



Friends of the Herbarium

The Chico State Herbarium
California State University, Chico

Newsletter

Vol. 19 No. 1

May 2013

Articles in this Newsletter:

- Page 1 Message from the President
- Page 1 5th Annual Students' Photo Contest
- Page 2 Susan Bazell—In Memoriam
- Page 3 Accessions into CHSC 2012
- Page 3 Jan Monelo and the Friends of the Herbarium
- Page 4 Hog Wild—Rooting for Natives
- Page 5 Fall Photo Contest
- Page 6 Recent Workshops
- Page 7 Upcoming Workshops



Susan Bazell - on serpentine

Message from the President

The beginning of 2013 has brought an exciting new change for the Friends of the Herbarium (Friends) – we now have our own logo! In the past, the Friends have used the Herbarium's accession stamp; however, the Friends Board agreed that a logo distinguishing the Friends from the Herbarium was needed. Those who were able to attend the Northern California Botanists Symposium back in January, may have noticed the new logo being presented at our booth. The logo was made in collaboration with Susan Bazell, who drew the original design. The logo represents a branch of the Hooker oak tree, which is featured in the Herbarium's accession stamp. You will see our new logo being incorporated into all of our flyers and on our website. Once again, I would like to thank all of our members and all who continue to support our workshop program. We want to encourage you all to watch our website and our new Facebook page (Friends of the Chico State Herbarium) for news and updates on our workshop series.

–Elena Gregg



Fifth Annual Students' Plant Photo Contest

We are pleased to announce the fifth annual student's native plant photo contest. Entries are due by May 10 and the winners will be announced at the Herbarium Open House on May 17. The First-place winner will receive \$100 and an herbarium T-shirt. Second and Third-place winners will also receive a cash prize and a T-shirt.

Winning photos will be on display initially at the Open House, and later in the Gateway Science Museum.



2012 1st Place Winner - "Sleeping Beauty" by Lauren Merchtry
7th Grade, Chico Country Day



The **Friends of the Chico State Herbarium**, Department of Biological Sciences, California State University, Chico, was formed to help maintain the high quality of work known to be associated with the herbarium. The primary purpose of the group is to provide community support for the herbarium. This includes raising funds for items that are not covered under the University budget. Scientific and academic pursuits are the focus of the group. The Friends also offers low cost workshops and classes on various botanical topics.

The **Friends of the Herbarium** operates under the auspices of the California State University, Chico, and enjoys non-profit status and has access to the use of University classrooms and equipment.

Memberships are renewed on January 1 of each year.

BOARD OF DIRECTORS

Adrienne Edwards	Elena Gregg
Rob Schlising	Jenny Marr
John Whittlesey	John Dittes
Erin Gottschalk Fisher	Linnea Hanson
Paul Kirk (Newsletter Editor)	

ADVISORY CAPACITY

Lawrence Janeway
Herbarium Curator
Newsletter co-Editor

Colleen Hatfield
Herbarium Director
Newsletter co-Editor

Newsletter

Volume 19 Number 1

The Newsletter is published one to three times per year by the **Friends of the Herbarium**, Department of Biological Sciences, California State University, Chico. Subscription is free with membership. Submissions on herbarium-related topics are welcome.

Susan Bazell–1940-2012

Our friend and valued colleague Susan Bazell passed away in December, 2012. While she served on the board of Friends of the Chico State Herbarium from 2008 until the summer of 2012, Susan contributed wonderful insight into the role of the Friends of the Herbarium group in helping support the herbarium. Susan was involved with many of the different activities of the Friends of the Herbarium board of directors. She played an integral part in developing not only the Strategic Plan for the Friends of the Chico State Herbarium, but also the herbarium itself. She reminded us that these were two distinct and different, although interconnected, entities.

