agricultural.

Mosquitoes are covered primarily from the stand point of malaria. The introduction of DDT was originally thought to be a great control but as the resistance developed in the species the original optimism waned. Even today the controversy over DDT use for controlling malaria persists. Often those that see first hand the devastation caused by malaria support DDT use. Those that review the records argue that when the resistant mosquitoes increase to the point that DDT has lost its effect, the population of children that has lost some of the natural immunity during the effective control period are severely affected. It is a bitter controversy. Senator Tom Coburn has said that Rachel Carson should be tried for crimes against humanity. The malaria problem remains serious

with *Plasmodium* gaining resistance to the drugs for controlling the effects of malaria.

A more satisfactory result has resulted with the screwworm in the USA. This species of a blow fly, unlike most other blow fly species, feeds on healthy flesh rather than dead flesh and thereby produces devastating wounds. The method for controlling these flies was noted from the careful studies of the life cycle of these flies. The females were found to only mate one time and could be mated to sterile males. By raising and releasing large numbers of sterile males, the population was eliminated from North America down to Panama. Even today, a vigilance is maintained in Panama for screwworm migrations from South America.

The majority of the insects discussed in this book attack plants, both trees and food source plants. The total collection certainly supports the theme of the book that study of the insects produces a better control than just trying to control them with generic insecticides. This book will be added to our library.



NORTHEAST CHAPTER REMEMBERS PAUL BUCK

Sue Amstutz

Although the loss of Dr. Paul Buck is felt deeply throughout the membership of ONPS, perhaps nowhere is that more true than in Northeast Chapter. Paul was one of our chapter members who remained faithful to his Tulsa "weed-watcher" buddies almost to the end. Never failing to attend chapter meetings until his deteriorating health finally prevented him from doing so, Paul always brought a dish to share at our Potluck suppers. Being the gentleman he was, he was careful not to intimidate the evening's speaker, even though he most often was wiser in the ways of the plant world than whoever was presenting the program.

We could always bring a photo of a plant, a leaf or stem, or even a word description of something we had found in a woodland or meadow and know that he would patiently provide identification of the item without making the questioner feel at all inferior. He was a consummate field trip leader, teaching us in ways that made the lessons he imparted stay with those of us ordinary wildflower lovers who were not trained as

botanists. Results of these field trip on-the-spot classrooms with Paul were that we always came away knowing a lot more than when we started!

Paul loved to attend our monthly social gatherings at Panera. He always ordered the plate-sized cinnamon roll, which he devoured with much enthusiasm. Those of us who continue to participate in Fabulous Wildflower Fridays will probably never again see a Panera cinnamon roll without thinking about Paul.

Fellow Colorado wildflower aficionados appreciated Paul's love of the Rocky Mountains where he spent so many summers, first working closely with his own mentor, Dr. Harriet Barclay, then assuming her mantle of leadership at the Gothic Biological Laboratory after Harriet's passing. Paul loved to share tales of Colorado adventures afield with many of us who also enjoyed botanizing the High Country.

Paul's organizational skills and his knowledge of parliamentary procedure came to the fore when he and this writer were asked by Northeast Chapter to come up with some Chapter Guidelines, a sort of bylaws by which the business of our group could be conducted properly. It was Paul who compiled a small library of documents from similar organizations from which ideas could be culled as we worked on the Guidelines project. (Note: those resources, as well as our working notes as we progressed toward completion of the Northeast Chapter Guidelines, are on file with this writer for posterity.)

For a person as knowledgeable, as highly trained in field botany, and as much an authority on the flora of Oklahoma, Paul Buck was still able to communicate on a down-to-earth level with Northeast Chapter members, the majority of whom would readily admit that we have not nearly the expertise which he did. No matter—to us, Paul was teacher, colleague, but mostly a good friend.



CHAPTER ACTIVITIES

Northeast Chapter
Sue Amstutz

Members of Northeast Chapter anticipate a busy spring with two chapter meetings, several field trips, and our regular Fabulous Wildflower Fridays.

