VOL 47 / NO 1 JANUARY-MARCH 2017

CALIFORNIA NATIVE PLANT SOCIETY

BULLETIN

California Consulting Botanist Certification Program

What you need to know: FAQs

CNPS has been working to develop a certification program for botanists since 2004. It is now a reality! The main goal of this certification is to formally recognize botanists who:

- **Incorporate scientifically sound botanical principles in decision-making.**
- **Meet a minimum set of standards in knowledge and experience.**
- **Adhere to high ethical standards.**



Photograph by Julie Nelson

Botanists in the field.

Here are a few frequently asked questions about the program. More can be found on our website.

What sort of input was provided by the larger botanical community in the development of this program?

The current certification program has been under development since 2002 in collaboration with botanists, the academic community, consulting firms, government agencies, and conservationists statewide (see our partners in the sidebar). The certification idea has been presented and discussed at major conferences and smaller symposia too.

What do the exam fee and annual dues cover?

The exam fee covers the costs associated with developing and administering the examinations. The annual dues cover the cost of maintaining the records associated with those that are certified, as well as producing and distributing educational and informational materials, such as the newsletter, keeping track of professional development credits (PDCs).

Will there be a distribution list sent informing the public of who has been certified?

No. However, CNPS will maintain a list of all persons certified and their contact information, and this list will be published on the botanist certification webpage.

Will these exams be offered in a wider variety of locations?

Demand will be a large determining factor in when and where certification exams will be held; however, an effort will be made to move the venue around the state, with at least one set of exams each year in northern and southern California. Exam dates will vary by demand as well.

—David Magney, CNPS

visit www.cnps.org/botanistcertification

Upcoming Tests

- **Nor Cal - March 6, 2017**
  Curry Canyon Ranch (near Clayton)
- **So Cal - May 2017**
  Location and date TBA

Collaborating Organizations

California Botanical Society

Santa Barbara Botanic the GARDEN

UC DAVIS PLANT BIOLOGY

University & Jepson Herbaria

Botanical Society of America

Saved from the Brink of Extinction:

The story of the Mount Diablo Buckwheat

The story of the Mount Diablo buckwheat actually starts out as a geology story with the creation of our state's first Geological Survey of California. In the wake of the Gold Rush, the state legislature passed an 1860 act establishing the Survey and the Office of the State Geologist. The act assigned Josiah D. Whitney (for whom Mount Whitney is named) to fill the new office, and Whitney quickly assembled a team that included William H. Brewer as chief botanist and field party leader.



Mount Diablo buckwheat.

While in the field, Brewer kept a detailed journal of the party's travels, later published as the book, *Up and Down California*. In his notes, he described approaching the Central Valley from Clayton, California the day before he discovered Mount Diablo buckwheat:

continued on page 4



From the Executive Director

"A single simple action…"

Finally, I did it, and it feels good. It's been on my personal "to do" lists, and without any good reason I have just procrastinated and stalled for far too long. It feels so good! Finally, I've made CNPS a beneficiary of my (all-too-meager) estate.

For more than four years I have had the honor of working for CNPS. During that time I have witnessed the enormous good done by Legacy Donors: those who chose to include CNPS in their wills, trusts, life insurance, or retirement accounts. Jenny and Scott Fleming, June Billisoly, Beatrice Brown, Elaine Conze, Carlyn Halde, Freda King, Marion McMahon, all deserve our deepest gratitude for gifts that supported CNPS conservation, rare plant research, education, gardening, and chapter needs. They ensured that we can continue this important work even during major economic downturns. I have also been inspired by friends and, yes, coworkers, who have named CNPS in their wills –dedicated native plant lovers who generally can't write a big check right now but want to make sure CNPS is protecting our plants and places long into the future.

What got me to finally take action? Elizabeth Schwartz. As you read in the last Bulletin (and see page 10) Liz made a special gift. She also showed me how incredibly simple it is to add CNPS as a beneficiary to life insurance or retirement accounts. I could do it anytime I login online or return the annual insurance enrollment forms, requiring no will, trust, attorneys, or fancy language. So, I did it. The California Native Plant Society is now a beneficiary of my life insurance—not the only one, as I do want to make sure my child is supported, but CNPS is also in my heart and now is in my estate.

