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CALIFORNIA NATIVE
PLANT SOCIETY

*Protecting California's Native Flora
Since 1965*

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CNPS members and others are welcome to contribute materials for publication in *Fremontia*. See the inside back cover for submission instructions.

Staff and board listings are as of September 2015.

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THE COVER: The CNPS 50th year memorial cover is a mosaic of 2,400 photographs by 25 CNPS member-photographers. The final image created is a partial reproduction of Thomas Hill's famous 1869 painting titled "Indian by a Lake in the Majestic California Landscape." Although the exact location has never been determined, the original painting reflects an aesthetic and wildness that many of our members cherish. Additionally, Hill included native peoples in the image, acknowledging their place in the landscape. In celebration of our 50 years, this cover also celebrates the cooperative, giving nature of our members who helped make this cover mosaic a reality. A large uncompressed image can be seen at lechphoto.com/Fremontia50.

The photo mosaic was compiled and created by Lech Naumovich. The following photographers donated images: Aaron Sims, Allan Schoenherr, Allison Kidder, Becky Reilly, Bob Allen, Brian Knapp, Dan Quinn, David Nelson, Earle Nance, Elizabeth Venrick, Heath Bartosh, Jeb Bjerke, Jennifer Buck-Diaz, Judy Kramer, Lech Naumovich, Lorna Cunkle, Lynn Watson, Neal Kramer, Reny Parker, Roger Raiche, Scott Loarie, Stacey Flowerdew, Stephen Ingram, Toni Corelli, and William Davis.



Coastal sage scrub blossoms during a rich spring show in the author's home hiking ground, Caspers Wilderness Park in Orange County. The area is one of California's most diverse and threatened habitat zones. Photograph by the author.

TO OUR FIFTY YEARS OF CONSERVATION AND BEYOND

by Laura Camp

"The ridiculously earnest are known to travel in groups.... And they are known to change the world."

—Barbara Kingsolver

CNP work connects to and overlaps with many organizations, and yet the Society is unique. We are dispersed *and* centralized. We garden small urban plots *and* survey large wild lands. We are a self-driven army of multi-talented volunteers *and* small teams of focused specialists. We are unknown to most Californians *yet* every three years organize one of the state's foremost environmental conferences. Our members and staff are known for dedication and tenacity. All this diversity and drive comes to a focus set forth in our Mission, "To conserve California native plants..." These fac-

tors are important to understanding why the Society is celebrating 50 years of accomplishment. Our value to native plant conservation is why we must exist for the next 50 years.

In the long history of mankind, those who learned to collaborate and improvise most effectively have prevailed.

—Charles Darwin

What do we do that is so earnest, unique, and valuable to native plant and natural habitat conservation? Read the examples below. You will notice another aspect of our work mentioned frequently, collaboration.

CONSERVATION: CNPS became involved early on in the Desert Renewable Energy Conservation Plan (DRECP) that guides the development of solar energy projects in 23

million acres of California's desert. Local members raised important issues, and the push to get involved continued with chapters farther away such as East Bay and LA/Santa Monica Mountains that recognized the need for careful, data-based planning. DRECP became a high priority for the CNPS Conservation Program. CNPS helped to gather distribution and life history information for rare plants and communities in need of protection. The DRECP process is a huge collaboration involving many agencies and organizations.

RARE PLANTS: CNPS works collaboratively with hundreds of expert reviewers throughout the state and beyond, and with the California Department of Fish and Wildlife in determining what plants are rare. Our *CNPS Inventory of Rare and*

Endangered Plants is free, readily available online, and easy to use. If someone chooses to ignore rare plant legal status somewhere, local chapters find out, and CNPS can litigate, often collaboratively with other organizations. We have similar activities dedicated to vegetation communities (alliances) as well.

HORTICULTURE: Calscape, our newest native plant website, provides quick lists for gardeners and landscapers of what native plants occur naturally where you live. It is a collaborative work with the Jepson Herbarium. These plants are best for local ecology and in most cases also for local water conservation. A related collaborative initiative with California's Department of Water Resources is CNPS's "Ditch Your Lawn" workshops that are currently being offered free to the public. Participants learn how to replace their lawns with native plant landscaping to conserve water in the face of California's severe drought.

INFORMATION SHARING: Sharing the right information in the right format with people who need that information is crucial to conservation success. We have a great many ways to accomplish this, including local chapter newsletters and plant lists, chapter meetings and events, a statewide newsletter (the *CNPS Bulletin*), a statewide online newsletter (the *CNPS e-Newsletter*), CNPS's botanical journal (*Fremontia*), book sales, 35 chapter websites and the CNPS website, plant science workshops, horticultural forums, working relationships with organizations and agencies and academic institutions, and the "ultimate" in environmental information sharing—the statewide CNPS Conservation Conference.

When one tugs at a single thing in nature, he finds it attached to the rest of the world.

—John Muir

California's diverse populations of native plants and natural habitats need the continuing support of CNPS programs to ensure their survival. In the next 50 years we will continue to increase our understanding of native plants in California and to protect them. This will require our continuing work on many fronts: research, restoration, advocacy, gardening with natives, education, and fighting invasives, just to name a few. We will retain our grassroots volunteer foundation, celebrate our successes, and together enjoy the great outdoors.

And when someone tugs at a single aspect of our work, they will find us wonderfully linked to the rest of California's richly diverse natural and human world. Happy Anniversary, CNPS!

I do not intend that our natural resources shall be exploited by the few against the interests of the many.

—Theodore Roosevelt

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Breathtaking view along a creek at about 8,800 feet near Carson Pass in the central Sierra Nevada, with Round Top Mountain in the background. Lupines (*Lupinus* spp.) and arnica (*Arnica mollis* and other composites) abound. Photograph by Jeff Bisbee.

THE CALIFORNIA NATIVE PLANT SOCIETY: REVIEWING THE FIRST FIFTY YEARS

by Hazel Gordon

The California Native Plant Society was not the first US native plant or wildflower society. The New England Wild Flower Society was founded in 1900. Nor was it the first in the western US, since the Oregon Native Plant Society was established in 1961, four years prior to the organization of CNPS. However, since its beginnings in 1965, CNPS has been held up as the “model” for other statewide native plant organizations, and almost from the beginning has been a science-based organization.

MISSION

Longtime CNPS member Carol Witham perhaps best summarized the CNPS mission back in 2005:

The mission of the California Native Plant Society (CNPS) is to increase understanding and appreciation of California's native plants and to conserve them in their natural habitats through education, science, advocacy, horticulture, and land stewardship. This mission statement clearly recognizes our dual role of being a native plant appreciation club and being a science-based conservation organization . . . very different but overlapping purposes (*Fremontia* 33:1, October 2005).

This mission statement was later shortened to: “The mission of CNPS is to conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants.” On the CNPS website it is followed by a longer vision state-

ment that delves deeper into the things CNPS attempts to do.

LEADERSHIP AND MEMBERSHIP

CNPS is an organization of about 10,000 members, and from its earliest incorporation as a nonprofit in August 1965 to the present, it has attracted and maintained a diverse, energetic, persistent, and optimistically minded group of native plant lovers. CNPS members especially love to tell others about the native plants of this state, and will go to great lengths to protect and cultivate them. Some early charter members included well-known nonbotanists such as Navy Admiral Chester Nimitz, US Supreme Court Justice Earl Warren, and photographer Ansel Adams. Today CNPS is still largely one of amateur plant lovers, although the longer one has been a CNPS member, the more likely it is that she or he will have gained considerable knowledge about native plants and habitats. There are also many CNPS members who are scientists, land managers, staff in government agencies and nonprofit organizations, researchers, botanical consultants, and landscapers. The energetic leadership of presidents of the CNPS Board of Directors (unpaid), who later worked with CNPS executive directors (most were salaried) have inspired a great many, and occasionally frustrated the more opinionated members who worked with these talented leaders.

CNPS CHAPTERS: WAVES OF INCORPORATION

A significant change in the evolution of CNPS included recogniz-

ing the activities of the chapters. (See sidebar on page 11 for a list of chapters and dates they were founded.) These perennial sources of creativity and environmental activity necessitated the need for their voices to be heard at the statewide level. Eventually a formal Chapter Council was formed in January 2002 comprised of one representative from each chapter. At the Chapter Council, delegates can bring up issues of importance to the entire organization and make recommendations to the Board of Directors. This governing body now meets four times a year at different locations around the state and deliberates on items that are part of its one- or two-day agenda. It also makes its minutes and agendas available on the CNPS website. Additionally, each gathering includes a Saturday evening banquet featuring a noted speaker, one or more field trips, an abundance of food, and time for socializing.

CENTRALIZATION AND REGIONALIZATION: CORE VALUES

The organization rapidly began to keep pace with the varied interests of its members by establishing and restructuring centralized committees, and encouraging the creation of local chapters to deal with both statewide and regional botanical issues such as pollution and invasive species. With a limited budget and membership in its first few years, CNPS had several dozen “sponsors” with sufficient financial support to maintain its outreach and educational efforts for awhile.

The Society began publishing modestly printed newsletters con-

taining only a few pages each that were mailed to the membership. A slate of 15 to 17 Directors—including the four officers (President, Vice President, Secretary, and Treasurer) plus an Honorary President (Lester Rowntree)—were able to keep CNPS afloat in these leaner times. Centralized committees expanded and contracted over the years, depending on environmental challenges at the time. For example, in the 1970s these included environmental issues concerning the Pacific coast, the eastern Sierra Nevada, Southern California, highway impacts, environmental impact reports, State Board of Forestry, public lands, and others.

Later technological, political, and environmental developments in the state created the need to have additional CNPS services. Today many of CNPS's earliest priorities and statewide programs are also being handled by salaried staff or contractors, including a rare plant botanist, directors and/or staff for CNPS Programs (Conservation, Vegetation, Rare Plants, Education, and Horticulture), a legislative analyst, webmaster, and *Fremontia* and *CNPS Bulletin* editor. They are ably assisted by other staff in Finance and Administration, Sales, and Membership. The East Bay Chapter has also employed its own conservation analyst as a central staff position.

The core CNPS concerns since its earliest years have always been the preservation of native plant species and significant natural areas; horticulture and gardening; education of children and adults through field trips, publications, plant sales, garden tours, wildflower shows; education of professionals through botanical workshops and special trainings; and developing financial stability through sales of native plants and merchandise, especially books. In particular, rare plants have always been in the spotlight since their protection is of utmost importance to CNPS.

As chapters began to organize—



James Roof (left), former director of the East Bay Regional Parks botanic garden in Tilden Park, kneeling in a section of the garden called “sea bluff,” a floristically and realistically rich re-creation of that vegetation type. Garden supervisor Walter Knight is in the background (right). The photograph was probably taken in the late 1960s. At the time, the controversy surrounding moving this garden resulted in the formation of CNPS. Photograph courtesy of East Bay Regional Park District archives.

often through the efforts of one or a very few dynamic individuals—their issues and conservation achievements were proudly acknowledged, and increasingly in more recent years

through news and feature articles in *Fremontia* and the *CNPS Bulletin*. Individual achievements were recognized in these same publications by announcements of new CNPS Fel-

lows and Volunteer Recognition Award recipients.

A Board of Directors organized under the second CNPS President (Ledyard Stebbins, 1966–1972) in mid-1967 recognized these core values as committees that also included Membership (mailing) and Newsletter (editing). Eventually the need to organize an annual state-sponsored CNPS plant sale was eliminated (in 1973) as a budget surplus accumulated and chapters began to develop their own local sales to fund their activities.

RARE PLANT PROGRAM

The spark that ignited the East Bay's "Save the Garden" grassroots group into CNPS (refer to Joyce Burr's account of CNPS in the January 1976 *Fremontia*) was a product of its time. The environmental movement was by now becoming a strong force in the nation and especially in California, which formed its Sierra Club in 1892 in response to environmental threats to the state's unique wild areas and biotas under the guidance of the beloved

John Muir and his writings. By the 1960s it was becoming obvious to even the politicians that pollution, resource extraction, and urban development were out of control in some areas, eventually leading to the passage of federal legislation such as the Clean Air Act (1963), Wilderness Act (1964), and Water Quality Act (1965). The academic communities and associated plant lovers of Northern California were probably well aware of the potential power of influential conservation organizations to offset some of these



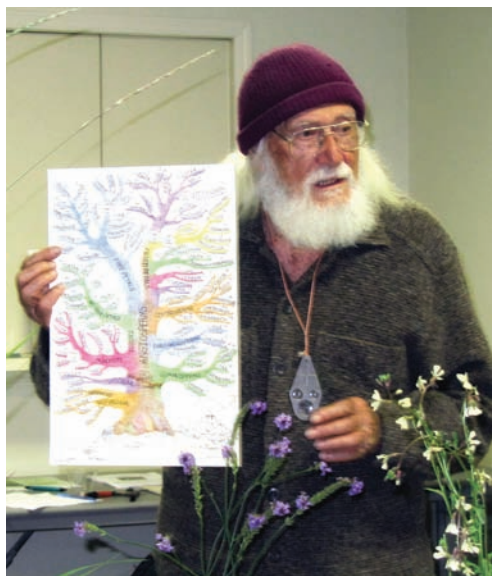
1966 view of the Regional Parks Botanic Garden in Tilden Regional Park, showing the Juniper Lodge when it served as both office and visitor center as well as the primary nursery. This view shows the garden as it appeared at the founding of CNPS. Photograph used with permission of the Regional Parks Botanic Garden.

damages as they thought beyond the boundaries of protecting the Tilden native plant botanic garden into a statewide effort.

Ledyard Stebbins, CNPS President in 1968, initiated the highly respected Rare Plant Program in 1968 by starting an index card file system of plants with distributions in California of less than 100 miles, using the botanical reference *A California Flora* by Philip A. Munz and David D. Keck as its source. Not coincidentally, the rare panamint daisy was chosen for the CNPS logo in the same year. (See the story on page 13.) Many meetings later, and with the help of other botanists to verify locations and rare plant status, a draft list of 520 plants was released in 1971 by an ad hoc committee and was recognized as the Rare Plant Project in 1972 with W. Robert Powell as chairman.

The list was given to the Smithsonian Institute for documentation and implementation of the federal Endangered Species Act (1973), which included only two categories of threatened and endangered species. Powell was then invited to attend a workshop by the Smithsonian to review the entire national list and found that the CNPS list represented about *one-third* of all the national plants (2,300–2,400 species). Funding from a federal source was soon available to conduct map and field assessments to provide more detailed information than was available from the original (mostly herbarium) sources. A mapping workshop on July 19–21, 1974 was held for botanists to assess rare plants in their approximate locations as well as specifying 13 categories and degrees of rarity.

The first edition of the *Inventory of Rare and Endangered Vascular Plants of California* was published by the nascent CNPS Publications Committee in 1974 listing 704 plants of primary concern, 554 of rare but



Over the years, CNPS has had a great many members who generously shared their knowledge of native plants with others. Oscar Clark is one of these. In 2011 at 90 years of age, Oscar was still teaching about plant families at a Riverside-San Bernardino Chapter meeting. He is the primary author of *Flora of the Santa Ana River and Environs* which is used as a reference for training workshops, such as for the California Rapid Assessment Method (CRAM). Oscar was the first herbarium curator at UC Riverside. Photograph by Diana Ruiz.

not presently endangered status, and 135 plants of limited distribution but not rare, a total of 1,393 taxa that included subspecies and varieties. The *Inventory* and its later versions were and still are being used as the primary information source for rare plants in California. As stated by Michael Tomlinson in the January 2005 issue of *Fremontia*, the CNPS Rare Plant Program

... has developed a strong reputation among policymakers and stakeholder groups throughout the state for scientific accuracy and integrity. The Program's data are widely accepted as the standard for information on the rarity and endangerment status of the California flora.

The *Inventory* is now in an online version, and remains free to all users.

A popular offshoot to these lists and documentation is the Rare Plant Treasure Hunt, a field excursion enterprise that began in 2010 and

challenges the public to find a suite of rare (or possibly extirpated) plants in their last probable localities. This has resulted in verifications of some 2,000 plant locations, an important addition to the program's information base by amateur botanists, and is currently being managed by Danny Slakey, CNPS Assistant Rare Plant Botanist. (More detailed historical information about the CNPS Rare Plant Program begins on page 21.)

CONSERVATION PROGRAM

Although it is a core value for CNPS, the conservation or preservation of plants and natural resources often requires organized and persistent efforts to preserve a species or area from partial or complete loss. For example, the Monterey Bay Chapter in its initial year (1966) won a decisive victory in saving rare plants from destruction on the military's Fort Ord base in Monterey County. Other environmental conflicts were noted by energized chapters in the early years with the help (or appreciation) of the Area Preservation Committee, a unit which persisted for some years.

Victories in local environmental cases involving development interests are frequently in danger of being overturned by the courts, so vigilance is always required. This is no small task, and always requires people willing to fight these battles time and again. It underscores the importance of this role both at the chapter level and especially at the organizational level. CNPS has been fortunate in having a Conservation Program Director (Greg Suba, 2009 to the present) who is capable of dealing with highly complex environmental issues requiring coordination of efforts at many levels. For a number of years he has focused a large percentage of his time on desert issues,

in an attempt to redirect the location of renewable energy developments from public lands containing considerable beauty and valuable ecological resources to areas with comparatively few such resources. In recent years he has organized conservation workshops as part of Chapter Council meetings in order to deepen participants' understanding of important conservation issues and stimulate thoughtful discussion and action. (More detailed historical information about the CNPS Conservation Program begins on page 25.)

VEGETATION PROGRAM

The idea of locating, describing, and protecting natural areas in California was an early goal of the energetic Ledyard Stebbins, and is being

realized through the CNPS Vegetation Program. The Area Preservation Committee, established in 1967, was charged with developing a list of areas with unique or diverse floras or other natural features, such as the southernmost quaking aspen stand in California. This task required the help of partners in the networking arrangements that Stebbins and others helped to foster across agencies, other societies (such as the well established California Botanical Society), businesses, and of course research units.

The culmination of this effort was a series of notebooks of 1,566 natural areas produced by a multi-agency California Natural Areas Coordinating Council in 1975–80 and 1982. These areas are listed by county with their plant lists and lo-

cation information, having been scanned and updated to resolve taxonomic and spatial errors and can be found at biohere.com.

A similar but more comprehensive effort started in the early 1990s, following the success of the Rare Plant Program in identifying rare and endangered species and details of their general locations and status. Michael Barbour, author or editor of numerous books and articles on California vegetation, was inspired to help convene a committee to accurately document plant communities across the state with the goal of providing details on their status, location, and composition.

