The ferns in my desiccation-tolerance (D-T) experiment underway at the Garden’s Research Greenhouse were becoming so parched that they aroused the concern of Horticulturist Judith Finn. “You’re going to kill them if you don’t water them soon!” Her caring concern for these plants was characteristic of the Garden staff, who work hard to grow specimens to their fullest potential.

The Garden has been a vital, supportive, and enriching component of my graduate experience at UC Berkeley. My dissertation research includes studying the adaptations of ferns to xeric environments, which are unusual places to find pteridophytes. Most ferns that thrive under hot and dry conditions belong to a single subfamily, Cheilanthoideae, of the family Pteridaceae. (You may be familiar with the commonly cultivated maiden-hair fern (Adiantum), which is a member of the Pteridaceae). The historic inability to decipher natural evolutionary lineages within this group has been attributed to morphological convergence associated with adaptation to xeric habitats. Members of the Cheilanthoideae typically grow in rocky, exposed habitats that experience extended periods of drought. These ferns exhibit characteristics that are believed to be adaptive to their arid surroundings, such as dissected fronds composed of small leaf segments, often covered by a thick waxy cuticle, hairs, scales, and/or a powdery white to yellow-colored farina. These leaf characteristics are thought to help protect the photosynthetic tissues against damage from excessive water loss, extreme temperatures, and UV light. Some species are desiccation-tolerant, enduring a loss of 80-90% of their cellular water. This physiology is widely scattered across unrelated plant groups. It is thought to have been a prerequisite for early land plants. When plants evolved structures such as roots and vascular tissue that enabled them to maintain internal water, desiccation-tolerance was lost in green tissues, but retained in reproductive propagules such as spores, pollen, and seeds.

During my first year of graduate study I performed an initial desiccation-tolerance (D-T) experiment on a broad sampling of cheilanthoid fern species whose fronds I gathered from the Garden. I evaluated the ability of these excised fronds to revive from desiccation, and results enabled me to select the fern genus Pellaea (cliff-brake ferns) on which to focus my dissertation research. Pellaea comprises approximately 40 species that are distributed worldwide and thrive in dry and rocky habitats. The relationships of species in Pellaea with other genera of cheilanthoids have been...
poorly understood.

In an effort to discover the evolutionary relationships among these ferns, I generated DNA sequence data from 105 exemplars. I acquired 20% of these samples from the living collection at the Garden. Results suggest that the traditional grouping of *Pellaea* species comprises distantly related lineages. This means the genus *Pellaea* is polyphyletic, and therefore should be separated into one or more additional genera. The deceptively similar appearance of these distantly related lineages appears to be due to convergent evolution and adaptation to xeric conditions, not because of shared descent from a xeric-adapted common ancestor.

My D-T experiment was performed on 46 cheilanthoid individuals, representing 35 species. These were selected from dozens of field-collected plants that had been maintained in either the UC Oxford Tract or the Garden’s Research Greenhouse for at least two years prior to the D-T experiment. The experiment began with well-watered plants that were allowed to dry naturally to ambient glasshouse conditions. During dehydration and later rehydration, metabolism, water content, and overall appearance of each plant were measured. During the day I used an infrared gas analyzer to quantify photosynthesis, and at night I evaluated each plant’s ability to photosynthesize using a fluorescence meter. I am grateful to the Todd Dawson Lab for loaning me these machines, teaching me how to use them, and providing me with the additional equipment necessary to perform this experiment. Results suggest: 1) D-T is ancestral in my cheilanthoid fern study-group and decreases in more recently evolved members; 2) All measures of D-T showed significant negative correlation with increasing levels of annual precipitation at native population sites; and 3) D-T data suggest an adaptive trade-off between levels of D-T and baseline photosynthesis. These results support the hypothesis that both D-T and photosynthesis are metabolically expensive physiologies, and evolution favors one or the other depending on the strength of selection dictated by the environment.

I am grateful to the UC Botanical Garden for allowing me to use their living plant collections and greenhouses to perform my research, and especially to those who passionately cared for my ferns. By the way, all of the ferns in my D-T experiment survived to varying degrees, even those with which Judith had been especially concerned. The Garden has not only been an extraordinary resource for my investigations, it has also inspired my teaching and enhanced my education. I will miss the Garden when my degree is obtained, but I look forward to visiting, and especially seeing my research ferns that will soon have new homes throughout the Garden.

Many of the plants I sampled for my early research are on view in the Garden’s Xerophytic Fern Display, and in the New World Desert and Mexican/Central American collections. Some have been made available at Garden plant sales, so you too, can enjoy their desiccation-tolerance quality.

