Visit the New World Desert

What are deserts? Although many restrict the term desert to barren often plant-free habitats (moonscapes), and others think of a cactus plantation, here at the Garden we prefer to think of deserts as areas where evaporation exceeds actual rainfall. Therefore, many arid lands of the Americas have plants and animals adapted to hiding, storing or saving available water. When one enters the arid lands of North or South America, one finds anything but a monoculture of cacti, and often the cacti that are present are not immediately obvious.

Among the UC Botanical Garden’s impressive and historic collection of cacti from New World deserts, is now intertwined a rather complex community of plants sympatric with cacti in a typical dryland habitat. When you first approach the upper beds of the New World Desert section, you might notice the recent addition of new herbaceous and woody material. The beds, rather than sterile galleries of tall cactus sculptures, have become vibrant thriving communities with much variation (though often subtle). Many of the plants growing here are highly derived and show wonderful examples of their struggle with the forces of drought.

Our New World Desert represents arid lands, where plants such as grasses are adapted to erratic periods of drought and other stresses. Adding grasses has not only softened the aspect, it has also created a sense of reality, a feeling of exploration. While at first features of grasses might be obvious, further exploration finds them to be an important part of the desert ecosystem. Desert grasses provide food and shelter for other plants and animals, as well as being a key component of soil stabilization. The newly planted Achnatherum hymenoides (Indian Ricegrass), which is common in sandy deserts from the Great Basin to the Chihuahuan and Sonoran Deserts, not only colonizes and stabilizes sandy areas thus allowing other species to grow there, but also produces a very large seed that has been an important source of sustenance for animals and humans alike.

Another grass, Bouteloua gracilis (Blue Grama) often grows on more stable ground and has been mimicked by many cacti to protect themselves from predation. One example is Stenocactus, which grows in the Garden with a clump of the Bouteloua to illustrate the remarkable similarity between the clumped grasslike spines of the cactus and the blades of the grass. During dry
winter months in habitat, the grass is brown and predators have difficulty distinguishing the spines of the grass from the spines of the juicy cactus growing amid them.

Two groups of plants that might at first seem foreign in this environment are the many species of xeric Selaginella and ferns. Commonly both of them are referred to as “resurrection plants,” and although very well adapted to harsh conditions by their cover of “fur” or grey pallor, they respond dramatically to sudden influxes of water. These remarkable creatures often lie tucked away in rocky crevices that receive intense summer heat and great desiccation. During brief wet periods they grow quickly to become lush and green but have the ability to desiccate to unbelievably low water levels (water potential), withering to what appears to be a ball of fuzz only to resurrect before one’s eyes during one of our “mechanical thunderstorms.” As you wander among the habitats represented in the upper Desert beds, you will see interspersed one of the world’s largest outdoor collections of desert ferns.

A multitude of xeric shrubs are now ascending above the horizon, most showing remarkable adaptation to the drylands from which they come. For instance, many Ephedra species (essentially a primitive gymnosperm in the group Gnetopsida), are now established in the beds. It is a unique genus of shrubs and vines having scalelike leaves, and is known commonly as Mexican or Mormon tea (one species is the source of ephedrine). *E. nevadensis* which ranges from southeast Oregon into Sonora may now be seen in the Garden producing a beautiful crown of silver and blue-green hues.

Across the path, an Argentinian from the deserts of Patagonia is forming a dense patch of deep green branchlets covered with translucent berries. Several examples of desert legumes are to be found—a species of Prosopis (desert mesquite) from Argentina acts as a retroactive nurse plant display for some of our large *Trichocereus turkeenzii*. Another is a *Calliandra* enlivening the beds with its pink powder puffs throughout spring and summer. A milkweed nearby sends forth maroon to nearly black flowers with completely grey felt-covered leaves. The plant’s stamens hang precariously out of the flower and vibrate; this, along with a rather unpleasant scent, beckons desert insects to feast on what they hope is something decaying.

