

HELP NEEDED

If you can stand cool temperatures (60 degrees F), enjoy looking at pressed plants, and like filing things away, we could use your help. Our student mounters have been mounting hundreds of plant specimens that need to be filed away in folders, and we can't keep up with them! Our volunteers who come one Sunday per month are working hard to file specimens, but we could use some volunteers during the week. Our collections room is cool, and you need a sweater to stand the temperature. If you would like to help us, even temporarily, please call Ellen at 530-752-1091 or email eadean@ucdavis.edu. Thanks!

LASTHENIA

LASTHENIA, the Newsletter of the Davis Botanical Society, is published in collaboration with the staff of the UC Davis Botanical Conservatory and Center for Plant Diversity.

Editor: Kate Mawdsley

Issue Contributors: E. Dean, E. Salvia, E. Sandoval, K. Mawdsley, D. Potter, B. Rice, K. Garvey, M. Starbuck

Design: Susan Gloystein Cotterel

Layout: Ellen Dean

DBS OFFICERS, 2010-2011

President: Robbin Thorp

President-elect: Marcel Rejmanek

Membership Vice President:
Jill Spear & Kate Mawdsley

Secretary: Susan Nichol

Treasurer: Robert Rhode

Past President: Kevin Rice

Members at Large: Tim Metcalf, Kirk Ehmsen

Student Member at Large:
Annabelle Kleist

Ex officio: Dan Potter, Ernesto Sandoval, Ellen Dean, Jean Shepard, Allison Chilcott



Center for Plant Diversity
Plant Sciences Mail Stop #7
One Shields Avenue
University of California
Davis, CA 95616
UC Davis Mail ID: BTNY



LASTHENIA

NEWSLETTER OF THE DAVIS BOTANICAL SOCIETY

SEARCHING FOR WILD SUNDEWS

My exhausting first year as a new professor at Sierra College was drawing to a close, and I was looking forward to escaping the confines of my office. A long-postponed, two-week early summer trip to the panhandle of Florida was just what I needed.

But I also needed the valuable resources of the Center for Plant Diversity herbarium, because I intended to spend a few days on my trip looking for a very rare carnivorous plant—the Florida version of the sticky-trap sundew (*Drosera filiformis*). I say “Florida version” because, while it occurs in three widely separated patches on the Atlantic Coast, those patches occur in or around Nova Scotia, New Jersey, and North Carolina.



Flower of *Drosera filiformis*.
Photo: B. Rice

Just what was this plant doing in two Florida counties on the Gulf Coast?

Information on just where this plant grew was hard to come by in the literature, but the herbarium staff kindly processed my loan requests for herbarium specimens of Florida *Drosera filiformis*. After carefully examining these specimens, I verified their identifications and then used tools like Google Earth and MapQuest to locate exactly where they were likely to occur.

I was thrilled to see that the plants were in fairly accessible locations; in fact with some luck I expected to navigate the network of sandy roads to get within only a mile or so of the plants. After that, we'd just have to cross a few shallow dry lake beds to reach the plants.

(Oh, did I mention my lovely wife Beth was coming along, too? She's an incorrigible naturalist, and would never miss an opportunity to join an expedition.)

Once in Florida, we drove to the lake bed. By this point, we had been joined by several other botanist friends. Unfortunately, the dry lake bed I had expected to see was replaced by a beautiful lake—the product of a very rainy season. Walking around it would have taken far too long, so we walked across

continued on page 4

CENTER FOR PLANT DIVERSITY RECEIVES FUNDING FOR SPECIMEN DATABASING!

The Center for Plant Diversity has received \$110,000 in funding from the National Science Foundation to provide herbarium specimen label information online, as part of a larger two million dollar grant awarded to the Consortium of California Herbaria. This project emphasizes the databasing of information from labels on specimens of plants that are expected to be most affected by climate change, such as rare species, woody plants, and grasses. The result will be that data from all of these specimens housed in herbaria throughout the state will be incorporated into one internet-accessible database, thereby greatly facilitating studies aimed at monitoring long-term changes in vegetation and understanding how climate change affects the distributions of individual plant species and the composition of our many diverse plant communities.