The committee was headed by other noted ecologists, including John Sawyer and Todd Keeler-Wolf, who were given the task of compil-



Baja California Chapter members receive a certificate of membership to CNPS from Executive Director Dan Gluesenkamp (back row, fifth from left) on the border in Playas de Tijuana, August 2013. The Baja Chapter is CNPS's first chapter outside the US, and shares a similar flora to that found north of the US-Mexican border. This creates many opportunities for collaboration, especially between members of the Baja and San Diego Chapters.

ing lists of “series” of communities that were available from selected literature and unpublished sources. Data collected from field visits supplemented this list by using techniques adapted to rapid assessments of landscapes, which were taught to participants in the field. A *Manual of California Vegetation* or MCV (1995), the first of its kind in the state, presented these series, general locations, and additional information such as their three-dimensional structure (strata), landforms on which they are usually found, and the like. The MCV generated much interest and fostered a series of workshops by the CNPS Vegetation and Education Committees that taught field techniques and methods of classifying vegetation to many non-CNPS members who needed this information for their work or continuing education. Some of those participants eventually became CNPS members themselves. An updated, revised version of the MCV (second edition) was issued in 2009, and an online version launched in 2015. (More detailed historical information about the CNPS Vegetation Program begins on page 28.)

SPREADING THE WORD: CNPS PUBLICATIONS

Fremontia

A concise and charming account of the formation and productions of the CNPS Publications Committee can be seen in Phyllis Faber’s account (*Fremontia*, April 1999), some of which is incorporated below:

The original CNPS newsletter [called *Native Notes Newsletter*], distributed to members by mail in the 1960s, morphed into a more attractively packaged *Fremontia* in 1973 [CNPS’s botanical journal] under the then-editor Gunder Hefta. Its scope was expanded under Marge Hayakawa (wife of the famous Senator, both of whom resided in the DC area) to encompass a wealth of informa-

tive and entertaining articles to appeal to a wide audience by well-known plant admirers during her tenure (1973–1982). Special issues of *Fremontia* were and are often focused on a topic such as water, grasses, serpentine soils, vernal pools, weeds, CNPS histories (10, 25, and 40 years, and this 50-year issue). Its popularity probably increased when it became a journal printed in full color in 2006 (thanks to the efforts of *Fremontia* editor Linda Vorobik).

The very able editorship of Phyllis M. Faber (1983–1999) was assisted by the continuing services of a coordinator of *Fremontia* advertisements (in keeping with the Society’s core values) and a *Fremontia* designer. The current, very busy *Fremontia* editor is Bob Hass (2009 to present), who manages to find time to serve as editor of the *CNPS Bulletin* as well (2005 to present). (See the sidebar on page 38 to learn more about all those who have served as *Fremontia* editors.)

CNPS Bulletin

Beginning in 1974, news events began to be published in the multipaged *CNPS Bulletin* and mailed to members. Originally designed to announce chapter field trips, it became a vehicle for state and chapter news, short feature articles, legislative action items and conservation battles won, wildflower shows, plant sales, announcements of awards and personnel changes, and an assortment of time sensitive issues such as internal and external meetings and conferences. Its first all-color issue came out in 2006, at the same time that *Fremontia* also began being published in full color.

CNPS Press

Having field guides and lists of local floras available have always been important to CNPS members, who were used to having a plethora of large and small publishers available in California to address this need. The first library mentioned for CNPS

use came as early as 1966, but books for sale began being advertised in the December 1965 newsletter.

Some of the smaller companies in the 1960s and 1970s had evocative names such as Naturegraph and Pacific, while others brought out low-expense books published by various botanical gardens and research or academic entities. Under inspired leadership, the University of California Press began to develop its compact set of California Natural History Guides which filled an evident need. However, many CNPS members felt they needed more for their outings and research. The CNPS Publications Committee developed partnerships with such publishers and soon began to produce local floras that were printed by others, such as those of the Mt. Hamilton Range and the Northern Mojave Desert, and also produced a symposium on rare plants in the 1980s.

Under Phyllis Faber’s leadership on the committee beginning in 1990, CNPS began to publish its own books, such as *A Flora of the San Bruno Mountains*, as well as other types of books including the popular *California’s Changing Landscapes*. This publishing success kept the CNPS Publications Committee energized.

Faber believed that the formula for such success was threefold: to publish local floras, to reprint classic books, and to produce informative works that would appeal to a larger audience. Individual members and chapters also often produced their own books and booklets, and the Press published some other types of publications as well, including editions of the *CNPS Inventory of Rare and Endangered Plants* (during the 1980s to 2010), the *Manual of California Vegetation* (1995 and revised in 2009), proceedings of symposia, and the beautiful *California’s Wild Gardens* (1997). The publication in 2011 of the proceedings of the 2009 CNPS conservation conference of 473 pages was by itself a major undertaking, and most of the

PAST PRESIDENTS OF THE CNPS BOARD OF DIRECTORS

Watson Laetsch	1965–1966	David Magney	1992–1994
Ledyard Stebbins	1966–1972	George Clark	1994–1996
Robert Ornduff	1972–1973	Lori Hubbard	1996–1998
John Sawyer	1973–1977	Jack Sigg	1999–2000
James Smith, Jr.	1977–1979	Sue Britting	2001–2003
August Fruge	1979–1981	Carol Witham	2004–2005
Johnathan Libby	1981–1984	Brad Jenkins	2006–2007
Robert Will	1984–1986	Sue Britting	2008, Acting President
Charlice Danielsen	1986–1989	Brett Hall	2009–2013
Suzanne Schettler	1989–1992	Laura Camp	2014–2015

EXECUTIVE DIRECTORS OF CNPS

Allen Barnes	1994–2001
Pamela Muick	2002–2005
Sue Britting	late 2005 (Acting)
Amanda Jorgenson	2006–2008
Tara Hansen	2009–2011
Sue Britting	2012 (Acting)
Dan Gluesenkamp	2013 to present



TOP ROW, LEFT TO RIGHT: Allen Barnes, Sue Britting; MIDDLE ROW, LEFT TO RIGHT: Pam Muick, Amanda Jorgenson, Tara Hansen; BOTTOM: Dan Gluesenkamp.

CNPS CHAPTERS AND WHEN THEY WERE ESTABLISHED

The dates below reflect when each chapter's charter was approved.

1965:

Berkeley (originally called the "Bay Area Group," was not an accredited chapter, but as it initiated the first home site of CNPS in Berkeley in 1965, it was considered to be the "mother chapter")
Sacramento

1966:

Monterey Bay
San Luis Obispo
Dorothy King Young (formerly Gualala)
Santa Monica (originally Sierra-Santa Monica, and later Los Angeles/Santa Monica Mountains)

The 1970s:

North Coast (1970)
San Diego, Santa Clara Valley, and Milo Baker (1972)
Southern California Botanists (1972, short-lived)
Marin, Napa Valley, and East Bay (originally the San Francisco Bay Area) (1973)
Santa Cruz and Northern San Joaquin Valley (1974)
Channel Islands (1976)
Sequoia and Mount Lassen (1977)

The 1980s:

Sanhedrin (1981)
Kern County, Bristlecone, Riverside/San Bernardino, Orange, Tahoe, and South Coast (1982)
Shasta (1984)
San Gabriel (1985)
Yerba Buena (1986)
Sierra Foothills (1989)

The 1990s to the Present:

Redbud (1992)
Alta Peak and El Dorado (1993)
Mojave Desert (2000)
Baja California (2013)
Bryophytes (2015) (The first statewide CNPS chapter based on a focal interest rather than a geographical area)

editing was done by Rancho Santa Ana Botanic Garden and a CNPS committee that arranged for reviewers of all the articles.

EDUCATION: TALKS, OUTREACH, CONFERENCES

Many CNPS members are non-professional educators who take delight in sharing their knowledge of plants and nature with others. This has occurred throughout the organization's history, and all chapters have participated in a multitude of ways through such activities as public programs, field trips, wildflower shows and plant sales, native plant tours, tabling at public events, propagation workshops, and horticultural symposiums.

In the 1980s CNPS held several conservation conferences at the Marin Headlands, and several of these resulted in CNPS publications. Most were workshops and presentations on how to do conservation work at the chapter level. The Conservation Conferences that CNPS has organized in Sacramento (1986 and 2009), in San Diego (2012), and most recently in San Jose (2015) have generated an atmosphere of discovery and optimism for the role of science in formulating and perhaps solving some environmental problems in today's complex world. The 2015 conference drew almost 1,000 attendees to share research, ideas, and appreciation for California's native flora, and to address "big picture" conservation issues. There was a concerted effort to involve students in the conference by sponsoring individuals and defraying costs, resulting in over 15% of attendees being students.

DISPLAYING THE BEAUTY: THE POSTER PROGRAM

As CNPS expanded its scope and vision during its early years, it be-

came apparent that additional funding sources were needed to sustain its multitude of activities beyond having plant sales and increasing its membership. The beauty of wildflowers was showcased to increase membership and sales in the late 1970s under a committee headed by Wilma Follette. According to her, “the sales of...posters created by botanical artists surpassed all expectations by making a small fortune for CNPS and its chapters in its first eleven years” [*Fremontia* 33(1), January 2005]. The first poster in 1979 (Spring Wildflowers) sold out in a few months and others followed: Shrubs of the Coast Ranges (1985); Wildflowers of the Sierra Nevada (1985); Wildflowers of the Coast (1991); Wildflowers of the Desert (no date); and Wildflowers of the Redwood Forest (1992). Most are still available in the CNPS online store at store.cnps.org/collections/posters.

HORTICULTURE AND GARDENING

Given the importance of gardens and gardening to many members, it wasn't long before the demand for plant sources outstripped the supply in the mid-1960s when CNPS began offering its annual fall plant sales. CNPS held its first plant sale at Lakeside Park Garden Center, Lake Merritt, Oakland, on December 5, 1966, hosted by the group that founded CNPS. More information about that first sale is in Jenny Fleming's oral history, available online from The Bancroft Library, UC Berkeley (<https://archive.org/details/memeyearsformation00burrich>).

A horticultural advisory committee was set up in 1967, seed catalogs were advertised, and the first *spring* plant sale was successfully hosted by the Monterey Bay chapter in 1976. It wasn't long before CNPS was asked to support the creation of a native plant garden in Balboa Park, San Diego (1970) and to answer ques-

tions about gardening that members mailed to the newsletter editor. Eventually, a “Natives for Your Garden” article became an ongoing feature in *Fremontia* in the 1970s.

In 2014 Susan Krzywicki was hired as CNPS's first paid, full-time Horticulture Program Director. Her charge was to create a vision for the program “where native plants are widely available and routinely incorporated into public and private landscapes to conserve resources, extend habitat, and create a sense of place” (*CNPS Bulletin*, July–September 2014). She helped to coordinate gardening-related issues, to expand the gardening section of the CNPS website, and to assist chapters with a host of needs including native plant nurseries, plant sales, home gardens, a speakers bureau, and other educational programs.

REACHING OUT FURTHER: ADVOCACY AND PARTNERSHIPS

State and federal policies have influenced the directions CNPS has taken throughout its history by creating legislation that is (or was) designed to enhance protection of flora from rampant misuse, the most important being the National Environmental Policy Act or NEPA (1969), along with the California Environmental Quality Act or CEQA (1970), the Federal Endangered Species Act or ESA (1973), the state's Native Plant Protection Act or NPPA (1977), and the California Endangered Species Act or CESA (1984).

Through the years, legal protective measures that were to be applied to specific areas needed the help of CNPS advisors at the chapter and statewide levels to sort out beneficial from adverse potential effects on landscapes. One was the creation of multi-species regional plans at the federal and state levels (Habitat Conservation Plans and Natural Community Conservation

Plans, respectively). These allowed some species to be “taken” in regional plans and often generated unfavorable reactions from the environmental community. CNPS responded to these challenges by creating a Legislative Liaison (1973), an Environmental Impact Coordinator (1974–1979), a Legislative Committee (1980–1982), and a Vice President of Legislation and/or Legal Advisor (1983–1998). This role finally became a partially funded Legal Advisor under the leadership of Sandy McCoy (1999–2007), along with a partially funded Legislative Consultant (Vern Goehring, 1997 to the present). Vern credits CNPS as being possibly the most important environmental organization working to bring the revision of the state's Natural Community Planning Program to a successful conclusion.

The role of the Legislative Consultant is to initiate, sponsor, or otherwise oversee proposed state bills that deal with the protection of or impacts to native plants and their habitats. The consultant also makes recommendations for CNPS's Legislator of the Year award. And with the support of an California assemblywoman and some very hard-working CNPS volunteers, a “California Native Plant Week” now occurs the third week of April (during the same month as Earth Day).

The botanical and horticultural community of CNPS usually has a multiplicity of interests and forms natural partnerships with like-minded people. Personal affiliations with nonprofit in-state organizations such as the California Botanical Society, Northern California Botanists, Southern California Botanists, the Jepson Herbarium, Calflora, local and statewide conservation, horticulture, and gardening groups, and many others provide a constant source of information to many members.

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REDISCOVERING THE PANAMINT DAISY, THE CNPS LOGO

by Duncan Bell

Have you ever looked closely at the CNPS logo and wondered what plant was selected to represent the Society? One can tell that it's in the sunflower (composite) family which, just in California alone contains hundreds of different species to choose from. If you guessed the Panamint daisy (*Enceliopsis covillei*) then you guessed correctly!

This endemic species is only found in California, and has only been observed in a few canyons on the west side of the Panamint mountains, which are located on the northern edge of the Mojave Desert in the vicinity of Death Valley National Park. If you have ever seen this plant in flower you know just how striking it can be, with flowers often exceeding five inches in diameter. It is a perfect choice for an organization that works to protect the rare, threatened, and endangered plants of California.

The California Native Plant Society was formed in 1965 and a few years later, in 1968, someone suggested that CNPS should have a logo—like the Audubon Society, which had chosen an egret—and that the CNPS logo should represent a rare plant found only in California. A list of plants was proposed, and it seems that Wayne Roderick was the one to first suggest the Panamint daisy (Crawford, J., and O'Brien, B., personal communication). A color slide of the daisy taken by Clifford Schmidt in Wildrose Canyon (former professor at San Jose State University who wrote

the section on *Ceanothus* for *The Jepson Manual*) was sent to Joyce Burr, who made the drawing of what would become the CNPS logo in 1968 (*CNPS Newsletter* 1972). (Burr was heavily involved in the formation of CNPS, and served as the organization's chapter affairs chair and membership chair for about the first ten years.)

TREK TO FIND ANEW THE DAISY

Although I'd spent a considerable amount of time in the Panamint mountains and the greater Death Valley region, I'd never seen the



The original CNPS logo of the Panamint daisy.

Panamint daisy. In 2012 I served as CNPS rare plant coordinator for the California deserts as part of the Rare Plant Treasure Hunt program, so I began planning trips to look for rare plant occurrences that hadn't been visited in over 20 years. To my surprise I found that no botanist had ever returned to the type locality where the Panamint daisy was first collected by botanist Frederick

Coville during the Death Valley expedition of 1891. (The US Department of Agriculture had authorized the expedition to gather information on the flora of California and Nevada.) Given the amount of mining and off-road-vehicle use that had occurred on the western slopes of the Panamints over the past 100 years, I wondered if this population would still be there. There was only one way to find out.

We decided we would hike into Hall Canyon on the exact date (April 18) as Coville had, but 121 years later! However, due to extreme heat we called off the hike for the day. Early the next morning we began the five-mile hike into Hall canyon. The sun had just begun to rise and the temperature was already at 85 degrees and climbing rapidly. We loaded up as much water as humanly possible into our packs and began the rugged climb up the massive rocky alluvial fan that makes up the lower slopes of the Panamint mountains.

After hiking for over an hour, temperatures were now in the mid-nineties and becoming quite uncomfortable. Finding an unexpected flowing creek, we took a break and doused ourselves with the cold, fast flowing water. With body temperatures and minds somewhere back near homeostasis, we hiked on into the canyon, whose walls were becoming steeper, rising vertically hundreds of feet. Eventually we had to walk right down the center of the creekbed and bushwack through thick stands of willows. The go-



Duncan Bell precariously perched on Hall Canyon wall at the spot where the Panamint daisy (*Enceliopsis covillei*) was first collected in 1891. He was the first in his 2012 expedition to spot the daisy at the same location—a mere 121 years later! Photograph by Amber Swanson.

ing became rougher, and we were becoming more discouraged.

EUREKA, SUCCESS!

Finally we stopped and discussed whether we should turn around or continue on. I had also been worrying that perhaps Coville had collected the daisy in an adjacent canyon and wrote down Hall canyon erroneously. The decision was made to turn around, but as luck would have it, at that exact moment I saw something yellow far up ahead of us on the steep rocky canyon wall. We made our way towards it with great excitement and found ourselves face to face with

our first Panamint daisy and the type locality that Coville had first visited 121 years (and a day) ago. A little further up the cliff walls gave way to steep scree and more daisies could be seen. Notes, measurements, and photos were taken, and a short while later we were headed back down the canyon with smiles on our faces.

I personally hope that the Panamint daisy remains as the CNPS logo for many decades to come, as it seems a perfect representation for the California Native Plant Society. Clifford Schmidt phrased it well in his 1972 newsletter article about the Panamint daisy when he said, “Of the many plants that could have been chosen, these

stalwart plants with their splendid flowers, growing under seemingly harsh conditions, stand as a fitting symbol of our Society.”

REFERENCES

Schmidt, C.L. 1972. The panamint daisy—CNPS symbol. *CNPS Newsletter*, January 1972.

Coville, F.V. 1893. *Botany of the Death Valley Expedition*. Government Printing Office, Washington, DC.

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LESTER ROWNTREE: CNPS HONORARY PRESIDENT

by Lester Bradford Rowntree

In 1965 the CNPS founding committee named Lester Rowntree, a Carmel-based California native plant field botanist and horticulturalist, as the organization's Honorary President, a position she held with great pride until her death in January 1979, several days after her 100th birthday. This 50th anniversary gives us an opportunity to celebrate the organization's legacy by revisiting Lester's contributions to studying, conserving, and promoting the horticultural value of California's rich native flora.

Nursery owner and writer Judith Larner Lowry summarizes Lester's legacy nicely:

Today, it would be hard to find a professional in the field of native plant horticulture who was not, at some point, inspired by Lester Rowntree. The model of her double focus, wildland exploration, and landscape use of plants, is followed by numerous California native plant horticulturalists, from arboretum directors to landscapers to nursery professionals, who make regular trips into the wild for the pleasure of observing plants in their homes and to collect seeds and cuttings for propagation (Lowry 2007).

Intertwined and inseparable with Lester's botanical contributions was her free spirit and peripatetic lifestyle, traits that caught the imagination of writers early on, then resonated with others through the decades (see articles about Lester in the sidebar on page 17). As Marion Crane writes:

I want to know more of Mrs. Rowntree who roams the Cali-

fornia hills with a Ford and a burro and a sleeping bag, collecting seeds of the wildflowers all over the West; a seed-gypsy and lover of wildlands; a comely, delightful, small, keen, gentlewoman, who tore the heart out of me with a call to leave all and follow—to listen again to the silence of the hills; to touch the loneliness of nature [Crane 1932].



