

The purpose of the ONPS is to encourage the study, protection, propagation, appreciation and use of Oklahoma native plants.

Also in this issue Mushroom madness Orchid field trip Rain shadows? Photo contest ideas Books to browse



Volume 5, Number 4 July/ August, 1990

# aillardia The Oklahoma Native Plant Society Newsletter

In memorium by Paul Buck

#### ONPS co-founder Harriet Barclay, 1901-1990

In earlier ONPS newsletters I directed my comments toward current ecological issues of concern to all of us and then attempted to prod the environmental conscience of the reader. I would like to dedicate this contribution to an environmentalist who has touched the lives of each of us, and I am certain of tens of thousands of others over the past six-plus decades.

On the 25th of May, Dr. Harriet G. Barclay quietly passed away of cancer at the age of 88. It would certainly 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, an enthusiastic field person, a lover of all nature, and a kind and gentle person always willing to give of herself when needed. Much of the time I shared with Harriet was out-of-doors in our roles as field botanists. She was a skilled camper completely at home cooking in the field and sleeping on the ground, but she also demonstrated the finest of social graces. She was just as comfortable at professional meetings, a formal dinner, the ballet, a symphony or an afternoon tea. Harriet was an unusual individual, a unique woman, truly one of a kind.

Harriet was born in Minnesota in 1901, and it was there, as a very young girl, she developed her strong love of nature, a love that was to be so influential in the direction of her long life. She took her B.A. and M.A. degrees in botany at the University of Minnesota in 1923 and 1924 and received the PhD in plant ecology from the University of Chicago in 1928. She then married Bertram Donald Barclay and they moved to Tulsa where he established the Botany Department at the University of Tulsa.

In addition to the responsibility of mothering two boys, she continued her own development, both personally and professionally. She taught at TU for 43 years progressing from lecturer to full professor, took a B.A. in Art (1945) at TU, became a wellknown and respected photographer, gave hundreds of presentations to a variety of organizations ranging from local garden clubs to national scientific societies, became an activist fighting for environmental issues in which she strongly believed, taught courses as a visiting professor at the University of Oklahoma, the University of Arkansas, the University of Eastern Illinois, North Carolina State University and for 18 summers at the Rocky Mountain Biological Laboratory in Gothic, Colorado.

In the late 1950s Harriet received funding from the National Science Foundation and spent a year and a half carrying out botanical field work in the high Andes of Venezuela, Colombia, Ecuador and Peru. That experience whetted her appetite for the plants of faraway places and she traveled extensively, studying the flora of all the continents except Antarctica and she spoke of visiting there right up to the time of her death.

Through the years Harriet's contributions to both the scientific and cultural communities have been acknowledged by a multitude of certificates, plaques and awards. It would take far too much space to list them all, but a few are:

William S. Wright medal for watercolor painting. 1957

Woman of the Year, American Women in Radio and Television. 1959

The Nature Conservancy Greenleaf Award for establishment of Redbud Valley Nature Preserve, 1972

Conservation Education Award, Oklahoma Wildlife Federation. 1972

Distinguished Service Award, University of Tulsa. 1975

Induction into Oklahoma Hall of Fame, 1976

Silver Seal Award, National Council State Garden Club. 1978

Personal Achievement Award, University of Chicago Alumni. 1979 Continued on pg. 3

### Central Oklahoma Chapter

The Central Oklahoma Chapter met at Martin Park Nature Center in Oklahoma City. Neil Garrison, the director, led a tour through the park, entertaining and educating us about plants used in various ways by Native Americans and early settlers. Some of the plants and their uses include soapberry (fruit and seeds used for soap and beads); greenbriar (young shoots used as fresh vegetables with a taste riminiscent of wild asparagus); honeylocust (sap in seed pods used as a sweet treat and the spines as needles and awls); cottonwood as a tell-tale for water and game. All-in-all, a fascinating and very theraputic evening.

Steve Thompson gave us a blow by blow of the Hajek Marsh field trip (last May). Ten intrepid souls made the trip and got to see a lot of water because much of the marsh wasn't a marsh at all, but a lake, due to heavy spring rains. The group was able to explore the perimeter of the marsh and the southwest side, but the highlights of the trip were a couple of stops to investigate roadside plants on the way back. A purple-brown flowered milkweed and a tiny, one-petaled violet were two of the finds.

