



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 1
Spring 2003

LOOK INSIDE FOR

PRESIDENT'S PARAGRAPH	2
IMPORTANT NOTICES	2
DOYLE MCCOY	3
BOTANY BAY	4
POEM: SPRING, OKLAHOMA	5
HELP SOW WILD SEEDS	5
NATURAL REGISTRY AREAS	6
OTHER EVENTS	6
WILDFLOWER WORKSHOP	7
INDOOR OUTING	7
CONSERVATION CORNER	9
CHAPTER ACTIVITIES	9
FIELD TRIP RULES	10
WELCOME NEW MEMBERS	11
MEMBERSHIP FORM.....	11

ONPS website: <http://www.usao.edu/~onps/>

Email: cox.chadwick@worldnet.att.net

Printed on recycled paper

COPY AND ART DEADLINE
FOR NEXT ISSUE IS
15 May 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.

March 26: Mycology Meeting, 7 p.m. in the Crow's Secret Nature Center in Thunderbird State Park. Contact Clark Overbo, coverbo@ucok.edu or (405) 330-9276.

March 31: Central Chapter meeting, Sheila Strawn presents 'Climate Change, Wildlife and Wild Plants'. Page 10

April 6: NE Chapter Field Trip to Red Bud Valley. Page 10

April 27: C-T Chapter field trip in search of jack-in-the-pulpit and other early-spring flowers. Page 10

May 2-3: 2002 Wildflower Workshop, Chickasaw National Recreation Area. Page 7

May 5: NE Chapter Meeting at Tulsa Garden Center. Page 10

May 24: Gloria Caddell will lead a field trip to the University of Central Oklahoma's Selman Living Laboratory, 320 acres of gypsum outcrops and mixed-grass prairie in the Gypsum Hills west of Alabaster Caverns in Woodward County. Contact her, gcaddell@ucok.edu or 405-974-5827

May 31: NE Chapter Field Trip to Tall Grass Prairie. Page 10

June 7: ONPS Board Meeting, Tulsa Garden Center, 10:00 AM

June 7: C-T Chapter field trip to renew acquaintances with spring wildflowers. Page 10

Oct 24-26: Annual Meeting, Oklahoma Biological Station, Lake Texoma. Contact Jim Elder, jfeok@aol.com or (918)747-0735.

ONPS THANKS THESE SPECIAL CONTRIBUTORS

Harriet G. Barclay Fund
Mary Korthase
Mary D. Price
Paul Buck

Anne W. Long Fund
Bette C. Pope

General Fund
Ruth Boyd, in Memory of Doyle McCoy

PRESIDENT'S PARAGRAPH

By the time you receive this issue of the *Gillardia*, the 2003 Indoor Outing will have come and gone. The program was excellent. Thanks go to Dr. Ziegler and the Biology Department at Cameron University. Read Pat Folley's article in this issue for further details. Special thanks go to Paul and Bebe Reimer for their hard work. I also want to thank all the other ONPS members who volunteered and helped make this outing a success. Our membership continues to grow as several new members have joined. The new floral post cards and color prints were very popular.

Our spring field trips are coming soon. Several excellent ones have been scheduled during the next few of months. This brings up the subject of field trip leaders. Members such as Paul Buck, Ron Tyrl, Connie Taylor, Larry Magrath, and others have been very generous with their time. Though many of these will continue to be active as field trip leaders, the question often comes up as to where will our future field trip leaders come from. Fewer universities are producing plant taxonomist. We need to think about ways of recruiting future field trip leaders. We might begin by utilizing experts from other organizations such as the Nature Conservancy, State Parks Department, the National Forest, and neighboring Native Plant Societies if needed. I encourage any of our members knowledgeable in any area of ecology or native plants to volunteer. Contact Pat Folley if you have any ideas or would like to help with this issue.

Everyone mark your calendars for the following important ONPS events; The Wildflower workshop, Chickasaw National Recreation Area May 2-3, ONPS Board Meeting, Tulsa Garden Center June 7, and the ONPS Annual Meeting, Oklahoma Biological Station at Lake Texoma, Oct. 24-26.

Hope everyone has a wonderful spring and I look forward to seeing you on the trail.