Lester Rowntree in her late eighties when she was appointed CNPS Honorary President, shortly after the organization's founding in 1965. Photograph courtesy of *Monterey Herald* newspaper.

LESTER'S EARLY YEARS

Lester Rowntree was born Ellen Gertrude Lester in Penrith, England in January 1879, one of eight children of Edward Lester, a Quaker tea merchant. Lester remembered fondly the frequent family outings to the nearby Lake District and counts them as the major influences that

shaped her life. Also important was the Quaker custom of youngsters being given their own garden plot to nurture, a tradition that produced many other Quaker botanists and horticulturalists.

Although England's landscapes and gardens remained strong influences on Lester, she was transplanted at an early age to North America, arriving in Altadena (near Pasadena) in 1891. It was here that she found her life's passion amidst California native plants. But acting on this calling was delayed three decades with schooling in the East, and in 1908 marriage to Bernard Rowntree, another English Quaker. Their son, Cedric (my father), was born several years later, with the family residing for almost a decade in a well-gardened suburban New Jersey home.

But in 1920 when Lester was 41, she was diagnosed (or, perhaps, more correctly, misdiagnosed) with ovarian cancer and informed that her time on Earth was limited. Not wanting to die in New Jersey, she convinced Bernard to move the family to Southern California so she could spend her last months amongst the beloved wildflowers of her youth.

Fortunately, however, Lester did not die and after several years in Southern California, she and Bernard made their home in the Carmel Highlands just south of Point Lobos. It was there in the mid-1920s that Lester turned her full attention to California flora. She published her first article in 1928, "*The Flora of Jeffers Country*" (a reference to the noted Carmel poet, Robinson Jeffers), with 40 more articles over the next several years, hinting at the prolific writ-

ings that would follow. But while her native plant career was blossoming, domestic life was not. Lester and Bernard divorced in 1931, and while Lester was now completely free to pursue her passions by traveling about California writing about native plants, she was also broke and homeless at age 52. Reflecting on this stage in her life Lester wrote:

It took adversity to bring me to the sort of life I always longed for. Not until my domestic happiness had gone to smash did I realize I was free to trek up and down the long state of California, to write down their [the flora's] tricks and manners in my notebook, to photograph

their flowers, collect their seeds, to bring home seedlings in cans just emptied of tomato juice ... I didn't take up this for the poetry of it. I had no ambition to become a picturesque Lady Gypsy. I honestly wanted to find out about California flowers. There was little written about them in their habitats and nothing at all about their behavior in the garden, so I made it my job to discover the facts for myself [Rowntree 1939].

THE NATIVE PLANT WOMAN EMERGES

With income from her writings and by bartering her gardening skills

with local Carmel craftspeople, Lester built a small house and nursery in 1932 on several sunny acres above the Monterey Pine belt in the Carmel Highlands. This house and garden became her logistical and spiritual home until her death in 1979.

Also in the early 1930s Lester and Lila Clevenger, a high school friend, formed the Lester Rowntree Seed Company, a modest mail order business selling native plant seeds grown in her nursery. At the company's apogee in the early 1950s the catalog listed 400 native plants and had a mailing list of over 4,000 subscribers. While Lester traveled and wrote, Lila Clevenger, who lived nearby in the Carmel Highlands,



Lester's home and garden in the Carmel Highlands, early 1930s. Photograph by Lester Rowntree (using a tripod and a delayed shutter setting).



Lester and Jim Roof, first director of the East Bay Regional Parks Botanic Garden. His effort, with local East Bay folks, to prevent this garden being “moved” led to the creation of CNPS. Photograph taken in the mid-1970s, several years before Lester’s death at age 100 in January 1979. Photograph courtesy of the East Bay Regional Parks Botanic Garden.

SELECTED ARTICLES ABOUT LESTER ROWNTREE

- Barker, P.A. 1965. A visit with Lester Rowntree. *American Horticultural Magazine* 44(1): 32–35.
- Begg, V.L. 1994. As thrilling as any western romance. *Pacific Horticulture* 55(2): 16–18.
- Brandt, C.R. 1955. Lester Rowntree: Denizen of the mountains. *Journal of the California Horticultural Society* 14(1): 8–17.
- Crane, M. 1932. *Gardens in America*. Macmillan, New York, NY.
- Dutton, J.P. 1958. *Enjoying America’s Gardens*. Reynal, New York, NY.
- Donlon, R. 1988. Lester Rowntree. *Manzanita* 8–9.
- Hamann, S. 1974. Lester Rowntree, mountain mystic. *Journal of the California Horticultural Society* 35(2): 73–76.
- 1976. The wildflower lover at ninety-seven. *Fremontia* 3(4): 3–8.
- Ingram, M. 1994. Lester Rowntree (1879–1979). Part One: The peripatetic Gilbert White. *Hortus* 8(3): 2–81.
- 1994. Lester Rowntree (1879–1979). Part Two: Sanctuary—conserving the worthwhile. *Hortus* 8(4): 81–96.
- 1995. Lester Rowntree (1879–1979). Part Three: A spirit of keen joy. *Hortus* 9(1): 69–87.
- Levenson, R. 1979. *Lester Rowntree: California Native Plant Woman*. Regional Oral History Office, Bancroft Library, University of California, Berkeley, CA.
- Lowry, J.L. 2006. Lester Rowntree’s horticultural legacy. *Hardy Californians: A Woman’s Life with Native Plants*, ed. Lester B. Rowntree. New expanded edition. University of California Press, Berkeley, CA.
- 2007. Supreme advocate for California native plants: Lester Rowntree. *The Landscaping Ideas of Jays*, pp. 78–91. University of California Press, Berkeley, CA.
- O’Grady, S. 1993. Lester Rowntree: Vernacular natural historian. *ISLE: Interdisciplinary Studies in Literature and Environment*. 1(1): 97–105.
- Rowntree, L.B., and R.A. Rowntree. 2006. About Lester. *Hardy Californians: A Woman’s Life with Native Plants*, ed. Lester B. Rowntree. New expanded edition. University of California Press, Berkeley, CA.
- Woollenden, J. 1968 Lester Rowntree. *Journal of the California Horticultural Society* 29(4): 98–126.

took care of business matters. In 1946 Ms. Clevenger left the partnership because of ill health and was replaced several years later by Edward K. Balls, another English Quaker. The seed company (and partnership) was dissolved in the 1950s after two wildfires destroyed the seed nursery.

Unquestionably one of Lester’s significant contributions to native plant botany came from the great amount of time she spent in the field, making her botanical rounds to all of California’s ecological zones, from desert to high Sierra, during the different seasons (see excerpts from her writings on page 18). Back roads in remote California were her preferred habitat; and where the roads ended, Lester continued farther by foot and pack animal. She was happiest when trekking the high Sierra, with a burro carrying her camera and plant presses.

But these expeditions were not quick visits to familiar plants in the same places. Instead, Lester explored new places each year, and recorded extensive field notes resulting from long stays in different ecological communities. Jim Roof, the first curator of the East Bay Botanic Gar-



Lester Rowntree and Company seed company brochure from the 1940s. Photograph from Rowntree family archives.

INSPIRATION FROM THE WORDS OF LESTER ROWNTREE

"Conservation must not stop simply at preventing a plant from being destroyed in situ....Conservation in its broadest sense means also seeing to it that the desirable species exposed to extermination are perpetuated, or at least being given a chance to carry on in another place."

—Plant Collecting: An Aid to Conservation, 1938,
Garden Club of California.

"The plant stalking business is not all beer and skittles. Fatigue brings moments when you are drenched in gloom. Intense heat, severe cold, attacks of loneliness, the limited diet, thunder and lightning sweeping above you as you cling to some bald mountain, all carry with them times of profound misery. Dust and ants get in your food; burrs and stickers in your clothes; snakes in your sleeping bag, insects sting, and bears raid the food supply. None of these discomforts are so great that the spirit of enthusiasm cannot surmount them..."

—A Plant Hunter Writes About Her Profession,
1936, *House and Garden*

"I inhabit my hillside home only from November to February, while the winter storms are blowing and the winter rains pouring. In March and April I have long shining days in the desert, in May happy weeks in the foothills, where a chorus of robins wakes me, and my morning bath is in a rushing stream of just-melted snow. In June I am in the northern counties scented with new-mown hay and wild strawberries. In July in the higher mountains, and in August and September up in the alpine zone with mule or burro."

—The Lone Hunter, 1939, *Atlantic Monthly*, 163

"I have put down what I have gleaned from personal observation of the habits of these shrubs in the world and of the behavior under cultivation of those which I have grown in California during the last 12 years. In compiling it I have followed my invariable rule of writing only from my own notes, taken on the spot, of the things that shrubs have told me in personal interviews."

—Collecting Myself, 1950, *Nature Magazine* 43(7)

"But before the season's climax is reached in the Sierra, I shall cross and re-cross the lower westward ranges, meet the same rivers again and again, skirt the sea, wander through the cupped beauty of the sand dunes, follow up dry water courses where cottonwoods and sycamores tap unseen supplies of moisture, search the New England-like meadows of the northwest, travel long trails through the foothills

under the gray-green boughs of Blue Oak and Digger [sic] Pine, over a floor of bright green or soft tan, with the lavender-pink of high mountains showing beyond."

—*Hardy Californians: A Woman's Life with Native Plants*, New Expanded Edition, 2006,
University of California Press, Berkeley, CA

"I wish there was a word one could use instead of the acquisitive-sounding 'collecting', which has such a vampirish and predatory ring. Intelligent collecting is a conservation measure; indeed the work is legitimate only when done with knowledge and forethought and when the motive is the preservation of the plants themselves."

—*Hardy Californians*, *ibid*

"John Muir said that in the mountains he was able to get nearest to the heart of the world. I agree. In order to feel this intensity of satisfaction, the botanist must lend an eye to something besides the physical peculiarities of the plants—his pores must open to let in the sweet fruits of awareness, all of nature's aliveness which spices the solitude and the silences, all the enchanting by-products that enrich the Sierra sojourn.

"In the autumn when fishermen and hunters have left and the stray cattle are being rounded up and taken down before the passes close, a delicious peace comes to the Sierra and over the mountains lies the hush before the storm, the patient expectancy of Nature biding her time for a seasonal change..."

"Nature hurries in her house cleaning. Aspen leaves flame, then go pale yellow and drop. Mountain misery is a velvet carpet of yellow-green. The chartreuse, egg-shaped knobs tipping green branches of incense cedar spread two wings and release their seeds. In the higher mountains the clear air is alive with the fluffy white seeds of alpine willow.

"But there is the apprehension of impending snow. Tonight the sheltering bulwark I have banked on for evening warmth will have forgotten it ever saw the sun. Unless, like the alpiners, I am to be smothered in snow, I must go down from Muir's 'Range of Light, surely the brightest and best of all the Lord has built.' There will again be that feeling of having left the real for the unreal, of having dropped from another planet, of having my recently awakened senses blunted by civilization, of exchanging Nature's sure methodical pace for a world of sudden days."

On a Trail of Beauty, 1947,
The Sierra-Nevada: The Range of Light, ed. Roderick Peattie, The Vanguard Press, New York, NY

den, who knew Lester well, opined that the secret to Lester's writing was that she lived with the plants for weeks at a time, and wrote about them while in the field.

Indeed, the margin notes in Lester's first Jepson manual attested to her intimate knowledge of specific plants and how they interacted with the larger natural community. Often her writings contained as much information about the local bird and insect life as about the plants themselves. Certainly this holistic natural history approach is one of her notable and lasting contributions to native plant studies.

Lester also believed that collecting seeds—and even in some cases the plants themselves—was an appropriate conservation measure that assured them at least temporary survival in a nursery or botanic garden setting. Lester's snatching the last remaining Franciscan manzanita (*Arctostaphylos franciscana*) plants from bulldozer death in San Francisco's Laurel Hill cemetery—"I garnished it ghoulishly in a gunnysack"—is

legend (James Roof interview in Levenson, 1978) (For more on the more recent conservation of this species, see *Fremontia* 37:4/38:1 [October 2009/January 2010].)

Building on Lester's extensive fieldwork were her voluminous writings: two well-received books published in the 1930s, *Hardy Californians* (1936) and *California Flowering Shrubs and Their Value to the Gardener* (1939), both of which were republished several times, and over 700 articles about native plants (Foster 2006). Many of these articles were published in wide circulation magazines and newspapers such as *The Atlantic Monthly*, *Colliers*, *Home and Garden*, *The New York Times*, and the Sunday magazine section of the *Los Angeles Times*. Lester's writings, it's frequently said, brought California native plants to the public's attention, changing the conversation about using native plants in the garden and not unimportantly also creating thousands of new stakeholders for native plant conservation and protection.

Two additional book manuscripts, one on California desert plants and the other on Sierra flora, were unfortunately destroyed in fires that devastated Lester's Carmel property.

Besides her books and articles, Lester also gave frequent public lectures about native plants to garden clubs and museum groups, or what she called "throwing a talk." While there's no record of these lectures, archival publicity photos and handbills suggest they were frequent. Complementing Lester's books, articles, and lectures were beautiful black and white plant and landscape photographs taken in the field with a large format 4x5 plate camera mounted on a tripod, the same equipment commonly used by professional photographers in the 1930s. Lester was a small woman, just over five feet tall, and the notion of her lugging this camera equipment around the landscape challenges the imagination. In the high Sierra she used a pack animal to carry her camping gear and camera; closer to her car she did it herself.

Lester in the Sierra with burro, 1937. Photograph by Lester Rowntree.





Lester in the Beartooth Mountains of Montana, 1935. Photographer unknown.

LESTER'S LATER YEARS

As mentioned earlier, in 1947 and 1949 when Lester was in her seventies, a series of wildfires ravaged much of her life's work by destroying the seed collections stored in her nursery. Perhaps most devastating was that the fire destroyed Lester's writing studio that contained her field notes, photographs, and two (and perhaps three) first-draft book manuscripts on the plants and trees of California.

After the fires, Lester found solace of sorts by writing four children's books during the 1950s. In these books Lester drew heavily upon her field experiences for her characters, landscapes, and animal lore. All of these books have strong natural history themes as her characters learn life lessons through their interactions with nature.

Lester turned 80 in 1959 and continued her active life of fieldwork, travel, lecturing, and writing until she lost her driver's license in 1968, a year before her 90th birthday. This was a devastating blow to her independent life, for no longer could she move about as she pleased. Instead, she had to depend on others to do her shopping in town or

drive her to field sites. A better solution came in 1970, during her nineties, when her son, Cedric, who was then teaching fire science on the Monterey Peninsula, and her daughter-in-law, Harriette expanded the Highlands house so they could move in and provide her with care.

In 1978 the Regional Oral History Office of UC Berkeley's Bancroft Library started a project on Lester's life by interviewing her, the family, and many others including a wide array of native plant botanists and horticulturalists. Rosemary Levenson was the project director and major interviewer. The resulting volume and film, "Lester Rowntree, California Native Plant Woman," appeared in mid-1979, several months after Lester's death at age 100.

LESTER'S LEGACY REVISITED

In many ways Lester's pioneering work primed the pump for the creation of CNPS in 1965 by expanding the public's awareness of native plants, by promoting their horticultural value, and by arguing tirelessly for the conservation and protection of threatened flora. Further, Lester's emphasis on fieldwork

and her natural history approach to studying plants within their larger context in many ways presaged today's ecological science.

But there's more to Lester's legacy—the intangibles of her life and personal character—that continue to inspire and energize individuals: her enthusiasm and spiritual relationship with nature; her sense of awe about the natural world; the curiosity to explore what's around the next bend and over the next hill; the value of finding, and then acting upon one's personal passion; believing in one's work and relishing each day's reward; and above all, the grit and tenacity to survive hard times and then move on.

It's those messages of joy and reward, coupled with a bit of backbone stiffening, that are as much a part of Lester's legacy as her botany and horticultural advice. While never preachy, Lester set the bar high for herself and, more subtly, for others. Unquestionably Lester would nod approval that on its 50th anniversary, CNPS has met the challenge and cleared the bar.

REFERENCES

- Crane, M. 1932. *Gardens in America*, p. 62. Macmillan, New York.
- Foster, R. 2006. Bibliography of Lester Rowntree's Publications. In Rowntree, L. *Hardy Californians: A Woman's Life with Native Plants*. New Expanded Edition, pp. xv–xlvi. University of California Press, Berkeley, CA.
- Levenson, R. 1979. *Lester Rowntree: California Native Plant Woman*, p. 56. Regional Oral History Office, Bancroft Library, University of California, Berkeley, CA.
- Lowry, J.L. 2007. Supreme advocate for California native plants: Lester Rowntree. *The Landscaping Ideas of Jays*, p. 78. University of California Press, Berkeley, CA.
- Rowntree, L. 1939. Lone hunter. *Atlantic Monthly* 163: 809.

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THROUGH THE LOOKING GLASS: THE CNPS RARE PLANT PROGRAM

by Aaron E. Sims and Roxanne Bittman

In the past 35 years, the CNPS Rare Plant Program (RPP) has had ten Rare Plant Botanists/Assistant Botanists paid staff positions. Some only served a few months to a year, while others for over ten years, yet all botanists have made important, integral contributions to what the RPP is today. After working for CNPS they all went on to additionally important environmental careers.

When asked about their favorite part of the position, all of the past botanists unanimously proclaimed: getting to know and work with all of the many dedicated CNPS members, volunteers, and botanists across the state. Another common response was having the ability to work so closely and cooperatively with the great staff at the California Department of Fish and Wildlife. Such praise is well deserved, and speaking from within the program, we are assured that it wouldn't be where it is today without such enthusiastic and fantastic plant people as you.

RICK YORK (1980–1986)

As the organization's first botanist, Rick helped form the vital collaborative bond between the RPP and the *California Natural Diversity Database* (CNDDB) (see Jensen and Sims, *Fremontia* 43(1): 2–5 for more information on this remarkable undertaking). Rick's tenure began the momentous effort to computerize all of the rare plant information. He managed to collate a lot of disparate pieces of information on an electric typewriter, and travelled to CNPS chapters asking for contributions to



From left to right: Rick York, Mark Skinner, and Ken Berg, CNPS's first three rare plant botanists. Self-portrait.

purchase the first computer system for the RPP.

Rick recently retired as supervisor of the Biological Resources Unit, California Energy Commission, in Sacramento.

KEN BERG (1986–1989)

1986 marked the first big CNPS Conservation Conference, and that is when Ken transitioned into the position of RPP botanist. In 1987, with his brother's help, Ken converted the original nine-inch floppy discs of rare plant data to updated computer files. He then wrote programs to build county and topo quad searches and species lists, which became appendices in the printed *CNPS Inventory of Rare and Endangered Plants* (the *Inventory*). Ken was keenly aware of the state listing system for rare plants, and adjusted the CNPS ranking system of rare species so it could more easily dovetail with the CEQA rules.

