



UNIVERSITY of CALIFORNIA
BOTANICAL
GARDEN
NEWSLETTER

Volume 27, Number 4

Published by the UNIVERSITY OF CALIFORNIA BOTANICAL GARDEN at Berkeley

Fall 2002

Winter in the Garden

As a native Easterner I am still amazed by our Bay Area winters. In the Northeast, winter means dormancy, and by this I mean major dormancy: the kind that occurs when temperatures drop below zero for days at a time. In north coastal California our winters are marked by rain, cool temperatures, and dormancy that is most evident in deciduous plants. The Garden takes on a subdued tone in winter, but underlying this low-keyed period is a burgeoning of plant growth that begins with the first rains of autumn. While some plants enter dormancy in the fall, many of our Mediterranean climate plants, including much of the California flora, have been dormant throughout our long, rainless period.

Winter in the Garden is for me a reminder of the subtle depth of beauty of our rich and diverse collection. Stripped of at least some leafy distraction and without the extensive floral display present at other times, structural elements stand clearly on their own. Whether it is the richly textured bark of the dawn redwoods (*Metasequoia glyptostroboides*), the startling blue whorls of *Agave parryi*, or the fantastic spirals of *Aloe polyphylla*, it is easier for me to focus on form and texture in that special, low angled winter sunlight. The leaves of certain plants change color in the cool weather of winter. The bronze hues of many plants in our Australasian Area intensify at this time, particularly the leaves of a number of sedges (*Carex* spp.).

In addition to leaf texture, growth form, and branching structure, pods, berries and seed capsules present themselves for more detailed examination during the winter. The unusual blossoms of the monkey hand tree (*Chiranthodendron pentadactylon*) mature into woody pods that fall to the ground. Berries abound, feeding our wintering robins and hermit thrushes. Among many others, the birds focus on dried and lingering fruit of the California grape (*Vitis*



Photo by H. Forbes

Dawn redwoods (*Metasequoia glyptostroboides*), along Strawberry Creek in the Asian Area.

californica), the abundant berries of our windmill jelly palms (*Butia capitata*) and the varied and colorful berries of many viburnums, including the spectacular Asian *Viburnum foetidum* var. *ceanothoides*.

During the winter, many trees and shrubs stand bare and certain herbaceous plants die to the ground, all this while other plants are springing into growth. Numerous Californian, southern African, and Mediterranean bulbs begin to push up with the rains of fall and winter. Some wait until spring warming to blossom, though others blossom “in

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WINTER *(continued from page 1)*

the dead of winter,” to use a term that has little currency in California. Expect to see the early and delicate Mediterranean *Leucojum*, *Galanthus*, and *Cyclamen*, if they have evaded gophers and squirrels for another season!

In addition to bulbs, many other plants blossom during the winter; indeed, there is something in blossom in the Garden every month of the year. As I write this article the Californian saxifrage relative, *Jepsonia malvaefolia*, is coming into blossom. Named for the pioneering University of California botanist Willis Linn Jepson, this diminutive, white-flowered native leads the parade of winter and



Photo by R. Anderson



Photo by H. Forbes

LEFT: *Agave parryi* in the New World Desert, Bed 153.

RIGHT: *The spiral aloe* (*Aloe polyphylla*) is in the Southern African Area, Bed 138.

spring blossoming plants in our Californian Area. As early as December the first manzanitas (*Arctostaphylos* spp.) are in blossom, with their dangling, ericaceous, urn-shaped inflorescences feeding winter active bees. The earliest flowering currants soon follow, starting with Horticulturist Roger Raiche's selection of the chaparral currant (*Ribes malvaceum* 'Montara Rose'). The pendant, dioecious blossoms of the silk tassel bush (*Garrya elliptica*) provide subtle, if unusual winter interest.

Few sections of the Garden are truly dormant in the winter. Barring a freeze, the subtropical *Salvia*, *Penstemon*, and other taxa of the Mexican and Central American Area are magnets for resident and wintering hummingbirds. A number of succulents in the Southern African Area are winter bloomers, along with some heaths (*Erica* spp.) from the Cape Floristic Province. Plants such as magnolias are much anticipated winter bloomers, although they are actually preceded in our Asian Area by the first blossoms of our very rich *Rhododendron* collection. Witch Hazel (*Hamamelis virginiana*) begins blooming in autumn in the Eastern North

plantings of winter blooming horticultural annuals brighten up this lovely vista.