This award is one of several in recent years in which NSF has funded larger databasing grants that involve multiple herbaria around the United States in order to build a U.S. Virtual Herbarium. A virtual herbarium is an on-line site that allows you to access specimen information from one or more herbaria. Sometimes the information available on-line is specimen label data (such as where and when a specimen was collected), and other times it includes photos of the specimens themselves as well as the label information. Virtual herbaria

continued on page 6

IN THIS ISSUE

Conservatory Update.....	2
Student Grants.....	3
Society Profile	3
Cache Creek Wilderness.....	5
Yolo County Bookshelves	6
Spring Field Trips	7

CONSERVATORY UPDATE



Marlene Simon, Conservatory staff, proudly holds one of the largest Sinningia leaves ever grown at the Botanical Conservatory!
Photo: E. Sandoval

Have you visited the Botanical Conservatory's collections lately? The Conservatory's influence stretches well beyond the glass walls of Greenhouse 61, as it is officially known on campus. Plantings installed by Conservatory staff are now found around Storer Hall and the Sciences Laboratory Building, the little-known courtyard of Briggs Hall, as well as the relatively new Sciences Laboratory Building's greenhouse. All these displays contribute to campus botanical resources, and major improvements are ongoing.

Timing, as an old expression says, can be everything. This past spring our carnivorous plant collection was recognized as being one of the biggest public collections of captivating plants (pun intended); at the same time, we were completing major improvements to that display in Room B as well as to the orchid and fern benches in the same room. Visitors to Room B are now able to see and experience the plants more intimately. The plants are closer and more visible, thanks to new tiered benches and a circular path. This winter we hope to finish the last of the major improvements to that room by replacing three cold-frame-styled humidity boxes covered with opaque plastic with a much larger glass-paneled, custom-built chamber using Conservatory Endowment funds. Thanks to the improvements to this space, our ability to augment the Conservatory's plant diversity continues to rise, and the visibility of that diversity also increases. I can now imagine being able to grow filmy ferns in the Conservatory!

Along with the recognition of our outstanding carnivorous plants has

come recognition of our very own insectivorous plant guru, Barry Rice (see Barry's lead article on carnivorous plants in this issue). Barry's previous work with The Nature Conservancy (and his passion for plants with leaves, or parts thereof, that evolved to have nutrient-capturing adaptations) puts him in a good position to advocate for these increasingly rare plants. The Winter 2010 issue of *UC Davis Magazine* has a long, generously-illustrated feature on Barry and carnivorous plants in the wild and the Conservatory. The article calls attention to the threatened status of many species. Links to the "Hungry Garden" article, and several other related articles, can be found at the Conservatory's homepage greenhouse.ucdavis.edu/conservatory. Our splendidly diverse carnivore display is a direct result of Barry's work and the multitude of volunteers he has encouraged and brought to us.



Winter 2010 interns wrap up the last week of the quarter by helping to transplant orchids
Photo: E. Sandoval

But wait, don't stop reading yet because there's more to tell you, our supporters, about what we've been up to! What does your mind conjure up when I say "epiphyte walls?" In the Sciences Laboratory Building's greenhouse we are in the process of mounting plants to three separate A-frame structures that will hold displays of forest-dwelling plants known as epiphytes. These plants no longer depend on soil as a substrate to survive but rather have moved up and onto other plants to thrive. Once the walls are filled with plants, we'll report back with pictures. Funding for the walls has come from their primary users, the UC Davis introductory biology class Biological Sciences 2B, which focuses on ecology and evolutionary biology. In the very first lab of the quarter, students are sent to sample diversity of various



Intern Andrew Campion has been comparing traditional propagation techniques with the aeroponic propagation units seen here and donated to us by EZ-CLONE Enterprises from Sacramento
Photo: E. Sandoval

plantings as if they were dropped onto an island and need to try to distinguish species from each other. The epiphyte walls will provide a unique experience for the students.

In both Biological Sciences 2B, and the next course in the introductory biology sequence, BioSci 2C, where diversity is the focus, the Conservatory's collections are used and seen by undergraduates on a very regular basis. Visit the Conservatory during the seventh week of the quarter and you'll see hundreds of students examining plants for strange modifications to their stems and leaves as well as adaptations for pollination. Several other exercises are designed to help them see how plants are distributed around the world in space and time.

