I’m a geographer by training and inclination, not a botanist. Not even a full-time geographer, my daytime existence is as an administrator. So I was intimidated by leaving my familiar office desk top and signing up for a Jepson workshop deeply embedded in the specialized world of biology – where I would have to know the meaning of obscure words such as “cladistics” and “polyploidy”, or what the taxonomist’s interpretation of “habit” was. I didn’t feel up to the task, but thought I would venture out anyway, and risk suffering the indignity of ignorance.

Behind this was a particular need. As a result of happy circumstance, I was deeply interested in the California Islands – especially the land use history and the rehabilitated prognosis for Santa Cruz Island. I’d come to realize that while the chaparral community was a key element for interpreting the island’s pre-historic and historic past, I was not up to the task of identifying all the plants at which I was looking. Worse, as a former wildland firefighter, I was biased in placing plants into two basic categories: important woody plants with unique fuel characteristics, and herbaceous LTGTs (Little Tiny Green Things) that could be safely called “fine fuels” and thereafter ignored. Even so, I was having trouble using the existing key to manzanitas – which on some substrates, constitute over 70 percent of the canopy of Santa Cruz Island chaparral. For example, the presence of a burl is a critical identification factor, but some young plants didn’t appear to have time to develop burls, and some older plants had root platforms so huge that it was hard to determine if it was a burl or not. In other cases, an ancient Arctostaphylos tomentosa – easily identified by its large burl – lacked some of the other characteristics it was supposed to have – most obviously being not tomentose! Or A. insularis seemed to be growing happily on the wrong substrate! I needed a more botanical understanding of the genus, so I turned to the Jepson workshops for salvation; I was an ideal candidate for the Arctostaphylos weekend at the University of California’s Hastings Reserve in upper Carmel Valley.

When I called to enroll, I was stunned to find that the class was full and had a waiting list of more than ten people. Could it possibly be true that there were more than twenty Arcto-philers in the whole state? Evidently

Continued on page 2
Directors Column: LAM Move, continued from page 1.

there is almost no overlap between
LAM and UC in historical material and,
when we have all the necessary compactor
cabinets, there is adequate space in our
herbarium to integrate all collections
from LAM. Many of the LAM collec-
tions have a California and West Coast
emphasis, and all are from the Pacific
Rim region, thus it would be best to
have them remain physically located in
the West. For all these reasons, a criti-
cal and immediate need was presented
to move the LAM cryptogams to UC
Berkeley, give them proper housing,
preserve them from harm, and make
them available for enhanced research
and teaching programs. The good news
is that all the many necessary approv-
als were obtained, and the majority of
the LAM collection has arrived at UC
Berkeley! At present, we have moved
the algae, lichens, and bryophytes; the
fungi will be sent in stages following
some necessary curation that will take
place in Los Angeles.

True for many good ideas, the
hard work really begins after the con-
vincing is done. Moving the collection
presented a huge, costly endeavor. The
LAM staff were willing to help us to
prepare the collection for shipping
on their end. The generous financial
support of Dr. Paul Silva and Dr. Dan
Norris and oversight of the move made
by Dr. Richard Moe made this move a
reality (read more about the move in
Richard Moe’s personal account found
on page 6 in this issue of the Globe).
All present and future researchers and
appreciators of cryptogams owe a debt
of gratitude to these individuals.
The collection is now scat-
tered about the University and Jepson
Herbaria; the specimens wait in tem-
porary cabinets for a more permanent,
and easy-to-use configuration. The
acquisition is complete but much work
is left to be done. We have submitted
a proposal requesting NSF funds for
compactor carriages and cases, as well
as temporary help to curate damaged,
poorly packaged, or inadequately doc-
umented specimens, and integrate the
collections.