You might notice piles of soil and reworking of rocks throughout the New World Desert area. New soil has been added to accommodate the water-sensitive plants mentioned above that are often accustomed to a monsoonal climate and winter drought (unlike our local cold-wet Mediterranean winters). The soil is a mixture of very coarse gravels, expanded shale and fine lava scoria that allow nearly perfect drainage in Berkeley’s often mucky wet winters. The rocks were moved in for their aesthetic value and to recreate a facsimile of natural conditions. One new feature is the addition of a limestone outcropping that highlights some of the many desert limestone endemics. Included in
this outcrop are many of the desert ferns and examples of plants that have evolved to be very cryptic, mimicking the limestone to prevent predation.

Also, just to the east of this outcrop is a small bajada, planted alongside examples of somewhat more mesic flora. Although the plants are adapted to the wind and heat of the desert, they are trapped in very narrow zones found in sheltered canyons or permanent seeps.

**Baja California**

At the opposite end of the New World Desert area is an area dedicated to the flora of Baja California. The area is divided into roughly four sections: montane and interior Baja California, and coastal, southern and island communities. As one walks the lower road, straddled on one side by our California section, and on the other by Baja California, one might notice the similarity of beds. Although the most northeasterly areas of Baja are not represented, the California floristic province does extend well into northern Baja California. Many floristic elements (i.e., *Eriogonum fasciculatum*, *Rosa minutifolia*, and the ubiquitous *Aesculus parryi*, which leaf out in the fall and go deciduous in spring) are constituents of the southernmost stretch of the California floristic province and the more xeric central Baja coast.

Visible from the road, a grouping of *Idria*, some extant in the Garden for over thirty years, represents the more interior areas of Baja. The grouping is embellished with such interesting plants as *Calliandra californica*, small shrubs with very large bright red powder puffs, and *Solanum hindsiana*, a plant with silver leaves and very large lavender flowers that one would hardly recognize as a tomato. Further down the road, the plantings show adaptations to even more arid conditions, especially the succulent flora, the jojoba, and such oddities as *Salvia cedrosensis*, a plant from the Vizcaino Desert, often growing on serpentine soils and having large grey to nearly white leaves and sky-blue flowers, and another serpentine plant, *Eriogonum encelioides*, a grey-leaved shrub that can reach one meter in height. In similar habitats, but found only on north-facing slopes is *Viguiera lanata*, a close relative of *Encelia*, and looking very much like the *Eriogonum*. One species of *Brahea*, soon to be followed by others, along with companion plants, form an oasis community.

The *Cupressus montana* and *C. arizonica* are from the San Pedro de Martir, a very high mountain range in central and northern Baja supporting many unique plant communities from desert to alpine. Here among the cypress you will see the *Xylococcus bicolor*, an interesting relative of *Arctostaphylos* and two desert ferns, *Pellaea mucronata* and *Astrolepis sinuata*. Several species of *Sphaeralcea*, with their feltly leaves and peach-colored flowers, enliven the area at this time of year.

Do come and visit the Desert this Spring!

—Sean Hogan
THE DOCTOR SAYS

Get after those weeds! They compete with plants for space, light, nutrients, and more importantly, for water. It’s easier to destroy them when small and though hand weeding is very self-satisfying, a good hoe can do wonders. Hoes come in several types and each person has a favorite. Many like the hula-hoe, though some swear by the common hoe (there are several types), some like the small, triangular hoe, and recently, a wide V-shaped hoe with a very sharp edge has become available. The latter is pushed through the soil. With most hoes, it is a good idea to carry a file so a sharp edge can be kept. For some, a weed popper may be fun. It is pushed into the soil and when a spring is released, the weed is popped out with some force.

Large weeds, particularly those with tap roots, need to be dug and the whole root removed. A dandelion digger is fine if used correctly. If such tap roots are cut, the weed will grow again and if pieces are left behind, each piece will form a new root. Dandelions, sow’s thistle, malva and many others with tap roots are able to do this. Many grasses, even if they have fibrous roots, need to be pulled so the whole plant is removed.

Some grasses, such as Bermuda, have rhizomes and if cut, each piece will produce a new plant.

Of course, a good weed killer, such as Roundup, can be used. Be careful of drift, for it kills most plants. Temperatures should be 70 degrees or higher for it to be effective. Pre-emergence weed killers are available if beds are clear and just being planted. Use only where transplants will be put in the soil and never where seeds are to be sown. Read the directions before using.

