



THE JEPSON GLOBE

A Newsletter from the *Friends of The Jepson Herbarium*

VOLUME 15 NUMBER 2 SEPTEMBER 2004

Curator's Column: TJM2 Update

For the next four years, *The Jepson Globe* will have a column dedicated to progress made on the production of a second edition of *The Jepson Manual* (TJM). As you know, many changes are on the horizon and we would like to keep our members informed about floristic revisions that are under consideration. Please send questions regarding the flora project, proposed taxonomic changes, new philosophies, etc. to "The Jepson Flora Project" and JFP staff will respond in future issues of the *Globe*. We are also seeking members who are interested in reviewing treatments and testing keys. If you would like to be involved in the process, please let us know and we will add you to our contact list. Lastly, if you have comments about the keys, descriptions, or illustrations in TJM1 please send them to us as soon as you can. We are currently sending all comments regarding TJM1 to the authors, so this is the best time share your thoughts.

We have just completed year one of the five year project to revise the *Manual*. Almost all of the authors have been assigned and this fall, we will focus our efforts on developing more illustrations and enhancing the "front material" in the book. In July, we hosted a reception for TJM2 editors and authors at Botany 2004 in Utah and unveiled the new Guide for Contributors (http://ucjeps.berkeley.edu/tjm_resources.html). We are on track and thank each of you for your support!



Profiles of Curatorial Volunteers

by Barbara Ertter

As highlighted elsewhere in this issue of the *Globe*, the nearly two million specimens of preserved plants comprising the University and Jepson Herbaria represent an integral part of humanity's scientific heritage, over which the University of California has custodial responsibility. In addition to the existing specimens, an average of 10,000 new specimens are added each year, each needing preparation appropriate to the plant group, possible data capture, and filing away where they can be located when needed.

To make all these specimens accessible to a wide diversity of potential users, we are increasingly indebted to a cadre of dedicated, talented, enthusiastic volunteers. As evident in the following profiles of representative curatorial volunteers, backgrounds, motivations, and rewards span a broad background.

Above: Representative UC/JEPS volunteers with Barbara Ertter (center, kneeling), Anna Penny, and Kim Kersh.

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Iran-California Botanical Expedition of 2004

by Fosiee Tahbaz

As reported in previous issues of the *Globe*, Dr. Barbara Ertter and I are actively coordinating a binational study of the flora of Iran. With two successful trips behind us, we once again traveled to Iran this past May. The expedition, generously supported by the National Geographic Society, was the third in a series of three and focused on vascular plants. The participants of this expedition were Drs. Ihsan Al-Shehbaz, Director of Asian Botany Study, Missouri Botanical Garden; Kelly Steele, Associate Professor Arizona State University; Travis Columbus, Associate Professor, Rancho Santa Ana Botanic Garden; David Charlet, Professor, Reno Community College; William Shepard, Professor Emerita and Research Associate entomologist, UC Berkeley; and Barbara Ertter and myself from UC Berkeley.

On May 17, 2004, six enthusiastic US biologists arrived in Iran after a very long flight. They spent their first day in Tehran visiting the Golestan Palace (Palace of Flowers) and the famous Tehran Bazaar. This day was a relaxing and attitude-adjusting preparation for the heavy botanical schedule that was to follow. Our formal schedule began on the second day, starting with a meeting to discuss our goals with Drs. Ghahreman, Zaree, and Attar, at the University of Tehran's Central Herbarium (TUH in Index Herbariorum).

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Iran expedition, continued from page 1.

These last two young botanists accompanied the expeditioners on most of the field trips, handled the assembling of field equipment, helped press specimens, and most important, provided identifications of all collected specimens. After three lectures, the afternoon and evening were spent in the herbarium identifying specimens and reviewing Iranian manuscripts intended for publication in U.S. scientific journals. Over the next few days, we visited the Agriculture College in Karaj and University of Esfahan where members of our group gave several lectures. At one lecture, we had an emotional and touching moment when the faculty, staff, and students of the Biology Department entered the conference room and welcomed us by offering a carnation flower to each of us.