—Ruth Kirkpatrick
Our first summer institute was conducted at Willard Middle School in Berkeley, a campus with a well-established garden that is a centerpiece of the science program. Teams of teachers from eleven schools worked together for three weeks exploring Lesson Study and trying out activities in this urban garden. They completed a Lesson Study cycle that included a trip to UCBG to conduct their model lesson with our Green Stuff summer day-campers. Before the close of the institute, participants created action plans to use as their guide in bringing what they learned back to their school sites.

The 2003 school year was particularly difficult for San Francisco Bay Area teachers and schools. Teacher strikes and the restructuring of low-performing schools resulted in the relocation of a third of participants to new schools. Despite the upheavals, five new school gardens were established that year. One success story centers on the team of four teachers from Melrose Elementary, which is located in a high poverty urban industrial neighborhood in east Oakland, CA.

During the school year, Melrose teachers representing grade levels K-3, worked together to study a garden-based lesson from the institute: Botany on your Plate. Their effort culminated in two public teachings of a research lesson and a presentation to all school faculty and administrators, including a video and student data. The success of these teachers in collaborating on a research lesson was particularly helpful in reducing the tension related to the two student populations. GLC Lesson Study specialist, Dr. Elizabeth Baker, facilitated the teamwork of the Melrose teachers during the following year when two additional teachers were recruited for the summer institute.

Reflecting on the lessons learned from two public research lessons, one of the teachers refined and

continue on page 11
First and foremost, I would like to wish you all a Happy and Prosperous New Year. The coming year in the Garden already promises to be one of continued renewal with new opportunities for growth and improvement. Perhaps the first conspicuous change you have already noticed is the new color format of this Newsletter which represents a change in a long history of subdued two-tone. This change was made possible by negotiating reduced printing costs and assuming more of the graphics design work in-house with new staff. I know I have already spent a lot of time on the front entrance but I confess it continues to enthral me and I thought you would enjoy this image taken by Holly Forbes on a typical foggy day this past summer. While the entrance was not designed to be a flower display, the results surprised even the staff and I think is a good way to inaugurate our new color format.

Two additional dramatic examples of turnover in Garden operations include the demolition of the Annex, one of the oldest buildings in the Garden and the retirement of Judith Finn, one of the longest serving horticultural staff in the Garden. Judith’s extraordinary career and contributions are described in this Newsletter, and the story of the Annex is available on our website.

During the past year our programs continued to thrive. The excitement began with the Spring Plant Sale in April that proved to be our biggest ever; sales were about 50% higher than all previous ones. Then, to our even greater amazement, the Fall Plant Sale in August exceeded even the spring event with a 60% increase in sales. About 5000 plants were sold at each event. Combined with our continuing growing daily plant sales from the Garden Shop’s Plant Deck, I think we are finally being recognized as a significant destination for plant lovers. I hope you will keep us in mind for your own garden needs. In addition to constantly changing daily offerings, we have been holding special sales about every two months; please check our web site frequently. These experiences have provided additional impetus to expand our daily plant sales area, which will hopefully be part of a planned renovation of the entire Garden Shop complex.

Another exciting event was the visit at the end of June of approximately 500 of the attendees of the national American Public Garden Association; we co-hosted the annual meeting, held in San Francisco, along with The San Francisco Botanical Garden, the UC Santa Cruz Arboretum and Filoli Center. The attendees comprise directors and staff of virtually all the gardens in the country. Thus, it would be an understatement to say we were ‘pleased’ by their response. In addition to numerous accolades, their half-day trip to our Garden in Berkeley received the highest rating of all planned events. It is obviously of great value to get such positive feedback from one’s peers and perhaps one of the most discerning groups of garden critics around.

A potentially traumatic event involved the virtual collapse of Centennial Drive about 200 yards below our entrance. Following the heavy winter rains, the Garden side of the road began to collapse and by early April, the roadway appeared to be in jeopardy of being closed; the ground dropped about 20 feet inside our fence. The campus managed to keep the road open until repairs began in November and after a relatively brief closure of one lane, the situation returned to normal. While these problems had no impact on our collection, the possibility of closing Centennial, the only access route to the Garden,
especially right before our Spring Plant Sale, did cause some anxiety. On the bright side, we hope to get 100 feet or more of new fencing and I think you all know how badly needed this is.

