



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

Inside:

- Taylor bluets
- Ruth Boyd's hill
- Anne Long Award Nominations form
- Paul Buck's Colorado Wildflowers
- And more!

Gaillardia

The Oklahoma Native Plant Society Newsletter

Native Plant events for your calendar

Date/Time	Event/Place	Contact/Phone
May 3-4	Wildflower Workshop/Ardmore <i>Arbuckle excursion leaders on May 4: Paul Buck, Linda Watson, Connie Taylor and Larry Magrath</i>	Joanne Orr (405) 521-4037
May 13 7:30 p.m.	Northeast Chapter meeting Tulsa Garden Center	Betty Kemm (918) 742-4351
Wildflower Day Events:		
May 18	Quartz Mt. Wildflower Fest. (See pg. 2)	John Miller (918) 245-6983
May 18	Pennies for Wildflowers Crossroads Mall/Oklahoma City	Sydney Dobson (405) 232-3576
May 20	Central Chapter meeting	Susan Chambers (405) 769-7917

June 8	Salt Flats wildflower outing Cherokee	Connie Taylor (405) 924-5163 (Phone Connie evenings, please.)
 Group will meet on Saturday morning at 9:30 at the Katy Motel parking lot on the south side of Cherokee. The first area to visit is the western end of the salt flats about five miles directly east of Cherokee. Bring your lunch. The grasslands of Oklahoma should be at peak flowering. This is an opportunity to see how accumulating salts on the soil surface can influence plant communities. There should also be good birding, so bring binoculars. Jim Norman, field trip leader.		
June 8, 15 & 22	Clark Ovrebo's Mushroom Workshop Martin Park Nature Center/Okla. City Three Saturday mornings from 9 a.m. (See Steve Thompson's note on pg. 2.)	(405) 755-0676
June 10	Northeast Chapter meeting Tulsa Garden Center	Betty Kemm (918) 742-4351 or Marilyn Bell (918) 496-2218
June 10	Gaillardia deadline: July/Aug. issue	Marilyn Bell (918) 496-2218
June 24	Central Chapter meeting	Susan Chambers (405) 769-7917
Detail in future issues:		
August 10	Orchid field trip/ SE Oklahoma	
Sept. 27-29	OAS wildflower field trip/Osage State Park	
Oct. 26-27	ONPS Annual Fall Outing & Meeting Poteau/Kerr Center & environs	

Volume 6 Number 3
May/June, 1991

printed on
recycled paper



Photo Notes by John Miller

From the 254 beautiful entries judged on April 23, we are pleased to announce the following winners of our fourth annual ONPS Photo Contest:

Advanced Close-up:

First: Linda Gungoll, Enid (*Penstemon*)

Second: R.E. Lindsey, Sapulpa (Basket flower)

Third: R.E. Lindsey, Sapulpa (False dandelion)

Amateur Close-up:

First: Jennifer Lindsey, Sapulpa (Yellow Lady Slippers)

Second: C.G. Arnold, Pawhuska (Prairie Irid)

Third: J.E. Cottle, Tulsa (Butterfly weed)

Plant Habitat

First: R.E. Lindsey, Sapulpa

Second: J.E. Cottle, Tulsa

Third: R.E. Lindsey, Sapulpa

Awards will be presented at the Oklahoma Wildflower Workshop in Ardmore, May 3-4, or mailed to those not present.

Saturday Mushroom Workshop

Steve Thompson, naturalist, sent this note about a workshop in June:

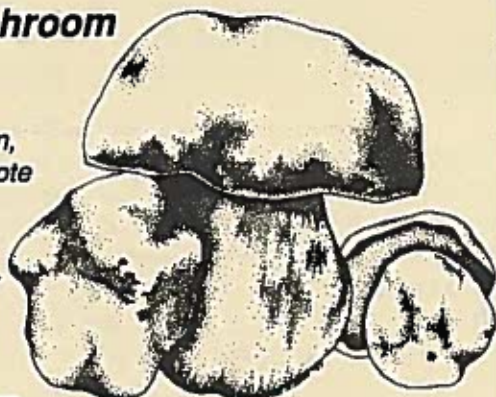
Fungi are everywhere, from on your pizza to inbetween your toes! Dr. Clark Ovrebo and Oklahoma City's Martin Park Nature Center are offering an exciting opportunity for you to learn more about these fascinating organisms in a workshop, "Introduction to Mushrooming" on three consecutive Saturday mornings, June 8, 15, and 22 beginning at 9 a.m. till noon.

