Calendar of Events

APRIL
- Learning to Key Wildflowers in the Jepson Manual with Dr. Glenn Keator
  Six Thursdays, beginning APRIL 3.
- Join Holly Forbes for a tour of the rare plant genus of the California Native Aston. 10am-Noon: $8 members, $10 non-members.
- Visit to the Jepson Prairie: A Rail Excursion to the Jepson Prairie
  Sat, APR 19.
- Filoli Tour and More
  Thurs, APR 24.
- SPRING PLANT SALE
  Members’ Preview, Friday, APR 25, 5-7:30pm
  Public Sale, Sat, APR 26, 10am-2pm
  The time to plant is now! The Garden’s finest is yours to enjoy.
- Ceramics for Your Garden with Robin Parer
  Sat, MAY 3.
  Celebrated ceramic artist Robin Parer will share her horticultural tips with you. 10am-Noon. Mirov Room. $30 members, $40 non-members. Pre-registration recommended.
- Soft Data, Hard Impacts
  Tues, MAY 6.
  A talk by Professor Paul Dayton of the UCSD Department of Biological Oceanography about the effects of fishing on the coastal zone. 7:30 pm. FREE. In Lecaire Hall 201 of the Valley Life Sciences Building.
- Desert Ferns
  These plants do not spread; old fronds persist and curl up into white balls.
- Desert Ferns, a striking display of xerophytic ferns in a concrete planter extending along the south outer side of the Desert/Rainforest greenhouse. Garden visitors may be surprised to find a group of plants usually associated with shaded, moist habitats placed in an exposed hot southwestern-facing position (“the fern frying pan” as I term it). But these ferns normally grow in hostile desert conditions that we have tried to duplicate in our cool, fog-shrouded canyon location. Ferns of dry habitats are variously called rock, dryland, desert, or xerophytic ferns. They belong to several genera in the family Polypodiaceae, a family that includes the more typical wet-growing, maidenhair ferns. These ferns are widely distributed in many dry regions of the world and are particularly diverse in the American Southwest and Mexico.
- Unlike many desert plants, these desert ferns are not succulent, and their roots are the delicate threads typical of ferns of moisturer habitats. However, their aerial parts exhibit various adaptations to arid habitats. In some

Desert Ferns

One of the newest plantings at the Garden is a striking display of xerophytic ferns in a concrete planter extending along the south outer side of the Desert/Rainforest greenhouse. Garden visitors may be surprised to find a group of plants usually associated with shaded, moist habitats placed in an exposed hot southwestern-facing position (“the fern frying pan” as I term it). But these ferns normally grow in hostile desert conditions that we have tried to duplicate in our cool, fog-shrouded canyon location. Ferns of dry habitats are variously called rock, dryland, desert, or xerophytic ferns. They belong to several genera in the family Polypodiaceae, a family that includes the more typical wet-growing, maidenhair ferns. These ferns are widely distributed in many dry regions of the world and are particularly diverse in the American Southwest and Mexico.

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Nonprofit Org. U.S. Postal Service permit Berkeley, CA

Address Correction Requested

Plants are for sale at The Garden Shop all year

510-642-3334

University of California Botanical Garden
200 Centennial Drive, #5045
Berkeley, California 94720-5045

Notohaulaea candida. Ferns with striking white units on the underside. These plants do not spread, old fronds persist and curl up into white balls.