Our March 3 meeting will feature Kim Shannon, ONPS State President, as our speaker. Kim's presentation, "Wetland Identification: Plants, Water and Dirt", will discuss wetland conservation as related to her job which takes her to many parts of the country investigating wetland conservation issues. Also in March, the chapter will return to Tenkiller State Park to continue the plant surveys begun there last September. March 29 is the date for Project Tenkiller, Part 2, with one more visit tentatively scheduled for early summer to complete the survey. Last September, two survey teams documented around sixty varieties of flowering plants, trees, shrubs, vines, grasses and ferns. We anticipate adding to that list in March.

Our April 12 field trip will be to Okmulgee State Park. Unseasonably cold weather prevented all but three hardy souls in April of 2007's attempt to botanize Okmulgee State Park. We trust that the weather in April of 2008 will be more agreeable so that we can check out the lovely wild yellow honeysuckle found along the shoreline trail next to Okmulgee Lake.

Our May chapter meeting at the Tulsa Garden Center will occur on May 5. Anticipating our ONPS Annual Meeting/Wildflower Workshop scheduled for southeast Oklahoma next October, Northeast Chapter Chair Sue Amstutz and husband Dale will bring a slide presentation entitled, "Beautiful Beaver's Bend", previewing for the chapter an area possibly to be included on a fall Annual Meeting/Wildflower Workshop field excursion. The Amstutzes visit Beaver's Bend twice each year delivering and retrieving ONPS Photo Contest Posters displayed at the park's Nature Center and have an extensive collection of slides taken in the park.

On May 17 Lynn Michael has invited Northeast Chapter to her home near Claremore, as well as to explore other nearby meadows, for our May field trip. Lynn's son also has a building site on which his new home will be built. We want to check out the site for interesting botany on it before construction commences.

We will welcome the ONPS State Executive Board to our "home" at the Tulsa Garden Center for Summer Board meeting on May 31. Fabulous Wildflower Friday dates for spring are March 21, April 18, and May 16. These monthly social times

at Panera Bread on East 41st St. in Tulsa begin at 5:30 p.m.

The chapter had a table at the Annual Garden Info Fair at the Tulsa Garden Center on February 16. Kim Shannon, Lynn Michael and Sue Amstutz each took a two-hour shift as we distributed native plant information, answered many questions, displayed the 2008 Photo Contest posters, and in general, talked up ONPS.

Central Chapter Marilyn Stewart

November 29th Chad Cox spoke to our group about nonnative invasive plants of Oklahoma. Those in attendance received a copy of Nonnative Plants of the Southern Forest, a terrific (free) book from the USDA. Chad covered many of the alien plants we encounter in our gardens and field trips.

January 28th, Kathy Furneaux who is the new naturalist at Lake Thunderbird, gave a brief overview of insects. She also shared several stories about insects and their relationship with native plants.

OKC Parks Director Wendell Whisenhunt and OKC Councilman Pete White also addressed our group about the project at Lake Stanley Draper.

On March 9th at 2:00 we will meet at Lake Stanley Draper to continue our plant inventory. Sheila Strawn is spearheading this project and if you would like to participate please e-mail her at sastrawn@hotmail.com.

We are currently putting together our field trips for the spring, postcards and e-mails will be sent to all CC members or check the ONPS web site.

February 9th the Indoor Outing was held at the O.U. Botany Building. Kim Shannon spoke on methods of plant dispersal and how plants use the elements and other living things, including us, to disperse their seeds. Fred Schneider spoke on Oklahoma Native American Ethnobotany. He gave us insight into how native peoples used local plants and how their culture gives them their own unique attitudes towards plants. Mary Gard, graduate student at OSU, spoke to us about her research concerning the toxicity of *Tephrosia virginiana* in Oklahoma populations. She tied in with Fred Schneider's presentation by giving an example of how the Creek Indians used this plant to aid in the catching of fish. Mark Bays gave his

stirring account of his involvement with the Survivor tree and the tremendous effort that has been made to save the tree and protect it during and after construction of the Memorial. Marilyn Stewart gave us an update on the progress of House Bill 2990 that was filed by Representative Jeannie McDaniel of Tulsa with the help of Representative Ryan Kiesel of Seminole to help protect wildflowers plantings and reduce mowing along our highways.