Susan brought her artistic talent to the Friends of the Herbarium in many ways. She was involved with the photo contest – developing a flyer, judging the entries, and helping to display the photos for the Open House; she even drew and presented the board with a new logo. Susan selected the herbarium specimens to be displayed at the Avenue 9 Art Gallery exhibit; these are now displayed in the work room of the herbarium, a gentle reminder of her presence. She spearheaded the effort with the Avenue 9 Gallery, which included some of her original art work in the exhibit.

When the Friends of Bidwell Park asked the Friends of the Chico State Herbarium to help inventory the plants in Lower Park in the spring of 2012, Susan was an integral part of the effort. She knew her plants quite well and was an asset to have along. Susan also facilitated several workshops, and brought a new workshop, presented by a friend of hers, to the Friends of the Herbarium workshop series: “Pigments, Perfumes and Poisons in Plants” was very well received.

Susan’s volunteer service to the Chico State Herbarium was particularly noteworthy. Almost every Friday, for many years, she would work in the herbarium for five or six hours. This included 9 months in 2000-2001, 2 weeks in 2003, and 7 years (!) from




2005 through July of 2012. In that time, Susan databased 22,408 specimens (of the 105,000 total specimens that have been databased), including all of the 10,400 slime molds in the collection. In addition, she contributed 67 plant specimens to the herbarium, mostly collected during her annual winter trips with friends to the vicinity of Anza-Borrego in San Diego County.

From 2008 to 2012, Susan collaborated with Rob Schlising on a detailed field study of a rare plant (*Allium jepsonii* – Jepson’s onion) growing on serpentine soil near Paradise. The resulting information, describing the plant’s growth and reproductive biology, will be published soon with Susan listed as an author.

Susan had an extraordinary fondness for opera, and her enthusiastic and knowledgeable participation was enjoyed by a number of her botanical colleagues. This included attending the “Live from the Met” broadcasts with her for the past several years and sharing in opera-watching evenings at each other’s homes.

Susan will be missed on the Board, in the herbarium, and enjoying the opera. It was a pleasure to get to know her and share part of her life.

–L. Hanson, B. Castro,
L. Janeway, and R. Schlising 

Accessions into CHSC during 2012

Fourteen years ago Vern Oswald started the annual tradition in this newsletter of summarizing all collections accessioned into the Chico State Herbarium during the preceding year by county and collector. Here is the summary for 2012. The total number of accessions for 2012 was 1,368 specimens.

We continue to owe a HUGE debt of gratitude to our volunteer mounting specialist and plant collector extraordinaire, Lowell Ahart. Aside from a few exchange sheets that came to the herbarium already mounted, and the bryophytes, lichens and slime molds that are accessioned into the collection in packets or small boxes rather than mounted, Lowell has mounted almost all specimens accessioned into the herbarium in 2012. In fact, Lowell has mounted almost all of the specimens accessioned into the herbarium each year since 1995! For 2012, Lowell prepared about 1,260 beautifully mounted specimens that were accessioned into the herbarium collection during 2012, all as a volunteer! Thank you once again, Lowell, for your continuing contribution of countless hours of invaluable time and service to further the goals of the Chico State Herbarium and northern California botany.

All new incoming specimens are databased before they are filed. The databasing during the past several years (and filing) has mostly been done by two wonderful volunteers, Susan Bazell and Cindy Weiner. Thank you Susan and Cindy! Unfortunately we have recently lost Susan's help and friendship – see another article in this newsletter for details.

Thanks also to all the collectors for their time spent collecting, identifying, and making labels for all of the specimens that they contributed to the herbarium. A lot of time goes into this process and I know that most, if not all, of this time is volunteered by the collectors.

The adjacent table summarizes the plant specimens accessioned into the Chico State Herbarium during 2012, based on plant group, collector, and county.