For further information on classes and events, call 510-642-3352. To register for classes, send checks made out to UC Regents to UC Botanical Garden. Two weeks advance notice is necessary to accommodate individuals with special needs. No refunds the week before the class date unless class is cancelled. Pre-registration is suggested, as classes fill early. The Garden is open every day of the year except Christmas from 9:30am to 4:30pm. Free public tours led by docents are given on Saturdays and Sundays at 1:30pm. Admission to the Garden is $3 for adults, $2 for seniors, and $1 for children.
plants elsewhere in the Garden) and thus there is no literature describing how they should be grown. However, in the New World Desert area of the Garden several different species of xerophytic ferns, largely collected by former Garden horticulturist Sean Hogan, have been planted in the ground and are thriving. Sean transplanted area from one containing mostly cacti and other succulents to one containing a number of non-succulent desert plants. These additions have enhanced the beauty of the area and have made it a more useful educational resource for classes and for docent tours. However, most of the desert ferns in the Garden collection have been houseplants, that were not open to the public, so at last with the financial assistance of individual donors, the Friends organization, the California Horticultural Society, and the Western Chapter of the North American Rock Garden Society, we have been able to place most of this interesting and diverse collection on public display.

For those interested in growing these ferns, I have filled the concrete planter with a soil mix of 30% fir bark compost, 30% coarse sand, 20% fine river sand. Volunteer propagator Sarah Wikander and I developed and became a member of the Friends of the Botanical Garden. By becoming a member of the Friends you support the Botanical Garden year-round by making contributions to the Annual Fund.

Those who would like to honor those members making significant contributions to the Annual Fund.

Special Thanks

The Friends of the Botanical Garden offers appreciation and thanks for gifts in kind.

In Memory

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

- Manual and David Coronado from Martha Coronado for use in the Garden’s Mesoamerican Section
- Ned Harrington from Mary Elizabeth and Sam Stevens
- Eddie Sparks from John Ratto
- Eire K. Gaddis
- Ortha Zabroski from Mrs. Dorothy C. Hiserman

Gifts in Kind

The Friends offer appreciation and thanks for gifts in kind.

Programs and Endowments

The Friends offer our grateful thanks for the generous gifts supporting the following programs and endowments.

21st Century Endowment

- James Jones
- Myrtle Walt
- Tanya C. Hege

California Area Endowment

- Joan Rock Sugar in honor of Roger Rock, Trusts of Hans and Marian Ury
- California Alivae
- Marion Greene

The Friends of the Botanical Garden offers public education programs and provides information for the support of the many needs of the Garden. You can enjoy and support the Botanical Garden year-round by becoming a member of the Friends of the Botanical Garden.

Membership benefits include:
- Newsletter
- Workshops, lectures, and tours
- Discount on Visitor Center purchases
- Discount on educational classes
- Early admission to Spring Plant Sale
- Discount on subscription to Pacific Horticulture
- Reciprocal admission to more than 120 gardens nationwide

Join Friends of the Botanical Garden or Give a Gift Membership

Yes, I would like to support the U.C. Botanical Garden at Berkeley as a member:
- Student* ................. $10
- Basic .................... $25
- Patron ................... $50
- Benefactor ............... $100
- New
- Renewal

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This is a gift from _____________________________________________

In Memory

Donors in memory of:

- Iris E. Gaddis
- Mary Elizabeth and Sam Stevens
- Robert & Caroline Lichtenstein
- Judy Houck
- Penny Warren

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- Supporter ..................... $50
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New Members

The Friends of the Botanical Garden welcome the following new members.

Millie Arner
Randall Barnes
Irving Berger
Alan Berling
Donelda Bernard
Francois Boppré
John R. Bola
Eileen Byszyn
Diana Chapman
Elaine Chernoff
Kathy Dean
Steven Doroshch
Ewald Detjens
Richard Groeber
Bernice Gilardi
Louise Dutton
Ewald Detjens
Steven Desroches
Tracy Dean
Diana Chapman
Eileen Bryson
John R. Bola
Millie Armer
The Friends of the Botanical Garden welcome the following New Members

Ad Brugghe & June Smith
June Chest
Judith & Michael Ciraulo
Thomas & June Cleland
James Davis
Tony Fauer
Mr. & Mrs. Theodore H. Geballe
Joyce Pick
Dr. John Schefflein
Janet Neilson
Robert Miller
Kris McKechnie
Stevan Martin
Steven Manning
Laurence Martin
Steva Johnson
Kris McKeehan
Emily McKibben
Marty Mindel
Melanie Mantell
Richard Miller
Janet Neilson
Louis Penning