Organic mulches will help control some weeds. Plastic mulches are good if the ground is covered with holes cut for the desired plants. Some consider this unsightly.

Soil solarization can be used for killing weeds and weed seeds. Not all weed seeds will be killed however. Soil is prepared for planting and a clear polyethylene tarp is spread over the surface and sealed around the edges with soil so that a closed “greenhouse effect” is established. This needs to be left on for four or five weeks during sunny weather and therefore takes soil out of use during the growing season. It is effective in killing most weed seeds, insects and disease-producing organisms including bacteria, fungi and nematodes. However, it also kills many beneficial organisms in the soil.

Damping off is a disease of seedlings resulting from infection by a number of soil-borne fungi. Plants are attacked at the soil line, fall over and die. These fungi also can invade seeds or seedlings that have germinated but have not emerged. Seed decay and pre-emergence damping off usually are more often blamed on poor seed than on a disease situation. Cultural controls can help. Don’t sow seeds too close together or too deeply. Spindly seedlings more susceptible to disease will result. Don’t overwater because there will be similar results and the water will favor the fungi. Don’t fertilize before sowing seeds. Nearly all seeds have enough stored nutrients to carry them to the stage where they are to be thinned or transplanted. Then, if necessary, they can be fertilized. One other approach is to plant seeds in pasteurized soil. This is practical for small amounts of soil. It is done by heating the soil at 140 degrees Fahrenheit for thirty minutes. Do not go higher or longer because it is desirable to keep as many beneficial organisms as possible in the soil. Pasteurization can be done in an oven. Soil must be moist as for planting. A two inch layer should be put on a tray and a thermometer should be put one inch deep in the middle. The oven should be turned on and because the lowest thermostat setting is generally 200°F, it is necessary to guide the process. As the thermometer reaches 140°F, by cracking the door and turning on and off the oven, 140°F can be maintained. As soon as the soil cools, it can be used. Don’t put it in a dirty pot or flat. They can be cleaned by washing so as to remove all soil particles. Soaking for 10 or 15 minutes in household bleach (1 part in 9 parts of water) may help clean the container but not if soil clods are present.

—Robert Raabe
**GARDEN NOTES**

*Orchid Awards:* Horticulturist Jerry Parsons and Assistant Manager Judith Finn developed a grand and beautiful display for the San Francisco Orchid Society whose annual Pacific Orchid Exposition took place in San Francisco February 25-27. The display was both aesthetically pleasing and highly educational, for Jerry had arranged several dissecting microscopes to focus on some of the more intriguing mechanisms that orchids use for pollination.

The judges seem to have liked the display as well, for the UC Botanical Garden not only took nine first place awards, six second place and five third place honors, but also won the President’s Award for Best *Paphiopedilum* exhibit in the show (featuring *P. haynaldianum*). Enhancing the display this year was a set of interpretive signs artfully designed by Academic Arts and lavishly illustrated by Judith. Congratulations to all!

*California Bulbs:* Our very own Holly Forbes, Assistant Curator, recently penned an article about the Garden’s California native bulb collection, that appeared in the January 1994 issue of *The Public Garden*, the publication of the national AABGA (American Association of Botanical Gardens and Arboreta). The full-page article was the lead article of three in the quarterly feature “Collection Profiles,” and provided readers with a solid historical perspective on the development of the native bulb bed, crediting our current horticultural staff with solving some of the pest problems that had besieged the bulb collection in the past.

*Meeting Room:* The Friends of the UC Botanical Garden are working with the University to renovate the current Meeting Room, making it more “user-friendly.” Those of you who have spent a hot spring afternoon closed inside the building for a slide lecture, or have felt the cold seep through the concrete floor in midwinter will be pleased to learn that some of the anticipated changes will make the room eminently more usable. Work is scheduled to begin during the summer, with a completion date in the fall.

*African Hill:* Thanks to the volunteer work of a visiting horticulturist, Nancy Field, the upper reaches of the African Hill now have beautiful rock walls to line them, and beds free of overgrowth. Nancy, who hails from Oregon and has worked at the Berry Botanic Garden, visited us for over a month and was hosted by Sean Hogan.

