

# THE PAINTBRUSH

May-August 2008

San Gabriel Mountains Chapter — <http://www.cnps-sgm.org>  
of the  
California Native Plant Society — <http://www.cnps.org>

## CALENDAR

Everyone—member or nonmember—  
is welcome at all chapter events.

Event details are on page 7

### MAY

Thu., May 1, 7:30 p.m., Chapter Bd. Mtg.  
Sat., May 3, 10:00 a.m., Chilao Plant Walk  
Sun., May 11, 9:00 a.m., Eaton Cyn Plant Walk  
Thu., May 22, Socialize 7:00, Meeting 7:30 p.m.  
Program Meeting: *Caring for Oaks*

### JUNE

Sat., Jun. 7, 10:00 a.m., Chilao Plant Walk  
Sun., Jun. 8, 7:30 a.m., Rancho Santa Ana  
Botanic Garden — Lecture and Field Trip  
*Plant Life of the San Gabriel Mountains*  
Sun., Jun. 8, 9:00 a.m., Eaton Cyn Plant Walk  
Thu., Jun. 26, Socialize 7:00, Meeting 7:30 p.m.  
Program Meeting: *Plant ID Workshop*

### JULY

Sat., Jul. 5, 10:00 a.m., Chilao Plant Walk

### AUGUST

Sat., Aug. 2, 10:00 a.m., Chilao Plant Walk

### SEPTEMBER

Thu., Sep. 4, 7:30 p.m., Chapter Bd. Mtg.  
Sat., Sep. 6, 10:00 a.m., Chilao Plant Walk  
Sun., Sep. 14, 9:00 a.m., Eaton Cyn Plant Walk  
Thu., Sep. 25, Socialize 7:00, Meeting 7:30 p.m.  
Program Meeting: *To be determined.*



Desert Night Lizard (*Xantusia vigilis*) found  
under a Joshua Tree branch,

## ANTELOPE VALLEY WILDFLOWERS – TRIP REPORT

By Mickey Long, Photos by Gabi McLean

Sunday, April 6, 2008 a group of about 14 CNPS members and others carpoled from Eaton Canyon or met directly at our first stop, Alpine Butte Wildlife Sanctuary, about 10 miles east of Palmdale. The rains this year were good enough here to stimulate some moderate carpets of flowers and a nice diversity of species. We gathered up our group about 9:15 a.m., handed out plant and bird lists covering all the County Wildflower Sanctuaries and ambled out into the gentle, sandy terrain south of the rocky buttes to examine and photograph flowers.

The leader and staff from the County Nature Centers have been studying the sanctuaries each spring (and occasionally other seasons) for over 30 years and have compiled a plant list of some 145 species in this part of the desert. We discussed the family breakdown; and leading the way, with no surprise, is the Sunflower family (*Asteraceae*) with 34 species, followed by Mustards (*Brassicaceae*) at 12 species, and Buckwheat relatives (*Polygonaceae*) and grasses (*Poaceae*) represented by 10 and 9 species respectively. These lists will grow in spite of the years of coverage.

A stop was made inside the bare center of a large creosote bush (*Larrea tridentata*) ring to discuss the discovery of how these puzzling rings form, as a single shrub grows outward and the center dies back. Careful measurements showed this growth takes place at an average of 0.7 mm per year; and along with radiocarbon dating of dead wood at the ring's center, it was calculated that the largest of these rings of DNA-identical (clone) shrubs is likely up to 11,700 years old! Along with study of ancient Woodrat (*Neotoma*) nests (middens) and the plant materials they preserve, this yields the amazing conclusion that the deserts themselves and some of the individual creosote shrubs date to the end of the last ice age.

We were able to examine and photograph a 3-inch long desert night lizard (*Xantusia vigilis*) found under a Joshua Tree branch, where it hunts termites, ants and other arthropods.

