



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

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Summer 2003

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INSERT: Photo Contest notice and application form.

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**COPY AND ART DEADLINE
FOR NEXT ISSUE IS
15 August 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.

June 7: ONPS Board Meeting, Tulsa Garden Center, 10:00 AM Contact Jim Elder, jfeok@aol.com or (918)747-0735.

June 7: C-T Chapter field trip to renew acquaintances with spring wildflowers; meet in parking lot between Life Sciences East and Physical Sciences buildings, OSU camp us at 9:00 am. Contact Ron Tyrl, rjtyrl@okstate.edu or (405) 377-1569.

June 8: Central Chapter field trip to Chambers Acreage, 238 E. Robin Road, Midwest City. Nearest crossroads is Westminster Road and Reno Avenue, ½ mile east and ¼ mile north. About 1-4 PM and please park at the street (limited parking area at the house). Contact: Susan Chambers 769-7917 or chamberstinroof@aol.com

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

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

Consider nominating someone for the Anne Long and Service Awards. See more details under Important Notices.

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

Email: cox.chadwick@worldnet.att.net

PRESIDENT'S PARAGRAPH

Presidents Paragraph

The 2003 Wildflower Workshop was a great success. Once again we were reminded of this state's great geographic and biological diversity. I have fond memories of the Arbuckle region, having spent many summer vacations in my youth at Turner Falls and the old Platt National Park area. This is just one of the many unique regions of our state. My associations with ONPS and in Harriet Barclay's ecology class have introduced me to many of our state's wonders. Black Mesa, Antelope Hills, Ponotoc Ridge, Quartz Mountains, The Tall Grass Prairie, S.E. Oklahoma Orchids, Hackberry Flats, Glass Mountains, and the Rich Mountain area are just a few of these unique areas. I often wonder, even though I am a life long Oklahoman, how many of these areas I would have visited without knowing my many ONPS friends.

The drive down to the workshop was beautiful; Indian Paint Brush, Gaillardia, and Coreopsis were just a few of the native plants in bloom. This brings up the subject of wildflower planting along our highway right of ways. There has been some concern among our members about the planting of native versus non-native species by the Oklahoma Department of Transportation (ODOT). This is a valid argument and I have similar concerns myself. There is one thing for sure, ODOT is either going to plant or not plant flowers along our highways. Our association with the Color Oklahoma project gives us some input into this decision, both financially and politically. As ONPS members and citizens, we can insist that any monies raised be used specifically for planting species native to our geographic region and that seeds be purchased from regional companies. I welcome all our member's comments on this issue. Lets keep the discussion going and continue to keep Oklahoma wild and beautiful.

Congratulations go to Marcy Robinowitz for receiving the Snodgrass Award at the Wildflower Workshop Banquet. Marcy has been very active in encouraging our state agencies to plant native wildflowers.

See you on the trail.

Jim Elder

IMPORTANT GENERAL NOTICES

Last Call!! Be a nominator

Nominations for the Anne Long Award should be submitted by 1 September. Send nominations and supporting material for the Long award to Paul Buck, 1623 South Delaware Place, Tulsa, OK 74104.

Once again it is time for ONPS members to consider nominations for the Annual Service Award which is presented during activities associated with our Annual State Meeting in October. The Service Award, to be presented in 2003 for the fourth time, recognizes a member of the Society who has demonstrated service to ONPS above and beyond that normally associated with expected levels of activity. Previous awardees have included Ruth Boyd (2000), Paul Buck (2001), and Betty Kemm (2002).

The nominee for 2003 must have been a member of ONPS a minimum of five years and must be in good financial standing with current dues obligations having been met.

Nominations in writing with documentation demonstrating the nominee's service to the Society being an integral part of the letter of recommendation are due on or before August 31, 2003. Send nominations to:

Sue Amstutz, Chair Service Awards Committee
4190 E. 46th Place
Tulsa OK 74135

"Listening to the Prairie: Farming in Nature's Image"

This is a traveling exhibit from the Smithsonian National Museum of Natural History. It will be displayed in the Edmon Low Library on the Oklahoma State University Campus in September and October. Admission to the exhibit is free and open to the public during normal library hours.