—Carol Baird

*Nancy Field, who volunteered full time in the African Hill area doing rock work*
South American Area

Off the beaten path at the UC Botanical Garden you will find one of its treasures, the South American Area, a stunning patchwork of forest, scrub and grassland, abounding with delightful surprises. Climb the wandering path and you come upon a bed awash with brilliant color; look up and you see the towering spikes of Puya inflorescences; face downhill and you have your own private and spectacular view of the bay, the Golden Gate Bridge, the mountain.

The Garden’s South American Area, whose global geographic boundaries include the entire continent and associated islands (including Juan Fernandez and the Malvinas), houses the largest and most mature Chilean collection in the United States. Chilean plants comprise the most prominent subgroup within the area, ranging from Araucaria araucana to Fuchsia magellanica and Fitzroya cupressoides. Given that the area is entirely out of doors, it is reasonable to concentrate on Chilean plants, as many of them do extremely well in our climate. Tropical plants from South America of course must be relegated to the Tropical House or Rainforest House, while many of the desert plants end up in the outdoor desert display.

But there is also a good-sized Andean collection, and the area also boasts five beds devoted solely to Argentinian plants. The bulb collection is growing in size, and the Garden has a strong collection of Fuchsia, Alstroemeria, Lapageria and Puya species. And, as you can see in the accompanying photos, South America is also home to some of the weirdest-looking plants on the planet!

Major Themes

Thematically, the collection poses a challenge to the horticulturist in charge, Peter Klement, as well as to the horticultural planning committee at the Garden whose charge it is to develop a long-term plan for each section in the Garden. The South American collection grew out of the Andes expeditions from the early years of the Garden’s history (the expeditions of Paul Hutchison and of T. Goodspeed), augmented by more recent collecting expeditions of several faculty (Robert Ornduff, for example). Their collections reflected, quite naturally, the specific research interests of the individual faculty members, and not a cohesive theme guiding collection development as a whole. As a result, bed organization
does not follow a comprehensive plan, other than its basic division into mesic and xeric subsections. Several strong interpretive themes have emerged nevertheless from the somewhat random distribution of plants in the area. By a stroke of good fortune, the New Zealand/Australian beds are directly adjacent to the South American Area, and the transpacific affinities of both regions, originally joined in Gondwanaland, are easily exploited. For instance, Nothofagus species are found in both Chile and in New Zealand, and our specimens are close by to illustrate the point.

And the scrublands of Chile, the beautiful matorral found in the western beds of the area, resonate with those of other Mediterranean climes, most notably the chaparral of California (well-documented in our huge California chaparral beds) and the maquis of the Mediterranean, as shown in our Mediterranean/European Area. The convergences of form and adaptation to pronounced seasonal drought in the three sections are stunning—the plants tend to have tiny leaves, or they are waxy and sclerophyllous.

**Ghosts of Ancient Forests**

Although most other beds in the area are not organized by plant community, there is an Araucaria araucana forest in the upper reaches of the Garden, rapidly attaining conspicuous height. This gymnosperm species is considered by some to be a relict species, meaning that its present range is considerably reduced from former evolutionary times; it is gradually being replaced by angiosperm trees that are better adapted to today’s climate (Thomas T. Veblen). The long-term planners hope to see this forest embellished with typical southern Chilean understory plants in a few years. The other habitat that is well-evoked is the bog at the intersection of the Asian, New Zealand and South American areas, in which some remarkable wet-adapted plants luxuriate.

There are some other ancient forests in South America, which are represented in our collection. Among these is Fitzroya cupressoides, the alerce (ah-lair-say), a conifer that at one time blanketed much of southern Chile, and was named by Charles Darwin for Robert Fitzroy, the captain of the HMS Beagle, on which Darwin traveled to Chile. Timber companies now threaten the oldest trees in the Chilean alerce forest, especially since it takes about 500 years for the tree to mature enough to be cut. And there is also Saxegothaeda, another rare conifer, in one of the beds along the main road.

*Nothofagus obliqua* and *Nothofagus dombeyi* (collectively known as "southern beech") can also be found along the main road, underplanted with various *Fuchsia*, *Calceolaria*, *Alstroemeria*, and *Lobelia*. The "beeches" apparently are remnants of the supercontinent Gondwanaland, that existed in the southern hemisphere before tectonic movement separated it into four distinct continents.

