



# LASTHENIA

NEWSLETTER OF THE DAVIS HERBARIA SOCIETY / NUMBER 13 / FALL 1998

## **Society Profile: Kate Mawdsley**

Since before my arrival in 1995, Kate Mawdsley has been one of the herbarium's most trusted and productive volunteers. She has been President of the Davis Herbaria Society (1994-95) and Editor of *Lasthenia* (1996-present), and she has involved herself in most other aspects of the society including updating our membership database, planning and leading field trips, helping run our events, and sending out our mailings. She has also been involved in helping with routine herbarium duties such as processing specimens, identifying plants brought in for identification, and filing specimens.

Over the past three years, Kate has taken on several special projects in the herbarium. Except for one, these were all projects that she identified, and they are illustrative of the types of projects that volunteers can do in the herbarium.

First, despite her protests, I suggested that she curate Beecher Crampton's father's collections, collected outside of Kankakee, Illinois during the years 1913-1915. This first involved labeling the collections and matching them with identifications done by the Smithsonian Institution botanists. However there were a "few" (not more than 50, right Kate?) specimens lacking identifications, and I encouraged her to expand her horizons and identify these herself, which she has done with alacrity.

Another special project in which Kate took part, because she

saw how much she was needed, was our grass curation project. From January to March of 1998, we were all working continuously on looking



Kate Mawdsley with DHS print.

up the synonymy of all the names of specimens in our grass collection. Kate stepped right in as a synonymy expert extraordinaire, and we formed an assembly line; Kate and I looked up synonymy and generated annotation labels, and the graduate students sorted and foldered the specimens. Without Kate's help (both as a morale booster and real intelligent help), I don't know that we would have finished the project on time. She says that the work helped familiarize her with many of our local grass genera, but she is disappointed that she can't sight identify them all to species. I wouldn't worry about it, Kate.

The third special project that Kate completed (with the help of her husband, Bill McCoy) was the reorganization and databasing of our library. This was a huge project, in which I participated very little. The result has been a wonderful increase in the accessibility of our books as well as

the removal of duplicate volumes, which we have sold at our open-houses. And last, but not least, the most recent project that Kate has worked on is the revision of the Stebbins Cold Canyon Reserve checklist of vascular plants. This project, which is described elsewhere in this issue, will be a terrific contribution to our knowledge of our local flora, and will be well used.

During her earlier campus career, Kate was involved in a myriad of activities, both on this campus and elsewhere. She came to UC Davis in 1965 and worked at the General Library until her retirement in 1993. Her positions included Head of Documents and Assistant/Associate University Librarian for Public Services. During this time, she was very active in the American Library Association, the Librarians Association of the University of California, and the

Continued on page 10.

## **Inside**

<i>DIRECTOR'S CORNER</i>	<b>2</b>
<i>BOTANICAL EXPLORATIONS</i>	<b>3</b>
<i>SOCIETY NEWS</i>	<b>4</b>
<i>FALL PROGRAM</i>	<b>4</b>
<i>CALOCHORTUS TRIP</i>	<b>5</b>
<i>YOLO COUNTY BOOKSHELVES</i>	<b>7</b>



## Director's Corner

Things have quieted down a bit in the herbarium, compared to last winter and spring. As the grasses are all secure now in room 292, we can give our attention to other curatorial projects. We have thousands of specimens to be sent out "on exchange" (we send our extra specimens to other herbaria in exchange for their extra specimens). This includes John Tucker's oak collections, student collections from the past 20 years, and Grady Webster's Ecuadorian collections. Les Gottlieb has come to the end of his *Stephanomeria* studies for the Flora of North America project, and his 8,000 specimen loan requires our attention. In addition, we will soon begin the integration of the Leiser Horticultural collection.

**Staff:** To help us with our curatorial needs, we have made "a few" new hires. Yoshiko Kinmonth is continuing with us as a mounter, and we have recently hired eight student mounters: Kaman Sit, Maria Benitez, Danielle Bradley, Nazomi Watanabe, Stella Yiu, Lander Cai, Nicole Jones, and Melanie Gogol-Prokurat; Maria, Nazomi, and Nicole have all worked for us previously, and we are fortunate to have them back. In addition, Margaret Sidells is continuing with us as a label-maker in the Crampton project, a position she began this past summer (as described elsewhere in this issue), and Monica Bally-Urban has joined us as an assistant to complete the Tucker oak project.

**Volunteers and Interns:** Volunteers Kate Mawdsley and Cole Hawkins have come into the herbarium regularly to help us with various curatorial tasks. Kate has finished the identification of our unmounted C.C. Crampton specimens collected during 1913-1915

in Illinois and surrounding states. To help her with this task, she used *The Illustrated Companion to Gleason and Cronquist's Manual*, a volume of illustrations of plants from the northeastern United States. This volume was just bought by the Davis Herbaria Society for the herbarium library and has already been well used. Cole is helping us with curation of our type collection and our fruit and cone collection as well as other tasks such as interleaving loan specimens, packing specimens for shipment, label-making, and freezing specimens. We had the help of one student intern over the summer—Colette Yan. Colette was introduced to all as-

pects of collection management, and we very much appreciated her help.

In addition to these three herbarium interns, we have had ongoing support from Davis Herbaria Society members who have helped us with our mailings (Larry Mitich, Brian Smith, Kate Mawdsley, Cole Hawkins, and Elizabeth Bishay), field trip planning (June McCaskill and Susie Armstrong), open house preparations (Amida Wahl, Debbie Elliott-Fisk, Kate Mawdsley, Mandy Tu, Larry Mitich, Charlotte Mitich, Grady Webster, and Tim Metcalf) and membership paperwork (Larry

Continued on page 10.