Travelling between Tehran and Esfahan, we stopped at eleven collecting sites, including the Ghom Lake shore. The expeditioners enthusiastically toured Esfahan Province, collecting specimens from Zagros mountain range including Tiran and Golpayegan. The popular Golestan Park at Khonsar was covered with a species of *Fritillaria* and shrubby *Astragalus adscendens*, the source of Gum Tragacanth. The Bakhtyari mountain in the Zagros range were covered by snow providing unforgettably magnificent scenery. The limestone hills of this region were covered with perennial forbs and grasses, and species of *Astragalus*.

Returning to Tehran, we spent more time in TUH herbarium for identification of plant specimens, and to



Dr. Tahbaz at TUH herbarium, along with Drs. Sepehri, Ghahreman, Shirzadian, and Charlet.

review manuscripts of Iranian scientists. A one day collecting trip to the mountains of the alpine Damavand region (Mt. Damavand, at 18,000 ft is the highest in Iran) wasn't nearly long enough. At least we had the opportunity to see yellow and white wild tulips, wild orchids, and primulas, as well as two ancient remnant juniper forests on dolomite.

Next we visited Uromieh in western Iran, and began a series of field trips to areas including the border with Turkey and Iraq and the Iran-Iraq border. These trips were among the best for collecting plants and comparing diversity of vegetation. On the trip from Uromieh, a new species of mustard (Brassicaceae) was discovered. It will be named after an Iranian botanist in the spirit of collaboration and in appreciation of all the help of our Iranian botanical colleagues.

The last institution that we visited was Guilan University. There, one of my former students, Dr. Latif Salehi, Professor and Chair of the Crop Protection Department, reminisced with me over photographs of the two of us taken exactly 30 years ago. Iranians are characteristically appreciative of their teachers, and this meeting was a gratifying example of this quality. Our final field trips were to collect specimens in the Alburz Mountains, a range that lies west to east along the entire Caspian coast of northern Iran. Here, protectively escorted by an army security vehicle, we saw a mixed deciduous forest extending across the Talesh mountains. We were reminded of the dense, broad-leaf forests of the eastern US. Just before our departure, we pressed newly collected specimens and put in order over one thousand specimens collected from 81 sites during this expedition.

The Iran-California Botanical Expedition of 2004 was a great success, made possible by the indefatigable enthusiasm of the expeditioners



Tahbaz with U.S. and Iranian botanists in the Bakhtyari region.

and the gracious welcome and untiring attention of our Iranian hosts. All of us were touched by the warm reception by Iranian faculty, staff, and students, and by Iranians we met everywhere in the field. The direct scientific accomplishments of the Expedition are considerable: modern collections for monographic work in many families, collections of species that are critical to molecular phylogenetic studies, discoveries of range extensions and even of several new species. Equally important is the foundation for future collaborations among U.S. botanists and their Iranian counterparts. We hope that we can build upon it to encourage future exchange of specimens, information in the form of scientific journal articles and email, and students. Finally, the Expedition enabled all of us to get to know each other much better. It is with a great sense of satisfaction and gratitude that I acknowledge the support and encouragement of the director of the Herbaria, Brent Mishler, and the National Geographic Society. 🌿



Tahbaz with Attar (Univ. of Tehran) and Steele (Arizona State Univ.).

Two Million and Growing

by Barbara Ertter

Underpinning all Jepson floristic projects, serving as raw data for research on plants around the world, and providing a vital resource for a multitude of other uses are the nearly two million preserved botanical specimens that represent the fundamental core of the University and Jepson Herbaria. Nested in the heart of the Valley Life Sciences Building at the University of California at Berkeley, this irreplaceable collection includes specimens nearly two centuries old. Actual plants collected by David Douglas (for whom Douglas-fir and all the *douglasii*'s are named) in the 1830's are available for study, as are others collected by John Muir and other historically significant figures. Many specimens document vanished floras, such as pre-development San Francisco, and even species now presumed extinct.