Speaking of time, the 2C students have such a good time in the Conservatory that our internship program enrollment has been skyrocketing. Forty-one students enrolled this past year with an additional 18 during our first summer session! In keeping with the ecology and diversity themes, I tell the students that the relationship will be mutualistic. We will teach them about how plants grow and interact with their environment, and they'll help us grow the plants. The timing couldn't have been better; this summer I taught those 18 interns how to prune in small groups, and during those teaching sessions they pruned a great majority of the plants in our collections that needed it. Thanks to them we can now say that, yes, we do practice bonsai at the UC Davis Botanical Conservatory.

E. Sandoval

2010 STUDENT GRANT RECIPIENTS

Three UC Davis graduate students are continuing their dissertation research with the aid of Davis Botanical Society student research grants. The grants, which were announced at the annual meeting in May, were increased for 2010-11 to \$1,500 each.

Elise Tulloss is studying the effect of nitrogen deposition on plant community dynamics across local and regional scales using the California oak savanna as a model system. She notes that understanding this function would improve our ability to effectively manage wildlife landscapes and the ecosystem functions they support in the face of increasing urbanization. Her advisor in the Ecology Graduate Group is Prof. Mary Cadensasso of Plant Sciences. Elise was awarded the Jack Major Memorial Award.

Daniel Park is looking at plant traits that contribute to invasiveness across multiple systems by studying representative species among the 1,500 species, subspecies and varieties of Asteraceae found in California. Of these, his application notes, 250 are introduced, 43 are considered invasive, and 60 recognized as weeds. Park intends to develop a phylogenetic tree



for California Asteraceae and sample genetic material from around the state to determine how closely related specific weedy and native taxa are. He works with Dan Potter in the Plant Biology Graduate Group and received the Eric Grissell Award.

Laura Vann's research on the systematics of Joshua Tree (*Yucca brevifolia*) was reported in great detail in the last issue of *Lasthenia*, available on the herbarium website for those who don't keep back issues. Like the other young researchers awarded support this year, she will deposit voucher specimens in the herbarium. Laura works with Prof. Jeffrey Ross-Ibarra in the Genetics Graduate Group and was awarded the Larry W. and Charlotte Mitich Award.

K. Mawdsley

RECENT GIFTS

Herbarium Endowment

Lewis Feldman
Elizabeth Bernhardt &
Ted Swiecki
Ann Johnson
Jim Sherar
Roberto & Claudine Urtecho
Stephen Rae

Conservatory Endowment

Sonia Cook

Herbarium Operations

Katherine Mawdsley

Gifts in Kind

Stephen Rae
Gerald Dickinson
Don & Nancy Crosby
Ellen Dean

Davis Botanical Society Student Grants Fund

Michelle Barefoot
Thomas Rost, Michael Barbour &
Terence Murphy
Stephen Rae
Brenda Grewell & Steve Kidner
E. Eric Grissell
Marie Jasienuk & Frank Roe

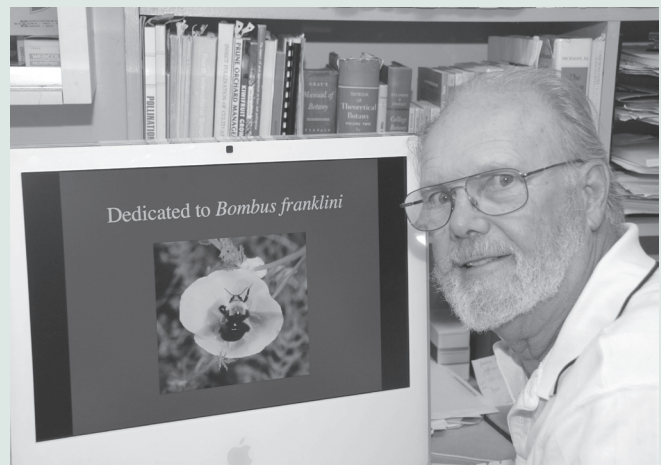
SOCIETY PROFILES

Robbin Thorp

Robbin Thorp, Professor Emeritus of Entomology and 2010-11 President of the Davis Botanical Society, may already be familiar to many readers of *Lasthenia*. His very recent petition to the U.S. Fish and Wildlife Service, in collaboration with the Xerces Society for Invertebrate Conservation, to protect Franklin's bumble bee by listing it under the Endangered Species Act was widely reported.

