



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

Volume 18, Number 4
Winter 2003

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FOR NEXT ISSUE IS
15 February 2003**

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.

- Jan 16, Feb 20- Happy Hour - Panera , 5601 E. 41st St., 5:30 p.m. Contact: Constance Murray at (918) 664-2896 or cmurray@tulsacc.edu
- Jan 17... Field Trip to Oxley Nature Center Meet at Oxley at 9:00 a.m. Connie Murray will lead the trip. Contact: Constance Murray, see above
- January 24: C/T. Winter tour of a Payne County creek and woods. Meet in the Life Sciences parking lot (just east of Monroe Street on the OSU Campus). We will carpool south to Mike Palmer and Sue McAlister's place near Perkins. Contact Sue McAlister, sdmca@okstate.edu or (405)744-8733.
- January 29, 30, 31 and February 1: The Central Chapter will participate in the Oklahoma Garden Festival. Volunteers from all chapters welcome. Contact Susan Chambers, tinroof@aol.com or (405) 769-7917.
- February 23: Central Chapter, Julian Hilliard, professor of biology at OKC Community College will give a program on Endangered Species. Contact Susan Chambers, see above.
- Note: all members are invited to all meetings, including board meetings, and are encouraged to bring guests.

ONPS THANKS THESE DONORS

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Tulsa Herb Society

PRESIDENT'S PARAGRAPH

The 2003 annual meeting went off with very few problems. I want to thank everyone involved with helping make this event a success. Thanks to Kelli Brown and all the staff at the OU Biological Station for their hospitality. Thanks to Kim Shannon, Bruce Smith, and Clark Ovrebo for their assistance as field trip leaders. And, finally, thanks to Connie Murray and Clare Miller for their assistance with registration and checkout.

The weather was very nice and cool, a welcome change from the hot temperatures just a few months ago. Our accommodations were quite adequate with most everyone having a nice view of the lake. Financially we had hoped to just break even, but luckily we did come out in the black with a left over balance of \$231.00. We appreciated Mary Korthase's help with keeping the income and expenses straight.

I was a little disappointed with the low turnout at the board meeting, especially with the new board members. Some of this is my fault, because I did not spend enough time interacting with the membership as I had hoped. After my first year as president, I now know what Pat Folley meant when she said this was basically on the job training. I have appreciated all advice and constructive criticisms throughout the year from various members. My job was even made more difficult with a major change in my employment status late in the year. Anyway, next year looks to be a great year. Hope we have a good turnout at the next board meeting in December. We have several members working on lots of ideas for next year, i.e. the indoor outing sites, wildflower workshop, field trips, and many other events. Ours is a classic example of an organization being only as good as its membership. As president I pledge to work harder, especially in keeping in better touch with our membership and board members. Thanks to everyone for making my job easier. See you at the next field trip or meeting.

Happy trails,
Jim Elder

IMPORTANT GENERAL NOTICES

Order your copy of the Oklahoma Native Plant Record, Volume 3 now: see page 11

Starting with the next issue of The Gaillardia, you can receive your copy by email in PDF format. This will save ONPS printing and postage costs and you will be able to view and print color copies. Let the editor know if you want this service. The Gaillardia at the website will also be in PDF format.

BOTANY BAY

Paul Buck

Thigmotropism

Several years ago one of the Master Gardeners at the Tulsa Garden Center kindly gave me a passion-flower seedling. He reported it was not native to Oklahoma and admitted he had no idea of its identification. The seedling was planted in the back yard next to the fence and quickly became a vigorous and aggressive climber.