Ron Tyrl supplied tree rings for us to count. A prize was given to Will Lowry of Stillwater for the correct answer. About a dozen microscopes were set up for attendees to view during the breaks. Our thanks to Pat Folley and Wayne Elisens who put so much effort into this fine exhibit. Tina Julich manned the Color Oklahoma table and the Bebb Herbarium was also available for tours during this time. Wayne and Susan Chambers did another fine job of "vending" ONPS materials.

Lunch was provided on site and Sheila Strawn gave us an overview of the Lake Stanley Draper project. A number of attendees took the opportunity to tour the Sam Noble Natural History Museum. We'd like to extend a special thanks to Wayne Elisens for arranging for the facility and his help in making this outing possible.

Crosstimbers Chapter
Elaine Lynch

Our spring potluck dinner is scheduled for Friday, March 7 at 6:00pm in Room 110 Life Sciences East on the OSU campus. Our speaker will be Dr. Fred Schneider. His presentation should begin around 7:00pm. Dr. Schneider reports that he will speak on his activities and observations on raising Oklahoma native plants. Besides gradually establishing native plants in his home garden, he has installed four raised beds of native plants in the Cleveland County Master Gardener Demonstration Garden. The latter beds contain plants documented as used by the region's Native Americans. He has a few thoughts for those contemplating establishing plantings of Oklahoma native plants.

We will have a short business meeting following the dinner to discuss the Vice-Chair office vacancy and future activities. We still need nominations or a volunteer for the Vice-Chair office. We are asking anyone interested to contact Paul

Richardson (405-377-4831, speedy154@juno.com) or Elaine Lynch (405-624-1461, mneslynch@yahoo.com). As always, we welcome suggestions for field trip locations or potluck speakers. Send your ideas to Paul or Elaine or bring them to the dinner.

Saturday, April 5, we will have a field trip to the McPherson Botanical Reserve. Clark Ovrebo and Sheila Strawn will lead the group and point out mushrooms and lichens if we find them. The group will meet at 10:00am in the parking lot on the west side of Monroe St. across from Life Sciences West on the OSU campus. We will carpool to the McPherson Reserve from there. The McPherson Botanical Reserve sits on a 180-acre site eight miles west of Stillwater. The OSU Botany Department maintains the reserve habitats which include cross-timbers, prairie, oldfield and riparian. The preserve is used for field studies and experiments, including prescribed burning.

FIELD TRIP RULES

- Participation is at your own risk.
- Preregistration is required for all field trips.
- Field trip announcements will contain the name, address, and telephone number of the leader. If you have doubts about the terrain, difficulty, etc., ask.
- Collecting any plant parts or other materials at the site must be approved by the field trip leader.
- Field trips take place rain or shine. Hiking boots, long pants and a hat are essential.
- Bring water and lunch or a snack. Sunscreen and insect repellent are always in demand. Field guides, a camera and binoculars are nice.
- All ONPS field trips are open to the public at no charge, unless charges per-member are specified in the announcement. Visitors and newcomers are always welcome.
- Children old enough to keep up are welcome. Pets are not.

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Corson and Tassie Hirschfeld, Norman
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Christina Stallings, Oklahoma City
Betty Sue and Jack Tow, Marietta

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Announces the forthcoming publication of its annual journal

Oklahoma Native Plant Record

Volume 7 Number 1, December 1, 2007

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The Gaillardia

Published quarterly by the
Oklahoma Native Plant Society
2435 S. Peoria, Tulsa OK 74114

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