Winter is also an ideal time to enjoy the Garden's glasshouse collections. The break from winter's damp chill allows for a detailed examination of the rich and complex form, texture, and variety of these warm growing plants. The lush dampness of the Tropical House contrasts with the dry warmth of the Arid House. The diversity of plant forms displayed in our outstanding collection of succulents, cacti, and caudiciform plants is easy to appreciate on a rainy winter day. In the Fern and Carnivorous Plant House the myriad subtle fern leaf differences is a study in shades of green, and it provides a sharp contrast with the highly specialized leaf forms displayed by the carnivorous plants.

Another prominent feature of the Garden in winter is the activity of the horticulturists. Winter is a busy time in the Garden, and the onset of autumn rains is eagerly anticipated by the gardeners, who are anxious to begin to "plant out." Stock grown in the nursery throughout the spring and sum-

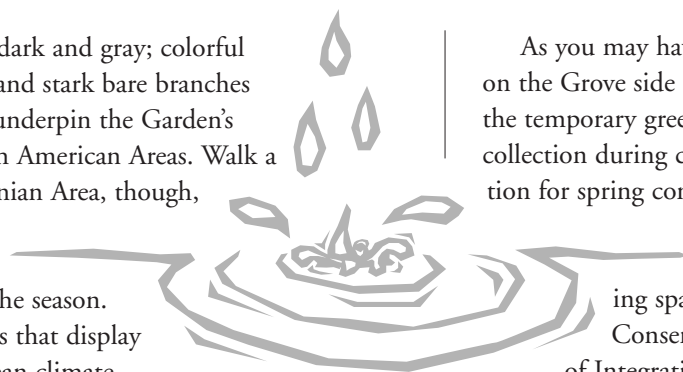
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DIRECTOR'S COLUMN

December skies are dark and gray; colorful leaves have fallen and stark bare branches reveal the “bones” that underpin the Garden’s Asian and Eastern North American Areas. Walk a few yards to the Californian Area, though, and new growth will remind you that we’ve gotten our first rain of the season. As in other Garden areas that display plants from mediterranean climate regions, in California late fall is a time of renewal and rejuvenation. Thus, in a Garden as diverse as ours, there is always something happening. This is true for people as well as plants. Staff are constantly developing and maintaining the collections, there are diverse public programs and outreach activities, and volunteers participate in many ways, including growing new plants, leading tours, and running the Garden Shop. At the Plant Conservation Research Center, researchers are exhilarated by the start of a new field season.

We invite you to join us! Don’t let rainy days tempt you to stay home. Instead, come visit the Garden’s public greenhouses, where the diverse array of tropical, arid, fern and carnivorous plants are always welcoming. There’s no better antidote for a gray winter day than to gaze in wonder at a fascinating range of plant forms while basking in the welcoming warmth of the Arid House.

I encourage you to peruse the exciting array of public programs described on the calendar page. We have brought together an exciting group of speakers on topics of interest to our diverse audiences. Peter Klement starts off the New Year with his popular workshop on rose pruning, followed soon after by a program on California native bee pollinators by Dr. Gordon Frankie.



As you may have already noticed, there are changes afoot on the Grove side of Centennial Drive! Crews have removed the temporary greenhouse that held our cactus and succulent collection during construction of the Arid House in preparation for spring construction of the Jane Gray Research Greenhouse. This exciting new facility will provide state-of-the-art plant growing space for research by scholars from the Plant Conservation Research Center, the Department of Integrative Biology, and other campus departments. This project is made possible by state funds and a generous bequest from the estate of Dr. Jane Gray, a renowned paleo-botanist who earned her doctoral degree from UC Berkeley.

The Garden benefits from its many talented and passionately dedicated staff, including Horticulturist Judith Finn, who was recognized this fall with a Chancellor’s Outstanding Staff Award. Please join me in congratulating her on this award.

We are making progress in addressing issues caused by Sudden Oak Death in the collection. Emergency funds from the Vice Chancellors’ Advisory Council have made it possible to hire Dr. Carla Wilkinson to study the pathogen in the Garden and how it is affecting the collections. We are benefiting from more than 10 years of experience that Carla has working with a similar pathogen in Australia.

Budget challenges to the State mean a real decrease in support to the university and a very significant decrease in funding for the Garden. Your generous support in the past has helped the Garden to continue its good work—whatever the economic climate—and I ask you again to generously support our year end appeal.

I look forward to seeing you in the Garden.