Ken spent several years as a high level administrator in the US Fish and Wildlife Service, and is currently director of the Forest and Rangeland Ecosystem Science Cen-

ter for the US Geological Survey in Corvallis, Oregon.

MARK SKINNER (1989–1996)

Mark ushered in a new era for the *Inventory* by moving all its data into an electronic version. Suddenly, instead of several hundred taxa, there were a few thousand to deal with. He sent out for review a massive booklet containing all RPP information, along with all status changes being considered.

It was a daunting task, but Mark had tremendous focus and attention to detail and got it done.

Mark is currently botanist for the Region 6 Regional Office, USDA Forest Service, in Portland, Oregon.

DAVID TIBOR (ASSISTANT BOTANIST 1992–1996, BOTANIST 1996–2004)

Dave was known for being incredibly detail-oriented, as well as an excellent editor. He continued to add to what had now become a huge *Inventory*, and skillfully brought in everyone's opinions. He was the first to organize a "traveling roadshow" where he and Roxanne Bittman met with groups of experts in various regions of the state to get their comments on proposed changes to the *Inventory*. This was the most exhaustive attempt, to date, to involve as many botanists as possible in the review process, only superseded and topped by what the Program accomplishes today with the online Forum model (see cnps.org/cnps/rareplants/forum-status_review.php).



Dave Tibor.
Self-portrait.

David is currently a senior environmental scientist at the California Department

of Conservation, Office of Mine Reclamation, in Sacramento.

MISA WERNER (2004–2006)

Misa came along for a comparatively short time after Dave's long tenure before joining CNPS's first RPP botanist, Rick York, to work for the California Energy Commission. While with CNPS, she developed a form for nominating plants for inclusion and making changes to the *Inventory*, and worked on adding some little-known desert rare plants to it. Misa was very personable and caring to CNPS members, and she enjoyed helping them get the information they needed to conserve rare plants.

Misa is currently senior biologist at the California Energy Commission in Sacramento.



Misa Werner. Photograph by Leslie Stair.

PATRICK MCINTYRE (INTERIM IN 2006)

Patrick volunteered with Misa for about a year, and then filled in as interim botanist until Kristi Lazar was hired. He was instrumental in ensuring that core duties of the RPP continued and that the review process didn't stop during the transition between permanent botanists. He also helped train Kristi when she started.



Patrick McIntyre. Photograph by N. Ivalu Cacho.

During his short, yet important term, Patrick loved reading status review proposals and learning about plant species he'd never heard of before.

Patrick is currently lead scientist of the CNDDDB at the California Department of Fish and Wildlife in Sacramento.

KRISTI LAZAR (2006–2007)

Kristi was also a short-time RPP botanist before moving on to the CNDDDB. She accomplished a lot in one year: processing nearly half of the status review backlog at the time, writing a *Fremontia* article on CNPS threat ranks, and improving the status review process by adding Excel data sheets, distribution maps, and sending out "Final Call" emails before a final decision was made on species' status. She especially enjoyed playing an active role in rare plant conservation, and in communicating with botanists across the state on rare plant issues.

Kristi is currently lead botanist of the CNDDDB at the California Department of Fish and Wildlife in Sacramento.



Kristi Lazar. Photograph by Dan Lazar.

NICK JENSEN (2007–2010)

Nick greatly improved the early Forum system, which wasn't getting much input at first. He increased participation, which made the Forum much more satisfying to use and increased confidence in the decisions being made, now that the in-person meetings were no longer being held. In his last year, Nick raised

Nick Jensen. Photograph by Rachel Hutchinson.



money for and helped design the *Online Inventory*, 8th edition, which was released six months after his departure. Also, prior to the hiring of CNPS's first paid Conservation Program Director, Nick raised the alarm about the overabundance of large-scale renewable energy projects in the California deserts and their potential impacts to rare plants. Lastly, one of his greatest achievements was reforming the Rare Plant Program Committee, which is very active in maintaining academic and research support to CNPS as a key adjunct to the RPP.

Nick is currently a PhD graduate student at Rancho Santa Ana Botanic Garden in Claremont, California.

AARON SIMS (2010–PRESENT)

Aaron has helped strengthen and improve the status review process by developing a form for becoming a reviewer, increasing Forum and reviewer membership, and making status reviews more comprehensive. He has also implemented many changes to the RPP, including the *Online Inventory*, 8th Edition, the change from "CNPS List" to "California Rare Plant Rank," new 2A and 2B ranks, and the inclusion of lichens in the *Inventory*.



Aaron Sims. Photograph by Morgan Kennedy.

DANNY SLAKEY (2011–PRESENT)

Danny started as half-time assistant botanist in 2011, while also coordinating the Rare Plant Treasure Hunt (RPTH) half-time for the Education and Rare Plant Programs. Toward the end of 2014 he started working full-time. Due to his tremendous work with the status review process, the number of reviews performed annually has now doubled. Danny has also done a great



Danny Slakey.
Photograph by
Sylvia Wright.

Part of his recent work has involved increasing awareness of rare plants most in need of protection, and continuing to shape the RPTH by emphasizing trainings and volunteer leadership.

MONA ROBISON (PROGRAM MANAGER, 2015–PRESENT)



Mona Robison.

In May 2015, Mona was hired as CNPS's first Rare Plant Program Manager, just in time to ensure that this year's RPTHs are a huge success. In addition to managing the RPTH, Mona is tasked with developing and implementing many exciting new projects within the Program, including the implementation of its strategic plan.

The CNPS 50th anniversary marks the first time in the history of the Program that it has had three full-time staff. We are exceedingly grateful and excited to have the opportunity to fully maintain and expand upon our mission to develop the most current, accurate information on California's rare and endangered plants, and to promote science-based plant conservation in California.

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job at increasing volunteerism in the RPP. More chapter members are now helping with status reviews and participating in the Rare Plant Treasure Hunt.

THE CNPS RARE PLANT TREASURE HUNT: THE FIRST SIX YEARS

by Danny Slakey and Aaron E. Sims

Citizen science projects have garnered significant media attention in recent years. They're not in any way restricted to the realm of biology and ecology. At a recent citizen-science conference I attended, projects ran the gamut from mapping neurons in the brain to analyzing images of distant galaxies.

In 2010 CNPS officially jumped on the citizen science bandwagon with the founding of the Rare Plant Treasure Hunt (RPTH), a project aimed at mobilizing volunteers to survey for and document rare plant populations throughout California. While the RPTH only started in 2010, its origins go back to the founding of the CNPS Rare Plant Program (RPP) in 1968. Ever since those early years, CNPS chapters and individual members have been contributing their rare plant expertise, knowledge, and survey results to the RPP. The program would not be what it is today without the thousands of hours donated annually by such a wide range of botanists and plant enthusiasts.

While those previous contributions are invaluable, the RPTH brought with it a new approach to collecting rare plant data. It is a statewide coordinated effort to survey California's

rare plants, with target plants and areas chosen by RPP staff, botany experts, and volunteers. This coordinated effort allows CNPS to target funding sources that are needed to support the project and track its accomplishments. Nearly six years later, it's time to review where we are and how we are moving forward with this immensely successful project.

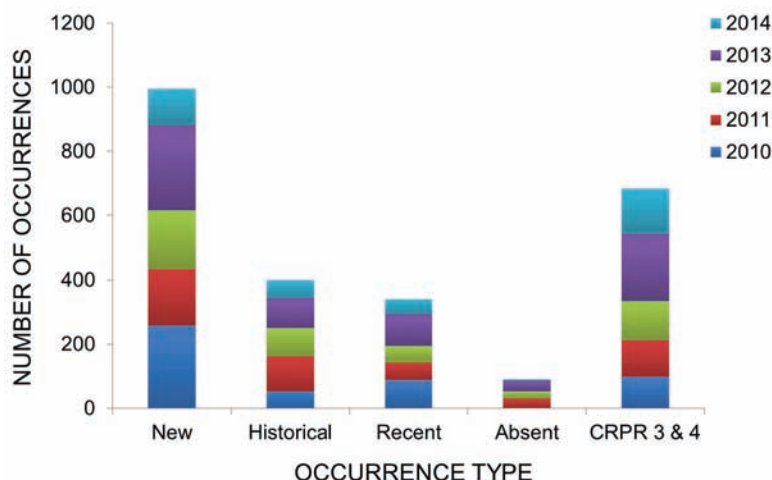
A STATEWIDE EFFORT

The RPTH is truly a statewide effort aimed at gathering rare plant data from all corners of our huge and ecologically diverse state. Anyone who has followed the project will notice that the staff-led RPTH trips are often geographically clustered. This is due to the fact that the grants funding the project often have geographic restrictions, and because staff concentrate trips in areas that are threatened or are seriously in need of updated rare plant



Rare Plant Treasure Hunters key out jewelflower (*Streptanthus* spp.) plants at a recent trip to Berryessa Snow Mountain National Monument. Verifying plant identifications through keying and specimen vouchering is a crucial part of the Rare Plant Treasure Hunt (RPTH). Photograph by Sylvia Wright.

FIGURE 1. TYPES OF RARE PLANT OCCURRENCES DOCUMENTED IN THE FIRST FIVE YEARS OF THE RARE PLANT TREASURE HUNT.



The 1,000 new occurrences documented in the first five years of the project are a testament to its valuable scientific contributions. Documentation of other types of occurrences, such as those that haven't been seen in over 20 years (historical), those seen in the past 20 years (recent), and those that cannot be found at a known rare plant location and at the right time of year (absent) are also extremely important for rare plant conservation. Lastly, data gathered on California Rare Plant Rank (CRPR) 3 and 4 plants can help determine if they need to be re-ranked in the future.

Source: California Native Plant Society, 2015.

data. The Desert RPTH was so crucial because of the immense threats to the desert from solar energy projects, and because California



The Kern River evening-primrose (*Camissonia integrifolia*), was rediscovered in 2015 by separate groups almost simultaneously, after decades without a single sighting of this plant. Photograph by John Game.

deserts are among the least botanically documented part of the state. Other regional focuses have included the Central Coast, San Francisco Bay Area, and Carrizo Plain National Monument.

CNPS chapters and members can customize their participation in the RPTH to their own strengths and interests, and often they don't confine themselves to the chapter's boundary. The North Coast Chapter, for example, organizes one large-group RPTH annually to search for a few target plants, often ones that are newly-described or in need of further research. At the opposite end of the spectrum (and the state), the San Gabriel Mountains Chapter has

fielded a crew of between one and four volunteers that consistently do RPTH survey trips week after week, year after year. The East Bay Chapter has yet another approach, in which volunteers adopt a particular rare plant that they search for throughout the chapter's region. A number of adventurous volunteers from different chapters frequently cross chapter boundaries in search of elusive rare plants in all corners of California. While these approaches vary widely, they have the common goal of acquiring valuable rare plant data and increasing participation in rare plant conservation and research.

RESULTS TO DATE

The RPTH has been an immense success, both in terms of the amount of rare plant data gathered and how engaged volunteers are in the project. In the first five years of the program, volunteers and staff gathered data on over 2,500 rare plant occurrences, of which almost 1,000 were new to science (Figure 1). This abundance of new occurrences illustrates the need for continued botanical exploration throughout California.

The data gathered by our volunteers is incredibly valuable, and has been used by the RPP to make some important decisions on the status of rare plants in the *CNPS Inventory*. For example, a group of CNPS members in the central Sierra Nevada turned in so much new data on Brandegees' clarkia (*Clarkia biloba* subsp. *brandegeeae*) that the plant was downranked to the watch list, California Rare Plant Rank (CRPR) 4. A few years later, members of that same group searched for the single California occurrence of western rock-jasmine (*Androsace occidentalis*) at Emigrant Gap and helped uncover historical records showing that the plant was probably never

found in California, which led to its deletion from the *Inventory*.

Other volunteers contribute by suggesting new plants to add to the Inventory. Water star-grass (*Heteranthera dubia*) was such a plant, added to CRPR 2B, rare in California and elsewhere, based on a dedicated volunteer's recommendation and prior negative survey results. Additional valuable contributions include significant range extensions and rediscoveries, such as the RPTH group that found the first known population of Parish's checker-bloom (*Sidalcea hickmanii* subsp. *parishii*) in Kern County, and a different group that rediscovered Kern River evening-primrose (*Camissonia integrifolia*) in 2015 after many decades without any observations.

LOOKING AHEAD

As we near the end of our sixth year of the RPTH, we are still hoping to find new plants and new ways to look for them. And in terms of tools, we will continue to develop devices and techniques that make all aspects of being a Rare Plant Treasure Hunter easier. One development to look out for is county-level rare plant datasets in Google Earth that will be shared with our most dedicated volunteers. We always encourage new volunteers and members to join in on the project, especially those who have prior plant ID experience. More information on the Rare Plant Treasure Hunt is available at cnps.org/cnps/rareplants/treasurehunt/.

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THE CNPS CONSERVATION PROGRAM

by Greg Suba

For 50 years, the California Native Plant Society (CNPS) has been the voice for native plant conservation in California.

Through its network of CNPS chapter activists and a small staff, the CNPS Conservation Program works to preserve California's remaining natural landscapes, to help restore native habitats where possible, and to educate the public about native plant biodiversity.

Although the faces and structure of the Conservation Program have changed over the years (a comprehensive retrospective of the program is available in David Chipping's *The CNPS Conservation Program* in *Fremontia*'s 40th anniversary issue, *Fremontia* 33(3), July 2005), the Program's mission remains the same: to

preserve California's native flora. We do this for the plants themselves as well as for ourselves and future generations.

Today the CNPS Conservation Program consists of a statewide network of volunteers and three paid staff (a full-time Conservation Program Director, a part-time Legislative Analyst, and an East Bay Chapter Conservation Analyst). Our advocacy is science-based and accomplished primarily by CNPS Chapter Conservation Chairs, their committees, and other dedicated individuals who live and work across California and Baja California, Mexico. Conservation Program staff in Sacramento provide statewide coordination and guidance on plant-related issues that affect multiple chapters.



A landscape worth protecting. Oak savannah and native wildflowers in spring near Carrizo Plain, CA. Photograph by Nick Jensen.



CNPS volunteers map Mendocino County pygmy forest stands, a first step towards conserving them. The small-diameter, furrow-barked bishop pine (*Pinus muricata*), and Mendocino or pygmy cypress (*Hesperocyparis pygmaea*) surrounding them appear as young trees, but their estimated ages range from 80 to 100 years old. Pictured left to right: Angela Liebenberg, Adrienne Long, and CNPS Fellow Teresa Sholars. Photograph by Clare Golec.

PROTECTING NATIVE PLANT BIODIVERSITY

Now more than ever, conservation management actions are being driven by an urgency to address climate change. California has set some of our nation's most ambitious laws related to climate change, including statewide greenhouse gas reduction goals. This has significantly impacted where and how development is occurring in California, and also how quickly. In the past several years, bioregional-scale conservation and development plans have created a pressing need for detailed information on the distribution of sensitive plant and animal species and the range of their habitats in order to determine which lands are more suited for development and which for conservation.

The Desert Renewable Energy Conservation Plan, the California High Speed Rail project, the Renewable Energy Transmission Initiative, and the San Joaquin Valley least-conflict solar planning processes are

a few examples of land-use planning where local CNPS chapter experts have contributed botanical information to improve plant conservation elements associated with these plans. Increasingly, when species distribution and habitat range data is lacking, planners consider modeled highest-probability/lowest-probability habitat scenarios for plants and animals when prioritizing conservation decisions.

Locally, CNPS chapter conservation advocates continue to fight for native plants project by project, as we have done now for half a century. There are projects affecting native plants in each of our 35 chapters (including our two newest ones, the Baja and Bryophyte Chapters). And in every chapter there are local activists and experts who are either involved in project-level conservation, or able to provide much needed botanical information to those who are. Whether this involves rare plant species threatened by development in Los Angeles, Orange, or Santa Cruz Counties, unique communi-

ties of North Coast pygmy forest, East Bay maritime chaparral, or Southern California old growth chaparral, CNPS Chapter volunteers are there—and in more places than I can list here—to speak up for threatened plants and defend their habitat from destruction.

No matter the scale of the effort, CNPS's approach to conservation has remained basically the same over the years: identify the native flora within a planning area, create maps and descriptions of these areas to share with others, and protect plant resources by avoiding impacts where possible and minimizing or mitigating the rest.

The recent publication of "Botanical Priority Protection Areas" from the CNPS East Bay Chapter is an excellent example of this approach. Its chapter members now use this information for both chapter-wide and project-level advocacy.

Chapter volunteers can also use the resources of CNPS programs to increase their effectiveness. Rare plant and vegetation mapping infor-

mation from the CNPS Rare Plant and Vegetation Programs is available to them, as are research results and effective outreach materials from the CNPS Horticulture and Education Programs.

PARTNERSHIPS

Landscape-level planning initiatives like the Desert Renewable Energy Conservation Plan, the Bay Delta Conservation Plan, and forest and rangeland carbon planning, as well as individual projects such as the proposed Newhall Ranch development in Los Angeles County, generate concerns shared by other conservation groups. CNPS frequently partners with others to develop comprehensive conservation recommendations. This strength-in-numbers approach can both bolster all parties' arguments and increase their impact.

LEGISLATION AND REGULATIONS

To minimize where and how projects impact native plant species and communities, CNPS relies on local, state, and federal laws to provide as robust protection for native plants as possible.

Every year CNPS analyzes new legislative proposals to determine if there is a nexus to plant conservation, and to determine whether or not to support them. When necessary we propose and negotiate amendments. As with other conservation work, we place a high priority on coordinating with other environmental groups to ensure that a strong coalition supports common legislative goals. (For additional information, see Vern Goehring's article in this issue on page 31.)

Recently CNPS worked closely with the California Fish and Game Commission to draft a progressive State Policy on Native Plants that the Commission adopted in 2015. The new policy describes native plants

"as integral elements of the State's wildlife" and will help refine administrative and legislative actions on behalf of native plant conservation.

Among other things, the new policy acknowledges that transplantation has been a largely ineffectual mitigation measure over time, and also acknowledges the need to re-examine wild fire management practices such as fuels management and post-fire salvage and their impact on native plant conservation.

FORESTRY

California has unrivaled biodiversity and numbers of endemic species, yet many forest dependent ecosystems and species are in decline. Thresholds for acceptable levels of habitat alteration due to disturbance from timber harvest currently do not exist. There is also no guidance on the amount and distribution of seral stages that is desirable and necessary for healthy forest ecosystems. In 2012 CNPS worked collaboratively with partner environmental groups, the Governor's administration, and the timber industry to create a California law (AB 1492, the Timber Regulation and Forest Restoration Fund) that establishes the need to develop standards for assessing forest health and ecological performance resulting from the implementation of state forest practices. Forestry standards will provide a yardstick by which stakeholders can track and measure acceptable level of impacts from timber harvesting, and prevent the decline of forest health from cumulative impacts over time.