It feels good, and I encourage you to consider doing the same—for one thing, I now get to wear the fancy cloisonné pin reserved for Legacy Donors! We can provide more info if you need, but really there are just two steps: 1) add CNPS as a beneficiary (done), and 2) tell CNPS you have done so (I'm doing that, fairly publicly, here). You can also choose to give guidance on how the gift is to be applied: I want my gift used wherever it is most needed to support CNPS's unique and essential mission, to celebrate and save California's amazing plants and places.

I am mindful of something Elizabeth Schwartz once told us: "Please, go out and be our ambassadors. A single simple action can start the ball rolling..." Thank you Liz for the inspiration.

Dan Gluesenkamp
CNPS Executive Director
See page 10 for more on the Elizabeth Schwartz Fund



CALIFORNIA NATIVE PLANT SOCIETY
2707 K Street, Suite 1
Sacramento, CA 95816-5113

Phone: 916-447-2677 Fax: 916-447-2727
Email: cnps@cnps.org
Website: www.cnps.org
CNPS Bulletin Email: bulletin@cnps.org
Dan Gluesenkamp, Executive Director

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Struggle for survival on the Algodones Dunes



Photographs courtesy of Steve Hartman

Astragalus magdalenae var. *peirsonii*.

Located in one of the hottest and driest regions in the United States, the Algodones Dunes measure 40 miles long and three to five miles wide. Portions of the dunes have been shown to be migrating southeasterly at an average rate of 15 feet per year for large dunes and 60 feet per year for smaller ones. The constant shifting sand has resulted in interesting adaptations. The Algodones dunes sunflower (*Helianthus niveus* ssp. *tephrodes*) handles this by growing and flowering throughout the year.

Even more spectacular, and more difficult to find, is the bizarre parasitic sand food (*Pholisma sonorae*). In 1980, this unusual flowering plant made the cover of CNPS' journal *Fremontia* (*Sand Food: A Strange Plant of the Algodones Dunes* by Wayne P. Armstrong, 7(4):3-9 January 1980 and More About Sand Food by Wayne P. Armstrong, 8(2):30-31 July 1980).

Of all the rare plants of the dunes, the species in most peril is Peirson's milkvetch (*Astragalus magdalenae* var. *peirsonii*). This state (1979) endangered and federal (1998) listed threatened plant is limited to the Algodones Dunes in the United States. Within the dunes, Peirson's milkvetch is almost exclusively found in the western interior portions. Colonies of Peirson's milkvetch north of Hwy 78 are smaller than those further south and become much less continuous.

After the Center for Biological Diversity, the Sierra Club, and others reached a settlement with federal authorities limiting off-road vehicle use on the Algodones Dunes in 2000, there has been a contentious battle regarding the designation of critical habitat for the species. In 2003 the U.S. Fish and Wildlife Service proposed 52,780 acres as critical habitat. That was cut by more than 60 percent in 2004, revised down to a proposal that identified only 16,108 acres, and then in 2008 a final rule was published reducing the species' critical habitat to just 12,105 acres.

In 2012, the BLM released a new recreational plan for California's Algodones Dunes that would eliminate protections on more than 40,000 acres of crucial habitat for rare and vanishing species—including more than 6,000 acres of rare desert woodlands—by allowing off-road vehicles unlimited access to areas previously off-limits. In 2013 the Center for Biological Diversity, Public Employees for Responsibility, Desert Survivors, and the Sierra Club filed a lawsuit against the BLM's Recreation Area Management Plan for the Algodones Dunes and the USFWS' Biological Opinion for that Plan.



Helianthus niveus ssp. *tephrodes*.



Dunes meet ATVs.

After losing the lawsuit, the case was appealed and upheld by a three-judge panel of the Ninth Circuit Court of Appeals. In 2016, CNPS filed an amicus brief to the Ninth Circuit in support of a request for an en banc rehearing (a rehearing by the full Ninth Circuit Court, not just the three judge panel that ruled against the conservation organizations), but that hearing was denied.

The goal of protecting the critical habitat of an endangered species per the Federal Endangered Species Act is to facilitate recovery, not merely to ensure the survival of individuals or occurrences within a fragmented and disturbed landscape of unsuitable or destroyed habitat. It is unfortunate that the main population of Peirson's milkvetch is in the area designated for off-highway vehicle play.