BOTANY BAY

Paul Buck

Bit of Oklahoma

Recently there was an interesting program on Oklahoma Educational Television encouraging viewers to visit a variety of cities and historical

sites in Europe. They stressed the bonding one feels by simply standing on a historic site. I experience a similar emotional surge visiting sites here in Oklahoma.

One of the advantages of being a member of the Oklahoma Native Plant Society is the opportunity to become more familiar with our state. We field trip and meet in hundreds of nooks and crannies across Oklahoma, learning more of its history each time. The field trip by the Cross-Timbers Chapter to the Washington Irving Trail Museum near Mehan is an excellent example. While there we gained a greater insight into the state geologic, biotic, political and cultural past and even visited the site where Washington Irving camped the night of the 21st of October 1832.

Let me suggest several Oklahoma sites that are interesting and educational. Some of these do not appear on the official state map. Admittedly many are some distance from individual readers but often the journey is as interesting as the destination.

There is much to be learned about a community by spending time in a local cemetery. The names on tombstones, dates of death and calculation of life spans all tell us of the joys and tragedies experienced by those interred. It is impossible to walk through a graveyard and not become, at least in your mind, a creative writer. One is surrounded by clues to birth, bonding and death.

In the very southeastern corner of our state, less than a mile from neighboring Arkansas, is the small Garland Cemetery. To reach it, go three miles east of Tom on SH 3 and then north a half-mile. The cemetery, surrounded by a beautiful wrought iron fence is nestled in a grove of oaks. Samuel Garland for whom the cemetery is named was a principle Chief of the Choctaw Nation. The stone marked Sophia, wife of Major John Pitchlynn indicates her birth date as 27 December 1773. This is the earliest known date inscribed on a tombstone in our young state.

In southwest Mayes County, five miles east of Mazie is the location and what little remains of Union Mission. It was one of the earlier attempts to convert the native people to the ways of the white man. The Mission was established above the Neosho River in the summer of 1821. Records indicate the venture was initially successful, even to producing the first book printed in what is now Oklahoma. However, harsh weather, including

spring floods, heavy insect populations, and a people not quite prepared to give up their life style contributed to its closing in 1832. Although little remains there is evidence of building sites and the clearly marked grave of Rev. Epaphas Chapman, who died in 1825, the first missionary to the Osage.

While in northeast Oklahoma drive north of Grove to Cayuga (for the Cayuga Tribe, one of the five Iroquois Nations) and visit the beautiful Splitlog Church. Mathias Splitlog, a Wyandotte, built the church in the 1890s but unfortunately the first service in the building was his funeral. Be certain to take a camera.

North and east of Black Mesa Park, along the Cimarron River and almost obscured by junipers, is a large sandstone outcrop called Castle Rock. On the south side and deep in a protected crevice, one can find several names and dates carved into the soft stone. One of interest is "Coronato, 1541." As with the Heavener runestone, there is controversy over the authenticity of this work. Apparently Coronado did indeed pass through this area in his search for the Seven Cities of gold in 1541. A University of Tulsa Spanish Professor, the late Dr. Clevy Strout, reported examining an original muster roll of the Coronado expedition. The list was prepared in 1540 as the group assembled in Compostela, Mexico. Two of those listed were reportedly from a section of Italy where the 'Coranatto' spelling would be expected. Interesting but not conclusive. Incidentally, Castle Rock is on private land. Always confer with landowners - never trespass.

In southern Roger Mills County, a few miles west of Cheyenne on Highway 47A, is some hallowed soil to be visited by all Oklahomans. It is the site of the Battle of the Washitas. It was here, early in the morning of 27 November 1868, then Lt. Col. George Custer led a charge upon Chief Black Kettle and his sleeping village. The charge resulted in the death of Black Kettle, his wife and an uncounted number of the tribe. Over 50 women and children were taken prisoner. Since Black Kettle and his people had recently conferred with Gen. Hagen at Fort Cobb perhaps they felt under the protection of the Great Father in Washington. Needless to say, the incident is controversial but remains a dark day in United States history.

North of the Wichita Mountains Wildlife Refuge and about five miles south of Gotebo, is a site of

significance to the Kiowas, Rainy Mountain. The subtle beauty of Rainy Mountain was first etched into my mind by the words of N. Scott Momaday in his touching, Pulitzer Prize winning, *The Way to Rainy Mountain*. I first sought Rainy Mountain shortly after dawn one Sunday years ago. Being unsuccessful I went into Gotebo and asked directions from a young Kiowa. His directions and very moving narration made it clear the site had special meaning to him. Most visitors see nothing but a small Oklahoma knoll but look closely, there is much more.

