Chapter Meeting: Tuesday, November 21, 7:00 p.m.
“The California Floristic Flora and the Appalachian ecosystem – A discussion of similarities and differences”

Speaker: Plant Pathologist, Cynthia Eayre, PhD.

Dr. Cynthia Eayre, a plant pathologist formerly with the U.S. Department of Agriculture’s Agricultural Research Service, will compare and contrast the Appalachian ecosystem to the California floristic region. There are some similar plants and different species of the same genera. Cynthia will discuss some invasives that have caused problems such as the chestnut blight, wild boar, poison ivy, etc. and how the native plants (and a crop plant or two) have and continue to play a role in the local economy.

Board meeting starts at 6:00 p.m. All members are welcome to listen in on board meetings.

Meetings are open to the public. Unitarian Universalist Church, 4144 N. Millbrook Avenue. (South of Ashlan Avenue), Fresno.

Future Meeting Programs
No meeting in December. 2007 speakers include the following. Stay tuned for dates and times!

Hannah Nadel on pollination
Toni Munoz, Kings River Conservation District
Rosemary Donlon, The Flora of Pt. Lobos
John Stebbins on Finding Keck’s Checkerbloom on Tivy Mountain

China Creek Update
By Warren Shaw

Our plan, for the October “work morning” was to do routine tidying and trail maintenance and then to devote our time to cutting bull thistle in the north section. We found Hank Urbach mowing the trail so we turned our efforts to weeding. The area was so profoundly infested that our puny efforts seemed utterly futile and we abandoned them after an hour or so. Short of an all-out chemical assault, we can only think to try mowing on this area. Hank has offered to give it a shot in early spring. We look forward to seeing the impact of this.

On a happier note, park neighbor Alex Voloshin has arranged for us to receive more chips from Provco, and we believe we will again have a volunteer labor force available to spread them on the trail. We hope, if we’re able to keep this up, we can eventually keep the trail open without mowing.

Despite the season, there was considerable color in the park, with luxuriant clusters of deep red rose hips, red and yellow turning leaves – especially the Himalayan blackberries – and brightly blooming golden rod and asters. In the weeks to come, as the Valley oaks and other deciduous species defoliate, things we don’t usually get to see well should become more visible: birds, especially raptors; galls; fungi, and maybe even the elusive deer, regular but seldom seen residents.

The November work morning is scheduled for Saturday, 11/18, 9-12 for routine maintenance and weeding. Come and see your beautiful park.
President’s Message

Fall has always been my favorite time of year. I love the crisp days, the smell of wood fires, the dampness in the air, and most of all the leaves changing color. I was hiking and picking up trash the other day at China Creek when I looked toward the pond. There framed by Button Bush was a heron. I stopped to soak in the majestic site. Smiling I continued down the Oak Woodland Loop. As I rounded the corner I flushed a rooster pheasant, his noisy retreat was a joyous sound since I hadn’t seen one here before. I stopped under the huge old oak that I affectionately refer to as “Warren’s Oak” and listened to the ruby crowned kinglets, warblers, and woodpeckers. I watched as dozens of mallards took wing from the pond and then flew overhead as if in an aerial show that seemed to be just for me. I watched the silent decent of an oak leaf covered with galls...the wind blew gently changing its course. For all of this I am thankful. Let us all give thanks for our special places that bring us joy, peace, and happiness! Happy Thanksgiving!

-- Peggy Jones

Editor’s note: Peggy has written a grant through a new funding source at Sanger Unified School District. $750 for GPS devices that include mapping capabilities for ArcView, a very powerful and popular mapping software (educational copies of software included). This would be a great way to map China Creek and give Sanger students an opportunity for exposure to REAL science! Keep your fingers crossed.

Winter Reading List
By Jeanne Larson

One good way to brighten a dull winter day is to settle down with an old “friend” too long on the bookshelf. The one I will have at the top of my list will be Lester Rowntree’s HARDY CALIFORNIANS (1980, Peregrine Smith, Inc.). Rowntree was the first serious collector of native plants which she established as a native garden at her Carmel home.

Marjorie Schmidt, GROWING CALIFORNIA NATIVE PLANTS (1980, UC Press) may not be long on color photos, but is full of still relevant information.

Ever wonder about “oak apples” on oaks? The various lifestyles of the wasps and midges responsible are fascinating as told by Ronald Russo (1979, Boxwood Press, Pacific Grove). There are many more strange galls to be found on other native trees and shrubs.

Back to gardening – a skim of Nevin Smith’s new book NATIVE TREASURES: GARDENING WITH THE PLANTS OF CALIFORNIA (2006, UC Press) notes it includes a lot of propagation information for those tempted to start from scratch.