From Alpine Butte we traveled on via Lake Los Angeles (soft drink and restroom stop) to Jackrabbit Flat Sanctuary along Avenue T, to the southwest.



Field Trippers at Jackrabbit Flat Sanctuary (along Avenue T)

**QUESTIONS?  
ASK A BOARD MEMBER**

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Flowers here were at least as showy and we added more species to our list for the day, including small patches of owl's clover (*Castilleja exserta*), *Gilia sinuata*, and evening snow (*Linanthus dichotomus*), while Jonathan Numer, staff from Devil's Punchbowl, showed us fascinating honey ant colonies.

We wrapped up the afternoon at Blalock Sanctuary, off Valyermo Road, which was least flowery of our stops, but which is closer to the north alluvial fan of the San Gabriel Mountains. While still creosote scrub-Joshua tree habitat, this site supports foothill shrubs like antelope bush (*Purshia tridentata*), Whipple yucca (*Hesperoyucca whipplei*), Acton encelia (*Encelia actoni*), and interesting, rock-loving, purple-pink Mojave aster (*Xylorhiza tortifolia*).

Altogether for the day, the leader's tally recorded 48 species of wildflowers and grasses seen and 15 species of shrubs. Clear, sunny weather, pleasant early spring temperatures, clean, gusty afternoon winds, and a compatible crowd made for an enjoyable day.



Owl's Clover (*Castilleja exserta*)



Wallace's Woolly Daisy or Wallace Eriophyllum (*Eriophyllum wallacei*)

One of many species of the sunflower family

Note: You can see the photos in this issue in color on the internet by visiting our website at <http://cnps-sgm.org/newsletters.html>



Close-up of Mojave Monardella, (*Monardella exilis*) in bud



Mojave Aster (*Xylorhiza tortifolia*)



Wood Rat's view of Scale Bud (*Anisocoma acaulis*)

# HISTORICAL WETLANDS OF THE SAN GABRIEL RIVER

*Dr. Shawna Dark spoke to us on April 24*

Southern California is undergoing a wetland renaissance. Vast resources are being devoted to watershed management, resource protection, and wetland restoration. Historical wetland losses are often cited as a motivation for prioritizing ambitious wetland restoration and management activities. However, analysis of historical conditions is often underutilized in the planning process. Historical ecology can be a valuable tool to help understand the mechanisms of past decline, provide templates for future restoration, and provide context for making decisions about allocation of scarce resources.

Using numerous data sources, our project set out to identify the historical wetlands of the San Gabriel River in an attempt to provide an historical backdrop for contemporary restoration plans. Our primary data sources included Mexican land grant sketches (diseños) and US General Land Office maps from the 1850's, irrigation maps from the 1880's, topographic maps and soil surveys from the early 1900's, and aerial photographs from the 1920's. Secondary data sources included oral histories, essays, ground photographs, and field notes.

Data sources were digitized, georeferenced and overlaid in GIS to produce historical wetland polygons. Polygons were attributed for data sources classified using the US Fish and Wildlife Service National Wetlands Inventory. Detailed historical wetland habitat maps of the San Gabriel River were created and compared to contemporary maps.

