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CALIFORNIA NATIVE PLANT SOCIETY

BULLETIN

The New Manual of California Vegetation

BY JOHN SAWYER, TODD KEELER-WOLF, AND JULIE EVENS

We are excited to announce that CNPS will publish the second edition of the *Manual of California Vegetation* in the coming months. The original edition was the first to offer a uniform classification of the state's vegetation, one that depicted the vegetation at both the local and statewide level using consistent plant community descriptions. This edition more than doubles the number of plant communities for an even better portrayal of the state's complex vegetation patterns.

A main motivation for creating the manual was to protect rare plant *communities*. To accomplish that, however, we first needed to describe plant communities in a standard and quantitative fashion. Then we could compare rare plant communities to common ones. In other words, we needed to understand better how they fit into the broad, statewide vegetation picture. In addition, private, state, and federal resource agencies saw the need for a uniform vegetation system, so that endangered plant communities could receive legislative protection across administrative boundaries.

We finished the work on the first edition of the Manual in 1995. Since its publication, public agencies and private consulting firms have recognized it as a way to depict the many fine-scale patterns of California vegetation in a systematic way. In addition, it has helped in the formulation of the National Vegetation Classification System (NVCS), the new standard across the country for describing and mapping plant communities (vegetation types).

The Manual brought to light the need for more work. Many agencies and organizations (including CNPS) took on projects to better identify, analyze, and map the state's vegetation in both small project areas and larger regional planning efforts. Between 1995 and 2005, more than 20 collaborative vegetation projects were completed by the CNPS Vegetation Program, local CNPS chapters, the California Department of Fish and Game, California State Parks, the U.S. National Park Service, U.S. Forest

(continued on page 6)



Julie Evens

The new edition of the *Manual of California Vegetation* makes it possible to more comprehensively document the state's plant communities, such as this one in the Klamath Range. Here mature foxtail pines stand majestically on upper slopes near timberline with a variety of summer flowering herbs. Unlike the species, the alliance of foxtail pine qualifies as rare.

Two More Victories for Vernal Pools

BY CAROL WITHAM

The California Native Plant Society recently won two important court decisions related to vernal pools in Rancho Cordova. This area is the home of the most dense and diverse complexes of vernal pools in Sacramento County.

On July 6, 2007 the Superior Court of California ruled that the City of Rancho Cordova had violated the law in approving a 530-acre residential project because it deferred mitigation and simply assumed that adequate mitigation would occur. The project was proposed by developer Angelo K. Tsakopoulos, who cynically named it "The Preserve at Sunridge." The developer had offered to set aside a mere 90 acres of the site for a preserve, despite the fact that state and federal regulatory agencies had strongly recommended preserving over 200 acres in order to adequately protect sensitive vernal pool habitat. The City is expected to appeal this ruling because the developer is paying its attorney fees.

In a separate action, on July 10 the U.S. District Court found that the U.S. Army Corps of Engineers had failed to adequately analyze alternatives or cumulative impacts for numerous interrelated projects in the Sunrise Douglas area of Rancho Cordova, totaling over 1,000 acres. The court issued a preliminary injunction that prohibits any further construction, grading, or other on-the-ground activity that may affect vernal pool habitat or listed species until the case can be heard on its merits.

(continued on page 6)



From the Executive Director

Recent court victories benefit environment

CNPS and its partners have obtained important court rulings that will benefit vernal pools and native plants in the Central Valley and Sierra Nevada foothills regions, as well as riparian habitat in the Santa Clara Valley.

First, the California Superior Court determined that the City of Rancho Cordova violated several state laws by approving the Sunridge Preserve Development Project. In a separate case, a federal district court judge determined that the U.S. Army Corps of Engineers (USACE) failed to adequately address the environmental consequences of the Sunrise Douglas Development project, also in the City of Rancho Cordova. As a result, the judge suspended wetland permits issued by the USACE and restricted any further project activity that may harm vernal pool habitat, as well as endangered or threatened species. Finally, a U.S. District Court judge recently dismissed the U.S. Forest Service's request to continue the Larson Project. This action was taken after the court issued a preliminary injunction several months ago.

Also with CNPS support, Audubon Santa Clara succeeded in its efforts to ensure compliance with mitigation requirements for environmental impacts of CEQA-approved projects in the Santa Clara Valley. As a result, the City of San Jose admitted failure to mitigate and has set aside more than $800,000 to restore about 12.6 acres of riparian habitat.