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Assistant Curator: Jean Shepard

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## Botanical Explorations

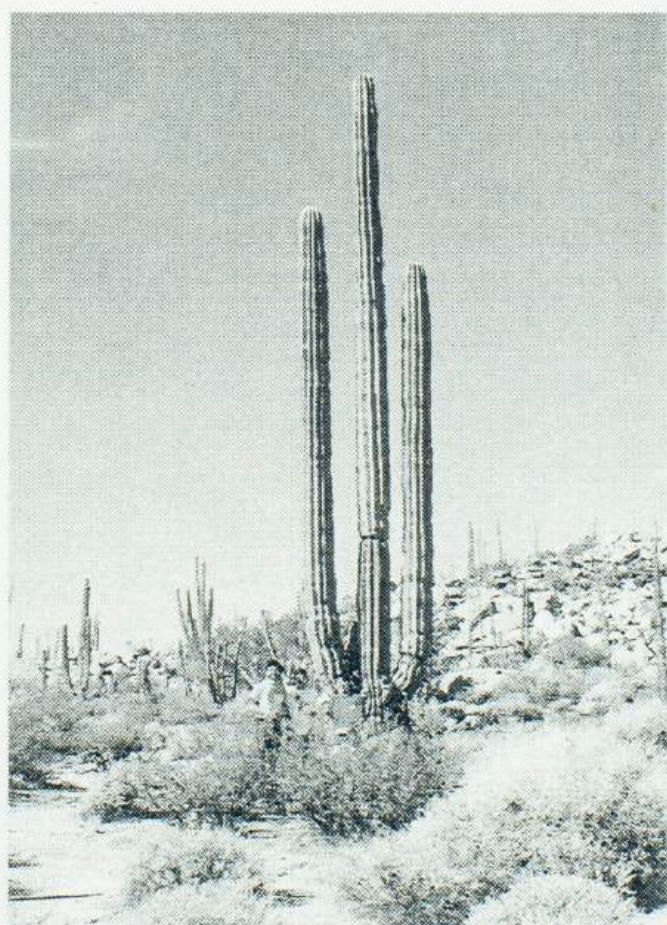
*Editor's Note: Jon Price, a doctoral student in the Geography Graduate Group, provided this condensed and highly atmospheric vignette from the Botany Club's March 1998 trip to Baja California. Jon also described the trip, with wonderful slides, at the Spring DHS program. We thank him for both contributions.*

### Something in Baja

A *Cardonal* is something else. It is the kind of something else that causes us to question the trust we have in our own memories, and yet there it was: a forest of colossal emerald columns adorned by a menagerie of equally improbable forms. The thick scrub lining the strip of cobbles and sand (that we were quixotic enough to call a "road") scratched at the vans as if devouring them. We were one thousand "road" miles from home in an obscure canyon in the Sierra San Borja. This was an impromptu sub-plot in an otherwise stringently planned spring break trip to Baja California. Up to that point, plans had only presented us with countless hours playing quiz games on the CB system to assuage our increasingly rain-soaked claustrophobia. Deviating from our plans seemed sensible.

On our first genuinely sun-soaked day, we couldn't help but feel like the ceiling had been removed—only we discovered that we traded a gray one for a green one. We all caught ourselves looking up at the desert, probably because that was where we expected it not to be. The portly and rigid Cardon cacti towered over us with their more limber accomplices, the Boojums. After strolling for a bit observing the Boojums' various yoga-like contortions, we decided to see where we were. This didn't quite work, since the undergrowth was so dense as to remove the vans from sight. This wasn't a desert, it was a jungle. Smaller species of cacti, like the thick and bristly

Barrel cactus sported lavish floral arrangements at their crowns. The thin and bristly Ocotillo (the Boojum's little show-off of a cousin) was emblazoned with dazzling scarlet tassels. Even the otherwise modest *Calliandra* shrubs showed off their crimson pompons. The chubby-trunked elephant trees completed the conspiracy, blocking our way with their gnarled branches. To maneuver such a thicket, we needed to look at the ground. Trouble again. While not bristly at all, a carpet of wildflowers can impede a botanist's walk simply by looking too lovely and fragile. Such Californian standards as poppies, owl's clover, and tidy tips made strange company for desert denizens like sand verbena and desert lilies. We realized we were trapped. After some yelling and honking we all converged on the vans again to proceed toward our goal for the day.



Cardon cactus loom over 1994 Botany Club trip participants.

With a concentration of plants of all sizes it was easy to forget that we were, in fact, in a canyon. This wasn't clear until we entered the shadow of smooth maroon cliffs which contrasted with both the color and texture of this desert-jungle. The cliffs' shadow made us realize the value of shady places, but we were apparently not the first to notice this.

After all, some hundreds of years ago, someone felt the same way, stayed awhile, and left their mark. Their mark was what we had come to see. On that rock was painted the entire history of a culture. Or maybe it was just the graffiti of countless lazy afternoons. One wonders which parts of our culture will persist. Spam cans? Twinkies? What was comforting about those paintings was being able to identify with the painters despite how long ago or different their culture was from ours. They painted things we might have. Sea turtles. Wildflowers. Human figures with multi-colored appendages coming out of their heads. Well, maybe our identification with their symbolism went only so far. What is important here is that they recorded their experiences in the desert, giving us a sense of both continuity with the past and permanence of this place. And yet, there was a juxtaposed sense of urgency.