Its single flowering episode permitted identification using L. H. Bailey's *The Standard Cyclopedia of Horticulture* (1930). It turned out the plant is *Passiflora caerulea* L., a native of Brazil. Some workers suggest it may be the *Passiflora* reported by Jesuits accompanying conquistadors to South America in the early 1500s. Legend has it the Spaniards saw in its beautiful flower a divine call to convert the Indians to Christianity. Bailey reports the Jesuits suggested '.....the ten colored parts of the floral envelope were thought to represent the ten apostles present at the crucifixion, Peter and Judas being absent. The stamens.....the five wounds, by others thought to be emblematic of the hammers which were used to drive the three nails, the latter being represented by the three styles with capitate stigmas.' However, there is much more to the superstition and if you are interested refer to page 2480 of Volume III of Bailey's work.

The plant under consideration is vigorous and while weeding a nearby flower bed I noticed a growing tendril extending into the adjacent yard where it would surely use one of the neighbor's plants for support. To avoid that I directed the tendril along the upper wire of the fence. In doing so I noticed the

tendrils barely touching one of the wire strands.

I wish now I had timed it but in 30 to 45 minutes I noticed the tendril almost completely surrounding the wire. In that brief period it had located the wire as a physical support and completed a loop between 270 and 360 degrees. I think we would all agree as to why. Support is essential to the survival of climbing plants. The question is, HOW?

At this point some readers may be saying the plant placed the tendrils over the wire in order to obtain support. Shame on you. That is an anthropomorphic statement. Go back to the Summer 2000 issue of the *Gaillardia* and the Botany Bay article titled Anthropomorphism. It should explain the error in your thinking.

I've heard one distinction between a plant and an animal is the latter can sense environmental stimuli, evaluate them and respond appropriately. The implication is plants lack that power. Holding that position is underestimating their capabilities. Plants are as adept as most animals in responding to environmental stimuli. However, their approach is different.

There is little evidence most animals are able to analyze stimuli consciously and reach an independent, intelligent conclusion. I realize many are convinced their pets are as intelligent as they are and in some cases I must agree. There is the tendency for we humans, emotional creatures that we are, to be anthropomorphic. Consider the many kinds of animals from sponges to sentient mammals. There is the question of thoughtful intelligence. It appears only *Homo sapiens* and perhaps some other higher primates, possess the power of conceptual thought. The plant in question would ultimately use the fence wire for support but did not have that as the objective when the tendril grasped the wire. I doubt plants have the power of conceptual thought. Never, in the thousands of plants I've dissected have I located a neuron or nerve tissue.

Yet, plants do consistently demonstrate predictable growth patterns. We see stems growing upward against the pull of gravity and on the other hand roots grow downward. Plants often grow toward a source of light and occasionally fold their leaves as though to sleep, as the sun sets. These growth patterns have been studied and categorized as: -

tropisms, responses to a unilateral stimulus such as gravity, light or currents, water or electric, and: - nastic movements, responses to stimuli impacting the entire organism such as the decrease in light intensity with nightfall.

Many tropistic responses are well known. A corn plant growing upward from the soil is an example of negative geotropism (geo = earth), its roots growing downward into the soil is positive geotropism. Consider what takes place when a potted plant falls onto its side. The shoot system turns upward and if you could look inside you would find the roots growing downward. What is the value of this programmed behavior?

A positive phototropic response (photo = light) would be a plant growing toward a source of light. I would be disappointed if there is even one reader who cannot come up with an example of this phenomenon. Why does one turn a house plant on a window sill about 90 degrees each day? What would happen during vacation if there is no one to turn the plant? What is the advantage to a plant orientating its leaf surfaces perpendicular to sunlight?

The tendril on the passion vine in question demonstrated a thigmotropic response (thigmo = touch). The physical contact between the tendril tissue and a solid object stimulated cells in such a manner the tendril encircled the contacted structure obtaining support. This tropistic response is best developed in viny, climbing plants. In the spring take time to closely examine climbers such as *Aristolochia* (pipe vine), *Vitis* (grape), *Passiflora* (passion vine) and *Vicia* (vetch) to observe their use of tendrils for support. One cannot help but be impressed by the swiftness with which they climb other vegetation, walls, fences and buildings.