**Bursts of Floral Color**

You shouldn’t leave the South American Area without visiting the *Nicotiana* that is covered with flowers and hummingbirds much of the season, or the *Fuchsia* species that form part of the lower understory (we have many species, including the source species for most horticultural varieties, *Fuchsia magellanica*), the trumpetvine, or the *Lapageria* vines that trail up several trees. It may take a little exploring to find all these delights, but the adventure will be well worth the time.

—Carol Baird

*A wonderful Acaena sp.*
BOOK REVIEWS

Christopher Lloyd and Rosemary Verey will be giving talks sponsored by UC Botanical Garden on Saturday, June 11, 1994. Some of their books will be available for purchase on this occasion so that those wishing to have them autographed can do so. The following reviews are of their most recently published titles.

- Christopher Lloyd’s Flower Garden.

  All good storytellers choose their favorite stories for the telling because these stories are the most successfully told. The same could be said about gardeners talking about their gardens. There is much more enthusiasm and pleasure in talking about one’s own garden — the plants, the plans, the problems — than there is in talking about gardens abstractly. Christopher Lloyd’s latest nicely illustrated book is a good example of this. All of his skills as a garden writer are focused on his own garden through four seasons. It is pleasant reading about his enthusiasms, his dislikes and his solutions to garden problems. Here is a man who likes his work and really enjoys his garden.

- Rosemary Verey’s Good Planting Plans

  When Rosemary Verey’s book The Englishwoman’s Garden first appeared more than a dozen years ago, gardeners worldwide sat up and took notice, and they have not stopped noticing her ever since. Over the years she has written about Englishmen’s gardens, American men’s and women’s gardens, flower-arrangers’ gardens and special types of gardens. She is a knowledgeable plantswoman, a good garden historian and a good writer. Now, with her most recent book, she is giving us her personal and practical advice on how to plan and plant a garden. It is classical advice given after a lifetime of experience and will be helpful to anyone planning a garden for themselves or others.


  The global disappearance of animals through habitat destruction and commercial trade has been apparent for a long time, but the disappearance of plant species by these same processes has not attracted the universal attention and concern it deserves. Now the World Wildlife Fund, the Garden Club of America and the Natural Resources Defense Council have jointly sponsored research into the commercial trade of disappearing bulbs and wildflowers, and have sought to find their places of origin and the status of these species in the wild.

  The result of their collaboration has been to publish this guide for gardeners with the purpose of enlisting their help in species preservation. Some of the figures given in the introductory statements are staggering: 1) The bulb industry in the Netherlands each year produces approximately 8.5 million bulbs and imports nearly 50 million wild bulbs, most of them from Turkey; 2) World trade in orchids was about 9.3 million plants in 1989, with over 10% of these likely to be of wild origin; and 3) Cacti are predominantly grown in nurseries but in 1989 nearly 15% of the 7.5 million cacti in international trade were collected in the wild!

  The Gardener’s Guide to Plant Conservation provides gardeners with information on the origin and conservation status of bulbs, insectivorous plants, terrestrial orchids and North American wildflowers. Armed with this information all of us can help to preserve these plants through careful purchases and pressure brought to bear on their commercial sources.

  All of these books and many many more are available at our Visitor Center. Members receive a 10% discount on books in the Visitor Center.
Friends of the
UC Botanical Garden

NEW MEMBERSHIP BENEFIT
FOR 1994!
The Friends are pleased to announce a new membership benefit for 1994. Beginning in January, all members of the Friends of the Botanical Garden will receive Reciprocal Admission to more than 120 gardens and arboreta nationwide.

A brochure listing the participating gardens is being mailed with this Newsletter. In addition it will be available at the Visitor Center.

FROM THE DIRECTOR

What Have We Got Here?

The UC Botanical Garden is home to over 13,000 species, some famous, others not even named. Some are botanical garden “must haves,” due to the phenomena they illustrate or the stories they bring with them. Others have fascinating tales buried in the catacombs of scientific literature, or perhaps even stories for us to discover on our own. One plant species might show an intriguing pollination mechanism, and its neighbor may yield drugs that save lives, or produce an enormous edible root willing to grow in places where people are hungry. The account of the discovery or history of many species is stranger than fiction, and in our geographically oriented Garden, we have unparalleled opportunities to display and explain astounding biogeographic patterns: why are there species in eastern North America, western North America and Japan that look so much alike one can have trouble telling them apart? Why do so many California plants look like species from Chile?