–Lawrence Janeway,
Herbarium Curator

2012		2012		2012	
GRAND TOTAL	1368	COLLECTORS – more		TOTAL CALIFORNIA	1134
		than 1 collection:		– top 10 counties:	
Lichens	84	Lowell Ahart	434	Butte	364
Mosses	23	Lawrence Janeway	203	Plumas	125
Club mosses	1	Barbara Castro	141	Yuba	67
Ferns	10	Robert Fischer	48	Glenn	59
Whisk ferns	1	Tom Carlberg	43	Kern	59
Conifers	4	David Isle	19	San Bernardino	53
Flowering plants	1245	Karen Callahan	9	Inyo	50
		Tim Hanson	6	Tehama	40
				Nevada	39
				Riverside	36

Jan Monelo and the Beginnings of the Friends of the Chico State Herbarium


Linnea Hanson interviewed Jan Monelo in her home in March 2013 about her role in developing the Friends of the Chico State Herbarium. It was a very rich experience for both Jan and Linnea.

John Thomas Howell was a good friend of Lowell Ahart. When John Thomas Howell passed away in 1994 he willed his personal library to the Chico State Herbarium in the name of Lowell Ahart. At that time, Kingsley Stern was planning to retire and there was talk that since there wouldn't be anyone officially in charge of the Chico State Herbarium that it could be sold to UC Davis or UC Berkeley. When John Thomas Howell's books came to the Chico State Herbarium, Jan and Kingsley annotated and cataloged the 70 to 80 books that were donated.

Jan wanted to celebrate this collection that the Chico State Herbarium acquired. So, she got all the names and addresses of the Chico State graduates with a botany emphasis and others who she thought would be interested. She sent them all a letter asking them to attend a reception to celebrate this gift. 150 people came! Rob Schlising, Lawrence Janeway, and Kingsley Stern spoke.

Jan did this all on her own. Roger Lederer, who was the Dean of the College of Natural Sciences, gave her \$500 to send out the letters. He also gave her a book on fundraising and encouraged her to start a group to support the herbarium.

At the reception celebration, Jan asked several botanists in attendance if they would like to be part of a group to support the herbarium. This included Robin Fallscheer, Lawrence Janeway, Joyce Lacey, Kingsley Stern, Jan Monelo, and Linnea Hanson. These, along with John Copeland, were the founding members of the board of the Friends of the Chico State Herbarium.

(Continued on page 7) 

Hog Wild–Who’s Rooting for the Natives?

Wild pigs are not “good medicine” for our native plants. My sweeping generalization is based upon 23 years of observing the impacts of these non-native animals in the Stonyford area (Colusa County) during pig hunts. Some hunters might consider my “success ratio” dismal. I seldom “bring home the bacon” but my “pigging” adventures are always interesting. There’s always some wildlife to observe, juniper berries to taste (hoping to find another sweet tree) and the local flora to monitor. For me a “hunt” really consists of a hike, a view and a snack. Anything beyond that is just a bonus.

Wild pigs are primarily nocturnal. During long winter nights they often finish their “dinner” and bed down in good cover before daylight. First light will reveal their tracks, scats, rooting and mud rubs on oak trunks. If you’re in the right place, one or more pigs might even materialize. Once startled they usually run at least a quarter mile. In this area they usually disappear into the chaparral like “brush torpedos.” They can run through chaparral that I can’t crawl through!

While cattle trails tend to contour up ridges, pig trails usually climb directly upslope, so pig trails cause more soil erosion. I’ve observed rooted fields creating “chocolate” effluent during winter storms. This contributes to the soil being carried down ephemeral tributaries to Stony Creek.



Steep wild pig trail, heading directly up from Stony Creek (3/13/07)

Wild pig stomachs are usually extremely full at first light and their contents reveal a wide range of victuals. Oak mast [blue (*Quercus douglasii*), valley (*Q. lobata*) and scrub (*Q. berberidifolia*) around Stonyford] will be most prevalent when it is available.



Wild pig-rooted field during February rainstorm (2/16/04)


Pigs are opportunistic omnivores. I’ve watched pigs grazing on some short vegetation, but they usually are rooting for shoots, roots, corms, mushrooms, truffles or edible animal life. Worms, grubs or any dead creature would probably be “fair game.”