On federal forest lands in California, in addition to advocating appropriate monitoring and management of forest rare plant species, CNPS continues to advocate the conservation of complex early seral-stage forest habitat (*Fremontia* 42(3), September 2014), and the use of fire as an ecological management tool during ongoing forest plan revisions.

CEQA

The California Environmental Quality Act (CEQA) is the one law used most often by CNPS conservationists. Each year CNPS chapter members across California review CEQA reports and draft and submit native plant related comments. When our arguments for plant protection are scientifically sound and supported by law, but not adequately reflected in a lead agency's final decision, our last option to alter the outcome is litigation. While even a favorable court decision may not stop a project from being built, litigation can be the only recourse to forcing developers and/or lead agencies to re-examine a badly approved one, and to require better mitigation for significant impacts to native plants.

OUR HIGEST PRIORITY

Given the sum of environmental stressors from the bulldozer to greenhouse gas emissions, our highest conservation priority must be to preserve as much natural land in as native a condition as possible, for as long as we are able. In California (as others do elsewhere), CNPS joins those who strive to preserve highest quality habitats across a system of core reserves, bridged together by land corridors. In these places we can provide nature as much elbow room as possible to persist, disperse, migrate, adapt, and evolve—allowing these processes to unfold as they have for millions of years.

The work of the CNPS Conservation Program, with its chapter volunteers engaged in local land-use planning and decision-making, and Program staff working on regional and statewide issues, are helping to build this reserve system piece by piece.

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THE CNPS VEGETATION PROGRAM

by Todd Keeler-Wolf and Julie M. Evens

The CNPS Vegetation Program began 26 years ago when a team of visionaries, the CNPS Long-Range Planning Committee, came together to advance a new model for conserving the state's native plants called "plant communities." This approach identified biodiversity at the landscape-scale by taking into account the repeating patterns of plant species occurring together in a particular environment,

for enacting laws to conserve plant communities.

Dr. Michael Barbour, a nationally prominent plant ecologist, was appointed the first chair of the CNPS Plant Communities Committee in 1991. He assembled a well-balanced volunteer committee that included ecologists from academia, state and federal agencies, the consulting community, and chapter members (Keeler-Wolf 1993; Hillyard 1999).

The Committee initially focused on two goals: 1) developing a data collection procedure for inventorying and protecting plant communities, and 2) advancing an effective system to classify plant communities into vegetation types since a standard system did not

in five years, the majority by chapter volunteers throughout the state. Then the data records were analyzed to develop defensible definitions. Finally, maps were created for several of the most threatened vegetation types in the state, as identified by the California Natural Diversity Database, including Sycamore Alluvial Woodland (Keeler-Wolf et al. 1994), Riversidian Alluvial Fan Sage Scrub (Barbour and Wirka 1997), and Southern Maritime Chaparral (Hogan et al. 1996). These definitions were used in conjunction with existing laws to defend the validity and rarity of these plant communities, and to support decisions to avoid or mitigate their disturbance or elimination.

Two additional sampling protocols were also established by CNPS to address others issues: the relevé method (adopted in 1997) and the vegetation rapid assessment method (adopted in 2001). These protocols enabled CNPS and many federal, state, and local agencies to launch multiple vegetation mapping and inventory projects covering broad areas, so that a much larger number of vegetation samples could be collected.



CNPS vegetation workshop on *A Manual of California Vegetation* presented by Julie Evens, Todd Keeler-Wolf, and Michael Barbour at Calaveras Big Trees State Park, fall 2009. Photograph by Jeffrey Cox.

and the wildlife associated with them. It has allowed biologists to distinguish important vegetation types for conserving biodiversity, including those that contain rare species, and those that are representative of all ecological regions in the state. Previously, individual species were the primary focus for inventory and conservation efforts.

The Planning Committee then provided a broad rationale that included the need to identify and quantify discrete plant communities through classification and mapping; the value of conserving communities themselves, including those that are rare or threatened; the need of protecting and properly managing all plant communities; and the need

exist previously that would allow biologists to consistently identify and recognize them.

DATA COLLECTION PROCEDURE

By 1992 the Committee established a simple, repeatable standard sampling protocol—The CNPS Point Intercept Sampling Technique (Sawyer and Keeler-Wolf 1995)—to enable quantitative data collection for any type of plant community. Amateur and professional botanists were taught how to collect the necessary floristic and environmental information through a workshop and training video. Afterwards, over 900 transect data records were collected

VEGETATION CLASSIFICATION AND MAPPING

The Committee also began writing a new compendium of the known plant communities in California based on ecological literature, quantitative data collection and analysis, and expert opinion. Starting with the existing classification of natural communities in California (Holland 1986), the Committee developed more standard floristic definitions to improve plant community defensibility. A draft classification system

was completed in 1994, including detailed descriptions of all known plant communities. Following extensive peer review, CNPS published *A Manual of California Vegetation* (Sawyer and Keeler-Wolf 1995). At that time, Todd Keeler-Wolf took the chair position of the Committee.

This new classification system was vetted, in part, by symposia held through the American Academy for the Advancement of Science (AAAS) in 1993 and again in 1996 (Barbour 1995, Barbour and Keeler-Wolf 1997). *A Manual of California Vegetation* (MCV) quickly became regarded as the state's new standard for vegetation classification. However, experts also correctly recognized it as being far from complete. Based on the book's existing framework, more valuable quantitative data on California plant communities began pouring in to CNPS.

Also, CNPS, along with local, state, and federal agencies, began many new vegetation projects between 1996 and 2006. The information in the MCV was quickly being refined and expanded upon with collections and analyses of large new datasets used not only to classify, but also to map various areas of the state. This efficient accumulation of new information evolved into an integrated approach of vegetation sampling, classification, and mapping, which has now been implemented for baseline data compilation and long-term management in many natural areas in California.

By 2000, coauthors John Sawyer and Todd Keeler-Wolf envisioned the next edition of the MCV to include more information on distributions and ecological characteristics of plant communities. A grant from the federal Joint Fire Sciences Council enabled CNPS to compile information on ecological disturbance (damage caused by fire, floods, erosion, climate change, etc.) through five expert workshops held from 2000 to 2002. A third coauthor, Julie Evens, was brought on to

help with writing the set of vegetation alliance definitions that had grown rapidly from approximately 250 to almost 500. Thus, the second edition of the MCV (referred to as MCV2) (Sawyer, Keeler-Wolf, and Evens 2009) included twice as many descriptions for vegetation alliances as the first edition, and incorporated new information on fire and other disturbance ecology, distribution maps, and explanations of the uses of vegetation for conservation.

Since 2009 CNPS has converted the MCV2 into a database and interactive website (see vegetation.cnps.org), which now includes a photographic catalog of California vegetation alliances.

Similar expansion of vegetation programs has occurred nationally with increased federal agency attention to vegetation classification and mapping. This has resulted in the Federal Geographic Data Committee's ratification of a National Vegetation Classification Standard (NVCS). In addition, a significant update has been made to the NVCS with support from a Vegetation Classification Panel through the Ecological Society of America (see usnvc.org, esa.org/vegweb2/, FGDC 2008, Franklin et al. 2014). These national efforts have mirrored what CNPS and others have been doing in California, and both the CNPS Vegetation Committee Chair and CNPS Vegetation Program Director

are active members of the national panel.

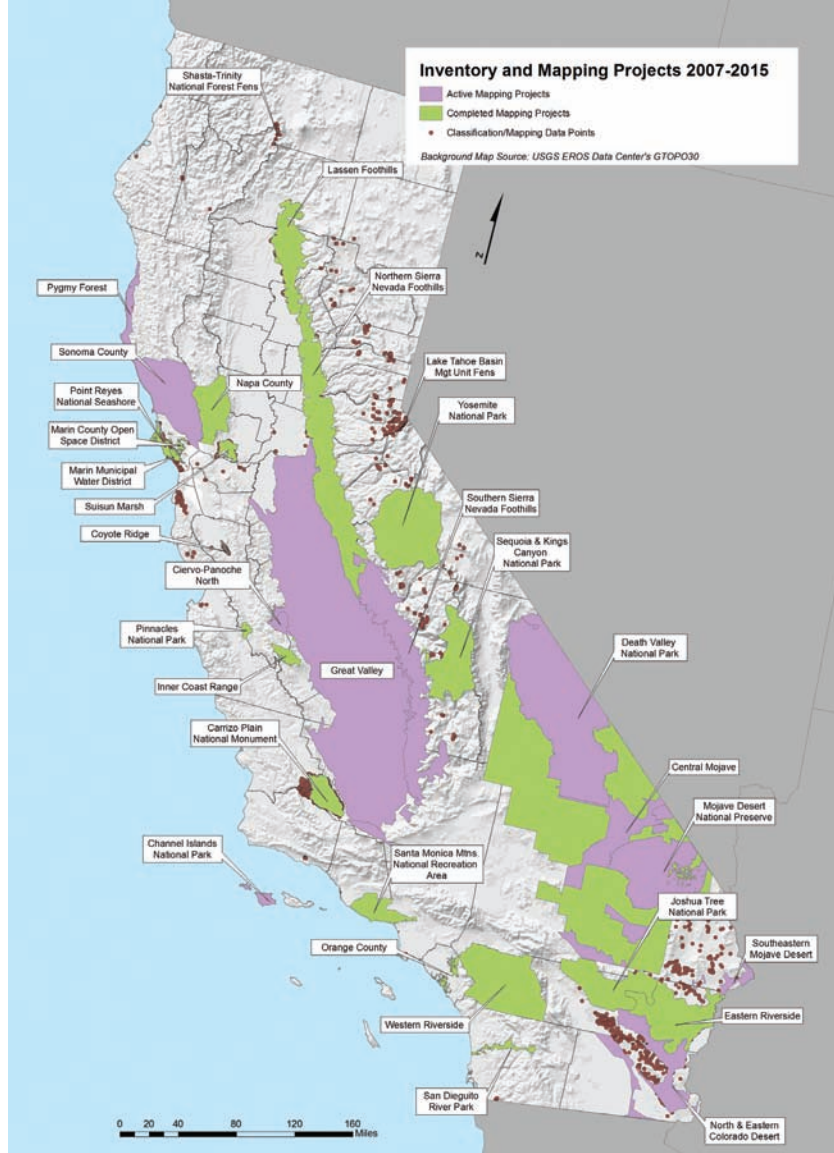
FURTHERING THE VEGETATION TYPE MODEL

A thorough and systematic classification and mapping of well-defined plant communities can provide a strong foundation for conservation and management planning. Once in place, biodiversity can be represented, conserved, and monitored at a range of scales from species to ecosystem levels. While one-third of the state's vegetation has been mapped at a fine scale, we need further support to attain both a complete vegetation classification and a detailed vegetation map of California.

Using the integrated vegetation classification and mapping model and with help from our partners at the California Department of Fish and Wildlife, Calflora, and ESRI, we hope to improve California vegetation information by employing new technologies that will allow us to move our field and map data into accessible online formats that can be queried. We also plan on continuing to educate the public about the incredible diversity of our state's vegetation through newly published reports, articles, and books, including the imminent release of a beautiful new picture book—*California's Botanical Landscapes* by Barbour et al. (in press).

Over the past 15 years, CNPS staff have been collecting data on the diversity of vegetation such as here in the southern Sierra Nevada foothills region. This image was taken in the spring of 2015 for a herbaceous vegetation sample with *Madia* species. Photograph by Sara Taylor.





Locations of past and present vegetation sampling and mapping efforts involving CNPS staff and volunteers in California.

Source: Jaime Ratchford, CNPS Vegetation Program, 2015.

VEGETATION PROGRAM STAFF

In 1999 CNPS officially established the Vegetation Program and hired its first part-time vegetation assistants to help synthesize ecological information from the MCV workshops, develop formal descriptions for new vegetation types, and help in sampling, classification, and mapping efforts. By 2001 CNPS had hired its first permanent full-time vegetation ecologist and now program director. She coordinates the statewide vegetation classification system, vegetation workshops and mapping projects, works with outside partners, and currently supervises a vi-

brant team of five full-time staff. They include three ecologists (Jennifer Buck-Diaz, Kendra Sikes, and Jaime Ratchford) and two field staff (Daniel Hastings and Joslyn Curtis). We are also indebted to numerous past vegetation staff for their contributions, and to the incredible volunteers in CNPS chapters throughout California who support the program in so many ways.

REFERENCES

- Barbour, M. 1995. The story behind the *Manual of California Vegetation*. *Fremontia* 23: 19–22.
- Barbour, M.G., and J. Wirka. 1997. Alluvial scrub vegetation in Southern

California: A case study using the vegetation classification of the California Native Plant Society. US Fish and Wildlife Service Section 6 Program. Unpublished report on file at the California Department of Fish and Game. California Natural Diversity Database, Sacramento, CA.

Barbour, M.G., et al., eds. In press. *California's Botanical Landscapes*. California Native Plant Society, Sacramento, CA.

FGDC [Federal Geographic Data Committee]. 2008. Vegetation Classification Standard, FGDC-STD-005, Version 2. Washington, DC. http://www.fgdc.gov/standards/projects/FGDC-standardsprojects/vegetation/NVCS_V2_FINAL_2008-02.pdf.

Franklin, S., et al. 2012. Building the United States National Vegetation Classification. *Annali di Botanica* 2: 1–9.

Hillyard, D. 1999. A short history of CNPS Vegetation Committee and plans for the future. *Fremontia* 27(2): 7–11.

Hogan, D., J. Sawyer, and C. Saunders. 1996. Southern maritime chaparral. *Fremontia* 24(4): 3–7.

Keeler-Wolf, T. 1993. Conserving California's rare plant communities. *Fremontia* 22(3): 14–22.

Keeler-Wolf, T., C. Royce, and K. Lewis. 1994. The definition and distribution of Central California sycamore alluvial woodland. Unpublished report on file at the California Department of Fish and Game. California Natural Diversity Database, Sacramento, CA.

Keeler-Wolf, T., and M.G. Barbour. 1997. Conservation and classification of vegetation in California: A symposium. *Fremontia* 25(4): 17–27.

Sawyer, J.O., and T. Keeler-Wolf. 1995. *A Manual of California Vegetation*. California Native Plant Society, Sacramento, CA.

Sawyer, J.O., T. Keeler-Wolf, and J.M. Evens. 2009. *A Manual of California Vegetation*, 2nd edition. California Native Plant Society, Sacramento, CA.

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THE CNPS LEGISLATION PROGRAM

by Vern Goehring

While the California Native Plant Society (CNPS) may have been established largely to advance the science of native plants and promote native plant landscaping, it didn't take long for our founders to recognize the importance of public policy and laws on the status of native plants. I was not able to determine the first time CNPS weighed into a legislative or public policy matter, but by the mid-1980s CNPS was routinely involved in such deliberations.

In 1984 the California Endangered Species Act (CESA) was significantly updated to include native plants, invertebrates, and other desirable features of the Federal Endangered Species Act. The original version of CESA, enacted in 1970, omitted plants; plants were granted rather weak protection in 1977 in the Native Plant Protection Act. However, CNPS was an active participant in Assembly Bill 3309 in 1984. The adoption of the first ever federal Habitat Conservation Plan in 1983 to protect San Bruno Mountain's silverspot and Mission blue butterflies revealed gaps in CESA's ability to protect habitat and prevent projects from jeopardizing listed species. AB 3309 was intended to fix these concerns. Historical files also contain a letter of support submitted by Jo Smith, then CNPS Vice President of Legislation. CNPS is even listed in the Senate Republican Caucus analysis of the bill.

In 1986 CNPS partnered with the Department of Fish and Game in hosting the first native plant conservation conference, certainly based in part on recognition that public attention to the value of and the challenges facing native plant communities and species was a good thing. By the late 1980s

CNPS regularly engaged in policy deliberations with both the state administration and the legislature.

In recent years CNPS has engaged in some high profile legislative issues: reforming the Natural Community Conservation Planning Act, wildland fire and urban interface challenges, protecting CEQA, forest management and timber harvest reform, and wetlands/vernal pool protections, among others. CNPS was instrumental in strengthening the state's forest management practices, including timber harvesting, based on comprehensive ecological considerations.

Legislation adopted in 2012 established a new one percent assessment fee on lumber product sales to fund forest management measures. At CNPS's urging the Legislature included a requirement that ecological performance standards be developed to guide all aspects of forest management. Establishing these measures is a complex and ongoing undertaking in which CNPS continues to participate, contributing scientific and stakeholder support.

New emerging issues will either demand our attention or offer significant opportunities to advance understanding, appreciation, and protection for native plants. California's current multiyear drought is challenging everyone's views of landscaping practices. It has afforded CNPS many occasions to explain to the Legislature and the public the environmental and public health benefits that can be derived from incorporating more native plants

CNPS successfully advocated for the adoption of Ecosystem Performance Standards as a means of accomplishing healthy mature forests such as this one in Calaveras County. Photograph by Susan Robinson.

into our landscaped areas. Introducing people to native plants in horticultural settings will help bolster our efforts to educate Californians about native plants and build appreciation for them in natural habitats.

Another new issue is the escalating drive to reduce green waste going to landfills by converting such waste to compost and adding it to landscapes and natural lands. It's likely most CNPS members appreciate the potential problems that could result from arbitrary and excessive use of compost, so being engaged in this issue will be critical to both native plant conservation and horticulture.

Another issue that is gaining increased attention is the significant and widespread environmental damage that can result from the indiscriminate and unregulated growing of marijuana. CNPS and others are now reviewing the legal, scientific, and fiscal aspects of the lawful growing of marijuana and how best to regulate that in order to protect the environment.

A successful legislative program for CNPS requires more than just working in the Capitol; it requires legislators knowing that their constituents care about native plants and want strong protections for the environment. Few things are more effective politically than when voters contact their local legislators to voice their concerns. Regardless of one's experience, any CNPS member can join with other members to meet with elected officials to educate or advocate for specific actions. Resources to help undertake a local grassroots effort are available on the CNPS website or by contacting state CNPS staff.

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THE CNPS EDUCATION PROGRAM

by Josie Crawford

Since its formation, education has been a priority and at the heart of the mission of the California Native Plant Society. Most public education occurs at the chapter level as our volunteers share their knowledge, enthusiasm, and support in all their varied activities. The history of every chapter informs the history of education in CNPS.

The Mini Grants Program, established in 1978, followed by the Educational Grants Program in 1983, and the 1986 Conservation Conference, were some of the early statewide CNPS education efforts. CNPS posters were also developed as educational tools in the 1980s. The Plant Science Training Program, which began in 2007, trains consultants, agency staff, and academics on plant identification and survey skills. Then, in 2008, at the urging of a number of CNPS leaders, the formal CNPS Education Program was established.

EDUCATIONAL GRANTS PROGRAM

The purpose of the Educational Grants Program is to fund student

and other research that supports the CNPS mission. This research should contribute to our conservation knowledge, while the funds support the work of future plant conservation leaders. This program began in 1983 when two endowed funds were established.

