Studying the Flora of South Africa

Last winter I had the extraordinary opportunity of living and working in the Cape region of South Africa for a little over two months, during which I filled three notebooks and took over 1200 color slides. My explorations were made possible by the Bruce Briggs International Work/Study Program offered annually by the IPPS (International Plant Propagators Society) Western Region. This program, open to the Western Region membership and students at any institution within Western Region boundaries, was established in 1993 to honor IPPS Charter Member Bruce Briggs, horticultural sage and owner of Briggs Nursery in Olympia, Washington. I am indeed honored to have been the second individual selected to participate in this program.

Two lines of thought led me to propose a work/study trip to the Republic of South Africa at this time: Firstly, a favorable political shift and peaceful transition to the popular government of Nelson Mandela promised to open up this country after a period of international sanction and isolation. I felt there might well have been interesting developments in South African horticulture during the sanction period of which we, in the U.S., were poorly informed. And I hoped there might be local interest in establishing a South African IPPS Region which would enhance communication with other countries through articles published in the Society’s Annual Proceedings.

Secondly, the Cape Region in South Africa has an exceptionally rich and distinctive flora, a collection of plants that inspires both horticultural and botanical obses-
predominates in the Cape except for Cape Town, where English is more common. Afrikaans is indispensable in rural areas and it would have been well for me to acquire some. It is a language of very recent origin derived principally from Dutch but spiced with Malay, Portuguese and African elements.

I spent the greater part of my time in South Africa with the ARI at Elsenburg, once a large farm and now a small agricultural college in the Western Cape. I could not purchase a map here or in South Africa on which Elsenburg appears, but it is quite close to Stellenbosch, a popular destination for European tourists seeking the sun in December, and the home of a major university. The Institute's building dominates the Elsenburg landscape. Built in the days of a solid gold rand (the local currency now going for 3.5 to the dollar), it houses well-equipped laboratories with research greenhouses, nursery facilities and a large experimental orchard nearby.

The ARI unit I worked with, the Fynbos Unit, is named for the dominant vegetation type of the Cape. "Fynbos," pronounced "fane boss," is an Afrikaans vernacular term referring to fine or small-leaved vegetation. (Plant ecologists use this term grudgingly and with many qualifications. It is an imprecise concept, but "firmly entrenched in the literature," as they say.) This vegetation type is low and shrubby, highly flammable with many adaptations to periodic fire such as the ability to re-sprout from a basal lignotuber (stump sprouting), serotiny (the holding of seeds for release in a fire) or the geophytic habit (having so-called "underground perennating structures" like bulbs, corms and tubers that escape the flames).

Fynbos may be recognized or defined by the predominance of three plant families; the Restionaceae, Ericaceae and Proteaceae. The Restionaceae is considered by some to be the most critical component in defining true fynbos. There are 425 species of these southern hemisphere, rush-like, leafless, tuft-forming, perennial monocots, 300 of which are endemic to the Cape region. Although horticulturally highly desirable for their architectural forms and handsome bracts, many of these plants have been difficult to work with. They are dioecious and proper identification can require a close look at both male and female specimens as well as samples from the underground rhizome. They are wind-pollinated with reduced flower parts that are best revealed with a hand lens or a dissecting microscope. They do not divide or transplant well and seed can be very difficult to germinate. Several of the larger, more abundant species are harvested from the wild and used widely to produce very handsome thatch roofs. A significant group of species have been made more amenable to horticulture by recent work using smoke or smoke extract to promote seed germination. In 1989, Dr. Hannes de Lange of Kirstenbosch showed that smoke produced by fynbos fires acted as a natural cue to germination in fynbos plants. Dr. Neville Brown, also of Kirstenbosch, has taken up this work, testing the Restionaceae as well as a wide variety of fynbos plants. (More information may be found in the summer, 1995 issue of Pacific Horticulture.)

The Ericaceae is a much larger family, widely distributed throughout the world and familiar in our gardens. Erica, by far the most important fynbos genus, has diversified mysteriously into a prodigious number of species in the Cape. The recent taxonomic trend in this group has been to incorporate closely related genera, so that this genus has been growing by reassignment as well as the occasional discovery of a new species. There are now close to 800 species of Erica recognized in South Africa, while all of Europe possesses about 20. The epicenter of their immense diversity is in the area of Caledon, a town in the Western Cape famous for its spring flower shows where new species are still turning up. South African
horticulturists confessed to me that, although a few of the Erica species are grown and a good deal more have horticultural potential, the genus as a whole is simply too intimidating and few are tempted to work with it.