Plants in the Lily Family are frequently rooted for their corms. Patches of several of these species grow on the ranch where I usually hunt. After rains I’ve examined patches of Ithuriel’s spear (*Triteleia laxa*) and blue dicks (*Dichelostemma capitatum*) and discovered that pig noses aren’t 100 percent efficient. While they churn the soil very thoroughly and move the residual corms, some are usually left. One yellow mariposa lily (*Calochortus luteus*) site that the pigs rooted took several years to produce flowers again and it’s still “skimpy” compared to its pre-rooted condition. Several adobe lily (*Fritillaria pluriflora*) sites have been rooted almost every year, but some lilies usually reappear the following season, if the rainfall is right.

Deep circles are regularly rooted around a large number of the blue oak trees in this area. As soil is moved away from the trunks of these trees and succeeding rains erode it further down slope, I suspect that it must change the soil’s thermal insulation and reduce the moisture holding capacity in the immediate area surrounding these trees. This probably increases the moisture stress on these trees during the summer.

In early spring I’ve watched them root up Medusa-head (*Elymus caput-medusae*) roots on flat rangeland. Unfortunately, it always comes back. On rocky ridge-tops where they have repeatedly moved tons of rocks to unearth California melic (*Melica californica*) roots, it has barely made a comeback. This is a sad loss.

Once in the stomach, most vegetation becomes an unintelligible green mass. The bulk of one full stomach I examined was composed of fibrous material

(Continued on page 5) 

(continued from page 4)

along with scattered white chunks of munched up bulbs from harvest brodiaea (*Brodiaea elegans*), Ithuriel's spear, blue dicks, yellow mariposa lily or adobe lily! There were even a few annual lupine seeds (*Lupinus bicolor*).

Once I startled a wild sow that bolted from a ridge-top chamise (*Adenostoma fasciculatum*) stand. A closer investigation revealed she had left four small piglets in a nest of gray pine (*Pinus sabiniana*) needles, which she had concentrated under the lone gray pine. The screen of chamise had kept it well hidden.

On another occasion, after hearing "pig-talk," I watched as a small group of wild pigs appeared. Before reaching me they disappeared into thick chamise chaparral with scattered California juniper (*Juniperus californicus*). Once inside, they briefly fought over their favorite snoozing spots and then settled down to nap. I watched for about a half hour while listening to their occasional contented grunts. Finally two of them ventured into a very small opening and I spoiled their party. I then crawled through the chamise to investigate their bedding area. Several sows had excavated deep trenches under thick chamise, buckbrush (*Ceanothus cuneatus*) and juniper for their nests. It appeared to be a "wild pig condominium." Even after quite an investment of energy to create those nesting sites, the pigs did not use them every year. Late one December I discovered that a small group of pigs was using a site on a ridge-top saddle about a mile from the above-mentioned "condominium." At least two sows had collected purple needlegrass (*Stipa pulchra*) thatch to line their nests under overhanging California juniper branches.



Wild pig snoozing/nest area excavated under chamise

Although I enjoy watching wildlife and sharing "pig tales", I truly believe that wild pigs don't belong on our landscape. If there is a benefit from their aeration of the soil, it is trumped by the cost of lost soil and native vegetative biodiversity. Floristic, demographic and soil-movement studies of sites occupied by wild pigs would definitely help in the objective evaluation of their impacts. I'll leave that to the scientist with patience and a good sponsor. I've seen enough impacts from this introduced, non-native species to conclude that wild pigs are varmints and should be treated as such.

—David Isle

**All summer is available to
take photos!**

The 3rd Annual Native Plant Photo Contest

Sponsored by Friends of the Herbarium
Watch the Friends' website for details at
www.csuchico.edu/biol/Herb/Events.html



Recent Workshops

Introduction into Mushroom Foraging and Identification—January 19, 2013

Philip Carpenter was the instructor for the mushroom workshop at the Big Chico Creek Ecological Reserve. We had a full room of participants which was wonderful. We learned about mushrooms first and then went out to collect mushrooms. A casual inspection of habitat did not reveal their presence. On moving leaves and looking under logs, however, we found quite a diversity of fungi. We didn't find any edible ones though.