Cryptogams, because of their
small size and lack of roots (thus taking
water in directly over the cell surface),
are superb ecological indicators. They
are also important components of the
ecosystem, forming soil crusts that ret-
ard erosion and serve as seed beds, ep-
phytic communities that trap and store
nutrients and are an important part of
nutrient cycles, and soil communities of
decomposers, pathogens, and symbionts
(including the critically important my-
corrhizal associations with seed plants).
Their distribution is tightly associated
with substrate chemistry, other plants
and animals (e.g., the recent federal at-
tention paid to bryophyte distribution as
an indicator of spotted owl habitat), and
pollution, thus the cryptogam flora of an
area is an important indicator of habi-
tat quality and can be quite predictive
about the level of particular pollutants.
For using cryptogams in this predictive
manner in practical applications, a good
understanding of their systematics and
biogeography is necessary. Protecting
the LAM collections and making them
easily accessible will enhance our
ability to understand the taxa and their
distributions, thus making this informa-
tion available to academic ecologists,
land managers, agency biologists,
environmental consultants, educators,
students, and the general public through
hard-copy publications and the web.

With the UC Herbarium as
the sole remaining major institution
in western North America with strong
research and training programs in cryp-
togamic botany, and already possessing
a large collection of cryptogams (some
430,000 specimens), the LAM collec-
tions will not only be safe, they will be
put to good use. It is clear that the al-
ready strong programs at UC, bolstered
by the important additional collections
from LAM, will make it one of the
major centers of cryptogamic study
in the world, training new generations
of students that can help to redress the
current research imbalance between
cryptogams and seed plants. In par-
ticular, the increased accessibility and
visibility of additional material from
California and the Pacific region will
benefit current studies of biodiversity
and biogeography of bryophytes, fungi,
and seaweeds.

Read more about the move in
Richard Moe’s personal account found
on page 6 in this issue of the Globe.
A year rolled past, and I had made only modest progress in my taxonomic endeavors. Fortunately, another Arctostaphylos workshop was planned for the 2004 workshop season and, this time, I enrolled early. As the weekend approached, I prayed for good weather, copied as many descriptive guides to botanical terms as I could, packed my rain gear, and drove north through the Salinas Valley.

The Hastings Reserve is another of the unique treasures managed by the University of California, dedicated to understanding our natural environment. Approached from the east, the Reserve was easily reached over a beautiful twisty road through the Sierra de Salinas. Strands of lichens in the oaks gave testimony to the good air quality, and gathering clouds presaged the onset that night of much-needed rain. The Reserve buildings ranged from historically funky to a modern teaching lab that could be honestly described as “a clean, well-lighted place.”

At the Reserve, a friendly and efficient check-in and a brief welcome led to a wonderfully hearty dinner. The Jepson crew surprised me with excellent cheese and crackers appetizers, a brilliant homemade soup, and one delicious choice after another. The participants were even more interesting than the dinner, ranging from graduate students to nursery owners, lawyers, curious amateur botanizers, and even entomologist Don Miller, a specialist on gall-forming aphids that had an affinity for manzanitas, a man I knew by reputation from the literature he’d published – it was pleasing to meet him first-hand! What we had was a gathering of like minds from vastly different backgrounds – a table surrounded by what my wife would call “serious FOMs” (friends of manzanitas.)

Our workshop leaders, Mike Vasey and Tom Parker, seemed to be of that indeterminate age somewhere between youthful enthusiasm and field-hardened experience. They loved their topic, yet transcended it in their academic and scientific interests – there is nothing better than perspective with deep insight! We had introductory lectures late into the evening – enough to whet our appetites for the next day’s lab exercises, yet accessible enough to allay any concerns (namely mine) about nomenclature.

We slept well that night, serenaded by a steady rain, leaning towards a lightly pelting sleet before dawn. The kitchen crew prepared another stellar meal to prepare us for heading into the lab on Saturday morning to face 50+ samples of manzanitas. We heard the story of the Ericaceae family and closely related genera within it. It was almost all too easy – I understood nearly everything! It got even better – the leaders began to describe the derivation of the genus in spatial terms and identify the number of species as a distribution from a central coast locus. They knew geography and they were talking my language!