Happy weed watching.
Jim Elder

IMPORTANT GENERAL NOTICES

Call for Nominations:

STOP just a moment! What individual, group of individuals or organization do you think has made an outstanding contribution to the purpose of the Oklahoma Native Plant Society, one that merits nomination for the Anne W. Long Award? Take a moment and prepare a nomination with accompanying support.

Nominations may be submitted any time (the deadline for 2003 is 1 September 2003) to the Anne W. Long Award Committee at the ONPS Tulsa Garden Center address or directly to the committee chair, Paul Buck, 1623 So. Delaware Pl., Tulsa, OK 74104-5915.

Nomination for the Service Award should be sent to Sue Stutz before August 31.

Photo Contest:

Jake Reimer reports that 25 photographers submitted 128 photos, one more than last year. The popularity of the contest continues to grow and the posters are displayed across the state.

Membership Roster:

A current copy of the ONPS membership with phone numbers and email addresses is available at the website. For security reasons, the roster is not linked to the rest of the website and must be accessed by special means. If you are interested in using this service, you can contact Chad Cox at cox.chadwick@worldnet.att.net to obtain instructions on how to access this service. You should also specify whether you wish to have your email address posted. The roster contains only information that is present in the directories that ONPS produces from the roster maintained by Tina Julich.

Since the roster was posted to the website and all people that had provided email addresses were emailed a notice, many addresses were found to be invalid. We would like to be able to notify our membership about events that were made on short notice and email is the easiest way to do this. Please notify us whenever you change your address.

Doyle A. McCoy

Most current ONPS members will know Doyle McCoy only through his wildflower books, but he was a long time member and field trip leader.

Doyle A. McCoy was born February 17, 1917 in Lindsey, Oklahoma and passed away on December 11, 2002 in Lindsey. He was a native Oklahoman with a lifelong passion for the native plants of Oklahoma and for teaching and sharing his love for the flora with others. His other love was his wife Pearl with whom he shared their sixty-sixth wedding anniversary shortly before his death. Dr. McCoy was interred at the Green Hill Cemetery. Survivors include his wife; a daughter, Judy; a grandson and two granddaughters.

Dr. McCoy graduated from East Central Oklahoma State University with a degree in the biological sciences. He then taught at Galey, a small community northwest of Ada. During the summers he began his work on a Masters degree at the University of Oklahoma under the direction of Dr. George Goodman. Dr. Goodman had recently arrived in Norman from the University of Wyoming where he had directed a graduate thesis on the Umbelliferae of that state. He suggested that McCoy might do the same for Oklahoma. Thus a masters degree with a thesis, "The Umbelliferae of Oklahoma" was completed.

Dr. McCoy taught several years at Ada High School before moving to the Department of Biological Sciences at East Central. While on the faculty at East Central he completed a Ph.D. under the direction of Dr. U. T. Waterfall at Oklahoma State University. His dissertation was on the Flora of the Arbuckles. Dr. Waterfall made extensive use of McCoy's collections in the preparation of his "Keys to the Flora of Oklahoma".

Dr. McCoy in 1963 completed a "Key to the Flowering Plants of Pontotoc County, Oklahoma" for use in his classes at East Central. Afterwards he moved to Howard-Payne University in Brownwood, Texas and then to Hardin-Simmons University in Abilene, Texas. While at Hardin-Simmons he completed and published "A Study of Flowering Plants" in 1968. The area included in this study was north central Texas and south central Oklahoma and was designed for the beginning taxonomy student. It contained family descriptions and keys.

In 1969 Dr. McCoy began teaching at Cameron University where he continued until his retirement in 1982. It was while at Cameron that he published the first of his very popular guides to the wildflowers of Oklahoma. "Roadside Flowers of Oklahoma" was published in 1976. A second volume followed in 1978. These books provided a color photograph to help with the non-technical identification of wildflowers. The books were a success with people of all levels of expertise and interest in wildflowers. The success these two volumes led him to the University of Oklahoma Press where three more guides were published: "Roadside Flowers of Oklahoma"; "Roadside Trees and Shrubs of Oklahoma" in 1981 and "Roadside Fruits of Oklahoma" in 1980. His last color picture guide for identifying wildflowers was published in 1987 and was titled "Oklahoma Wildflowers". I dare say that most who read this obituary will have one or more of the books listed above and use them frequently to identify wildflowers.