— **Steve Hartman**
CNPS Board President

BUCKWHEAT *continued from page 1*

Before the canyon emerges into the San Joaquin plain it winds into a flat of perhaps two or three hundred acres surrounded by low rolling hills and covered with oaks scattered here and there, like a park. And such oaks! How I wish you could see them—nearly worthless for timber, but surely the most magnificent trees one could desire to see.

Brewer arrived at the home of John Marsh, a noteworthy settler of the interior of Contra Costa County. The next day, on May 29, 1862, he collected Mount Diablo buckwheat on a dry hillsides at Marsh's ranch—thus documenting a species new to science.

Since 1862, Mount Diablo buckwheat has been collected by six different botanists at up to potentially seven unique locations. One of the more notable collectors was Dr. Mary Bowerman, whose dissertation focused on the flora of Mount Diablo. In 1936, 69 years ago, Mary was the last person to collect Mount Diablo buckwheat before it was presumed extinct.

Then on May 10, 2005, Michael Park discovered Mount Diablo buckwheat along the chaparral margins on the south side of Mount Diablo. At the time, Michael was an undergrad at UC Berkeley working on a senior thesis project collecting floristic data on under-explored parts of Mount Diablo. At that time he found only 20 plants growing at the site.



Eriogonum truncatum.

After the rediscovery, botanists, natural resource managers, the California Native Plant Society, and other conservationists quickly formed a working group to provide needed stewardship and monitoring.Seeds were immediately collected and amplified at the UC Berkeley Botanic Garden by Holly Forbes. The group also planted seedlings, but attempts to establish new populations on Mount Diablo were unsuccessful. Concurrently, the number of plants at the natural population declined. Michael Park stated numerous times that the working group was on extinction watch, despite efforts to document new populations though annual "Find a Buckwheat Day" events.



Heath Bartosh and Brian Peterson in a field of buckwheat.

It wasn't until 11 years later that Nomad Ecology botanists Heath Bartosh and Brian Peterson found a new population while performing rare plant surveys in support of the land-use plan for Black Diamond Mines, working on behalf of Michele Hammond of the East Bay Regional Park District. On that day, May 19, 2016, Bartosh and Peterson observed a sizable population growing in the Sand Creek corridor along the northeastern slopes of Mount Diablo. While it seemed too good to be true, the duo quickly realized what they discovered. The distinctive wishbone-like structure of the inflorescence, pink pom-pom flowers, hairy stems, and elongate leaves were a dead giveaway. This could be considered the discovery of a lifetime, and with the find, the extinction watch ended.

Most striking about this population was the sheer numbers of plants. Nomad Ecology botanists estimated that over 2 million individuals were growing. The size of the plants was equally remarkable, as the individuals at this site are much bigger than what was found at the rediscovery site by Michael Park.

With this 2016 discovery, botanists now have the chance to monitor the population, observe its fluctuations, and vigilantly watch for threats to its long-term existence.

Heath Bartosh & Michele Hammond
CNPS East Bay Chapter

In Appreciation:
A match made in Santa Clara Valley

Few couples have photographic evidence of the first time they met, but Ken and Dee Himes are not like most couples. A photo from a CNPS Plumas County field trip in July 2010 (later published in the local chapter newsletter), captured what became a very special moment for the Himes.

"I'm on the left listening attentively to Ken," says Dee. "That is the first time Ken and I officially met."

Many field trips later, Ken and Dee were married on October 1, 2016. In lieu of wedding gifts, they asked for donations to be sent to CNPS. In doing so, the Himes joined a growing trend across the charitable sphere in which people are choosing to divert their wedding, birthday, or graduation presents to a charity of their choice.



Ken and Dee Himes.

"It was a no brainer for us to have donations to CNPS as one of our options as wedding gifts," says Dee. "CNPS brought us together, and we both love to support CNPS."

Ken, a CNPS Fellow, has volunteered for more than 30 years in the Santa Clara Valley Chapter, having cycled through every available volunteer role from "photo group" chairperson to president. Dee joined CNPS in 2007 and soon jumped in with both feet, volunteering as chapter treasurer and field trip chair.

We are grateful to Ken and Dee for their creative approach and thoughtful support of CNPS – and of course want to extend our congratulations! May Ken and Dee enjoy many years exploring California's trails and flora together.