One of our tasks during the lab was to flight-test an ingenious new classification key – one that could be used at almost any time of the year, rather than just when the plants were in flower. Grad students, lawyers, and nursery owners are a wily and opinionated mix, and we seemed to find deep satisfaction in questioning as much of the key as we could. The key was a good prototype, but the relentless assault of the workshop members punched a few holes in it – to everyone’s mutual satisfaction – and sent the leaders off to ponder the development of an even more comprehensive approach. Science is always more exciting when it is still being defined, and this workshop was full of adrenaline. Some able souls continued keying until one or two in the morning, but I had to rest my eyes – blurry after a full day of checking leaf surfaces for stomata, and sizing up the lengths of flower pedicels.

Sunday morning was bright and clear and we drove to one great site after another, dived deep into the undergrowth to test for burls, and peered intently at the flower stalks, the shreddy reddish bark, and the few lingering fruits. From Monterey to Ft. Ord’s backcountry (where they mean it when the signs say, “don’t step off the road”), up to Castroville, and then high into the Gabilan Range. It was great! I started to feel competent about knowing the differences among some of the most complex woody species in California! Some identifying characters were still difficult to discern, but my confidence was growing as I thought about the “Arctostaphylos gestalt.” The other members of the workshop were very skilled, and more than willing to share their knowledge and taxonomic understanding. Best of all, Mike and Tom were always nearby, ready to help – or even impishly mis-direct if you seemed too smug!

A cold and graying afternoon sky shrouded us as we drove south past Fremont Peak. We crossed a private ranch to a granite outcrop with a stand of endemic manzanitas, recently identified by our able leaders as a new species. We were among the first several dozens of people to know the Arctostaphylos “gabilanensis” first-hand! It was a tall, handsome shrub, resplendent in full flower. And there, while scrabbling over the decomposed granite from plant to plant, as the fog building to the west was split by the luminous setting sun, I experienced the feeling that author Diane Smith has her character, A.E. Bartram, express: “It is that moment in a naturalist’s life, and we are all naturalists if we open our eyes, when the curtain lifts around us, and it is good, so good, to be alive.”

Larry is Associate Vice Provost and Director for Instructional Development at UCLA. His research interests include the geography of natural hazards, especially wildfire.
Profile of Layne Huiet

One word describes Layne Huiet's feeling for ferns: passionate. She has always had an attraction to plants. Her grandparents had a 200 acre farm, and she recalls fondly the family garden, pulling weeds, and harvesting vegetables in North Carolina. Her mother, a botany major at Duke University, taught her the names of local trees, which later led to a leaf collection. In high school, Layne's chemistry teacher fostered her interest in science by encouraging her to do an independent study project her senior year. After taking her first undergraduate course in taxonomy at Duke, Layne became a botany major with tentative plans to focus on systematics. In 1975, at the suggestion of Dr. Bob Wilbur, Layne undertook a literature-based senior project to curate the neotropical fern collection in the Duke herbarium. It was there, for the first time, she realized the diversity of tropical ferns, as she handled and sorted specimens from Costa Rica, did filing, packaged loans, and made preliminary identifications. She obtained her BA in botany at Duke, in 1976, but by then her life had already taken a slight turn.

While still at Duke, and a botany major, Layne took a genetics course and fell in love with molecular biology, then in its infancy. This led to a Ph.D. in genetics in 1983 at the University of Georgia, working on an analysis of regulatory genes in the fungal genus Neurospora, a favorite "model organism" for geneticists. After that, Layne was awarded a National Science Foundation Plant Biology Postdoctoral Fellowship and was a Staff Research Associate at the NSF Science and Technology Center at the University of California-Davis.