One of his proudest achievements was the success of his almost single handed lobbying efforts at the state capitol to have the Indian Blanket flower, *Gaillardia pulchella* Foug., named as the Oklahoma State Wildflower. The measure was introduced by two former students and passed by the fortieth legislative session in 1986. It was signed by then Governor George Nigh, also a former student of Dr. McCoy..

Dr. McCoy was a founder member of the Southwest Association of Naturalist. He was an active participant in the Oklahoma Academy of Science and introduced many students to this organization. He was known statewide for his field trips and slide presentations on wildflowers to civic groups, garden clubs, and school groups. He was equally at ease with the novice wildflower enthusiast, student or professional taxonomist and made an individual or a group comfortable. I believe this resulted from his story telling. Whether in a presentation, a class or with an individual he always had a story to illustrate a point or to entertain. However, if the story had a humorous part, the joke was always on him never anyone else.

Excerpted from the obituary read at the Indoor Outing by Dr. Mickey Cooper, Professor Emeritus, Department of Biological Sciences at Cameron University and former student, colleague and friend.

Carnivorous Plants

At a recent meeting of the Northeast Chapter a member of the Oklahoma Native Plant Society (Cyndy Harnett) raised the question of whether carnivorous plants occur in Oklahoma. Yes, we do have several species of meat eating plants in our flora but you and I need not be concerned. We are large enough to avoid being eaten. However many of our smaller animal relatives when careless may become plant food. Their tissues serve as a nutrient rich food source for larger green plants.



At this moment some readers are thinking: 'Wait just a moment! I remember my high school biology teacher saying green plants are autotrophs. They contain chlorophyll and using only water, carbon dioxide and energy from sunlight manufacture their own organic molecules.' Your teacher was absolutely correct. But nevertheless there are carnivorous, flesh eating green plants. The reason for their consumption of animals is interesting. Let's take just a moment and review their nutrient needs.

First, consider the type environments in which carnivorous plants are found. Such habitats are primarily aquatic or boggy, both of which are generally deficient in important plant nutrients. That shortage is due to the abundant water which, as it leeches through the soils (leech is something else) carries the nutrients out of reach of most root systems. It is these plant nutrients (nitrogen, potassium, phosphorus, etc.) the green plants need, not calories. Remember, green plants are carbohydrate millionaires.

What better way to obtain these essential minerals than by taking them from another organism, but then plants are not motile and unable to pursue prey. However, small animals, a veritable gold mine of plant food, are flitting all about. It is simply a matter of trapping and holding them while plant secreted digestive juices release those needed minerals. In doing so such a plant becomes carnivorous.

Over 200 species of insectivorous plants have been reported and separated into their three modes of trapping prey; pitfall traps (pitcher plant), fly traps and suction traps. None of the first (pitcher plants) occur in Oklahoma whereas the last two are native to the state. Let us take a brief look at the latter categories.

Fly Traps: Two genera of these interesting plants may be found in the state. The uncommon, but often locally abundant *Drosera* or Sundew and *Pinguicula* or Butterwort, the latter of which has been reported but once in the state. That report was made by ONPS member Dr. Larry Magrath after he found a population in Boehler Seep near Swink in Choctaw County. Dr. Magrath reported the population to be small but was unable to suggest if the plants were relicts, remnants of an earlier habitat isolated by climate change, or pioneers, perhaps individuals invading a new habitat. Keep in mind that habitats are not static, they change constantly over time.

Plants of this group bear stalked glands with bulbous, mucilaginous (sticky) heads. When an insect contacts a gland the stalk bends over so the head firmly contacts the animal. Then, amazingly, adjacent stalks (those not even touched) bend over to the marginally trapped animal, surrounding and immobilizing it, thus eliminating the possibility of escape. A question: Have you ever seen a nerve or even neuron in a leaf? How does the stimulus move

from stalk to stalk? We must consider that question in a Botany Bay article some time.

Once the animal is firmly trapped, glandular hairs secrete digestive juices which convert the soft tissue of the prey into forms the plant can utilize. Thus, the habitat mineral deficiency is obviated at the expense of an animal.