Like past President Art Shapiro, Robbin is an entomologist with a strong interest in plants. A specialist in native pollinators, he has conducted and supervised research on pollinators of vernal pool flora at Jepson Prairie Preserve, a unit of the University of California's Natural Reserve System located 12 miles south of Dixon. He is also the long-time chair of the Reserve Advisory Committee, a group with representatives from the University, government resource agencies, the Solano Land Trust and The Nature Conservancy that advises on proposals for research on the University of California reserves and on management issues.

Prof. Thorp came to Davis in 1964 after graduate study at UC Berkeley. His work on native pollinators has gained recent importance as the decline in the European honey bee has increased interest in alternative species for pollination of commercial crops. He continues to teach a workshop for the Jepson Herbarium on bees and pollination ecology of spring wildflowers. He will be a very welcome co-leader on the Davis Botanical Society's field trip to Table Mountain, another renowned vernal pool site, next April.



Current Davis Botanical Society President Robbin Thorp.

Photo: Kathy Garvey

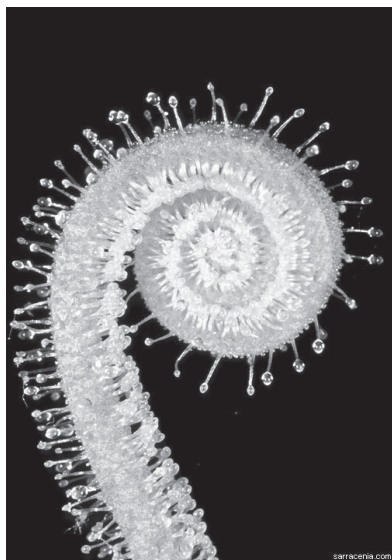
K. Mawdsley

SEARCHING FOR WILD SUNDEWS (CONT. FROM PAGE 1)

the lake, at times up to our chests, and a few times over our heads. (By the way, swimming in hiking boots, holding your camera gear and tripod over your head, is a great aerobic workout!)

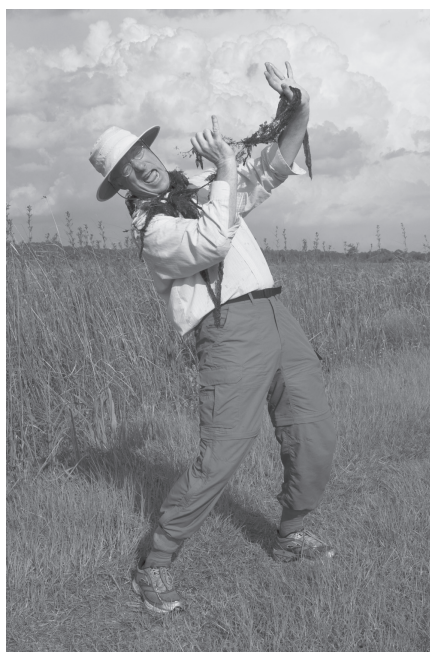
In the end, our unscheduled swims simply meant the pleasure of reaching the plants was that more delicious. While the herbarium specimens I had studied had been invaluable, seeing the plant in the wild gave me new insights and possibilities for measuring its size and other characteristics. This site was all the more interesting as it was also home to a related sundew, Tracy's sundew (*Drosera tracyi*). You could imagine our pleasure to find specimens of hybrids between the two---*Drosera filiformis* \times *tracyi* had never before been documented in the wild! Whoo-hooo!!!!

Our bliss was interrupted by a vigorous summer electrical storm, and as we were the tallest things in any direction, we suddenly found ourselves



Close-up of the sticky, insect-trapping, glandular hairs of Tracy's sundew (*Drosera tracyi*). Photo: B. Rice

in a life-threatening situation. Our only prudent option was to lie down in a shallow erosion gully, and wait out the storm. And so we did—for about 45 minutes—as cold rain pummeled us and lightning crashed around.