Her day-job since 1993 has been as a Group Leader at Bio-Rad Laboratories, in Hercules. There, she participates in the development of consumables and equipment for companies and universities doing molecular biology, genetic engineering, and other kinds of research involving DNA-sequencing and biotechnology. Occasionally, she ventures to meetings to talk about a particular product. For the last three years, in her "spare time," she has volunteered one afternoon a week working in the University Herbarium at UC Berkeley. Most of this volunteerism occurs in the fern herbarium, under the curatorship of Dr. Alan Smith, pteridologist in the herbarium since 1969. Alan is effusive in his praise of Layne, "she is the best volunteer anyone could hope for — responsible, knowledgeable, enthusiastic, and independent, but unafraid to ask questions when she is unsure what should be done or when she has a burning question."

After a year or more doing what some (but not Layne) might regard as mundane filing, loan-pulling, and other curatorial tasks, Alan suggested that she undertake a research project that would build on her biotechnological expertise and love of ferns. A decision was made to pursue a phylogenetic analysis (a study of the genealogical relationships) of the maidenhair fern genus Adiantum, comprising about 200 species worldwide. This choice has proven to be a good one because of the apparent monophyly (origin from a single common ancestor) of Adiantum, the complexity and need for clarification of the genus, the availability of material for DNA-sequencing (many of the species are cultivated), and the attractiveness of maidenhair ferns. As a result of this work, Layne has been able to resolve about nine monophyletic subgroups within Adiantum, groups that will ultimately establish a solid framework for further systematic studies. Layne has identified and been able to redefine, for the first time, a large closely related group of species in neotropical lowlands. Likewise, other groups appear to have radiated in specific regions of the world, for example, at least two groups in Southeast Asia and the Himalayan region. The biogeographical and evolutionary implications of these findings are sure to be illuminating. The boundaries of some of the maidenhair subgroups transcend limits previously predicted on the basis of traditional morphological characters, for example, blade dissection patterns are not necessarily a good indicator of relationships. The intimate relationships between Californian Adiantum aleuticum (five-finger fern) and A. jordanii (California maiden-hair), the former with pedate blades, the latter with pinnate blades, is a good example of very different-appearing species being closely related. In this case, they are apparently sister species (more closely related to each other than to any other species of Adiantum). The relationships of Adiantum to other fern genera is also proving to be fascinating and somewhat unexpected.

As an initial step toward making her results known to the scientific community, Layne recently presented preliminary results of her work at an international fern conference in Edinburgh, Scotland, and again at the annual meeting of the Botanical Society of America and the American Fern Society, in Utah. She has applied for and obtained a grant from the Heckard Fund of the Jepson Herbarium to investigate populational variation.
and a unique insertion/deletion in the chloroplast \textit{rps4-trnL} spacer region (more rapidly evolving than some other regions) in the subcosmopolitan species, \textit{Adiantum capillus-veneris}, also a California native. Ultimately, her studies are expected to yield significant and ground-breaking papers in botanical journals.

Layne’s hobbies are gardening, travel, following the local sporting teams, and now doing cutting-edge phylogenetic work on ferns. She has participated in many Jepson Herbarium workshops, including Compositae (sunflower family), alpine flora, Siskiyou mountain flora, and, of course, all of the workshops dealing with ferns. Two of the more memorable ones were 10-day trips to Costa Rica and later to Ecuador, where she gained knowledge of tropical fern genera. She lives in Davis with her pet rabbit, tends her garden (supplying friends with delicious tomatoes, peppers, and peaches), and spends an inordinate amount of time thinking about ferns. Other projects and services to the botanical community include reorganization of the fern herbarium at Davis (assisting Dr. Ellen Dean, the curator), helping Dr. Grady Webster with problems associated with the ferns of Maquipucuna, Ecuador, and serving as Secretary of the Board for the Davis Botanical Society.

Layne has traveled widely, to Costa Rica, Ecuador, New Zealand, Japan (she used to read a little Japanese, she says), Europe, and Fiji, and she lived in Australia for 4 years. She has a recurring dream of traveling to Papua New Guinea and Mt. Kinabalu, Malaysia... to collect ferns, what else?