— Stacey Flowerdew

Introducing Fremontia's New Editor

The path to editor of Fremontia for Michael Kauffmann covered thousands of miles of California wilderness and mountains. He has trod rocky, dry soils and soggy, wet soils, from the southern deserts to the near-Oregon ranges, paying attention to vegetation all the way. Michael and I first crossed paths when he joined our CNPS field trip at Poker Flat in the Siskiyou Mountains so he could research a trail for a book he was writing. Later, when I learned his summer fun was to walk from Covelo to Crescent City, along a route he calls the Bigfoot Trail, I knew this was a guy who made the extraordinary happen.



Michael Kauffmann.

From his personal explorations grew a burning need to share the joy the natural world brought him, so Michael entered the fields of education and publishing. He has taught science in middle school and at Humboldt State. In studying and teaching at Humboldt State University he found a kindred spirit in John Sawyer, and the two learned from each other. Michael's knowledge of conifers and mountains has been a valuable resource for researchers studying trees in remote places, and he has been putting it on paper. Michael first came to the North Coast Chapter for funding to help publish his first Book, *Conifer Country*, in 2011. Since then he has published two more taxon-and-trail books, along with other resources. He has a knack for getting people outside looking at plants.

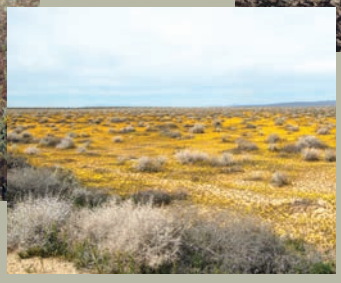
That Michael would take on a job that involves sitting at a desk speaks of his deep belief in the mission of CNPS. His track record of publishing books, despite the distracting call of the mountains, assures us that he can do this. Additionally, as program chair of our chapter he has demonstrated fine networking skills, necessary for discovering the many and varied articles of our organization's journal. We are excited to have him as the next editor of *Fremontia*.

— Carol Ralph
CNPS North Coast Chapter

CNPS Conservation At-a-Glance

Victories











State Native Plant Policy

CA Fish and Game Commission approved a comprehensive state policy on native plants for the first time.

Desert Vegetation Mapping

8.7 million acres completed with major support from the BLM, CA Dept. of Fish and Wildlife (CDFW) and the CA Energy Commission.

Microphyll Woodlands

Innovative drone footage of rarely seen landscapes helped increase awareness of this sensitive desert landscape.

Livermore Tarplant

Listed as a California endangered species thanks to a model listing petition by CNPS member Heath Bartosh.

Newhall Ranch

The California Supreme Court ruled in favor of CNPS, upholding protections and appropriate levels of environmental review.

Litigation

Litigation is a last-resort but essential tool in upholding the legal protections of our natural resources. Though even the best court decisions won't always stop harmful development, litigation can be the only recourse to force re-examination of unlawfully approved projects, and to require better mitigation for significant impact to native plants.

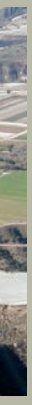
Settlement Reached

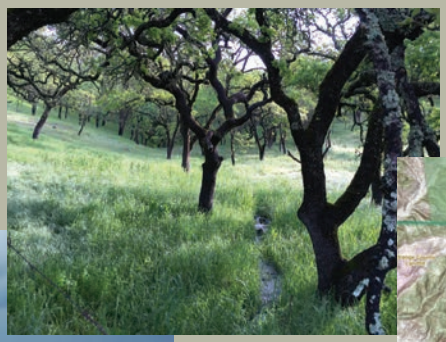
- **Mender Street Coastal Prairie:** vs. Uwe Heinz Corback and Sara Kissing.
- **Newhall Ranch:** Decision upheld by CA Supreme Court against Newhall Land & Farming and CDFW.
- **Madrona Development:** Case won against City of Brea.
- **California Flats Solar Project:** Settlement reached requiring sizeable environmental mitigation.
- **Saddle Crest:** Lost fight against City of Orange to stop development.
- **Sunrise-Douglas:** vs. City of Rancho Cordova and USFWS.