We then went back into the classroom to figure out what these mushrooms actually were. We used *Mushrooms Demystified* and keyed several of them out. Philip had brought a vast array of specimens from the Fungus Fair that had just happened the weekend before in Santa Cruz. Philip then explained what each of them were. There were so many it was hard to keep them straight but we got to see the variety of mushrooms that we have in our state.

Philip talked about the edibility of mushrooms and emphasized how important it is to be able to identify the mushrooms correctly. It was a wonderful workshop that everyone seemed to really enjoy.



The Wild Dessert: Preparing Food from Native Plants—February 9, 2013

Alicia Funk, author and coordinator of the Living Wild Project, <http://www.livingwild.org/>, taught a fabulous workshop on uses of California native plants to make interesting and tasty desserts. Twenty very enthusiastic students attended. Alicia shared her perspectives on why native plants in her Sierra Nevada foothill home are an important asset to her efforts to live a healthy and sustainable lifestyle. She provided many examples of how she believes everyone, and particularly children benefit from knowing the native plants around them, and their beneficial uses for food or medicine. Many of the examples she presented, as well as the recipes she shared are found in her book, *Living Wild—Gardening, Cooking and Healing with Native Plants of California*. Her book also includes detailed information on medicinal values and cultural names and values from our early indigenous people. Students learned how to make oak 'nut' (acorn) flour, and sampled fabulous chocolate coated acorn nut marzipan treats. We also sampled a lovely beverage made from infusing native plants, as well as savory, sweet yerba santa-infused dark chocolates. The stories of her experiments with recipes and the commitment of her entire family, from harvesting to preparation, was delightfully inspirational. Definitely visit her website for some of her favorite recipes and more information on living wild.



Opening the World through Nature Journaling—April 27, 2013

In this hands-on, workshop John Muir Laws taught the skills and techniques to integrate drawing and journaling into the classroom and daily life. California Native Plant Society has just released the 2nd Edition of its acclaimed *Opening the World Through Nature Journaling* curriculum which includes expanded materials on the techniques to draw plants and animals, new kid-tested and teacher-approved activities, and new materials to write poetry in the field. Later that day, John gave a free lecture titled "Subtle but Essential Relationships Between Species in the Sierra Nevada." The workshop and lecture were co-sponsored by the Friends and the Mount Lassen Chapter of CNPS.



Upcoming Workshops Sponsored by Friends of the Herbarium

Poaceae I: Springtime Grasses of California Valleys and Foothills—May 11, 2013, Saturday , 9am to 5pm

This workshop is designed to introduce participants to basics and some finer nuances of grass identification, using species commonly encountered during spring and early summer months in California's Valley and Foothill Annual Grasslands. Annual and perennial, exotic and native species from upland and seasonal wetland habitats (including vernal pools) will be addressed. Beginners, as well as those more advanced wishing to brush up on their skills, are invited. This workshop will be led by John Dittes, California Botanist and Consultant.



Hordeum murinum

Introduction to the Willows of California (*Salicaceae*)—June 22, 2013, Saturday, 9am to 5pm

How often do you meet a willow in field and have to assign "*Salix* sp." in your surveys? Cottonwoods and willows are the most common riparian hardwood species in California, and yet many of us are challenged in keying them out. Our trouble in making a positive identification is further compounded by only having vegetative material to identify during field visits when we think we need flowers to make a positive identification. The workshop will focus on the leaf, stem, and other growth characteristics that are useful in making identification while also emphasizing the regional distributions of the different species.