In a month this extraordinary desert bloom would be scorched away, awaiting its next incarnation maybe a decade from now. This hurried us back to the plants. Decadent vines like the endemic *Galvezia juncea* and the bizarre *Cardiospermum* draped through the branches of care-free cat's claw acacias at the peculiar haven created at the base of the cliffs. Edging along the cliff base revealed a more subdued side to the rock formation, allowing us access to the top. Hopping up through a zany garden of bonsaied Boojums, we gradually approached the top of the cliffs.

What spread out before us possessed an eerie sort of totality. Standing in the mangroves at Bahia de los Angeles was *something*. Seeing bromeliads festooning cacti and ocotillos (in the middle of what can only be described as the desert) was probably *something*. Meandering through the blue fan palm oases at Cataviña, that especially was *something*. But this was a *Cardonal* and it was *something else*.

J.P. Price



## Society News

### *Recurated grass collections, Speaker combine for expanded fall program*

A definite spirit of celebration pervaded the Oct. 8 open house sponsored by the Herbaria Society to show off the new location for the Herbarium's grass collections. The new room, 292 Robbins, is spacious beyond the recent experience of Herbarium users; and the 34 new cases hold the consolidated Crampton and Tucker grasses completely updated to current names, refolded, and frozen before final filing to avoid introducing insect infestation.

In brief remarks Dir. Ellen Dean acknowledged the work of graduate students Esteban Bortiri and Monica Bueno, who were funded by the NSF grant during winter and spring quarters to sort, label, folder, and file the 40,000 sheets. Assistant Curator Jean Shepard managed the prodigious task of keeping track of freezing. Dr. Dean presented a framed botanical print to Kate Mawdsley, who volunteered during winter quarter to identify synonymy and prepare annotation labels using the database program developed by Tom Starbuck.

A number of current and former faculty from the Agronomy and Range Science Department, former home of the Crampton grasses, attended and shared colleague Beecher Crampton's pleasure and satisfaction at the increased accessibility for research of the notable collections.



Endemic bush mallow (*Lavatera occidentalis*).

Reid Moran's deadpan humor as he recounted experiences over forty years of botanical exploration of Guadalupe Island was an entertaining, as well as informative, conclusion to the events. Moran, formerly with the San Diego Museum of Natural History, is the author of *The Flora of Guadalupe Island, Mexico*, published by the California Academy of Sciences in 1996. He is profoundly familiar with the botanical history of the volcanic oceanic island 250 miles southwest of San Diego and with its history of land use and misuse. He wove that history into a slide tour of the island as an intrepid visitor might encounter it. He vividly documented his report on the present desperate need for protection for the island, now virtually denuded by goats. Slides, both older and recent, illustrated his themes and showed the literally cliff-hanging strategies by which some endemic species persist.

The July 1998 issue of *Fremontia*, published by the California Native Plant Society, contains an article by Moran on "Guadalupe Island and its flora" which will give readers who missed the talk its substance and flavor—and even some of the good throwaway lines, e.g., "the largest island of its size in the world."

K.F. Mawdsley

### *Conservatories cooperate to conserve Indonesian flora*

Beginning in June 1997, the Botanical Conservatory has been working closely with the Ethnobotanical Conservation Organization for South East Asia (ECO-SEA), a Davis non-profit headed by a UCD alumna. Jeanine Pfeiffer, the director of ECO-SEA (and its predecessor organization, the Indonesian Network for Plant Conservation - USA Branch), approached Tim Metcalf in the Spring 1997 with the proposal that the Conservatory and ECO-SEA share an internship which would be mutually beneficial to both organizations, and provide the intern with

valuable experience in hands-on plant conservation at the greenhouses combined with educational and interpretive work at ECO-SEA. The first year's salary for the internship was donated by Jeanine to the Conservatory with the understanding that the two organizations would work together to raise the salary in successive years from alternative sources.

The first person to occupy the split appointment was Christina McWhorter, a UC Davis sophomore, who divided her time among maintenance tasks at the Conservatory greenhouses, developing and presenting educational exhibits on plant conservation, and working on a special project to identify and document the Southeast Asian collections at the Conservatory in a special database. Christina coordinated Rainforest Treks for Open House and Picnic Day at the Conservatory, where visitors followed ethnobotanical clues in an informative brochure to locate plants of Southeast Asian origin in the collections. She also managed an educational booth on plant conservation at the 1998 Whole Earth Festival jointly assembled by ECO-SEA and the Conservatory.

ECO-SEA and the Botanical Conservatory culminated their first year of collaboration with a Dinner in the Rainforest celebration and fundraiser, held inside the middle greenhouse of the conservatory. Guests arriving for the reception experimented with Indonesian mixed drinks (unique combinations of cubed fruits, vegetables and syrups) and met with the guest of honor, Mr. Ida Bagus Ketut Arinasa, Director of the Eka Karya Bali Botanic Gardens in the highlands of Bali, Indonesia. Dinner guests were treated to a lavish six-course dinner which included traditional home-cooked Southeast Asian foods and exotic fruits such as durian, jackfruit, longan and rambutan. Over a dozen Conservatory and ECO-SEA staff volunteered their time to put on the event.

Funds raised at the Rainforest Dinner were sufficient to provide one quarter of support for the 25% joint internship. The appointment will be



split between two persons: Melissa Kauffman will continue Christina's database work by performing the last phase of the conservation audit as she compares the listing of Southeast Asian plants in the Conservatory with the IUCN Red Data List of threatened plants for the region. Arienne Rand will be developing an ethnobotanical interpretive kit for use with visitors to the Conservatory focusing on the medicinal and ceremonial use, folklore and plant products derived from Southeast Asian plants housed in the Conservatory. Tim and Jeanine will continue to seek additional funding for the remainder of the academic year to support the internship, and hope to extend the collaboration for many years to come. Readers interested in further information about the program or in contributing to it may contact Tim Metcalf at the Botanical Conservatories, (530) 752-0569.