Grateful Thanks

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

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Marty Mindel
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FROM THE DIRECTORS

The Berkeley Natural History Museums Consortium, under the auspices of Vice-Chancellor for Research Joseph Cerny, hired a full-time development officer in a two-year position to assist each of the five museums. The process is to welcome Laurie Seaver Erolde Goldman (former executive director of Stybing Arboretum Society) to this position. The consortium also launched its annual lecture series—call 510-642-7541 for information about this material from the pool in mid-January to facilitate restoration. The added benefit of this timely dredging is “re-creation” of breeding habitat for the California Newt (Taricha torosa). These salamanders migrate to the pool each winter to mate and lay eggs in the shallow water. They are visible throughout February and usually into March. A deeper dredging of the pool is scheduled for late summer after the newts and their offspring have left the pool. The Garden lost (removed) two of its larger trees, a southern beech (Nothofagus dombeyi) in the South Australian collection, and Grevillea lobbiana, a South Australian native out-of-place in the North American collection but a welcome source of cover for the study table. Both succumbed to disease problems and had been declining for several years. Despite the drought in the Santiago region, he collected seeds of several plant species for the Jepson Herbarium. In mid-January, sponsored by the Jepson Herbarium.

GARDEN NOTES

The first two Garden Reviews of the Mediterranean Areas and the Greenhouses took place in late January and February. While the final reports and their specific recommendations still are being reviewed by the garden staff and the recommendations have provided new directions for the current budgeting process.

Garden staff and external participants alike have found the process invigorating, as it promoted a frank exchange of ideas and the freedom to entertain ideas for managing and interpreting our collections. Of especial value has been the strong participation of our volunteers—deputies and propagators alike. Their expertise and perspective concerning interpreting the collection has focused the wide-ranging discussions into recommendations that are clear and practical. Consequently, these will help set coordinated priorities for the collections and the various Garden activities.

One example of the recommendations offered by the Mediterranean Garden Review is the need to develop appropriate access to both the African Hill and the Mediterranean collections prior to extensive interpretive efforts. In order to involve the University community, we have contacted the Landscape Architecture Department so that we can offer a design competition or special project which would result in a new path system for these areas. Such student-based activity will increase awareness of our rich collections as well as increase student involvement in the Garden.

In the Greenhouse Review, as you might expect, the overwhelming priority is to raze the existing cactus collection and replace it with one that provides appropriate conditions for our outstanding collection, and better interpretive access. The committee also urged us to display our collections as integrated ecosystems rather than as separate specialized collections. Jerry Parsons, Holly Forbes and several docents are analyzing the impact of turning the Lowlands Tropical House into a Highlands Tropical House where ferns and orchids could then be displayed together. In House 2 (a large greenhouse in our corporate yard, currently closed to the public) we are considering changes to create a display that will prepare visitors for the Tropical House. Such programmatic changes can provide more appropriate display of our collections immediately, without a large outlay of money.

While the priority of recommendations from these Reviews has yet to be made, the process is providing a coordinated view that affects decisions for next year’s budget and program. We are looking forward to the recommendations from the remaining Reviews. We urge you to participate. Let Jenny know of your interest as soon as possible.

—Ian Carmichael, Acting Director
—Jennifer White, Associate Director for Education
THE DOCTOR SAYS

There is much interest in home remedies for garden problems. One recently reported is to use methyl salicylate (oil of wintergreen) which not only repels insect pests but also attracts beneficial insects. If choosing to experiment, use one teaspoon of oil of wintergreen to a gallon of water plus several drops of liquid detergent. Spray as often as necessary to keep the insect population at a reasonable level. Another remedy is to control disease-producing organisms. Control might possibly result from dissolving two uncoated 5-grain aspirin tablets in a quart of water. Repeat spraying every week or every other week. With both of these, try on only a few leaves of each plant the first time to see if injury results.

