



# CARPENTERIA

Newsletter of the Sequoia Chapter  
California Native Plant Society

February 2007

## CHAPTER EVENTS

**Chapter Meeting: Tuesday, February 20, 7:00 p.m.**

***“Pollen Mules – How Plants Harness Animals for Pollen Transport”***

**Speaker: Hannah Nadel, PhD., Agricultural Entomologist**

Why are some flowers white with sweet nocturnal fragrance? Why are others bowl-shaped or stinky? Yikes, is this a bug trap? This presentation will be an introduction to the major types of floral displays, and the enticements and rewards plants use to employ chosen partners as pollen carriers. Examples will be drawn from local and foreign species, and will include many slides of insects and flowers.

The main aim of the presentation is to illustrate the relationships between flower types and their visitors, but ultimately the goal is to raise awareness of the importance of conserving both groups to sustain healthy environments.

Hannah Nadel is an agricultural entomologist with an interest in botany and pollination ecology. After receiving a Ph.D. from UC Riverside, she worked in a variety of entomological fields, including biological control, behavioral ecology, and agricultural biodiversity. Her interest in pollination began in the subtropics of Florida, where she documented the pollination ecology of commercially grown custard apples (Annonaceae) and delved into

the pollinators and other organisms associated with reproduction of native and exotic figs.

More recent activities in eastern Africa included documenting important nectar sources for African honeybees and volunteering on a dry-land pollination project. She rarely leaves home without a camera. Hannah currently works on the behavioral ecology of the glassy-winged sharpshooter at the USDA-ARS station in Parlier.

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

**Board Meeting** starts at 6 p.m. All members are welcome to listen in on board meetings.

### Future Meeting Programs

March 20 Toni Munoz, Kings River Conservation District  
May 15 “Point Lobos Flora” with Rosemary Donlon.

### China Creek Workday

*By Warren Shaw*

At our last work morning (Saturday, January 20) we found the park quiet and serene, with most weeds dead or dormant and with little evidence of use. We focused mainly on observation and planning, and picked up what little trash we could find.

Since then preparations have been made for spring grazing: fences repaired, thistles mowed, and plans made for a new area, of about ten acres, in the northwest corner of the park, to be opened for grazing.

We continue to stockpile tree-trimming chips from Provco, to spread on the trail, to avoid having to use mechanical or chemical means to maintain it. We're still hoping to get help with this process - a big job.



Representing the chapter and the park, President Peggy Jones and I attended the public meeting on the proposed expansion of gravel mining by Vulcan Materials, adjacent to the park. We submitted written comments which included a) recognizing the project seems well planned to avoid direct threats to the park and b) expressing serious concerns about the cumulative effects of this and several other projects in the area in terms of increased truck traffic and the resultant increased risk of accidents, and probable degradation of air quality.

The February work morning is planned for Sat., Feb. 24, from 9 - noon. We'll be checking fences for any remaining needs, cleaning up, dealing

with early-sprouting weeds, and maintaining the trail. There should be no bugs and lots of birds. If you need help finding the park (or finding us), call 281-8080. Hope to see you there.

### 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. Contact Jane Pritchard at 559/323-8253 or xxiii\_xx@yahoo.com for meeting location.

## PRESIDENT'S MESSAGE



The evidence of January's freeze is abundant. Everywhere you look there's a fried Lily of the Nile or Bird of Paradise. Even the frost hardy annuals succumbed to the near record-breaking lows. However, my yard looks great! Why? Natives!

I always have been a sucker for flowers. For years, I poured gallons of water on our sandy ranch soil to grow zinnias, dahlias and cosmos. Cringing at the sound of the pump running I would justify it by the thought the water would return to the aquifer quickly since our soil was so porous. I knew better. We installed drip irrigation and I was able to grow more varieties but still I'd hear that old blue pump humming. My first native was a Redbud cutting given to me by Sue Thorne. I planted it by a shed in soil that looked like Pismo Beach sand and it received glaring hot sun all day. That Redbud grew like a champ! We loved the unique blooms and I had an endless source of palmate leaves for my lab classes.

We sold the farm and moved to Kingsburg a few years ago and started slowly converting to water conserving landscaping. Last January, with the help of Intermountain Nursery, I selected a variety of buckwheat, penstemon, and sage for my front yard. I was pleased with the selection of varying types of foliage and blooms. They withstood record-breaking heat and drought conditions this summer while blooming intensely! I was pleased and a little surprised. But not as surprised as I would be this winter when their leaves were drooping with the weight of the frost. Some plants even had icicles! They not only survived but also thrived. I have penstemons that are pushing buds, ready to pop! I've gardened over 40 years...give me a native any day! Welcome the beginning of spring and enjoy your natives, whether they're in your yard or in the wild!