We will be spending time indoors looking at slides and specimens and, depending on Oklahoma's fickle weather, a greater amount of time outside tromping about the park and surrounding areas looking for fungi in their natural settings.

Phone for reservations

The cost for the workshop is \$10 per person. The number of participants is limited, so reservations are required. Please phone Martin Park at (405) 755-0676 for reservations.

Martin Park Nature Center is located in northwestern Oklahoma City at 5000 West Memorial Road. ☆



This year's contest is the best yet with more and better entries than ever before. A BIG THANKS to all who entered!

Also thanks to all who helped with the contest. These include the officers of ONPS, especially our Publicity Chair, Sydney Dobson. Thanks to the other members of the Photography Committee: Thermon Hollis, Sue Amstutz, and Evelyn Washburn.

A special thanks to our capable judges: Jerome Olson, a professional photographer and winner of numerous awards for his nature documentaries; Eddie McInnis, frequent judge for PSA competitions; Bill Ess, former photography instructor -- all three having a long-time interest in native plant photography.

We expect to display many times the photographs entered. The 1991 display is already scheduled for the Illinois River Festival end April, the Wildflower Workshop already mentioned on May 3-4, and Quartz Mountain State Park Wildflower Festival on May 18.

Thanks again to all who helped make the 1991 Photo Contest a big success! ☆

Preview: Quartz Mountain Wildflower Festival

Quartz Mountain State Park is at the height of its beauty around May 18 when the wildflower festival is scheduled. The granite mountains that crop up from the flat plains are covered with wildflowers and make me think of "the hills are alive with the sound of music."

ONPS is a participant in this event. We will have a photo exhibit, wildflower photo walk led by Bob Lindsey, wildflower drawing contest for the children, and two slide shows. Also, one of our members from Lawton, Louis McGee, will open the festival with a welcoming speech.

The slide shows by John Miller will be in the lodge's Beaver Library. Friday evening, May 17 at 8 p.m. he will present the latest version of "Oklahoma Wildflower Superlatives." Saturday at 7 p.m. the show is about cacti. In part, it will be a cereus subject since cereus is a kind of cactus. But we think the children will like it, too, because it will include teenage, mutant, and ninja cacti.

The park has planned many activities for the weekend, including two nature walks by Victoria Mason, Quartz Mountain naturalist. I understand that rooms at the lodge and cabins are mostly reserved, but there should be plenty of motel lodging available in Altus or other towns nearby.

JM

The Red Clay Wildflower Hill Garden by Ruth Boyd

About a quarter of my long, narrow acre consists of a wedge-shaped hill. The only soil on most of it is a thin layer of red clay that doesn't always cover the sandstone beneath. A windbreak of Eastern red cedars, along with a mulberry and an elm, mark the south boundary. The soil is richer and deeper there beneath the trees, but although the cedars have had their lower branches removed, no sun reaches the ground and just under the surface is a maze of shallow roots. Scattered randomly over the hill are a few small cedars, a multi-trunked cottonwood and a young winged elm.

When I first saw this acre in early spring, 1986, it was overgrown with remnants of last year's Johnson and Bermuda grass, some other unidentified brown vegetation, and some new green growth that seemed highly suspicious. The following spring there were a few anemones, henbit, Johnny jumpups, bluets, spring beauties, puccoon and false garlic. Some Johnson and Bermuda grass had died from the cutting and digging done during the previous summer and fall. My journal for May 15, 1987 reminds me that the following were in bloom: some kind of thistle, threadleaf thelesperma, storksbill, veronica, purple conflower, common dandelion, false dandelion, fleabane daisy, yarrow, silvery nightshade, green milkweed, cutleaf evening primrose, wine cup, sheep sour oxalis, sensitive briar and blue-eyed grass.

Spring and summer of 1988 and spring of 1989 were spent building raised beds for cultivated flowers around the house and the hill didn't get much attention except to keep after the unwanted grass. In spite of the resolve each spring to keep up with it, the grass still managed to get ahead on the hill when summer really heated up.

Central Chapter by Susan Chambers

The chapter met on March 25 at the new Oklahoma Wildlife Federation building at 3900 N. Santa Fe, with Jim Bennett, O.W.F. executive director as speaker.