On the plant side of things, I am pleased to report that the Garden is being used extensively for research, and that we have made considerable progress with our new cycad collections. The last issue of the Newsletter (Summer/Fall, 2006) highlighted the large and valuable collection of cycads from around the world that we recently ‘inherited’ from smuggling confiscations. We have begun the planting out of these specimens in our collection and so far have some beautiful new displays of Mexican *Dioon* in front of the Orchid, Fern and Carnivorous Plant greenhouse and several collections of various Australian genera throughout the Australasian collection.

The cycad collection has been made possible by the removal of two very large pines along the main road. A large area of the hillside above the road—a prime visitor location—was exposed. We are currently seeking funding to perform the necessary landscaping which will involve new paths and extensive rock work.

I hope you will all try to get in frequently over the next few months to watch the progress, and a particularly good time to begin would be the upcoming annual Spring Plant Sale at the end of April.

—Paul Licht

Several South African *Encephalartos* were also planted and exciting new opportunities for larger scale displays of this
NEW STAFF:  

The Garden welcomed Marketing & Membership Analyst Muinat Amin (nickname Kemi) in November 2006. Kemi received her B.A. in Graphic Design from San Francisco State University in 2005 and has experience in marketing and graphic design from employment at EnviroPress Graphic Studio in Oakland and AC Transit. She is also a dedicated volunteer at the Museum of Children’s Art (MOCHA) and the African Diaspora Film Society where she was involved in membership activities. Kemi is excited to be working at the Garden and is looking forward to contributing her knowledge and expertise to its progress.

Horticulturist Bryan Gim joined the Garden staff in mid-2006. He has worked wonders in the care of the Arid House collection, and has since been given additional responsibility for the New World Desert as well as in assisting Horticulturist Ken Bates in the Californian Area part-time. He has been a cactus and succulent enthusiast for many years, apprenticing with noted experts Steven Brack and David Ferguson in New Mexico and Steven Hammer in San Diego.

Horticulturist Christy Matasick joined the Garden staff in mid-February 2007. She is caring for many of our greenhouse collections, including the orchids, ferns, and carnivorous plants, as well as the Tropical House. Christy brings with her a wealth of botanical garden experience, as she was on staff of the Cheekwood Botanical Garden in Nashville, TN, for over a decade. She has a degree in plant and soil science from Middle Tennessee State University, as well as further education in landscape design from The Arnold Arboretum at Harvard University. Most recently she has been performing landscaping services in the San Francisco Bay Area. She is happy to be returning to a botanical garden setting with its stimulating learning and teaching environment.

The Volunteer Propagator Program has a new coordinator! After two years of stellar service Alan Porter decided to return to retirement. We thank him for a wonderful job in working with volunteers and improving Garden plant sales in quality and income. Nathan Smith, formerly horticulturist for the California Area, stepped into this role in January 2007 and is looking forward to his first big plant sale April 27-28. In addition, Nathan will be the horticulturist for the Tanglewood Estate in Sausalito. Horticulturist Ken Bates is now heading up the California Area full-time. Congratulations Nathan and Ken!

Supervisor of Horticulture & Grounds Anthony Garza, since turning over the New World Desert to Bryan Gim, is now solely responsible for the Garden’s entrance plaza and Centennial Drive plantings.

RESEARCH AT THE GARDEN: Our typical supply of research material is that of leaves or flower buds, but sometimes just the site is needed. Physicists Dr. James Higbie and Dr. Dmitry Budker, Physics Department, UCB, recently used the Garden’s Research Plateau (adjacent to the Mediterranean Area). Their group is developing novel quantum-atomic sensors for magnetic fields. One of the applications for such sensors is measuring geomagnetic fields, including their temporal and spatial variation, and a search for magnetic anomalies, both of artificial and natural origin. It’s remarkable what a difference the running of BART trains makes on these measurements, showing a gap only when BART is not in service.

See the Garden web site, http://botanicalgarden.berkeley.edu, for more information about recent research uses of the Garden’s collections.
Don’t miss the Spring Plant Sale! Draw inspiration from the Garden’s living collections during the Garden’s most floriferous season; then plan on joining our membership community in browsing an unbelievable diversity of great plants that we have to offer this year.

Many of Garden’s expert horticulturists will be on hand to answer questions and share growing tips drawn from their experience working with our world class living collection. Knowledgeable volunteer propagators will likewise be on hand to share growing points, and to show off their horticultural handiwork.

Garden members get first pick of the best rare, choice and interesting plants propagated from our living collection. The Members’ Sale will include refreshments of food and wine and a silent auction of especially choice one-of-a-kind specimens from 5-6:30 pm.