**New Book on Ferns Available:**

\begin{center}
\textit{The Pteridophytes of Mexico}
\end{center}

by John T. Mickel and Alan R. Smith

The scientific name, its author, and literature citation are provided for each species and information about the nomenclatural type and pertinent synonymy is also included. Each account includes a geographical distribution and listing of at least one specimen examined for each state where the taxon has been collected. The occurrence of each species in each state is depicted on maps and additional pertinent information is included in a paragraph about the species. A “Literature” section is included citing bibliographic references to principal works and the last part of the book is an index to the scientific names. All-in-all, a very nice and complete work. The user should have a basic knowledge of fern structure as a glossary is not provided. With the volume measuring 11.75 by 8.25 inches, 2.75 inches thick and weighing in at 6 pounds, it’s easy to see why they skipped the glossary and included such fine keys, descriptions, and illustrations.

Alan R. Smith, co-author and Research Botanist in the University Herbarium, has been working on this project for ten years. His first collecting trip in Mexico was in 1969 when he accompanied his co-author, John T. Mickel. Mickel has studied Mexican pteridophytes since the 1950’s, becoming interested in the region as a graduate student at the University of Michigan. The two have been back numerous times to collect, research, and study ferns in the field and in herbaria within the United States and Mexico.

Changes in Araceae and Lemnaceae
by Thomas J. Rosatti, Scientific Editor for TJM

Research that has been conducted since publication of The Jepson Manual has lead to many changes – of several different kinds and in many different groups – that have made a second edition of The Jepson Manual (TJM2) necessary. The following is a summary of such changes for the Araceae (Arum Family) and Lemnaceae (Duckweed Family).

For TJM2, the Araceae has been re-defined to exclude Acorus (Sweet Flag), which has been placed in its own family, the Acoraceae. Conversely, the Araceae has been expanded to encompass the Lemnaceae, including very reduced, floating aquatics in the genera Lemma, Spirodela, Wolffia, and Wolffietia. On a finer taxonomic scale, Spirodela punctata has been segregated as the only member of its own genus, Lemnocalyx, and now is known as L. punctata. Such changes have been based on evidence from morphology, chemistry, and molecular biology (DNA).

In addition to these taxonomic changes, a number of species in the Araceae will be or may be (pending additional research) included in TJM2 as naturalized aliens, including Arum palaezinum, Dracunculus vulgaris, and Pinellia ternata. On the other hand, since TJM, the naturalization in California of other species, including Petalandra virginica and Pistia stratiotes, has been brought into question but as yet remains unresolved. Finally, for nomenclatural reasons, Lemma minuscula is now known as Lemma minuta.

Other groups of California plants have undergone similar changes, to greater or lesser degrees. These will be discussed in future issues of The Jepson Globe.

This is the first installment of our new column that shares progress and updates from the Jepson Flora Project. See the Curator’s Column in Volume 15, Number 2, September 2004 issue of The Jepson Globe for more information. We welcome your questions to address in future columns.

LAM Move: A First-hand Account
by Richard Moe

The LAM cryptogam collection consists of specimens mounted in a variety of ways. Most of the algae were mounted on herbarium sheets, but some (mostly crustose algae that were growing on rocks) were stored in small cardboard boxes. The mosses were glued to folded cards and stored in oversize file cabinets or stored in packets, with the packets being consolidated in wooden boxes that fit two-across on a case shelf. The lichens were in packets or small boxes stored in cardboard trays. The algae specimens stored in alcohol were left for later.