The name *Drosera* reportedly means 'dewy' and with the glandular heads glistening in sunlight each leaf appears to be covered with dew. The writer has seen dense populations of Sundew several times in the pimple hill meadows near Clayton in Pushmataha County (Oklahoma's Pimple Hills - that is another story). During one class visit we found thousands of plants, it seemed everyone with a small leaf hopper immobilized on each leaf.

Suction Traps: The remainder of Oklahoma's insectivorous plants fall into the Suction Trap category. This is the genus *Utricularia* or the Bladderworts. As the common name implies, this often free floating, aquatic plant bears small bladders on the leaves and/or stems. The bladders are roughly pin head in size but visible to the naked eye. The plants may be found in the shallow, still to slowly moving water of streams, lakes and ponds in the eastern portion of the state. The writer has collected Bladderworts in the shallow lagoons of bottomland forests along Bird Creek north of Tulsa. The small but strikingly beautiful yellow flowers appear in summer and are held above the surface of the water by elongated scapes.

Close examination of the small bladder (use a hand lens) reveals a spherical chamber sealed with a door opening inwardly. Water is pumped out of the bladder, often to the point dimples are visible on the sides. The movement of water results in reduced internal pressure. Minute bristles are located near the door and when a small aquatic organism stimulates them the door quickly opens inwardly sucking water and the prey inside and then immediately recloses.

The entire process takes about 1/30th of a second. The next step, of course, is the production of digestive enzymes and the death of the prey as its soft tissue is broken down and made available to the plant. Researchers point out the door resets itself quickly, often ready to trap another organism before the first has died.

Yes, Cyndy, we do have carnivorous plants in

Oklahoma and they are not gentle. It is truly a harsh world out there in Nature.

~~~~~

## Spring, Oklahoma

Our movements those of a dazed  
awakening snake  
cautiously weave around rivers and rains,  
touching tasseled oaks, tufted pecans,  
acorn-coned sumac, willows with a breath  
of green.  
While redbuds retreat into the house of  
summer,  
eddies chew slowly the reddish flesh  
around sinews of creekbeds and gullies.  
Tousling wind-angled towheads of cedars,  
we circle a low-branching land  
under a pebbly, hawk-strewn sky.

Astrid Ivask, from *Oklahoma Poems*, 1990

Selection by Pat Folley

~~~~~

HELP SOW WILD SEEDS!

This year ONPS will be accepting tax-deductible donations to purchase wildflower seeds for Oklahoma. The seeds will be planted around the state by the Oklahoma Department of Transportation (ODOT) and possibly some other government agencies. We will try to have seeds planted in the counties that contribute them. Donor's can specify seed types and preferred locales for planting. We cannot promise that ODOT will plant where donors want because ODOT will need enough seeds to warrant bringing the seeder to an area and the site must be a good location to plant.

In the past ODOT has planted native and non-native species. It will continue to do so. If you want your donation to be strictly for native plants, specify that.

Please mail your check made payable to ONPS to: Oklahoma Native Plant Society, Tulsa Garden Center, 2435 S. Peoria, Tulsa, Ok, 74114. If you have questions about the program, call: Marcy Robinowitz at (918) 749-1157.

At home at the OK Biological Survey
By Kim Shannon

Many of you are familiar with the Oklahoma Biological Survey and its programs, which now includes the Oklahoma Natural Areas Registry (ONAR). While ONAR itself is not a new state program, it is a newcomer to the Oklahoma Biological Survey (OBS). The OBS and ONAR have been working cooperatively for many years so when the program moved to the OBS in 2002 it was an easy transition. But I jump ahead of myself.

For those of you who are not familiar with the OBS or the ONAR, a brief summary of each is provided below.

The Oklahoma Biological Survey was formed in 1927 after a request to the Oklahoma legislature by the Oklahoma Wildlife Institute in 1926. It is one of four "scientific surveys" (including the Oklahoma Archaeological Survey, Climatological Survey and Geological Survey) that reside at the University of Oklahoma in Norman. The Biological Survey is charged with the tasks of gathering, analyzing and providing information about Oklahoma's plants, animals, and natural communities to individuals, corporations, agencies, and others. In 1987 the state legislature established the Oklahoma Natural Heritage Inventory as part of the Survey. In 1997 the Sutton Avian Research Center, located in Bartlesville, OK became part of the Survey. Dr. Caryn Vaughn is the fifth and current director of the Oklahoma Biological Survey.