This year’s offerings include many of the über-hip plants featured in the Garden’s groundbreaking new entry plantings. Uncommon and underutilized plants such as Beschorneria species, the tough orange foliage of Libertia peregrinans, the unusual orange flowered Justicia fulvicoma, as well as unnamed garden successes from Central America such as Acalypha sp., and a wildly floriferous Silene sp.

We will continue to offer a broad selection of California natives, including some of the great cultivars introduced by the Garden including Rhamnus californica ‘Leatherleaf’, Ceanothus ‘Berkeley Skies’, and Ceanothus ‘Centennial’ as well as a new and exciting assortment of the succulent native Dudleya.

Collectors will appreciate our exquisite selections of the rare vine Lapageria rosea (see the Garden’s website http://botanicalgarden.berkeley.edu for details and photos), as well as the scandent floral wonder of Mutisia subulata.

Our selection of grasses and grass-like plants will include favorites from the entry garden and as well as an expanded selection of unusual and hard to find restios including Rhodocoma gigantea, Apodasmia (Leptocarpus) similis and Cannomois virgata.

A mind boggling array of exceedingly uncommon trees and shrubs propagated from the collection will be available in their prime. Bulbs, succulents large and small (including front entry accents Agave vilmoriniana and Cotyledon orbiculata), houseplants, carnivorous plants, ferns, collector’s plants, tough plants, tender plants -- we will have it all! Please come out to support the Garden.

You can find a more complete list of plants to be offered at the sale on the Garden’s website http://botanicalgarden.berkeley.edu.
Volunteering at the Garden
The Garden welcomed 96 new volunteers in 2006, bringing our list of active volunteers up to 243. We’re pleased to report we have 100 docents – 23 of whom are new graduates from this year’s training, 71 volunteer propagators, 18 horticultural volunteers, 20 Garden Shop volunteers, two curatorial volunteers, six Sick Plant Clinic volunteers, and a handful of others who help provide non-routine support for events, special projects and so on.

Thank you to all of the Garden’s volunteers for their dedicated service and contributions that keep the Garden growing!

If you are interested in becoming a Garden Volunteer, please contact the new Volunteer Coordinator, Perry Hall at 510-643-1924 or perry@berkeley.edu. Hours are flexible, but we ask that you work a minimum of three hours a week.

Docent Training 2006-07
Congratulations to the new crop of Docents who recently graduated from the Docent Training Program. This intensive, seven-month program provides trainees with background on the Garden’s collections, an introduction to basic botany, ethnobotany, plant classification, ecosystems, and basic training for children’s and adult tours. Trainees will begin leading tours in April. Our next Docent Training program will begin in the fall of 2009.

Service Milestones in 2006

20 Years: Barbara Donald
5 Years: Rosalie Holtz, Christina Lederer
Cynthia Plambeck, Martin St. John

Service Milestones in 2007

15 Years: Tanya Muschietti
10 Years: Ann Northrup, Jenny Schaffell, Laurie Walters
5 Years: Kathy Boardman, Cathleen Cooper, Kathryn Maack, Hope Nathan, Carollee Peterson

Volunteer Propagation Program
The Garden’s Volunteer Propagators collect and grow plants from the living collections and elsewhere for sale on the Garden Shop’s Plant Sales Deck. They also perform the Herculean work of putting on the Spring and Fall Plant Sales. Plant sales generate funds to support the Garden’s operations, while sharing some of the Garden’s horticultural wonder with a broader audience. Most of the propagators have specialized in a particular group of plants and have developed great expertise. Growing thousands of plants from seeds and cuttings requires constant attention and, as always, the Garden’s volunteers rise to the task. The countless hours of dedicated support by volunteers supports the Garden in serving its mission.
CALENDAR OF EVENTS

Unselt Birding Breakfast and Walk
Saturday April 21, 2007, 8 am – 11 am
Join the flock of bird enthusiasts to enjoy the Garden’s bird life with Dennis Wolff, expert birder, and Chris Carmichael, Associate Director of Collections and Horticulture. Event includes light breakfast. Heavy rain cancels this walk. Free

Spring Plant Sale
Members’ Only Sale, Silent Auction and Reception
Friday April 27, 2007, 5 pm – 7:30 pm
Sale to the Public:
Saturday, April 28, 2007 10 am – 2 pm