The Proteaceae is another large family but confined primarily to the southern hemisphere and most diverse in the drier regions. Of the 350 species in South Africa, 300 are endemic. There are 11 endemic genera (of which I became familiar with 9 in the field). Leucadendron is the largest of these with over 90 species which are all dioecious, bearing cone-like inflorescences surrounded by leaves which may be brightly colored. The most familiar to us is the Silver Tree, Leucadendron argenteum, which is known only from the mountains of the Cape Peninsula. Natural stands grow just above Kirstenbosch on the slopes of Table Mountain. Oddly enough this plant may be more difficult for the South Africans to grow than for us. Even in its natural habitat it is very susceptible to the soil fungus, Phytophthora. Protea, with 100 species in South Africa, is the largest and perhaps the most striking genus. The compound flower heads are surrounded by large, brightly colored bracts in those pollinated by birds, but some produce flower heads close to the ground with muted colors and a yeasty scent that attract rodent pollinators. P. cynaroides, a lignotuberous (stump sprouting) species and the only species with petiolate leaves, is the most outstanding. It is a fitting floral emblem for South Africa with flower heads up to 12 inches across encircled by bracts of a bright rose-pink.

Fynbos has been compared to other Mediterranean climate shrublands like our own chaparral, but fynbos is unique. It occupies an environment that is more favorable, with less severe temperature extremes and more rain over a greater portion of the year, yet it burns more often. The fynbos environment would support forests if it occurred in California or Australia, but the native Afro-montane forest species are unable to invade it and have in fact retreated to protected, moist “kloofs” or clefts in the mountains where they escape the frequent fires that have come with the drying of the African continent over geologic time.

South Africans have traditionally harvested many fynbos plants from the wild for cut flowers, as well as cut foliage, and a small industry has arisen out of this practice. The ARI is developing cultivation methods and cropping systems to replace field harvesting. This should both enhance the cut flower industry and improve prospects for fynbos conservation. It is the Proteaceae upon which the Fynbos Unit is currently focusing most of its work. An extensive gene bank continues to grow for the economically most important genera, Protea, Leucospermum ("Pincushions"), Leucadendron and Serruria ("Blushing Brides"). A full range of natural variability, assembled from all parts of the Cape and greater South Africa, provides the basis both for selection of exceptional naturally occurring varieties and for the development of hybridization programs.

ARI’s Fynbos Unit is also looking beyond the Proteaceae for potential new crops. A number of plants in the Bruniaaceae are collected from the wild as cut flowers. Demand currently exceeds supply. In recent years the natural stands of the most popular species, Brunia albiflora (which cannot stump sprout) were destroyed by fire. This plant had never been grown commercially, nor had any species in the family. Seeds produced by plants in this genus are often largely inviable. Luckily, the Fynbos Unit found that this species may be propagated easily by using small, semihard tip cuttings. They are currently producing these plants for sale to cut flower farmers. Unfortunately a more beautiful and rare relative with bright white, spherical flower heads, out of which emerge deep red flowers, Brunia stokoei, has proved far more difficult, as is generally the case for stump sprouters.

The “gene bank” concept at the ARI has evolved out of necessity into a working collection of field grown and container plants upon which a wide range of experimentation is being performed. With the ARI’s transition from governmental agency to semiprivate operation, this gene bank is expected to yield a cash crop as well, in the form of rooted or unrooted cuttings sold to a growing number of cut flower farms in the Cape and beyond. It is my sincere hope that in the face of decreased funding, this enterprise meets with every success and that my delightful hosts and new friends in South Africa—Dr. Gail Littlejohn, geneticist and plant breeder, Dr. Cobus Coetzee, ARI Director, Dr. Emi Reiten, departmental factotum, Elton Jefthas, student intern and others—may continue their important work which I have merely touched upon in this article.

—Martin Grantham
THE DOCTOR SAYS

One of the symptoms of plant problems is a yellowing of tissues. Actually, plants do not turn yellow; they already are yellow but the green of chlorophyll masks the yellow until it disappears for some reason. A number of different problems can result in the yellowing of plant tissues. Certain nutrient deficiencies can be a cause. The most commonly seen deficiency is that resulting from a lack of iron in plant tissues. Iron deficiency appears as a color loss beginning at the leaf margins and progressing inward so that the last tissues to lose their green color are the veins or the tissues immediately surrounding the veins. This appears on the new growth because once in the plant, iron becomes fixed and as the plant grows and runs out of iron, the symptoms show in the new growth.