Some plant responses may be tropistic or nastic but there are other approaches. How do cells react to give rise to these visible changes? Is it simply growth? Remember growth may be a result of an increase in size or number. What of the Venus Fly Trap leaf which closes within seconds of stimulation. That seems a bit fast for growth.

I realize that in this brief time I've dumped a number of concepts in your lap and intend to leave them. Get out and look about. This wonderful world presents new questions wherever we look. Most answers are

available. Can you find them?

**Service Award for 2003
Sue Amstutz**

Pat Folley was presented the 2003 ONPS Service Award at the Society's Annual Meeting held near Lake Texoma in October. The glass plaque embossed with our emblem, the gaillardia, was presented to Pat by Service Award Chair Sue Amstutz.

Pat's service to ONPS is a long and productive one. Formerly Chair of the Central chapter, current Secretary-Treasurer of the Mycology chapter, Co-chair of the Conservation/Environment Committee (1990), State Secretary (1992 - 1993), current member of the Publications Committee and Technical Editor of our *Oklahoma Native Plant Record*, editor of *The Gaillardia*, (1993 - 1999) and immediate past State President are some of the more distinctive offices she has held.



Pat Folley receiving the Service Award

Pat's service has included leader on numerous field trips, organizer of countless state meetings and projects, designer and producer of our Native Plant Coloring Book, producer of our ONPS Slide presentations, workshop presenter too often to count, book reviewer, reporter on ONPS activities to *The Gaillardia* and other publications, and photo contest poster co-Curator pr Central Oklahoma. Her skill as a photographer has been recognized by her winning 14 different prizes in our photography contests over the years, including 5 place photographs.

The letter of nomination for Pat's receiving the 2003 Service Award stated, "She is an innovator, a motivator, and a tireless worker. Patient, diligent, and a pleasure to work with, she carries out the Society's projects as if they were her own children. She does whatever it takes."

ONPS indeed recognizes the great contribution to the success of our organization which Pat has made over the years and expresses our appreciation to her for her tireless effort on behalf of the Society as symbolized by her receiving the Service Award for 2003.

BOOK REVIEW

Pat Folley

Landscaping for Wildlife: A Guide to the Southern Great Plains by Jeremy D. Garrett and illustrated by Coral McCallister. University of Oklahoma Press, Norman, 2003. \$30

Here is a complete guide to managing a landscape for the wildlife it might contain or attract. Nicely softbound with a durable plastic cover, it is large enough at 8 1/2 x 11 inches to display the color photographs (on almost every page) that illustrate the text. Most of the material covered will be familiar to ONPS members, but it can serve as a ready reference resource for those planning educational programs.

I was a bit disturbed by the inconsistencies in the "native vs introduced" charts until I realized that the book covers more territory than Oklahoma: in fact, most of Texas, Kansas, all of Oklahoma, and parts of Colorado, Nebraska, Missouri, Arkansas and Louisiana. Oklahoma users will still need to refer to John and Connie Taylor's *List* to know whether a desired plant is native here. The presentation is based on the Oklahoma Department of Wildlife Conservation' Wildscaping program, and an application form for registration of your completed site is printed on the last page.

The text is straightforward and helpful, and the book overall is attractive enough to make it a good choice as a gift for, perhaps, a new homeowner or a school group thinking of starting an outdoor classroom project. There are references to plant providers and some wildlife gardens that are open to the public, as, for example, both the Oklahoma City and the Tulsa zoos. Table 2, in the second chapter, appears to have

been derived from Darlene Michael's wildlife planting charts, though credit was not given. At any rate, the material is comprehensive enough that almost anyone interested in landscaping with wildlife in mind will find it useful.

BIOLOGICAL STATION TO OFFER TWO BOTANY COURSES

The University of Oklahoma Biological Station (UOBS), www.ou.edu/uobs will be offering two field-based botany courses as part of its Summer Session 2004 academic program:

Vascular Aquatic Plants, BOT 4990/5990, Sec. 051, May 16 - May 28, 2004. Instructor: Ron Tyril, Oklahoma State University

Studies of vascular, aquatic and wetland plants, including their taxonomy, adaptations to the aquatic environment, ecology, geography, economics and control. Emphasis on species of Oklahoma and the south-central United States.