Succulents for Little Green Thumbs: Family Workshop
Saturday, May 5, 2007, 1 pm – 2 pm
Children of all ages, together with accompanying parent/guardian, will explore those amazing plants known as succulents, discover where and how they grow, and pot-up their plants to take home. The program features a mini-tour of the Arid House and Desert collections, and refreshments made from edible succulents in honor of Cinco de Mayo. Price includes one adult and one child with one potted garden. $20, $16 members. Each additional adult or child+garden per family is $12

Bringing Back the Natives
Sunday, May 6, 2007, 10 am, 1 pm
Come celebrate California native plants at the UC Botanical Garden. Children may join a Docent for a California Indians & Plants ethnobotanical tour at 10 am. Horticulturist Ken Bates will lead a tour of our California Area at 1 pm for adults. Free with Garden Admission

Beginning Birding Class
Thursdays, May 10, 17, 24, 31, 2007, 9:30 am – 12 pm
Join Dennis Wolff, longtime Audubon Society member and bird watching instructor, to learn the basics of finding and identifying birds. You will practice your newly-learned skills by discovering the birds in the UC Botanical Garden. $80, $70 members for all 4 classes

A Walk Through the Garden of Old Roses
Saturday May 12, 2007, 10 am – 12 pm
Enjoy the Garden’s lovely collection of old roses on a walking tour with horticulturist and Rosarian, Peter Klement. Learn about the collection’s geographical origins and the story of how the Garden became their home. $17, $12 members

California Wildflower Show at the Oakland Museum
Saturday & Sunday, May 12 & 13, 2007
Saturday: 10 am – 5 pm; Sunday: 12 pm – 5 pm
The Garden helps sponsor this show by providing staff to collect, identify, and arrange the flowers for it. Free with Oakland Museum Admission

The Unselt Lecture
Saturday May 19, 2007, 1 pm – 3 pm
Join UC Berkeley Assistant Professor and Garden Research Associate, Dr. Chelsea Specht to explore the fascinating evolution of tropical gingers. Docent-led walks in the Garden will follow the lecture. Free

Member’s Photography Walk
Saturday, May 26, 2007, 9 am – 10 am
Bring your camera and enjoy an exclusive walk through the Garden with Development Director Janet Williams. Join Janet as she reveals some of the Garden’s best photo opportunities and shares some of her favorite plants to photograph. Heavy rain cancels this walk. Space is limited, register early. Free to members

In the Company of Wild Butterflies Film Screening
Tuesday, June 12, 2007, 5:30 pm Walk,
6:30 pm – 8 pm Showing
Witness the lives of several species of butterflies as you’ve never seen them before! Spectacular close up film photography reveals events in the lives of butterflies that even experts rarely see. The session begins with a twilight tour in the Garden of butterfly plants. Observe live butterfly specimens; Q&A to follow. Appropriate for all ages. $12, $10 members

Spike Your Garden Spirit and Join infrlorescence!
Garden Party Fundraiser
food! wine! music! blooms!
Sunday, June 24th 2007, 2 pm – 6 pm
$45, $40 members

For all programs: Reservations are required for all programs and events, except the Sick Plant Clinic and Plant Sales. Parking is available in the UC lot across from the Garden on Centennial. Program fees include Garden admission. Register early, class space is limited. Cancellations received at least two weeks prior to program date are subject to a $10 service fee. Program fees of $10 or less and cancellations received less than two weeks to the program are non-refundable. Full refund if the program is cancelled by the Garden.
inflorescence!

Garden Party Fundraiser

what: The University of California Botanical Garden’s Annual Garden Party $45, $40 members

when: Sunday, June 24, 2007, 2pm-6pm

where:

200 Centennial Drive, Berkeley, CA 94720

why: Celebrate and support the Garden

featuring: Music by VidyA and Dodge’s Sundodgers

contact: Deepa Natarajan (510) 643-7265

http://botanicalgarden.berkeley.edu

food! wine! music! blooms!

GARDEN WISH LIST

• Refrigerator for storing and stratifying seeds for the Garden collection $3,000
• Benches for the Cactus and Succulent Greenhouse in the Corporate Yard $2,000
• Extension of shade structures for the Garden’s collection propagation facility $2,000
• Shade structures for volunteer propagation work and growing areas $1,800
• New computer for the Administrative Office $1,500
• Sponsorship of a 25% student year-round to maintain the Crops of the World Garden $6,000
• Underwrite a Garden publication or brochure $2,500
• Sponsorship of a plant sale red wagon $50
• Garden Party sponsorships starting at $500
• Demolition hammer for demolition and digging in hard soil $600
• Garden shade canopy $1,200