Interestingly, our soils are rarely deficient in iron. The problem is that our soils are high in calcium, resulting in them being basic. Under such conditions such minor elements as iron, manganese and possibly others are less soluble and therefore more difficult for plants to obtain. Control results from making the soils more acidic by adding organic materials. Sulfur also can be added. For immediate response, chelates (sequestrenes) of the correct materials can be sprayed on the plants or added to the soil. Manganese deficiency appears as a milder form similar to iron deficiency. It supposedly occurs in the new growth but sometimes a deficiency which occurs in older growth is corrected by manganese chelates.

Nitrogen deficiency is the most common deficiency here. Although stunting is a symptom, lack of nitrogen appears as a yellowing of older leaves. There is not a pattern; the leaves just turn yellow.

Another cause of yellowing is too much sunlight. This appears in the new leaves of such plants as camelias, the climbing figs, star jasmine and olivia. This loss of chlorophyll is reversible and with less sunlight, the chlorophyll will reappear. The color loss is found only in the portions of the leaves exposed to the sun and those parts shaded will remain green. Sometimes exposed portions will become nearly white. Control results from giving more shade. Actually, one could have fun with this phenomenon. Cutouts of a lightweight but light-impenetrable material, either positive or negative, could be firmly affixed to the leaves. Once appearing, think of the fun of showing friends moons, stars or other figures in your leaves, at least for a short time.

Yellowing also may appear as a result of infection by some viruses. The most common symptoms are a mosaic pattern in which the chlorophyll varies in amount resulting in a mosaic of green, light greens and/or sometimes yellow. With some viruses, there is distinct yellowing and sometimes plants are propagated for these symptoms. Variegated abutilon, or flowering maple has yellow blotches. Rose mosaic virus appears as a number of yellow patterns in rose leaves varying from oak leaf patterns, to yellow blotches, to a color loss in the veins. Yellowing of camellia leaves associated with a color break in the flowers also results from infection by a virus. All three of these viruses are transmitted only by grafting, budding or rooting cuttings from infected plants. A virus in rhododendrons and another in camellias result in the production of yellow rings. More research is needed on these viruses before they are identified. Spotted wilt virus in tuberous begonias, callas, nasturtiums, dahlias, chrysanthemums and a few other plants appears as yellow or light colored rings and sometimes as a mosaic. In tomatoes, the virus produces large yellow blotches in the fruits. This virus is transmitted by thrips. Mosaic viruses in many plants such as cucurbits, dahlias, columbine, potatoes, calendula, irises, stock, pansies, peas and others are transmitted by aphids. The most striking of all is the flower color break in tulips which results in a beautiful feathery color break in tulip flowers. Control of viruses in plants is difficult and if desired, infected plants should be destroyed.

—Robert Raabe
Newts have been in the news since last November. Our Garden newts were an object of much visitor interest in January and February, when a few dozen of them made their annual return to the pond in the Asian area to generate more newts. Ours are the California Newt (*Taricha torosa*), which spend most of the year out of water, but during the winter return to their natal pond to seek out partners. Its reproductive antics are complicated and end with the female depositing a mass of eggs about the size of a ping-pong ball on submerged aquatic plants. The larvae are carnivorous, like the adults. Some egg masses were transferred to the pond outside the Mather Grove in the hope of establishing a breeding population across Centennial Drive. Whether this will work will take a few years to determine. Since the newts “home” to their birth-pond, if we see newts breeding in those ponds at the turn of the millennium, we will have been successful in the transplant.

The in-house Garden newsletter, the *UC Bee*, celebrates its fifth anniversary this year. The *Bee* contains news of goings-on in the Garden (the kind that can be printed), items of special interest in the collections, and serves as a means of informing docents and other volunteers about various activities, deadlines, etc. The *Bee* is produced by Nancy Swearengen and Deborah Darnell, funded by the Friends, and welcomes timely news items about the Garden and individuals associated with it.