Scientific knowledge, sound environmental policies, and the dedication and support of our members are what make such victories possible. Thank you!

Amanda Jorgenson
Executive Director

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CNPS Joins Nine-County Biological Diversity Project

The Bay Area Open Space Council (BAOSC) has initiated a nine-county project to increase awareness of habitats that are critical to conserving remaining biological diversity in the region.

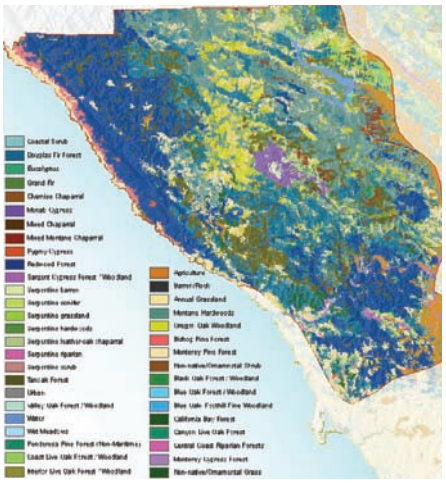
The San Francisco Bay Area Upland Habitat Goals Project (UHGP) is a science-based process that will use existing and new data, supplemented by expert opinion, to develop a GIS database of ecological information that decision makers, planners, and conservationists can use to guide their land management decisions. The project also intends to draft a scientifically credible conservation plan that BAOSC can use to prioritize the protection of an additional one million acres and support funding initiatives toward that goal.

CNPS has been invited to serve on the UHGP steering committee, as well as on the vegetation science committee. The East Bay Chapter has established a group of UHGP liaisons with representatives from each of the local CNPS chapters, who are helping to fill in gaps in vegetation information and provide expert opinion. Staff from the CNPS state office have been attending vegetation committee meetings, providing important scientific insight into the GIS analysis process. We are hoping to document local biodiversity hotspots with help from local chapters, using maps and field surveys, and integrate these results into the ongoing regional conservation process.

More information on the project can be found at: *http://openspacecouncil.org/projects/upland/upland-habitat-goals-project.*

Lech Naumovich
East Bay Conservation Analyst

SONOMA COAST VEGETATION TYPES
UPLAND HABITAT GOALS PROJECT, 2007



GreenInfo Network

The map above depicts the great variety of vegetation types found on the Sonoma Coast. A key goal of this project is to determine what additional acreage of various vegetation types should be conserved in order to maintain biodiversity in the Bay Area. This image, and other samples, can be found at http://openspacecouncil.org/projects/upland.

Staff Changes

I am pleased to announce that CNPS has a new full-time development director and a new full-time membership and sales coordinator.

Melissa Cirone, development director, brings to CNPS 20 years of professional experience in strategic planning, development,





Amanda Jorgenson

Melissa Cirone, top; Stacey Flowerdew

marketing, and communications. She holds a BA in English and art history from College of the Holy Cross, Worcester, MA.

Cari Porter, prior part-time development director and part-time finance manger, is now CNPS's full-time finance and administration manager. Congratulations, Cari, and thank you for fulfilling those two important roles.

Stacey Flowerdew, membership and sales coordinator, will oversee both areas as well as provide general administrative support in the state office. Stacey has a BA in international relations from the University of California, Davis. Prior to joining CNPS she worked as a data analyst in the healthcare industry. Stacey is a California native plant enthusiast as well as an amateur wildflower photographer, genealogist, and history fan.

Christina Neifer, part-time membership coordinator, is moving to Orange County to pursue a career in cosmetology. We wish Christina the best and hope she joins the Orange County Chapter!

Anne Klein, vegetation ecologist, accepted a job with the Department of Fish and Game starting in late July. For five years, Anne has been an integral part of the CNPS Vegetation Program. She was critical to the successful implementation of the vegetation inventory projects we conducted in Western Riverside County and the northern Sierra Nevada foothills. Luckily for us she is not going away, as her new job requires close collaboration with our vegetation staff. She will also continue to work part time (20-25%) for CNPS. Please join me in thanking Anne for a job well done, and congratulating her on her new position.

Amanda Jorgenson
Executive Director

APOLOGIES

Due to a mailing house error, and not to any fault of CNPS, the names and addresses on the last *CNPS Bulletin* mailing labels were mismatched. This is in no way connected to the accuracy of member information we have on file in CNPS's master database. Please receive our heartfelt apologies for any inconvenience this error may have caused you.