There is no need to travel across the globe seeking historical sites. Look about you. Our state is filled with them. Take a break from the trials and tribulations of your life and sit quietly on an Oklahoma historical spot. Few will escape the overwhelming feeling of the presence of others, explorers, pioneers or perhaps earlier people who lived here in greater harmony with the land.



OKLAHOMA'S BOTANICAL HERITAGE POSTER

Kim Shannon

The first in a series of posters featuring the biodiversity of Oklahoma produced by the Oklahoma Biological Survey became available to the public in mid April. The initial poster highlights a selection of native plants that characterize Oklahoma. The front of the poster includes a map of the state that depicts five general ecoregions, which are featured in their respective sections of the poster. Within each ecoregion section are five plants that represent Oklahoma's botanical diversity. While many of the plants on the poster are common across the state, others are found less frequently but nonetheless represent our state well. The back of the poster features ecological information, species descriptions, program information for the Oklahoma Biological Survey, Oklahoma Natural Heritage Inventory, Oklahoma Natural Areas Registry, and the Bebb Herbarium, and contact information. The purpose of this poster is to increase awareness among Oklahomans and others about the beauty and diversity of Oklahoma's native plants.

Many folks saw the poster at the Wildflower Workshop in Sulphur, OK and took several copies home with them. The posters are free if picked up

and are only \$5.00 (for shipping costs) if mailed. For more mailing information please contact Kim at the phone number or email address below.

The poster is available at various sites across Oklahoma including the Oklahoma Biological Survey in Norman at 111 E. Chesapeake Street (just east of the Lloyd Noble center), at the OK Department of Wildlife Conservation office on North Lincoln Blvd. (just south of the State capitol), in Tulsa at the OSU Extension office on the north side of the Tulsa county fairgrounds at 4116 East 15th Street, in Stillwater at the OSU Department of Botany, and in the northwestern portion of the state at the Salt Plains National Wildlife Refuge office in Alfalfa County.

For more information about the poster contact Kim Shannon at (405) 325-7658 or via email at kimshannon@ou.edu or call the Oklahoma Natural Heritage Inventory at (405) 325-1985.



HARRIET BARCLAY AWARD

Connie Taylor

There were eight very interesting papers in botany presented at the Oklahoma Junior Academy of Science in Ada this year. From these excellent papers, a research project by R. Tyler Hill was chosen to receive the Harriet Barclay ONPS outstanding botany research award. Tyler is a senior at Mcloud High School and his sponsoring teacher was Dr. Bruce Smith. His study concerned Blue-eyed grass, a native plant in the Iris Family entitled "Taxonomic Confusion of the Genus *Sisyrinchium* in Oklahoma. Between 2 and 7 species have been reported to grow in our state. Tyler borrowed herbarium specimens from the Bebb Herbarium at OU and after numerous measurements, examination of characters used in taxonomic keys, and statistical analysis, he determined that he had 4 different entities represented by the specimens.

Tyler was given \$50, a plaque, and ONPS tee shirt, and a year membership in ONPS.

This year there was no award given at the junior high level.

The award honors Dr. Harriet Barclay, who taught for many years at Tulsa University, and is responsible for the preservation of Red Bud Valley.

2003 ONPS PHOTO CONTEST

The contest was judged by James Johnson and Jerry Bricker, of Cameron University. A lot of people helped with the contest. Monique Preston and Jean Goodman prepared the labels. Pat Folley prepared the award certificates and helped with some of the plant identification. Bruce Hoagland did most of the identification. Bebe Reimer helped with the preparation of the posters. Most contributing of all were the people who took the time and effort to take the photos and send them to us. There were many excellent wildflower photos that didn't win anything. Jake Reimer

List of Winners

Amateur Close-up

- 1) Button Bush, Janet Bullard, Kinta, Ok.
- 2) Sunflower, Janet Bullard, Kinta, Ok.
- 3) Gaura, Darrell McClanahan, Oklahoma City
- 4) Smooth Sumac, Janet Bullard, Kinta, Ok.