Field Botany, BOT 4990/5990, Sec. 050, Aug. 1 - Aug. 13, 2004. Instructor: Bruce Smith, Oklahoma State University

The study of the natural history patterns of local distributions, taxonomy and ecology of Oklahoma flora via field trips, with special emphasis on the use of taxonomic keys, terminology of vascular plants and the techniques of collecting and preserving plant specimens.

Both courses will include field trips to observe and collect specimens in their natural habitats for further study in the laboratory.

Other courses being offered during Summer Session 2004 are:

Bird Ecology, ZOO 4970/5970, Sec. 051, May 16 - May 28, 2004. Instructor: Terry Maxwell, Angelo State University

Field Insect Ecology, ZOO 4970/5970, Sec. 052, May 16 - May 28, 2004. Instructor: Kenneth Hobson, University of Oklahoma

Molecular Techniques for Field Biology, ZOO 4970/5970, Sec. 100, May 16 - May 28, 2004

Instructors: James Thompson, Jr., University of Oklahoma and Ron Woodruff, Bowling Green State University

Wetland Science and Management, ES 5273, Sec. 200, May 16 - May 28, 2004. Instructor: Robert Nairn, University of Oklahoma

Experimental Herpetology, ZOO 4970/5970, Sec.

050, Aug. 1 - Aug. 13, 2004. Instructor: William Lutterschmidt, Sam Houston State University

Field Mammalogy, ZOO 4970/5970, Sec. 053, Aug. 3 - Aug. 15, 2004. Instructor: Michael Kennedy, University of Memphis

Reservoir Fish Ecology, ZOO 4970/5970, Sec. 054, Aug. 3 - Aug. 15, 2004. Instructor: Tim Patton, Southeastern Oklahoma State University

Water Resources: Preservation and Conservation (Senior Capstone course for OU Zoology students only), ZOO 4983, Sec. 100, Aug. 1 - Aug. 13, 2004

Instructor: Dave Hambright, University of Oklahoma

Students receive 3 hours of upper-division undergraduate or graduate science credit with laboratory. UOBS is located on the north shore of Lake Texoma, approximately 125 miles south/southeast of the OU Norman campus. For further information and application materials, please contact Susan Bayliss, 405-325-5391 or sbayliss@ou.edu. Applications will be accepted starting Jan. 5, 2004.

PLANT IDENTIFICATION BY E-MAIL

Dr. Stephen L. Timme

A "modern" way to stay sharp on plant identification is now available by e-mail. I had been playing around with some of my photos and sending them to friends to see if they could ID them for fun. I soon realized that my initial "test group" really enjoyed trying to ID a plant from a photo by e-mail. The idea is not to make anyone a professional taxonomist, but to give the mostly general public the opportunity to receive a plant photograph and then scan the field guides to see if they can identify it. And with winter coming on, the photos are a reminder of what to look forward to for 2004 and beyond. It is strictly for fun and learning. Each week, generally on Sunday, I provide a photo with a few characteristics, and sometimes with habitat and/or location. The plants are mostly common species from the central midwest. Some examples sent thus far include the Michigan Lily, Woundwort, and Ozark Wake Robin. When a wildflower photo is sent by e-mail for the week, I generally add a few comments about the previous week's photo. Each month, I put everyone's name that responded, right or wrong in the ID, in a bowl and draw one name. I then print off a 8 x 10 photo of a wildflower and send it to them. So there is some

reward for attempting to make an identification. Once someone informs me by e-mail they wish to be placed on the list for identifying wildflower photos, I send them an overview of how the program works. If they send a wrong identification, I will send them a little more information. It may be one or more characteristics, the family name, or possibly the genus name. After they provide me with several attempts that are incorrect, I will give them the correct name. The following is all I request from the E-Mail Plant ID:

Provide a species name and its common name.
Provide a scientific family name and the family's common name.

