



CALIFORNIA NATIVE PLANT SOCIETY BULLETIN

Monitoring and the Average CNPS Member

By STEVE HARTMAN

Can someone who is not a professional botanist gather useful plant monitoring data? Based on my experience and background, I'd say, "Most definitely!"

Dr. Elizabeth McClintock (1912-2004), botanist and CNPS Fellow, first introduced me to the idea of monitoring non-native plants, though she quaintly called them "escaped exotics." I subsequently produced little checklists that I hoped CNPS members who traveled through the Santa Monica Mountains could fill out to document the (then) current distribution and subsequent spread of weeds.

As I started using the forms myself I observed that the act of making a list completely changed the way I viewed the landscape. Rather than merely seeing vegetation, I began to get a strong sense of the "lack of pristine," and how, at least in Southern California in the late 1970s and early 1980s, invasive weeds were moving into natural areas where I had hiked since the age of ten.

I still monitor weeds, but now I do it on a smaller scale, such as at Caballero Canyon in the Santa Monica Mountains, or at the Sepulveda Basin, a 2,200-acre flood control area that includes about 500 acres of natural habitat. I use Google Earth maps to mark locations of the various non-native species that have invaded the natural areas. In a multi-jurisdictional area such as the Sepulveda Basin, maps help to identify the responsible managing agency.

Having been bitten by the monitoring bug, I then became interested in looking



Steve Hartman

You don't need a degree in botany to monitor native vegetation or rare species.

for rare plants in the California desert and documenting their occurrences. Since the 1990s, I've led CNPS field trips targeting rare plant locations and have filled out numerous California Natural Diversity-

Database field survey forms, and I helped rediscover a "lost" population of Wright's beebush (*Aloysia wrightii*) at Joshua Tree National Park.

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A Snapshot of the Rare Plant Treasure Hunt 2010

No two "hunts" are ever the same!

By AMBER SWANSON

By now most CNPS members have probably read about the Rare Plant Treasure Hunt (RPTH), and some may even have participated in it. The program has been going on for over a year now, and we've seen chapters and individuals undertake a variety of projects.

Groups have revisited one or more sites that have been surveyed in the past or have worked with local parks and recreational areas to document the presence of rare plant populations on public lands. Sometimes individuals or teams have ventured into areas that have never been surveyed to search for rare plants. Here are two projects that have generated a lot of excitement so far.

Last year the San Gabriel Mountains Chapter of Southern California took on the large project of resurveying the Lily Springs area, a high elevation locale in Los Angeles County. It had not been surveyed since 1981 when researcher Wayne Sawyer worked there and chose the site due to its accessibility by trail and easy distance to five distinct

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From the Executive Director Gratitude for our state office staff

I have occasionally heard members refer to the State office as “The Black Hole” in regards to sending information or requests that require processing. And occasionally it is. But unless you have actually spent some time in the state office, it would be difficult to understand the enormous amount of work produced by our very small, but efficient and talented staff!

While requests are typically processed quickly and communications are answered in a timely manner, there are certain times during the year when we are overwhelmed with incoming work, and response times slow down while we catch up. These busy times usually revolve around preparing for upcoming Board and Chapter Council

meetings, producing our monthly e-newsletter and other key communications and updates, state and federal deadlines for various corporate reporting, semi-annual appeals, and bimonthly membership renewal mailings and processing.

Technology improvement projects also impact our workloads at the state office, and these will most likely be a recurring trend as we continue to work hard to improve our organizational infrastructure. These include: 1) upgrading our existing web interface so members can more easily sign up or renew memberships, make donations, sign up for statewide workshops and conferences, and update personal information with a secure password; and

2) a host of technological upgrades that require substantial staff input and time (software and database upgrades, moving the state website to a new host, and moving all state files to a new server).

We are always looking for volunteers to come help us out at the state office. People have told us that spending a day there is quite an eye-opener. So when next you see or chat with Cari Porter, Stacey Flowerdew, or Marcy Millett, please give them a nod of appreciation for the amazing range of work they do to keep our State office running as efficiently as possible. They provide the technical and structural support that in numerous ways allows the rest of us to do our critical conservation, research, and educational work. ♡

Tara Hansen
Executive Director

New Staff Member

CNPS has hired Allen Tolleth as our first Conservation and Communications Coordinator. Allen is a senior at the University of California at Davis, completing a B.A. in international relations and political science, with a minor in environmental policy analysis. The combination of Allen’s interest in conservation advocacy and experience writing to different audiences makes him well qualified for the job. Over the past two years, he has also interned at the offices of State Senators Leland Yee and Lois Wolk.