If you find it more practical to forget annuals and concentrate on perennials, Glenn Keator’s COMPLETE GARDEN GUIDE TO THE NATIVE PERENNIALS OF CALIFORNIA (1990, Chronicle Books, San Francisco) provides a host of choices.

As a prelude to spring, get fired up about native gardening with Judith Lowry’s GARDENING WITH A WILD HEART (1999, UC Press).

Gall-makers and Plants: A Strange Relationship
By Gini Havel
(Excerpted from an article originally available at www.marin.cc.ca.us/cnps)

The name “gall” is of Greek origin and was applied to plant galls because they contain tannic acid, an astringent bitter substance like bile in the gall bladder. Of course, galls are the result of a parasitic relationship between an insect and a host plant. Galls seldom kill the host plant, but trees can become more vulnerable to other diseases if weakened by especially heavy gall infestations.

Galls have been known for thousands of years and used by many human cultures. In 23 AD, Pliny wrote that gall extracts were beneficial for gum infections, burns, hair restoration, and insect stings. Throughout history, medicines, dyes, writing ink, tannic acid for curing leather, and food for animals and humans have been derived from galls.

Spiny rose galls resemble little spherical pincushions with spiny bristles. They are also found in wild blackberries and are induced by a wasp (Diplolepis bicolor).

Of all trees, oaks have the largest variety of galls. Some 30 different galls have been recorded in blue oaks. The shapes, colors, and sizes of galls found on a single tree are astounding. The oak apple gall is large and conspicuous in many native oaks, but closer observation of leaves, petioles, and twigs will reveal some lesser-known kinds. These may resemble stars, sea urchins, cups and saucers, clubs, spiked spheres, mushrooms, and buttons.

Most of these galls are caused by a tiny wasp of the family Cynipidae. In fact, each gall form is made by a particular species of wasp. The female lays eggs on parts of the oak that have rapidly growing tissue such as new leaves in spring. Substances released during egg-laying or the hatched larva’s feeding induce the plant to grow protective layers of cells to wall off the damage. Chemical messages from the insect direct the architecture of the developing gall. Gall formation is the result of the interaction of the insect and plant.

Inside the developing gall, nutritive cells are stimulated to secrete starch, sugars, lipids, and proteins by larval activity. Some mature larvae bore through the gall and pupate on the same plant or on the ground, while other species pupate within the gall and emerge as adults after the gall has ripened on the tree. Some adult wasp species overwinter in the gall and emerge the following spring to seek a new host.

Remember that if you don’t find larvae inside any gall, the adults may have either emerged or the larvae have been killed by parasitic wasps or eaten by predaceous insects.
Native Plants That Fight Air Pollution and Fertilize the Garden

By Joseph Oldham

California native plants never cease to amaze me with their many diverse benefits to our lives. This article is about several species that benefit us by fighting air pollution and also fertilize our gardens at the same time.

All of these species are members of the pea family (Fabaceae) and possess the ability through symbiotic bacteria in their roots to take nitrogen compounds from the air and convert them to usable forms of nitrogen based fertilizers in the soil. Some of these airborne nitrogen compounds are precursors for atmospheric ozone, the major summer air pollutant in the San Joaquin Valley. By removing these compounds from the air, the native plants discussed here have the potential to actually reduce toxic ozone. In addition to reducing ozone and adding nutrition to your soil, these plants are some of the most beautiful California native plants that you can use in your garden—a truly amazing bargain for the native plant gardener!

My favorite plant from this group is Western Redbud (Cercis occidentalis), a large deciduous shrub-tree that can reach 14 feet in height. Western Redbud is covered with beautiful magenta colored flowers in spring before the leaves appear and new foliage comes out reddish before finally turning a beautiful blue green. The plant is a little slow getting started and may not show much growth the first year or so, but once it gets established it will grow about 1 to 2 feet per year. Water once a week the first couple of summers and then a deep watering once a month should be sufficient after that. Western Redbud is not particular about soil type, but it does need good drainage. Protect from gophers by planting in gopher baskets and, if you live in an area with a high deer population (such as Yosemite Lakes Park), be prepared to have some of the new growth pruned by the locals. The browsing doesn’t hurt the plant; deer and redbud have evolved together, and the plants just send out more growth in response to the browsing.