That is it. It is all for fun. Nothing to buy! It is my hope that each participant will enjoy the photos and learn a little more about the species, and of course, sharpen their identification skills.

Dr. Stephen L. Timme
T. M. Sperry Herbarium
slt@pittstate.edu or sltimme@mobill.net

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Herbs & Spices  
Connie Taylor

Remember Horehound candy/cough drops. I have not seen the hard horehound candy for sale in about 2 decades, but I have not looked for it either. Horehound, *Marrubium vulgare*, is one of those European plants that has become naturalized in North America. It is not common in Oklahoma, but is sometimes found around old house sites in sunny locations on poor, dry soil. It is a member of the Mint Family (Lamiaceae), with white flowers, square stems, opposite leaves, and densely hairy. Almost like a taller, very hairy henbit. The dry leaves are extremely bitter but have been grown as a valuable medicine for thousands of years. They can be used to make a syrup or cough candy or the fresh leaves chewed with honey. At one time it was so widely used, that it was a successful commercial product.

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CONSERVATION CORNER

Chad Cox

Being the chairman of a committee of one has its drawbacks. If you are interested in plant conservation and willing to serve let me know. For the most part this would be a committee by email

which should encourage more to volunteer since I know how fond most people are of yet another committee meeting.

Here's another way you could participate. I receive a few messages each month asking me to inform my legislators that I support some measure related to plant conservation. In most cases I am so disposed. Anyone that would like to see these requests just needs to let me know and I will forward these emails to you. I will be willing to send all of them or only those that I am responding to.

For example, the Prairie Coalition Network, formed as a result of discussions at the 2000 North American Prairie Conference in Iowa, has asked for support recently for legislators to fund outright the personnel of the Conservation Reserve Program and not to raid the funds for Grassland Reserve Program, a program the prairie enthusiasts hope to protect native prairie remnants. Previous requests from PCN indicate they are a serious group of people trying to protect prairie remnants so I responded. Responses from other members of ONPS would add to the power of these requests.

Just considering the requests from PCN since its inception, there has been a dramatic erosion in this administration's funding of help for prairie conservation or for that matter conservation in general. Just picture all those little plants that are trembling now in fear and needing your help so desperately.

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## TNC Speaker for Chapter Meetings

The Oklahoma Chapter of The Nature Conservancy will present an update to your Native Plant Society members about the Conservancy's protection efforts across the state. As you may know, our mission is to preserve native plants (and animals) for future generations to enjoy.

We would welcome the chance to share our conservation news with your members, and believe they would find the information helpful and encouraging. Please feel free to contact me via email or telephone. I'm usually in the office M-F from 8:30am until 4:30pm.

Grant Gerondale  
Director of Environmental Affairs  
The Nature Conservancy of Oklahoma

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## 2003 ANNUAL MEETING

Jim Elder

This year's annual meeting was held during the weekend of October 24-26 at the OU Biological Station on Lake Texoma. The staff at the station was friendly and helpful. The food was well prepared and the kitchen staff was very flexible in accommodating those of us with special dietary request.

The meeting started Friday afternoon with registration and check in, then by a hospitality and welcome period. The evening ended with dinner followed by a program on the history and research interests of the station presented by Dr. Dave Hambright. Saturday began with organized field trips after a wholesome breakfast. Kim Shannon and Bruce Smith volunteered to lead morning and afternoon field trips. Unfortunately, this was also muzzle-loading season for local deer hunters, so we optioned not to visit some of the sites Kim and Bruce had originally planned. Maintaining membership is difficult enough without having members knocked off by a confused hunter. Kim and Bruce were quite resourceful in coming up with sites closer to the station as well as a tour of the herbarium. They repeated the field trips after lunch and were then able to visit some of the sites omitted during the morning session. Clark Ovrebo showed up later in the day and volunteered to lead a trip for mycology enthusiasts.