Joanne Orr gave us the story on the wildflower workshop in Poteau — very favorable attendance and comments in spite of the rain. She also brought to our attention a proposal for wildflower research by OSU and the Noble Foundation and a wildflower trail in the Arbuckles to be funded jointly by state (Dept. of Transportation) and local organizations. Joanne also mentioned an article by Bob Lee in a recent Daily Oklahoman posing the question, what is the best way to get wildflowers from the "wild" into your garden? Some answers: harvest a few seeds from each patch; do not dig; do not cut flowers; do not strip all seeds from a colony.

Ruth Boyd gave an update on the May board meeting (no quorum). Steve Thompson gave us the good news about our Earth Day booth at Martin Park Nature Center — all wildflowers were given away and inquiries from several people about where, when and how to plant wildflowers. We'll be sending out about 40 brochures to those who left names and addresses for further information.

Susan Chambers

## Central Oklahoma Chapter

July 30 meeting

Our next meeting is set for July 30th at John Miskelly State Park in eastern Oklahoma county. We'll meet at 7:00 p.m. In the park, have a short program by Bob Harrell from the State Forestry Department, and then hike.

### Northeast Oklahoma Chapter

Herb Beattie provided a video and talk at the Tulsa Garden Center in May on latest developments at the Oklahoma Nature Conservancy, including recent acquisitions and future projects. Among the NE chapter field trips were successful photography and mushroom forays, both reported elsewhere in this issue.

#### Geraldine Rouk reports on Poteau

At a request from *Gaillardia*, member Geraldine Rouk from Sapulpa sent a report on her experiences during the Poteau wildflower weekend May 4. It follows:

Our party left Sapulpa at 5:30 Friday morning, and on arrival at the Kerr Agriplex were welcomed by Mrs. W.A. Williams, president of Oklahoma Garden Clubs. Our first speaker was botanist Linda Watson who told us there are 2,500 plant species in Oklahoma including four rare plants. If your plant catalogue states that plants are nursery grown, don't buy them, as they were probably collected in the wild. If nursery propagated, go ahead and purchase. From Paul Buck we learned that you can get \$250 a pound for ginseng roots. He showed us some very interesting wildflower slides.

Joanne Orr told us of her trip to Ladybird Johnson's home, and about how the Transporation Dept. is helping with wildflower planting along highways. Quite interesting was the herb lady, Doris Bankes from Ramona. Samples of French tarragon, rosemany, basil, Greek oregano, marjoram, thyme and others were displayed. We learned more about management and uses of native grasses by Mark Moselay. Grasses he discussed included Indian grass, corn grass and Eastern gamma.

On the Talimena Drive trip, our first such trip in search of wildflowers, we made three stops. We saw fringe tree, basswood, witch hazel, buckeye and many others. The mountain was lush with plant growth, and what a beautiful view from the top! The weather was perfect -- sunshine, not too hot, not too cool.

Some of the wildflowers we saw: bloodroot, Solomon's seal, bedstraw, wild iris, Jack-in-the-pulpit, cinquefoil, several plants of fire pink, blue star, Virginia ticksee, and white spiderwort. There was an abundant bed of wild iris in bloom. The Solomon's seal was only in buds. I understand that the white spiderwort is scarce. Bedstraw gets its name, I suspect, from the fact that it used to be used to make mattresses. Another interesting fact we picked up was that the mountains in Southeastern Oklahoma are thought to be part of the Appalachians as the same plants are found in both areas. Erosion probably divided them. As an added bonus we saw a common toad, ring neck snake and some salamanders. After a rest stop at Queen Wilhermina Lodge we headed back to Poteau. What a pleasant day of learning!

The next NE chapter meeting will be Sept. 12. The outstanding wildflower photography of Bob Lindsey will be featured.

#### Harriet Barclay continued from page 1

But this is enough of Harriet G. Barclay as documented in TU and newspaper files. What of the Harriet so many of us knew? Her motivated teaching, high integrity, academic honesty, enthusiasm for botany and obvious concern for her students is evident in teachers and professionals of all levels across the country who look to her as their mentor. In many of these people she struck the spark of ambition and subsequent success. I feel confident that in each of our 50 states there are individuals whose careers and lives have been touched and molded by Harriet. Obviously, mine is one and I know many reading this will say the same.

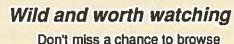
I think it is appropriate at this moment to quote one of the most beautiful pieces of literature ever written and familiar to most all of us. It is from the Third Chapter of Ecclesiastes.

To every thing there is a season, and a time to every purpose under the heaven: A time to be born and a time to die...