Such collections of preserved plant and fungal specimens maintained for scientific purposes are called herbaria (singular: herbarium). Most specimens are carefully pressed, dried, mounted on rigid paper, and filed in metal cabinets, using techniques perfected over several centuries. Other specimens are preserved in liquid (alcohol or formalin) or dried three-dimensionally. Properly prepared and protected, herbarium specimens will last indefinitely. All specimens are accompanied by data indicating where they were collected, when, and by whom. The herbaria at UC Berkeley are collectively ranked the fifth largest in the United States and is the largest at a public university.

The existence and maintenance of an herbarium is actually written into the Organic Act founding the University of California in 1868, in which Section 24 mandates "the early and secure arrangement" of the specimens collected by the California Geological Survey. This Survey, headed by Josiah Dwight Whitney (for whom Mt. Whit-

ney is named), was initiated in 1860 with the goal of mapping California and preparing "a full and scientific description of its rocks, fossils, soils, and minerals, and of its botanical and zoological productions, together with specimens of the same, which specimens shall be properly labeled and arranged, and deposited in such place as shall be hereafter provided for that purpose by the legislature."

Politics, economic downturns, and a petroleum scam caused the premature demise of the Survey, but Whitney ensured the permanent well-being of the resultant specimens, an invaluable legacy. Serving as the chair of the commission charged with drafting plans for the University, Whitney in his far-sightedness maintained that "the establishment of the Geological Survey was in fact the first step towards the production of a State University. Without the information to be obtained by that Survey, no thorough instruction was possible on this coast, either in geography, geology, or natural history; for the student of these branches requires to be taught in that which is about him, and with which he is brought into daily contact, as well as that which is distant and only theoretically important."

The initial core of specimens deposited at the fledgling University was steadily added to by subsequent faculty, students, staff, and affiliated researchers. Duplicate collections were exchanged with other herbaria around the world, resulting in a global representation of plant diversity. Significant collections were also donated by a wide diversity of amateurs and non-academic professionals, including agency biologists and environmental consultants. Indeed, many of the most valuable specimens have been collected by native plant enthusiasts who are familiar enough with their local flora to know what is noteworthy. Among the more notable and extensive acquisitions:

- In 1906, Townshend S. and Katharine Brandegee donated their extensive library and herbarium of

76,000 specimens, including the valuable exsiccatae of Carl A. Purpus with a wealth of Mexican types. This single donation effectively doubled the size of the existing herbarium and brought the UC collections to world-class status.

- A strength in east Asia (especially China) and the Pacific Basin, in the form of ca. 110,000 specimens, resulted from the five-year tenure of Elmer D. Merrill as Dean of Agriculture. Many of these specimens are potential lectotypes and neotypes as a result of the destruction of the Philippine National Herbarium during World War II, and further document the original lowland Philippine flora that has now largely disappeared.

- Andean South America became a strength when T. Harper Goodspeed, director of the University Botanical Garden, launched a series of Andean Expeditions from 1935 to 1949 in conjunction with his interest in wild relatives of tobacco (*Nicotiana*). Vouchers of over 35,000 collections, including numerous new species, were deposited in the University Herbarium. Goodspeed published an account of the expeditions in his book, *Plant Hunters in the Andes*.

- The Vegetation Type Mapping project (VTM), undertaken by A. E. Wieslander and purportedly inspired by a course taught by Jepson, resulted in over 23,000 vascular plant collections that are now housed in the University Herbarium. The VTM project is currently the focus of a major collaborative digitizing effort, reflecting the importance of vegetation mapping in land management.

- As an apparent offshoot of the VTM, a massive effort to map the vegetation of the Western National Parks was initiated by Harold E. Bailey. Even more than the VTM, the National Park mapping project involved a close collaboration between federal land-management agencies, in this case the U.S. National Park Service, and UC-Berkeley, taking advantage of depression relief funding.

Continued on page 7.