The field trips ended with a rest period and quiet time, followed by dinner. We had 50 registered for dinner and over 60 showed up for just the evening programs. After dinner, we retired to the library for our annual business meeting, awards ceremony, and program. New officers and board members were elected for 2003-2004. Jim Elder, President, Connie Murray, vice President, Mary Korthase, treasurer, Kim Shannon and Tina Julich, secretaries, and Carla and Dale Chlouber, historians. Monka Macklin and Stan Rice were elected as directors at large.

Sue Amstutz presented Pat Folley with our service award, this was well deserved for someone who has

given so much to the society. There were no nominations for the Anne Long award this year. The meeting ended with Dr. Hugh Garrett presenting a slide program on the restoration of a prairie in North Texas near the Oklahoma boarder. Hugh is a retired economic professor from Austin College in Sherman Texas. He has spent much time and energy on restoring this prairie, becoming very knowledgeable in both the common and scientific names of many of the native plants. Hugh is also an avid birder. The evening ended with some of us retiring to bed, while others stayed up late visiting in the dining hall and helping themselves to some "midnight snacks".

We had several guest from other states: Missouri, Texas, and Louisiana. Nels Holmberg, member of both ONPS and Missouri Native Plant Society, was passing through and decided to spend the weekend with us, suggesting that the two organizations try to plan some combined outings and/or meetings sometime in the future.

The meeting ended Sunday morning with breakfast and checkout. A brief board meeting was held after



breakfast to introduce new officers and board members and to do some preliminary planning for the coming year. All in all it was a great time, with good food, friends, education, and a relaxation.

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## Annual Meeting Field Trip By Kim Shannon

This field trip started off with a large caravan. Watching behind me via the rearview mirror, I felt like a mother duck with 15 of her ducklings following. Yes, there were 15 cars following mine to get to the afternoon field trip site along some of the more northern shores of Lake Texoma. The weather was brisk and very fall-like that Saturday with a definite

chill in the air, when just the day before conditions had been very warm and balmy.

The large group arrived at the Lost Acres maintenance area site around 2:00pm and we headed off to look for old Oaks, shrubs in fall color and any plants, fungi or critters that we could find. After a short time along an old road, the field trippers headed toward to the beach. There we found False indigo (*Amorpha fruticosa*) in fruit, a *Heliotropium* species with purple flowers, and spreading across the rocky beach the Virginia buttonweed (*Diodia*

*virginiana*). In the wooded portions of the site we saw the Southern blackhaw (*Viburnum rufidulum*) in fruit, many old and gnarled Post Oaks (*Quercus stellata*), the Cedar elm (*Ulmus crassifolia*), and the vine called Snailseed (*Cocculus carolinus*) with its nearly iridescent red berries. The variety of plants in bloom or in fruit was not as great as it could have been due mainly to the lack of rain in the area, but the plants that could produce fruits did so in decent amounts. The group returned to the Biological Station around 4:00pm.



The field trip site is part of the Oklahoma Natural Areas Registry. It is an old growth Crosstimbers site that has been protected by the U.S. Corps of Engineers since at least 1940. It has been a Registered Natural Area since 2000. Though the crosstimbers forest community is widespread over much of Oklahoma, most examples of the community are newly regenerated or have been degraded by cutting and grazing. Stands such as the one visited during the field trip are usually found only on steep slopes or occasionally on public land.

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## CHAPTER ACTIVITIES

Central Chapter

Susan Chambers

June 7: The central chapter gathered at the Chambers garden for a Sunday afternoon garden and wildflower meadow tour. The weather was beautiful and several people made the trek to the outskirts of OKC. We toured the garden earlier than in past years, early enough to see wildflowers in bloom, not yet seared by the summer heat.