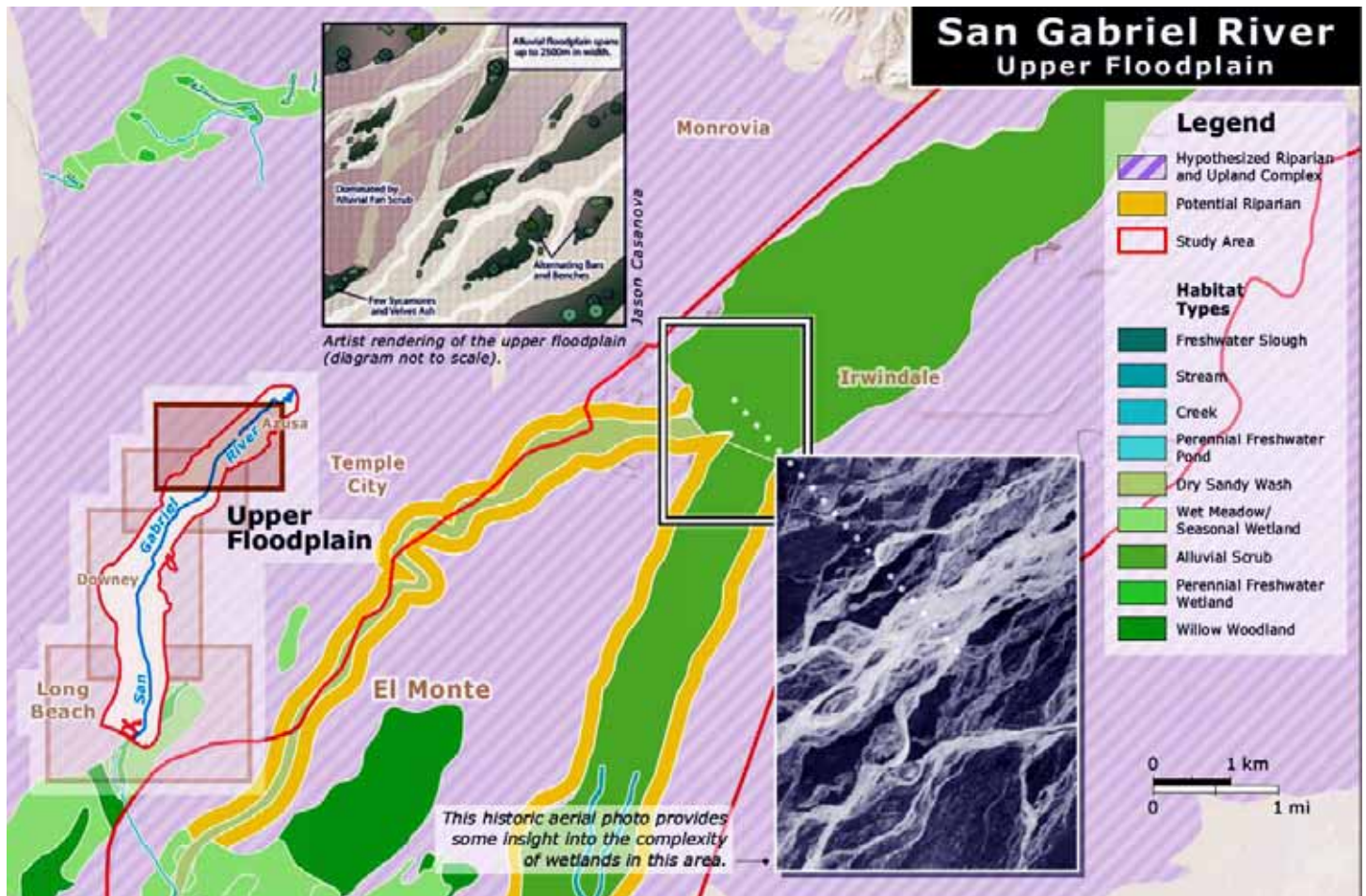
Development of the San Gabriel River watershed has resulted in extensive wetland losses. Palustrine wetlands have

been particularly impacted, with most of the perennial and intermittent ponds and marshes no longer being present. Of particular note is the loss of the vast alkali meadows, which were once the most common wetlands in the lower watershed, but are now totally absent from the landscape. Channelization and other flood control measures have resulted in conversion of the meandering and braided channel systems to linear flood control conduits. Similarly, the complex of seasonal floodplain wetlands has been almost entirely lost.