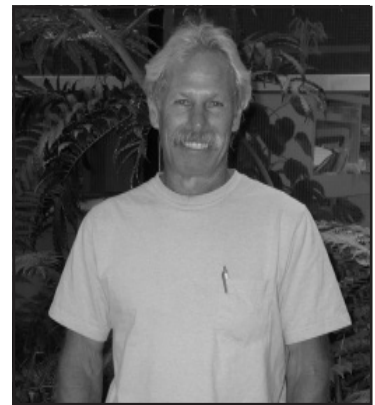
Representative UC/JEPS curatorial volunteers (2004)

Anna Foley



“I recently graduated with a B.S. in Biology from Northern Arizona University, where I was president of the Botany Club. Some of my academic research involved looking at the understory plant communities in *Pinus edulis* in northern Arizona. I now work as a greenhouse technician and have always enjoyed working with plants. I volunteer in the University and Jepson Herbaria because of this love and to increase my knowledge of the native California flora. The herbarium, with its large number of specimens and friendly, knowledgeable staff, is a perfect place to learn more about plant taxonomy. Though I have only recently started as a volunteer, I have enjoyed my experience and look forward to volunteering more in the future. Other activities I enjoy are hiking, knitting, playing with my two dogs, and yoga.

“I’m a home builder and have always been interested in the natural world. In my younger years it was snakes, then falcons and other birds. Plants have come much later. Maybe as I’ve slowed down, I’ve gravitated towards wildlife that is also less mobile. I initially found the herbarium because it seemed like a likely place to be able to unravel the identities of plants I would see but not know the names of. Because the place was so useful, and feeling a little guilty for taking advantage of it even though I wasn’t in school, or doing research, nor was I a botanist, I figured I would do what I could to give something back. That’s how I started volunteering last year. As it turns out, that opportunity has been more to my benefit than I had expected, and in ways that keep evolving. Filing specimens has introduced me to plants I might not know otherwise. I helped sort and decipher old notes and plants from a well-known botanist of the 1930’s. Random interactions with other interested plant people, lectures, and introductions to plant specialists has provided many directions to learn. What better way to spend winter days when it’s miserable outside and most plants are hibernating?”



David Gowen

Nancy Hillyard



“A wildflower class with Dianne Lake made me see how lovely plants can be. It was like a treasure hunt on every hike, but I could never find enough books to cover the questions that came up. Sometimes I would find a plant that would seem rare and would be asked, ‘Did you voucher it?’ or ‘Did you check the vouchers in the herbarium?’ That is how I found out that an herbarium has dried plants mounted on cards and filed in cabinets where anyone can check the identity of plants they find in the field. It was on one of those trips to the herbarium to check out a plant that I decided to volunteer some time each week, and was directed to the area of mounting plants. It has been a wonderful experience working with Ana Penny, who is a remarkable, friendly person who shows you how to do everything. You can learn about wildflowers while helping the herbarium and making more plants available to more people. There are many wonderful people at the herbarium who are very helpful in plant identification. Lasting friendships sometime develop when you are busy with something you love.”

*They said I was only a weed
And I guess I was,
Until someone noticed me
And said “How lovely!”*

Learn more about volunteer opportunities on page 8.

**Mildred Petersen &
Clara Stern**



Mildred, a retired social worker, and Clara, a retired librarian, are sisters with a long-standing love of plants. They found out about volunteer opportunities in the herbarium from the newsletter of the California Native Plant Society and said, "Let's try it!" This was nearly ten years ago, and they have both been mainstays at Volunteer Saturdays ever since. Mildred, echoed by Clara, finds that mounting and filing herbarium specimens is "the most relaxing, enjoyable, fun thing to do; I love it!" They note the pleasure of working with beautiful old plant specimens, some sepia-colored with age, and the satisfaction of knowing that one is accomplishing something that is so evidently appreciated. As gardeners, they also enjoy the bonus

of freebie living plants, extras from Barbara Ertter's garden.

Tom is a network engineer for IBM and has volunteered at the herbarium since 1998. He also has a long-term love affair with the Eastern Mojave Desert, its plants, and patterns of California and Great Basin species found there. As a volunteer he primarily files vouchers that are new, or just need to be returned to the cases, liking especially to file western U. S. collections. Tom says he prefers to file rather than mount because he has his own backlog of collections to mount. He learns a lot in the act of filing; just developing name recognition and learning species-family relationships has helped him in his own work. Tom also confesses to getting distracted while filing, occasionally taking peeks at collections by Carl Purpus or Annie Alexander, or Eastern Mojave collections made by others. Tom assisted Barbara Ertter to build the Carl Purpus web site (<http://ucjeps.berkeley.edu/Purpus/index.html>), and is building another about the Eastern Mojave Desert collections made by Annie Alexander and Louise Kellogg in 1939 and 1940 (<http://www.schweich.com/>).