The author being attacked by Florida yellow bladderwort (*Utricularia floridana*). Photo: E. Salvia

But...we had found *Drosera filiformis* \times *tracyi*!!

A few weeks later, I started thinking about what one of my comrades had said during our very wet day in what we referred to as the “hybrid *Drosera* site.” He had claimed that one of the two sundew species we had had seen was covered with tiny spherical glands on both sides of the leaves, while the other sundew species had glands on only one side. I checked the herbarium specimens we had, and that seemed to indicate that both species were equally glandular on all leaf sides. But I was concerned—were the herbarium specimens somehow misleading? Fortunately, I knew that both species were in cultivation at the Botanical Conservatory. A five-minute walk later, I was harvesting leaves of both species from the collection. A five-minute return, and I was examining the fresh leaves under a microscope. As it turns out, my field companion must have been spending too much time under the Florida sun without a hat—his observations were faulty. But it was

exactly the combination of dead plants at the Herbarium and live plants at the Conservatory that made this question easy to answer.

And that sort of synergy is exactly what makes the Davis Botanical Society such a great resource!

Another high point of this trip was a visit to a nearby set of karst springs, where crystal clear water poured from porous limestone deposits to make fabulously clear rivers. It is these clear waters that an oversized species of aquatic carnivorous plant calls home – Florida yellow bladderwort (*Utricularia floridana*). Usually aquatic plants in the bladderwort genus (*Utricularia*) are confined to mucky or tannin-stained waters, but *Utricularia floridana* is an oddity among oddities. It has shoots nearly a meter long, which wave freely in the crystal clear karst waters.

Or so I had heard. But what would it look like? The only way to be sure was to swim with them! So with snorkel gear donned, and with Beth standing on the shore watching for alligators and water moccasins, I waded into bladderwort's lair. It was spectacular. Imagine a carnivorous version of a mini-kelp forest, and you have a sense of what it was like. But since I thought...hoped...prayed that the experience would be thrilling, I brought with me a high-quality submersible camera to record the event. (This camera was given to me by my brother, who also happened to be the PRESIDENT of the Davis Botanical Society—the connections of this trip to the DBS were dizzying!)

And I was well-rewarded for my work. Since we don't have the resources to print the color photographs from this underwater adventure here, I encourage you to look at them on my web site—the first-ever photographs of this plant in situ, underwater! If you want to read more about this trip, and glut your appetite with an array of photographs, visit my web site at the following urls:

Snorkeling with bladderworts: <http://www.sarracenia.com/trips/fl012010.html>

Hybrid sundew trip: <http://www.sarracenia.com/trips/fl022010.html>

Barry Rice

CACHE CREEK WILDERNESS EXPLORATIONS



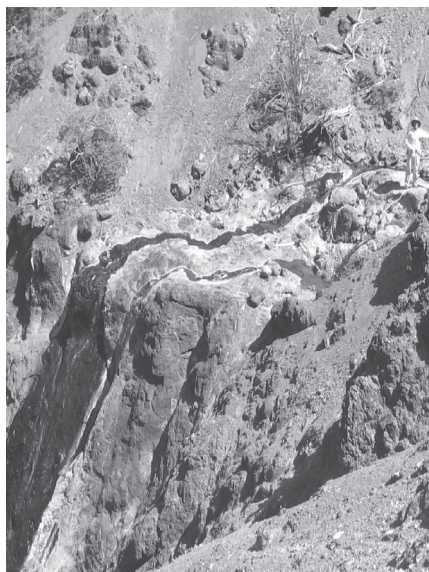
Jack Alderson and Craig Thomsen examine a jewel flower on the rim of a barrens in the Wilderness. Photo: Ellen Dean

This past spring, the Center for Plant Diversity carried out preliminary mapping of rare plant locations in the Bureau of Land Management's Cache Creek Wilderness in Lake County. The study was funded by the National Landscape Conservation System. Organization of the project was shared by Craig Thomsen (Plant Sciences UCD), Davis Botanical Society member Gordon Harrington, and myself. A number of volunteers and students accompanied us into the wilderness, including Jack Alderson (USDA), Lisa Serafini (Sacramento City College), Tom Zavortink (Bohart Museum of Entomology), Mark Bibbo (Westervelt Ecological Services and UCD alum), and John Chau and Patrick McIntyre (the last two both students of Sharon Strauss in Evolution and Ecology, UCD).