Beginners

- 1) Dotted Gayfeather, Janet Bullard, Kinta, Ok.
- 2) Sassafras Seedling, Janet Bullard, Kinta, Ok.
- 3) Water Lily, Renda Keven, Shawnee
- 4) Spiderwort, Josie Driskill, Tulsa, Ok.

Habitat

- 1) Schooler Lake in Choctaw County, Pat Folley, Noble
- 2) Dutchman's Breeches, Betty Kemm, Tulsa
- 3) Pale purple coneflower, Sallie Webb, Idabel, Ok.
- 4) No Honorable mention

Advanced close-up

- 1) Brown-eyed Susan — Pat Folley, Noble
- 2) Prickly Poppy, Tom McCreary, Oklahoma City
- 3) Yellow Bell Flower, Tom McCreary, Oklahoma City
- 4) Thistle, Deb Davis, Luther, Oklahoma City

PHOTOGRAPHING WILDFLOWERS

Jake Reimer and Charles Lewallen

1. Light - late afternoon, early morning and cloudy days provide the best light for wildflower photography.
2. Use ASA 100 film for slides and ASA 100 or 200 film for print.
3. Digital photography continues to improve, and the cameras keep getting cheaper. More digital photographs are entered in the ONPS photo contest each year. Several of this year's winners are digital.
4. Look carefully before you shoot. There may be something that ruins your picture that you didn't

notice at the time of the shot.

5. Get a good tripod and use it along with a cable release for the shutter.
6. Filters — A polarizing filter, a warming filter such as 81a and a blue-green filter are three that will be useful and should be all that you will need.
7. Take more than one shot and bracket your shots.
8. Place the object of interest off— center. Don't place horizons in the middle of the picture.
9. Common mistakes that have been seen include writing directly on the backs of pictures, using a paper clip, leaving the date marker on.
10. Use an inexpensive photo mailer which can be purchased in discount stores when mailing pictures.

TICKS AND TICK BORNE DISEASES IN OKLAHOMA

Jake Reimer

There are six species of ticks in Oklahoma that can transmit diseases to humans. These are the American dog tick, *Dermacentor variabilis*, the black-legged tick, *Ixodes scapularis*, the brown dog tick, *Rhipicephalus sanguineus*, the lone star tick, *Amblyomma americanum*, the wood tick, *Dermacentor andersoni*, and the winter tick, *Dermacentor albipictus*. These ticks can be found throughout Oklahoma, but are most common in the eastern wooded parts of the state. The two dog ticks are the most common ticks in western Oklahoma and are also the most likely to be found around the urban home.

The life cycle consists of egg, larva, nymph and adult. All ticks are quite small, especially the larvae and nymphs. All stages of ticks, except the eggs must feed on blood in order to change to the next stage. Adults must feed before they mate and before the female can lay eggs. They all become greatly engorged except for the adult male. The immature forms are still so small they usually aren't noticed. Once the larvae and nymphs have fed, they drop off the host and molt into the next stage. They may search for another host within a few weeks or may wait up to a year. When the female adult is fully engorged, she drops off the host, and in a protected place lays hundreds up to several thousand eggs. The eggs hatch into six-legged larvae and the cycle starts again. The nymphs and adults have eight legs. The normal life cycle from larva to egg laying is usually one year but can be up to three years. Different species of ticks may change hosts with each cycle or may use the same species of host for all three cycles, e.g., the brown dog tick always prefers dogs throughout all three life cycles.

Rocky Mountain Spotted Fever (RMSF) is caused by the rickettsial organism, *Rickettsia rickettsia*, named for Howard T. Ricketts who discovered the organism and the vector in 1906 in Colorado. The main vectors in Oklahoma are the American dog tick and the lone star tick. The characteristic that sets this disease apart from other infectious diseases is the spotty rash that develops on the palms of the hands and soles of the feet. RMSF is no longer the most common tick borne disease in Oklahoma, but is the most serious. Every year

Oklahoma ranks as one of the top three states in the number of cases of RMSF.

Lyme disease (LD) is now the most common tick borne disease in the United States and Oklahoma. LD was first recognized in Lyme, Connecticut in 1975. It was first reported in Oklahoma in 1988. The cause is a spirochetal bacterium, *Borrelia burgdorferi*. The black legged tick is thought to be the principal vector in Oklahoma, but there is more than one tick vector. The disease is practically never fatal, even if not recognized and treated early. If not recognized and treated with antibiotics early, a chronic inflammatory arthritis may develop which can be very difficult to cure.