The ONAR began in 1984 and was run as a cooperative program for many years between the Oklahoma Chapter of The Nature Conservancy (TNC), the Oklahoma Department of Tourism and Recreation and OBS. The ONAR works with private and public landowners who wish to voluntarily protect rare, threatened or endangered species or rare habitats that occur on their property. Currently there are 68 registered natural areas across our state with more than 100 landowners who are protecting nearly 32,000 acres of Oklahoma's natural heritage. Protected plants include Fringed orchids, the Least pipewort, the Red buckeye, Ozark spiderworts, Oklahoma phlox and Oklahoma beardtongue. Protected animals include the Gray bat, the Plains topminnow, Prairie

dogs, Least terns and Bald eagles. A wide array of natural habitats are also protected.

In December 2001, the Registry program moved from the TNC office, where it was housed for many years, to the Oklahoma Biological Survey. So why did the Registry program move, you ask? I believe it was due to changes in how TNC approached site conservation. Fortunately, when the Registry program moved, I was given the opportunity to move with it to run the program fulltime. Focusing on the Registry program for the past year has been a pleasure. It has allowed the program to move in new directions while still pursuing connections to the landowners of Oklahoma who many times unknowingly protect the best of Oklahoma's biodiversity.

For more information about the Oklahoma Natural Areas Registry and the Oklahoma Biological Survey, visit the website: www.biosurvey.ou.edu. Or contact me directly for Registry program information at 405-325-7658.

OTHER EVENTS

People send information and request to ONPS by email every so often. They find our address on our website or other links like the Garden Web. The requests are usually rather specific and I farm them out as best I can. As for the notices, they will be past along with the understanding that they have no recommendation from ONPS. Two recent notices are as follows:

In December 2002 a virtual archive celebrating American gardens was officially formed and incorporated as the American Garden Museum. This month our website was opened: www.americangardenmuseum.com. In brief, it is a working archive built by gardeners for gardeners - membership is (and will always be) absolutely free. Our first step is the development of a robust database and we're currently contacting American gardeners via newsletters and internet sites. We collect stories from all gardeners from all walks of life - both past and present - and right now, we need your help! For each garden and or gardener we require several photos - with a brief 1-2 paragraph narrative (zone, challenges, rewards, memories...). For more information visit them at their website.

Mark your calendars for April 22-27, 2003 for the Texas Hill Country River Regions' 4th annual Nature Quest, which has grown to be the best all-around nature festival in central Texas. Find out more about Nature Quest 2003 on our website at www.thcrr.com. Marshall Johnston will be joining us. Mr. Johnston was professor of systematic botany at The University of Texas at Austin for almost 30 years. In 1961 he published, with Donovan S. Correll, the *Manual of the Vascular Plants of Texas*, which was the first comprehensive reference to the seed plants and ferns of the state. In addition to leading our native plant and wildflower tours in the Nueces, Frio, and Sabinal River Canyons, Marshall will be offering a wildflower workshop focusing on some of the plant families represented in the River Region. The workshop will have a field component.