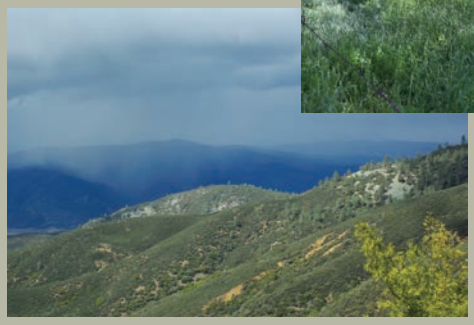
Ongoing

- **WMO Route Designation:** vs. the US BLM.
- **Newhall Ranch, Mission Village:** vs. County of Los Angeles.
- **Esperanza Hills:** vs. County of Orange, City of Yorba Linda.
- **Orange Citizens:** vs. Milan Rei IV, LLC, Superior Court of Orange County.
- **Banning Ranch:** CA Supreme Court has agreed to review case against City of Newport Beach.
- **San Diego Assoc. of Governments:** CA Supreme Court agrees to review case against SANDAG.

Top photo credits as follows: Livermore Tarplant - Heath Bartosh;- Newhall Ranch - David Magney; Walker Ridge - Steve Edwards; All others - Greg Suba









Walker Ridge

BLM revoked a wind energy development permit thanks to long-standing resistance by Tuleyome, CNPS, and others.

Native Oak Protection

CNPS San Luis Obispo Chapter helped secure an emergency county ordinance to stop the clear-cutting of oak woodlands.

Madrona Project Delayed

CNPS Orange County Chapter, Hills for Everyone and other partners won a lawsuit for careful CEQA review and oversight.

Letters Submitted

CNPS is the voice for plants in California, and often that happens through letter-writing campaigns. Thanks to our partners who've joined us in these efforts!

Eagle Crest Pump Storage: Voiced concerns to BLM about project next to Joshua Tree National Park.

Healthy Soils: Cautions against broad compost application to grazed grasslands in California.

Forest Ecological Performance: Calls for improved state forestry standards.

DRECP Protest: Advocated for legal protection of microphyll woodlands.

Antelope Valley Plan: Comments on which focal plant species to include.

Forest Carbon: Group NGO comment letter to CA Air Resource Board.

Forest Plan Revision: NGO coalition comment letter, includes native plant section.

Silurian Valley: Thanked the BLM for denying development.

Land and Water Conservation Fund: Supports procurement of additional federal conservation land.

Cape Ivy Biocontrol: Recommends federal approval of work to control this invasive species.

Transmission Line Development: NGO coalition calls on CA Public Utilities Commission to adhere to DRECP and San Joaquin Valley reports.

San Fernando Valley Spineflower: Recommends US Fish and Wildlife list as federally endangered species.

National Monument Nominations: Multiple nominations for precious California places.

2016 Legislative Summary

Each year, CNPS works with legislators to promote, amend or oppose bills impacting native plant conservation.

Good News

SB 859 (Senate Committee on Budget) NGOs prevent last-minute attempt to double amount of biomass feedstock incentives from clear-cutting.

AB 1958 (Wood) Creates Timber Harvest Plan exemption for restoration/conservation of native oak woodlands.

SB 1340 (Wolk) Requires improvements in landscape water use efficiency.

SB 32 (Pavley) & AB 197 (Garcia) Sets strong new goal for reduction of greenhouse gas emissions: 40% below 1990 levels by 2030.

CEQA Budget Trailer Effort failed to authorize housing projects "by right" rather than via normal CEQA review.

Of Note

AB 2029 (Dahle) Establishes stump diameter limits and road restrictions for salvage logging.

AB 2087 (Levine) Creation of Regional Conservation Investment Strategies (aka, Regional Conservation Frameworks)

Bad News

Coastal Commission Transparency

Bills to increase openness of deliberations failed. (AB 2002, AB 2628 and SB 1190)

History of the Arcata Community Center Native Plant and Wildlife Garden

One of the great pleasures of observing a native plant garden grow up over the years is seeing an increase in plant and wildlife diversity. The efforts of volunteers at the Arcata Community Center Native Plant and Wildlife Garden in Humboldt County did just that—adding 29 species of native plants. This diversity also included four species of amphibians, four species of mammals, 16 species of butterflies, and nine genera of bees including the establishment of a thriving nesting site for hundreds of *Halictus tripartatus,* a native bee.