- Peggy Jones

## The Mycorrhizal Connection for Life

By David H. Adams

Excerpted from the San Diego CNPS Chapter Newsletter, February 2001

**What on earth are fungi good for? It seems we can't live with them (plant and animal diseases, allergies, etc.) and certainly, we can't live without them. Let me explain.**

Mycorrhizae are a small group of fungi that, without most people knowing it, are very dear to us. For if we were to somehow magically eliminate this group with a wave of a wand, we would soon see all our pines and oaks dying, as well as most other higher plant life the world over.

The name mycorrhizae means fungus roots. Only a mere handful of the more than 100,000 species of fungi can serve as mycorrhizae. They are definitely some of the "good guys" of the fungus world. The fungus-root relationship is an old one, in which both the plants and fungi have evolved to become dependent upon each other. The fossil record tells us that plants became mycorrhizal soon after they left the seas, some 350 million years ago.

Plant roots are unable by themselves to take up sufficient minerals and water from the soil; mycorrhizae fulfill that role. Plants on the other hand keep their mycorrhizal fungi supplied with carbohydrates manufactured in their leaves. Together, the plant and fungus have a "mutualistic" relationship, one in which each contributes to the well-being of the other for their mutual benefit.

By now it should be quite clear that mycorrhizae are important, indeed vital for tree health. But with the domestication of coast live oaks around homes, soil compaction and over-watering become significant killers of these fragile fungi. For continued health of the forest, it is extremely important that the unseen mycorrhizal connection be respected for the role it plays in tree health and be protected, as much as possible, from disturbance.

(David Adams is a forest pathologist with the California Department of Forestry and Fire Protection in Davis.)

## Home & Garden Show

Friday - Sunday, March 2-4.

The Sequoia Chapter has a booth every year at this event. It is great outreach to spread the word about California's native plants and the goals of the Native Plant Society. We need volunteers to help at the booth in two-hour shifts. You don't have to be an expert! If you appreciate California native plants and have a ready smile, please sign up for a shift or two.

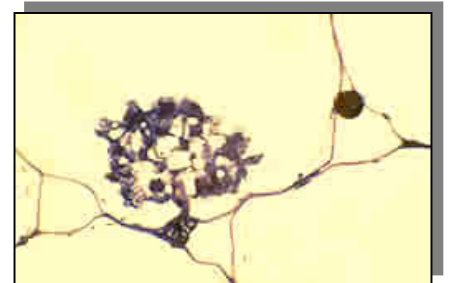
Sign up sheets will be available at the January and February meetings. We can answer any questions about participation in this event. Or contact Marian Orvis (226-0415 or mforvet@earthlink.net) to volunteer. Get free admission to the entire Home and Garden Show. Not too shabby for a couple of hours of your time!

## January 2007 Chapter Meeting

If you're familiar with the name John Stebbins you may have already associated him with Keck's Checkermallow (aka Keck's Checkerbloom and botanically known as *Sidalcea keckii*). At the January meeting we learned about the events surrounding his finding of this annual flower, previously thought extinct.

John explained that the last documented presence of Keck's Checkerbloom was in 1940 in the Southern San Joaquin River. By 1993 The Jepson Manual said it was extinct. This was the same year that John was poking around Tulare County and later in Piedra near the fire station. Eventually this led him to Tivy Valley; its Keck's Checkerbloom populations are the only documented populations in the world.

Happily the area is now owned and maintained by the Sierra Foothill Conservancy. The flower blooms in late April/early May and the Conservancy holds hikes during that time, when you can very likely see this precious herb. It's worth the walk! (See the Sierra Foothill Conservancy's hike and class schedule.)



## OBSERVATIONS

Just prior to the rains the end of the week of February 4, and despite the drought, the foothills around Watts Valley showed signs of spring. Buckeyes are starting to leaf out, and blue dicks are up, as are filaree, fiddleneck, bedstraw and many other early risers. With the recent rain (and a little more) we may yet have a good spring bloom.

Like Peggy Jones (see President's letter), Madeleine Mitchell didn't find any damage from the freeze in the native garden. If anything, "...hopefully the barnacle scale that troubles my Coffeeberry may have been killed. I see the Redbud and the *Lupinus albifrons* beginning to swell for their February blooms. I can't say the same about my succulent beds. They are very wilted. I still wouldn't prune anything yet, other than roses. My California Wild Rose has put out more plants nearby."