There’s a lot going on here at the Garden and we plan to keep things moving but really need your support. Please contact the Director, Paul Licht, at 510-643-8999, email plicht@berkeley.edu, or the Development Director, Janet Williams at 510-643-2937, email janetwil@berkeley.edu, if you are interested in getting more information or if you are able to help the Garden with an item from our wish list. We are very happy for a group of people to join together in sponsoring a project - please consider talking to your family, friends and fellow gardeners.
re-taught a Botany on your Plate research lesson to her class in December 2005. This presentation resulted in a local private foundation providing new funds to support our work at Melrose. The Franklin Elementary School team is another example of how Lesson Study can evolve. The founding team consisted of four teachers and one para-educator and has expanded to include 8 credentialed teachers. Their initial interest in the program was strongly influenced by their commitment to completing a long held goal of a viable school garden on the northwestern border of their school site in central Oakland. By the end of the 2004 institute, they had developed an action plan that included a lesson study cycle they would implement in the spring.

For the Franklin team, the return to school in September was challenging. Literacy was the main focus of the mandated professional development that centered on district adopted, scripted curriculum. No other professional development or collaboration time was permitted during school hours. Even with these restrictions, this team managed to meet with the principal and other staff regarding their plans and hopes for a more teacher-driven professional development. A team of two teachers conducted a mini-lesson study in the garden based on activities and lessons presented at the summer institute. Individually, teachers modified the curriculum to hold at least one class session in the garden. Time constraints continued to be an issue as pressure mounted for the round of mandated testing.

Recognizing the school infrastructure challenges our teachers were facing, our program initiated a new opportunity to conduct lesson study in the form of a “public research lesson”. This would be part of a Saturday session held at the Lawrence Hall of Science (LHS) in March 2005. The Franklin team quickly seized this opportunity, which involved transporting a class of students (and a parent/grandparent per child) by bus to LHS by ten a.m. The research lesson took approximately one hour and was observed by 17 fellow GLC teachers. Parents viewed the lesson through a large window outside of the classroom. The children responded well to the Math in the Garden lesson the teacher had chosen, and there was a considerable amount of awe and exclamations expressed during the Hand Span measuring tasks. At the end of the lesson the children were thanked “for letting teachers get smarter about their teaching” and applauded for their good attitude, and a GLC staff member led them out to lunch with their parents.

The debriefing occurred according to the Lesson Study protocol. The teacher who led the lesson spoke first. She stated she was surprised at how unaware she was of the observers once the lesson began. She also saw areas of the lesson that could be improved, especially with regard to anticipation of student responses. The other Franklin team members spoke in turn discussing the student data that they had collected and also the lesson study cycle, which they viewed very positively. Then the other GLC observers commented on data that they had collected. As the teachers discussed the data that they had gathered, the discussion became focused on gender roles and how teachers need to be cognizant of the subtle issues related to gender and culture. One teacher commented, “I have always wanted a place to discuss this issue.” The discussion included issues related to teaching and learning within the framework of lesson study, and the value for teachers who teach in a multi-cultural classroom.

Over the past four years, the GLC project has worked with more than 150 teachers at 29 schools in eight school districts. Thirteen of those schools have put in school gardens and a dozen teams have used the process of Lesson Study to improve their learning and teaching in gardens. The professional development strategy of Lesson Study has proved a powerful instrument for promoting whole-school involvement of parents and teachers across grade levels and subject areas. The project also demonstrates that teams of teacher leaders can work collaboratively across districts to address curriculum and programs for diverse learners. Our goal is to create opportunities for our teacher participants to cultivate, enjoy and appreciate “the harvest” of their collective learning.

—Katharine Barrett
Judith Finn, Horticulturist in charge of the Cycad and Palm Garden, Tropical House, greenhouse teaching collections, and much more, retired in January 2007. A staff member with wide-ranging impact, we review here Judith’s myriad contributions to the Garden.

A native of Springfield, Ohio, Judith Finn moved to San Francisco in 1968, after completing a degree in art at George Washington University in Washington, DC. Following a several year stint working at Scientific American, Judith decided that she was interested in doing hands-on work with plants, and she earned a degree in horticulture from City College of San Francisco. She set out to find a job, and ended up at the doorstep of the Garden at just the right moment in 1976. Garden Manager Anton Christ offered Judith a part time job. She was hired to take care of four greenhouses, the Palm Garden, Herb Garden, North American Area, (Garden areas were configured and labeled slightly differently 30 years ago) as well to water for the volunteer propagators and take care of all chemical applications – all this in a part time appointment! Judith became a full time staff member in 1978, and became the Assistant Manager in 1979, whereupon she was relieved of the care of the Herb Garden and North American Area. She served as Acting Garden Manager several times during her career.