Tom Schweich



Felicitas Titus

"When I was a child on the banks of the Yangtze River in China, my mother made me memorize the names of the flowers that grew in our garden and taught me how to press them. My father exported tea, vegetable oil, wood oil, ramie fiber, and many other natural products, from China to the West during the colonial era. He let me feel these products which I loved. We used to walk to the 'Three Big Trees' in the Lushan mountain resort, a *Ginkgo* and two *Cryptomeria*, whose botanical names our mother made us learn. In my literature studies (I have an M.A. in German studies from UC-Berkeley), I read the poetry and short stories of Adelbert von Chamisso and came upon his travel account of the *Rurik*, which stopped in San Francisco in 1816. I was intrigued by the tale of how Chamisso, a leading botanist from Berlin, and his colleague Johann Friedrich Eschscholtz botanized around the Presidio and discovered the California poppy. When I heard about volunteering at the Jepson Herbarium, I was delighted. That was

just the thing for me! Mounting plant specimens has become a passion. I've been doing it for about ten years under the expert guidance of Ana Penny. It's a relaxing time while lending a hand to science, which will benefit for years to come from the handsome mounted specimens. Please try this delightful activity yourself!"

Dorothy's love of the natural world developed from living in a diversity of beautiful landscapes, including Florida, the Smoky Mountains of Tennessee, and New England. Now retired from working as an accountant in a law firm, she explains her reasons for becoming a volunteer: "When I went to college I did not have much contact with sciences courses - one year of biology. More recently I began to hear that a world-wide crisis in loss of biodiversity was occurring. I wanted to help an organization making a contribution to conservation and found that there were tasks I could do to help scientists working at the University and Jepson Herbaria. I really enjoy the staff and other volunteers. I also work with the California Native Plant Society restoration team."



Dorothy Frantz

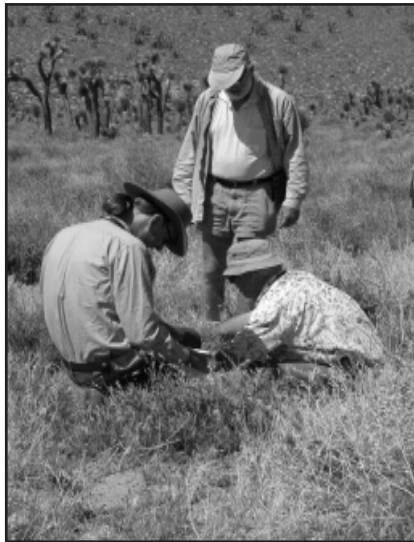
Weekend Workshops Year in Review (2004)



Tom Parker highlights the “piece de resistance” of the *Arctostaphylos* workshop, *A. “gabilanensis.”*

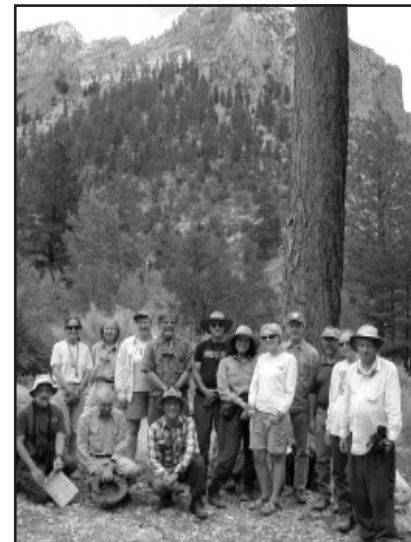


Professor Brent Mishler looks on as Erik Frenzel takes a closer look at a moss during the Bryophytes workshop



Jay Sullivan gains perspective from Kern County Flora instructors Fletcher Linton and David Keil

Thanks to our
instructors and
participants
for another
great
workshop
season.
We hope to
see you
next year!