—Ellen Simms

WINTER *(continued from page 2)*

mer is literally bursting out of its pots. Our propagator is anxious to see plants move out into the Garden so he can start a new crop of material to add to the collection. As is the practice of Bay Area gardeners, our staff uses the winter rain to “water in” and get new plants established. Success is greater during winter rains, and it is a lot easier than having to water continuously during the dry season. Winter is also a time of pruning and cleaning up. It is often easier to see the structure of a given tree or shrub when its leaves have fallen, and its bare bones can be viewed in the overall context of an

ever growing and developing planting scheme. Winter is a time of prudent editing and revision.

And so the garden in winter is many things in addition to dormant. It is a patchwork of weather conditions, new growth, bursts of planting energy, catching up on record keeping, and indeed some plant dormancy. It is also a wonderful time to visit the Garden. To this Easterner’s mind it is hard to find a more beautiful time to be in the Garden than on a damp but sunny winter day!

—Chris Carmichael

THE BENEFITS OF VOLUNTEERING

In my first two years as a docent in the Botanical Garden, the beauty of the Earth has multiplied. My love of plants and my desire to learn more about horticulture are the things that originally drew me to the Docent Training Program in the fall of 2000. I was a novice, truly, and gulped in botany basics, biogeography, aquatic ecology and phylogenetics until my head was spinning. My learning curve was straight up, and I assimilated an entirely new vocabulary. Words such as dioecious, chert, Gondwana, and duff swirled through my mind, and I prayed for new memory skills. The education I received was simply outstanding. The lively lectures from various UC professors as well as the fabulous garden tours from our own amazing horticulture staff provided a solid foundation for my training.



Photo by R. Anderson

Garden docents lead over 14,000 adults and children on specialized tours of the Garden's collections each year, covering topics such as the form and function of plants, plant evolution and ecology, and ethnobotany.

Since earning my status as docent, I have met an array of fascinating new friends of every persuasion imaginable; some walking on two feet and greeting me with lovely smiles, others soaring through the trees with trills and bold exclamations, and still smaller, shyer creatures pausing to say

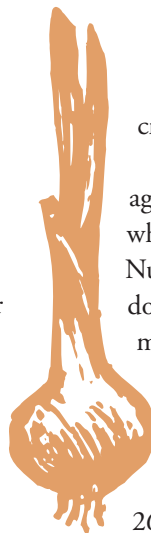
hello before darting under a rock or slipping beneath a lily pad. What we all share in common is a love of and dependence upon the extraordinary kingdom of plants, which the Garden offers in abundance. It's a true wonderland here, a kaleidoscope of brilliant colors, wild shapes, exotic textures and heavenly perfumes which completely defy description. I enter the Garden and I am embraced by nature in all her

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Successful Fall Plant Sale

A beautiful autumn day, crowds of enthusiastic plant lovers, and a great assortment of unusual plants made for one of the most successful Fall Plant Sales in many years, with a record breaking income of over \$20,000.

During a plant sale hiatus of eight months due to concerns about Sudden Oak Death (*Phytophthora ramorum*), our volunteer propagators produced bumper crops of many plants such as California natives, herbs, houseplants and rare flowering vines. A silent auction of rare plants, which is normally held only in spring, brought in over \$1,200, with a record breaking bid of \$200 for an exquisite specimen of white-flowering *Lapageria rosea*. For the first time ever, the Garden offered a wide assortment of bare root bulbs for fall planting, including many from South Africa and the Mediterranean. In addition, a large section of bargain plants



created excitement among savvy and thrifty gardeners.

Many thanks go to the hardworking volunteer propagators, as well as to all the Garden staff and volunteers who helped run this event. Thanks also to Suncrest Nursery, Rosendale Nursery, and Annie's Annuals for donating plants for auction and sale. And of course, many thanks to all the Garden's loyal members and the public for helping to make the Fall Plant Sale such a great success.

Be sure to mark your calendars for the Spring Plant Sale, which will be held on April 25th and 26th. The event includes a member's preview and silent auction on the evening of the 25th, followed by our public sale on the 26th.

—Lawrence Lee

VOLUNTEERING IS A GREAT WAY TO...

- Meet interesting people
- Cultivate personal growth
- Gain new experiences
- Take on new challenges
- Feel good and build self-esteem
- Take pride in sharing your knowledge and your abilities
- Keep your body active
- Keep your mind active
- Stay healthy
- Put your free time to good use
- Have fun!

loveliness. My spirit is infused with calm. I breathe in the oxygen-rich air and give thanks.

As I become more experienced in my tour-giving, I understand the unique opportunity we have as docents to inspire a curiosity in the world of plants and wildlife. We are planting seeds of love, a love of beauty and nature and the environment, in the hope that a child (or an adult) may discover a memorable connection to the earth, and thereby increase her awareness of and stir her interest in conserving the natural world.