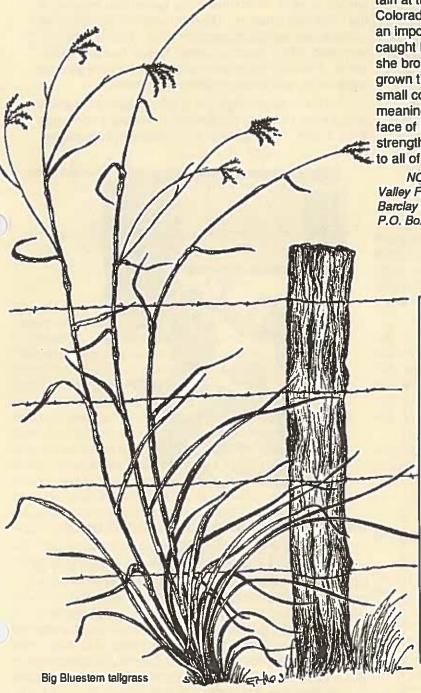
and Harriet's time has come. Her passage was gentle. She rests in that eternal sleep awaiting each of us. The great mourning is here in our hearts — we have lost a dear friend.

This is being written in the shadow of Gothic Mountain at the Rocky Mountain Biological Laboratory in Colorado, the high altitude field station that played such an important role in her life from 1929 to the very end. I caught her contagious love for this special place when she brought me here as a student in 1958. That love has grown through the years and now with her passing this small corner of the Colorado Rockies takes on a special meaning. Never again will I look at the massive granite face of Gothic Mountain without recalling the great strength and character of the person who meant so much to all of us — Harriet G. Barclay.

NOTE: Harriet asked that memorials be sent to: Redbud Valley Fund, P.O. Box 3486, Tulsa, OK 74101 or to Harriet G. Barclay Scholarship, Rocky Mountain Biological Laboratory, P.O. Box 519, Crested Butte, CO 81224.



through Wildflowers of the Tallgrass Prairie: the Upper Midwest (Sylvan T. Runkel and Dean M. Roosa, Iowa State University Press, 1989). For every species described, a color photo graces the page facing a thorough description of the plant, including its habit, habitat and the Native American uses for it. Authors caution readers to practice conservation, since so little of the original prairie remains, and they praise the Nature Conservancy and other groups for their efforts to save the remnants. Even though the book covers only the upper Midwest, it is still useful since many of the plants described range south to Oklahoma and Texas.



#### **Photo Notes**

I'd like to say thanks again to all who contributed to our 1990 photo contest. Your pictures, especially prints, are being used on a regular basis. In fact, last year's posters are still being used.

Your Photo Committee thought that it was not too soon to start planning for next year's contest so we met and came up with some ideas. One of the biggest concerns was that a few persons have won most of the prizes. Because we don't want to lose our finest photographers and we want others to have a better chance, we would like to have an advanced category for everyone who has placed in the last three years, and for those who prefer to be in the advanced category. Advanced and regular categories would be basically for close-ups.

All of the prize winning pictures have been close-ups in the past, and we would like to encourage more habitat photos, so we would like to have a *Native Plant Habitat* division. It would include photos of masses of native plants. This division would not need an advanced category, because inexperienced photographers with simple cameras can easily get excellent "not so close-up" pictures. We would have more emphasis on native Oklahoma plants. Bachelors buttons, corn lilies, and most thistles are not native to Oklahoma.

## John Miller says 'thanks'

During May ONPS took part in two festivals. We were well received at both and the posters of photographs from our photo contests were a big hit. We have been invited back to both events next year.

The Illinois River Festival was actually more of an ecology festival. It was sponsored by the Oklahoma Scenic Rivers Commission and Northeastern State University. I would like to thank Dorothy Norris and Bob Lindsey for their help with this one. Also, thanks to ONPS members who attended. I would like to thank Bob Farris and the sponsors for our invitation to participate.

Thanks to Susan Harkness and the Department of Tourism and Recreation for our invitation to the Quartz Mountain Wildflower Festival. All the staff at Quartz Mountain State Park were such great hosts. Our thanks to them, as well as to all who helped on the planning committee, and most of all to those who did the work: Bob Lindsey, Larry Magrath and Mr. and Mrs. Louis McGee.

The committee will come up with exact rules in the fall, but these general ideas may help you get started.