Participants from the Spring Mountains Flora weekend gather at the workshop’s end with Mummy Mountain as a backdrop



On top of Mount Conard with Lassen Peak in the back-



Participants enjoy breakfast at the Lassen Park workshop

Two million and growing, continued from page 3.

- A focus on California's wetland flora, in particular the feeding and resting areas for migratory aquatic birds, made federal funds available for five years of intensive field work by a team of assistants working under the direction of Herbert L. Mason. The result was both the authoritative reference to California's wetland flora (*A Flora of the Marshes of California*, 1957) and thousands of voucher specimens deposited in the University Herbarium.

- Efforts are currently underway to accumulate a complete set of plants from Iran, making them readily available to scientists in western North America whose research involves genera that occur in both areas, invasive weeds that are native to Iran, and other topics resulting from the strong biogeographic similarities between Iran and western North America. This project, spearheaded by Fosiee Tahbaz and Barbara Ertter, is being pursued in close collaboration with several Iranian universities.

These specimens and those from numerous other sources comprise the University Herbarium (UC in Index Herbariorum), currently totalling over 1,920,000+ specimens. All geographic areas are represented in the collection, and examination of UC specimens is essential for monographic and floristic studies of plants from California, Mexico, the Andes, and the Philippines. In addition to flowering plants, other groups are also well represented in UC. The fern collections are among the best in the world for large areas of Latin America, and marine algae (seaweeds) have been a major focus ever since the 40-year tenure of W. A. Setchell as chair of the botany department. The donation of Dan Norris's world-spanning bryophyte herbarium in 1993 has made bryology an additional strength.

The holdings of the University Herbarium are complemented by those of the Jepson Herbarium (JEPS), consisting of nearly 100,000 vascular plants mostly from California. Willis Linn Jepson, who received the first Ph.D. in

botany from UC in 1898, chose to initiate a separate herbarium in conjunction with his work on California floristics. This collection consisted of his personal specimens and others received from a vast network of native plant enthusiasts (see "A mule-wrangler, a lawyer, and a lone woman: the continuing legacy of Jepson's collecting network," *The Jepson Globe* 11(2):3, 2000). These specimens were willed to the University following Jepson's death in 1946, as part of a generous bequest ensuring a continued focus on California floristics at UC-Berkeley. Of the four provisions mandated in the bequest, three relate to floristic works (e.g., keeping the *Jepson Manual* updated), while the fourth calls on the University "To care for the preservation and building up of the The Jepson Herbarium and its Library." The terms of the endowment were accepted by the University, including the stipulation that the Jepson Herbarium maintain an identity distinct from that of the more-encompassing University Herbarium.

Jepson in fact believed that "The Herbarium will be my monument, more than the Flora." His evaluation of the fundamental significance of herbarium specimens reflects the fact that herbarium holdings worldwide collectively provide the raw data underpinning our scientific knowledge of what kinds of plants exist, what their diagnostic features are, what range of variation exists within each, and where they occur. If herbaria ceased to exist, our monographs and floras would consist of hypothetical abstractions, no longer tied to the concrete data from which they were derived. In this light, the University and Jepson Herbaria represent an integral part of humanity's scientific heritage, over which the University of California has custodial responsibility.

As a result, UC/JEPS holdings are heavily used by researchers from a wide array of research institutions around the world. At any one time

THE JEPSON HERBARIUM PROJECTS & RESOURCES

The Jepson Flora Project

Second Edition of *The Jepson Manual*
Online Interchange for Advances in California Floristics
Jepson Desert Manual
Online Horticultural Database
Electronic Publication of Jepson's *A Flora of California*

Publications & Research Projects

Constancea: University of California electronic publications in botany
Tarweeds & Silverswords: Evolution of the Madiinae
DeCew's Guide to the Seaweeds
Flora of Mount Diablo
Unravelling the dynamics of mating-system evolution in tribe Collinsieae
Building the Tree of Life -- A National Resource for Phyloinformatics and Computational Phylogenetics
Deep Green Plant Phylogenetics: Novel Analytical Methods for Scaling Data from Genomics to Morphology
Beyond "Deep Green": Towards an Integration of Plant Phylogenetics and Plant Genomics
Demography and Germination Ecology of the Endangered Santa Cruz Tarplant
Sierra Nevada Plants Project