J. Pfeiffer

### ***Calochortus*, companions delight spring field trippers**

The intense and extended blooming season caused by El Niño rains provided glorious vistas for the DHS members who travelled to Marin County in mid-May in search of star tulips and other representatives of the genus *Calochortus*. The delayed season also resulted in the day's only disappointment: the Tiburon mariposa lily, found only on Ring Mountain, had not yet begun to bloom. Brian Smith found its large strappy leaves and fat buds, but none of the pale chartreuse and burgundy blossoms were spotted.

The route for the foray was a variation of one used by Prof. Peggy Fiedler of San Francisco State University, who had presented a slide program for DHS members only days before. Professor Fiedler, a lily expert who has prepared *Calochortus* treatments for several current floras, taught a class in the genus for the Jepson Herbarium two years ago.

The route took us first to a meadow near Lake Lagunitas off the Fairfax-Bolinas Road in the Marin Municipal Water District watershed. There we found large-flowered star-tulip (*Calochortus uniflorus*), blooming with white hyacinth (*Triteleia hyacinthina*), blue-eyed grass (*Sisyrinchium bellum*), death camas (*Zigadenus venenosus*), and iris-leaved rush (*Juncus xiphoides*). Dicots included buttercups and clovers and madrone (*Arbutus menziesii*), among others.



*Calochortus luteus*

Continuing along Fairfax-Bolinas Road we reached Carson Ridge, where Oakland star-tulip (*Calochortus umbellatus*) was blooming in serpentine chaparral with chamise (*Adenostoma fasciculata*), yerba santa (*Eriodictyon californicum*), soap plant (*Chlorogalum pomeridianum*), and many of the familiar spring forbs. Nearby we found protection from a bracing breeze at the foot of a sunny slope for lunch before going on to the Ring Mountain preserve transferred several years ago from The Nature Conservancy to a Marin land trust. Here dozens of species of forbs were abloom amid extensive and robust stands of purple needlegrass (*Nassella pulchra*). Although we missed the endemic Tiburon mariposa lily in bloom, the heavy rains had produced a marvelous "riot of color" to console and beguile us.

Our last stop, at Old St. Hilary's Church in Tiburon, was brief, since the serpentine endemics for which the spot is best known were not in flower. We did, however, "bag" the last *Calochortus* of the day, the golden nugget (*Calochortus*

*luteus*) which was also blooming by the thousands at Jepson Prairie and elsewhere nearer home. *Phacelia imbricata* and *Calycadenia multiglandulosa* were among the other showy species at the site, which is now a botanical reserve.

Our appetite for floral beauty slaked, we attended to other thirsts in downtown Tiburon (adjacent to a florist, no less) and returned to Davis in late afternoon. It was pleasant to realize that all the sites we had visited are in protected status. For return trips to catch the species we'd missed or revisit ones we'd seen, we could rely on the thought that "there's always next year." Driving directions for the sites visited are available at the Herbarium.

K.F. Mawdsley

### **Center for Biosystematics/Herbarium host visit by Lucinda McDade**

Dr. Lucinda McDade, Director of the University of Arizona, Tucson, Herbarium, visited the UC Davis Herbarium in May. Her visit was sponsored by the Center for Biosystematics, a campus organization that supports systematic studies on campus, and her campus host was the UC Davis Herbarium (Ellen Dean organized her visit). Dr. McDade is an expert on the Acanthaceae, a mostly tropical plant family - a cousin to the more temperate snapdragon family (Scrophulariaceae). She also has an interest in hybridization in plants, especially the detection of hybrids in nature and the potential effects of hybrids on cladistic analyses. While she was here, Dr. McDade gave a seminar and led a discussion group on hybridization in plants, both of which were well attended. She also examined and annotated our collection of Acanthaceae. We thank Lynn Kimsey and the Center for Biosystematics for making this visit possible.

E.A. Dean



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### **Outreach activities seek to spread the word**

Think back—do you remember when you learned what a herbarium is and what its staff does? A great many people still don't know, but two recent activities by Herbarium student staff and volunteers helped reduce the number. Rob Molholm and Margaret Sidells took a demonstration of basic plant pressing and mounting techniques to the Vacaville Museum's Willis Linn Jepson Birthday Party in August. The event is an annual feature at the Museum, which includes a display about Vacaville's eminent native son among its permanent exhibits. Our team was enthusiastically invited to return next year.

Volunteer Kate Mawdsley provided an orientation to Herbarium resources for Sacramento area middle and high school science teachers who came to the campus in August. The teachers were learning about campus resources through a UC Davis program cooperating with selected schools in nearby districts which have been underrepresented in UC enrollment. Our specimens, even of very common local plants, seemed quite exotic to the visitors, but the ready reference books on toxic and poisonous plants were of considerable interest.

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### **Herbarium Base for Reserve Plant List Revision**

The Herbarium is currently serving as the base for a project to revise the checklist of the flora of Stebbins Cold Canyon Reserve, one of the campus' closest and most heavily used reserves. Located in the inner Coast Range just east of Monticello Dam and Lake Berryessa, the 576 acre reserve was purchased by the University in 1979 to protect its oak savanna, chaparral and riparian habitats. The reserve is, of course, named to honor G. Ledyard Stebbins, eminent plant geneticist and Profes-

sor Emeritus of Genetics at UC Davis, and is one of six reserves the campus manages for the UC Natural Reserve System.