The six funds below were created and added to over the years by the CNPS Board of Directors and made possible through the generosity of several major and many smaller donors—all in honor of some of our Society's most dedicated members and leaders. Over the 32 years of the program, we have supported more than 300 students and researchers, with the vast majority being students. Many of our leaders in plant conservation today received funding through this program, including Dan Gluesenkamp, our current executive director.

Some of the leaders and champions of the Educational Grants Committee, beginning in 1983, were: Tim Messick, Jim Nelson, Lorraine Van Kekerix, John Sawyer, Pam Muick, Joan Stewart, and Betsey Landis. Many dedicated volunteers have served on the committee since its inception.

The Doc Burr Grants: Established by the CNPS Board of Directors in 1983 to honor Horace K. "Doc" Burr, a founder and Fellow of the Society and director-at-large for many years.

Helen Sharsmith Grants: Established in 1983 by Carl Sharsmith as a memorial tribute to his wife, Helen, the author of *Flora of the Mount Hamilton Range of California*.

The Hardman Native Plant Research Award: Established in 1994 by Doris Hoover in honor of Gertrude R. Hardman, who for years was involved with the Botany Club of the Academy of Science in San Francisco.

Natalie Hopkins Award: Established in 2007 in honor of Natalie Hopkins, lifelong supporter and mentor of women in plant sciences, and past president of the Santa Clara Valley Chapter of CNPS.

Joan Stewart Educational Grant Award: Established in 2014 to honor Joan Stewart, who chaired the CNPS Educational Grants Committee from 2005 to 2014.

The Karen Callahan Scholarship Award: Established in 2014 in honor of Karen Callahan of the Redbud Chapter of CNPS.

CNPS CONSERVATION CONFERENCES

In 1986 the first statewide CNPS Conservation Conference was held in Sacramento, under the leadership of Jim Nelson. It was a mammoth, all-volunteer endeavor. Over 800 people attended, and the proceedings were published. Twenty years went by. In 2006, Gordon Leppig made an impassioned plea to the Chapter Council on the importance of holding another conference. He said that if we wanted to be an organization heralded for its leadership role in native plant and conservation science, we needed to step up to the plate now. And we did by hosting the CNPS 2009 Conservation Conference "Strategies and Solutions" in Sacramento with the help of hundreds of volunteers.

Following the 2009 event, we decided that we would hold statewide conferences every third year in order to give contributors time to



It was a spectacular year (not this year or the last) for a Vernal Pool Plant Taxonomy workshop taught by Carol Witham. Identifying tiny vernal pool plants requires this derrières-in-the-air pose. Photograph by Josie Crawford.

complete new research, and staff enough time to organize the event. CNPS has held subsequent conferences in 2012 in San Diego, and in 2015 in San Jose. All have been a tremendous success, with increasing attendance, hundreds of speakers and events, and many students participating. The next conference will be held in 2018.

PLANT SCIENCE TRAINING PROGRAM

The Plant Science Training Program arose from the vegetation workshops we held as part of the CNPS Vegetation Program. During these workshops we noticed that many attendees from consulting firms and agencies did not know the most common plants, and were attending, in part, to learn how to identify them. We also learned that these participants were being sent out on botanical surveys but lacked even rudimentary skills to conduct them. We recognized the need for a workshop program that taught environmental ethics and survey and identification skills for rare plants and wetland plants, in addition to our existing vegetation sampling and mapping workshops. In 2007, with the support of Amanda Jorgenson, Carol Witham, Jim Bishop and David Magney, we began offering about eight workshops per year taught by experts.

Over the years we have provided training for over 1,000 participants. Most have been entry level to mid-career biologists or botanists from consulting firms, agencies, and universities. This program gives us a chance to stay connected to the upcoming generation of plant scientists while providing much sought-after training.



A number of CNPS chapters have created native plant gardens and assumed responsibility for their design, installation, and maintenance. These become aesthetically pleasing educational showcases of local flora for the public. Here, Bristlecone Chapter board members Katie Quinlan and Sue Weiss participate in a workday at the Mary DeDecker Native Plant Garden, adjacent to the Eastern Sierra Museum in Independence, CA, November 2014. Photograph by Stephen Ingram.

THE CNPS EDUCATION PROGRAM

The CNPS Education Program was formally created in 2008, thanks to strong support from Amanda Jorgenson, Carol Witham, Jim Bishop, Julie Evens, Betsey Landis, and Brett Hall. I was the director of the program from 2008 until December 2014. Under the Education Program we expanded the Plant Science Training Program; created the Rare Plant Treasure Hunt in collaboration with the CNPS Rare Plant Program; developed a nature journaling curriculum; organized three Conservation Conferences; and expanded the Educational Grants Program.

RARE PLANT TREASURE HUNT

In 2010 we launched the CNPS Rare Plant Treasure Hunt, a citizen science program and brainchild of Nick Jensen, CNPS Rare Plant Botanist at the time, where volunteers search for and document populations of rare plants that have not been seen in 20 years or more. This program helps conserve our rare flora by providing valuable data to the CNPS Rare Plant Program and the California Department of Fish and Wildlife. Now in its fifth year, over 2,500 populations of rare plants have been recorded by staff and hundreds of volunteers. Many of the populations are new. It has been

primarily funded by land management agencies, foundations, and major and small donations from individuals.

Recently this project expanded to include rare plant seed collections and tissue sampling for genetic evaluation. Past staff who have assisted with the Rare Plant Treasure Hunt include Nick Jensen,

Amber Swanson, Shannon Still, Deanna Giuliano, Duncan Bell, and Kim Clark. Current staff include Danny Slakey, Aaron Sims, and Ramona Robison, director of the program and CNPS's new Rare Plant Program Manager.

NATURE JOURNALING CURRICULUM

During the first CNPS Education Committee meeting in 2008, we decided that one of the most important things we could do would be to provide an innovative, stimulating curriculum to get children to fall in love with nature. We were lucky to have visionary direction from the committee, which included Carol Witham (chair), Carol Baird, Betsey Landis, John Muir Laws, Sarah Jayne, David Magney, and Teresa Sholars. We agreed that John Muir Laws would create a curriculum on nature journaling. Since then, thousands of people and organizations in California and around the world have downloaded the curriculum, *Opening the World through Nature Journaling*, 2nd Edition, developed by John Muir Laws, Emilie Lygren, Emily Breunig, and Celeste Lopez. It may be downloaded from the CNPS website for free, or hard copies may be purchased through the CNPS online store.

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This garden, designed by landscape designer Greg Rubin, is featured on the CNPS San Diego Chapter Garden Native Tour. Garden tours are an enjoyable and interactive way to introduce California native plant gardens to the public. They provide opportunities for homeowners and tour visitors to exchange information on plant recommendations and gardening tips. Photograph by James Soe Nyun.

THE CNPS HORTICULTURE PROGRAM AT 50: THEN AND NOW

by Caroline Garland

For CNPS's 40th year anniversary, Peigi Duvall wrote an article for *Fremontia* titled, "Native Horticulture: Who needs it? The CNPS Horticulture program." Ten years later we are celebrating CNPS's 50th anniversary in the midst of a seemingly unrelenting California drought, and the Horticulture Program and its resources have become an even more important part of CNPS's mission. Recently I interviewed Peigi to discuss the program's evolution from then to now, and to briefly describe some of the program's exciting new resources.

Caroline: Peigi, how successful do you think the Horticulture Program

has been in working toward one of the CNPS Strategic Plan goals you identified in your 2005 article: "Promote, support, and encourage the appropriate horticultural use of California native plants in gardens and landscapes?"

Peigi: 50 years ago CNPS came into being based on some amazing efforts of a group of botanists and nature lovers from the Berkeley area. Most of these people were tending native gardens of their own, so in a sense, horticulture has been part of CNPS from the very beginning.

During the 40th anniversary, I think we were able to make more progress than had been made before because there was a concentration

of people helping to cross-pollinate between the different programs and throughout the state. Over the last 10 years, and especially in this last year, the Horticulture Program has done so much work to develop, promote, support, and encourage the appropriate use of California native plants in the landscape. CNPS is built and highly fueled by volunteer efforts, but whenever there's the availability of a full-time staff position and there is a person who can spend a concentrated amount of time to support the incredible efforts of chapter volunteers, then you can make great progress.

Caroline: You referred to native plants as being "strangers in their

own land.” What role has CNPS played in reintroducing native plants back into the landscape?

Peigi: There is a constant need to make greater efforts in education. People think California is so beautiful, but then they come and build a landscape that is filled with exotics—how does that connect? CNPS, especially at the state level, can be the broad voice for making the connection that, in order to celebrate California’s natural beauty, we should be reflecting it in the home garden. Chapter activities are important because it’s the local passion, knowledge, and experience that are specific to the needs and the health of California native plants. The chapters are the best vehicle for getting this information out to the local communities, whereas the state organization lets people know that they can go to the chapters for local sources of information, plant sales, educational programs, outings, workshops, and garden tours.

Caroline: As California enters its fourth year of extreme drought, it is becoming increasingly important to empower the public to conserve water. Do you think this call to action has increased the demand for native plants?

Peigi: It has made a huge, huge difference. What we’ve seen in the landscape industry is a tremendous increase in the number of people wanting to replace their lawns with drought tolerant plants and receive rebates. As a result, many of my colleagues and I are busier than we’ve ever been.

I’ve found that many of my new clients are people who have absolutely no understanding of why California native plants are important. All they’ve heard is that all California native plants are “drought tolerant, and require less water and less maintenance.” We’re seeing an increasing number of people wanting

to install California native plant gardens, but at the same time they don’t know what that really means. So the opportunity for education is great.

Caroline: You said: “One indication that we need to do a better job of educating the public is the lack of native plants in nurseries, in residential and corporate landscapes, and in public sites managed by municipalities or agencies.” Do you think we still have a long road ahead?

Peigi: Horticulture provides a gateway for the populace to become familiar with the importance of California native plants in our environment and in our ecosystems, and how that plays into the overall health and happiness of ourselves, as well as of the planet. I think we’ve made great progress, but we have to continue with great determination and speed. Landscaping with California native plants goes beyond just ornamental horticulture. It applies to our entire environment and the health of the planet.

Since Peigi’s *Fremontia* article, the Horticulture Program has blossomed in the last 10 years through the support of staff and chapter members to promote and encourage the horticultural use of native plants. A pivotal moment in the development of the program was largely due to the increased public awareness brought on by California’s historic drought. Widely viewed as the leading resource on California native plants and the critical role they play in response to the drought, CNPS proceeded with great determination and speed and hired its first full-time Horticulture Program Director, Susan Krzywicki. Susan’s hard work and dedication set in motion a number of vital projects. CNPS has been given opportunities to advise on various statewide policies and initiatives, such as the newly revised Model Water Efficient Landscape Ordinance, which will sub-

stantiate the demand for native plants in both residential and commercial landscapes.

Other recent developments that increase the Program’s outreach efforts include:

- The launch of the first horticulture workshop series called “Ditch Your Lawn,” which teaches homeowners how to transition their lawns to regenerative native plant landscapes.
- A valuable online tool, Calscape, CNPS’s new native plant database, helps Californians identify native plants that are local to their region and where to purchase them, in order to help restore nature one garden at a time.
- The Certified Native Landscape Specialist Program is designed to equip landscape professionals with the necessary tools to properly install and maintain native plants.
- CNPS has been given the honor of working with partners to redesign the State Capitol grounds, which will feature California native plants in the gardens surrounding all four main entrances. This historic opportunity will showcase the beauty of California’s flora to over one million visitors each year who visit the site.

The driving force behind the success of the Horticulture Program is the tireless work of CNPS members in chapters across the state, who have played a critical role in supporting these initiatives by contributing their vast expertise and local knowledge. With their help, CNPS is communicating a vital message—that native plants are not just an attractive addition to any garden, but can also save water and support the local ecology to create a sense of place that is uniquely Californian.

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CNPS PRESS AND THE CNPS PUBLICATIONS PROGRAM

by Nancy Morin

CNPS publications, like its chapters, members, and the California flora, are diverse in content, form, and origin. News from CNPS first came in a mimeographed, few-paged newsletter. Unprepossessing in appearance, it contained thoughtful considerations of the conservation status of California's plants and a vision for the future from some of the best botanical thinkers in California's history, as well as progress reports from the first CNPS chapters. The 24-page April 1973 issue was the first official "*Fremontia*." CNPS *Bulletins*, begun in 1971, contained more organizational news and chapter reports. Chapters also produce their own newsletters, each a gem evocative of the people and places in that chapter.

More substantial publications are similarly diverse. The earliest CNPS book published (that I can find) was *Native Plants, a Viable Option*, 1977, proceedings of a symposium. The *CNPS Inventory of Rare and Endangered Vascular Plants of California*, 1984, which appeared as CNPS Special Publication Number 1, marked the beginning of the CNPS Press and has been published in multiple editions. The CNPS Publications Committee reviews

proposals for potential publications and, with board approval, assists in bringing projects to completion for CNPS Press, and sometimes jointly with collaborators. In the past three decades CNPS and its chapters have published nearly 50 titles.

Checklists and wildflower guides have often originated through a CNPS chapter, sometimes published by the chapter itself and sometimes with or by the CNPS Press. They range in scope from the charming *Wildflowers of Highway 58* by the San Luis Obispo Chapter to the recent *Wildflowers of Nevada and Placer Counties, California*, by the

Redbud Chapter. Since 1982 CNPS has published floras of the Mount Hamilton Range, Santa Cruz Island, Santa Monica Mountains, Mount Diablo, northern Mojave Desert, and of a number of counties including Butte, Kern, Marin, Monterey, and Sonoma. These floristic works are important scientific resources for plant enthusiasts as well as professional botanists.

Similarly, CNPS has published landmark references on plant conservation (*California's Changing Landscapes: Diversity and Conservation of California Vegetation; Ecology and Restoration of Northern California Coastal Dunes; Ecology, Conservation, and Management of Vernal Pool Ecosystems*). CNPS also published proceedings of the first symposium on *Conservation and Management of Rare and Endangered Plants* in 1987 and the *Proceedings of the 2009 CNPS Conservation Conference* in 2011. The *Terrestrial Vegetation of California* and *A Manual of California Vegetation* are models for vegetation classification nationwide.

Publications such as *California's Wild Gardens: A Living Legacy* and *The Best Spring Ever: Why El Niño Makes the Desert Bloom* have been especially effective at introducing the general public to the beauty and wonder of California's native plants.



Pictured are bright yellow common hillside daisy (*Monolopia lanceolata*), conspicuous orange California poppy (*Eschscholzia californica*), blue arroyo lupine (*Lupinus succulentus*), and light orange common fiddleneck (*Amsinckia intermedia*) on the Tejon Hills south of Arvin. This is from the soon-to-be-published CNPS publication, *Kern County Flora*. Photograph by Neal Kramer.

These publications have required a great deal of work by authors, chapters, editors, photographers, illustrators, and many others. For many years the CNPS Publications Program was overseen by Phyllis M. Faber. After her, Holly Forbes and Dore Brown cochaired the Publications Committee. Since I became chair in 2011, the committee has tried to continue this good work. Soon to go to press is a revised flora of Kern County. Other floras in the works are of Napa County, Monterey County, and Sequoia and Kings Canyon. Smaller guides and wildflower books include the *Flora of Lava Beds National Monument* (published earlier this year), *Wildflowers of Rock Creek*, *Field Guide to Redwood Vascular Plants*, *Flora of Palos Verdes Peninsula*, and *Flora of San Bruno Mountain*.

Two books on special plant groups will treat liveforevers and sedums. A spectacular picture book to accompany the *Manual of California Vegetation* titled *California's Botanical Landscapes* (scheduled for publication later in 2015) will show people the magnificent landscapes in California. At least one book on gardening with California native plants is also in the works.

CNPS is taking advantage of recent advances in technology, from databases to websites, to social networking, to make information available in new ways and to a wide audience. Both *The Rare Plant Inventory* and *Manual of California Vegetation* have online versions, are fully searchable, and are tremendous resources. Calscape, which provides a searchable database on locally appropriate California native plants for gardens, recently was added to the CNPS website. These online resources complement and extend CNPS print publications. We have a great deal to look forward to in the second 50 years of CNPS Press.