The origin of the O.W.F. goes back 40 years to its establishment as a "Hook & Bullet" association. Over the years, it has changed from being specifically a sportsman's association to an organization for all outdoors people. Its priorities now are mainly education of legislators and the general public and the necessary fund raising to accomplish this goal. A "good year" is when the organization breaks even.

Some of the projects and issues concerning O.W.F.:

1990: A bill in state legislature that would increase the cost of new tires by \$1 each to provide more financial incentive to recyclers to take old tires.

1991:

- The "Dung Bill" -- a 75¢/ton bill to farmers for chemical fertilizer spread on fields (10-20-10, 34-0-0, etc.). This extra cost is not applied to organic fertilizers (plant or animal waste) or compost and encourages the

However, each year as more and more of it was eliminated, there were more and more wildflowers. *Liatris*, *rudbeckia*, purple prairie clover, wild petunias, goatsbeard and little blue stem made their appearance.

In 1989, I purchased a few wildflower plants from a mail order nursery. In the spring of 1990 I purchased a few more. That spring I also divided clumps of *Coreopsis lanceolata* that I had had for years, and moved some to the hill. In the summer of 1990, the naturally-existing plants were joined for the first time by pink gerardia, spiderwort and lespedeza. Friends gave me starts of other species and last fall I planted wildflower seed in ground I had cleared and spaded. Their fate is as yet unknown. Some of my wildflowers have been obtained by shamelessly knocking on doors and asking if I might have a shovelful of something that they considered weeds. I have never been refused, but I have noticed that they usually keep the children inside until I leave.

Before I had any particular plans for the hill and not knowing what treasures lurked beneath the overgrown, untidy surface, I planted several jonquil bulbs for color and some prostrate junipers to retard erosion. When I decided to have only native plants there, I stopped planting cultivars. I needn't worry about those few remaining because they are not happy, and in a few years will be only a memory.

By the time you read this, the 1991 version of the Red Clay Wildflower Hill Garden will be in full sway. The truth is that it's still an overgrown, untidy hill. I am probably the only one who realizes that gradually, over the years, the cast of characters has changed. But I do now, and now, so do you.

use of natural products.

- Consolidation of Environmental agencies (this one fell through) was intended to make enforcement of environmental laws easier by putting all agencies under one umbrella. The oil industry did not choose to contribute to the 1991 bill and lobbied to stop it. Will be tried again in 1992 with a task force from the executive, senate and representative branches.

- Earth Day: O.W.F. booth at state capitol

- Week of March 18th, National Wildlife Federation meeting: discussion of Clean Water Act coming up for reauthorization and the "national energy policy" -- a big push to open up Alaska and offshore areas for oil exploration and what the N.W.F. can do about it, Senate bill #269.

Landscaping for new O.W.F. building is always on the minds of O.W.F. employees and volunteers. Dogwoods, Shumard oaks and sweetgum trees have been planted and a buffalo grass lawn and native plant area are planned.

Roadside Wildflower Program Update by Joanne Orr

Spring is here, and the Oklahoma Department of Transportation (ODOT) and many wildflower seed donors are anxiously waiting to see the results of their efforts. Oklahomans voluntarily contributed approximately \$70,000 for the purchase of wildflower seed during the last four years, and the ODOT Beautification Office and ODOT maintenance crews have planted the seed on the roadsides. The fall planting season of 1990 saw 165 acres planted in 86 different sites statewide. This brings the total of active wildflower sites on state highways to 287 acres. They are planted from Guymon to Durant, Frederick to Oologah. All of the interstate rest areas were planted with wildflowers. Both Oklahoma City and Tulsa increased their plantings in 1990.

Twenty-nine species were included, with the most commonly planted being *Monarda citriodora*, *Gaillardia pulchella*, *Coreopsis tinctoria*, *Rudbeckia amplexicaulis* and *Coreopsis lanceolata*. Additional species were *Oenothera speciosa*, *Chrysanthemum leucanthemum*, *Petalostemum purpureum* and *Echinacea purpurea*. Most of these will bloom in May and June.

The ODOT Roadside Wildflower Program was initiated in 1973, but broadcast seeding methods gave poor germination. Lack of knowledge on how to grow wildflowers on the roadside, and lack of bulk seed suppliers combined to give discouraging results. In 1988, the wildflower program was re-established by ODOT's Beautification Office. All seed is donated by groups, communities or individuals. This year there were 20 donor communities who helped ODOT beautify their highway entrances. The ODOT Wildflower Donor Fund is available for those who want to contribute but do not have a site in mind. This money is used to buy seed for rest areas, state entrances, etc.