The interpretive possibilities are endless. We have endangered species in protective cultivation for the Center for Plant Conservation. One reason for cultivating endangered species is to display them and to promote interest in conservation. Moreover, several endangered species happen to be beautiful. Through interpretation botanical gardens promote interest in nature, in safeguarding the biodiversity that sustains us, in gardening, in ecology and in art. As I walk the paths of the Garden, I often feel the urge to tell somebody about the wonderful plants before me. Our docents do that for thousands of visitors per year. Often, visiting professors and staff members have a chance to explain the plant world to students. But what about everyone else—the thousands of casual visitors not lucky enough to receive a guided tour?

For them we are holding a series of staff discussions aimed at adding a combination of easily accessible, tasteful, and eye-opening interpretive signs, augmented with fliers and ultimately a guidebook about the Garden. Under development now is a series of about ten pilot interpretive signs to highlight particularly interesting plants or plant groups. Beyond these, a possibility is to establish a series of information “kiosks” around the grounds, these serving the casual visitor and as convenient gathering points for tours. No sense in elaborating, as the details need a great deal of work. The point is, the UCBG is a treasure house of fascinating things to know, and we have the pleasant duty of revealing those things to our visitors.

— George Rogers
New Members
The Friends of the Botanical Garden welcome the following new members.

Ron Antipa & Family
Elizabeth A. Appel
Dawn Banasiak
P.R. Barnes
Debra Blank
Linda C. Blum
Parke & Dorothy Boneysteele
Carol Bowen
Karen Carkhuff
Mr. & Mrs. William J. Casey
Tanya L. Ceremello
Joe & Susan Cerny
Patricia G. Connolly
Karen Carkhuff
Dean Curtis
Lucie-Mae Covey
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Dore & Martha Griffinger
Tom Gschneidner

In Honor
The Friends offer appreciation and thanks for gifts from these donors in honor of Lincoln Constance.

On March 27, Lincoln Constance was honored as an enthusiastic and valuable supporter of the Botanical Garden by the Friends. A fund will be established in his name to be used to partially support a student for one year to work on some special Garden project. The following people contributed to that fund:

Dr. William Lidicker, Jr.
Dr. & Mrs. William Lidicker, Jr.
Sandy Lundgren
Steven J. Malamuth
Sarah E. Mark
Shirley A. Massey
John N. & Mary McCombs
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M. Y. Sheikh
Bob & Clare Sweeney
John M. Tucker
Richard Walker
Bernard & Alba Witkin
Myrtle Wolf

Three New Life Members Named
The Friends' Board voted to make Errol Mauchlan, Dr. Carol Baird and Dr. Alan Harper Life Members of the Friends of the Botanical Garden.
Gifts in Kind
The Friends offer appreciation and thanks for gifts in kind.

Elly Bade
Mrs. Fred Cochran
Lucie-May Covey
David de Leeuw
James H. Jones
Sara Jorgensen
Dr. Robert Ornduff
ST. MARK'S LUTHERAN CHURCH
OF SAN FRANCISCO
Wayne Roderick
June B. Smith
Catherine M. Trefethen

Special Projects
The Friends offer appreciation and thanks for gifts from these donors to support the special projects noted.

Marion H. Greene for California Alive!
Robert & Evelyn Ratcliff
Myrtle Wolf for the Entrance Gate Project
Dr. Stephanie Kaza, Mac & Sita Laetsch and
Mary & Philip Pierpont for Education
James H. Jones for the 21st Century Endowment
James & Irma Uren for the Third Annual Art Poster Contest
Orinda Garden Club
Piedmont Garden Club for the Meeting Room Project

In Memory
The Friends offer appreciation and thanks for gifts from these donors in memory of:

Suzanne Clausen, from
Dr. Stephanie Kaza
Elizabeth Palmer
Gloria Conway, a loyal volunteer in our Visitor Center, from
Elly Bade
Carol Baird
Deborah Darnell
Kate Dow, from Dr. & Mrs. Warren A. Plowman
Carolyn Heathcrom, from Mary and Richard Schroeter
Ralph & Helen Morris, from Eleanor & Thomas Spatz
Ceda & Philip McCombs from John N. McCombs and
the McCombs Family
Owen Pearce from Mollie A. Balamuth
Dorothy Riggs Pitelka from
Charles & Jacqueline Desoer
James H. Jones
Prof. & Mrs. Paul Licht
A bench has been given in memory of long-time volunteer Addie Collins from her son Pablo and her many friends (who were listed in the Winter Newsletter)

Grateful Thanks
The Friends wish to thank these donors who have made a substantial gift over and above membership.

Michael & Susan Addision
Janet Alderton
F.R. Barnes
C. Ritchie Bell
BERKELEY HORTICULTURAL NURSERY
Carol Bowen
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The Estate of Ethel L. Cross
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Friends of the Botanical Garden Membership Application
Yes, I would like to support the U.C. Botanical Garden at Berkeley as a member:

☐ Student* ........................................ $10  ☐ Sponsor .......................................... $250
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☐ My employer has a matching gifts program. I have enclosed the appropriate forms.
Contributions are tax deductible. Please make checks payable to Friends of the
U.C. Botanical Garden and mail to:
Friends of the Botanical Garden, U.C. Botanical Garden, Berkeley, CA 94720
*Full-time only.
Calendar of Events

APRIL

PLANT CLINIC Sat, APR 2
Bring your ill plants to see Dr. Robert Raabe, UC Plant Pathologist. First Saturday of the month, 9am-12, Meeting Room.

MULCHERS (After School Group) Weds, APR 13-JUNE 8
The Garden is offering a new after school program called “MULCHERS.” It is designed for 4th through 6th graders interested in plants and the environment; it is perfect for the budding botanist, biologist or gardener. MULCHERS will meet once a week (Wednesday afternoons) and continue for nine weeks. $55 per child. For more information phone 642-3012 or 652-2377.

ART IN THE GARDEN Wed am, APR 13-JUNE 1
The popular watercolor class at the Garden, offered on eight Wednesdays mornings from 9:30am to noon. Instructor Judith Corning welcomes all levels, including beginners. Meet at the Meeting Room. Members $55, non-member $70.

HOW TO USE THE JEPSON MANUAL Sat, APR 16
So you have purchased the wonderful new Jepson Manual: Higher Plants of California and find it too intimidating to use? Join Glenn Keator in an exploration of Jepson Manual basics, especially how to use its keys in the field. 1-3pm, Meeting Room. Members $8, non-members $11.

BIRD WALK & BREAKFAST Sun, APRIL 17
Professor Robert Middlekauff will lead a birdwalk through the Garden to observe resident and migrant birds, breakfast afterwards. Congregate at the Meeting Room at 7:15am, pre-registration required.

WILDFLOWER IDENTIFICATION Thurs eve, APR 21-JUNE 9
Dr. Glenn Keator, well-known botanist, celebrated educator and author of The Complete Garden Guide to Native Perennials of California will present an eight-week evening course on identification of California wildflowers. Reservations required. Meeting Room. 7-9pm. Members $60, non-members $75 for the series.

BOTANICAL ILLUSTRATION Fri eve, Sat, SUN APR 22,23,24
Dr. Linda Vorobik, formerly Principal Illustrator for the Jepson and University Herbaria at UC Berkeley, presents an evening seminar on the history, uses and techniques of botanical illustration, and two one-day workshops on the process of scientific illustration from rough sketch to publication. Friday 7-8:30pm; Saturday and Sunday 8:30am-4:30 pm with lunch, Meeting Room. Members $55 Fri, $80 Sat, $80 Sun; non-members $58 Fri, $95 Sat, $95 Sun.

MAY

PLANT CLINIC Sat, MAY 7
Bring your ill plants to see Dr. Robert Raabe, UC Plant Pathologist. First Saturday of the month, 9am-12, Meeting Room.