Despite the dramatic wetland losses, several opportunities exist for wetland restoration. Remnant wetlands and/or wetland signatures exist at locations such as Whittier Narrows, along the base of the foothills of the San Gabriel Mountains, in the upper floodplain, and at several locations in the Long Beach area. Knowledge of the landscape position and wetland types that previously existed can help guide decisions regarding future restoration of these areas. Furthermore, the reconstructed plant community compositions generated by this study can provide templates for restoration planning. However, caution must be taken in using historical information. Restoration of wetland plant communities to their former historical configuration may not be possible for several reasons, including irreversible alteration of hydrology or soils. Thus, historical analysis must be used to inform, but not replace the tools commonly used in watershed restoration science.

The 125 page report, "Historical Ecology and Landscape Change in the San Gabriel River and Floodplain," is available at <http://www.greenvisionsplan.net/html/publications.html>.

Dr. Shawna Dark is Assistant Professor in the Department of Geography at California State University, Northridge.



Historical Wetlands of the San Gabriel River upper floodplain area.

## THE PLANT YEAR AT CHILAO: MARCH

By Jane Strong, April 2008

Color is provided by last year's twigs of Arroyo Willow, a dull golden yellow, and a single Wallflower, also golden yellow, but bright, not grayed.

The creek is flowing, clear and brown. Why brown? The water is clear, but the memory is brown. Is it because it runs over decaying brown leaves and stems? It hasn't had water in it since October 2006.

Small leaves sprout nearby ... green Willow Dock with red ribs, gray aromatic leaves of Mugwort, gray sculptured leaves of Rock Buckwheat, gray leaves in two forms of Great Basin Sage, deeply cut green leaves of Horkelia.

In the meadow, scattered dark green stalks of Baltic Rush curl. Clumps of last year's Deergrass remain beige.

On the surrounding rocky slopes grow green tufts of Pine Bluegrass, tiny striped leaves of Pine Green-gentian, dark purple-red of Paintbrush, prickly but soft gray leaflets of Lupine (*L. concinnus*), Rock Cress with "yellow flowers".

I've seen these "yellow flowers" on Rock Cress (*Arabis sparsiflora*) before. They are particularly prevalent in San Antonio Canyon in early spring. It is a rust mocking a flower to induce insects to spread the spores.

The rust fungus in the *Puccinia monoica* complex infects the plant and tricks it into producing a pseudoflower fashioned of leaves. It looks similar to a bright yellow Paintbrush.

When an insect visits the fake flower, it picks up the spores and carries them to other fake flowers, where the rust's reproductive process begins.

Some scientists describe these flower-mimicking fungi as the most extreme botanical manipulators yet discovered!



Western Wallflower  
(*Erysimum capitatum*)  
© Gabi McLean



Rock (Hoary) Buckwheat  
(*Eriogonum saxatile*)  
© Christopher Christie



Horkelia  
(*Horkelia rydbergii*)  
© Gabi McLean



Rock Cress (*Arabis sparsiflora*)  
© Gabi McLean



Lupine (*Lupinus concinnus*)  
© Gary A. Monroe, Mojave Desert Preserve. April 19, 2003

# BAXTER LAKES TRAIL

## High Sierras, California

for Pam and Dodie

Poem and Photos by Marcyn Del Clements, August 21, 2001

Following both of you, up a faint track,  
I mark the cairns you placed minutes ago,  
up a mostly vertical ascent.

Mountain Pennyroyal crushed underfoot, pungent as tea.  
Dead branches of Whitebark Pines, barkless,  
weather-grooved, golden in the sun.

And now the meadow: Ranger's Buttons, Indian  
Paintbrush,  
Lodgepole Pine – as the last of the carbo-loaded Clif Shot  
surges into my quads – Sierra Draba, Meadow Paintbrush,  
higher up: Hiker's Gentian, Shooting Stars,  
and higher still: Alpine Gentian, Foxtail Pine, Dwarf Willow.

But now hypoxia-induced, the list begins to skew, forms  
that never grow here appear along the trail...  
Redwood stands against the sky,

Dogwood and Rhododendron, Saguaro and Joshua Tree,  
Banksia, Waratah, Baobab, Edelweiss, Bird of Paradise....