Most everyone with California natives in their gardens has a similar response - the plants that are native to more coastal areas had a little more freeze damage than those that are native to our immediate area. But even the "sensitive" natives did okay. Jeanne Larson's Maidenhair Ferns were badly burned but they need to be cut back every so often anyway, so it's not bad timing. They've already started showing some new fronds. Her Yellow-eyed Grass got some tip burn but the Blue-eyed Grass seems to have liked the cold.

Deergrass that was exposed to the open cold was taken aback, but needlegrasses and Blue Wild Rye seemed to have ignored the cold and just kept right on a-growin'. One particular Foothill Needlegrass has already decided to bloom!

Other plants didn't even flinch in the cold - such reliables as Cleveland Sage, White Sage, Artemisia, Toyon, Buckwheat, Coffeeberry, Apricot Mallow, and Manzanita. What's a little cold weather to a native? Of course, these are the very same plants that will tolerate our increasingly hot, dry summers, too. Quite impressive.

And now that the temperatures are returning, the native plants know this as their sign to begin spring growth. Winter dormant plants are bursting with life. California Wild Rose, California Fuchsia, and Blue Elderberry are all coming out of dormancy. Yes, the weeds, too. But among the exotic grasses are Red Maids and in cool shady areas *Mines* is growing so fast you can almost hear it.



By the time you read this, perhaps the Desert Willow and Western Redbud will again emerge. I'll miss their beautiful winter silhouettes but they'll be back!

-- Editor

## HORTICULTURE

### Gardening During Drought

By Joseph Oldham

As I set about writing this article, it is raining outside and an article about gardening during drought may seem to be an odd topic. However, in spite of the recent rain, California is way behind normal for precipitation this year and drought conditions are likely.

For those of us that garden with California native plants, drought conditions do not present a great challenge. Most of the plants we use in our gardens are adapted to drought conditions and survive with little to no added attention. In fact, the greatest threat to our native gardens during drought is our own perceptions that we need to "do something to help" our natives during these drought periods. If we have done our homework and planted the right plants for our local environments, our natives can survive drought very nicely without our "help".

However, for those of us who have planted natives from other California regions that have higher annual rainfall averages than our local averages, the following suggestions may be helpful.

1. Mulch around your plants now to help retain soil moisture, and prevent weeds from germinating. Build up at least 3 inches of high quality mulch around the drip line of your plants, being careful not to pile the mulch up next to the trunk or crown of the plant.
2. Check your yard drainage and see where you can capture run-off. Building "rain gardens" this time of year is a good way to improve the soil moisture levels in your yard by capturing the thousands of gallons of water that come off a typical roof during a storm. A note of caution about capturing run-off is to make sure that your "rain gardens" do not allow water to pool next to your home's foundation and that they never create a flooding situation on your property.
3. Control annual non-native grasses and weeds. These non-native plants take up precious moisture from the soil that can over-stress the native plants around them. In addition, they pose a severe fire hazard during the summer even if you live in a suburban environment. Control them this time of year as they begin to germinate for best results. For those of us that have native oaks on our property, non-native weed and grass control under our oaks is essential to their long-term health.
4. Check your irrigation system to make sure that is the most efficient at applying water to your plants. If you have drip emitters, make sure that they are properly spaced around your plant's drip zone so that the precious water actually goes to growing root areas of your plant.
5. Invest in a soil moisture meter so that you can accurately check the soil moisture levels around your plants during the summer. Moisture meters are relatively inexpensive, and the information they provide can help you set your irrigation timer or schedule to provide water only when it is needed.

Finally, remember that most California native plants are well adapted to drought conditions and that periods of drought have been normal in California for thousands of years. What is different today is that for the last 100 years humans have been modifying their local ecosystems by planting forests where grasslands once were and trying to grow tropical rainforests in deserts. These unsustainable practices have critically strained California's water resources and, as the climate becomes drier over time due to shifts in weather patterns caused by human activities, drought conditions will have a greater impact on our diminishing water resources.

New dams, canals, and other "engineering solutions" that humans have used in the past will be useless if there is no precipitation to fill them. The only true long-term solution is to embrace our California climate and learn to live with its limits. Gardening with California native plants is one way to do that.

Happy planting!

# RELATED PLANT AND FIELD TRIP ACTIVITIES

## Sierra Foothill Conservancy

### Table Mountain Open House.

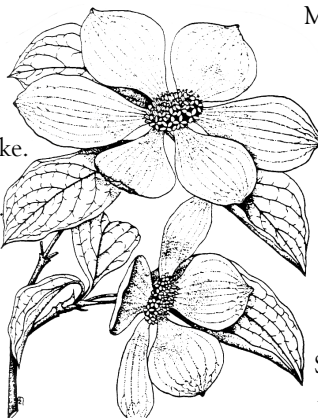
Saturday, March 17 from 9 a.m. to 5 p.m. Walk the Discovery Trail using a trail guide or hike to the table top for a magnificent view and spectacular wildflowers. Bring a picnic if you like. A wildflower class will begin at 9 am.