The Arcata Garden was established on February 27, 1999 when volunteers from the California Native Plant Society-North Coast Chapter (CNPS-NCC) planted various species of native plants in an 0.1 acre waste field near the Arcata Community Center. This planting emerged from an agreement between the City of Arcata, represented by Dan Diemer, Parks Superintendent, and CNPS-NCC, represented by Pete Haggard, Garden Chair. The agreement stipulated that the City of Arcata provide the site and planting stock for the initial planting, and the CNPS-NCC provide volunteers for planting and ongoing maintenance of the site.



Native Plant and Wildlife sign was supported in part by CNPS-North Coast Chapter.

All photographs courtesy ofPete Haggard


Grindelia stricta.

After 17 years Arcata now has a beautiful, stable natural area that requires no water, fertilizer, or mowing and very little physical maintenance by employees. As a committed CNPSer, I have enjoyed these years of tending the garden and seeing blossom into fruition.

Since the garden is located in an area with heavy pedestrian traffic, including college and high school students and people visiting the Arcata Community Center, it is an excellent place to further one of CNPS-NCC's goals—to educate the public on the value of a biodiverse native landscape in urban areas.

As the garden matures and creates more niches in the landscape, I look forward to seeing more wildlife and native plants utilizing this site.

Both the City and CNPS-NCC have benefited from this agreement, which has provided the public with a permanent garden with natural beauty and an educational tool for the CNPS-NCC. For more information on the garden, the plants and animals that live there, or a tour of the garden, contact me!


Garraya eliptica.

Pete Haggard
Garden Chair,
CNPS-North Coast Chapter
phaggard@suddenlink.net
www.northcoastcnps.org

Revisiting Rare Plant Populations Just in Time

CNPS is joining a lawsuit to ensure that equivalent CEQA standards for environmental review and protection are met by the California Department of Forestry and Fire Protection (CAL FIRE) for timber harvest plans. The Dorothy King Young Chapter is joining Friends of Gualala River and Forest Unlimited in litigation against CAL FIRE for authorizing a Timber Harvest Plan (THP) for 400 acres of mature redwood floodplain forest along more than five miles of the Gualala River, near the Mendocino border of Sonoma County, but without providing equivalent CEQA impact assessment, mitigation, or alternatives review. Until his recent retirement during the start of what is known as the "Dogwood" litigation, Gualala Redwoods Timber (GRT) was managed by Henry Alden, the forester best known for the controversial old-growth redwood logging of Headwaters Forest and other timberlands owned by Pacific Lumber Company during the 1990s.



Riparian habitat along the Gualala River.

Unlike most logging plans in the region, the "Dogwood" THP is located entirely in the designated wild and scenic Gualala River floodplain's last continuous stands of 90-100 year old redwoods, rich in wetlands and rare plant habitat. But CAL FIRE approved the plan without conducting a rare plant survey specific to the THP area, and without including the results of a wetland survey in the THP. Most of the rare plants affected occur in seasonal wetlands, like California bellflower (*Campanula californica*) and fringed corn-lily (*Veratrum fimbriatum*). GRT and CAL FIRE denied that seasonal wetlands existed in the floodplain, despite widespread occurrence of obligate dominant wetland plants like slough sedge (*Carex obnupta*) in seasonally flooded swales. CAL FIRE also accepted GRT's argument that it justified an exception to new Forest Practice Rules protecting sensitive "flood prone" areas against disturbances like skid roads. CAL FIRE did not even require review of alternatives that complied with flood-prone rules.



The fringed corn-lily (*Veratrum fimbriatum*) is one of the rare wetland species that was not assessed with wetland delineations (habitat) and rare plant surveys before the plan was approved.



Photographs courtesy of Peter Baye

Campanula californica.

Sonoma County Superior court granted a preliminary injunction to halt the logging on September 15, 2016, while the lawsuit proceeds. The court noted "Petitioners' evidence also demonstrates that the logging activities may harm ecologically sensitive, protected wetlands, flora, and fauna." The attorney representing GRT is Ginevra Chandler, former chief counsel for CAL FIRE.