At CNPS Allen will be a part-time employee, working with the Conservation Program Director to facilitate communications between chapters and the state office, and between CNPS and the general public. In addition to communicating to a diverse audience on a range of topics, Allen’s duties will include organizing the content of our CNPS Conservation Program webpage, assisting with conservation conference calls between chapters,

and tracking conservation actions of chapters and state CNPS.

Outside of school and work, Allen has rowed on the UC Davis Crew Team for the past four years, is currently the president of the campus UNICEF Club, and is looking to pursue a career in the environmental law field. Please join me in welcoming Allen to CNPS! ♡

Greg Suba
CNPS Conservation Director



Allen Tolleth

Stacey Flowerdew

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Promoting Memberships at Plant Sales

At native plant sales across the state in fall, chapters sold something else besides plants: they “sold” CNPS and signed up members! East Bay Chapter signed up 24 members over a two-day Native Plant Fair. Milo Baker Chapter got 16, while Willis Jepson Chapter signed up 7, a significant addition to its ranks. Santa Clara Valley (SCV) Chapter signed up a whopping 43 members.

Chapter plant sales are vital to CNPS, locally and statewide. Plant sales generate a large portion of the operating budget of many chapters. Plant sales also stimulate interest in CNPS and lead to a spike in new and renewing memberships that fund critical activities at the state level.

Is your chapter’s plant sale reaching its full potential? What can you do to maximize CNPS memberships as well as plant sales? Here is a short checklist.

Plan ahead. Volunteer-driven non-profit projects are most successful when planned six months or more in advance. Set up a Google group to facilitate communication. Schedule monthly planning meetings.

Publicize. Send announcements to local media at least two months in advance. Include the date, time, venue, contact info, and brief description of the event. Include a color photo if you can.

Offer promotions. Native plant people are human, susceptible to temptations such as gifts and special offers. A \$5 discount off plant purchases to new/renewing members is easy to arrange and effective. Some chapters offer members early admission. Others offer t-shirts or posters from their excess inventory. Yet oth-

ers offer 10% off on books. Check with the state office if you can get tote bags, CNPS stickers, or extra copies of *Fremontia*.

Create signage. Make sure you have signs leading up to the plant sale location. At the plant sale itself, put up signs announcing membership promotions.

Talk to people. Conduct a survey. Ask everyone who walks in how they heard about the sale. This will help you direct your publicity efforts in directions that are most effective. Ask if they are members. (Nearly 70% of people attending the SCV sale are *not* members.) If they are not, hand them a CNPS membership brochure and tell them about the special promotions being offered that day. If people are waiting in line for the doors to open, you have a captive audience, so engage them!

Locate membership table next to the cashier. Placement of your membership table is key to selling new memberships. Display promotional signs prominently at the cashier. Make sure cashiers know about the promotions and how to facilitate each. Staff the membership table with articulate, enthusiastic, customer service-oriented volunteers.

These and other promotional ideas are listed in the Membership Ideas Handbook located at <http://cnps.org/cnps/admin/> under “Chapter Information.”

Arvind Kumar,
Co-Chair
CNPS Membership Committee

Mark Natzger (collage)





CHAPTER NEWS



NORTH SAN JOAQUIN VALLEY CHAPTER: Two partnerships strengthen chapter

The existence of our chapter is due in large part to the partnership formed in the 1980s with The Great Valley Museum of Modesto. Over the years, the Museum has distributed CNPS materials, hosted Chapter meetings, and several staff members have served on the Chapter board.

In 2003 Museum volunteers created a native garden that has been instrumental in the revitalization of our Chapter. Since

2005, our members have continually maintained and expanded the garden and, as the site of our semi-annual plant sales, the garden has attracted many newcomers to CNPS. In the garden, visitors can see mature examples of many plants that are at the sale and get an idea of their size and appearance in different seasons.

This partnership will continue when the Museum moves to its new location on the

west campus of Modesto Junior College, where there will be a very large native plant garden that the college science department is helping to design.

Two years ago our Chapter also developed a strong partnership with River Partners in Modesto, and has participated in two planting days to restore riparian vegetation along the San Joaquin River in the San Joaquin National Wildlife Refuge. A few of the natives we helped plant include buttonbush (*Cephalanthus occidentalis*), elderberry (*Sambucus mexicana*), California wild rose (*Rosa californica*), sandbar willow (*Salix exigua*), and coyote bush (*Baccharis pilularis*).