**Hikes.** Hikes are free and begin at 9:00 a.m. Call Jeanette at 877-2362 or 855-3473 to sign up and for meeting points and weather cancellations. Led by experienced volunteers. Bring lunch & water, hiking boots.

Saturday February 17	<b>Table Mountain Archeological Site.</b> Easy.
Sunday February 18	<b>Table Mountain Loop Trail.</b> Very strenuous.
Saturday February 24	<b>Table Mountain Discovery Trail.</b> Easy.
Saturday March 3	<b>Table Mountain Loop Trail.</b> Very strenuous.
Sunday March 4	<b>Black Mountain Summit.</b> Easy.
Saturday March 10	<b>Table Mountain Table Top.</b> Moderate.
Sunday March 11	<b>Table Mountain Discovery Trail.</b> Easy.
Sunday March 18	<b>Table Mountain Smith Basin.</b> Very strenuous.
Saturday March 24	<b>Table Mountain Wildflower Hike.</b> Easy.

**Classes.** Classes require early reservations (\$10/person, \$20/family). Space is limited. Bring lunch and water for daytime classes. Visit [www.sierrafoothill.org](http://www.sierrafoothill.org) for more information, registration, and changes/additions or call 877-2362 or 855-3473.

Saturday March 3	<b>Mushrooms of the Sierra Foothills.</b> With local mushroom expert Russell Kokx. 9 a.m. to 3 p.m.
Saturday March 10	<b>Photography on the McKenzie Preserve.</b> With local photographer Tom Tidymen. Bring your camera, tripod, film/digital memory, lunch. 9 a.m. to 3 p.m.
Saturday March 17	<b>Wildflowers of the McKenzie Preserve.</b> With John Stebbins, botanist & wildflower authority. Be prepared for a strenuous 6 mile round trip hike. 9 a.m. to 3 p.m.
Saturday March 4	<b>Wildflowers of the Mariposa Area.</b> With foothill botanist Wendy Fisher 9 a.m. to 3 p.m.



*Cornus nuttallii* (Dogwood)

## Clovis Botanical Garden Work Days

Saturdays, March 3, April 14, May 12

Please join us for a Garden Work day anytime between 9 a.m. – noon Saturdays, March 3, April 14, and May 12, even if you can only come for an hour or two. If you have garden gloves or a hula hoe, bring them (be sure to put your name on them). We will be doing winter garden cleanup.

Help us get the Garden ready for spring! If you have students or classmates interested in volunteering, or just have questions, contact Georgia Porcella at [georgiap@csufresno.edu](mailto:georgiap@csufresno.edu). Looking forward to a productive day at the Garden! RSVPs appreciated.

## 7th Annual Teach the River

Do you want to learn more about the natural world of the Central Valley, where our water comes from, the name of that bird in your backyard, where to find spectacular wildflowers or where to take a hike? Teach the River is now open to the general public and is for you if you want to learn and discover the wonders where you live. A wide variety of seminars, field trips and other special events are offered from January through June, all in the greater Fresno area.

Visit [www.teachtheriver.org](http://www.teachtheriver.org) for a calendar of activities and to register (academic credit available)!!!

Upcoming opportunities: Eagle Canoe Tours, Weekend Nature Walks, River Workdays, Wetlands tour in Los Banos, Junior Duck Stamp Contest (for kids).

## Jepson Herbarium Public Programs

Workshops are taught by recognized authorities in their fields. Most workshops are designed to accommodate beginners as well as professionals. For a full schedule, descriptions, and registration, visit <http://ucjeps.berkeley.edu/jepwkshp.html>.

Saturday February 24-25	Peatmosses (Sphagnum) (Jonathan Shaw).
Sunday February 18	Bryoinventory at Angelo Coast Range Reserve (Jim Shevock)
Saturday March 10	TOL – The Vertebrate Branch of the Tree of Life (M. Brandley)
Saturday March 17	Introduction to Morphology and Identification of Flowering Plants (Linda Ann Vorobik)
Sunday March 24	Basics of Botanical Illustration (Linda Ann Vorobik)
April 5-8	<b>Eastern San Diego and Imperial County (Jon Rebman).</b>
April 12-15	Lichens of the Mojave National Preserve (Larry St. Clair)
April 14-15	Introduction to Field Collecting Techniques (Abby Moore & Mike Park)
April 20-22	Chorizanthe at Sedgewick Reserve (Jim Reveal)
Saturday April 28	Using Electronic Keys for Botanical Identification ((8am – 12pm) (Tom Rosatti and Chris Meacham)

## MEMBERSHIP

January 2007

### \*New Members and Membership Renewals

The Sequoia chapter serves the Fresno, Madera, and Kings counties.