The stakes for CNPS are both local and statewide. By law, THPs are supposed to be equivalent to EIRs. Clearly, they are not in this case, with respect to rare plants, wetlands, alternatives, and other issues. If CNPS and fellow plaintiffs prevail, new precedents for truly CEQA-equivalent timber harvest plans would be a step in the right direction for improved environmental review and compliance, along with public participation in the timber harvest review process.

Peter Baye
Conservation Chair
CNPS Dorothy King Young Chapter

Welcome Liv O'Keeffe: Director of Marketing & Communications

This is an exciting time for CNPS, with our growing community of dedicated native plant lovers taking on more and varied projects every day. We are accomplishing a lot! As outlined in the new CNPS Strategic Plan, our efforts are focused on four primary goals:

1. To Know our native plants, plant communities, and landscapes.

2. To Save our native plants and plant communities through conversation.

3. To Fix and reclaim space for natives through horticulture and stewardship.

4. To Engage a strong CNPS base to accomplish the goals above.

The last few years have seen great progress on the first three goals, but we all can see that more engagement and outreach is needed if we are to inspire more Californians to join our cause.

Toward this end, CNPS is beginning a new effort focused on outreach and engagement, with the goal of strategically coordinating and leveraging several key areas, including: all CNPS digital platforms, publications, CNPS press, chapter and member support, horticulture outreach, Calscape, education, the Conservation Conference, and media relations. Engagement and outreach is already key to much of what CNPS does, and by improving our systems and supporting our volunteers we can do even more.

We have been fortunate to recruit Liv O'Keeffe, an expert in digital and communications strategy, to lead this ambitious initiative as our new Marketing and Communications Director. Liv (pronounced like "Leave") joined CNPS at the end of October. Her background in strategic planning, digital marketing, publications, and public relations makes her uniquely suited for this role, and her history shows her commitment: as an early-career journalist she wound up working for a non-profit advancing political reform during the early days of the Internet. For the last decade, Liv led digital marketing for a 50,000-employee healthcare organization, organizing content and social media strategy for a five-time award-winning health and wellness website. Liv was instrumental in Sutter Health's emergence into digital marketing, and adept at coordinating information from hundreds of opinionated doctors to support more than 30 affiliate hospitals, medical groups and research institutions – good practice for the work of better supporting 35 CNPS chapters and the needs of our hundreds of dedicated volunteers.


Liv O'Keeffe.

Liv says this role came at the right time in her career, as she was seeking to better align her personal values with her professional work. Liv is a California native herself and lives in Davis with her husband, Malcolm, and daughters, Fiona and Olivia. In her free time, she loves great meals with friends, track and field, long walks listening to podcasts, and lake time in the high Sierras. Her dream is to live on a five-acre farm with a booming garden and a menagerie of critters. A lifelong nature lover and long-time fan of CNPS, she says every day on the job is a complete joy. "I'm in awe over what the CNPS community has accomplished," says Liv. "I'm looking forward to doing my part to help by applying the best of what I learned in the corporate environment to a cause that registers deeply for me"

Please join us in welcoming Liv, and look for her at a chapter event near you!

Dan Gluesenkamp

Announcing the Elizabeth C. Schwartz Fund

Elizabeth Schwartz was a Southern California native plant legend. After practicing law for 15 years, she fell in love with native plants and became a certified horticulturist. In this second career, she engaged thousands of plant lovers as executive director of the Theodore Payne Foundation, board president of the Southern California Horticultural Society, staff of the Botanical Garden at UCLA, and via numerous lectures and articles on native plants. Liz died suddenly on August 12, 2015 while hiking in Arizona. She was 66.

Elizabeth had named CNPS as a beneficiary of her IRA retirement account, an exceedingly simple action resulting in a tremendously thoughtful gift. After talking with her surviving husband, UCLA astronomer Ben Schwartz, it was decided to apply a portion of Liz's gift to create a fund that would honor her memory and substantially increase CNPS Conservation work in Southern California.

This "Elizabeth C. Schwartz Fund" will support a new staff position focused on Southern California conservation work. There is a tremendous need for this position, which will increase with pending changes in federal policy. Over the next few months we will work to match this initial seed money, with donations from Schwartz family and friends, an event hosted by G2 Gallery's Susan Gottlieb, and support from others committed to conservation gardening. If you are interested learning more, please contact Executive Director Dan Gluesenkamp.

