

Friends of the Herbarium

The Chico State Herbarium
California State University, Chico

Newsletter

Vol. 17 No. 1

May 2011



2010 First Place – “Sweet California” by Julianne Biffaretti, LMHS

2011 Photo Contest Launches Open House



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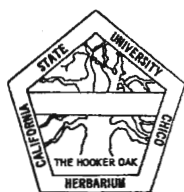
3rd Annual Chico State Herbarium Open House and Photo Contest

We're excited to announce the 3rd Annual Chico State Herbarium Open House **and** Photo Contest held on May 13, 2011, in the Chico State Herbarium (Holt Hall 129). The photo contest is designed to reach young people and expose them to natural sciences in the years just prior to college. 6th through 12th grade students were eligible to submit their favorite plant photographs to be judged by board members of the Friends of the Herbarium and compete for several prizes, including \$100 for the first place winner and smaller cash prizes for 2nd and 3rd place. The top three entries will also receive free enrollment to the Herbarium workshop of their choice to kick-start their botanical education. In addition, selected entries will be displayed in the Gateway Science Museum throughout the year for enjoyment of the entire community.

We look forward to this year's crop of entries being the biggest yet! Participation has increased from just 19 entries in 2009 to 33 entries in 2010. Photos have been submitted from several area schools, including Chico Senior High School, Paradise High School, Pleasant Valley High School, Hamilton High School, Los Molinos High School,

Contest continued on page 7





Friends of the Herbarium

The **Friends of the Chico State Herbarium**, Biological Sciences, California State University, Chico, was formed to help maintain the high quality of work that has been 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

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Lawrence Janeway
Herbarium Curator
Newsletter co-Editor

Colleen Hatfield
Herbarium Director
Newsletter co-Editor

Newsletter

Volume 17, Number 1

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MESSAGE FROM THE BOARD

Welcome to the Spring 2011 news from Friends of the Herbarium (Friends). The arrival of spring, and abundant wildflowers, is an appropriate symbol of the similar new growth of the Friends. We are excited to get back to publishing a Newsletter on a regular basis. (Our last issues was Volume 14 in 2008.). The dedicated, volunteer Friends Board of Directors team has several major projects to share with you. First we've taken our planning, to improve everything we do, to a higher level this year following our January strategic planning day (see article Page 4). Secondly, we developed an exciting line-up of spring workshops, including technical, non-technical and general interest botanically related topics. Last, but not least, the Friends hope to hear soon about much needed funding to upgrade the herbarium facility.

The wonderfully diverse Friends board is made up of dedicated volunteer botanists, representing federal and

state agencies, consulting firms and retirees. We recognized in our busy schedules that we need to maximize our productivity at meetings to be most effective in supporting the herbarium and botanical community. We spent a day of planning which sharpened our focus on tasks we can accomplish this year. Since January our sub-groups have returned with many valuable products to improve our performance, visibility and accomplishments this year in support of the herbarium. Coming your way in the near future is a vote to change the ByLaws of the Friends as a result of our productive efforts.

In 1995 the newly founded Friends mailed a questionnaire to 200 botanists asking how we might best serve the herbarium and the Northern California botanical community. Botanical workshops were a top priority then and continue to be to this day. This tradition of offering high quality workshops and instructors is evident again in our amazing spring line up. We hope

Accessions into CHSC during 2008, 2009 and 2010

Twelve years ago Vern Oswald started an annual tradition in this newsletter of summarizing all of the collections accessioned into The Chico State Herbarium during the preceding year by county and collector. We missed the past two years, so here are the summaries for 2008, 2009, and 2010. Total number accessions for each of the past twelve years are shown in the following table.

year	number	year	number
2010	3247	2004	4859
2009	1152	2003	1862
2008	2695	2002	1108
2007	2647	2001	2944
2006	2870	2000	2320
2005	2455	1999	3681



Lowell Ahart and John Dittes working on keying

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 mounted almost all of the specimens accessioned into the herbarium each year. This means that Lowell prepared about 5500 beautifully mounted specimens for the Herbarium during 2008-2010, all as a volunteer! (Actually, Lowell mounted more than that