**Fresno:** Cameron, Kern, Linder & Rempel, McCormick, Phillips, \*Rubenstein & Sherriffs, Wingfield  
**Madera:** \*Tui-Teli  
**Out of Area:** Cowgill (La Jolla), Meyer (Davis)

Thanks to all for your continuing support. Send membership corrections to Helen Shaw at [helshaw@netptc.net](mailto:helshaw@netptc.net).

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

## NEWSLETTER



Send newsletter corrections or suggestions to Thelma Valdez at [nmtv@att.net](mailto:nmtv@att.net). The deadline for contributions to the March newsletter is Thursday, March 8, 2007.

*A new scientific truth does not triumph by convincing its opponents and making them see the light, but rather because its opponents eventually die, and a new generation grows up that is familiar with it.*

*-Max Planck*

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

## SEQUOIA CHAPTER OFFICERS\* AND COMMITTEE CHAIRS

*President	Peggy Jones 1931 Winter Street Kingsburg, CA 93631	559/897-9646 (h) autumn_aspen@ hotmail.com
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Plant Sale	Marian Orvis	(see Secretary)
Conservation Co-chairs	Jeanne Larson Joseph Oldham	(see Treasurer) (see Horticulture)
Directors at Large	Jim Seay Verna Arnest	jaseay@comcast.net vernaj@sti.net



## JOIN THE CALIFORNIA NATIVE PLANT SOCIETY RENEW

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*.

I wish to affiliate with the Sequoia Chapter.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

City: \_\_\_\_\_

State: \_\_\_\_\_ Zip: \_\_\_\_\_

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

- New Member       Renewing Member

- Student, Limited Income ..... \$25
- Individual ..... \$45
- Family, Group, or Library ..... \$75
- Plant Lover ..... \$100
- Patron ..... \$300
- Benefactor ..... \$600
- Mariposa Lily ..... \$1500

**California Native Plant Society**  
2707 K Street, Suite 1  
Sacramento, CA 95816-5113

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.

# CARPENTERIA

February 2007



CALIFORNIA NATIVE  
PLANT SOCIETY  
SEQUOIA CHAPTER

c/o Jeanne Larson • 3457 Redlands • Fresno, CA 93726



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](http://www.cnps.org).

## FEATURED PLANT

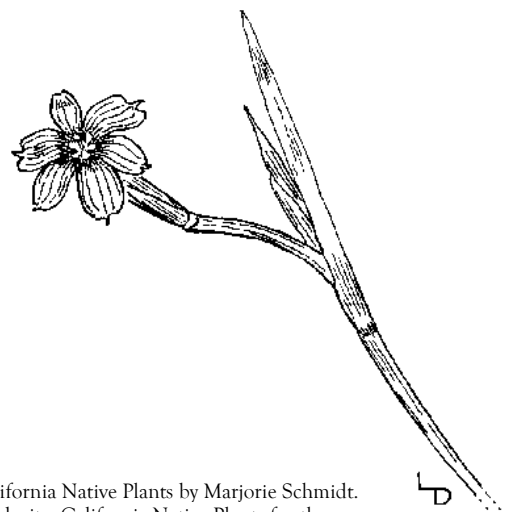
### Blue Eyed Grass

*Sisyrinchium bellum* is a beautiful perennial with narrow iris-like leaves and 1" blue-violet flowers with yellow centers that can bloom anywhere from February to June. It grows natively below elevations of 2500 feet and is in the iris family even though its common name refers to a grass.

It's great in the Valley garden because it prefers full sun, tolerates garden water, and will grow in sand or clay. It typically doesn't get cold enough (even considering our recent cold snap) to make it go winter dormant. It's not unusual for it to go summer dormant if temperatures are very high. You'll welcome it back in late winter as it returns and joins other wildflowers.

It reaches a maximum of 12" in height and spreads its seeds readily. If you combine it with California Poppy

or Blue Flax you can have a beautiful spring and summer blooming area.



Sources: Growing California Native Plants by Marjorie Schmidt.  
Las Pilitas Nursery Web site, California Native Plants for the  
Garden by Bornstein, Fross, & O'Brien. Drawing by Lee Dittman.