When these moments do occur, they are gorgeous; uplifting, real, and deeply satisfying. One morning in late spring, during a tour with Biology 1B students, I witnessed a wonderful transformation. The morning simmered in heat, and by 9:30 a.m. the temperature was well into the 80s. The UC shuttle stopped at the gate, unloading a swarm of sweaty, spiritless students who greeted me with blank stares. I introduced myself and the Garden, encouraging them to come often and enjoy the peacefulness here with other friends. They continued to stare at me politely. The TA began the tour and I added tidbits of information as I could. We stopped at the Tropical House and I gave my best version of the hypothesis of the coevolution of the ants and the bull-horn acacia (*Acacia cornigera*), offering color pictures of the ants marching along, devouring the Beltian bodies. Some students crowded around me to study the pictures more closely, and I pointed out the unique adaptations made by both the ants and the tree. We proceeded to South America and the grand southern beech (*Nothofagus dombeyi*). I offered my

map of Gondwana to illuminate “disjunct distribution” (the division of an ancestral range into separate geographic areas), and we marveled at the two different species of *Nothofagus*. I insisted that we not miss the monkey puzzle tree (*Araucaria araucana*), another example of disjunction. I really love this tree with its weird, pointy puzzle pieces, and even with the morning heat we ran up the hill, laughing and huffing, in an effort to examine this specimen before time ran out. We lingered briefly in the adjacent rose garden, drinking in the view of the magnificent Golden Gate, and bathing in clouds of lavender-rose sweetness. As we descended the hill to Australasia, I felt like the Pied Piper. Girls on either side of me pumped me with questions about the seasonal changes in the Garden, and what floral displays did I most enjoy? Other students talked about returning soon with their friends. A couple of guys thanked me and wondered how they had never heard of the Garden before this assignment. One quiet young man who had remained silent throughout the morning, tapped my arm as I was about to leave. “I just want to thank you,” he said. “This must be the most beautiful spot on campus.”

That day marks for me the felicity of my choice to become a volunteer in the Botanical Garden. To observe a group of students literally “wake up” to the mystery and beauty of this magical place is a gift, and one that affirms my role as volunteer. I offer my time, my enthusiasm, and my knowledge, and in return I receive the joy of making a positive connection with another human being, as well as witnessing a new appreciation for the beauty of the Earth.

—Maureen Appel

DID YOU KNOW THAT...

- Volunteering has been linked to improved quality of life, stronger social networks, increased levels of physical activity, and lower mortality rates.
- Volunteers often report a “helper’s high”, a physical and psychological “feel good” sensation linked to physiological changes.
- Volunteerism contributes to successful aging by enhancing one’s life satisfaction and well being, sense of purpose, self-confidence and personal growth.

—Health Canada 2002

EDUCATION

This has been an incredible year for the Education Program's curriculum development projects and outreach programs. These efforts support improvement in schools through instructional packages that integrate science and math educational goals into school garden settings, and that teach scientific content and promote analytical skills in children. They are designed not only for teachers, but also for youth leaders and parents working outside the classroom, addressing their needs in working with children. The materials developed engage youth in botany, ecology, biodiversity, and mathematics through activities related to gardens and the living environment. The response to these teaching units has been overwhelmingly positive and the demand for copies of materials has been increasing exponentially.

One of our most exciting projects is *Math in the Garden*, funded by a grant from the National Science Foundation, which is nearing completion. With now 60 activities devel-



Math in the Garden will be a 3 book series, with original watercolor illustrations, with engaging activities for children ages 5-13.

Illustration by Ann Williams

oped by a team of educators and math and garden specialists, the project is in its final stages of trial testing and we are currently preparing the materials for publishing, which will include colorful watercolor illustrations. Enthusiasm for the activities has been tremendous and people have been spreading the word.

We estimate 2,000 teachers have received our curriculum and more than 20,000 children have had contact with the activities. By invitation, staff on the project presented this material at 10 professional development meetings including the National Youth Gardening Symposium in Chicago, AABGA in Ontario, National Mathematics Teachers Association, and San Francisco Bay Area Girl Scout Council Discoveree.

One of the strengths of the *Math in the Garden* program is that it utilizes the natural curiosity and motivation children have in gardens while meeting the National Mathematical Standards that have become a necessary focus for teachers. Jenny Maguire, an Orinda School District math specialist found that “every *Math in the Garden* activity is appropriate and successful,” and has since joined our development team. After conducting activities this summer, an after-school gardening/environmental program leader in Kentucky stated that their Montessori school “has decided this year to incorporate ‘garden math’ into the regular curriculum.”