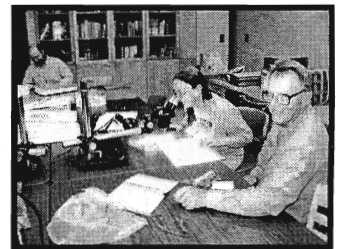
Accessioning continued on page 3

Herbarium Collections Summary

2008		2009		2010	
TOTAL	269	TOTAL	115	TOTAL	3247
Slime Molds	0	Slime Molds	20	Slime Molds	1401
Lichens	5	Lichens	0	Lichens	36
Liverworts	5	Liverworts	0	Liverworts	0
Mosses	134	Mosses	3	Mosses	0
Club mosses	0	Club mosses	0	Club mosses	1
Horsetails	0	Horsetails	1	Horsetails	1
Ferns	12	Ferns	10	Ferns	14
Conifers	5	Conifers	6	Conifers	6
Flowering Plants	253	Flowering Plants	111	Flowering Plants	1788
	4		2		
COLLECTOR (top 10)		COLLECTOR (top 10)		COLLECTOR (top 9)	
Lowell Ahart	830	Lowell Ahart	277	Dwayne H. Curtis	1271
Lawrence Janeway	360	Lawrence Janeway	170	Lowell Ahart	1043
John Dittes	157	David Isle	126	Lawrence Janeway	259
David Isle	59	R. A. Schlising	73	David Isle	82
Heather Koeth	31	John Dittes	48	Robert Fischer	41
Colin Dillingham	28	Barbara Castro	35	Barbara Castro	32
Barbara Castro	21	Susan Bazell	14	George W. Hartwell	11
Dean W. Taylor	20	Samantha Hillaire	9	N. L. Jurjovic	7
Samantha Hillaire	10	Virginia Moran	8	Elena Gregg	4
Julie Kierstead Nelson	12	Karen I. Callahan	5		
TOTAL CALIFORNIA	223	TOTAL CALIFORNIA	101	TOTAL CALIFORNIA	2626
	3		1		
TOP 10 COUNTIES:		TOP 10 COUNTIES:		TOP 10 COUNTIES:	
Butte	345	Butte	360	Butte	1143
Plumas	268	Lake	99	Plumas	333
Los Angeles	199	San Bernardino	91	Tehama	222
Lassen	161	Plumas	67	Mendocino	172
Merced	158	Tehama	65	Lassen	128
Modoc	146	Kern	41	Sutter	113
San Bernardino	142	Colusa	25	Napa	92
Siskiyou	96	Lassen	22	Marin	65
Kern	92	Nevada	19	Glenn	60
Shasta	60	Glenn	18	San Bernardino	44



Collecting at Dales Lake
(Lowell Ahart, Barb Castro
Tim Devine)



Lowell Ahart, Barb Castro
and Lawrence Janeway in the
Herbarium

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Accessions

number of specimens, since we have a significant backlog of mounted specimens to database and file.) 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 three years (and filing) was mostly done by two wonderful volunteers, Susan Bazell and Cindy Weiner. Thank you Susan and Cindy!

Thanks also to all of the collectors for their time spent collecting, identifying, and making labels for all of the specimens that they contributed to the Herbarium. Significant time goes into this process and I know that most, if not all, of this is volunteered on behalf of the collectors. Note that in 2010, 1271

of the accessioned collections were from Dwayne Curtis, retired faculty member from the Department of Biological Sciences. This was the result of Dr. Curtis's donation, in 2008, of his personal collection of specimens of Myxomycetes (slime molds), which was accessioned into the herbarium in 2010. Watch for more details about this donation in the next newsletter.

The table above summarizes the plant specimens accessioned into The Chico State Herbarium during 2008-2010, based on plant group, collector, and county.

—Lawrence Janeway, Herbarium Curator

Public Workshops sponsored by Friends of the Herbarium

Workshops put on by FOH have had at least two major purposes since beginning in 1995: 1) to assist in funding activities of the Chico State Herbarium (which has become increasingly important as state funding has diminished), and 2) to promote botany and showcase the Herbarium for the general public. Some of the instructors are able to donate their services entirely when leading workshops; others are reimbursed with a portion of the fees paid by registrants. Through the years FOH has presented a variety of workshops offered by experts on diverse aspects of plant biology.

All workshops are open to everyone, but are categorized as "Technical," "General interest," or "General interest/technical." Technical workshops expect registrants will have some background (e.g., familiarity with "keying"). Information and activities presented in workshops are usually meant to up-date, or provide practical experience to "working botanists" such as those in environmental consulting firms, in federal, state or private agencies, or those who teach. Examples of technical workshops given through the years (some given multiple times) have been on identification of grasses, sedges, sunflowers, willows, mosses, lichens, and plants of vernal pools.

Other workshops, of more "general interest," deal with plants in a broad sense: composting (on dead plants!) or general interest/technical on plant photography (on "virtual" plants!). And almost every year FOH has presented "Botanical Illustration" as a general interest/technical workshop by a Butte County artist.

The great variety of plant topics covered is illustrated by the workshops from early 2010 through early summer 2011. Well-qualified instructors presented identification workshops on lichens, mosses, willows, grasses, and sunflowers. Some workshops had field aspects, or were entirely in the field, such as "Name that Wildflower." FOH was fortunate to have an instructor offer a whole (indoor) class on "Health and Safety for Workers in the Field." Also some workshops dealt specifically with features of plants' habitats, such as soils and native bees as pollinators of plants in the wild and in the garden.

Workshops on plant photography, lichen identification, local soils and plants, and keying Fabaceae have already been presented in 2011. Other workshops through July include:

TECHNICAL

May 14, 2011 -- Introduction to Identifying Northern California Grasses (Poaceae) by John Dittes

GENERAL INTEREST/TECHNICAL

June 11, 2011 -- Fire Ecology by Kyle Merriam

TECHNICAL

June 18, 2011 -- Introduction to the Willows of California (Salicaceae) by John Bair

GENERAL INTEREST/TECHNICAL

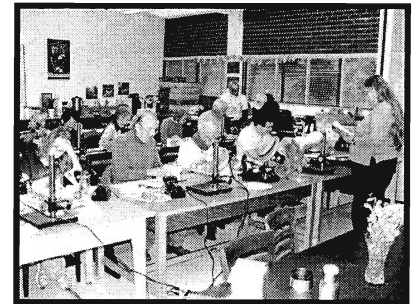
June 25, 2011 -- Introduction to the Serpentine Ecosystem by Hugh Safford

Workshops continued...