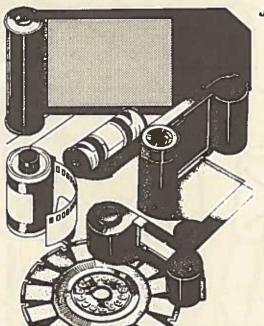
PHOTO TIPS: (Mostly Bob Lindsey's ideas) If you are a beginner or advanced or in-between, here's a sure way to improve your photography in just three steps:

- 1. Study the manual that came with your camera.
- Keep a record of how you took each picture in a roll. When the pictures come back from the lab, compare notes with the corresponding pictures.
  - 3. Repeat 1 and 2.

Bob Lindsey will be showing some of his slides of various parts of Oklahoma at the September meeting of the Northeast Chapter. This will be of interest to photographers and non-photographers alike. You may be surprised at the beautiful scenes he has found in Oklahoma. He will answer questions about how the pictures were taken, and where to find great scenes.

NOW is always the time to take beautiful Oklahoma native plant pictures, but summer wildflowers come only once a year. Have fun with your summer photography NOW.

John Miller



## Member publishes in Tulsa World

Northeast Chapter's Marcie Goad had a full-page, color-illustrated article, "Gardens of Ease," in the May 20 OK Magazine section of the *Tulsa World*. In it she urged readers to get wildflower plantings under way, and informed them of the plentiful choices they can find in Oklahoma. She gave three sources for free seed and/or plant catalogues, which are: Wild Seed Inc., P.O. Box 308, Eagle Lake, TX 77434; Park Seed Co., Cokesbury Road, Greenwood, S.C. 29647-0001; W. Arlee Burpee & Co., Warminster, PA 18974.

### Mushroom foray a great success

Despite heavy rains early in the morning, nine intrepid forayers met June 2 for a field trip to Standing Rock Nature Trail near Tahlequah.

Second growth pines dominate the landscape which also features dogwood, oaks and hickories. Indian pipe was blooming.

Nancy Shields, a mycophile the Joneses met at a Texas foray a few years back, brought a few sacks of specimens she'd collected earlier. *Amanita bisporigera*, commonly known as one of the destroying angels, is a



deadly white mushroom that should be known by every mushroom hunter, especially those who hunt for the table. The destroying angels are found throughout North America. They superficially resemble edible Agaricus mushrooms, but the Amanitas have a volva or cup at the base, which is lacking in Agaricus. Nancy's collection also contained an Agaricus mushroom (possibly Agaricus arvensis, the horse mushroom) which helped point up differences between the genera. Agaricus species have brown spore prints, while Amanitas spore prints are always white. Generally the gills of Agaricus species soon become colored with the developing spores, while Amanitas gills remain white or off-white. While all of the white Amanitas should be avoided for food, many (but not all) Agaricus species are good edibles. In fact, the common grocery store mushroom is an Agaricus.

On the nature trail, three other members of the Amanita family were found. Amanita flavoconia is easily recognized by its yellow cap with crumbling yellow volval remnants on the cap and at the base of the stalk. Several specimens of A. pantherina var. multisquamosa were recognized by the whitish pileus, distinctive cap patches and volval collar. The panther is considered toxic if ingested. Amanita rubescens, the blusher, is a sturdy

brownish mushroom that bruises red. Mushrooms related to this one do not have a well-developed volva like many other *Amanitas*, which has caused some experts to get confused over its identification. However, once identified it is easy to recognize.

Tremellodendron pallidum, the jellied false coral, was very plentiful. As its common and Latin names imply, its fruiting body looks like a whitish, flattened coral mushroom even though it belongs to the jelly fungus group. This is considered to be edible, but why bother when the choice Cantharellus cibarius, the chanterelle, is fruiting nearby? The beautiful yellow color and slight apricot fragrance of the chanterelle make it easy to identify. The small, but beautiful Cantharellus cinnabarinus, the cinnabar-red chanterelle, was also fruiting in abundance.

Two true coral mushrooms were fruiting in a draw, but they have not yet been identified. One striking mush- room was keyed out in Arora's Mushrooms

Demystified to the "slimy purple Cortinarius group." That's as close as we could get with thousands of mushrooms in that genus, many of them probably not yet identified.

Clitocybe gibba was common along the paths. It is easily recognized by its small stature, buff color and funnel-shaped fruiting body. A good number of red-capped

Russulas were fruiting. Many had been munched on by slugs, turtles and other critters. The Lactarius subdulcis group was fruiting wildly, giving fair competition to the "weedy" Laccaria lacata. A few specimens of what appears to be Lactarius rufus were collected.