Marsh Protected in Perpetuity

Lower Pitkin Marsh, a 27-acre wetland in Sonoma County, was purchased this past summer for $970,000 by the Sonoma Land Trust (SLT). The marsh will now be protected forever from development by a conservation easement held by the Sonoma County Agricultural Preservation and Open Space District.

Pitkin Marsh is one of two perennial wetlands in Sonoma County supporting plants associated with the bogs and fens occurring on sandy coastal terraces to the north. White sedge *(Carex albida)*, a federal and state endangered endemic species considered extinct until its rediscovery in 1983, occurs there. The marsh is also the only known location in the western U.S. where three species of beaked rush *(Rhynchospora)* occur together.

Milo Baker chapter members have been involved in the preservation effort over the past two-and-one-half years, and are helping to develop an interim management plan. "Ultimately this project could not have happened without the generous donation of time, knowledge, patience, and expertise of the Milo Baker chapter," said Taber Ward of SLT.



Marta Puente

Looking across Pitkin Marsh to the riparian corridor of Pitkin Creek. Stakes mark colonies of rare plants.

CHAPTER NEWS

CHANNEL ISLANDS CHAPTER:
Teaching About the Benefits of Wetlands

The Channel Islands Chapter has discovered a way to capture the interest of school-age children, enlist the support of a multitude of groups in the community, and at the same time restore a degraded 11-acre salt marsh. Ormond Pointe is located at the west end of Ormond Beach. The area contains one of the most important and threatened wetlands in the state.



Kathy Simpson

Middle school students from an after-school program at the Briggs School in Santa Paula, California, show the posters they made for Celebrate Wetlands Month, and the giant coreopsis seedlings they grew for the Ormond Pointe Restoration Project.

The Ormond Pointe Native Plant Nursery and Restoration Project began in 2006, when Nancy Pederson and I wanted more participation from our local community to save Ormond Beach. We hoped by offering opportunities to everyone for hands-on restoration, community members would have a vested interest in the area and learn to appreciate the subtle beauty of wetlands everywhere. In keeping with our idea of an all-volunteer workforce, we needed like-minded organizations to help us. Master Gardeners and CNPS adopted Ormond Pointe as a project.

Our goal is to restore the entire site in one-acre increments so progress can be easily seen. We bring students there to learn about wetlands and to help with seed collecting and planting. The on-site nursery is a "virtual" one. Seeded flats are "adopted" and taken to homes throughout the county to be cared for until the plants are large enough to withstand the ocean winds.

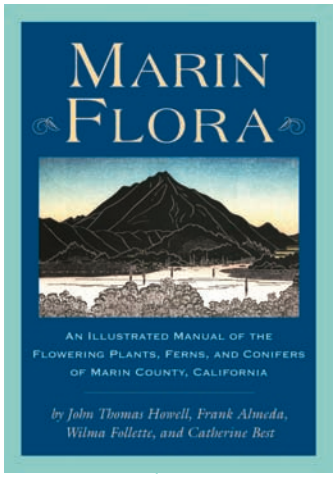
The Wetlands Recovery Project, local businesses, and private citizens have all provided financial support. The money will be used for a watering system and to pay for transportation to bring students to Ormond Pointe.

Trisha Munro
Channel Islands Chapter

MARIN CHAPTER :
Marin Flora

The Marin Chapter is pleased to announce the publication of the revised 1949 classic *Marin Flora* written by John Thomas Howell. The new work has added as coauthors CNPS members Wilma Follette and Catherine Best, and Frank Almeda, senior curator of botany at the California Academy of Sciences in San Francisco.

The revision has been a joint project of the Marin Chapter and the Academy, where the work of updating and revising it has been carried out over the past 12 years. New to this edition are 416 line drawings, color photos of plant communities and satellite images of the county, new dichotomous keys, new maps of the county, as well as a pressed specimen for each entry added to the Academy's collection of California's flora.



As much as possible of Howell's original work has been retained, including his discussions of species, insights, and unique, often poetic, observations. Over the long span of this project, many individuals have contributed their time, expertise, and faith. Publication of the flora was made possible by Mr. Howell's generous remembrance of the chapter in his will when he died in 1994.