The specimens were housed mostly in full-size standard herbarium cases with three double cases – very heavy and awkward. The cases themselves were stored at two locations in Los Angeles: In the LAM first floor lab of Don Reynolds and in the hallways on the first and third floors, and on the second floor of a warehouse a mile from the museum. The warehouse cases needed to be moved by forklift, and the LAM staff did this the week leading up to and the morning of the move. Chief Registrar Vicki Gambill handled these logistics. A floor dolly was used to move the cases, on their sides, out of the museum and into the herbarium. Don Reynolds and Helena Bowman of the LAM Botany Department and I secured the specimens tightly in their cases with cardboard and newspaper.

The day before the move was the first big rainstorm of the year and the morning outlook looked bad. Fortunately, the skies cleared long enough to load the van for transport. The movers, Nor-Cal Moving, were the same people who moved UC and Jepson Herbaria from the old Life Sciences Building to the Marchant Building and back to the renovated Valley Life Sciences Building. Their experience showed – the specimens arrived safely, the cabinets were undamaged, and the walls and objects in the Herbarium were left unscathed. Good work!
On behalf of the Jepson Herbarium, Brent Mishler and Bruce Baldwin have signed a Memorandum of Agreement with UC Press regarding production of the Second Edition of *The Jepson Manual*.

The agreement was signed after many months of negotiating and both the Herbarium and UC Press will benefit from the effort to produce an equitable agreement.

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**Holiday Gift Ideas**

**Gift Certificates:**
For Jepson Weekend Workshops $35 - $450
Membership to *Friends of the Jepson Herbarium*, $35 or $50

**Mugs:**
Cobalt Blue with Gold Jepson Logo & “The Jepson Herbarium” on the back - $5 each

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Navy Blue with Gold Jepson or University Herbaria logo on the back and front lapel area, S/M/L/XL/XXL - $15
“Oatmeal” off-white with Blue Jepson or University Herbaria logo on the back and front lapel area, S/M/L/XL/XXL - $15

**Books:**
*Trees of California* by Willis Linn Jepson - $100
*A Flora of California* (4 vols.) by Willis Linn Jepson - $50

For more information or to order, please call us at (510)643-7008

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**Save the Date**

In October 2005, the Herbarium will hold an open house, festive party, and auction to support the Jepson Flora Project and the production of the Second Edition of *The Jepson Manual*.

Do you own a restaurant, grow exotic plants, paint wildflowers, or have season tickets to cultural or sporting events? We are seeking donations of goods and/or services to be offered during our silent and live auctions. Because our *Friends* are located all over California, we don’t have any geographic restrictions on where events take place.

For more information or to donate an item for the auction, contact Staci Markos 
(510) 643-7008, smarkos@socrates.berkeley.edu.

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**The Jepson Herbarium Projects & Resources**

**The Jepson Flora Project**
Second Edition of *The Jepson Manual*
Online Interchange for Advances in California Florisites
*Jepson Desert Manual*
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
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I have matured from a fancier of plants to one who wants to devote my life to their preservation in their native habitats. For this we need, among other things, knowledge about what it is we are trying to save. The Jepson Herbarium is doing crucial work in laying this knowledge base and I want to help it.

_Eriogonum_, perhaps more than any other genus, provided the inspiration for me to dig deeper into my wallet than I might otherwise have done (_Astragalus_ was my close second). As a gardener, and one who encourages people to garden with local native plants, I emphasize plants that are attractive to wildlife, are interesting and beautiful, are easy to grow, and are tough. _Eriogonum_. There are so many species growing in every part of the state and in most habitats, and they all fit this description. - Jake Sigg