Shortly after the Reserve was acquired, baseline data for flora, vertebrates and invertebrates were compiled with the cooperation of faculty and graduate students on campus and published as *Flora and Fauna of the Stebbins Cold Canyon Reserve*, 1985, (Institute of Ecology Publication no. 29). Grady Webster and Ledyard Stebbins were major contributors to the Annotated Catalogue of the Vascular Flora, which was prepared by John King, then a graduate student in Botany. King reviewed specimens in the herbaria at Davis and CSU Sacramento, as well as a published flora of the Vaca Mountains. UC Davis plant scientists continue to visit the reserve and have reported and collected additional species.

The current project is being carried out by volunteer Kate Mawdsley, whose original intent was to update the synonymy to reflect the many changes made in the 1993 *Jepson Manual* and include the list of species of Fabaceae omitted in final editing of the original publication. As a result of serendipitous consultation in the Herbarium in its early stages, the project has expanded to add over 30 new species. Some of these species were in an annotated copy of the plant list maintained in the Herbarium collections. Others were reported by Prof. Marcel Rejmanek and Fred Hrusa, among the most productive local collectors. Julia Curlette, a recent undergraduate student, collected at Stebbins in the spring of 1993, and her specimens vouchered a number of previously reported species and added at least 7. My visits to the Reserve throughout 1998 have provided additional vouchers and a comparable number of species not previously listed, as well as phenology records and similar data.

Finally, the North American folders of the herbarium were quickly scanned to identify specimens collected within the boundaries

of the Reserve and the contiguous slopes for transfer to the cabinet housing Stebbins vouchers and for addition to the list if new.

All this data now awaits entry, a good project for the winter rainy season. Current plans are to produce a popular checklist with botanical and common names and location and flowering information, to be available for use by classes and the many spring visitors to the Reserve. Fred Hrusa has offered to prepare a dichotomous key, which will certainly be welcomed by students and others. A more scholarly list showing authorities and vouchers will also be prepared.

Visiting the Reserve through the year and observing the change through the seasons and the remarkable variation in plant occurrence within a short distance has been very rewarding. Now to start pounding the keys to enter the data!

K.F. Mawdsley

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### **National Science Foundation Funds Summer Herbarium Interns**

This past summer, we had two undergraduate interns working in the herbarium, Margaret Sidells and Rob Molholm. Their salaries were funded by the National Science Foundation's Research Experience for Undergraduates program. Margaret and Rob spent the summer curating the unmounted collections from the UC Davis Agronomy Herbarium, now known as the Beecher Crampton Herbarium Collection. These valuable specimens, dating from 1940 to the present, were mostly collected by Beecher Crampton. However, within the collections we also found specimens collected by T. Howell, C. Mason, and other important California botanists. These specimens were sent to Beecher for identification.

Margaret and Rob first sorted all of the collections by collector and collection number, a project that had them walking in circles among lab ta-



bles for a month. Then they began typing labels for Beecher's unmounted collections, a process that entails reading Beecher's field notebooks and interpreting them well enough to type label data into our label-generating database. Such work is repetitive and requires painstaking attention to detail. It gave both interns an in-depth introduction to collections management as well as a review of California geography and the California flora. I would hear the two of them discussing the locations that Beecher had visited and how long he had remained in a particular place. Such work can transport you mentally to different geographic regions.

Both Margaret and Rob are upper-division undergraduates. Margaret interned in the herbarium in the fall of 1997 and served as a proctor for the California Floristics course in the spring of 1998. Rob worked in the herbarium for two years as a plant mounter and took California Floristics in the spring of 1998. In addition to their duties curating the Crampton collection, both interns participated in other duties such as specimen mounting and filing. Although Rob is now using his computer expertise at a job in the veterinary school, we are lucky to have Margaret continuing with us on the project this fall. We thank them both for the hard work that they put in this past summer.

E.A. Dean

## Membership Renewal

Membership renewal packets, including the activity calendar for the year and flyers for fall events, were mailed in late September. We are thrilled with the early response. Over half our members replied within the month, and a number of them increased their membership level or made an additional contribution. If you have not yet responded, a renewal form is on page 11. We look forward to hearing from you.

## YOLO COUNTY BOOKSHELVES

### The wonderful world of succulents revealed.

*A History of Succulent Plants.* By Gordon W. Rowley. Strawberry Press, Mill Valley. 409 pp. 1997. \$110.00

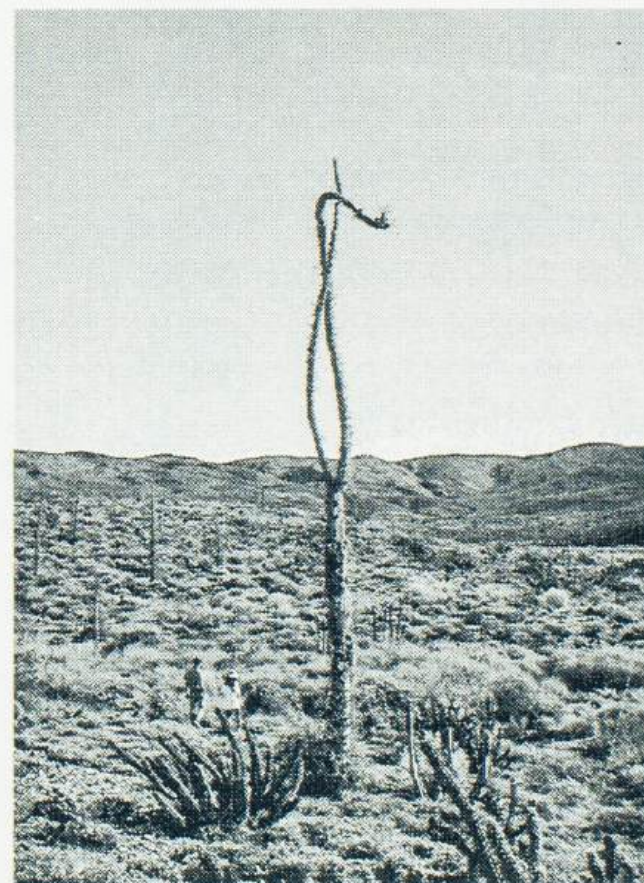
*The Euphorbia Journal.* Volumes I—X. Edited by Herman Schwartz. Strawberry Press, Mill Valley. 1983—1996.