A new garden tool for gardeners with rocks in their soil is the rock rake. It is slightly V-shaped with spaced heavy metal tines. It will take out rocks from golf ball size up (to what is reasonable).

Those interested in ginger lilies (Hedychium sp.) will be interested in an article in the December 1996 issue of The Garden. Many species as well as hybrids are described as are their abilities to survive winters in Britain.

As tomato season approaches, the question arises as to which cultivars should be selected. Those who deal with cool springs will be interested in the list of cold set varieties (those selected for producing fruits where night temperatures tend not to be high). A list of such varieties which have good flavor include: ‘Anna Russian’, ‘Early Girl’, ‘First Lady’, ‘Gala’, ‘Golden’, ‘Medita’, ‘Moskvich’, ‘Mountain Spring’, ‘Oregon Spring’, ‘Sasha’s Altaire’, ‘Silset’, ‘Sophie’s Choice’, ‘Stupice’, and ‘Yellow Bell’.

Now it’s official. The U.S. Food and Drug Administration has approved the petition from the U.S. Apple Association to accept data allowing apples to be labelled as containing 1 gram of fat and 5 grams of fiber.

Released is a new F1 hybrid gebera which produces compact plants with flowers 12 inches high. The plants have multiple stems, are continuous blooming and flowers come in many colors with dark centers.

As spring approaches, there is an urge to go into the garden and “work” the soil. Soil scientists however say that spading or tilling the soil not only destroys the structure of the soil but also allows more water loss through evaporation and causes the organic matter to break down more rapidly. Tilling should be done only for special reasons which include: breaking crusts on top of the soil, preparing seed beds, removing weeds, or incorporating organic matter which might also be added is to remove tree roots.

Recently found in a garden supply catalog for urban gardeners is a reasonably priced light meter which reads in foot candles. It comes with a booklet detailing the light needs of over 400 plant species. The same catalog has papers for measuring soil pH, pH test kits, and for those who want to invest a little more, several pH meters. Also included is a cloning gel that contains rooting hormones and will stick to the bases of cuttings; a cloning wax that coats cuttings with a thin coat of wax that contains hormones and nutrients eliminating the need for a mist system or a means of providing humidity to prevent cuttings from drying, and a home tissue culture kit for those wanting to try tissue culture in home conditions. — Dr. Robert Raabe

SOUTH AFRICA NATURE TOUR

Sponsored by UCBG With the JEPSON HERBARIUM

MARCH 2 - 23, 1998

Join UCBG horticulturist Martin Grantham in an exploration of the Cape floral region, the Drakensberg and Natal. The Cape with its sweeps of unspoiled beaches and magnificent mountains is one of the most dramatic landscapes on Earth and holds the most diverse and puzzling flora.

In Natal and the Drakensberg (Mountains of the Dragon) we will catch the summer flower displays and walk on what may be the original surface of Gondwanaland, the supercontinent that existed 180-120 million years ago.

Martin and South African botanist Anne Bean will provide a basic framework for understanding the amazing variety of plants.

For information call Geostar Travel, 800-642-6633.

Martin Grantham

Martin Grantham, the horticulturist in charge of African Hill and the New Zealand/Australian section of the Garden, was born on Arbor Day, which is also, incidentally, Luther Burbank’s birthday. He thinks this may have been a sign that his calling life would be to things botanical! He is a native Californian, from Silicon Valley, and grew up there when it was 80% orchards, irrigated by artesian well water. His favorite “fruit of the past” is apricots.

Martin demonstrated an early interest in plants. Before he could talk he was picking seeds out of fruit and trying to grow them. A grapefruit he grew from such a seed still thrives on his family’s property. His fifth birthday gift was a small portion of his family’s acre for him to build a plant collection. One fascinating experiment grew out of a gift of wild annual seeds, which he planted in an old lug box. There was not enough light for the annuals to grow, but fungus did. Another sign, as Martin ended up specializing in slime molds in graduate school. His further experiments with growing plants were more successful “and he began selling exports at the Santa Cruz Flea market, more as a way to manage his collection than to earn money. This enterprise, however, wound up financing his college education!”