Kate Mawdsley & Bill McCoy

_Parnassia_

Why _Parnassia_ in memory of Patrick Elvander? It’s a tale with several twists, and a Jepson Herbarium tie-in. Lots of people have favorite families and genera; I’ve long been attracted to the delicate beauty of the saxifrages and the lovely habitats where so many of them are found. So it was a great pleasure to take the Jepson Herbarium class on Saxifragaceae, taught by Patrick Elvander, who had written the treatment for _The Jepson Manual_. And Patrick, who has since died much too young, was also the only Jepson instructor I knew in another context. We’d met several years before the class, at the reference desk at UCSC, where he taught and I was visiting. Both of us arrived there to talk with a mutual friend, and it turned out we all shared active participation in our respective campus chapters of Phi Beta Kappa, the national liberal arts and sciences honorary society. PBK’s motto is _Ad astra per aspera_, “to the stars by hard work,” more or less. The stars, the heights, Parnassus... _Parnassia_, that gloriously star-like member of the saxifrage family. (What a great story...let’s not be dissuaded by the fact that _Parnassia_ has been removed from the family in the latest phylogenetic research!) - Kate Mawdsley

Samantha Hillaire & Brian Elliott

_Cryptantha_

I studied the life history of the rare plant _Cryptantha crinita_ for my Master’s degree at CSU Chico. I was particularly attracted to this genus because few people knew much about it. If a genus NEEDED sponsoring, it has to be _Cryptantha_. Brian Elliott got involved with _Cryptantha_ when he and I worked together in the Plumas National Forest. At that time, Brian was also surveying trails in the Ishi Wilderness for the Lassen National Forest. Looking through borage vouchers that he collected from the Ishi, I found a sheet of _Cryptantha crinita_ — I was astonished because the elevation was “too high” and the habitat was “not right.” This led to a foray into the Ishi to verify the locality and search for additional occurrences. We’ve since decided to write a flora of the 41,000 acre Ishi Wilderness. The debate over who really discovered the _Cryptantha crinita_ in the Ishi continues to this day — we’ve never come to a consensus. As a compromise, we decided to both lay claim to it by splitting the sponsorship in the Second Edition of _The Jepson Manual_. - Samantha Hillaire
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$10,000 Support taxonomic efforts in an organizing unit of the Manual:

- Ferns, Gymnosperms, Dicots, or Monocots
- Support floristic effort for a particular bioregion (Twenty-four listed in the Manual)
- Support taxonomic work in a particular family
- See the Herbarium web site for an up-to-date complete list
- Show enthusiasm for your favorite genus (pledge $200 / 5 years)

**Annual Support**

- $500 Contribute to the illustration of a new species
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- $35/$50 Basic membership in on a first-come, first-served basis.
- With approval from the donor, gifts at the $1,000 level and above will be acknowledged in the front pages of *The Jepson Manual*. Gifts may be made as one-time payments or as a pledge, payable over 5 years.
Jepson Herbarium Public Programs

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<tr>
<td>Photoshop</td>
<td>Otay Mesa &amp; Otay Mountain</td>
<td>Pygmy Forest &amp; Redwoods</td>
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<td>January 29 - 30</td>
<td>April 21 - 24</td>
<td>June 3 - 5</td>
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<td>Ferns &amp; Flowering Plants</td>
<td>Wetland Restoration Techniques</td>
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<td>April 23</td>
<td>June 17 - 19</td>
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<td>Painting Coastal Wildflowers</td>
<td>Thistles</td>
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<td>April 28 - May 1</td>
<td>June 25 - 26</td>
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<th>February 2005</th>
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<th>August 2005</th>
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<td>Archaea Diversity</td>
<td>Boraginaceae</td>
<td>Aquatics</td>
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<td>August 20 - 21</td>
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<td>What Happened to “Plants”?</td>
<td>May 7 - 8 &amp; May 14 - 15</td>
<td>Compositae</td>
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<td>Eureka Dunes &amp; Inyos</td>
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<td>Spring Mountains II</td>
<td>Bear Basin Butte</td>
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<td>June 2 - 5</td>
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<td>July 15 - 17 &amp; July 19 - 21</td>
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<td>April 2 - 3 &amp; April 9 - 10</td>
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For more information, please contact Cynthia Perrine at the Jepson Herbarium; phone: (510) 643-7008, email: cperrine@berkeley.edu. Please visit our Web site at: http://ucjeps.berkeley.edu/jepwkshp.html