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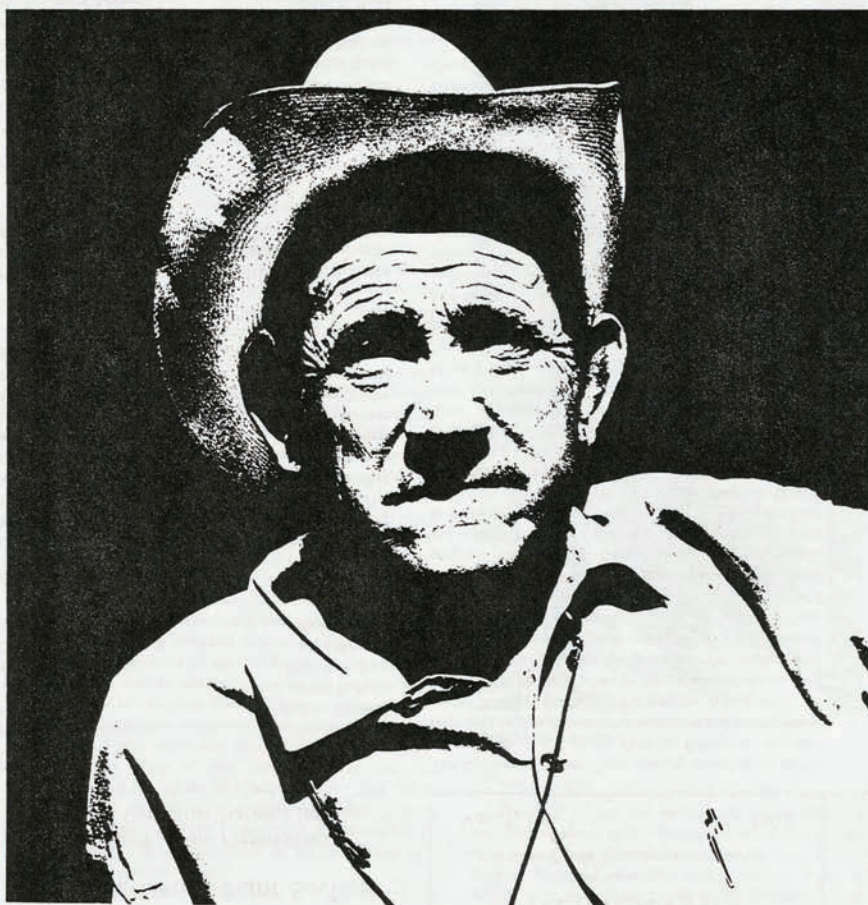
PUBLICATIONS FROM CNPS PRESS

CATEGORY	YEAR	TITLE	AUTHOR
periodical	1971	<i>California Native Plant Society Bulletin</i>	
proceedings	1977	Symposium Proceedings: Native Plants, A Viable Option	Walters, editor
vegetation	1978	Distribution of Vernal Pools in Sacramento Valley, California	Holland
flora	1982	<i>Flora of the Mount Hamilton Range of California</i>	Sharsmith
flora	1984	<i>Flora of the Northern Mojave Desert</i>	DeDecker
special	1984, 1988, 1994	<i>Inventory of Rare and Endangered Vascular Plants of California</i>	Skinner and Pavlik, editors
proceedings	1987	Conservation and Management of Rare and Endangered Plants (proceedings)	Elias, editor
vegetation	1988	<i>Terrestrial Vegetation of California</i>	Barbour and Major
vegetation	1989	<i>Plant Communities of Marin County</i>	Shuford
gardening	1990	<i>Native Plants for Your Garden: A Collection of Articles on Gardening with California Native Plants</i>	
conservation	1993	<i>California's Changing Landscapes: Diversity and Conservation of California Vegetation</i>	Barbour et al.
wildflower book	1993	<i>Wildflowers of California's Central Coast</i>	San Luis Obispo Chapter, McLeod
flora	1994	<i>Manual of the vascular plants of Butte County, California</i>	Oswald
wildflower book	1994	<i>The Flora of Edgewood County Park</i>	Santa Clara Chapter
vegetation	1995	<i>A Manual of California Vegetation</i>	Sawyer and Keeler-Wolf
field guide	1995	<i>A Flora of Lassen Volcanic National Park, California</i>	Gillett
flora	1995	<i>A Key to Vascular Plant Species of Kern County, California</i>	Moe and Twisselmann
flora	1995	<i>A Flora of Santa Cruz Island</i>	Santa Barbara Botanic Garden
special	1995	<i>Origin and Relationships of the California Floristic Province</i>	Raven and Axelrod, reprint of 1978 paper
flora	1996	<i>A Flora of Sonoma County: Manual of the Flowering Plants and Ferns of Sonoma County, California</i>	Best
plant group	1996	<i>Rare Lilies of California</i>	Fiedler
wildflower book	1996	<i>Wildflowers of Point Reyes National Seashore</i>	Marin Chapter with Pt. Reyes Natl. Seashore Assn.
checklist	1997	<i>Annotated Checklist of the East Bay Flora: Native and Naturalized Plants of Alameda and Contra Costa Counties</i>	East Bay Chapter
checklist	1997	<i>A Simplified Key to the Major Families of California Flowering Plants</i>	Hartman
flora	1997	<i>An Illustrated Field Key to the Flowering Plants of Monterey County and Ferns, Fern Allies, and Conifers</i>	Matthews
special	1997	<i>California's Wild Gardens: A Living Legacy</i>	Faber
conservation	1998	<i>Ecology and Restoration of Northern California Coastal Dunes</i>	Pickart and Sawyer
conservation	1998	<i>Ecology, Conservation, and Management of Vernal Pool Ecosystems</i>	Witham
special	1998	<i>Plant Life in the World's Mediterranean Climates: California, Chile, South Africa, Australia, and the Mediterranean Basin</i>	Dallman
wildflower book	1999	<i>Plants of the Tahoe Basin: Flowering Plants, Trees, and Ferns: A Photographic Guide</i>	Graf
flora	2000	<i>Flowering Plants: The Santa Monica Mountains, Coastal, and Chaparral Regions of Southern California</i>	LA/Santa Monica Mountains Chapter
children	2001	<i>Dune Mother's Wildflower Guide</i>	San Luis Obispo Chapter
flora	2002	<i>The Flowering Plants and Ferns of Mount Diablo, California</i>	Ertter
conservation	2004	<i>The Ecology and Management of Rare Plants of Northwestern California: Proceedings from a 2002 Symposium of the North Coast Chapter of the California Native Plant Society</i>	Brooks, Carothers, LaBlanca, eds.
special	2004	<i>The Best Spring Ever</i>	Bowers
special	2004	<i>Our Garden: The Golden State: An Anthology</i>	Ingols
wildflower book	2004	<i>Wildflowers of Highway 58</i>	San Luis Obispo Chapter, McLeod
wildflower book	2004	<i>Wildflowers of the Carrizo Plain Area</i>	San Luis Obispo Chapter, McLeod
special	2006	<i>Back of the Beyond: An Anthology of Memories</i>	Ingols
flora	2007	<i>Marin Flora: An Illustrated Manual of the Flowering Plants, Ferns, and Conifers of Marin County, California</i>	Marin Chapter, Howell
wildflower book	2007	<i>Wildflowers of Nevada and Placer Counties, California</i>	Redbud Chapter
vegetation	2009	<i>A Manual of California Vegetation</i> , 2nd edition	Sawyer, Keeler-Wolf, and Evens
wildflower book	2010	<i>Skyline Wilderness Park: Nature's Gift to Napa Valley</i>	Ingols
children	2010	<i>Opening the World Through Nature Journaling</i>	John Muir Laws and Emily Breunig
proceedings	2011	<i>Strategies & Solutions: California Native Plant Society 2009 Conservation Conference Proceedings</i>	Willoughby, et al., eds.
checklist	2011	<i>Checklist of the Vascular Plants of San Mateo and Santa Clara Counties</i>	Santa Clara Valley Chapter
special	2014	<i>California Bees and Blooms: A Guide for Gardeners and Naturalists (Heyday)</i>	Frankie, et al.
checklist	2005, 2015	<i>Annotated Checklist of the Vascular Plants of Santa Cruz County, California</i>	Neubauer

April 1973

FREMONTIA

A Journal of the California Native Plant Society



ERNEST CHRISTIAN TWISSELMANN (1917-1972)

The cover of *Fremontia*'s first issue, which came out in April 1973.

FREMONTIA'S PAST AND PRESENT EDITORS

The first issue of CNPS's botanical journal, *Fremontia*, a name proposed by Robert Ornduff, former director of the UC Botanical Garden and a CNPS Fellow, was published in April 1973. The original publica-

tion of the newly formed California Native Plant Society was called *Native Notes*, the precursor to the *Bulletin*, the Society's state newsletter that was later renamed the *CNPS Bulletin*. Laurence Hyman, an early art designer for *Scientific*

American, became art director for CNPS publications under Marge Hayakawa's guidance and remained in this position until 1985, when Beth Hansen-Winter became *Fremontia*'s new designer. This article is a salute to all *Fremontia* editors.

Gunder Hefta
Editor: 1973

Gunder was editor of *Fremontia* for its inaugural issue that came out in April 1973.

Margedant Hayakawa
Editor: 1973–1982

Marge was responsible for building and sustaining publication of *Fremontia* during the early years of CNPS. During her editorship, *Fremontia* became essential reading for any botanist in California. It contained a wide range of articles, including some by prestigious botanists such as Robert Ornduff and Ledyard Stebbins, and others by



Marge Hayakawa. Photograph courtesy of George Waters, editor emeritus, *Pacific Horticulture*.

renowned horticulturists such as Jim Roof and Wayne Roderick. A column of book reviews was added, as well as articles about new CNPS Fellows.

Later Marge was named a CNPS Fellow. She also served on the board of the Pacific Horticultural Foundation from its earliest days, was its president from 1976 to 1986, and was exceedingly generous in her financial support. She was among the group of people who helped launch the magazine *Pacific Horticulture* in 1976. Her husband was president of San Francisco State College, and in 1976 was elected to the US Senate. She died in 1998 at the age of 82.

Phyllis M. Faber
Editor: 1983–1999

I assumed the editorship of *Fremontia* from Marge Hayakawa at

Bob Ornduff's invitation for the July 1983 issue. In 1985 Lawrence Hyman appointed Beth Hansen as the permanent designer. She proved to be a treasure and remains in this position today.



Phyllis M. Faber. Photograph by Nancy Dionne.

Early issues of *Fremontia* had articles by prestigious botanists such as UCLA's Mildred Mathias on the value of natural areas, and Tom Howell from Cal Academy writing on various special native plants found in California. Margorie G. Schmidt started a valuable column, "Natives for Your Garden," that lasted for many years. She was succeeded by Nevin Smith, who continued writing the column on growing natives into the millennium.

Until the late 1990s computers were not in use, so all material for each issue required being edited and then typed. All articles were then finally proofread before being printed on sheets which then had to be cut according to the design of the magazine and pasted up onto boards with the illustration by the designer. Design work was far more difficult back then. Nora Harlow did yeoman's work for much of the typing of edited manuscripts and proofreading, and Barbara Leitner performed hours of additional proofreading in the early years. Today's computers with their spellcheck capability have vastly facilitated the submittal, editing, and production process.

My goal as editor was to offer readers information on as much of the botanical scene in California as we could capture. What special studies would be of interest to readers? Where were the special areas in California that readers might find interesting? What was happening in the scientific botanical world and who was doing exciting new things?

What trips were available and what made California so great? It was a fun quest into the world of botany for my 17 years!

Fremontia remained a black-and-white production during my tenure. Color printing was very expensive and the finances of the Society required constant vigilance. We expanded from the original 28 pages to 32 and then to 36 pages for a few years, having to cut back page numbers in lean years, so color always seemed beyond our reach. We published two ten-year indexes that have been invaluable to students and authors alike.

Linda Vorobik
Editor: 2000–2006

When presented with the opportunity to edit *Fremontia*, I was excited: this was a journal that I had read for years, finding the articles inspiring. Following Phyllis Faber (whose work I greatly admired) was easy, especially coupled with skills acquired from my experience and education: I have a PhD in biology (systematic botany), taught numerous college biology classes, illustrated over one-third of the species in *The Jepson Manual*, and served as editor of two publications for the Native Plant Society of Oregon (the *NPSO Bulletin* and the *NPSO Journal*, *Kalmiopsis*).

Even with the strong foundation that Phyllis had built for this great journal, there were changes I could implement to make *Fremontia* even better. I worked with the talented designer Beth Hansen-Winter to create a new three-column look for the



Linda Vorobik. Photograph by Steve Sharnoff.

journal, and changed production to an all-electronic process so that each issue could be copyedited in PDF format with both text and images. I hired a copy editor (our current *Fremontia* and *CNPS Bulletin* editor, Bob Hass) and created an editorial board whose members solicited articles from their peers, reviewed submitted articles, and were available to iron out disputes between the editor and CNPS. Total electronic production allowed each issue to be posted to the CNPS website, and with the support of the University of California at Berkeley, the many years of back issues were scanned to pdf format and posted to the CNPS website—a gargantuan task. During those years, additional University support made it possible to house *Fremontia* at the University and Jepson Herbaria.

Along with co-editors, I produced several theme issues covering the topics of rare plants, seaweeds, mosses, plants and insects, and gardening with natives. I am very grateful to these co-editors, as they solicited and edited all articles, gathered art, and saw these journals through to publication. With the huge contribution of chapter members, I also created a regular horticultural series, a series that highlighted individual CNPS chapters, and a series on CNPS programs.

Perhaps the change I instituted that was most noticeable to *Fremontia* readers, and for which *Fremontia* continues to receive accolades, was my bringing the issue into color. Beth and I had wanted to do this for years; I finally found a printer who would do the job for less than the cost of printing in black and white. I worked with Beth on another redesign, including thumbnail pictures on the Contents page, and voila, a “new” *Fremontia* for readers was created.

Bart O'Brien
Editor: 2006–2009

While editor of *Fremontia*, I was also employed full-time at Rancho Santa Ana Botanic Garden as director of special projects. The issues of *Fremontia* I helped to produce were among the first full-color issues of the journal. (Linda Vorobik had made that leap for the journal and had produced two full-color issues before she stepped down as editor). This was a great time to be experimenting with all kinds of beautiful color images of our native flora. A few of the articles that immediately come to mind which were enhanced by magnificent color photographs include: the double issue on California native plant public gardens; the special issue on chaparral; Richard Dickey's spectacular images and article on the Gorman-western Antelope Valley region; Alan Harper's gorgeous piece on Colonel Mesa in northwestern Baja California; and of course Carolyn Curtis's article on the successful CNPS efforts to save what is now Edgewood Natural Preserve in San Mateo County.

While editor, I particularly enjoyed getting to know and work with Beth Hansen-Winter, *Fremontia*'s designer. We would often discuss and edit the journal over the phone during the small hours of the night, when both of us were regularly up and working.

When I stepped down as editor,



Bart O'Brien. Photographer unknown.

I was given a CNPS President's Award. To this day, it is the only award that I have ever put up on the walls of my home.

Working with all those involved in the journal was challenging and lots of fun. I would certainly welcome the opportunity to do it all again—when I've retired!

Bob Hass
Editor: 2009–Present

I've brought to *Fremontia* a somewhat different skill set than previous editors, as I'd been a professional editor of many different types of materials and publications, although a majority of it was concerned with academic research that needed to be made more understandable to a broader audience. Earlier I'd also been a freelance journalist. Most of my botanical background has come from working part-time for many years in the field of native plant restoration and invasive plants, from volunteer work with a CNPS chapter where I learned much from botanists who were CNPS members, and from personal experience gardening with native plants.

There are a few accomplishments I can point to, thus far, as the current editor of *Fremontia*. First, I produced six double issues in a row in order to catch up the journal to the publication schedule.



Bob Hass. Photograph by Tracy Enhelder.

Three were themed issues on fire safety, California prairies and grasslands, and gardening with native plants. Later, we published two back-to-back issues on California's deserts at a time when renewable energy development was beginning to threaten sensitive ecosystems. I have also attempted, when possible, to increase the number and size of photographs in the journal, to make *Fremontia*'s articles understandable to its broad readership, and to provide diversity in article topics, including horticultural content.

As past editors also attest to, it is a pleasure working with *Fremontia*'s long-time designer Beth Hansen-Winter. I consider her the most talented and meticulous designer I have ever known.

CNPS FELLOWS: 1991 TO PRESENT

by David Chipping

Becoming a Fellow is the highest recognition CNPS awards its members. As Marian Reeve stated on our 25th anniversary in 1990, "the title was originally created in 1973 to give special recognition to 'elder statesmen' who have made significant contributions to the knowledge, appreciation, and preservation of our native flora."

In the following quarter century a range of contributions have been recognized, and include those hard working people who have run the activities of CNPS chapters as well as the botanists and conservationists that you might expect. The requirement of being elder has been modified, so that elected Fellows may be able to continue many more years of service to CNPS and the flora after their election.

Below is a list of CNPS Fellows named since 1991. A list of Fellows named from 1965–1990 appears on pages 30–32 of the 25th anniversary issue of *Fremontia* (18:4, October 1990).

1991



Mary Bowerman played a major role in saving Mount Diablo, including publishing in 1944 *The Flowering Plants*

and *Ferns of Mount Diablo, California*. She dedicated over 30 years to protecting the mountain and its flora, and led many CNPS field trips to the area.



Paul Covel was a charter member of CNPS and made significant contributions to saving lands around San Francisco Bay. He

established a naturalist program in Oakland Parks, cofounded Save San Francisco Bay Association, and served actively on the CNPS Conservation Committee.

1992



Jim and Carmen Hickling were honored for the work they did in protecting Calaveras Big

Trees Park, where they served as docents for 20 years. They created a photo catalog of the park's flora and funded the construction of the visitor center.



Marian Reeve was a founding member of CNPS and active in the East Bay Chapter in many roles, including president.

She headed the CNPS Conservation Committee for many years, playing a role in saving Edgewood Park in San Mateo County, in protecting the desert, and in commenting on local issues.



Florence Marsh established nature gardens in Sacramento area schools, was instrumental with her husband,

Warner, in establishing the CM Goethe Arboretum at Sacramento State University and the American Indian Botanic Garden in Carmichael. She held positions on the Sacramento Chapter Board for over 20 years.



Mary Rhyne was a CNPS charter member, serving on the first CNPS Board of Directors. She organized the first CNPS plant

sale to save the organization's finances. Moving to Gualala, she served as president of the Dorothy King Young Chapter, protected rare plants, removed invasive weeds, and advised on native school gardens.



Gladys Smith was the first uniformed female naturalist with the US Park Service. She authored floras of Muir Woods, the Tahoe Basin, and Mendocino County, and a wildflower guide for Lassen Volcanic National Park. She held positions at the California Academy of Sciences and UC Berkeley, and donated 35,000 botanic photographic slides to the Academy.



Leonora Strohmaier was a charter member of CNPS when the organization was formed to protect Tilden Park, and

was a founder of the East Bay Chapter. She served on the chapter board as secretary for nearly 20 years, while also serving as an officer in the California Garden Club.

1994



Doris Fredendall helped found the Bristlecone Chapter. Her extensive field work and plant lists contributed to our knowl-

edge of the area's flora, and she was very involved in controlling invasive weeds along Highway 190. She was also active in chapter board activities, serving twice as president and hosting board meetings.



James Griffin was a research ecologist at the University of California's Hastings Reserve, where he was considered the fore-

most expert on California's oaks. He was among the first to recognize

problems with oak regeneration, and then helped to create a program that for over 25 years researched all aspects of oak conservation.



Corky Matthews is author of a flora of Monterey County. She has been active in land conservation since 1963, helping es-

tablish the Ventana Wilderness and Monterey Peninsula Park, and co-founded the Monterey Dune Coalition and the Monterey Pine Forest Watch. She has also served as conservation chair for the Monterey Chapter.

1995



James Smith helped found the North Coast Chapter, serving twice as chapter president. He was also twice CNPS

president, active on state committees, and co-edited the first edition of the *CNPS Inventory*. He coauthored keys of North Coast plant families and grasses, and a college textbook on plant families.



John Sawyer helped found the North Coast Chapter, serving as chapter president before becoming state

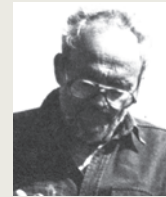
CNPS president, and then served on the CNPS Executive Council and four years as the state Conservation Chair. He coauthored the second edition of the *CNPS Inventory* and also the *Manual of California Vegetation*.



Jo Kitz has worked with CNPS and other groups in conserving the Santa Monica Mountains, co-editing a flora of the

area and leading restoration projects, and was recognized with the Sam Lutz Award for exceptional volunteer service there. She served on the state board and executive council and as LA/Santa Monica Mountains Chapter president.

1996



George Clark helped to revitalize the Sacramento Chapter, and aided the formation of other chapters. He worked

tirelessly on public promotion of native plants, on vernal pool conservation, and on protection of special areas. He served the chapter as president and conservation chair, and was a respected president of the state organization.



Lyman 'Don' Smith was a charter member of CNPS, making major contributions to the flora of El Dorado

County and Eldorado National Forest. He was a founder of the El Dorado Chapter, contributed to the first *CNPS Inventory*, and worked to educate National Forest planning staff on plant issues.



Peter Rubtzoff co-authored *A Flora of San Francisco* in 1958. He researched the wetland plants of San

Francisco and Sonoma County, and provided valued information to the young Dorothy King Young chapter. He made contributions to the first *Jepson Manual* and to the San Bruno Mountains flora.