Editor: The festival concentrates on birding but there is some weed watching as well. The accommodations are at local resorts primarily catering to vacationing families. Each event or field trip has a price.

~~~~~  
**WILDFLOWER WORKSHOP**

Let's get wild...wildflowers that is. On May 2 and 3 in Sulphur, Oklahoma, the 26th Annual Wildflower Workshop will give wildflower enthusiasts a chance to do just that.

Springtime in southern Oklahoma promises new and exciting things. One of these things is a Saturday field trip exploring the Arbuckle Mountain region. The Chickasaw National Recreation Area, 10 Acre Rock and Camp Classen are all possible sites that are usually loaded with a variety of wildflowers and natural vegetation this time of year. Leaders of the trip will include Dr. Bruce Hoaglund, Dr. Ron Tyrl and other Oklahoma Native Plant Society members.

On Friday the workshop will have a variety of speakers. These include Dr. Ron Tyrl telling about Sex Among the Wildflowers, Dr. Linda Wallace speaking about the University of Oklahoma research on Global Warming, Bruce Smith, McLoud Science teacher on native ferns, and geologist Jim Chaplin explaining why the Arbuckle Mountains are a geologist's paradise.

Jeanie Moore and Judy Kahlor will be in costume when they talk about bygone days of the Platt National Park. Chuck Coffey, range and pasture specialist for the Noble Foundation will describe prairie grasses and forbs of the area and Dr. Bruce Hoaglund will have a slide presentation of the wildflowers of Murray County.

In addition Allan Storjohann, the manager of the Myriad Botanical Gardens in Oklahoma City, will be talking about South Africa's plant conservation and preservation efforts.

The Native Plant Society will describe a new program, "Color Oklahoma", to the attendees.

The workshop also will include a wildflower market, flower specimens, winning photographs in the Oklahoma Native Plant Society (ONPS) Photo Contest and other displays. Awards will be presented at the Friday night dinner to the winners of the ONPS photo contest and the student winners of the State Garden Club Wildflower Poster Contest. The 13th Annual Bess Snodgrass Memorial Award will be presented to an Oklahoman who has exhibited outstanding work in preservation and promotion of wildflowers.

Sponsors of the 26th Annual Wildflower Workshop are the Oklahoma Native Plant Society, the Oklahoma Department of Transportation, Oklahoma Garden Clubs, Inc., the South Central District of Garden Clubs, and the Tulip Garden Club of Sulphur.

A Wildflower Workshop brochure and more information can be obtained by contacting the ODOT Beautification Office at (405) 521-4037.

~~~~~  
15th ANNUAL INDOOR OUTING

Pat Folley

About thirty hardy folks, mostly members of ONPS, assembled in the Science Building on the Cameron University campus last Saturday, February 15, for a day of learning and visiting with old and new friends. We were greeted by Dr. Robert Ziegler, Chairman of the Biology Department and our hosts for the day, Paul and Bebe Reimer. After a pleasant half-hour of catch-up talk around coffee and rolls, all gathered in a large classroom for an eulogy for Dr. Doyle McCoy and announcements.



Most of the morning was spent in a selection of a lecture/workshop on the methods of Taxonomy by Dr. Jerry Bricker or on Fungi by Dr. James Johnson. As always, it was hard to choose. As this reporter visited the taxonomy lecture, I can report from first-hand participation that it was lively and informative. We were led, suitably prepared, to describe and prepare keys for the family *Boltaceae*, using specimens of all sorts of shiny new nails, bolts, and screws. Although all were obviously different, the act of constructing a key taught us quite a bit about the ways in which botanists must categorize information so that a perplexed plant collector can make a good identification.

Dr. James Johnson enlightened participants on the marvelous world of mycology and its diversity. Mycology is one of the areas that will benefit enormously from DNA techniques because most studies have been limited to the macroscopic fruiting bodies, whereas many fungi have no macroscopic fruiting bodies. His workshop included tips on collecting and recognizing mushrooms. His was an enthusiastic presentation

that hopefully recruited more members to our new Mycology Chapter.

Lunch was a real adventure, with each carpool selecting from a wide choice of good restaurants. Ours had an excellent Mexican meal – so good that it was hard to stay awake for the afternoon session. Both of the morning workshops were repeated to accommodate those who had to miss a close-second choice on the first round, and an additional choice had Charles Lewallen demonstrating the use of Adobe software to process and enhance your digital pictures.

As most of us had not been together since the Annual Meeting in October, we had lots to talk about, and the halls were buzzing with conversation all day. Reluctantly leaving at the end of the day, we heard on all sides hopes that Spring would soon draw us together again for an *outdoor outing* in some green and flowery place.

The day before the meeting was suitable for a field trip but the weather of the meeting day was why we have an indoor outing.