Access to the Wilderness is a challenge – Wilderness areas are roadless, and vehicles are not allowed. The Wilderness can be accessed from the north via the Redbud or Judge Davis Trailheads off of Highway 20 (both routes require crossing Cache Creek two to several times). From the south, access is via private land. Another way to access the Wilderness is by boat, floating downstream along Cache Creek. We made eight trips into the Wilderness,

four starting at the Redbud Trailhead, three from the south, and one via the Judge Davis/Ridge Trail. We decided to concentrate on soil types that we knew harbored targeted rare plants that are found in Lake and Colusa Counties, and we planned our trips accordingly.

Some of our plans were dashed in May and June by high water flows in Cache Creek due to release of water from Clear Lake. The "creek" became a mighty river. This prevented us from fording the creek for the rest of the field season. However, we were still able to access the Wilderness from the south, and we saw incredible vistas, explored new botanical territory, and mapped many rare plants. We were left with an urge to see more, even though sometimes our hikes tested my physical abilities beyond what I thought I could manage (my refrain at the end was "the Wilderness has beaten me").



Craig Thomsen (upper right) standing on top of the fifty-foot waterfall. Photo: Ellen Dean

Probably the most memorable trips were our June trips into the southern part of the Wilderness. We climbed down the Rocky Creek drainage over boulders that earlier in the season must have been a nice waterfall. When the drainage widened out, we were greeted by mounded sedge islands with treacherous hidden rivulets of water and the



Snow Mountain buckwheat. Photo: E. Dean

largest patches of dogbane (*Apocynum cannibinum*) that I have ever seen.

To the east of this, we accessed what has to be the best-kept secret of the Wilderness. This area is the equivalent of the botanically-rich, serpentine soil barrens area called "The Cedars" in Sonoma County. We slid down red serpentine barrens into a dry drainage that quickly became a stream bordered by western azalea (*Rhododendron occidentale*) and Sargent cypress (*Cupressus sargentii*). The dry barren ridges are home to Snow Mountain buckwheat (*Eriogonum nervulosum*), prostrate milkweed (*Asclepias solanoana*), and several species of jewel flower (*Streptanthus* spp.). As we made a loop and followed another drainage back up to higher elevations, Craig suddenly realized that a waterfall cascading down a rock wall fifty feet high was looming in front of us. "Is that a mirage?" Craig joked. I looked up from the ground and grimaced. Jack Alderson just sort of walked up the wall, the way he always does (Craig and I think his feet have suction cups on them), and Craig followed him. Gordon and I crawled up the nearby ridge on our bellies, huffing and puffing under trees. After following ridges through pygmy cypress groves, we ended up in a tall grove of Sargent cypress bordering a perennial spring. We followed an old road back to our starting point, mapping several other rare plants along the way. This was definitely the best of a great field season.

E. Dean

DATABASING (CONT. FROM PAGE 1)

allow information from specimens in multiple herbaria to be available from a single source, providing powerful tools for floristic and taxonomic research.

In our project, we will be entering specimen label information into our database and then sending those data to U.C. Berkeley's herbarium where they will be placed on-line at the Consortium of California Herbaria's web-

site at: <http://ucjeps.berkeley.edu/consortium/>. We have provided label data from our database to the Consortium since 2003, and the number of specimen records in the Consortium dataset is now over one million specimens from 17 California institutions.

The Center for Plant Diversity has been databasing specimens since 1995, and we currently have ca. 60,000 speci-

men records in our database. Until now, however, we have received only minimal grant funding for this purpose.