Thirty years later Judith ended her formal career at the Garden with basically the same suite of responsibilities: tropical plants in five greenhouses, carnivorous plants, ferns, the cycad and palm collections, chemical application and management, and coordination of horticulture volunteers. Judith did all of this and so much more, and she did it with style and good humor! For years she led the team of staff and students who set up and took down tables for plant sales. Likewise, she led the set-up team for our Garden Party fundraisers. At a personal level Judith is the epitome of a team player. She was the person on the staff who organized nearly all of our team efforts, blending staff, students and volunteers with great ease.

Judith’s work in the Garden touched all of our constituencies, from students, volunteers and the general public, to researchers and faculty who use the Garden and its collections. Her art background came into play throughout her career. Her line drawings of plants have graced the Newsletter and many other Garden publications, and her drawings of carnivorous plants were used extensively by Peter D’Amato in his book The Savage Garden. Judith worked with faculty members teaching Biology 1, a major introductory class whose students visit the Garden for several labs each semester, to develop a detailed lab on carnivorous plants. Professor Lew Feldman hoped that these interesting plants would capture the imagination of undergraduate students and draw their attention to plant biology. For over 15 years Judith served as the staff coordinator for Integrative Biology 112 (Horticultural Methods), taught in the Garden as a hands-on learning experience. She has seen hundreds of students come through the course, nurturing them individually and helping them consider careers in botany and horticulture. She mentored numerous students in independent study projects, where she was particularly great at drawing out enthusiasm for carnivorous plants. She was equally good at presenting public programs about carnivorous plants at the

As Judith begins her retirement we certainly will miss her for all the expertise... but what Judith brought to the Garden for the past 30 years was so much more.
Garden, where she inspired enthusiasm in carnivores among the 12 year old boys – and girls – who frequented her programs.

For years Judith was involved in many activities that have brought the Garden to the larger community, and she also brought the community to campus. As an active member and frequent board member of the Bay Area Carnivorous Plant Society and the Northern California Palm Society, she hosted regular meetings of these groups in the Garden. She assisted annually at the Oakland Museum of California’s Wildflower Show, co-sponsored by the Garden, creating detailed floral arrangements and often large-scale displays. As the horticulturist for the palm collection she has for years provided palm fronds for local churches on Palm Sunday, and for the Jewish harvest festival of Sukkot.

Judith was someone who could be counted upon as a friendly and informed interface with our visitors, fielding all sorts of questions graciously, and always making time for the public. She supported and mentored volunteers working in our horticultural programs, making sure they received a quality experience while working here. Indeed, Judith had a loyal following of volunteers who had worked with her for years. As with all horticulturists, Judith participated in training docents and in programs for our volunteer propagators. She gives a great tour of the Garden, and will be missed this season for her “Off the Beaten Path” twilight tour. Judith has helped local colleges and universities develop their greenhouse teaching collections and she maintained active collaborations with colleagues at other UC campuses.

In her role as pest manager Judith always kept the safety of the staff and public in the fore, while addressing plant pest and disease problems in the most cautious and conservative manner possible. Whether the problem was vertebrate or invertebrate, Judith was always on hand to help out. She moved rattlesnakes away from potential public hazard situations with consummate calm and great care.

Over her career Judith took care of a wide range of plants, including, in the distant past, the orchid collection and several outdoor collections, as mentioned above. In addition to the Tropical House, she cared for a large number of tropical plants used in UCB teaching programs that were not on public display. She managed an extensive collection of tropical ferns, some of which were always on display in the Orchid, Fern and Carnivorous Plant House. With such a wide range of plants under her care, it was clear that carnivorous plants, palms, and cycads were her passions. Judith’s programs and work with the carnivorous plant collections were referenced above, and a friend and colleague, Bill Baumgartl, even named a tropical pitcher plant hybrid after her: *Nepenthes ‘Judith Finn.’* Apparently this selection has proven to be quite marketable, and at Judith’s retirement party Bill noted that he had recently seen a big basket of ‘Judith Finn’ in a shop in Moscow. Over the years Judith expanded the range of the outdoor cycad and palm collection, and assisted other horticulturists in introducing palms and cycads into their biogeographic collections. Judith was a major force in establishing and caring for the extensive collection of cycads which the Garden received from the US Fish and Wildlife Service in 2002 (discussed in the Summer/Fall 2006 issue of the Newsletter). She worked with each plant individually, assessing its health, checking for pests, and reviewing its identification. She has been and will continue to be a key advisor in the Garden’s effort to properly plant the cyads throughout the Garden, as well as with our plans to develop a breeding program aimed at world-wide cycad conservation.