All seed is planted in the fall on highway right-of-

ways, using specially-designed drill seeders. Besides making planting less labor intensive, much better germination is achieved due to the soil/seed contact.

Anyone interested in participating in the ODOT wildflower program can contact the Beautification Office for lists of seed sources, appropriate species, and for discussion of possible planting locations. Picking a spot to plant the seed is not always easy. Of course, it must be visible to motorists whizzing by at 55 mph or more. ODOT plants sites that are at least one acre in size so they will be noticeable to the public. The location should not interfere with the safety of motorists. Normally, the flowers are limited to plantings on the backslopes. On two-lane highways with narrow right-of-way, there is often simply not enough space to plant wildflowers.

Finally, the physical condition of the site must be considered. Highway right-of-way is usually a very harsh environment. Often it is classified as "desert." Frequently it is dry, polluted and compacted as hard as a rock; sometimes it is rock. It is not uncommon for it to be infested with noxious weeds. This means that only the toughest of the wildflower species have a chance of becoming established in most situations.

This process of selecting a site, raising seed money, ordering the seed and preparing the site all take time. Donors are encouraged to start the process early and to have arrangements with the department completed by August 1st of the year they want to plant.

Once a list of planting sites is known, the Beautification drill seeders and a maintenance crew for the planting site. September to Thanksgiving is the normal planting season in Oklahoma, although ODOT is experimenting with winter and early spring plantings. Plots usually take two or three years to become established. Then, with the weather cooperating, Wildflowers Bloom!

Northeast Chapter notes

Paul Buck entertained and informed 22 people at the March 11 meeting with his slide talk on Colorado Wildflowers. His knowledge of Rocky Mountain flora has been much enhanced by having taught for 18 years at the Rocky Mountain Biological Lab near Crested Butte. His association with Dr. Harriet Barclay (whose cabin there was built in 1935) first took him to the Lab.

He began by recommending reference books for identifying native vegetation. Harrington's Manual, written in 1954, is still a "must," and covers the entire state. Bill Webber has two guides: Rocky Mtn Flora for the Front Range, and Colorado Flora of Western Slope. The Audubon Field Guide for the Western Region is another he noted.

Amongst the many flora pics he showed: forget-me-nots, claytonia, a gentian monument plant, skunk cab-

bage, calypso orchid, delphinium, wintergreen, columbine, bluebells, mariposa, primrose and monkey flower, and spruce and fir at the lab.

About his 10 x 10' cabin home at the Lab, Paul expressed respect for the real residents with whom he shares lodging: "I'm a guest; the animals live there year 'round." Of special interest were white-footed deer mice and some marmots he called "whistle pigs" because they serve as alarm clock.

Besides this special evening at the Garden Center, some members toured Redbud Valley near Tulsa Apr. 9.

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Thank you from Nora Jones to Jo Hyatt and Dorothy Norris for helping bulk mail the last issue of *Gaillardia*. Other members: please phone the editor if you'd like to join the fun.

Bluets aren't always Blue by Connie Taylor

This spring the bluets (*Hedyotis crassifolia*) seemed especially prolific. The very small, absolutely beautiful and delicate flowers can even bloom in the snow. It is one of our first wildflowers to bloom. Our bluets have a deep intense sky-blue color, fading sometimes to nearly white and with a yellow throat. Its four petal lobes also make it distinct from the many-petaled flowers. If you missed the bluets this spring, you can see many of their later blooming relatives.

Button Bush is very common around ponds, rivers and lakes. This small shrub or tree blooms in late spring early summer and has a round ball of white flowers about an inch in diameter. Its tubular four-lobed petals are similar to the bluet except the lobes are smaller. Button bush has a whorl of leaves and the button of the inflorescence stays on the shrubs mostly through the winter so it can be identified at any time.

During summer in prairies and particularly rocky limestone habitats, you will find Prairie Bluet or Star Violet (*Hedyotis nigricans*). This plant is about 8 to 18 inches tall, with very linear opposite leaves. Its white (yes, white), pink, or purplish flowers are massed in a flat topped inflorescence six to eight or more inches in diameter. It, too, has delicate tubular flowers with four lobes. The leaves are opposite and very narrow (linear).