Tularemia is caused by a gram-negative bacterium, *Francisella tularensis*. It is a disease of many wild animals, especially rodents and rabbits. Various species of ticks can transmit tularemia. There have been an average of ten cases a year reported in Oklahoma in recent years. The disease can also be transmitted by drinking contaminated water, eating or handling infected animals and inhalation of dust from contaminated soil, hay or grain. The lone star tick is thought to be the most common vector and the American dog tick is next most common.

Infections by members of the rickettsial genus *Ehrlichia* have long been known by veterinarians. The first case in a human was recognized in Arkansas in 1986. There are at least two species of the genus that cause human disease. Human Ehrlichiosis is caused by *E. chaffeensis* (1986) and human granulocytic ehrlichiosis is caused by *E. spp.*, species not yet identified. The vector is thought to be the brown dog tick. Cases have occurred in Oklahoma.

Babesiosis is a protozoan disease that only recently was found to cause human disease. This organism is in a subphylum of protozoa called sporozoa. This organism parasitizes red blood cells and causes a disease very similar to malaria. Several species of ticks are vectors. Texas tick fever in cattle is one of this group of diseases. Babesiosis has not been recognized in humans in Oklahoma.

Tick paralysis is not an infectious disease. This disease is caused by the saliva of the tick. It is not known whether there is a direct acting toxin in the saliva or if this represents an allergic — immune response to the saliva. The most common species to cause paralysis is the American dog tick. Other species have also been implicated. The condition

occurs in humans and animals. It is rare. The tick will usually be found at the base of the skull or back of the neck near the spine. Paralysis develops gradually over a period of several days and can progress to complete paralysis and death. When the tick is removed, symptoms disappear in the reverse order of appearance, and recovery will be complete.

Less than 0.1% of ticks carry disease, and if they are properly removed within 24 hours after attachment, there is little chance of disease transmission. These diseases haven't been reported in all months of the year in Oklahoma, but May through August are the months when the most tick-borne diseases occur. Most tick-borne diseases occur in eastern Oklahoma with Tulsa County reporting the most. From January 1, 1995 through July, 1997 there have been one case of RMSF, seven cases of Lyme Disease and one case of tularemia reported to the state health department from western Oklahoma.

All of the diseases are easily cured with proper treatment, especially if treated early. If you develop a flu-like illness with an odd skin rash after known tick exposure, you probably have one of these diseases. A rash may not be present. If you develop chills and fever, jaundice and anemia, you will be famous for a short time- you will have the first case of human Babesiosis in Oklahoma.

Protection from ticks would include avoidance of tick-infested areas, if in an infested area, avoidance of dense vegetation and wearing protective clothing. A repellent such as Deet or permethrin can be used. Follow the label instructions. Protect your pets and premises. Fact sheets from County Extension offices offer excellent guidelines for yard and household pest control. Inspect yourself and your children after you have been in a tick-infested area.

Tweezers should be used to remove ticks. Pull the tick straight out with a slow steady pull. If you have no tweezers, protect your fingers with tissue. Avoid crushing the tick. Around the home, keep the grass mowed and do not allow weeds or brush to provide concealment for ticks.

With apologies to Entomologists and Epidemiologists,

WOODY WAREHOUSE

I have added Woody Warehouse, a source for native trees and shrubs, to the website. They have a selection of over 25 species which are raised by air root pruning similar to the technique used by Sunshine Nurseries here in Oklahoma. This technique as I learned on an ONPS tour of Sunshine Nursery leads to a superior root ball. Woody Warehouse: Contact: Dottie Warner, (317) 994-5487, Box 259, Lizton, IN 46149-0259, dottiewarner@woodywarehouse.com, www.woodywarehouse.com

PHOTO POSTER REPORT

Sue Amstutz

Let's Meet Our State Parks Naturalists

Since 1990, ONPS has been fortunate to have had the cooperation of a number of Naturalists at our Oklahoma State Parks who annually display our Photo Contest Posters for their Nature Center visitors.

Responding to a short article in the *Tulsa World* about our 1990 Photo Contest, the then head naturalist at Sequoyah State Park, Les Pulliam, inquired as to what happened to the pictures after the judging, were they ever made available for groups outside ONPS, and how could he secure a set for the Nature Center at Sequoyah? Receiving an "okay" from our State Board to allow the 1990 set to be loaned to Sequoyah, Poster Curator Sue Amstutz and her loyal driver-husband Dale began the now-thirteen-year-long process of supplying the Nature Centers with our posters.