SPRING PLANT SALE: MEMBERS PREVIEW Fri eve, MAY 6
The Annual Spring Plant Sale begins on Friday evening with a Members Preview Party. First choice of rare and beautiful species, 10% surcharge. Food and refreshments will be served. Come early and find the best buys! 5-7:30pm.

SPRING PLANT SALE Sat, MAY 7
Our biggest sale of the year. Everything from perennials to orchids, from vines to trees and herbs. Great plants are available all day long. Sale proceeds benefit the UC Botanical Garden. Gates open at 10am, close at 3pm.

NEW MEDICINES FROM OLD CULTURES Tues, MAY 10
Aldonra Oubre and Stephen King, of SHAMAN Pharmaceuticals, will present an inspiring talk on their involvement in the intensive search for those plants whose medicinal properties have been known in other parts of the world for centuries and which can be successfully used by Western medicine. Both the ethnobotanical and the pharmacological aspects of this very exciting work will be covered. Meeting Room. 7-8:30pm. Members $5, non-members $8.

NAPA VALLEY GARDEN TOUR Fri, MAY 20
We are delighted to announce another all-day garden tour to the Napa Valley. We expect this popular event to fill fast, so please register early. Price includes lunch. Members $125, non-members $150 (includes a membership in the Friends).

BUG DAYS Sat & Sun, MAY 21-22
Our most popular event! If you missed it last year, here is another chance for you to experience the wonderful world of insects, their relatives, and their special relationship with plants! The Fourth Annual BUG DAYS events run continuously and feature live insects, games and prizes, bee-idents, art activities, videos. Bring the family! Meeting Room. 10am-3pm.

CHINESE MEDICINAL HERBS Sat, MAY 28
Principles of Chinese herbal medicine with a special emphasis on anti-viral and immune-enhancing herbs with Barbara Wilt, licensed acupuncturist. 10am-noon. Members $10; non-members $15.

JUNE

PLANT CLINIC Sat, JUNE 4
Bring your ill plants to see Dr. Robert Raabe. 9am-12, Meeting Room.

CHRISTOPHER LLOYD & ROSEMARY VEREY Sat, JUNE 11
Join Rosemary Verey and Christopher Lloyd, world-renowned garden writers and lecturers, for a set of talks on the theme of creation of gardens through the thoughtful use of plant material. Rosemary Verey will speak on “Making the Most of Your Garden: Design & Plants,” and Christopher Lloyd will present a talk on “Garden Plants and How to Use Them.” An hour-long break in the Chancellor’s Garden will feature refreshments and the opportunity for book-signing and conversation. We expect this event to fill early, so be sure to register now. Valley Life Sciences Building (the former LSB), U.C. Berkeley. 9am-1pm. $40 members, $50 non-members.

GRASSES Sat, JUN 11
Join grasses expert Travis Columbus in a wonderful grass identification workshop that concentrates on the important groups of California grasses. Beginners welcome. Ornamental grasses also discussed. Meeting Room. 9am-4pm. $40 members, $50 non-members.

GARDENS OF THE PACIFIC NORTHWEST JUNE 13-19
Join Sean Hogan for a tour designed especially for garden enthusiasts. The tour will take us to Portland, which fulfills its reputation as a “garden city” and Seattle, visiting gardens and nurseries along the way. You will find Sean to be a delightful host, who knows his way around the Pacific Northwest (this is his native territory). For information call 642-3343 or contact Pacific Northwest Tour, UCGB, Centennial Drive, Berkeley, CA 94720. Space limited.

COMING ATTRACTIONS

GREENSTUFF DAY CAMP JULY 11-AUGUST 12
Week-long programs for children with instructors from the UCB campus, on the wide world of plants, ecology, how people use plants, stories, art and games. Three sessions available. $125 per session. Call 642-3332 for information.

STORYTELLING IN MATHER GROVE JULY & AUGUST
Second and fourth Sundays.

For further information on classes and events, call the Visitor Center, 642-3343. To register for classes, send checks to UC Botanical Garden. Mail to: UC Botanical Garden, 1001 University Ave., Berkeley, CA 94720. Permit No. 1061

Plants are for sale at the Visitor Center all year. 642-3343

Friends of the Botanical Garden
University of California
Berkeley, California 94720
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June Falkner
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