Next on my favorites list are the lupines. There are a large number of lupines and many are suitable for the native plant garden. On the hill on the north side of our house Sky Lupines (Lupinus nanus) come up every year in the spring. They form a dazzling display of blue and white flowers that attracts native bees, wasps, and hover-flies. Also on the hillside grow Silver Bush Lupine (Lupinus albifrons). Silver Bush Lupine is a fairly large 3 to 5 foot high perennial shrub with silver foliage and huge blue flower spikes in spring. In gardens it is reputed to have only a short 7 year life span, but wild foothill specimens are much older. The annual lupines should be sown as seed in the fall. During the winter the plants will grow and flower in early to mid-spring. By late May they will be finished and dried up. If you collect the seed from the “pea-like” seed pods, you can sow it back in the fall and start the cycle all over again. Silver Bush Lupine can be grown from seed, but I have seen better success with nursery grown plants. Intermountain Nursery typically has a large number of one-gallon sized plants in spring, but you should plan to get them quickly when they are available; they normally sell out very fast. Silver Bush Lupine needs full sun and good drainage. It can be watered once a week for the first summer; after that, once a month should be sufficient.

Finally, I have a new favorite to add to my list; Deerweed or California Broom (Lotus scoparius). This little 3 foot high perennial shrub is a pioneer species on disturbed sites and is covered with little bright yellow flowers all spring and summer. It is reputed to have a relative short life span of 7 to 20 years. I planted four in my yard this fall and so far the deer and gophers have left them alone. The flowers attract a multitude of native insects and the little shrubs add texture and an interesting branch and leaf shape to the garden. Deerweed seems to be very drought tolerant and my new plants have continued flowering and not required any care other than a once-a-week watering since I planted them.

As I often mention in this column, our native plant gardens can become balanced ecosystems with a little planning and careful plant selection. The plants discussed this month have a foundational place in our gardens in that they can supply nutrients to other plants through their nitrogen fixing properties. By including these plants and carefully spacing them, you can ensure that your soil is properly enriched and help improve the air quality in your garden at the same time! Happy planting!
**Related Activities**

**China Creek Field Trip**  
Thursday, November 30, 2006.  8:45 – 12:30  
There will be 34 students attending. We will start mapping the small oaks to monitor their growth, GPS each location, measuring height and taking the DBH. We'd love to have anyone help. Call Peggy at 999-4343 if you can be there.

**CNPS Chapter Council Meeting and Dinner**  
Saturday, December 9, 2006  
Attending a quarterly chapter council meeting is a real insight into how the state CNPS business is accomplished and how decisions are made that affect all members. The meeting is a full day on Saturday and there are a variety of options for inexpensive Friday night stays. Dinner is included on Saturday.

If you would like to be the delegate to the upcoming meeting, contact Peggy Jones for details at 559/897-9646 or autumn_aspen@hotmail.com.

**Take a Survey – Win a Book!**  
CNPS is seeking input from members as well as the general public through a statewide web-based survey. Data from this survey will help shape future programs and projects. The closing date for the survey is December 31, 2006.

The survey takes about 5 minutes to complete. At the end, you can enter a drawing to win a free copy of California Native Plants for the Garden, by Carol Bornstein, Bart O'Brien, and David Fross (value $27.95). The survey is accessible at: [www.surveymonkey.com/s.asp?u=273382600042](http://www.surveymonkey.com/s.asp?u=273382600042)

**Sierra Foothill Conservancy**  
Saturday, November 25.  
Hike to Table Mountain Discovery Trail (an easy mostly level hike of about 3.7 miles that takes about 3 hours) or the Table Mountain Loop Trail (a strenuous 8 mile round trip hike with a 1000 elevation gain that takes about 6 hours)  
Call 877-2362 or 855-3473 to sign up. All hikes begin at 9am. Bring lunch and water.

**Restoration Nursery Field Trip**  
Saturday, March 10, 2007  
Mark your calendars for a field trip to the native plant nursery in Three Rivers maintained by Melanie Baer-Keeley, Restoration Horticulturist at Sequoia and Kings Canyon National Parks. We will leave Fresno at 9 a.m., arrive at the nursery by 11, and leave the nursery at 2, returning to Fresno by 4 p.m. Meeting location TBA.

**Jepson Herbarium Public Programs**  
Workshops are taught by recognized authorities in their field. Most workshops are designed to accommodate beginners as well as professionals. The workshops listed are only a few and only through the month of March. For a full schedule, descriptions, cost, and registration, visit [http://ucjeps.berkeley.edu/workshops/2007/index.html](http://ucjeps.berkeley.edu/workshops/2007/index.html).