This riparian habitat is crucial to the survival of endangered species such as the riparian brush rabbit, elderberry longhorn beetle, and the Yellow-Billed Cuckoo, to name just a few. This is vital work because 90% of historic California riparian ecosystems have disappeared. ♻️

**Jim Brugger, President
and Tana Dennen
N. San Joaquin Valley Chapter**



Jim Brugger

As part of a restoration project, CNPS volunteers plant native shrubs along the San Joaquin River including sandbar willow, elderberry, wild rose, and coyote bush—natural habitat for the endangered riparian brush rabbit.

MARIN CHAPTER: Learning to propagate our own plants

The Marin Chapter's annual spring plant sale has historically been a main source of revenue for the chapter. In the early years, members propagated plants in an informal way at home—so informally that plants were offered for sale in containers such as abalone shells and milk cartons in front of a local food co-op.

The sale has since moved to the beautiful bayside site at Richardson Bay Audubon Sanctuary, and in recent years, the great majority of plants for the sale were purchased from local nurser-

ies, while only about 10–15% of plants were propagated by members. Though the quality and variety of plants offered by the nurseries was and has remained outstanding, the costs to purchase and to bring the plants to the sale have risen appreciably. As a result, our profits diminished to the point that we needed to find a cost-cutting alternative.

Having members propagate more of the plants seemed to be a good solution. However, we felt we needed to boost the quality of the plants we propagated to en-



Stacey Pogorzelski

Instructor Charlotte Torgovitsky (center), explains propagation of cuttings using two-gallon containers to Vivian Mazur, while Eva Buxton tucks a newly transplanted cutting into a four-inch pot.

sure healthy root systems and pathogen-free media, since healthy plants are more

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Evans Honored as 2010 Legislator-of-the-Year

State Senator Noreen Evans has been named CNPS Legislator-of-the-Year for 2010. Senator Evans has long focused her public service work on smart land-use policies and environmental protection, starting with her appointment to the Santa Rosa City Planning Commission and followed by six years on the City Council. As a Council member, she was instrumental in Santa Rosa's adoption of an early growth management measure containing an urban development boundary.

Evans then went on to serve six years in the California Assembly. While there, she accumulated a near perfect voting score of 98% from the League of Conservation Voters. She was successful in opposing efforts to raise revenues by renewing offshore oil drilling. She also worked to protect funding for State Parks and for the Williamson Act—legislation that promotes conservation of agricultural lands—and she fought attempts to weaken environmental laws under cover of a stressed economy.

In 2010 Evans authored, at CNPS request, Assembly Concurrent Resolution 173,



Stacey Flowerdew

State Senator Noreen Evans

which designates the third week in April annually as California Native Plant Week. This statewide recognition affords CNPS important opportunities to educate the public regarding the value of native plants.

Evans began her first term in the State Senate in January, and CNPS expects to continue to work closely with the Senator. ♻

Vern Goehring
CNPS Legislative Consultant

MARIN CHAPTER *(from page 4)*

likely to become successfully established in customers' gardens.

Last fall we held our first series of propagation sessions. Participants learned about plant propagation from seed and cuttings, potting media, and establishment and irrigation of a home propagation area, both outdoors and indoors under lights. At the end of the sessions, they were asked to select species for home propagation and tending over the winter from a list of plants needed for the plant sale.

We employed another strategy this past December to increase the number of

plants we could sell. We met for a Dig and Divide party at a member's garden, which contains many plants native to the site. In just a few hours we had propagated a wealth of plants for our annual plant sale and enjoyed lunch together, including stinging nettle soup.

Though at this point we do not expect our propagation efforts to fulfill all our plant sale needs—particularly of woody or difficult to propagate plants, which we will probably still need to purchase from nurseries—we have taken the first steps in that direction. ♻

Renee Fittinghoff
Plant Sale Coordinator

First Legislative-Staff-of-the-Year Award

Susan Little, a mostly behind-the-scenes State Assembly staffer, was honored by CNPS for outstanding service to environmental protection with CNPS's first Legislative Staff Award. Late in the Legislative session of 2009, Susan was reviewing a bill pertaining to bird strikes at airports and something seemed wrong. It appeared that the bill exempted airports from too many laws, more than necessary to accomplish the purposes of the bill, which was to minimize the potential for airplanes and birds to collide.

She contacted me and others for a second opinion. Susan's conscientious efforts prevented airports in California from being exempted from *all* provisions of the Fish and Game Code, whose purpose was intended to protect wildlife, not airports. While the bill had been reviewed by many legislators and staff, all had missed the technical drafting error.



Jeff Walters

Susan Little, Vern Goehring.