One of the stinkhorns, *Mutinus elegans*, made its presence known with its smell and its bright pink stipe topped with its fly attracting green spore mass. Maggie Piranian from Norman might have captured it on film. She also plans to try to take some up close and personal microphotos of some of the spores of mushrooms collected at the foray.

The summer mushroom season seems to be getting a late start, but if this foray is any indication, the summer should produce a bountiful crop of mushrooms.

Jack and Nora Jones

## Mycological Society proposed

Jack and Nora Jones would like to begin a state society for people interested in the study of fungi. Amateur and professional mycologists are asked to call (918) 749-5859 or write 3727 South Jamestown Ave., Tulsa, Oklahoma 74135 if they are interested in participating.

The society may become an affiliate of the North
American Mycological Society if there is sufficient interest.
Jay Justice, president of the Arkansas Mycological
Society, has offered to help us organize a society.

### Natural history for the naturally curious

Imagine showing the following photos to a person who has never been to Oklahoma:

- The cypress swamps of McCurtain County in the southeast corner of the state
- The rugged, pine forests of the Kiamichi Mountains
- The tallgrass prairie of the Osage hills near Pawhuska
- The mesquite plains of southwestern Oklahoma
- The cactus filled landscape of Black Mesa in the panhandle

Ask where the photos were taken, and you likely would get a list something like "... Louisiana, Arkansas, Kansas, Texas and New Mexico." Few people would ever imagine that any single state could have this much diversity, especially a state less than 500 miles wide and famous for its Dust Bowl.

So why is it that there is such a great change in the natural plant communities as you drive around the state?

**AVERAGE** 

ANNUAL RAINFALL

Let's consider what factors most influence whether or not a plant can thrive in a particular environment. Of the many factors, such as amount of sunlight and soil composition, the most important are temperature and rainfall.

Temperature We know from the weather maps on television that any time of year it is usually cooler in the panhandle than the southeastern part of the state. While the small difference in latitude may account for some of this, it is the difference is altitude which should get the credit. The warmer southeast corner of the state has an elevation of just 300', while the tip of the panhandle is almost a mile high at 4,793'! This tilt is the result of tremendous geologic forces which lifted the western edges of Oklahoma, Kansas and Nebraska as the Rocky Mountains were formed.

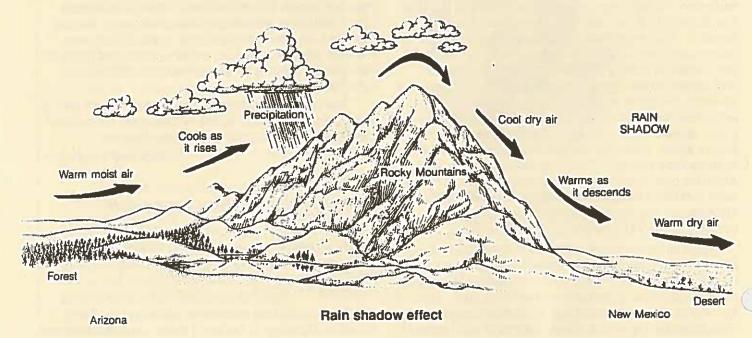
<u>Rainfall</u> Here we have the main answer to the diversity riddle. As you can see on the rainfall map above, the average annual precipitation ranges from 16" to 52", creating vastly different ecosystems. During the

growing season from April through September the average rainfall ranges from 12" in the west to 28" in the east.

Two things account for these differences. First of all, the western part of the state is in a "rain shadow", a phenomenon due to the fact that cool air can't hold as much moisture as warm air. Because of this natural law, as the moist clouds go up and over the Rockies they are forced to unload their moisture, yielding dry clear skies over eastern New Mexico, northwestern Texas and western Oklahoma. The second factor is that eastern Oklahoma (along with Louisiana, eastern Texas, Arkansas, and other states) is in the unblocked path of moist warm air moving up from the Gulf of Mexico.

For those of us who enjoy native wildflowers, Oklahoma has it all: delicate, blue wild hyacinth in low moist soils of southeastern counties, big, red barrel cactus flowers in the southwest, and a panorama of hundreds of different flowers native to the woodlands and prairies.

Tom Chilton



### Orchid / Native Plant field trip planned

When: Sat., Aug. 11 - 9 a.m.