CONSERVATION CORNER

Chad Cox

We have a chance of ending the fence to fence mowing that Gov. Keating ordered. Let our new Governor know that it is a harmful and wasteful practice. Gov. Brad Henry, State Capitol Building, 2300 N. Lincoln Blvd., Room 212, Okla. City, OK 73105, (405) 521-2342 or governor@gov.state.ok.us

Jeanetta Cooper reported on Oklahoma's efforts to control invasive pests and plants to the Central Chapter. As mentioned in an earlier article, Oklahoma only has regulations for 3 flowers; musk, Canada and Scotch thistles, primarily for agricultural reasons. The State has adopted the US list of prohibited aquatic plants, which include such common pond plants as parrot feather, South American mosquito fern and all giant salvinias. Jeanetta heads the department in the Department of Agriculture that regulates all these plants, although the Oklahoma aquatic plants prohibition is a function of the Department of Wildlife Conservation.

Researchers at University of Washington studying packets of "wildflower mixtures" found many flowers that were not native to America, but worse, some were considered invasive. Lorraine Brooks, who carried out this investigation as part of her bachelor's degree work, said the mixtures were obtained from a wide collection of sources from the US and Canada. She actually raised the mixtures and identified the plants that flowered. The labels did not always indicate the invasive plants that she found and the amounts of each species indicated were often wrong. Her conclusion is that no wildflower mixture should be trusted.

Following her lead I examined some wildflower mixtures that are supposedly for Texas/Oklahoma. The mixture from Wildseed Farm in Texas contains 14 native species including 18.46 % by weight bluebonnets, which are not native here. Another 12 species were not native, many from other continents, which they claimed were either naturalized here or grow well here. So not only are they supporting spreading non natives that have been shown to take over but introducing others that will probably do the same.

Seedsources also has a twenty-species, native wildflower mixture for Texas/Oklahoma. Except

for golden-wave, *Coreopsis basilis*, and bluebonnets, the others are native here. Their mixture is for a prairie setting. Remember Brooks did find in some mixtures that she tested there were other species not listed. Probably Seedsources is more responsible.

Our own Johnston Seed Co. has wildflower mixtures but their contents were not listed at their website or in my old catalog. They do have seeds for blue bonnets and worse, bachelor buttons, so beware. The really nice service that they have is custom mixes of their seeds. You can get just what you want.



CHAPTER ACTIVITIES

CROSS TIMBERS CHAPTER

Ron Tyrl

On January 18, bryologist Sue McAlister led 35 chapter members and their guests on a Saturday afternoon field trip to Payne County's Fern Valley and Horsetail Hollow in search of mosses, liverworts, ferns, and horsetails. ONPS members Lou Duke (Norman) and Charles Lewellen (Henlyretta) traveled the greatest distances to join us. The weather cooperated – brisk temperatures,



but blue skies and abundant sunshine. The plants likewise cooperated and shared their beauty with us. Mosses, including *Atrichum* and *Entodon* were in abundance, with the latter genus displaying sporophytes with their capsules releasing spores. Strobili were found on *Equisetum hyemale* (horsetail). Both thalloid (*Conocephalum*) and leafy (*Sprullania*) liverworts were encountered. Three ferns – *Asplenium platyneuron* (ebony spleenwort), *Woodsia obtusa* (blunt-lobed cliff fern), and *Pellaea atropurpurea* (cliff-brake) – displayed their fronds.

On Friday evening, March 7, the chapter hosted its traditional spring potluck dinner and meeting in the OSU Department of Botany's teaching lab. Following dinner and a short business meeting to elect this year's officers, Gina Crowder Levesque will give a presentation titled *Natural Dyes: Non-Toxic and Beautiful*.

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.

April 27: C-T Chapter field trip in search of *Arisaema triphyllum*, jack-in-the-pulpit and other early-spring flowers; meet in parking lot between Life Sciences East and Physical Sciences buildings, OSU campus at 1:00 pm. Contact Ron Tyril, 405-744-9558, rjtyril@okstate.edu

June 7: C-T Chapter field trip will visit Payne County to renew acquaintances with spring wildflowers; meet in parking lot between Life Sciences East and Physical Sciences buildings, OSU campus at 9:00 am. Contact Ron Tyril.

CENTRAL CHAPTER

Jeanetta Cooper from the Department of Agriculture presented "Invasive plants, Diseases and Pests" on November 25.. She is the responsible person for controlling these for Oklahoma.