Wilma Follette plans to visit neighboring chapters with copies for sale, and accompanied by a short slide show illustrating the poetry in J.T. Howell's *Marin Flora*. Copies will also be available from the Marin Chapter and the State CNPS office.



Roy Eisenhardt

Tiburon Mariposa lily (*Calochortus tiburonensis*), a Marin County endemic known only from Ring Mountain.

Wilma Follette
Marin Chapter

SANTA CLARA VALLEY CHAPTER :
Marsh Ecology Course

Twice this past spring, the Santa Clara Valley Chapter cosponsored a three-day course in marsh ecology, training more than 75 people involved in restoration, management, or oversight of San Francisco Bay, including park and special district staff, public officials, consultants, and chapter activists.

In offering the course, the chapter hoped to educate participants not only about the basics of marshes, but also about ways to avoid the rapid spread of invasive species, which could occur if a federal plan is implemented to restore salt ponds to marshes in the Bay. In addition to classroom presentations, the course included field trips to nearby bay marshlands.

Don Mayall
Santa Clara Valley Chapter

Volunteer Service Awards

CNPS regularly recognizes members for outstanding contributions to the preservation and appreciation of California's native flora through its Volunteer Recognition Award. CNPS is grateful for all they have done.


Carrie Schneider

Tershia D'Elgin

Tershia D'Elgin has been tireless in her efforts to mobilize local residents along the 22nd Street Canyon in the Golden Hill neighborhood of San Diego. As a consequence, she has helped to preserve a variety of native plant communities and species, including the rare coast white ceanothus *(Ceanothus verrucosus)*. Her persistence and insistence have made the canyon a model for similar areas in the city.


Steve Hartman

Mark Pasternak


Steve Matson

White coast ceanothus *(Ceanothus verrucosus).*

Mark Pasternak has been a valuable CNPS volunteer for over a decade. As a certified public accountant and QuickBooks expert, he has freely offered his expertise and time to the Society's treasurer and CNPS office staff whenever needed. While CNPS is a plant conservation organization, it is only with volunteers such as Mark that CNPS can also effectively deal with the "business" of environmental activism.

CNPS members are encouraged to submit award nominations to blairce@verizon.net through—or with the concurrence of—their chapter presidents.

Charles Blair, Chair
Volunteer Recognition Committee

In Appreciation: Geoffrey and Mary Burleigh
Legacy Gift Will Strengthen Work of CNPS

Geoff Burleigh, 99, a long-time member of CNPS, died February 7, 2006. His 71-year-old wife, Mary, died May 11, 2003. Members of the Los Angeles-Santa Monica Mountains Chapter remember them fondly as very special people who cared deeply about CNPS's work. Geoff and Mary supported the Society in numerous and generous ways.

Geoff was a persistent and diligent photographer. He was also ingenious. To show his photographs, he designed a system that involved two slide projectors working simultaneously side-by-side. The visual effects this system created made his slide presentations much more interesting. He was also a *Calochortus* enthusiast.

Geoff not only took photographs of these interesting plants, but he also planned and led regular chapter field trips in search of his favorite monocot. In addition to his volunteer hours, Geoff donated to the chapter his carefully-referenced slide collection and field notes, as well as his personal library containing more than 50 plant books.



Geoff Burleigh was known not only as a photographer and field trip leader, but also for his slide presentations enhanced by the use of two projectors.

Geoff and Mary not only contributed to the work of the Society in these ways, but also included CNPS in their estate plans. In May of this year, we received a letter from their daughter, Margaret, with a check for $80,000 to be used to strengthen the work of the Society.

We are grateful to Geoff and Mary Burleigh and their family for their generosity and good will.

Steve Hartman, Treasurer
Amanda Jorgenson,
Excutive Director

The New Manual of California Vegetation

(from page 1)



Todd Keeler-Wolf

A compelling reason to want to protect California's biodiversity is presented by this magnificent scenery from central Monterey County. Here topographic, geologic, and edaphic conditions combine to produce sharp breaks between a varied vegetation palette of grassland, oak woodland, coastal sage scrub, and chaparral (April 2007).

Service, and U.S. Geological Survey.

These projects have provided us with a better, more comprehensive description of the state's vegetation patterns. We now have a plethora of detailed vegetation information for the Mojave Desert, southern California, the Sierra Nevada foothills, serpentine pockets, and vernal pools, as well montane and subalpine riparian and meadow types. Together, these datasets covers approximately 25% of the state's vegetation.