**Microbial Diversity: The Final Frontier**  
January 20, 2007  
Assembling (and using) the Fungal Tree of Life  
February 3, 2007  
Peatmosses (Sphagnum)  
February 24–25, 2007  
Bryophyte Inventory and Sampling Techniques  
March 1–4, 2007  
Introduction to Morphology and Identification of Flowering Plants  
March 17–18, 2007  
Fifty Plant Families in the Field  
March 24–25 and March 31–April 1, 2007  
(2 consecutive weekends)  
Basics of Botanical Illustration  
March 24–25, 2007

**October Chapter Meeting**

Julie Evens, Senior Vegetation Ecologist for CNPS provided a full program of information on the activities of the state CNPS Vegetation Program. The program itself is charged with developing and maintaining standards for collecting and archiving data. It publishes “A Manual of California Vegetation” which is an inventory of different areas of vegetation in the state. The underlying reason for the Manual is to assist with conservation issues, exotic species, disturbances, wildlife, and to model and manage fire. This work is not done exclusively by CNPS. The Vegetation Program works with other state and federal agencies such as the California Department of Fish & Game, the Bureau of Land Management, and the U.S. Forest Service.

The current Manual of California Vegetation is over ten years old. By the end of 2007 they plan to finish and publish what has been accumulated to that point. Currently the Manual contains 200 types of vegetation. The new Manual will contain over 450 types of vegetation and will provide much more detail than its predecessor. And yet it will still not be complete. It will take many years to cover the entire state.

Some of the work of the Vegetation Program is accomplished by providing workshops for CNPS chapters and members. It gives members a chance to learn about the vegetation methods and to help assess habitat areas as well as aid with conservation efforts. The vegetation workshops are held throughout the state, usually working with three local CNPS chapters per year.

For further background and current activities of the Vegetation Program, visit [www.cnps.org/programs/vegetation/index.htm](http://www.cnps.org/programs/vegetation/index.htm). You will also find electronic copies of the Vegetation Committee Newsletter (If you wish to look at the current electronic version of the Manual of California Vegetation, house at U.C. Davis, visit [http://davisherb.ucdavis.edu/cnpsActiveServer/index.html](http://davisherb.ucdavis.edu/cnpsActiveServer/index.html))
October 2006 Membership Renewals
The Sequoia chapter serves the Fresno, Madera, and Kings counties.

**Fresno:** Carmean, Ewell, Merrill, Valdez, Gorman, Davis

**Madera:** Bredon, Colton, Hartesveldt

Thanks to all for your continuing support. Send membership corrections to Helen Shaw at helshaw@netptc.net.

Want your newsletter by e-mail instead of printed and mailed? If so, email Helen Shaw at the above email address.

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**NEWSLETTER**

Send newsletter corrections or suggestions to Thelma Valdez at nmtv@att.net. The deadline for contributions to the October newsletter is Thursday, November 9, 2006.

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When the world wearies and society ceases to satisfy, there is always the garden.

--Minnie Aumonier

The IRS considers dues in excess of $12.00 per year and all gifts to CNPS as tax deductible.

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Membership includes the quarterly CNPS journal, *Fremontia*; the quarterly *Bulletin* which gives statewide news and announcements of Society activities and conservation issues; and our chapter newsletter, *Carpenteria*.

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I wish to affiliate with the Sequoia Chapter.

Name: _____________________________

Address: __________________________

City: _____________________________ Zip: __________________________

State: _____________________________

Make your check payable to “CNPS” and mail with this form to:

- New Member
- Renewing Member

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The California Native Plant Society is a statewide nonprofit organization of amateurs and professionals with a common interest in California’s native plants. The mission of the Society is to increase understanding and appreciation of California’s native plants and to preserve them in their natural habitat through scientific activities, education, science, and conservation.
Dedicated to the Preservation of the California Native Flora.
For a membership brochure call Helen Shaw at 559/855-4519.
CNPS Web site: < www.cnps.org >

**Valley Oak**

Ah, Quercus lobata, our beloved Valley Oak, also known as the California White Oak. As cooler days arrive Valley Oak leaves are begin to change color and will soon take on their winter appearance as massive sentinels whose branches look so impressive on a foggy day drive through the local foothills. Those trees might be 400 years old or they might be much younger, depending on the amount of water they have had at their disposal.

The Valley Oak is the largest of the western oaks, easily reaching over 80-100 feet tall with a diameter of 30 or more inches. The acorns are long and slender, and provide food for many kinds of wildlife and in earlier years, were a stable for local native peoples.

In the photos shown here (taken at China Creek), oak galls decorate the tree at right while a “youngin’” begins to take on the characteristic spread of a maturing Valley Oak.

In the garden, be sure your Valley Oak has access to a source of ground water. It does not need a lot of water but will grow very quickly if it has access to a good source of water.

If you are blessed with existing Valley Oaks, be sure to maintain the soil environment to which they’ve grown accustomed. What may seem like a simple idea to plant lawn under an existing Valley Oak will only be the beginning of the end for the oak. But if you’re planting a new Valley Oak and it grows up with lawn around it, it will thrive. Just be sure not to yank out the lawn after the oak is well established and expect the oak to thrive. Like people, Valley Oaks are very adaptable, but prefer environmental stability once established.