From the very beginning, he says, he wanted to know all about plants. He majored in botany at U.C. Davis, where, he says, he did not have a clear career goal, and did as much work in zoology and mycology as in botany. He regrets not having studied horticulture and plant propagation while he was there, but there is only so much time. He received the departmental citation as the top botany student at graduation, along with election to Phi Beta Kappa and Phi Kappa Phi. He came to Cal for graduate school, and discovered that while undergraduates are expected to be “spongers” graduate students are supposed to be “sieves.” Martin grew into that still “insaturated sponge.” and that his interests were really too far too broad for him to develop the focus required, so after taking many courses as he could, and working as a Graduate Student Instruc-

tor for several years, he moved on. He says that teaching did not come naturally, and that he had to work very hard to be effective. His labor in that respect has certainly paid off, since he has been teaching propagation techniques at the Garden, at U.C. Santa Cruz and at Merritt College for several years now and his students regard him as a very gifted teacher!

For all his other accomplishments to this point, Martin did not drive. He found himself living in Berkeley, near the Berkeley Horticultural Nursery, and wanted a job that he could walk to. With his background in botany, Berkeley Hort was glad to hire him. Berkeley Hort had a tradition of propagating unusual plants, so Martin was suddenly in heaven. He learned to propagate things people had seen at our Garden and at Styring Arboretum, and made new contacts. He heard about an opening at our Garden, and was hired part time to help develop the Mesoamerican Section. He thought that it would be a five year project, but this was his first lesson in practical horticulture. He learned that gardens are never finished!

Working at the Botanical Garden has offered other opportunities. Finally, Martin learned to drive, partly for getting to work in a timely way, and partly to be able to maneuver Garden vehicles. He now prefers to drive himself as he feels comfortable maneuvering Garden vehicles. He now drives an old lug box. With his background in botany, Berkeley Hort provided Martin with great contacts. He heard about an opening at our Garden and at Strybing Arboretum, and made new contacts. He heard about an opening at our Garden, and was hired part time to help develop the Mesoamerican Section. He thought that it would be a five year project, but this was his first lesson in practical horticulture. He learned that gardens are never finished!

The South Africa jaunt was a ten-week work-study exchange sponsored by the International Plant Propagator’s Society, and provided Martin with great experience to make the transition from the Mesoamerican Section to African Hill. He is looking forward to leading a Garden-sponsored trip to the Drakensberg Mountains in 1998. But the next thing, some would be willing to bet, is that he will figure out a way to get to New Zealand! —Nancy Swearengen
The Garden Shop stocks a small number of books suitable for teachers and parents living in our area. Bob Hood, a teacher at the Carl B. Munck School in Oakland, visited the Garden during his participation in the LITES program. We asked him to review the following teachers’ workbook for us. Thank you, Bob, for this review.

**Plants**

Linda Schwartz; Illus. by Beverly Armstrong; ed. by Sherri M. Butterfield; The Learning Works, Santa Barbara, CA, 1990. (A Learning Works mini-unit for grades 1-4) 48 pp., Paper. $6.95

**NATURE'S REVENGE, THE SECRETS OF POISON IVY, POISON OAK, POISON SUMAC, AND THEIR REMEDIES.**

Written with wit and humor, it describes how to identify these three related plants so that exposure to them can be avoided. She reviews the myths, lore and history surrounding them, and goes on to provide information on the best treatment available to those suffering from contact with them. Recommended as an extremely useful reference for parents, hikers, gardeners, naturalists and anyone else likely to encounter these toxic plants.

**RARE LILIES OF CALIFORNIA.**

Peggy Lee Fiedler; asst. professor of Language arts, is a wonderful resource for elementary educators. Plants, written by Linda Schwartz and illustrated by Beverly Armstrong, is a terrific summary of basic information on plant life. It is well organized and easy to follow. The text is thoroughly put together to assure success for all the varying levels of learners found in today’s classrooms.