Salix gooddingii

This workshop, led by John Bair, will begin with a brief presentation focusing on the overall willow family taxonomy, recent taxonomic changes in the second edition of the Jepson Manual, geographic distribution, and key identification characteristics.

Introduction to Native Bees as Pollinators—July 18, 2013, Thursday, 9am to 5pm

This class will be led by Rob Schlising and Rob Irwin/ Additional details will be posted soon at www.csuchico.edu/biol/Herb/Events.html.

All workshops unless otherwise noted are held in Holt Hall 129 on the CSU Campus. Registration cost is \$100.00 personal, \$125.00 business, \$90.00 for members of Friends of the Herbarium, and \$40.00 student (only 2 seats available per class at the student price). Check out the FOH Workshop website for updates on these workshops at www.csuchico.edu/biol/Herb/Events.html.

(continued from page 3)

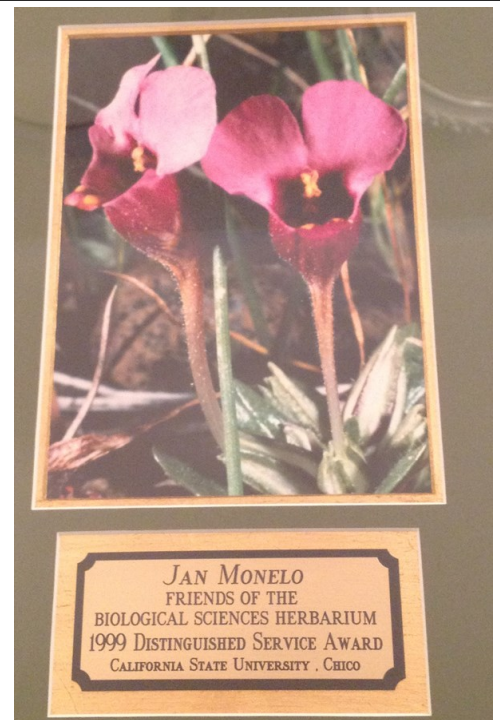
Jan Monelo and the Beginnings of the Friends of the Chico State Herbarium

When the Friends of the Chico State Herbarium board was formed the main concern was the question of whether or not the university was going to hire someone to replace Kingsley when he retired. If that didn't happen all were concerned that the herbarium could be sold.

The Friends group began with an event at Vina Plains. Data were collected by those who attended the event which detailed the species at Vina Plains; and Jan published a pamphlet from that event. We started developing workshops, the Jim Jokerst Award and the annual fall meeting. These group endeavors actually began to make money. A few years later the Department of Biology was supportive of the herbarium renovation. When Kingsley retired, the Friends of the Chico State Herbarium was in place, and a new taxonomist and Director of the Herbarium, Kristina Schierenbeck, was hired.

Jan served on the board from its founding in 1995 to 1999. She received a Distinguished Service Award for all of her contributions to the herbarium. The award plaque given to Jan included a framed enlargement of a photo of *Mimulus douglasii* (purple mouse-ears), one of her favorite flowers.

—Linnea Hanson



Yes! I would like to join/renew!

____ Student \$20.00
____ Individual \$35.00
____ Sustaining \$100.00
____ Lifetime \$1,000.00

Contribution to the Jim Jokerst Award \$ _____

____ Donation \$ _____

This is a renewal for 2013

Please make your check payable to: Friends of the
Chico State Herbarium

Name _____

Organization _____

Address _____

City _____

State _____ Zip Code _____

Phone no. _____

E-mail _____



Friends of the Herbarium

The Chico State Herbarium
California State University, Chico

**JOIN US FOR THE FRIENDS 5th ANNUAL HERBARIUM SPRING
OPEN HOUSE and Students' Plant Photo Contest Display
FRIDAY, MAY 17, 1:00 - 4:00. Held in conjunction with the 17th
Annual Biological Sciences Student Research Symposium.**

Friends of the Chico State Herbarium
California State University, Chico
Chico, CA 95929-0515
(530) 898-5356