Educational Services & Resources

Botanical Workshops & Courses
Plant Identification
1,920,000+ Worldwide Plant Specimens
Photographic Slide Collection
Map Collection & Locality File
Botanical Library (non-circulating)

Administration

Trustees: Vice Chancellor Emeritus Roderic Park, Chairman; Vice Chancellor Beth Burnside (on leave); UC Botanical Garden Director, Paul Licht; Professors John Taylor and Brent Mishler (ex officio)

Director: Professor Brent Mishler

Curator: Assoc. Professor Bruce Baldwin
Database Admin. & Webmaster: Richard Moe
Scientific Editor: Tom Rosatti
Managing Editor: Margriet Wetherwax
Collection Research Sp.: Jeff Greenhouse
Research Associate: Bridget Wessa

Administrative Curator: Barbara Ertter
Senior Museum Scientist: Fosiee Tahbaz
Senior Museum Preparator: Ana Penny
Assistant Museum Scientist: Kim Kersh

Public Programs & Development:

Staci Markos
Cynthia Perrine

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Two million and growing, continued from page 7.

thousands of specimens are on loan to researchers at other herbaria, for periods ranging from months to years. Several hundred visitors consult the University and Jepson Herbaria holdings yearly, including scientists from other countries, environmental consultants, government agency biologists, ethnobotanists, native plant enthusiasts, and botanical artists. The collections also contribute to research carried out at the University of California by faculty curators, research staff, graduate and undergraduate students, research associates, and other herbarium affiliates, who rely heavily on the resources of UC/JEPS for on-going monographic, floristic, and historical research.

Some of the more innovative uses of UC/JEPS collections in recent years include:

- use of stomatal density in

historical specimens as an indicator of atmospheric carbon dioxide

- detection of possible historical presence of Sudden Oak Death and Barley Yellow Dwarf Virus in California

- reconstructing historical wetland distribution around San Francisco Bay

- source of reference phytoliths (= distinctive silica crystals in some plant cells), used to identify food remains in Egyptian burial sites and to track the spread of grasslands in North America during the Tertiary.

As one of the principal and oldest collections of California plants, UC/JEPS also contributes heavily to resource management in the state. Over 22,000 specimens represent rare plants tracked by the California Natural Diversity Database and listed in the *In-*

ventory of Rare and Endangered Plants of California, and in fact provide much of the raw data on which rarity status is determined. These specimens are of special value to a steady stream of visiting consultants, who need to examine authoritatively identified material to develop search images of target species. Many of the older collections are increasingly called upon as “baselines” against which to compare current species distributions and to assess the impact of human disturbances on both marine and terrestrial habitats. UC/JEPS specimens also provide the backbone of vouchered data for newly reported and potentially invasive non-native species, increasingly important as the threat of “biological pollution” becomes better appreciated. 🌱

SPECIAL BEHIND-THE-SCENES TOUR OF THE UNIVERSITY AND JEPSON HERBARIA

Join Barbara Ertter for a special tour
just for *Friends!*

As a special opportunity for Friends of the Jepson Herbarium, Barbara Ertter will lead a behind-the-scenes tour of the University and Jepson Herbaria on **Saturday, October 23**. Participating *Friends* will have the opportunity to see material not otherwise on display to the public, including actual plants collected by David Douglas, John Muir, and many other historical figures. Many of the specimens and collectors come with colorful stories, ranging from failed love affairs to stand-offs with hostile Indians. Find out how herbarium specimens are obtained, how they are prepared and stored, and the many ways they are used. The tour will begin at 1:30 pm at the herbarium entrance (in front of the *Tyrannosaurus rex* on the ground floor of the Valley Life Sciences Building atrium) and last 1-2 hours.

Don't miss this rare opportunity!

VOLUNTEER OPPORTUNITIES IN THE UNIVERSITY AND JEPSON HERBARIA

Curatorial Volunteers Needed
at the University and Jepson Herbaria!