As Judith begins her retirement we certainly will miss her for all the expertise mentioned above, but what Judith brought to the Garden for the past 30 years was so much more. We could always count on her steady and strong presence, her willingness to help out anyone in need, and her ready smile that started our work days. Judith’s impact on the Garden and many who came here has been far reaching. A few summers ago I was in Grand Teton National Park. A young ranger-in-training read the logo on my cap and said, “Oh, the UC Botanical Garden! Do you know Judith Finn? She helped me get interested in plants.”

We wish her well in the next phase of her life, and look forward to welcoming her back as a volunteer!

—Chris Carmichael
NEW MEMBERS


Ms. Susan Aaron & Mr. Steven Sherman
Mr. Kirkland Abrams & Ms. Janet Stork
Ms. Lainie Acaio & Mr. Erik Grigulva
Ms. Shiloh Ackley & Mr. Marion Denny
Mr. Joseph C. Alfano III & Mr. Frank F. Capley
Ms. Lauren Anderson
Ms. Altaire Anderson
Ms. Deidre Anderson
Ms. Joan D. Andrews
Mr. Zacharias Arche
Mr. David Arnold
Ms. Carole Austin
Mr. Ray Austria
Mr. Alan Bade & Ms. Wendy Gollop
Ms. Monica Baldzikowski
Mr. Tom Ballinger & Ms. Jeong-Hyeon Lee
Mrs. Michele J. Barnes
Mme. Madeline Bauzon-Machado & Mr. James Machado
Ms. Mary Barker
Ms. Neil W. Beaudry & Mr. Luis Cordero
Mr. & Mrs. Steven Beckendorf
Ms. Diana Hanson
Ms. Amy Hamlett & Ms. Jean Orlebeck
Ms. MaryAnn Hamlett
Mr. Erik Hagiwara
Mr. & Mrs. Charlie Guthrie
Ms. Amy Gup
Ms. Jan Gross
Ms. John Marcone
Mr. & Mrs. Christian Gardner
Ms. Caroline Gage & Mr. Tyler Gage
Mr. William J. Garcia Jr.
Mr. & Mrs. Christian Gardner
Ms. Lorraine Gardner & Mr. Jim Gilbert
Ms. Carolyn Gaye
Mr. & Mrs. Bob Fisher
Ms. Gene Fleet & Mr. Darville Bower
Ms. Aurora M. Fojas
Ms. Nola A. Foster
Mr. Charles Frazier
Dr. Sabitha Francis & Mr. Jon Francis
Ms. Mary Klee Frank
Mrs. Julie Franklin & Mr. Andre Govberg
Mr. & Mrs. Robert Gofman
Ms. Caroline Gage & Mr. Tyler Gage
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Ms. Nola A. Foster
Mr. Charles Frazier
Dr. Sabitha Francis & Mr. Jon Francis
Ms. Mary Klee Frank
WOLLEMI PINE PLANTED!

A Wollemi pine (Wollemia nobilis) has been planted in the Garden’s Australasian Area. This species was discovered in 1994 in a remote valley only 200 km. from Sydney, Australia. The only known population consists of just one hundred mature trees; the largest being 40 m. tall with a 63 cm. trunk diameter.

Scientists working on its evolutionary history have placed it in the family Araucariaceae, believing it to be most closely related to the genus Araucaria (monkey puzzle trees) native to the SW Pacific and to South America (represented in the Garden).

The site of the natural population remains a closely guarded secret and, in an effort to discourage illegal poaching, a propagation program was begun so that gardeners the world over could have one of their very own. After several years of work the trees were released for public sale in the United States in 2006. They are available through the National Geographic Society. Learn more about this interesting species at http://www.wollemipine.com/
Open Daily, 10:30 am to 4:30 pm

• New arrivals of botanically themed jewelry, gifts, home décor and more!
• Carefully crafted selection of books on gardening, plants, natural history, and wildlife.
  • UC Botanical Garden mugs, t-shirts, hats, and aprons.
• Great selection of hard-to-find plants.
  • 10% discount for members.
  • Gift certificates available.

GARDEN HOURS: The Garden is open from 9 am -5 pm year round. Closed first Tuesday of each month.

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