Lillian Mott was one of the first members of CNPS, and active with the Sacramento and Redbud Chapters.

She made major contributions to the flora of Nevada County, creating many local plant lists and leading field trips. She published articles on native wildflowers in the *Sacramento Bee* as well as in a local newspaper.



Mary Ann Henry played a significant role in protecting the California desert, serving as Bristlecone Chapter's eastern

Kern County conservation leader and with other organizations including the Bureau of Land Management. She was an active educator on native flora, working with Maturango Museum and with the Indian Wells School District.



Ralph and Evelyn Ingols were devoted members of the

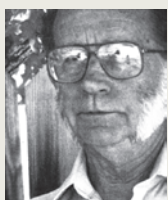
Napa Valley Chapter. Over several decades they worked on many tasks such as plant propagation, the chapter plant sale, newsletter production, and outreach to Napa County schools. Ralph filled in whenever a board position became open. They started the one-acre Martha Walker Memorial Garden that features native plants and an education center in Skyline Park.



Phyllis M. Faber served as *Fremontia* editor for 16 years, and headed the CNPS Publications Program where she encour-

aged the publication of local floras. She wrote two wetland field guides, still in print, chaired a Department of Fish and Game Natural Areas Committee, and served as a California Coastal Commissioner. She was also active with the Marin Chapter for many years.

1997



Vince Yoder was first active with the Marin Chapter before becoming the first president of the Bristlecone Chapter. He was

highly involved in plant conservation and water issues, and served on the Inyo County Water Commission. He created a plant list of the Alabama Hills, located near the eastern slope of the Sierra Nevada, and organized joint field trips with Marin and Bristlecone Chapters.



Jacob Sigg became Yerba Buena Chapter's President in 1989 and initiated that chapter's emphasis on habitat res-

toration and protection. He ran the chapter's conservation program for decades and promoted natural history education in San Francisco. He has served as CNPS President, and has been active with the California Invasive Plant Council.

Robert Ornduff was a founding Board member of CNPS, serving both as president and vice-president. He presided over the newsletter com-



mittee and proposed the name *Fremontia* for the organization's botanical journal. As a professor of botany at UC Ber-

keley, he made major contributions to the knowledge of the California flora, publishing 130 titles.



Sally Casey was founder of the Santa Clara Valley Chapter and its first vice-president. She led field trips all over the

Bay Area, and concentrated her interest on native grasses. She also collaborated with Master Gardeners and the Western Horticultural Society to promote gardening with native plants.

1999



Joan Stewart was active in CNPS governance since the 1980s. She was San Diego Chapter president, organized their plant

sales, helped found and was president of the Alta Peak Chapter, was state Vice President for both Administration and Development, and was active in the CNPS Chapter Council and Educational Grants Committee.

2000



Randall Morgan is a renowned expert on the natural history of Santa Cruz County. He has fought for conservation of areas such as the

Zayente Sandhills, and watched over the rare plant program for Santa Cruz Chapter for years. He has also served as chapter president and conservation chair.

2004



Malcolm McLeod was professor of botany at California Polytechnic State University, San Luis Obispo, and served as chapter president, rare plant chair, and in other chapter board positions. He organized protection of rare plant habitat, cataloged special botanic areas, created rare plant education materials, and wrote several popular plant guides.

2005



Charli and John Danielsen have been active in the East Bay Chapter as well as in state activities since the early 1980s. Charli has been both chapter president and CNPS State President, and John was State Treasurer. They worked on CNPS collaboration with the California Department of Fish and Game, editing parts of the *Jepson Manual*, the CNPS office move to Sacramento, the first California rare plant conservation conference, fire management of the Oakland Hills, and the establishment of the Natives Here Nursery.



Steve Hartman has served both the Los Angeles/Santa Monica Mountains Chapter and the State Board of CNPS for

over 30 years. A few of his major activities included helping establish the CNPS Plant Communities Program, serving on the California Desert District Advisory Council, and creating the Vertical Vegetation Program at Joshua Tree National Park.



Halli Mason's contributions to CNPS include fundraising, weed whacking, plant sales, public educational events, and statewide chapter relations management. For many years she coordinated receiving annual reports from all CNPS chapters. Halli also provided expertise and outreach to diverse groups, often well beyond the Society's typical conservation and gardening constituencies.



Elizabeth 'Liz' Parsons has been active in the Milo Baker Chapter since 1976. She began by volunteering at plant sales, then propagating plants, and eventually running the chapter's annual plant sale, as well as giving workshops on plant propagation. Liz has served as chapter president, and also as publicity and hospitality chair.



Bob Soost served Marin Chapter for many decades, including seven years as president. He ran the chapter conservation program, commenting on numerous projects and interacting with many conservation groups and government bodies in Marin County. He also helped to produce a wildflower booklet for Point Reyes National Seashore.

2006



Ken Himes served as vice president and president of the Santa Clara Valley Chapter, chaired many committees, and reinvigorated the chapter's field trip program. He was instrumental in helping to conserve Edgewood Park's botanic resources, especially its serpentine grasslands, which included developing weed removal programs.



Barbara and Roland Pitschel were leaders in the restoration of San Francisco's natural areas and the Bernal Hill bunchgrass-wildflower ecosystem. Roland served as vice president for the Yerba Buena Chapter for 17 years, and helped the chapter in myriad ways. Barbara and Roland produced the chapter newsletter, and Barbara supervised the program and hospitality committees.

2009



Carol Witham has served as CNPS President, and on state executive committees for many years. In the Sacramento Valley Chapter, she has worked tenaciously to protect vernal pools by all legal means. She convened a statewide vernal pool conference and played a significant role in reconfiguring the UC Merced campus.

2010



Sue Britting joined the El Dorado Chapter in 1990, serving as president, conservation chair, and Chapter

Council delegate. She served as president of CNPS between 2001–2003, heading key committees that have shaped CNPS, and has also served as Acting Executive Director. She is currently trying to bring sustainable forestry to the Sierra Nevada.



Teresa Scholars moved to the Mendocino coast to study the pygmy forests and joined CNPS as chapter rare plant

chair. While teaching at College Of The Redwoods she brought many students into CNPS, has been active in protecting the pygmy staircase forest, and has contributed to the *Flora of North America*.

2011



Roger Raiche has three plants named in his honor. A botanist at UC Botanical Garden for 23 years, he intro-

duced and named 20 cultivars. Roger made significant contributions to horticultural literature on native species. He purchased “The Cedars,” an ecologically unique Sonoma County serpentine barrens, in order to protect it, and later passed it into Federal protection.

Dirk Walters was professor at California Polytechnic State University, San Luis Obispo, when he became president of the new San Luis Obispo



Chapter. He has served as president and in other board positions continuously since that time, including editing *Native Plants—A Viable Option*, staffing a CNPS table at events, leading field trips, and bringing students into CNPS.

2012



Jim Bishop joined the Mount Lassen Chapter's board in 1996 as president. He has been active in the CNPS Chap-

ter Council, playing a leadership role on governance and policy issues, and producing a Council Manual to facilitate operations. He and his wife Katie are active in monitoring high altitude flora for climate change.



David Chipping was geology professor at California Polytechnic State University, San Luis Obispo (SLO) when he began working

on conservation issues with the SLO Chapter, and later served as chapter president. Starting as State Director-at-Large, he took on the job of CNPS Conservation Director from 1999–2005, and in that position emphasized regional outreach programs. His many accomplishments include dune conservation around Morro Bay.



Donald Mayall has been continuously active in CNPS since joining the Santa Clara Valley Chapter in the mid-1980s. As

chapter conservation chair he played a major role in the protection of Coyote Ridge and Edgewood Park's serpentine habitats. He has served in

numerous chapter positions including president and rare plants chair.

2013



David Magney served many years as president and conservation chair of the Channel Islands Chapter. At the state level he

has served in numerous positions including CNPS President, Vice President for both Legislation and Conservation, and Chair of the CNPS Chapter Council. He is currently conservation chair of the Redbud Chapter. He has completed many Ventura County flora checklists.



Doreen Smith has made significant contributions to the Marin Chapter and the county flora for over 25

years. She has rediscovered several rare plants, made significant collections, created plant lists, and provided input to local government on native plants. She has presented many chapter programs, and worked to detect invasive species.

2014



Sarah Jayne has served on the Orange County Chapter Board since the 1980s in a great many positions, including

two terms as president. She was Secretary of the CNPS Board of Directors, and has also served on many state committees. Hers is a record of almost continuous service to CNPS for 30 years.

David Chipping, 1530 Bayview Heights Dr., Los Osos, CA 93402, dchipping@calpoly.edu

AWARD WINNERS OF THE BOTANICAL ART AND PHOTOGRAPHY CONTESTS: CNPS 2015 CONSERVATION CONFERENCE

Two contests are held at each CNPS Conservation Conference, one showcasing botanical art, and the other photography. Art is one way of expressing one's appreciation of our California flora and natural landscapes, which is a part of the CNPS mission. As Josie Crawford, former CNPS Education Director, summed up so well following the previous conference, "We wanted art and photography as counterpoint to the science in the conference, and to remind us of why we are involved in conservation science in the first place."

In this issue of *Fremontia* we present images of the First, Second, and Third Place, and Conference Choice winners. Names of the Honorable Mentions and their images will appear in the January 2016 issue of *Fremontia*.

BOTANICAL ART CONTEST WINNERS

FIRST PLACE: JOAN KEESEY

Salvia spathacea, hummingbird sage
Watercolor



SECOND PLACE: STEPHANIE LAW

Prunus ilicifolia, holly-leaved cherry
Watercolor



THIRD PLACE: LESLEY RANDALL

Malva assurgentiflora, island mallow
Pen and Ink



CONFERENCE CHOICE:

AIMEE BALDWIN

Calochortus albus, white
fairy lantern
Paper Sculpture



PHOTOGRAPHY CONTEST WINNERS

FIRST PLACE: DON JACOBSON

Pinus longaeva, Great Basin bristlecone pine

Taken in the White Mountains, Inyo National Forest, October 2013



SECOND PLACE: PAUL G. JOHNSON

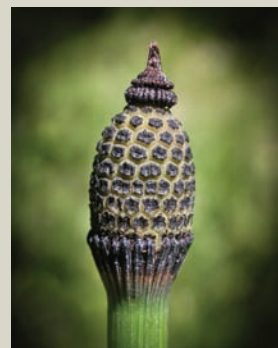
Chorizanthe douglasii, Douglas's spineflower

Taken in Pinnacles National Park, San Benito County, April 2013



THIRD PLACE: DYLAN NEUBAUER

Claytonia perfoliata subsp. *perfoliata*, miner's lettuce



CONFERENCE CHOICE: KEIR MORSE

Equisetum hyemale
subsp. *affine*, common
scouring-rush

BOOK REVIEW

A Flora of Lava Beds National Monument by Sean B. Smith. 2014. California Native Plant Society (in cooperation with Lava Beds National Monument and Klamath Inventory and Monitoring Network), Sacramento, CA. 152 pages. 8 color plates. \$6, spiral bound. ISBN #978-0-943460-53-6.

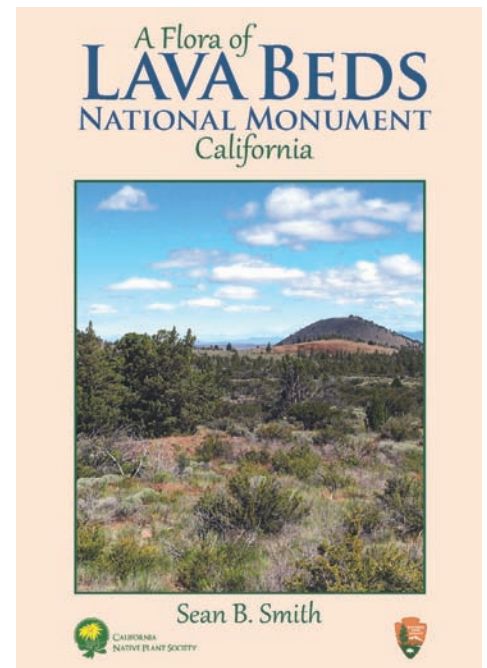
Among the far-flung corners of the state where local floras are far and few-between, the Modoc Plateau stands out as an area most in need of one. Now there is a new flora for the Lava Beds National Monument, a 73-square-mile maze of lava flows, lava caves, cinder buttes, and other volcanic features that mark it as one of the premier attractions of the region. The author, Sean Smith, has updated and expanded upon the pioneering work of Elmer Applegate, the ranger-naturalist who explored and collected in the park and compiled the first annotated catalog and keys to the plants of the Lava Beds, as well as the work of others who have studied the flora and vegetation of the park.

The author describes the primary audience of the book as professionals engaged in "formal research and resource management." This is evident

from the bare-bones content of the book, which consists mainly of keys and descriptions for the vascular plants occurring in the park. Nevertheless, the book also provides information useful to "naturalists and plant enthusiasts."

The introduction provides a review of the geological history of the Lava Beds and how the geology and climate interact to influence the vegetation, a description of the plant communities, and additional tidbits on the land use history, previous botanical research, and nonnative and rare species. In the interest of "educating interested amateurs," the author also provides instructions on how to use a dichotomous key, a short lesson on scientific nomenclature, and a glossary of the terminology used in the key. There are eight color plates with 37 thumbnail images of plants occurring within the Monument. The nomenclature follows that of *The Jepson Manual* (second edition), with synonyms provided for names used in the previous works on the park flora.

The book has a few shortcomings that limit its usefulness as a stand-alone reference. The text references many geographical localities within



the Monument but does not provide a map. This is a minor criticism, as visitors using the flora can easily pick up a map at the Lava Beds visitor center. While the photos provide representative examples of the plant families, perhaps to facilitate keying, they are not referenced in either the keys or the descriptions. A better choice might have been to illustrate the most common or showy species. Less experienced wildflower buffs may also wish to use one of the more general field guides for Great Basin, such as Taylor's *Sagebrush Country* or Blackwell's *Great Basin Wildflowers*. In addition, many of the images are of photocopy quality, and although some clearly show the subject species, others make plant identification more challenging.

On the plus side, the book is a bargain and is spiral bound with clear plastic protective covers, which should provide good durability in the field. Lava Beds Monument is a fantastic place to explore, and I recommend this book to anyone seeking to enhance their experience of the park. I'm looking forward to using it on my next trip there.

—Robert Preston

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CONTRIBUTORS (continued from back cover)

Robert Preston is a senior botanist with ICF International, and particularly enjoys exploring seldom-visited areas in northernmost California.

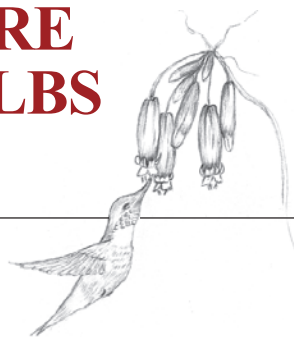
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CNPS members and others are invited to submit articles for publication in *Fremontia*. If interested, please first send a short summary or outline of what you'd like to cover in your article to *Fremontia* editor, Bob Hass, at bhass@cnps.org. Instructions for contributors can be found on the CNPS website, www.cnps.org, under Publications/*Fremontia*.

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FROM THE EDITOR

This year marks the 50th anniversary of the California Native Plant Society. So much has happened since the organization first began that it is extremely difficult to do justice to it all in one publication. Therefore, I hope readers will consider this issue merely a snapshot of CNPS's rich history.

Fremontia has previously celebrated the Society's history at two milestones, the first at 25 years (Vol. 18, No. 4, October 1990), and the second at 40 years with articles appearing in four consecutive issues (Vols. 33, Nos. 1–4, January, April, July, and October 2005). Those interested in additional details are encouraged to consult those issues, all of which are available online at cnps.org/publications. While this issue of *Fremontia* offers a historical context for many CNPS programs and activities, its focus is on what has transpired in more recent years.

A 50th anniversary of anything is a time for reflection as well as celebration. I think CNPS members generally hold the organization in high regard. That is likely because while its organizational structure is complex, it derives its strength from the individual chapters where so much grassroots leadership, decision-making, and action takes place. The expertise and dedication of individual chapter members throughout the state is impressive, and in reading the stories of their work over the decades, what also comes across is their caring and humility.

In preparing this issue of *Fremontia*, two sources of historical information about CNPS stand out. The first is the oral histories available at bancroft.berkeley.edu/ROHO/search.html. A number are of prominent CNPS founders from the 1960s, and the accounts are fascinating to read. The second is back issues of *Fremontia*, especially some of the earlier ones, all of which are available online.

—Bob Hass

(continued on inside back cover)



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Dear Friend,

We hope you enjoy this publication. It is full of great articles and beautiful photos, all contributed by dedicated volunteers, and is just one of countless benefits offered by the California Native Plant Society. CNPS is dedicated to understanding, saving, and celebrating California's wild plants and places.

You likely already know and appreciate CNPS. You love our beautiful flowers, and probably glad CNPS is saving them. You may make a field trip once in a while to reconnect with a favorite landscape that replenishes your sense of wonder, and you are happy we have laws to protect these special places. You love seeing native plant gardens springing up in front of homes and businesses, and you point out the butterflies and hummingbirds to friends. You get it; you understand: you are a CNPS-er.

With your help, we can do much more. ***Will you please join us?***

Here are some of the reasons you should use the enclosed remittance form to join CNPS.



The rare *Calochortus plummerae*, Plummer's Mariposa Lily, Photo: Amber Swanson

35 chapters across California and in Baja offer hikes, public programs, plant sales, restoration events, garden tours, workshops, and camaraderie.

The **Conservation Program** continues to fight for California's places. CNPS has been the voice for plant conservation during development of a 30 year plan that will cover 23 million acres of desert. We successfully pushed to map vegetation on 5.5 million acres, and are using these data identify areas that should be avoided by industrial scale energy projects in the region.



Cephalanthus occidentalis, Buttonwillow and skipper. Photo: Paul G. Johnson

The **Rare Plant Treasure Hunt (RPTH)** teams volunteer Citizen Scientists with trained botanists to discover and map rare plants. RPTH volunteers have mapped more than 2,500 rare plant populations –1/3 of them new discoveries!



Carrizo Plain National Monument.
Photo: Julie Evens

Once you join, you will receive a CNPS membership card that **entitles you to discounts at dozens of nurseries, stores, and businesses**. We'll also send you the latest flower-filled issues of *Fremontia* and the *CNPS Bulletin*. You'll learn about talks and hikes in your local chapter. ***Most of all you will help*** to save rare plants and places, train young scientists, and replace thirsty lawns with wildlife-friendly native plant gardens.

Please join CNPS and help us make a real and lasting difference!

Thank you for your help,

Dan Gluesenkamp
Executive Director



CNPS members on field trip at Yolo Bypass. Photo: Gary Hundt



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Pine Hill Flamebush
Fremontodendron dumecens
by Mary Ann Showers, CDFW

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