Many have also found the activities to be quite flexible and fit well in a variety of settings. They were featured at “nature stations”, farmers markets, community harvest festivals, family nights, and Earth Day events among others. Youth and youth leaders alike have praised the program for being “fun and easy”. Often it is a surprise to the students that they are doing math and they like it!

—Christine Manoux

Participation in Garden Curriculum Projects

Local and National Educators and Youth Organizations

- 3 Children's museums
- 8 Botanical gardens and arboreta
- 25 After-school and youth programs
- 50 Girl Scout Troops and camps
- 80 Schools (including 5 entire school districts)
- 100 Home-schooling parents
- 600 School volunteers (including parents)

Workshops and/or activities were held at

- 13 Public and family events
- 45 Professional development conferences

Tribute Benches in the Garden



Photo by R. Anderson



Photo by H. Forbes

LEFT: View of the New World Desert from the proposed tribute bench site. ABOVE: This is one of three tribute benches still available in the Californian Area.

A visit to the Garden just would not be the same without the opportunity to sit and enjoy the spectacular view of the Golden Gate, contemplate the architectural majesty of the towering cacti, meditate in an oasis of serenity amid the redwoods, or rest in the dappled shadows by the rushing creek mesmerized by the purple center of the tree peony (*Paeonia suffruticosa*). Our benches enhance the pleasurable experience of visiting the Garden.

We have revised our bench policies and have a new approach to the process. Sales of tribute benches directly help develop plant beds and support the maintenance of the collection. Horticulturists may nominate locations where their collection area may benefit from a new bench. The construction of the new bench sites will create opportunities to develop new plantings.

As a result of this new process we have a restricted number of benches available each year for donors interested in a

tribute bench. This year new benches are being added to the Oak Knoll, Mather Redwood Grove (in the Agnes Roddy Robb Glade) and in the New World Desert. A new bench dedicated to Dr. Herbert Baker and Mrs. Irene Baker is positioned outside the Tropical House.

Bench locations available at the moment include the following: the Californian Area (Oak Knoll, main path, and beside the creek); outside the Tropical House overlooking Strawberry Creek; in the New World Desert among the cacti; in the Mather Redwood Grove near the amphitheater; at the entrance to the Arid House; and in the Australasian Area.

If you are looking for the perfect, the unusual, holiday gift for that person who has everything, then a bench may be the answer! If you are interested in a tribute bench here in the Garden, please call the Development Office at (510) 643-2937 for information.

—Janet Williams

PLEASE SUPPORT THE GARDEN'S ANNUAL APPEAL!

GARDEN NOTES

STAFF... Horticulturist **Judith Finn** received the Chancellor's Outstanding Staff Award in a ceremony with Chancellor Robert Berdahl on October 28th. The award "recognizes outstanding contributions made by staff toward the University's mission of excellence in learning, discovery and public engagement." Congratulations Judith!

The Garden welcomes new staff member **Dr. Carla Wilkinson**, an expert plant pathologist working on Sudden Oak Death (*Phytophthora ramorum*) issues in the collections. Dr. Wilkinson hails from Australia and welcomes this one-year appointment and opportunity to work on this emerging disease.

CONSERVATION ...Curator **Holly Forbes** attended the October national meeting of the Center for Plant Conservation (CPC), of which the Garden is a participating institution. This meeting was held in conjunction with the Missouri Botanical Garden's 49th annual Systematics Symposium. The topic this year was conservation genetics, with direct applicability to the Garden's conservation program.

THE LANDSCAPE...Changes are afoot on the Grove side of Centennial Drive! The temporary greenhouse that held our cactus and succulent collection during construction of the Arid House has been removed in preparation for the spring construction of the Jane Gray Research Greenhouse. A number of trees have been removed as well. Some of the Monterey pines would have shaded the new greenhouse, but in addition, pine pitch canker was present and spreading in these trees. Several trees from the collection were also removed, but they have been propagated and we hope to find homes for them elsewhere in the Californian Area. In a

very positive move that brings greater integrity to the collection, a small row of Italian poplars was removed from the edge of the Grove. Look for landscaping to happen soon along the slope in front of the Plant Conservation Research Center, and for an attractive new research complex to go up in the spring and summer.