Are we there yet?



Hiker's Gentian  
(*Gentianopsis simplex*)



Jeffrey Shooting Star  
(*Dodecatheon jeffreyi*)



Mountain Pennyroyal  
(*Monardella odoratissima*)



Rest stop at the treeline along the trail to Baxter Lakes



Ranger's Buttons  
(*Sphenosciadium capitellatum*)



Dwarf Willow dehiscing (*Salix spp.*)

## NATIVE PLANT GARDENING CORNER

By Barbara Eisenstein, Horticulture Outreach Coordinator, RSABG

As Horticulture Outreach Coordinator at Rancho Santa Ana Botanic Garden, I receive many interesting questions about garden care for California native plants. In this continuing series I share a few of these questions and answers with you. If you have a question of your own, please email at [rsabg.hortinfo@cgu.edu](mailto:rsabg.hortinfo@cgu.edu) or phone me at 909-624-0838.

Q: *When planting a native tree, what is the best size pot or box to use?*

A: Whether you are planting a native or non-native tree, it is best to transplant from a relatively small-sized container. There are several reasons for this. First of all, the longer a plant is in a container, the more time there has been for it to be abused. Container plants require careful irrigation – they can dry out quickly or remain too moist while in pots. Their growth and general health can be badly impacted, even though they may not exhibit stress at the time of purchase.

A common nursery practice for larger trees is to “lolly-pop” and stake the young saplings so they have a tree-like form. This removal of low-growing, juvenile branches and staking of the single stem diminishes the development of a flared, healthy caliper at the base (or crown) of the tree. Trees without this flare are more likely to become uprooted.

Some larger plants have been held in small containers for too long before being potted up. This can result in the roots wrapping around the pot. Again, the container plant may look fine, but as the plant grows, the twisted structure of its roots can result in death (see picture). This problem can be detected by a careful evaluation of the root ball at the time of planting.

Larger specimens are also more difficult to transplant. You have to dig a larger hole and carefully decant the specimen and place it in the hole. Soil around the plant must be compressed enough to eliminate large air pockets near the roots, yet not compacted so much that the roots are deprived of water and air. Proper planting is more difficult for larger specimens.

And finally, smaller pots are much less expensive than large boxes. Small trees become established more quickly than trees in larger pots or boxes, so not only is it more economical to start with a smaller size, it takes only a bit more patience and understanding.

So what size is the right size? If we are talking about an oak tree, acorn-size is probably the very best – with a few caveats. The first few years are slow– with little to show. Most people are not quite this patient, and prefer to have visible evidence of their magnificent, future shade tree. Second, acorn sprouts are especially tasty to squirrels and other critters, so without protection, many will disappear. Third, in many locations a small, young sapling may be vulnerable to vandalism or inadvertent damage.

In my yard, I have planted trees, ranging in size from one gallon pots to 24-inch boxes. I have had the most success with 15-gallon and smaller. About five years ago I planted seven 24-inch box trees along a fence. We hired an arborist to plant these trees because the 24-inch boxes were too large for us to manage. Two trees failed during the first year after the transplant. The soil was not compressed well around the trees, which became apparent when we observed gaping holes near the roots. This was corrected, but surely there was root damage during those first weeks, a probable cause of their failure. Last week I removed a third tree from the group. It was much smaller than all the others. Upon examination, the twisted roots (shown in picture) explained why this tree would never develop into a strong, healthy plant.

As a counter example, we planted three 15-gallon oaks in a nearby location. The low-growing juvenile branches were intact on these young plants, unlike the 24-inch boxed trees mentioned above. We were able to easily manage transplanting these smaller specimens, and all are doing very well. They are a different species from the 24-inch box trees, so further comparison is not possible, but I have no doubt that these will grow into healthy, strong adult oak trees.