The Garden Meeting Room, now called the Conference Center, has been thoroughly renovated thanks to the generosity of the Friends. There are now two adjacent meeting rooms, which can be used simultaneously, and a spacious new patio area overlooking Strawberry Creek. These rooms were dedicated formally in an elegant ceremony and reception on January 15, ably orchestrated by Gladys Eaton.

No one was more surprised than I when, with less than two weeks notice, I entered the Botanical Garden on February 7th to assume the duties of Acting Director. Being a population geneticist who uses computer simulations for theoretical work and has done empirical studies of molecular variation in natural populations of fungi, the prospect of being asked to direct a world-famous botanical garden never came close to crossing my mind.

In spite of the implausibility of the situation, I felt immediately at home in the Garden and am honored by the opportunity to join its illustrious tradition. The Garden is staffed by a remarkable group of individuals with an enormous knowledge of botany and horticulture. A director need have no worry about a dearth of expertise. In addition, evolution and genetics are long-standing themes in the educational mission of the Garden. Conservation biology is of increasing importance to botanical gardens. As we move into the next century, it may well become the central scientific agenda item for “living museums” such as the Garden. Conservation genetics is, at its core, simply applied population genetics. Having an itinerant population geneticist wandering about the Garden may not be so strange after all.

Anyone associated with the Garden knows that it is a special and unusual place. From the director’s viewpoint one of its most special and unusual features is its hybrid organization. On the one hand, the Garden is a university department, owned by the Regents and subject to all the rules and regulations of this great institution. On the other hand, the Garden has many characteristics of a nonprofit organization: financial support from the Friends provides the critical difference that enables the Garden to be the special place it is. The voluntary services of docents, propagators, gardener assistants, visitor center staff, and others, if paid for at standard student wages, would amount to more than a quarter of a million dollars a year. And that does not take account of the enthusiasm and good cheer that the volunteers bring daily to the Garden’s grounds. Without qualification, my first months have been rewarding. It has been a joy to watch the Garden blossom as the winter of January has turned into the spring of April.

—Philip T. Spieth
Acting Director
Highlights of the Garden’s Collections in 1995

Thanks to computerization of the Garden’s accession records under the recent direction of Assistant Curator Holly Forbes, it is now relatively easy to generate lists of families, genera, plants of a specific geographical origin, and other lists of plants in the Garden’s collections. Previously, such lists would have been nearly impossible to develop by hand.

As of early 1995, the Garden collections contained 21,000 living accessions and 13,280 taxa (the term taxon refers to a group of any taxonomic rank, and in this instance refers to species, subspecies, and varieties; taxa is plural). The majority of the taxa in our record system (12,233) are species of flowering plants, and using the frequently cited figure that there are 250,000 species of flowering plants in the world, the Garden’s living collections may contain about five percent of the known species of flowering plants. We have 324 plant families represented, or about eighty percent of the known families of flowering plants. These are impressive figures that reflect the remarkable richness and diversity of our Garden’s plantings.

The largest holdings are members of the cactus family (Cactaceae), a traditional emphasis going back to the days when Paul Hutchison and Myron Kimmich were staff members, and to collections made during the Garden’s expeditions to the Andes. We have 1,565 taxa of cacti; Mabberley’s The Plant-Book estimates that there are 1650 known species of cacti; at our current aggressive rate of accessioning cacti, we are faced with the prospect of growing more than 100 percent of the known species in this family! Next in size is the sunflower family (Asteraceae or Compositae) with 796 taxa, or about 4 percent of this enormous family. After that comes the lily family (Liliaceae) with 756 taxa, or 17 percent of the family, the orchid family (Orchidaceae) with 583 taxa, or 3 percent of the family, the Heather family (Ericaceae) with 558 taxa, or 17 percent of the family, the stonecrop family (Crassulaceae), with 438 taxa, or
29 percent of the family, and the Rose family (Rosaceae), with 412 taxa, or 13 percent of the family.

Many taxa are represented by more than one accession; for example, there are 2,536 accessions of cacti, which suggests that most taxa in this family in our collection are represented by more than one accession. One justification for this practice is that we have a backup specimen in case we lose one accession of a taxon. In some groups, multiple accessions demonstrate interesting variation patterns. For example, we have about a dozen accessions of Rhododendron arboreum; these differ in time of flowering, flower color, stature, and other features; our plants demonstrate the range of variation found in this species which was so important in the early development of horticultural rhododendron hybrids.