CONFERENCES...Horticulturist **Elaine Sedlack** attended the Western Regional American Rhododendron Society conference held in September in Bellingham, Washington. Horticulturist **Bridget Lamp** attended the "Gardening

Under Mediterranean Skies III" symposium at Strybing Arboretum in September. This symposium featured speakers from mediterranean-climate regions around the world: designers, nurserymen, botanists, horticulturists.



Photo by J. Williams

Rhododendron falconeri in the Asian Area, Beds 232 and 246.

ASSOCIATE DIRECTOR'S NOTE...The title of Elaine Sedlack's

article in the previous newsletter was submitted as "A Tale of Twin Plots: the Herb Gardens at UCBG," although it went to press as "The Herb Gardens."

DOCENT STEERING COMMITTEE...Please welcome the 2002-2003 slate of officers: President **Joanie Kibbey**, Vice President **Ronni Brega**, Secretary **Jeanine Sidran**, and chairs: Scheduling—**Linda Govan**, Continuing Education—**Cecile Weaver** and **Anne Packer**, Publications—**Barbara Lyss**, Hospitality—**Lynn Winter**, Field Trips—**Louise Dutton**, Tour Resources—**Betty Medwadowski**, and UCBE liaison—**Maureen Appel**.

—Holly Forbes

THE DOCTOR SAYS

■ Phytomining, the process of removing metals from soils using plants has been shown by researchers in Beltsville to be commercially feasible. Effective plants, called hyperaccumulators, take up and store particular metals. In a project, strains of *Alyssum* were found to have desired characteristics and the first crop that accumulated nickel and cobalt resulted. The hay-like crop, after harvest, is burned for a biomass energy product and the nickel and cobalt then are removed from the ashes. *Agricultural Research* 50(8): 19.

■ Researchers in Tennessee have shown that soybean oil can be used to control two-spotted spider mites on burning bush (*Euonymus alatus*).

A single spray of 0.75% of 1.0%, or two sprays of 0.25% or 0.5% gave effective mite control. The oil was not phytotoxic to the plants and has the additional advantage that it did not greatly reduce the predatory mite population. No insects or mites have been reported as developing resistance to vegetable or petroleum oils. In addition, it is a renewable resource and is readily available. *Journal of Environmental Horticulture* 20: 86-92.

■ A rust fungus first was reported on eucalypts in South America in 1912 but did not become recognized as a serious problem until the 1980s. It is particularly severe in Brazil



where the world's largest eucalypt industry is found. However, it has spread through South and Central America, the Caribbean islands and into Florida. The fungus has been named *Puccinia psidii* and has been found on many hosts in the Myrtaceae including various *Eucalyptus* species, melaleucas, callistemons, and guavas. (Generally rusts have limited host ranges.) Mature leaves are immune so little damage occurs on mature trees. However, young trees in plantations are severely affected and up to 90% of young trees can be killed. (This is unusual, for rusts have to live on living tissues so they rarely kill their hosts.) Sprouts from fire damaged large trees also can be affected. In Australia, where the fungus presently does not occur, scientists are greatly concerned about the possibility of the fungus being introduced because of the large numbers of plants in the Myrtaceae that are native to that country. *Farming Ahead* 131 (November): 54-55.

■ New peppers have been developed by the USDA in Oklahoma that have the jalapeño taste but do not have the compounds known as capsaicinoids which give the "heat" to such peppers. Researchers now are working on methods to maximize the yields of the non-pungent jalapeños. *Agricultural Research* 50(7): 23.

—Dr. Robert Raabe

RESEARCH IN THE GARDEN

Research materials were provided to the following:

Dr. **Stefan Dressler**, Forschungsinstitut Senckenberg (Frankfurt, Germany), received cuttings of *Souroubea auriculata* for a study of the family Marcgraviaceae.

Dr. **Jianhua Li**, Harvard University, Arnold Arboretum, received a sample of spicebush (*Calycanthus occidentalis*) to examine the phylogenetic relationships of *Idiospermum*, *Chimonanthus*, and *Calycanthus* using DNA sequences of nuclear and chloroplast genes.

Dr. **Edgar B. Lickey**, University of Tennessee, Department of Botany, received samples of *Glyptostrobus pensilis* (an Asian

conifer) to compare the genetic differences and similarities of the three species of *Taxodium*, with a close relative.

Dr. **Carol Wilson**, Portland State University, Department of Biology, received samples of *Iris* species to investigate whether the currently recognized subgenera, sections and series within the genus represent evolutionarily related groupings.

Mr. **Vicente Garcia**, UC Berkeley, Department of Integrative Biology, dissertation student, received samples of Piperaceae (*Macropiper*, *Peperomia*, *Piper*) to test DNA extraction.