Sequoyah, with its year-old new nature center is now under the direction of Doug McGee, chief naturalist at Sequoyah since 2000. Our posters are displayed by Doug from May through early October in the classroom of his facility. Visitors to Sequoyah have been able to view every set of ONPS posters we have produced from 1990 through the 2002 set currently on display there.

Oxley Nature Center in Tulsa became the second facility to display posters, beginning in 1991 and continuing to the current year. Bob Jennings, now retired, proved a very good friend of ONPS, always being most gracious about utilizing the photo posters. He and his chief assistant, our

member Donna Horton, have welcomed a new set of posters each February since 1991 except for 1996.

Kristi Silvey, Naturalist at Beaver's Bend State Park's Nature Center, began using our posters in the spring of 1996. The maintenance crew at Beaver's Bend constructed special frames covered in plexiglass especially to house the posters; the frames are located on the porch of the center so that even at times when the Nature Center is closed, visitors may still enjoy the wildflowers portrayed in our contest photos. Kristi keeps a set of posters on display from late March through late October each year.

Fountainhead State Park, renamed Lake Eufaula State Park in 2002, has had sets of ONPS posters for display annually since 1996. Our ONPS member Sue Hughart was Chief Naturalist at that time; since 2001 Loraine Richmond has held the Naturalist position (Sue has moved to the head office and is currently Park Manager at Lake Eufaula.) Like the center at Beaver's Bend, a special display area for our posters has been made available at Loraine's center. Racks constructed of baseboard molding allow the posters to be slid easily in and out of their display spaces near the front door of the Eufaula center.

In 1997 we began displaying posters at the unusual Nature center located in Robber's Cave State Park. The Naturalist there is Mitch Arteberry. His exhibit area is located on the north end of a fine old stone building constructed by the Civilian Conservation Corps in the 1930s; the Nature Center shares the building with the park Gift Shop which occupies the south half. Mitch displays the posters on a central divider around which his visitors move to view the many other exhibits which line the walls of the center.

The year 2000 saw two more Nature Centers being added to our display locations. The center at Lake Wister State Park is under the leadership of Robert Borden. Robert's

center is a former recreation hall which was mostly going under-utilized until the decision was made by park officials to turn it into a Nature Center. Like all the Naturalists, Robert's duties include not only maintaining the displays and exhibits within the center but also providing educational programs, leading tours of the park, and promoting the best aspects of the natural world.

Lake Tenkiller State Park's Naturalist is Lee Ann Rogers. Formerly associate of Les Pulliam at Sequoyah during the early 1990's, Lee Ann assumed the Chief Naturalist position at Tenkiller not long before our ONPS Photo Contest posters began to be placed at her center. Lee Ann has developed the Tenkiller Nature Center into a fine hands-on sort of place which obviously appeals to her younger visitors who so love to get their fingers into the various exhibits which are there just for that purpose.

In 2002 the Nature Center at Lake Texoma State park joined our other displaying centers by providing space for ONPS Photo Contest Posters. Richard Keithley manages the center there. The Texoma center had been allowed to stagnate before Richard's arrival; since his coming the center is being revitalized and rejuvenated. ONPS is pleased that our posters are adding color and interest in the work-in-progress at Texoma.



CONSERVATION CORNER

Chad Cox

Surely you have heard the statement that introduced species have an advantage over natives because they have left behind their predatory species. While this seems perfectly plausible, have you ever heard of documentation for this statement? Pat Folley found such documentation. Two studies published in *Nature*, February 6, 2003 report that an examination of 473 European plant species that have become established in the U.S. do have fewer enemies and infections on this continent. The statistics show graphically what leaving your troubles behind can do to enhance survival chances: 84% drop in fungal infections, 24% drop in viral infections, 77% drop in all diseases, average number of parasites that accompany an invader to a new range: 3, number the invader picks up after arrival: 4, number of parasites on an indigenous species: 16. Number of introduced species in the U.S.: at least 30,000! Argh.

Another statistic to consider is that only habitat lost is a greater threat to biodiversity than invasive organisms; this is especially true for plants.