Are you interested in learning more about the California flora, gaining first-hand experience with herbarium techniques, and socializing with fellow native plant enthusiasts? Then have we got a deal for you! Selected **Saturdays** of each month are **Group Volunteer Days** in the Herbaria. What better way to spend those rainy winter weekends!

Group Volunteer Saturday begins at 10 am and finishes up by 5 pm (participants need not stay the full time). We also welcome **individual volunteers** who can come in during our regular hours (M-F 8-5). We will try to match your unique interests and abilities.

For more information, please call or write to Ana Penny (510) 642-2465, apenny@uclink4.berkeley.edu.

Upcoming Group Volunteer Saturdays
Sept. 25, Oct. 9, Oct. 23, Nov. 13, Dec. 4,
Dec. 18, Jan. 22, Feb. 5, and Feb. 19

FRIENDS OF THE JEPSON HERBARIUM

Name(s) _____

Address _____

City, State Zip _____

Telephone / email _____

- I would like to join the *Friends* / renew my membership (contribution to the annual fund).
- I would like to support the Second Edition of *The Jepson Manual* with my gift of _____.
- Enclosed is _____ of a total pledge of _____ to be paid over _____ years.
- Please acknowledge me as a sponsor of _____ (indicate genus name e.g., *Lilium*, family name, e.g., Poaceae, or other category) by printing my name in *The Jepson Manual* (for gifts of \$1,000 or more, see side bar).
- Please acknowledge my gift as anonymous.
- My or my spouse's employer will match this gift. (Please enclose company form)
- This gift is _____ in honor of _____ in memory of _____

Please make your check payable to the *Friends of the Jepson Herbarium* or charge your gift.

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MAIL TO:

The Jepson Herbarium
1001 VLSB #2465
University of California
Berkeley, CA 94720

The information you provide will be used for University business and will not be released unless required by law. A portion of all gifts is used to defray the costs of administering the funds.
All gifts are tax deductible as prescribed by law.



CATEGORIES OF GIVING

GIFTS TO SUPPORT THE SECOND EDITION

- \$25,000** Honor the contributions and founding principles of W. L. Jepson, former Jepson Trustees Lincoln Constance and Robert Ornduff, and former Jepson Curators Rimo Bacigalupi and Lawrence R. Heckard
- \$10,000** Support taxonomic efforts in an organizing unit of the *Manual*: Ferns, Gymnosperms, Dicots, or Monocots
- \$5,000** Support floristic effort for a particular bioregion (Twenty-four listed in the *Manual*)
- \$2,500** Support taxonomic work in a particular family. See the Herbarium web site for an up-to-date, complete list
- \$1,000** Show enthusiasm for your favorite genus (pledge \$200 / 5 years)
- ANNUAL SUPPORT**
- \$500** Contribute to the illustration of a new species
- \$250** Help accession specimens from the backlog
- \$100** Support taxonomic research at the species level
- \$35/\$50** Basic membership in *Friends of the Jepson Herbarium*

SPONSORSHIP OPPORTUNITIES

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Jepson Herbarium Public Programs

The 2004 - 2005 Workshop brochure will be mailed soon. Until you receive your brochure with full workshop descriptions and registration form, here's a sneak preview of upcoming workshops we've planned for you:

2004

Nov 13 - 14: Medicinal Fungi and Herbs
Dec 4 - 5: Plant Evolution

2005

Jan 29 - 30: Photoshop for Botanical Photographers

Other workshop offerings in 2005 will include:

Basic Botany

Plant Morphology and Identification
Fifty Families in the Field
Basics of Botanical Illustration

Flora Trips

Bear Basin Butte
Convict Lake
Eureka Dunes & Inyo Mts.
The Pygmy Forest
Southern Nevada

Taxonomy workshops

Aquatics
Boraginaceae
Compositae
Poaceae
Salix
Seaweeds
Thistles

Plus...a Tree of Life workshop series, an Introduction to Sierran wildflowers and plant communities, Painting Coastal Wildflowers, and Wetland Restoration.

For more information, please contact Cynthia Perrine at the Jepson Herbarium; phone: (510) 643-7008,
email: cperrine@uclink.berkeley.edu. Please visit our Web site at: <http://ucjeps.berkeley.edu/jepwkshp.html>