Where: Meet in parking lot/Charles Wesley Motor Lodge

in Broken Bow

Who: ONPS & Oklahoma Orchid Society sponsors;

field trip leaders: Larry Magrath and Jim Norman

This trip is planned to last most of the day. The exact areas to be visited will be determined at the time of the trip, but could include visits to one or more of the following sites: Battiest Woodland Bog, Honobia site, Schooler Lake, Mountain Fork River (if bridge is repaired) Rich Mountain, etc. Sites will be picked according to weather, road conditions and what plants might be in bloom.

Some things to keep in mind if you plan to go: 1) it will probably be hot; wear appropriate clothing; 2) we will be in both woodland and bog areas where we could encounter snakes, so wear protective shoes that you won't mind getting wet and muddy; 3) bring a camera along — the best way to collect our native plants (rare or not) is with a good picture; 4) if you plan to stay overnight you should make advance reservations (because this date is prime tourist season) at the Charles Wesley Motor Lodge (405) 584-3303 on U.S. 259 or other local motels.

For those driving from the Oklahoma City area, it is about a 4 - 5 hour drive; from Tulsa about 2 1/2 - 3 hrs.

If all goes as planned we will find yellow fringed orchid (*Plantanthera ciliaris*), southern tubercled-orchid (*Plantanthera flava var. flava*), small green wood orchid (*Plantanthera clavellata*), crane-fly orchid (*Tipularia* discolor), and possibly other orchids. If we go to the Rich

Mountain area, we may find both the umberella tree and cucumber tree. There are also many other unusual and interesting plants that might be found. All we can do is go and look!

Larry Magrath

## September 1 Anne Long Award nominations due

Nominations for the Anne Long Award can be submitted only until Sept. 1, and ONPS members are reminded to give attention to this in the next few weeks. Individuals, groups of individuals, scout troops, church groups, science or environmental organizations, businesses, etc. who have contributed to ONPS purposes are eligible for the award, which is to be presented at the annual meeting in October.

Nominations can be submitted directly to the chair of the Awards Committee: Paul Buck, Biology Department, University of Tulsa, Tulsa, OK 74104-3189. Include the following with each nomination:

- 1. Nominee, Contact person & address for nominee;
- 2. Name of person making nomination, plus address;
- 3. Date nomination is submitted.

The Award recognizes outstanding contributions to ONPS purposes. Please provide detailed information supporting the nominations, this vital for the Awards Committee in making their evaluations.

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	Become an Oklahoma Native Plant Society member.  Please enroll me as a Member of the Oklahoma Native Plant Society. My dues payment is enclosed for the category checked. Make checks payable to Oklahoma Native Plant Society, and mail to:		
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	CITY: STATE:	ZIP:	

#### Naturalist's Note: Quartz Festival

Quartz Mountain State Park's Second Annual Wildflower Festival has come and gone, and has been deemed a great success by both staff and visitors alike. This success is largely due to the efforts of ONPS members John Miller, Larry McGrath and Bob Lindsey. John was instrumental in the festival planning and also in arranging for Bob and Larry to donate their time and expertise. Their programs were excellent and our visitors thoroughly enjoyed them. Louis and Janet McGee came over from Lawton to help man the photo booth (which was a beautiful addition to the program), and to answer numerous questions. To ONPS-- and these members in particular-- many thanks for all your help. I am already looking forward to next year!

Victoria Mason Naturalist Quartz Mountain State Park



#### Calendar notes

Central Chapter meeting, July 30 (see pg. 2)
Orchid field trip, August 11 (see pag. 7)
Northeast Chapter meeting, Sept. 12, Tulsa Garden Ctr.
ONPS Annual Meeting, Oct. 13-14, Western Hills Lodge
Next Gaillardia deadline: August 10

Oklahoma Native Plant Society c/o Tulsa Garden Center 2435 South Peoria Tulsa, Oklahoma 74114

Time dated mall
Please open immediately



#### ONPS officer takes new job

ONPS vice president Pat Mehlhop-Cifelli has accepted a position with the Nature Conservancy to initiate a Natural Heritage Program in New Mexico beginning on July 1. Formerly with the Oklahoma Natural Heritage Inventory in Norman, Pat recently contributed a new display for the ONPS photography committee exhibit. She built three large panels of "gatorfoam" in a zig-zag configuration for the photographs, especially for the Earth Day exhibit at the State Capitol. The panels helped show off the splendid photo collection, and can be used in different configurations in future.

The ONPS board regretfully accepted Pat's resignation, and wishes her great success in her New Mexico position.

#### The Gaillardia

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