Had the oversight not been corrected, all future airport improvement and expansion projects would have been exempt from key prohibitions of the California Endangered Species Act, as well as requirements regarding stream alteration agreements and prohibitions on certain types of discharges that harm wildlife, but not necessarily human health. ♻

Vern Goehring
CNPS Legislative Consultant

Monitoring (from page 1)

But monitoring is not just a volunteer activity. Often it is an agency requirement as part of any mitigation agreed upon in approving development projects or a municipality's master plan. Take the case of the Algodones Dunes, with its suite of endangered species including Pierson's milkvetch (*Astragalus magdalanae* var. *piersonii*). CNPS involvement included walking transects across the dune in order to gather data that later helped to support arguments to protect the habitat of this federally listed species. In turn this led to the inclusion of a detailed monitoring plan that required regular aerial and ground-

based surveys to determine whether OHV riders on the dunes kept out of closed areas.

In the 1990s CNPS was contacted by staff at Joshua Tree National Park to help resolve the conflict that both the rare desert pennyroyal (*Monardella robisonii*) and rock climbers preferred the same habitat—the iconic granite outcrops. CNPS partnered with the Park Service, hired a rock-climbing botanist, and embarked on a multi-year surveying and monitoring project called “Vertical Vegetation.” The result is that the rare mint was not found to occupy the areas at the base of the most popular climbing areas, and since they mostly grow near the ground in and amongst boulders (not high

up on rock walls), there didn't seem to be an imminent threat from rock climbing. What *was* destroying the vegetation was all the social trails leading to the rock climbing areas, and efforts were taken to reduce the paths and educate the rock climbers.

So don't let the word “monitoring” scare you away from participating. The best monitors are persons that are intimately familiar with a flora, so start monitoring your favorite hiking and camping areas. 🌿

Steve Hartman has been a member of CNPS since 1974, served on the CNPS State Board of Directors as treasurer for over a decade, and is a CNPS Fellow.

Treasure Hunt (from page 1)

plant communities. Between May and November of 2010, volunteers visited the area weekly. They documented all the plant species they found and compared the phenology of about 100 plant species to those Sawyer documented.

Chapter members realized their project could also double as a Rare Plant Treasure Hunt. The team filled out and submitted RPTH survey forms for any rare

plant populations they came across. The Department of Fish and Game staff entered the data into the California Natural Diversity Database (CNDDDB). Highlights of this survey include the discovery of several rare populations of the gray-leaved violet (*Viola pinetorum* ssp. *grisea*), a CNPS List 1B plant. These are the first populations ever to be recorded in Los Angeles County! In all, the team found 26 different rare plant species and submitted 52 survey forms. This project will continue through 2011.

The San Diego Chapter took a different approach for their 2010 project. They decided to focus their efforts on locating populations of one plant, the rare, threatened, and endangered San Diego thornmint (*Acanthomintha ilicifolia*). They coordinated with local conservation groups and the U.S. Fish and Wildlife Service to survey 15 sites, many of which had not been

surveyed since the early 1990s. Those early surveys covered only a fraction of the sites volunteers visited this past year. Altogether, they spent over 300 hours combing San Diego County and discovered over 52,000 individual plants. The chapter also submitted survey forms for all of these populations to the CNDDDB. This year, the San Diego Chapter will search for rare and endangered plants of the coastal dunes of San Diego County.

Many CNPS chapters have planned Rare Plant Treasure Hunts for 2011 and will be contributing to the important goal of documenting and conserving populations of our treasured rare plant species. If your chapter is considering starting a rare plant survey, let us know and we'll help you get started. If you are already surveying rare plants, it's likely you can combine your work with the RPTH effort. In either case, please contact us at treasurehunt@cnps.org. We'd love to hear from you. 🌿

Amber Swanson is coordinator of the CNPS Rare Plant Treasure Hunt program, and will be working in the Mojave and Colorado Deserts of Southern California this field season.



Volunteers training to find the elusive, rare San Diego thornmint (*Acanthomintha ilicifolia*). Inset Photo: Close-up of the delicate annual herb. Both photos by Frank Landis.

Friend or Foe?

A perspective on natural pest management

By BETSEY LANDIS

Managing native plant gardens is a learning experience. Let the native plants and native fauna either control, repel, destroy, or adapt to “pests.” An established healthy garden is a lively community of plants, insects, birds, reptiles, snails, slugs, worms, small mammals, you, your family, pets, and visitors.

You select new plants for your garden that meet your requirements for beauty, structure, and usefulness. The native plants you select will do well in your garden if your garden has the right soil texture, nutrients, drainage, room for necessary root growth, suitable sun exposure, and seasonal water supply.