WILDFLOWER WORKSHOP

Pat Folley

Follows is a report on the Wildflower Workshop, and a short observation on an inadvertent experiment at my house.

1) Having spent nearly two years on the 'disabled' list has done quite a number on my home gardens. While I've never been a landscaper, I have made little habitats for natives as they became available, and of course have the usual shared plants that friends have given me. So it is with some delight that I report the results of the inadvertent experiment, in which I was not able to weed or water for two seasons (I never fertilize, so that remained the same). What happened was that for the most part, the natives survived, including those native to the far corners of the state. And most of the horticultural selections died. Chocolate mint and bamboo, of course, survived in hordes. But in my little Crosstimbers clearing I have more than before of the native red columbine (*Aquilegia canadensis*) and green dragon (*Arisaema dracontium*). And the Mayapples (*Podophyllum peltatum*) are coming up in all kinds of unexpected places. God is good!



Janet Bullard receiving one of her 5 Photo Contest Awards from Bebe Reimer

2) The 26th Annual Wildflower Workshop convened at the Sulphur United Methodist Church on May 2 & 3 this year. The facility is excellent: one of the better locations we have had for this event. And well-attended, with about 125 folks registered and in attendance. I especially liked Dr.

Ron Tyril's talk on the sex life of wildflowers, delivered with an admirable combination of wit and information. But all the speakers, who represented a great variety of backgrounds and expertise, were well worth the attention.

The tables were beautifully decorated with local wildflowers, and there was ample room for the displays. ONPS, thanks to Susan & Wayne Chambers, nearly filled a room of their own. And our newest wildflower plant source, Wild Things, operated by our member Marilyn Stewart of Seminole, came in with a large collection of healthy prairie plants. These will compliment the similar stock of Clear Creek Nursery in Peggs, with now a balance between Woodland and Prairie plants.

The evening banquet and awards were held in a local restaurant. Local ladies were dressed in turn-of-the-century costumes and really added a sense of fun and history to the event. My highlight of the evening was the photo contest awards (I won two, but Janet Bullard of Kinta won five!).

The field trips went to one of my favorite places, 6-acre rock in Johnston County, and we were forced to leave there before we wished, to have lunch at Camp Classen. Never did get to Chickasaw National Recreation Area because we ran out of time (I took my carpool there after the group was dismissed, and it was flowery and wonderful).

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SELMON LIVING LAB TRIP

Chad Cox

Field trip leader Gloria Caddell, along with 14 souls wishing to increase their tans, on Saturday, May 24 toured the University of Central Oklahoma's Selmon Living Laboratory, 320 acres of gypsum outcrops and mixed-grass prairie, sandsage grassland, riparian, and cave entrance communities in the Gypsum Hills west of Alabaster Caverns in Woodward County. The land is alternating layers of gypsum and red shale. Bill Caire, of UCO, had visited the areas for many years studying the bats. The Selmons suggested he buy the main cave and he obtained a grant that purchased the cave and the Selmons threw in the 320 acres. As part of the trip, we met with Mrs. Selmon and applauded her contributions to preserving nature.

Gloria provided a survey list of plants that she and a student had documented and many were in bloom. Among the many flowers we saw was *Nama*

stevensii, a plant that is restricted to gypsum areas; small plant with small but very pretty blue flowers. Charles Lewallen was especially interested in photographing *Comandra umbellata* (bastard toadflax) in bloom. Although there were many plants none appeared in bloom. Finally, sharp eyes found one bloom, a small, off-white flower that seemed hardly worth the effort.

Gloria has said she would like to be more active in ONPS and all of us should encourage her because she is an excellent field trip leader.

CHAPTER ACTIVITIES

Mycology Chapter

Clark Ovrebo

Clark Ovrebo gave a talk on spring mushrooms at the Crow's Secret Nature Center, Lake Thunderbird State Park, on March 26. About a dozen persons attended. On April 6, about a dozen folks gathered again at Lake Thunderbird State