The Garden Shop

Visit the Garden Shop for your gift shopping!

You'll find a great selection of books on just about every garden-related subject. Apart from the wonderful array of plants on the plant deck to choose from, there are also many unique and hand crafted gifts from local and global artists. Among these are boxes from Russia, painted ceramic bugs from Mexico, hand-carved spoons from Romania, colorful leaf pins, unusual baskets and ceramic pots for your plants, holiday sweatshirts and much, much more. Can't decide? Give a Garden Shop Gift Certificate or, for a gift for all seasons, give a gift of Membership at the UC Botanical Garden.

While you're at the Garden Shop, you might consider one of John Doyen's wooden bowls. John is a retired UC Professor of Entomology, author and a master wood-turner. For the last 20 years, he has been turning "found" wood into works of art. All his bowls are from rescued wood scraps from downed trees and pruning jobs from the area, some even from the Botanical Garden. These unique collectables make a lovely gift.



Photo provided by John Doyen

Wooden bowl by master wood turner, John Doyen. All his pieces are made from rescued wood scraps from downed trees and pruning projects in the area.

SPECIAL GIFT BOOKS

An Illustrated Flora of Yosemite National Park, by Stephen J. Botti; illus. by Walter Sydoriak; line drawings by Lesley Randall and Katherine Hocker; foreword by Peter Raven; Yosemite Assoc., Yosemite, CA, 2001; color and b/w illus.; 516pp.; hdc., \$125.00. A beautiful and comprehensive treatment of every vascular plant species known to occur in Yosemite.



Flowering Plants and Ferns of Mount Diablo, California; Barbara Ertter and Mary L. Bowerman; CNPS, Sacramento, CA, 2002; black and white photos; paper, \$19.95; hdc., \$34.95. Long awaited updated edition of Mary Bowerman's classic work on the plants of Mount Diablo.

Chihuly Gardens & Glass, by Dale Chihuly, Barbara Rose, Mark McDonnell, Lisa C. Roberts; Portland Press, Portland, OR, 2002; color photos; 192pp.; hdc.; \$60.00. The internationally known glass artist's work with flowers and gardens.



FOR CHILDREN

Henry Hikes to Fitchburg, by D.B. Johnson; Houghton Mifflin, Boston, MA 2000; illus; 152pp.; hdc., \$15.00. Inspired by Henry David Thoreau's *Walden*, two friends take different approaches to life in their travels to Fitchburg. D.B. Johnson is the author of a companion title, *Henry Builds a Cabin*.

PLANNING A GIFT TO THE GARDEN?

The Garden has been helped over the years by the thoughtfulness of donors who have bequeathed a gift. In recent times the Garden has received bequests from former Garden Director Dr. Robert Ornduff and from Mr. Henry Hilzinger. Dr. Ornduff's bequest created the Ornduff Fund for Garden Interpretation which sponsors Garden interpretive materials and volunteer training. The Garden has used this fund to enhance both the volunteer and visitor experience of the Garden with new signs around the Garden, new docent resources, and, in part, the new UCBG Visitor Guide. Mr. Hilzinger's bequest, with some emphasis on the Californian Area, has helped provide the materials needed for the renovation of the Channel Island beds. Past bequests, such as that by Mr. Ned Gould Herringer for the Asian Area, have resulted in supporting endowments. These generous donors' contributions continue to make a substantial and ongoing difference in the life of the Garden.

Among our current supporters we are grateful to those who have donated appreciated securities, established charitable gift annuities or established charitable remainder trusts to benefit the Garden. Planned gifts such as charitable gift annuities and charitable remainder trusts can provide you an immediate income tax charitable deduction and steady cash flow during your lifetime. Did you know that, depending on your age, a charitable gift annuity can pay you as much as 11.5% of your contribution each year for your lifetime? In this volatile economic market a steady cash flow is particularly important to many.

The UC Berkeley Office of Planned Giving, which is staffed by estate planning attorneys, would be happy to assist you in any of these matters. If you are interested in obtaining information about any of these possibilities, or, if you need any help with regard to the preferred language to be used when making a bequest, please call (510) 642-6300 or Janet Williams in the Garden's Development Office at (510) 643-2937.