We have been synthesizing all this information into a large compendium of over 500 vegetation types described at the alliance level in the second edition. These descriptions will make it even easier to identify, enjoy, manage, and protect the state's vegetation. To that end, we report on each alliance's response to natural and unnatural disturbance regimes such as fire, flood, invasive non-native species, and climate change. We also encapsulate information from recent scientific literature and expert researchers into our descriptions.

Those accustomed to using the old Manual will find new sections in each alliance on its regional variation, geographic extent, management considerations, and new tables on the ecology of the indicator species for each alliance. Restoration ecologists will appreciate the descriptions of high quality vegetation stands. The new Manual will offer CNPS members more tools to help identify and conserve the state's rare plant communities. With all the new data, we now better understand the vegetation of certain habitats that baffled us in the past, including desert scrub, maritime chaparral, mixed conifer forest, and vernal pools.

Granted, we still have much work to do before we fully understand the elusive vegetation types of the Central Valley, Coast Ranges, and Modoc Plateau. But these are the sorts of challenges that scientists, academics, and plant lovers—both within and outside of CNPS—have always been willing to tackle.

John Sawyer is a past president and fellow of CNPS, and emeritus professor of botany at Humboldt State University.

Todd Keeler-Wolf is director of the CNPS Vegetation Program and senior vegetation ecologist for the Biogeographic Data Branch of the California Department of Fish and Game.

Julie Evens is the lead vegetation ecologist for the CNPS Vegetation Program.

Victories for Vernal Pools

(from page 1)

The U.S. Environmental Protection Agency and the U.S. Fish and Wildlife Service are named as codefendants. Defenders of Wildlife and Butte Environmental Council are coplaintiffs with CNPS. A trial date for this lawsuit is expected in early 2008.

Winning these two rulings increases CNPS's influence within the environmental and development communities, and in the end—we hope—will result in protection of our treasured vernal pool habitat.

Funding for these lawsuits was provided by the Sacramento Valley Chapter of CNPS, other local groups, and individuals. However, we anticipate needing another $25,000 for attorney fees and other costs during the appeals process.



All photos by Carol Witham

Aerial photograph of the Rancho Cordova-Sunrise Douglas area. Thousands of acres beyond the current development are the subject of current lawsuits. Inset: Sacramento orcutt grass (Orcuttia viscida), a vernal pool plant endemic to Sacramento County.

Carol Witham, a long-time vernal pool advocate and active CNPS member, coordinates www.vernalpools.org and is a past president of CNPS.

Litigation Funds Needed

CNPS would like to do more to help chapters fund important litigation for plant conservation, but its litigation budget is very limited. Therefore, donations are appreciated, and can be earmarked for specific lawsuits, such as those described in the accompanying article. With your help, CNPS can and does make a difference.

Checks should be made payable to CNPS Litigation Fund and mailed to California Native Plant Society, 2707 K Street, Suite 1, Sacramento, CA 95816-5113. Donations by credit card can also be made at www.cnps.org or by calling 916-447-2677.

Gardening in Season

I'll Have Water, Please

By Mike Koslosky

I know I can live without chocolate, but a little bite now and then will keep me happy. Native plants are adapted to our six-month dry season, but a drink of water now and again will keep them happy, too.

In cultivation we are able to manipulate the growing conditions to best suit the plants' needs and to encourage a certain level of performance. We prune, deadhead, mulch, stake, and shape. Consider watering to give your plants a little boost during tough times of the year. Supplemental water during times of water scarcity can prevent a plant from shedding leaves or going into dormancy prematurely.

When developing an irrigation plan, first sketch your site on paper. From here you can determine the best arrangement for grouping plants with the same or similar water needs. You can also designate where there are "no water" zones (for desert species), plants with seasonal needs, or plants with year-round water requirements. Your site may have a wonderful shady plot where you feature redwood forest plants, while the sunny front yard begs for chaparral or grassland plantings.

Mix and match drought tolerant non-natives with California natives. Many South African, Mediterranean, or Australian/New Zealand species can be successfully incorporated into native gardens and will thrive under similar watering regimes. Above all else, you must know your plants' preferences.