In the 20th century there have been thousands of botanical works published, ranging from the most ephemeral popularizations to (literally) weighty monographs of dazzling erudition. However, the *History of Succulent Plants* by Gordon Rowley belongs among the alpine gardens on the upper slopes of the botanical Parnassus. It is the kind of book one might daydream of writing, but whose realization has only been possible because of the author's indomitable passion and tenacity, and his good fortune in finding a remarkable publisher, Herman Schwartz and his Strawberry Press.

Quite a few previous histories of botany have been written, although in my opinion none can be considered definitive for the entire period of antiquity to the present. There are many accounts of the history of taxonomic studies or botanical exploration related to particular families or genera, usually buried within the introductory sections of monographs or revisions. However, *A History of Succulent Plants* appears to be unique in covering the entire history of botanical studies of a single major group of plants—the succulents—complete with illustrations from the primary literature and a literary “phylogeny” of all the botanical succulent-masters, extending from Theophrastus to Werner Rauh. The only somewhat comparable work that comes to mind is E. L. Greene's *Landmarks of Botanical History*, but it lacks illustrations and

covers only the protohistory (through the 16th century) of the field of botany in general.

In the very first chapter, Rowley confesses that the word *succulent*, in its commonly applied sense, is far from straightforward. Although the word is based on a shared unusual morphological syndrome—fleshy stems and/or leaves (or roots)—its usage is strongly influenced by horticultural practice and custom. Thus halophytic succulents such as *Salicornia* ordinarily do not interest succulent fanciers, and epiphytes with fleshy leaves are not collected if they belong to the Bromeliaceae or Orchidaceae (there already being fanatical devotees of those groups).



A blooming “ludicrous boojum.”

At the base of succulentomania, when all is said and done, is the mysterious attraction of plants that appear strange (even weird) and often grow in exotic, outlandish places. As a result of their difficult struggle to survive in a hostile environment, succulent plants grow slowly and often in unusual branching patterns, so that they have more individuality than most plants; at succulent shows I have often been struck by the way owners use the scientific or common name of their cactus as though it were one of their pet dogs or guinea pigs. My favorite of all plants is the boojum, *Idria columnaris*, from Baja



California, which even more than the saguaro cactus is ludicrously anthropomorphic in its morphological posturing.

A very interesting feature of the book is the reproduction of the earliest illustrations of succulents; I especially liked the scene of Crateuas illustrating a plant of *Umbilicus*, reconstructed from the plate in the famous Codex Vindobonensis of the fifth century, and the earliest of all succulent portraits, the bas-reliefs of *Kalanchoe citrina* at the Temple of Karnack in the 15th century B.C. Rowley has interesting stories about a number of historical figures that have been obscure to most of us, including the first known cactus collector, Henry Morgan (the Apothecary to Queen Elizabeth I, not the pirate governor of Jamaica), and Francisco Hernandez, the 16th century naturalist in Mexico whose work was only published—in fragmentary form—over 60 years after his death.

A key figure in the history of succulentology, who rightfully is given a lot of space by Rowley, was Richard Bradley, who created the discipline with his *History of Succulent Plants*, published in parts between 1716 and 1727. Bradley's work was already long out of date when his great successor, Adrian Haworth, built up an outstanding succulent collection and published a number of important works, of which *Synopsis of Succulent Plants* (1812) was the most outstanding. Indeed, the *Synopsis* is perhaps the single most influential book in the history of scientific study of succulents. Rowley is skillful in delineating Haworth as a person, a well-to-do amateur equally at home in greenhouse and herbarium whose critical studies of Mesembryanthemaceae could not have been made using only the plant cadavers of classical taxonomy.

A particular merit of *A History of Succulent Plants* is Rowley's magisterial survey of the literature, epitomized in Chapters 14 and 15, which include such features as a dichotomous key to the varieties of publications and fascinating comparisons of the stylistic differences

that developed beginning with the herbalists of the early 16th century and progressed to the artistic floral masterpieces of Ehret, the Bauers, and Redouté. In his survey of the leading monographers, Rowley bestows the laurel wreath on Karl Schumann, whose *Gesamtbeschriebe der Kakteen* is considered to be the definitive cactus monograph, even though its nomenclature was in great part superseded by Britton & Rose's *The Cactaceae* (1919-1924) and other later workers such as Buxbaum and Backeberg.

Of particular interest to this reviewer is the literature on succulent Euphorbiaceae, especially *Euphorbia* and its satellite genera *Monadenium* and *Pedilanthus*. Here is one of the few places I feel Rowley has let us (*Euphorbia*-fanciers) down. Following his extensive discussion of Haworth, who proposed many genera segregated from *Euphorbia*, he entirely skips over the great Edmund Boissier, whose monograph of the Euphorbieae in De Candolle's *Prodromus* (1862) and accompanying *Icones Euphorbiarum* (1866) remain the classic basis for modern taxonomic studies. However, to some extent Rowley's disproportionate involvement with historical minutiae of Mesembryanthemaceous taxonomy as compared to euphorbias may be due to his awareness of the works on *Euphorbia* published by the Strawberry Press.