July 12: About a dozen folks drove to Pontotoc Ridge to spend the day hiking the trails and spotting new wildflowers, and just generally enjoying the outdoors. Unfortunately, the ticks were really bad and they were joined by the chiggers in droves. Otherwise, a lovely day.

September 29: We met on the campus of OSU-OKC for our first fall meeting. Leonard Ketchum gave a program on *Native Grasses and the Birds That Make Them Their Home*. Mr. Ketchum brought freshly harvested wild grasses of several species to punctuate his program. Chris Kirby's class from the horticulture program attended the lecture portion of the meeting, doubling our attendance.

October 4: The central chapter participated in the Garden Gala at the OKC Zoo, from 10 a.m. to 2 p.m. Betty Kaelin and Wayne Chambers gave out packages of wildflower seed, plant lists for wildlife landscaping, wildflower planting directions, and collection guidelines for native plants.

October 27: Kim Shannon will give a program on the Natural Heritage Inventory program and how a piece of land qualifies to be registered.

November 24: David Walker with the educational department of the OKC Zoo presented a program on native reptiles and amphibians

January 29, 30, 31 and February 1: The Central Chapter will participate in the Oklahoma Garden Festival. No formal meeting or program for these months as well as December.

February 23: Julian Hilliard, professor of biology at OKC Community College will give a program on Endangered Species.

Northeast Chapter  
Constance Murray

September 6: Ten of us met near Henrietta at the Deep Fork Wildlife Refuge. We enjoyed a twilight walk on the boardwalk. Our primary goal was to view Mars, at its closest to the earth in 60ky. Charles Lewallen brought three telescopes. He focused one on Mars, one on the moon and one on various constellations.

September 8: We had our fall pot-luck supper and chapter meeting. Suzanne McAlister, OSU, presented slides and introduced us to bryophytes.

October 3: We again gathered at the Deep Fork Wildlife Refuge, this time for a sunrise walk. It was a crisp early-fall morning and we catalogued more than forty species of plants and more than ten of caterpillars. We also managed to avoid the bow hunters! Afterwards Charles Lewallen surprised us

all with a delicious breakfast at his home in Henryetta.

Crosstimbers Chapter  
Suzanne McAlister

On 24 September, Jennifer Paustenbaugh and Vicki Phillips (from the OSU Library) gave a guided tour of "Listening to the Prairie: Farming in Nature's Image", an exhibit produced by the Smithsonian Institute's National Museum of Natural History, which was on display in the Browsing Room from 5 September to 18 October. The dynamic and interactive exhibit featured the stories of four farming families, from Kansas, South Dakota, Illinois and Nebraska, and the ways in which they have worked with natural processes (fire, composting, grazing, native plant reproduction, etc) to make their farms economically viable while improving the soil, vegetation and wildlife opportunities. An attraction for all, but particularly children, was the interactive shopping cart, which would display the plant sources of ingredients in items from breakfast cereal to shampoo. The exhibit also presented a brief introduction to prairie ecology and how the prairie was transformed from bison grazing to grain production. Outside the exhibit, a number of OSU departments had displays concerning their research in agriculture and prairie conservation. It was truly an interesting evening.

On 14 November, we held our fall potluck, in 110 Life Sciences East building, on the OSU campus. All came prepared for delicious food and good fellowship. At the brief chapter meeting, a nominating committee was selected to choose officers for the next "year" (March 2004-March 2005). We also discussed future activities. Suzanne McAlister presented a slide presentation describing how the unique and different structure and physiology of bryophytes contributes to their successes and even dominance in a variety of habitats around the world.

The Crosstimbers Chapter will not have a meeting in December, due to all the holiday activities we are busy with.

We will meet again in the New Year, on 24 January 2004, at 1:00pm in the Life Sciences parking lot (just east of Monroe Street on the OSU Campus). We will carpool south to Mike Palmer and Sue McAlister's place near Perkins, for a winter tour of a Payne County creek and woods. We will have a warm-up snack, tea, etc. after the walk. Contact Sue McAlister

(744-8733), Olen Thomas (743-3613), or Elaine Lynch (624-1461) for more details. The next chapter activity will be our March potluck. Speaker and date are to be determined.