Q: *Can you give some other tips for successfully planting new trees?*

A: Remember to plant your trees in the late fall to winter, giving them the maximum amount of time to grow new roots before the hot, dry summer arrives. You will need to provide year-round irrigation for new trees through the first few years. Remove nursery stakes when planting. If the tree needs staking for protection, loosely stake as described on the International Society of Arboriculture website ([http://www.treesaregood.org/treecare/tree\\_planting.aspx](http://www.treesaregood.org/treecare/tree_planting.aspx)). Allow the tree to sway so it will develop a strong flare and caliper (as described above). A tree is an investment in the future. Choose carefully, and learn how to plant and care for your developing tree.



A tree with poor root structure due to insufficient room while in a container that resulted in stunted growth.

© Barbara Eisenstein, April 2008

## PROGRAM MEETINGS

- **Thursday, May 22, 7:00/7:30 p.m.**  
*Caring for Oaks*, by Rebecca Latta  
Rebecca Latta is Senior Arborist for SWCA Environmental Consultants in South Pasadena.
- **Thursday, Jun. 26, 7:00/7:30 p.m.**  
*Plant Identification Workshop*
- **Thursday, Sep. 25, 7:00/7:30 p.m.**  
*Speaker and Subject to be determined*

Join us at the Eaton Canyon Nature Center. We have social time and informal plant identification from 7:00 to 7:30 p.m. Our programs start promptly at 7:30 p.m.

## Plant Life Of The San Gabriel Mountains

### Natural History Lecture and Field Trip

Rancho Santa Ana Botanic Garden

1500 N. College Ave., Claremont, CA 91711

Get away from urban LA for a great day of botanizing. Transportation is provided and plant lists are available.

- **Sunday, June 8, 7:30 a.m.**  
Duration: 8 Hours 30 Minutes  
Cost \$70 (\$84 nonmember), Limit: 10 participants  
Contact: Cotton Coslett, Registrar  
Phone: 909-625-8767 ext. 224  
Email: ccoslett@rsabg.org

The San Gabriel Mountains have narrow, tortuous canyons and rugged peaks. A wide range of elevations, precipitation, and microclimates results in a fascinating diversity of habitat types. Coastal slopes support sage scrub, riparian woodland, southern oak woodland, and chaparral.

Desert slopes support coniferous forest, woodlands, and desert transitional chaparral. Over twenty rare plants are known, including a rare Paintbrush (*Castilleja gleasonii*) found blooming in May and June, the rare Lemon Lily (*Lilium parryi*) of seeps and creeks, and the Shaggy-haired Alumroot (*Heuchera hirsutissima*) found on the north slopes along rocky canyon draws.

## CHAPTER BOARD MEETINGS

- Thursday, May 1, 7:30 p.m.
  - Thursday, Sep. 4, 7:30 p.m.
- We meet at the Eaton Canyon Nature Center on the first Thursday of January, March, May, September and November. Even if you're not a board member, come and participate. We can always use new points of view.

## PLANT WALKS AND NATURE HIKES

### Eaton Canyon Plant Walks

- Sunday, May 11, 9:00 a.m., Leaders, Gabi & Cliff McLean
- Sunday, Jun. 8, 9:00 a.m., Leader, Orchid Black
- Sunday, Sep. 14, 9:00 a.m., Leader, Eva Morgan

We meet in front of Eaton Canyon Nature Center on the second Sunday of the month.

### Chilao Plant Walks

- Saturday, May 3, 10:00 a.m. Leader, Jane Strong
- Saturday, Jun. 7, 10:00 a.m. Leader, Jane Strong
- Saturday, Jul. 5, 10:00 a.m. Leader, Jane Strong
- Saturday, Aug 2, 10:00 a.m. Leader, Jane Strong
- Saturday, Sep. 6, 10:00 a.m. Leader, Jane Strong

We meet at 10:00 a.m. in the Chilao Visitor Center parking lot. Walks will be a mixture of car tours and short hikes lasting two or more hours. Bring your lunch or eat at the nearby Newcomb's Ranch.