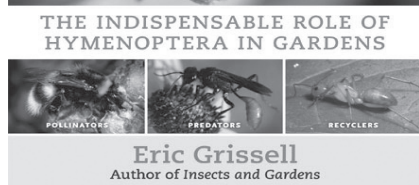
Staff and students at the Center for Plant Diversity use the Consortium dataset all the time to facilitate plant identification. Others use it to see what herbaria have specimens of particular species. We encourage you to go the

E. Dean and D. Potter

YOLO COUNTY BOOKSHELVES REDUX

Longtime readers of *Lasthenia* may recall the felicitously written, exceedingly well-informed reviews by the late Grady Webster of books with a local botanical link which were a regular feature of every issue. Many botanists share Grady's insatiable acquisitive appetite for the printed word, but no one has come forward to keep Davis Botanical Society members informed of important—or just really interesting—new books. The offer to appear in our pages is still open.

In the meantime....Two distinguished DBS members, both former Ph. D. students at UC Davis, have recently published new books. Shamelessly cribbing from the publishers' blurbs, we are happy to help spread the word.

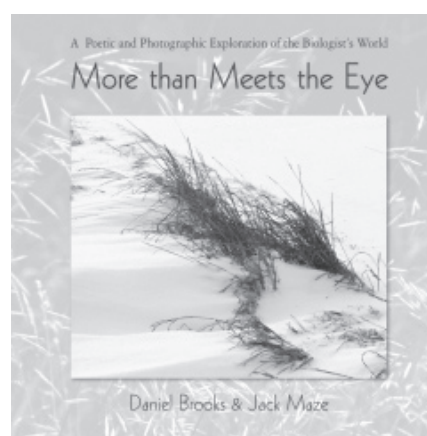


Bees, Wasps, and Ants: The indispensable Role of Hymenoptera in Gardens, by Eric Grissell, appeared in June 2010 from Timber Press in Portland. In announcing it, the publisher said, "Few insects are more important than bees, wasps, and ants. They maintain the

garden's biological balance, fertilize vegetables, fruits, and flowers, and recycle nutrients within the soil. It's no exaggeration to say that a garden can't be understood without an understanding of its insects. *Bees, Wasps, and Ants* explores the importance of the Hymenoptera and explains how gardeners can encourage (or discourage) them in the garden. Part one includes a summary of their biology and a tour of what role they play in each part of the garden. Part Two takes a closer look at the individual groups within the order, including sawflies, hornails, woodwasps, parasitic wasps, predatory wasps, bees, and ants."

Wait a minute...bees, wasps...did our President, Robbin Thorp, specialist in native bees and pollinators, know Grissell when he was a student here? Absolutely: in a quick email reply to the question, Robbin noted, "I used to play some tennis with him when he was a grad student here. His cubicle was just outside my office. Eric even named a wasp that parasitizes bees after me (*Monodontomerus thorpi* Grissell)." I wonder if entomologists are tired of comments about small worlds.

The second new book, *More than Meets the Eye: a Poetic and Photographic Exploration of the Biologist's World*, was written by Daniel Brooks and Jack Maze. Maze is Professor emeritus of Botany at the University of British Columbia. His recollections about a hike to Zim Zim Falls in 1965, when he was at UC Davis as John Tucker's student, appeared in the Winter, 2010 issue of *Lasthenia*. The book announcement describes its singular approach to biology: "The sterile and cold view of science implicit in the image of white coats, shiny apparatus and esoteric



jargon clashes with the experiences that brought many scientists to their chosen vocation, one that often seems more like an avocation. What first attracts the eye and mind is the beauty of nature, the brilliant plumage of a bird, the patterning of a butterfly's wing, the sweet smell of a cluster of lilac flowers, the sweeping flagella of a unicellular animal. ... We are trying to capture the beauty of the natural world that has drawn us into a commitment of time and energy that defies rational explanation using the photos of Dan Brooks and poems of Jack Maze."

Dr. Grissell's book is available from Timber Press; the contact link for Prof. Maze's is: <https://wwwcreatespace.com/3468381>. We congratulate the authors and thank them for letting us know about these timely books. If there are more authors among our members and readers, please let us know. And if you'd like to write an occasional or regular review of topical books, by all means, contact us.

K. Mawdsley

AMAZING WILDFLOWERS ON SPRING FIELD TRIPS



Graduate student John Chau speaks with Pine Hill Reserve Manager Graciella Hinshaw during a lunch break at Pine Hill Preserve
Photo: E. Dean

This past spring provided Californians with a breathtaking array of wildflower displays. Davis Botanical members enjoyed two memorable field trips – the first one in May to Pine Hill Preserve and the second one in June to Walker Ridge.