The California native collection is unusually comprehensive. We have 4,188 accessions of California natives, representing 1875 species and 2,253 taxa, or about 40 percent of the species native to the state. Notably good collections of natives include manzanitas (Arctostaphylos), California lilacs (Ceanothus), and a nearly complete collection of bulbous species in the lily and amaryllis families, such as Fritillaria, Calochortus, Allium, and Brodiaea.

The Garden can now claim to grow species native to all continents, including Antarctica. In fact, we have half the flowering plant species native to Antarctica—one species, the diminutive tufted Colobanthus quitensis, whose seeds I have collected twice, once in Chile and once in Argentina. Our plants are from my Chilean collection, made at Torres del Paine, in the extreme southern portion of Chile called 12 Región Magallanes y Antártica Chilena. Thus, it is not stretching the truth to claim that our plants came from Antarctica (or is it?).

—Robert Ornduff
BOOK REVIEWS

Three horticulturists at the Garden have served as consultants for two newly published titles in The American Garden Guides series. Over 30 botanical gardens in the U.S. and Canada are participating in the preparation of these Guides. Gardeners at one or more of the gardens, depending on the subject, were asked to write about the plants that grow best for them and to describe the horticultural techniques which worked most successfully in their gardens. Their manuscripts were then sent to other appropriate gardens where specialists made further suggestions based on their own experiences and regional differences. A uniform format is used for all titles in the series. This format will be familiar to those who have read Herb Gardening which Jerry Parsons co-authored, and which was published late last fall.

- **Dry Climate Gardening, With Succulents.** Debra Brown Folsom, et al; principal photography by John N. Trager: Pantheon Books, New York, 1995. American Garden Guides Series; color and b&w photos; hardiness map; 224 pp. Softcover. $25.00. Kurt Zadnik and Sean Hogan of the Garden staff are among the 9 consultants for this title. Sean contributed plant hardiness information, and Kurt’s comments are in the ‘Viewpoint” sections. Historical notes and a brief lesson in botany, plant selection suggestions, and horticultural techniques are among the topics covered in the volume.

- **Indoor Gardening.** Kate Jerome, et al; principal photographer, Cliff Zenor: Pantheon Books, New York, 1995. American Garden Guides Series; color and b&w photos; 224 pp. Softcover. $25.00. Jerry Parsons is one of five consultants for this title. His remarks are included in the ‘Viewpoint’ sections in the chapters. Contents include plant selection suggestions, indoor garden design, horticultural techniques, special growing conditions, and plant sources.

—Elly Bade

REMINDER

All members of the Friends receive a 10% discount when purchasing gifts and books in the Visitor Center.

STAFF PROFILE

The horticulturist in charge of the Garden’s Asian area is petite and effervescent Elaine Sedlack. A native of the East Bay, Elaine says the beginning of her horticultural career came when she moved into a house with a vacant lot next door. Always an art lover, she would plant things in order to have flowers to paint. Neighbors began to hire her to do maintenance work in their gardens. She began to take courses in garden design and technology, and eventually built her own landscaping business. But in 1984, when the opportunity to work in the Asian section at our Garden presented itself, she jumped at it. She was soon inspired to travel to China to see in the field the plants she works with. This led to a study of the Chinese language so that a second trip to China would be more useful.

Elaine loves all kinds of plants, a fact that is readily discernible from a visit to her own garden, although she admits her current love is roses. She also loves to cook and bake, watch films, especially those of Fellini and Truffaut, and is presently studying Italian.

The hard part about working at our Garden, she says, is that you can’t just run to a nursery to pick up something that will complete your grand plan. Here you must pore over seed lists, often guess at something that would be appropriate, order the seed, wait for it to arrive, hope it germinates and the plant survives, all the while dealing with the nuances of microclimate and soil found in Strawberry Canyon. It’s a good thing she views gardening more as process than as plant science. We are fortunate indeed to have Elaine with her artist’s eye and scholar’s interest, caring for the Asian area.

—Nancy Swearengen
New Members of the Board

We welcome the new members of the Friends' Board of Directors and invite you to meet them at the annual meeting of the Friends in October.