Carpooling is not arranged by the chapter, but carpoolers meet at 9:00 a.m. on Highway 2 (Angeles Crest Highway) just north of the exit from Interstate 210 (Foothill Freeway), where there is ample space for parking. It is 45 minutes/27 miles from that point via Angeles Crest Highway to the Chilao Visitor Center.

Snow, rain and fire will cancel. Call Candy Byers at 818-793-9661 for confirmation. For more information, check at <http://sgmha.org/chilaoplantwalks>.

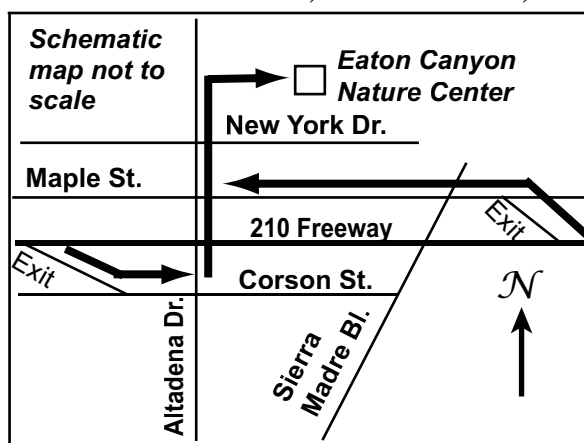
These monthly plant walks are offered jointly by our chapter, the U.S.F.S. Chilao Visitor Center, and the San Gabriel Mountains Heritage Association.

## DIRECTIONS TO EATON CANYON NATURE CENTER

1750 N. ALTADENA DR., PASADENA, CA 91107

### DRIVING EAST ON THE 210 FREEWAY

Take Exit 28 toward Sierra Madre Bl./Altadena Dr., continue onto Corson St., turn left at Altadena Dr., go north 1.6 miles., cross New York Dr. and turn right to Eaton Canyon Nature Center.



### DRIVING WEST ON THE 210 FREEWAY

Take the exit toward Sierra Madre Bl./San Marino, cross Sierra Madre Bl., continue on Maple St., turn right at Altadena Dr., go north 1.6 miles., cross New York Dr. and turn right to Eaton Canyon Nature Center.

## JOIN CNPS NOW!

Complete the form below and mail it to

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

or phone 916-447-2677.

**CNPS is Dedicated to the Preservation of California's Native Flora.** 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 conserve them and their natural habitats, through education, science, horticulture and advocacy.

Membership is open to all. Membership includes the quarterly journal *Fremontia*, the quarterly *Bulletin*, which gives statewide news and announcements of Society activities and conservation issues, and our Chapter newsletter, *The Paintbrush*. Dues are tax deductible.

Learn to understand California's unique flora and help to preserve this rich heritage for future generations.

|  |   |
|--|---|
| <p>* Name _____</p> <p>* Address _____<br/>_____</p> <p>* City _____</p> <p>* State _____</p> <p>* Zip _____</p> <p>Telephone (work) _____</p> <p>Telephone (home) _____</p> <p>Email _____</p> <p>* Indicates required information.</p> | <p>____ New Membership                      ____ Renewal</p> <p>____ Yes, I'd like to affiliate with San Gabriel Mountains Chapter</p> <p><b>Membership Category</b></p> <p>____ Individual: \$45                      ____ Benefactor: \$600</p> <p>____ Family, Group, or Library: \$75      ____ Mariposa Lily: \$1500</p> <p>____ Plant Lover: \$100                      ____ Student, Retired,<br/>____ Patron: \$300                              Limited Income \$25</p> <p><b>Payment Information</b></p> <p>____ Check enclosed in the amount of \$ _____</p> <p>____ Please charge my credit card for \$ _____</p> <p>____ VISA    ____ Master Card    Expires: Month ____ Year ____</p> <p>Card Number _____</p> <p>Signature _____</p> |
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