GARDEN STAFF

Dr. Ellen Simms, *Director*
Richard Henderson, *Associate Director*

ADMINISTRATION

Crissy Bilyk, *Visitor Services Assistant*
Kim Kaso, *Volunteer Services & Program Coordinator*
Afrooz Navid, *Administrative Assistant*
Margaret Richardson, *Tour & Rentals Coordinator*
Michael Rimar, *Administrative Assistant*
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Dr. Robert Raabe, *Garden Pathologist*
Roger Raiche, *Horticulturist*
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NEWSLETTER

Holly Forbes, *Editor*

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Plant Collections	643-8040
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CALENDAR OF EVENTS

SICK PLANT CLINIC

UC plant pathologist Dr. Robert Raabe, UC entomologist Dr. Mills, and their team of experts will diagnose what ails your plants.

First Saturday of every month, 9 am to noon.

Free. No reservations required.

ROSE PRUNING

January 11, 2003, 9:30 am to noon

Peter Klement, Garden Horticulturist, guides you on how to do it right! This is the best time of year for Bay Area rose pruning; join him with your pruners in hand!

Fee \$20 Members, \$25 Non-members. Registration required.

QUARTERLY BIRD WALK

January 25, 2003, 9 am. Heavy rain cancels.

Join Manager of Collections & Horticulture Chris Carmichael and birder Dennis Wolff on a morning walk to discover the Garden's bird life.

Free for Members, \$10 Non-members (includes admission).

Registration recommended.

EAST BAY BEES

January 25, 2002, 2:00 pm – 4:00 pm

Have you wondered how to make your garden a haven for native pollinators? UCB Professor Gordon Frankie and his team have studied garden elements that lure California's native bees to urban garden and wild areas. Dr. Frankie will share plant lists and planting patterns his research team has discovered are crucial to attracting native bees to gardens. A walk in the Garden looking at bee-preferred plants will follow the slide presentation, weather permitting.

Free with Garden admission. Registration recommended.

EVOLUTION OF THE MAYBECK COTTAGE GARDEN:

1988 – 2002

February 22, 2003, 10:00 am – noon

Roger Raiche, Horticulturist for the Garden's California Area and co-owner of landscape design company, Planet Horticulture, describes the gradual evolution of this renowned garden from a casual, cottage-style landscape surrounding the 1926 home of Bernard Maybeck to its current manifestation of his Planet Horticulture Style. The Maybeck Cottage Garden has been featured in many horticultural magazines. Local gardeners and horticulturists interested in creating a powerful,

personal landscape will find this program a valuable resource for their own explorations.

Free for Members, \$10 Non-members (includes admission).

Registration recommended.

UNSELT ENDOWMENT LECTURE: California's coast redwood: its climate and relationship to the world's other 'redwoods'.

March 2, 2003, 1:00 pm – 4:00 pm

The coast redwood (*Sequoia sempervirens*), has a unique relationship with the cool maritime climate zone in California. On this walk Todd Dawson will discuss this relationship, and how it influences redwood distribution, ecology, and physiology. He'll also compare the coast redwood to other "redwoods", like *Metasequoia* and *Sequoiadendron*, discussing what may have influenced their biology and ecology in the past and today.

Free. Registration recommended.

CALIFORNIA PLANT COMMUNITIES

March 8, 2003, 10:00 am – 12:30 pm

Nathan Smith, Horticulturist for the Garden's California Area, will show slides and talk about some of California's most interesting and beautiful plant communities. This is followed by a tour and discussion of the Garden's superb collection of California native plants, which is organized by plant community types.

Free for Members, \$10 Non-members (includes admission).

Registration recommended.

WILDFLOWER PHOTOGRAPHY

March 22, 2003, 8:30 am - 4:00 pm

Join Bob Case, veteran photographer, in this all-day workshop, designed to improve your photographic skills. He'll begin with a classroom exploration of both landscape and close-up techniques. With your camera and two rolls of E-6 film (provided) and individual support from Bob, try out what you've learned! Bring your flash, close-up lenses, bellows, filters, tripods, beanbags, etc. and Bob will share tips about his favorite paraphernalia. Film will be processed while you lunch and review slides you'd like to share. The results will then be edited into a slide show: a great opportunity to hear feedback and continue working toward your photographic goals. Bring a standard 35mm camera, any accessories and a bag lunch.

Fee \$75 Members, \$95 Non-members. Registration required.

GARDEN HOURS: Open 9 am to 5 pm. Closed first Tuesday of each month. Closed December 25th.

SUMMER HOURS: Memorial Day to Labor Day: 9 am to 7 pm. **THURSDAYS ARE FREE.** Garden Shop is open from 10:30 am to 7:00 pm.

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Public Tours are offered at 1:30 pm each Thursday, Saturday and Sunday. Call (510) 643-2755