Dr. Smith at the University of Arkansas has found a slender white flowered bluet (whitet?) that grows only in the Ouachita Mountains. He named it *Hedyotis*

ouachitana. It is a rare member of woods and shaded roadsides where vegetation is sparse. It evidently cannot compete with large, rambunctious plants. It is very delicate and again has the narrow tube with four lobes that distinguish members of the *Rubiaceae* (Madder Family). It blooms in the late spring.

Another relative of bluets is the Bedstraws or Cleavers (*Galium*). Sometimes these plants can cover a flower bed, garden, or your yard if you are not careful. These plants have a whorl of four or six leaves at each node. Leaves are between 1/2 to 1 1/2 inches long depending on the species. Tucked in the leaves are three to five small white flowers, again with slender tubes and four lobes. These plants are covered with retorse (backward facing) hairs and the two lobed fruits are likewise covered. When you stroll through a patch of these you come away covered with slender stems of plants. Of course, the young in heart can catch them up and throw them at an unsuspecting friend.

All these plants can be separated from most other tubular flowered plants with four petal lobes by their inferior fruit and opposite leaves. Comsalad (*Valerianella*) is similar in having small white tubular flowers, inferior fruit, and opposite leaves, but they usually have five petal lobes, and the tube is much longer in relation to the lobes. Also, the fruit has three locules (chambers), one large with a seed, the other two sterile and empty.

Anne W. Long Award Nomination

Once again, ONPS will recognize outstanding contributions to the purposes of the Society via the award named for the ONPS founder. Individuals, groups of individuals, scout troops, church groups, science or environmental clubs, businesses or similar organizations who have contributed to the purposes of ONPS are eligible for the award. Recognition and presentation of the award will be made at the Annual Meeting of ONPS in October.

The deadline for nominations is September 1, 1991.

Nominations are to be made on this form, and submitted directly to the chair of the Awards Committee: Dr. Paul Buck, Biology Department, University of Tulsa, Tulsa, OK 74104-3189. All nominations will be treated with confidence.

NOMINEE _____ NOMINATION BY _____

Contact Person _____ Address _____

Address _____

_____ Date _____

NOTE: Please use separate sheets to provide detailed information supporting the nomination. Such material is necessary for the Awards Committee to make final decisions. Nominations may be submitted any time prior to the 1st September deadline.

Publicity chair issues invitation

ONPS is fortunate indeed that Sydney Dobson has accepted membership to our board and the chair of a new committee, Publicity, to help people throughout the state get acquainted with ONPS. Sydney is getting media coverage for ONPS, and has issued a simple request to members who live outside of Tulsa and Oklahoma City, but if answered, can give a big boost to her contribution.

She needs help only four or five times a year in contacting local media and seeing to it that the right editor, news director, etc. receive the news releases. There's little more to it than that. Please send your name and address to Sydney, c/o OKC Beautiful, Oklahoma City 73102, and she'll let you know what is required.

ONPS Memberships

For \$10/year, individuals; \$15/yr, families; and \$5/year, students, you can become a member of the Oklahoma Native Plant Society and receive the six newsletters a year and all other mailings to keep you involved in Native Plant field trips, meetings, and issues relating to ONPS purposes. To join, write to:

Oklahoma Native Plant Society
2435 S. Peoria
Tulsa, OK 74114

Editor's note: Is this your last issue of *Gaillardia*? Many thanks for those who did renew, but to those who haven't...please renew soon so we can keep you!

Taylor's 2nd Edition List is published

An Annotated List of the Ferns, Fern Allies, Gymnosperms and Flowering Plants of Oklahoma by John and Constance E.S. Taylor is now available (1991). It includes the 303 species collected from Oklahoma since Waterfall's Keys were published and has 10 pages of bibliography on literature related to the Oklahoma Flora. Send \$9 (includes shipping and handling) to: Herbarium, Southeastern Oklahoma State Univ., Durant, OK 74701.

ONPS in the news: the May-June issue of *Oklahoma Today*, in a piece about state wildflowers, features Dr. Doyle McCoy and includes quotes and mentions of ONPS, Connie & John Taylor, Joanne Orr and Sydney Dobson.

The Gaillardia

Published bimonthly by the Oklahoma Native Plant Society
2435 S. Peoria • Tulsa, OK 74114 • (918) 496-2218

President:	Linda Watson
Vice President:	Rebecca Ovrebo
Secretary:	Nora Jones
Treasurer:	Herb Beattie
Historian:	Ruth Boyd
Editing:	Marilyn Bell
Write Angle, Tulsa	

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

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