This brings us to the *Euphorbia Journal*, whose tenth and final volume was published in 1996, with a poignant valedictory editorial by Herman Schwartz above an obituary notice of the death of Leslie Leach, a leading collector and monographer of South African euphorbias. The contrast between the *Euphorbia Journal* and its short-lived predecessor, the *Euphorbia Review* (1935), is remarkable. No other succulent genus has been so magnificently treated in so many aspects, by leading amateurs and professionals from around the world. The standard of color photography achieved in the *Euphorbia Journal* seems to me unequalled in any other botanical publication.

While there are many skilled photographers represented, special mention should go to Ron LaFon, who in a disarmingly modest sketch of two pages (in vol. 10) gives the "secrets" of his method (which of course is strikingly successful because of his empathy with the plants). I once spent a most pleasant afternoon touring Herman Schwartz's greenhouses at Bolinas with him and Ron, and marvelled at so many rare Euphorbieae never seen before (and in such superb condition!).

It is gratifying to report that Davis has close links with the *Euphorbia Journal* and with the succulent scene in California. One of my ex-graduate students, Daryl Koutnik, wrote a monograph of the Hawaiian euphorbias (*Chamaesyce*), but was most interested in the succulent ones from other areas. He has published an article in every volume of the *Euphorbia Journal* and also served as the Scientific Editor, thus deserving a considerable share of the credit for the success of the journal. In volume 10, his article "Making Sense of the Succulent Spurges" is a beautifully illustrated tour through the succulent euphorbias following morphological groups that approximate phylogenetic clades. This article, a fitting one for the closing volume, is a good example of the almost effortless way that many of the writings in the *Euphorbia Journal* succeed in bridging the gap between the worlds of the collector and greenhouse enthusiast and the academic specialist.

Our other Davisite prominent on the succulent scene is Larry Mitich, who is not only a charter member, Past President and long-time Treasurer of the Davis Herbaria Society but also active in the American Cactus and Succulent Society. It turns out that Larry has already scooped us with his review of *A History of Succulent Plants*, published in the *Cactus and Succulent Journal* (U.S.) (69(6): 314, 1997). There he concluded that Rowley's book is "an instant classic that will be revered for generations to come." In order to integrate Larry's review with ours, it



seems appropriate at this point to record an interview with him about the history of his involvement with succulents.

YCB. Larry, tell us about how your interest in succulents began.

A childhood in Wyoming doesn't sound like a promising background for becoming a cactophile.

LM. My brother brought home two shoeboxes of cuttings from California, which got me interested in growing plants. I bought a catalog and sent in my first order in 1941; it was for a plant of *Espostoa lanata*. I still have the plant growing. By the way, Wyoming isn't devoid of cacti: on our ranch there were two species of *Opuntia* and a *Neobessya*; and *Coryphantha vivipara* lived not far away.

YCB. And after college in Wyoming?

LM. I taught high school near Cody, spent two years in the army, partly in Germany, but didn't meet any cactophiles then. Took my bride to Kabul for a stay of four years, found *Sempervivum* in the hills there. Later, at Cornell, I met Robert Clausen, but didn't find him as churlish as many people did. Returned to Laramie for a Ph.D. in weed science (on Canada thistle) and then went to Fargo with Cooperative Extension.

YCB. You must have been leading a double life!

LM. Believe it or not, in the 1970s I was involved with the Fargo Cactus Club. North Dakota has four native species, and some opuntias as well as *Pediocactus* were surprisingly hardy.

YCB. Tell us about your Davis career. And what about your involvement with the Cactus and Succulent Society?

LM. We arrived in 1980. The next year the President of the Cactus and Succulent Society of America ap-

pointed me to the Board of Directors; in January 1997 I became President of the Cactus and Succulent Society.

YCB. That puts you in the ranks of cactophile overachievers. What other succulent organizations have you been active in?

LM. I have belonged for a number of years to the IOS (International Organization of Succulents), which has a convention every two years and minicongresses in between.

I also belong to several local chapters of the Cactus and Succulent Society, including one in Houston.

YCB. That brings us to our author under review, Gordon Rowley. When did you get to know him?

LM. We've corresponded since 1962, and exchanged books; we finally met in person in 1973 when he was a speaker at the IOS convention in Santa Barbara. In 1978 I visited him in Reading, England, where he was a professor; and in 1985 he visited Davis.

YCB. What is he like?

LM. He has a very droll sense of humor, of course. In Davis I was surprised by his reaction to ice cream; in England they have only three flavors, so he was totally overcome by Baskin-Robbins.

YCB. Going on to other cactophilic authors, I was struck by the laudatory way Rowley discussed the work of K. Schumann, yet you don't see him mentioned much in contemporary literature. Why do you think he's fallen out of the limelight?

LM. I think it's because he was taxonomically conservative in recognizing relatively few genera, and a few years later Britton and Rose came along and created many new ones.

YCB. It does seem that 20th century cactologists have split the hairs finer and finer.

LM. Of course Kurt Backeberg was the champion splitter, and his six volumes of *Die Cactaceae* were hard to digest, not to mention lacking credibility at times. It's been reported that he described a new species of *Oreocereus* on the basis of just seeing it from the train between Cuzco and Machu Picchu. In correspondence, though, he was very courteous.