The Pine Hill excursion was organized by Don Crosby and Ellen Dean. Pine Hill is a well-known botanical hot spot in El Dorado County that has special soil types derived from gabbro rock. Five federally-listed rare plants grow in the preserve, along with numerous other special-status plants, and the plant list has nearly 700 species, a tenth of the flora of California.

The preserve is owned and managed by a partnership of federal and state agencies; recent land acquisitions now allow visitors to walk into areas of the preserve that were previously difficult



Walker Ridge field trip participants examining plants in a serpentine wildflower field.
Photo: Margaret Starbuck

to access. Our tour of the preserve was graciously led by Graciella Hinshaw, Preserve Manager.

We walked through the blue oak woodland of newly acquired Kanaka Valley to the gabbro soils of the Salmon Falls Unit where we saw numerous rare plant species. These included Bisbee Peak rush-rose (*Helianthemum suffrutescens*), Pine Hill ceanothus (*Ceanothus roderickii*), Stebbins' morning glory (*Calystegia stebbinsii*), and red hills soap root (*Chlorogalum grandiflorum*).

The Walker Ridge trip was led by Craig Thomsen, Gordon Harrington, and Ellen Dean. We ended up with a full load of enthusiastic participants, and even more Davis Botanical Society



Chaparral lotus blanketed parts of the 2008 burn areas on Walker Ridge this past spring.
Photo: Margaret Starbuck

members found their way up to Walker Ridge on their own. The wildflowers on the Ridge were unbelievably colorful this past spring due to fires that had traveled through the area in 2008 and increased rainfall in 2010. In the burned nonserpentine chaparral areas, participants were wowed by hillsides of prickly poppy (*Argemone munita*), chaparral lotus (*Lotus grandiflorus*), and golden eardrops (*Dicentra chrysantha*). In the burned serpentine chaparral areas, we saw wildflower fields that looked like cultivated gardens. We also visited serpentine meadows, a serpentine-influenced marsh, and navigated a scree slope.

Participants met numerous rare native plants such as prostrate milkweed (*Asclepias solanoana*), Hall's harmonia (*Harmonia hallii*), cream sacs (*Castilleja rubicundula rubicundula*), Jepson's milkvetch (*Astragalus rattanii jepsonianus*), Mt. St. Helena morning glory (*Calystegia collina oxyphylla*), serpentine collomia (*Collomia diversifolia*), and



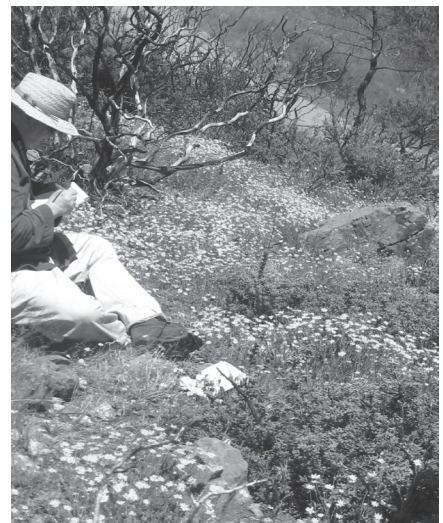
Prickly poppy was abundant in nonserpentine burned chaparral on Walker Ridge this past spring.

Photo: Margaret Starbuck

swamp larkspur (*Delphinium uliginosum*). The views we saw from the top of the ridge encompassed Mount Shasta, Mount Diablo, the Sutter Buttes, and the Sierra Nevada.

As I write this, plans are still going forward to install an industrial wind farm along the length of Walker Ridge. This will require widening Walker Ridge Road along its entire length and the building of roads to reach each wind turbine. To make room for the base of each wind turbine, 500 square feet will need to be cleared. Imagine how this will alter this beautiful landscape! Many UC Davis alums remember field trips to Walker Ridge in a botany class. For more information on this project, you can visit the Tuleyome website at <http://www.tuleyome.org>.

E. Dean



Serpentine burn areas on Walker Ridge looked like plantings in a botanical garden this past spring.

Photo: Margaret Starbuck