One Tam: Collaborative stewardship for a botanical wonder

Hundreds of scientists, land managers, and community members gathered on October 28–29 to learn about an innovative assessment of Mt. Tamalpais' ecological health. Sponsored in part by the CNPS Marin Chapter, the 2016 Mt. Tamalpais Science Summit was the culmination of almost a year of workshops, data collection and analysis, and discussions among more than 60 resource managers and scientists familiar with the mountain's flora and fauna.

Led by One Tam—a partnership of the mountain's four land management agencies and the Golden Gate National Parks Conservancy—the assessment considered individual species, species guilds, and entire communities as indicators of ecological health. Seven plant communities were assessed, including two particularly rich in rare species: serpentine barrens and maritime chaparral.

It appears that both rare plant communities are declining, and Marin Municipal Water District Vegetation Ecologist Andrea Williams believes she knows why. "The trends for Mt. Tam's rare species are a microcosm of the trends for its plants overall—some are doing well and some poorly for similar reasons, primarily a lack of fire, changes in soil moisture, and the arrival of invasive species."

These assessments were enhanced by data collected during a dozen CNPS-supported rare plant "Treasure Hunts" held in 2012–2013 and recent botanical bioblitzes. That data, combined with other mapping and monitoring efforts, represents the first time Mt. Tamalpais' land managers have had a seamless, cross-jurisdictional presentation of vegetation data.



Image courtesy of Lieven Leroy

Volunteers and staff work together to record plant and animal species at a One Tam bioblitz in Cascade Canyon, Marin County.

These efforts also considered Mt. Tamalpais' extirpated plants, half of which are moisture-loving species. Their disappearance has mostly likely occurred due to habitat xerification as a result of climate change. Some other potentially extirpated species may have shifted their ranges north and west towards the coast, where conditions are more mesic. Others may have disappeared from the above-ground flora due to lack of the periodic fires needed to germinate their seeds.

The project also revealed several important data gaps, including the need for assessments of rare plant-rich seeps, springs, and wet meadow communities. By identifying where additional work is needed, One Tam is guiding future efforts to close information gaps.

In the near term, Ms. Williams believes the results of the health assessments point toward reintroducing natural disturbances such as fire and grazing, or to find ways to re-create these effects. More broadly, research will support ongoing efforts by One Tam partners to take a more comprehensive look at the mountain's rare plants, and offer a coordinated, interagency approach for their stewardship and protection.

As Marin Chapter Board Member Phyllis Faber describes it, "What One Tam and this health assessment offer is the opportunity to work together to recognize the threats to rare plants and help them in their struggle to survive. It offers a huge and truly unique opportunity to improve management of the mountain."

Visit onetam.org/peak-health to learn more about the Mt. Tam health assessment, including the full report and an online dashboard where you can explore specific findings.



Photograph courtesy of Jeff Bisbee

Mount Tamalpais Manzanita (*A. montana* ssp. *montana*) and sargent cypress (*Hesperocyparis sargentii*) decorate the serpentine barrens on Mount Tamalpias.

Michelle O'Herron
O'Herron & Company
with **Phyllis Faber**
CNPS Marin County Chapter

CALIFORNIA NATIVE PLANT SOCIETY
BULLETIN
2707 K STREET, SUITE 1
SACRAMENTO, CA 95816-5113

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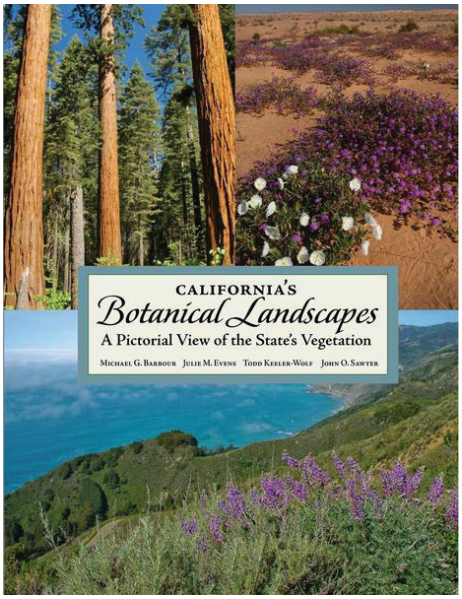
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Save the date! Next Chapter Council Meeting is March 10-12 in Carpinteria, California

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