Park to explore the area for spring mushrooms. The park area around the Nature Center did not reveal any morels but we did see two other spring mushrooms, *Helvella acetabulum* and *Urnula craterium*. *Helvella acetabulum* has a fruiting body in the shape of a cup with a short stem that is ribbed. *Urnula craterium*, also known as the devil's urn, is also cup-shaped but has a long tapering, smooth stem. The fruiting bodies are brownish black in color and are always found arising from the base of rotting logs. Because it had rained the day before, we saw *Auricularia auricula* in various stages of development. It is one of the species of jelly fungi and is known as the ear fungus. The fruiting bodies are brown and are always attached to dead wood. With moisture they plump up with water and are readily visible. During dry periods they become dormant and dry to about the consistency of a potato chip. It is an edible fungus and is used frequently in oriental cuisine. Not to be discouraged from finding morels, the group ventured to Little Axe Campground where we did see two morels (*Morchella esculenta*) in prime condition. We also found several fruiting bodies of the bell morel (*Verpa conica*). The latter species differs from morels in having a smooth, bell shaped cap. Sometime later, Julie Tarver found specimens of *Gyromitra caroliniana* near the Nature Center. This is another spring ascomycete and is

characterized by having a brown brain-like cap and white, ribbed stem. It is the largest springtime mushroom that we have in this area. With the spring mushroom season over, we now will wait to see what the summer rains bring.

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.

Cross Timbers Chapter

Ron Tyril

Members of the CT Chapter have been both inside and outside this spring. On Friday evening, March 7, the chapter hosted its traditional spring potluck dinner and meeting in the OSU Department of Botany's teaching lab. Approximately 35 people were in attendance. Boiled and mashed tuberous rhizomes of *Helianthus tuberosus* (Jerusalem artichoke) prepared by David Murray were the native-plant treat of the evening. Gina Crowder Levesque, a graduate student in zoology and fabric artist, gave a colorful presentation titled *Natural Dyes: Non-Toxic and Beautiful*. In addition to showing slides, she displayed numerous samples of her dyes, mordants, and dyed fabrics. The traditional short business meeting also was held. Sue McAlister and Elaine Lynch were elected chapter chair and secretary-treasurer for the coming year. Olen Thomas will continue to serve as vice-chair. A special thanks is extended to former secretary-treasurer Carolyn Gonzales

whose efforts have contributed to the success of chapter activities.

On Sunday, April 27, approximately 15 chapter members and guests visited Horsethief Canyon to see *Arisaema triphyllum*, Jack-in-the-pulpit. The weather was sunny and mild, the chiggers scarce, and the ticks not too bothersome. Thus, we had a fine afternoon stroll into the canyon to discover numerous plants of the species. Also encountered were *Botrychium virginianum*, rattlesnake fern, *Sanicula* sp., black snakeroot, and *Bromus pubescens*, woodland brome.

The chapter's next field trip is scheduled for Saturday, June 7. Members will visit a Payne County prairie to renew their acquaintance with late-spring wildflowers. The trip's format, however, will be different from that of previous excursions; a botanical "treasure" hunt is planned. Participants should meet in the parking lot between the Life Sciences East and Physical Science Buildings on the OSU campus at 9:00 am.

Central Chapter

Summer Field Trips

June 8, 1 p.m.~ 4 p.m., Chambers Acreage, 238 E. Robin Road, Midwest City. A garden tour of 2 ½ acres of mixed indigenous /transplanted native plants and exotic plants set within a backdrop of Crosstimbers woods and grasslands. Nearest

crossroads is Westminster Road and Reno Avenue, ½ mile east and ¼ mile north. Be prepared for road delays due to tornado damage in surrounding areas. Please park at the street (limited parking area at the house).

Contact: Susan Chambers 769-7917 or
chamberstinroof@aol.com

WELCOME THESE NEW MEMBERS

Julie Arutunoff, Broken Arrow
Janet Bullard, Kinta
Phyllis Campbell, Noble
John Carter, Madill
Beverly Childress, Gore
Patricia Dickson, Weatherford
Katherine Dickey, Weatherford
Julie Holland, Elkins, AR
Judy G. Hall, Sand Springs
Jeanette and Ivol Hane, Stillwater
R. Tyler Hill, McLoud
Eric Holmberg, Oklahoma City
Roger and Mary Hurt, Edmond
Debbie Manahan, Sand Springs
Cindy Mauldin, Shawn
Bette C. Pope, Lexington
Lorna Rhodes, Walters
Hugh and Jennifer Stout, Oklahoma City

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For *Gaillardia* material only, use the editor's address:
Chad Cox
2241 Ravenwood
Norman, OK 73071-7427
(405)-329-8860
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