The new secretary is Ad Brugger of Piedmont, long time member of the Friends and former University Dean of Students and Special Assistant for International Education in the Office of the President. Most significantly, he says, he is the husband of former Board member June Smith. Pam Canales, the new Treasurer, has been a Volunteer Propagator since 1988, and has operated her own accounting business for 15 years. Pat Cornell of San Francisco, who has been a Garden docent for two years, served as secretary for the Docent Council, and currently is gift buyer for the Visitor Center. Pat represents the newly-formed Visitor Center Council on the Board. Eleanor Crary of Berkeley, who has been a docent since 1991 and Board representative from the Docent Council for the past year, is also a member of the docents’ By-Laws Revision Committee, the Training Committee and the Long-Range Planning Committee. Eleanor is retired from the Alameda County Library. Kim Ellis of Piedmont has been a Garden docent since 1992, and soon became a member of the Docent Council, responsible for docent hospitality, care of the tour artifacts and member of a committee that plans and oversees new docent education. The new President is Errol Mauchlan of Berkeley, former Assistant Chancellor for Budget and Planning on the Berkeley campus. He served on the Board of Directors as the Chancellor’s representative from 1984-1990. Jim Ratcliff of Oakland has had a long association with the Friends, having served as President and then Secretary of the organization in its early years. Jim practices law in San Francisco. Bob Steidel of Berkeley, is a former chairman of Cal’s Department of Mechanical Engineering and Associate Dean of the College of Engineering. Bob has served for several years as a member of the Friends’ Project Development Committee.

The Visitor Center is a 100% volunteer operation, and its profits are used to benefit the Garden. Lately we have had to be closed for several weekend shifts, for lack of volunteers. Maybe you can help.

We need people who would enjoy spending three hours, twice a month, answering general questions and selling books, gifts and plants at the Visitor Center. We will train you. Our special need is for people who can work on Saturday or Sunday, but we are also looking for people who would be willing to substitute on weekdays.

Please call Nancy Swearengen at 642-3352 to apply.
New Members
The Friends of the Botanical Garden welcome the following new members:

Patricia S. Adler
Cynthia Lynn Albers
Elizabeth P. Bade
Peggy Blatchford
C. Bowen
John & Frances Bowes
Tom Bradner
Elena Bridgman
Tom Bruns
Brenda Buxton & Stephen Walsh
Kathy Bystrowski
Susan Campbell
Elvira Griggs Cardin
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Sarah Decker & John Cerles
Fred & Linda Dodsworth
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Mahmoud El-Grasseir
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Deborah Friedman
Nancy B. Goldstein
Morton Goode, M.D.
Jean Haaf
Ann Thorn Hale
Frances Ann Hamblin
David Harlan

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

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

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

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Diane Kothe  Cecile T. Weaver
Judy & Dick LeBlanc  Cornelia F. White
Nicolette Mandl  Myrtle Wolf

Two benches will be placed in the Serpentine Plant Display of the California Area of the Botanical Garden. One is in memory of Rachel Cohen, 1891-1987, from her nieces Nancy Florence and Shirley Shapiro. The second is in memory of Susan S. Smiddy from her family and friends. The benches are backless allowing for visitors to sit and face either direction of the plant display.

A bench in memory of volunteer propagator Norm Smith will be placed in the New World Desert section.

A bench in memory of Joanne Corey Harlen will be in the Garden of Economic Plants.

A study table in memory of Ann M. Riley will be added to the Mather Grove.

New Life Members Named
The Friends' Board voted to make Eleanor and Jack Higson Life Members of the Friends of the Botanical Garden. Eleanor is a former member of the Friends' Board of Directors.

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

Wayne & Laura Hampton from their daughter Judith McKee for the California Area Endowment.
Mac & Sita Laetsch for Friends' sponsored educational programs.
Drs. Evelyne & David Lennette for the Director's Endowment.
Jan Vargo for the volunteer library.

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MEMBERSHIP
The Friends of the Botanical Garden offers public education programs and provides independent funding to support 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
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• Discount on educational classes
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Calendar of Events

MAY

PLANT CLINIC  Sat, MAY 6
Bring your sick plant to see Dr. Robert Raabe, UC Plant Pathologist. First Saturday of the month, 9am-noon. Conference Center, Ornduff Room. Free.

GRASSES IN THE LANDSCAPE  Sat, MAY 6
Learn about the uses of ornamental grasses in the landscape from Susan Gearhart, owner of Valencia Ranch Nursery. 10am. Presentation includes a field trip to the nursery on Sat, May 20. Conference Center, Mirov Room. Members $10, nonmembers $15.