YCB. You must have met Werner Rauh, in addition to reading his books.

LM. We visited him in Heidelberg in 1978, and found him a sophisticated wine fancier. He came to Davis during one of his occasional trips to the United States. I have copies of his two recent volumes on Madagascar succulents, which have truly remarkable photographs. Many readers, though, have found his arrangement of plants by habitat rather than taxonomy to be rather confusing.

YCB. You have written an impressive series of biographical articles on botanists who studied or collected cacti. What started you on that?

LM. It was a book on Colorado cacti by Charles Boissevain published in 1964, which included some of the Wyoming cacti I already knew. I became interested in people who had cactus species named for them. My first biographical articles were in 1965-1966. Most of these were published in the *Cactus and Succulent Journal*, but more recently in *Haseltonia* and *To The Point* (the Society newsletter). My favorite subjects were Alain White and Boyd Sloane, who collaborated on volumes on the Stapelieae and Euphorbieae that were published by the Abbey Garden Press. But it was also fun to write about others, such as George Lindsay, A. A. Nichols, Ladislaus



Cutak, and John Milton Bigelow. Of course George Engelmann and Lyman Benson were major figures.

**YCB.** Who are your latest subjects?

**LM.** William Warner, who did the illustrations in Emory's survey, Art Gibson, and Susan McKelvey, a relative of Franklin Roosevelt who proved that a New York socialite could succeed in the taxonomy of *Yucca*.

**YCB.** We shouldn't close without looking at the role of Herman Schwartz, without whom some of these marvellous publications such as the books by Rowley and Rauh would never have appeared in such esthetically appealing formats.

**LM.** Herman was an orphan who became a prominent and wealthy oncologist. Despite health problems, especially his accidental fall off the roof of his house at Bolinas, he has succeeded in publishing a series of superbly crafted volumes. The reprint of Lemaire's *Les Cactées* was a particular coup. There were only a handful of copies, but he found a copy in England, got it on loan, took it apart, reproduced it page by page, and returned it in a new binding.

Herman was always dedicated and generous in his second career as publisher *extraordinaire* on succulents. When the 1995 Cactus and Succulent Society convention met in San Francisco, he had the greenhouses at Bolinas reroofed at considerable expense just to accommodate the visitors. He had planned other monographs on succulents, such as one on aloes and a new monograph on the Stapelieae, but the expense of these projects proved to be too much to overcome.

**YCB.** Finally, in your extensive succulent library what are your most treasured items?

**LM.** That's hard to say. I must have 25,000 items including books, reprints, and catalogs. But Engel-

mann's *Cactaceae of the Mexican Boundary*, the original edition of Britton and Rose, and the three volumes of K. Schumann's *Blühende Kakteen* certainly would be in the inner circle.

**YCB.** We didn't go into your contributions to the *Euphorbia Journal*, but this has been enough to give the readers an idea of the variety of your interests. We'll be looking forward to hearing more about succulents from both you and Gordon Rowley.

G. L. Webster.

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### Kate Mawdsley

Continued from page 1.

California Academic and Research Librarians Association, and she served as President of the latter two. She also was heavily involved in planning the renovation of Shields Library.

She dates her interest in plants from her childhood. She remembers taking long walks in a nearby wooded park by age ten, and trying to identify the plants and birds that she saw there. Interestingly, it was the local librarian who helped her with her interest by bringing out books on the local flora and fauna from the "locked room", so that the young Kate could peruse the pictures. However, her interest didn't bloom until she and her children began to explore nature in the 1970s, and she began participating in Sierra Club hikes. One thing led to another, and of course, she ended up in the UC Davis Herbarium, asking for June McCaskill's help in identifying plants that she had found on her walks.

As I see it, some people just can't get enough of herbaria, and Kate is one of those (as am I). She has stayed close to the herbarium ever since, gaining more and more experience with plant identification. She helped Frederica Bowcutt with her floras of Sinkyone, Delta Mead-

ows, and Sugarloaf Ridge State Parks, and has taken many classes on various plant families and genera to help hone her skills. However, she does venture outside a bit. She is also a valued member of the Friends of the UC Davis Arboretum, where she is now Chair of the Docent Council, and the Jepson Prairie Docents for which she is the Volunteer Coordinator. And somehow, she also manages to travel extensively to look at plants in other states and countries.

In whatever she is involved, Kate gives the very best that she can, and the number of people indebted to her for her many talents keeps growing. To show our appreciation, we presented her with a framed print at our Fall Open House in October, but that is only a small token of our appreciation.

E. A. Dean

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### Director's Corner

Continued from page 2.

Mitich and Kate Mawdsley). A big thank you to all these hard-working volunteers. We couldn't offer the range of services and events that we do, without their help.

**Donations:** Once again, we have received generous donations from members over the past few months: Phil Ward donated books to our library, many of them floras from areas of South America, Australia, and Canada; Vera Gottlieb donated three beautiful framed watercolor paintings by the artist Ken Shockey; and Eric Grissell, a major supporter of our Student Grants Program, has become our newest Life Member. A majority of our members have already responded to our renewal mailing, and we very much appreciate your quick responses. Thank you for your continued support!

E. A. Dean



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## ***Inside***

<i>DIRECTOR'S CORNER</i>	<b>2</b>
<i>BOTANICAL EXPLORATIONS</i>	<b>3</b>
<i>SOCIETY NEWS</i>	<b>4</b>
<i>FALL PROGRAM</i>	<b>4</b>
<i>CALOCHORTUS TRIP</i>	<b>5</b>
<i>YOLO COUNTY BOOKSHELVES</i>	<b>7</b>