The amount of water a plant needs, and how and when to water depend on many factors. California has such a wide variety of soils, microclimates, topography, and exposures to sun and shade, that it is important to know your site-specific conditions intimately. Consult these guides and others for practical tips: *California Native Plants for the Garden, Gardening With a Wild Heart, Care and Maintenance of Southern California Native Plant Gardens*, and the *Sunset Western Garden Book*.



Richard Fisher

Designing a garden based on the concept of "plant communities" ensures that plants with similar water requirements are grouped together. This cottage garden in Calabasas, California contains two plant community groupings—coastal sage (foreground) and sycamore/oak woodland (background).

Know where the end of your dripline is located so you can easily open it and flush the system once or twice a year. Pay attention to the seasonal changes in temperature and adjust your waterings accordingly. If you are putting down landscape fabric to control weeds, place the drip irrigation system on top of the fabric. You can easily make changes or adjustments to your plan by raking away a top dressing of wood chips or mulch to expose the lines. Trying to redirect or locate lines under the weight of the mulch covering many square yards of fabric is a nightmare.

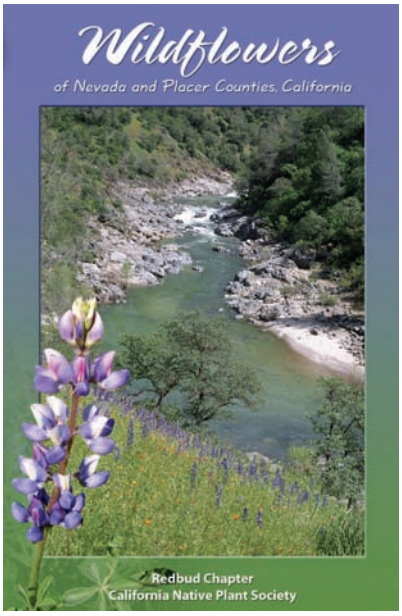
Irrigation systems need attention just like plants. To get the best performance, be sure to install drippers or sprayers that can be adjusted or turned off once the plants are established. Some natives will not tolerate any supplemental watering once established, so eventually it's imperative that you remove or shut off the emitter. Others can be water hogs and grow rangy and overbearing with additional irrigation. Overhead spraying can destroy some ground covers, but will be a boon to woodland and streamside species. Native annuals and perennials planted in the fall will generally be established by the following spring. Larger shrubs and trees may need an additional year of support.

We know there is no such thing as a maintenance-free garden. Likewise, there is no garden that survives on no water. Use it wisely and watch your plants respond.

[Note: Plant California natives wisely. Protect rare and endangered species and prevent gene pool contamination by using locally grown species in the landscape. Avoid using invasive plants, whether native or introduced. http://www.cnps.org/archives/landscaping.htm.]

Mike Koslosky is a naturalist, gardener, and writer. He lives and plays in Santa Cruz.

New Field Guide of Sierra Nevada Wildflowers



Fresh off the press and available from CNPS is a new guide, *Wildflowers of Nevada and Placer Counties, California.* This versatile guide—completed over eight years thanks to the efforts of many members of the Redbud Chapter of CNPS—describes 520 species of northern Sierra Nevada wildflowers, and contains over 600 color photographs of the plants and their diverse habitats.

Useful well beyond this two-county region, the area's complete plant checklist includes 38% of the plants known to grow wild in California. Casual wanderers and avid botanists alike will appreciate the thorough plant descriptions, organization by plant families, Native American uses, and tips on places to see wildflowers. Copies may be ordered directly from the CNPS website, www.cnps.org, or purchased from local chapters.

Gardening by Plant Communities



A new book certain to inspire native plant gardeners is *Designing California Native Gardens* (UC Press, 2007). Aptly subtitled "The Plant Community Approach to Artful, Ecological Gardens," it is written by award-winning native garden designer Alrie Middlebrook and well-known field botanist, teacher, and author Glenn Keator.

Each of the 12 chapters features a major California plant community and includes sample design plans, a plant list, color photographs, tips on specific species, and more. The authors explain how to create ecologically sound, attractive, workable, and artful gardens, and in so doing, preserve California's rich natural heritage.

Next Chapter Council Meeting

DECEMBER 8, 2007, BERKELEY
HOST GROUP: BAY DELTA CHAPTERS
FOCUS: PLANT SCIENCE

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The California Native Plant Society is a statewide, nonprofit organization of amateurs and professionals with a common interest in learning about and preserving California's native plants and plant communities. Membership is open to all. Visit cnps.org

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