SPRING PLANT SALE
MEMBERS’ SALE AND PREVIEW  Fri, MAY 12
Our biggest plant sale of the year. Members only, but memberships will be available at the gate. 5-7pm

GENERAL SALE  Sat, MAY 13
Gates open at 10am. Sale ends at 3pm.

JUNE

PLANT CLINIC  Sat, JUNE 3
Bring your sick plant to see Dr. Robert Raabe, UC Plant Pathologist. First Saturday of the month, 9am-noon. Conference Center, Ornduff Room. Free.

PLANTSMAHSHIP AND DESIGN  Tues, JUNE 6
Enjoy an after-hours docent-led tour and bring a picnic supper, to be followed at 7pm by a lecture by Stephen Lacey, author, teacher, and gardening columnist for the London Daily Telegraph. Reservations requested. 5-9pm. Members $15, nonmembers $25.

PERENNIAL SUCCESS  Sat, JUNE 17
Ann Lovejoy, noted plants woman and author will lecture on the use of perennials in the mixed border. A reception and book signing will follow. 2-4pm. Conference, Center, Mirov Room. Reservations essential. Members $15, nonmembers $25.

BUG DAYS  Sat and Sun, JUNE 24 & 25
Our popular family event featuring everything you ever wanted to know about insects. Displays, activities and experts. 10am-3pm. Children $1, Adults $3.

DRAWING & PAINTING FROM PLANTS & FLOWERS  JUNE 29-AUG 3
East Bay artist Karen LeGault will teach a 6-session class in the Botanical Garden on Thursday mornings from 9:30am-noon. All levels of experience, including beginners, are welcome. Members $40, non-members $55.

JULY

PLANT CLINIC  Sat, JULY 1
FIELD TRIP: FLORA OF THE SISKIYOUS  JULY 1-4
A four-day exploration of remote floral treasure troves in Northern California led by botanist and author Glenn Keator. Call 643-7265 for more information.

STORYTELLING IN MATHER GROVE  Sun, JULY 9 & 23
Storytelling for families in the Mather Grove Amphitheater. Amateur and professional tellers will be featured. 1-2:30pm. Free.

GREEN STUFF DAY CAMP  JULY 10-AUG 11
A magical one week day camp for children ages 5-11. Daily starting at 9am. Call 642-3352 for more information.

AUGUST

PLANT CLINIC  Sat, AUG 5
STORYTELLING IN MATHER GROVE  Sun, AUG 6 & 20
Storytelling for families in the Mather Grove Amphitheater. Amateur and professional tellers will be featured. 1-2:30pm. Free.

SEPTEMBER

PLANT CLINIC  Sat, SEPT 2
DRAWING & PAINTING FROM PLANTS & FLOWERS  SEPT 20-NOV 8
East Bay artist Karen LeGault will teach an 8-session class in the Botanical Garden on Wednesday mornings from 9:30am-noon. All levels of experience, including beginners, are welcome. Members $55, non-members $70.

FALL PLANT SALE  Sun, SEPT 24
Just in time for prime planting season in our area. Natives, cacti, succulents, rhododendrons, ferns and more, grown by the Garden’s Volunteer Propagators. 10am - 3pm.

COMING ATTRACTIONS

LANDSCAPES ALONG THE MISSISSIPPI  MARCH 26-APRIL 5, 1996
Visit private gardens of Jackson, Vicksburg and Natchez, and St. Louis, including the world famous Missouri Botanical Garden. Call Geostar Travel, 800-624-6633, for more information.

NAMAQUALAND AND THE CAPE FLORAL KINGDOM  AUG 17-SEPT 2, 1996
Experience the natural wonders of the Cape of South Africa first hand with Dr. Robert Ornduff, former director of the Garden. Call Geostar Travel, 800-624-6633, for more information.

For further information on classes and events, call the Visitor Center, 642-3343. To register, send checks to the Friends of the 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. Preregistration is suggested, as classes fill early. The Garden is open every day of the year except Christmas from 9:00am to 4:45pm. Free public tours led by docents are given on Saturdays and Sundays at 1:30pm. Admission to the Garden is free.

Friends of the Botanical Garden
University of California
200 Centennial Drive, # 5250
Berkeley, California 94720-5250

Address Correction Requested

Plants are for sale at the Visitor Center all year  510-642-3343

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