How do you know which garden resident or visitor is friend or foe? Walking around the garden frequently or sitting and watching the garden is the best way to learn. Pest management consists of monitoring life cycle changes in the plant and animal species, the weather, and whether you, as garden manager, are supplying too much or too little water, keeping garden litter under control, washing off powdery mildew, detritus, and dust from leaves as needed, removing weeds before they flower and seed, and pruning at the best time.

For example, in intense sunlight, pruning to open up dense canopy can cause previously shaded plant leaves and stems to sunburn (sunscald). In extreme heat, growing plant tips or buds may shrivel and soft stems split, appearing diseased. Extremely cold temperatures usually blacken new growth. In either temperature extreme, the entire plant may die. Native plants may recover by sloughing off dead growth or stump sprouting.

Is it surprising that discussions of in-



Top row, left to right: Powdery mildew on coast live oak; sunburned viburnum; checkerspot larva on monkeyflower. Bottom row, left to right: checkerspot adult on bush sunflower; syrphid fly on bush sunflower; crab spider on chia. All photos by the author.

tegrated pest management involve environmental factors affecting soil, drainage, nutrients, heat, cold, and sun exposure? Unless major disturbance (drought, flood, fire, bulldozers) or invasion (alien pests, large mammals) of the garden occurs and disrupts the garden’s natural defenses, there is no need to resort to any pesticides or other radical measures.

Which garden inhabitants are “pests,” friends, or both? Native plants will tolerate insect damage when the insects supply pollination or other services to the plants later. Consider some caterpillars, messily munching plant parts, but then morphing into butterflies that pollinate flowers and enhance the garden with their beauty. As garden manager, be patient. Discover which caterpillars are essential to the life in the garden and which caterpillars you may have to deal with.

Plant species may time their flowering and fruiting cycles so they are completed before an insect is in the most plant-predatory part of its life cycle. Or they may schedule a second period of growth for the more benign or beneficial part of a plant predator’s life cycle. Many plants have chemicals in their mature leaves, stems, and roots that repel or are toxic to plant predators.

Don’t like flies or beetles? Some hover fly genera (e.g., *Syrphus*) are pollinators as adults. Their larvae eat aphids and other

plant predators. Stink beetles (*Eleodes* spp.) consume decomposing plant material as adults, but their larvae eat plant roots. Rodents and scorpions eat stink beetles. Both larval and adult ladybird beetles (family Coccinellidae) enjoy aphids, mealy bugs, other soft-bodied insects, and mites.

Spiders are essential, fascinating members of the garden community, especially when an insect population explodes. They hide in tunnels and crevices, spin gauzy clumps, cast strong nets of elaborate design, lurk under leaves and petals, or drift through the air on gossamer threads. If you do not like them, respect them as hunters.

Keep in mind that birds and rodents need more food when raising families. A feeding area with seeds and cut-up fruit far from the garden helps lessen impacts of this temporary population explosion on your more vulnerable plants. During spring and summer, visiting the garden shows the resident mammals and birds who is in charge. Observing their feeding activities tells you when to tour the garden to protect your plants, and when not to disturb the creatures eating the plant pests. 🕸

Betsey Landis is an author, lecturer, and researcher on California native plants and native plant gardening, and a member of the Los Angeles/Santa Monica Mountains Chapter of CNPS.

Resource for Conservation Advocates

California ORCA is the statewide Organization of Regional Coastal Activists with chapters and members in 14 coastal counties. Its mission is to serve as a network of individuals with various environmental and conservation group affiliations who present cases before the California Coastal Commission (CCC) that concern protection of coastal and marine resources.

ORCA trains its members about Coastal Act requirements and helps educate them on the process of following development from the initial permit application, at the local level, up to the CCC. It lobbies Commissioners monthly on issues and projects of importance to

members. Vital native plant habitat issues are commonly on the monthly agenda for the Commission, and CNPS members are encouraged to join the organization.

ORCA provides two days of training on the Coastal Act that include how to empower people to become effective coastal advocates at the local and state levels. Members can gain access to CCC staff so they consider their project recommendations in advance of deliberations, while having other ORCA members attend hearings on their behalf when geography and work make attendance impractical. ORCA members also participate actively in the local development



pipeline (e.g., city council, planning commission, or board of supervisors) before projects come to the CCC on appeal or for permitting approval.

For more information on how to be invited to join ORCA and become an effective native plant habitat advocate on issues before the Coastal Commission, please contact ORCA Board President Mel Nutter at melnutter@alum.pomona.edu.

Next Chapter Council Meeting

(Details available at: <http://cnps.org/cnps/admin/cc/>)

JUNE 3-5, 2010 – BAKERSFIELD

HOST CHAPTERS: KERN COUNTY AND ALTA PEAK



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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