This mini-unit is designed for grades 1 to 4, but I have had some success reinforcing important life science concepts with my sixth grade students, and some of the pages could be adapted for pre-schoolers. Its wide range of activities includes plant fact pages, pictures, coloring sheets, maze, croswords and more. It addresses basic thinking strategies such as sequencing and classifying. The curricular content is rich in language arts skills like phonics, vocabulary and poetry.

The subject matter grows from the ground up. Starting with roots, emerging toward stems, sprouting fourth leaves and then blossoming into flowers, fruits and seeds—it’s all there. TEACHERS, PARENTS, GRANDPARENTS: I urge you to check it out!

—Bob Hood

GROWING MINDS FERTILIZED

All members of the Friends of UC Botanical Garden receive a 10% discount for purchases of books and gifts at The Garden Shop.
bears (thankfully more elusive, although bears had killed two farmers in their fields the year before). I hiked through Cryptomeria groves at the lower elevations, cut over about 60 years before, into mixed deciduous woods comprised mainly of Lindera umbellata, Castanea crenata, Euclea, Prunus and Acer (three species), with occasional Magnolia obovata, Paulownia, Morus and Zelkova, and an overstory of red pine. At the higher elevations there were stands of Fagus crenata. Most striking was the rich shrub layer—practically every temperate Japanese plant which we have growing at the Garden was present in a wild tangle: Callicarpa, Hydrangea, Stachys, Euonymus, Viburnum, Weigela, Camellia, and Eurya mingled with Rubus and Sasa vitchii. A variety of ferns and ground covers, including Strophorum, Elytrigia, Ardisia and Euonymus shared space on the forest floor. In sum, all my old friends were there, growing with abandon. Wisteria was indiscriminate in its choice of trees, and the persimmon which was in every courtyard in town was curiously absent in the woods. It turns out the farmers spray the trees with hormones to suppress seed formation. I found persimmon wine, persimmon candy and paintings of persimmons, but no trees in the mountains. The local specialty is persimmons which have been soaked in wine and hung to dry. These provide sustenance during winter when as much as 3 meters of snow fall. Maybe this accounts for the tulip being the city flower of Nakajo! Although my visit was brief, I have fond memories of the people and plants which I met during my trip to “the backside of Japan.”

—Elaine Sedlack

A bicycle is a great way to travel in any country, and when I was offered the use of a shiny blue mountain bike, I eagerly accepted. This allowed for in-depth exploration of the village and was a big hit at the local market. Not only that, it enabled me to get to the mountains in one-thirty the time of walking, and this is what I had come for.

In Japanese culture the silvery, fan-shaped panicles of autumn grass, Miscanthus sinensis, are as symbolic of autumn as maple leaves, and are indelibly part of my memory now. It was the first plant I saw on the railroad tracks and roadsides, from forest margins to the top of Sadod Island, where wind-stunted maples nestled in the drying grass blades. Until I got to Sado, the best color was provided by Viburnum furcatum, Hamamelis japonica (Japanese witchhazel, enameled red), and Rhus trichocarpa, the lacquer source for the area. The next town to the north is Murakami, famous for its fine lacquerware.

The wildlife was intense. Birds loved the dense cover (kudzu has its purpose). On Sado I saw ospreys, and everywhere there were cranes in the rice fields. I startled a pair of pheasants in the woods. There were exotic, orb-weaving spiders (Argiope), dragonflies, butterflies, and frogs, as life imitated art. Children really do play with grasshoppers in Japan. Also, in the mountains reportedly there are snow monkeys and black butterflies, and energy all these years. I have always known that at last I would take this road, but yesterday I did not know that it would be today.

-Ariwara no Narihira, 9th century

The ubiquitous Miscanthus sinensis has flowers reminiscent of silk embroidery. This grass is not to be confused with pampas grass, Cortaderia, another robust grass native to South America and New Zealand. Both are sold commercially.