The chapter maintained a table at the Garden Festival held in the Cox Center in OKC. Many people visited us but better yet several people joined the society. We have to thank Susan and Wayne Chambers for overseeing the arrangements and all those that manned the table: Lynn Allen, Betty Kaelin, Sharon and Don McCain, Jerry Newhouse, Jeanni Coley, Chad and Pat Cox, Ruth Boyd, Pat Folley, Connie Murray, Marilyn Stewart, and Lou Duke.

February 24, 2003, 7:30 p.m. Clark Ovrebo will give a program on "Fungi and Native Plants" to the Central Chapter of the Oklahoma Native Plant Society in the horticulture center at OSU-OKC. The facility is located at 4th and Portland in Oklahoma City. We will meet in the floral design room, just inside the door on the north side of the building.

March 31: Central Chapter meeting, Sheila Strawn talks about 'Climate Change, Wildlife and Wild Plants', at 7:30 PM at OSU-OKC horticultural center. Contact Susan Chambers, chamberstinroof@aol.com or (405) 769-7917.

Please remember to bring any seeds or plants you wish to share with other members.

NORTHEAST CHAPTER

Clare Miller

Our next two meetings are on Mondays, March 10 and May 5 at the Tulsa Garden Center. They start at 6:30 pm with a potluck supper followed by a meeting. The contact is Connie Murray at 918-664-2896 or cmurray@tulsa.cc.ok.us

Also, we have two field trips scheduled so far. The first one is to Red Bud Valley on Sunday April 6. We are to meet at 1:00 pm at Red Bud Valley, 4 miles north of I-44 on 161st E Ave.. The second one is to the Tall Grass Prairie on Saturday May 31. We are to meet at 8:00 am at the Tulsa Garden Center. Connie is the contact person for both of these. We are working on third field trip but do not have it confirmed yet.

WELCOME THESE NEW MEMBERS

The editorial staff of the Oklahoma Native Plant Record wishes to give a sincere "thank you" to Richard Bradley of Tulsa who has made a donation to offset the costs of producing and shipping our new journal.

Dr. Sheila Strawn, Managing Editor
Oklahoma Native Plant Record

Kay Backues, Owasso
Rhoda Hensley, Norman
Esther M. Key, Piedmont
John T. McBride, Jr., Shreveport, LA
Ernest and Helen Muncrief, Marlow
John Weller, Princeton, TX

OKLAHOMA NATIVE PLANT RECORD, Journal of the Oklahoma Native Plant Society

You can still order your copy of the Volume 2, Number 2. The print copy is \$7.50 and the CD copy is \$3.00.

Remit your order and payment to the ONPS address:

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

FOR JOINING OR RENEWAL, USE THIS FORM:

Fill out this form or supply the same information. Make checks payable to Oklahoma Native Plant Society and mail to Oklahoma Native Plant Society, 2435 South Peoria, Tulsa, OK 74114.

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

Name: _____

Affiliation: (School, Business, or Avocation) _____

Address: _____

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

E mail: _____

Renewal ___ or New Member ___

Annual Membership Choice: \$10 Individual ___ or \$15 Family __, or \$5 Student ___

Life Membership Choice: \$200 Individual ___ or \$300 Family ___

Add \$2.50 ___ to cover cost of copying and mailing a complete ONPS directory if desired.

The Gaillardia

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

President Jim Elder
Vice-president Connie Murray
Secretaries Kim Shannon & Tina Julich
Treasurer Mary Korthase
Historians Carla & Dale Chlouber

Directors at Large:
2003: Jake Reimer and Larry Magrath
2004: Paul Buck and Elfriede Miller
2005: Kay Gafford and Melynda Hickman

Edited by Chad Cox

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

Send all mail, except contributions to the *Gaillardia*, to:
Oklahoma Native Plant Society
c/o Tulsa Garden Center
2435 South Peoria
Tulsa, OK 74114

For Gaillardia material only, use the editor's address:

Chad Cox
2241 Ravenwood
Norman, OK 73071-7427
(405)-329-8860
Email: cox.chadwick@worldnet.att.net

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

Members who wish to receive information by email from ONPS may send their on-line address to cox.chadwick@worldnet.att.net.

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

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

IF YOU HAVE NOT PAID YOUR
2003 DUES PLEASE DO BEFORE
WE SEND YOU A REMINDER