#### **Mycology Chapter Clark Ovrebow**

The Mycology Chapter of ONPS was voted formal status at the June board meeting. The officers of the Chapter are as follows: Director - Clark Ovrebo, Assistant Director - Julie Tarver, Secretary/Treasurer - Pat Folley. Unfortunately, the summer was one of the driest seasons on record so no field trips were held by the chapter. The dryness was also evident at the annual meeting at Lake Texoma in October - no fresh, fleshy fungi were found. A chapter meeting will be held January 11, 2004, Howell Hall (Science Building) in the atrium, University of Central Oklahoma, 3 pm. We will plan the year's events and Clark will give a brief presentation on his trip to Belize a year ago.

What is the best field guide for identifying mushrooms and other fleshy fungi in Oklahoma? None exists for our state so one must rely on field guides written for adjacent states or other parts of the country. Before recommending several field guides, it is important to know that no mushroom guide contains all of the mushrooms that you might encounter, even in the region for which it was written. There may be as many as 6000-7000 species of mushrooms, bracket fungi and puffballs in temperate North America. With a couple of exceptions, even the thickest field guides include no more than about 10% of these species. Field guides tend to emphasize the common species, the edible and poisonous ones, and the ones that can be identified without the aid of a microscope. With a microscope and some knowledge of microscopic characters, you can expand your ability to identify mushrooms using technical monographs.

Kansas and Texas both have field guides to mushrooms and might be the best ones to obtain to begin with. The Texas guide, *Texas Mushrooms*, (Susan Metzler & Van Metzler, Univ. Texas Press, 1992) focuses primarily on fungi of southern Texas. Much like other groups of plants and animals, mushroom diversity varies from region to region. This guide has many fungi found in the deep south but also includes mushrooms found in Oklahoma. Over 200 species are included and the photographs are superb. The Kansas guide, *A Guide to Kansas*

*Mushrooms* (B. Horn, R. Kay, and D. Abel, University Press of Kansas, 1993) contains illustrations and descriptions for 128 species and more are discussed in the text. The fungi in this guide are more representative of the Upper Midwest. The photographs are of generally good quality, and importantly, the guide has dichotomous keys. Keying-out a mushroom is the best way to learn morphological features of fungi. There are several other guides that will be helpful for Oklahoma. A *Field Guide to Southern Mushrooms* (N.S. Weber & A. H. Smith, Univ. Michigan Press, 1985) covers southern mushrooms and has excellent photographs and keys. *Mushrooms Demystified* (A. Arora, 2<sup>nd</sup> ed, Ten Speed Press, Berkeley, 1986) is a classic field guide and is a must on all bookshelves. Fungi of the Pacific Northwest are emphasized but I have found it to be useful here. David Arora is a particularly entertaining writer. The *Audubon Field Guide to North American Mushrooms* (Gary Lincoff, Alfred Knopf, New York, 1981) has over 750 photographs but unfortunately many of the photos are grouped by superficial appearances and color of fruit bodies and not by natural relationships. It will be more useful when you become familiar with fleshy fungi. *Mushrooms of North America* (Roger Phillips, Little, Brown & Co, 1991, but out-of-print) has over 1000 photographs and again will be most useful when you learn generic concepts. If you get your hands on three or four of the above books you will have a good start in building a mycological library.

As for flowering plants, we now enter the "off season" for mushroom-type fungi. However, be on the lookout for oyster mushrooms (*Pleurotus ostreatus*) during the winter months. Oyster mushrooms will fruit during wet periods on hardwood logs or dead trees, especially willow. Oyster mushrooms have a light creamy tan to light gray coloration to the pileus and lacks a stipe. It is an excellent edible. Reminder: be completely sure of a wild mushroom's identity before eating.

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

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c/o Tulsa Garden Center  
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