GENERAL INTEREST/TECHNICAL

July 28, 2011—Introduction to Native Bees as Pollinators in the Wild and in the Garden by Rob Schlising and Robert Irwin

John Dittes, who will be teaching the upcoming Grass Identification workshop this spring, is known for his superb communication/teaching skills and for the excellent plant materials he brings to use in his classes. John Bair, who has done willow workshops several times before, gets rave reviews for how "easy he makes willow i.d." Kyle Merriam and Hugh Safford are also world-class experts in the topics they will present, both with fieldwork as part of their classes. All these workshops are on Saturdays. The workshop on native bees as pollinators, by Rob Schlising and Rob Irwin, is on Thursday, with an optional fieldtrip to high elevation Butte County on the next day (July 29) to observe native bees in the field.



For more information about these workshops and the instructors, check out the Friends webpage at <http://www.csuchico.edu/biol/Herb/Friends.html>



Friends of the Herbarium Strategic Plan

On January 15, 2011 the board of Friends of the Chico State Herbarium met to develop a strategic plan. Our president, Jenny Marr, asked Jim Nelson who is a botanist, but also is a trained facilitator, to conduct the session. His wife, Julie Nelson, also a botanist, assisted him with this effort. It is of note that Jim and Julie volunteered their time!. We began the day with introductions then developed a timeline regarding the history of the herbarium. It was interesting to visualize what people remembered.

We then discussed our strengths, problems and opportunities. One interesting thread through the day was determining if we

Strategic Planning continued on page 7



Friends of the Herbarium Board, Lawrence Janeway, Colleen Hatfield along with facilitator, Jim Nelson (back left), at the Strategic Planning Meeting

The Herbarium and *Dittrichia graveolens* A little history and a new weed in Butte County

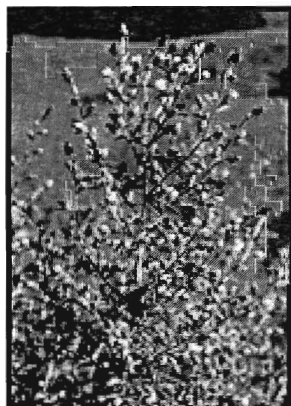
By Lowell Ahart, February 2009

A Little History of Collecting

In the spring of 1960, I attended a class on Plant Taxonomy instructed by Dr. Marge Anthony, at Chico State College. In the spring of 1961 I started collecting plants in order to learn more about plants and to keep from forgetting what I had already learned. On 9 September 1972, I took my collection to show Dr. Robert Ediger at Chico State – about 500 sheets. Dr. Kingsley Stern, on seeing the collection, was pleased but wished that I had put the county where collected on the labels. On 11 October 1972, I went to Chico and wrote the county where collected on the labels. If I remember correctly this was the first time I met Kingsley Stern. The herbarium was in Holt Hall and looked much the same as does today.

On 24 February 1974, John Thomas Howell of the California Academy of Sciences wrote to me asking me to collect plants for him. I may have sent him 5,000 collections over a period of 14 years. This collecting resulted in Tom Howell donating his personal library to the Herbarium in 1994, which started the Friends of the Herbarium.

On 10 February 1978, Dr. Rob Schlisling organized and held a plant meeting in Holt Hall. I remember Dr. Wes Dempsey, Dr. Stern, and numerous students attending the meeting. Rob Schlisling was elected President and the



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Mount Lassen Chapter of the California Native Plant Society was formed.

Marc Hayes, a very bright student, came to my home on 30 April 1978 and went through my plant collection. He was interested in preparing a flora of Butte County. Sue Taylor and Jim Jokerst continued Marc Hayes' work on a Butte County Flora, since Marc's love was really frogs. Jim Jokerst got involved in other studies and Sue Taylor continued on the project until she published her Butte County checklist in *Flora Buttensis* in 1980. Vern Oswald greatly expanded the checklist to publish his *Manual of the Vascular Plants of Butte County, California* in 1994.

Sue Taylor lived and breathed plants. As I remember she spent from about 1979 to 1984 imbedded in the Herbarium. She used the Herbarium typewriter to type the editions of her publication *Flora Buttensis*. She worked long hours typing plant labels and mounting plants. Any collection with "L. Ahart" as the collector is her work for some of my early collections (I always use my full name when making labels for my collections). She also collected 1000s of plants on her own and these are in the Chico State Herbarium. She got a job at the Missouri Botanical Garden in St. Louis, Missouri. Our present curator, Lawrence Janeway, has managed the Herbarium ever since.

In the winter of 1991, Dr. Rob Schlisling approached me with the suggestion that I mount some of the accumulating unmounted specimens in the Herbarium. I agreed and Rob supplied me with mounting paper and some unmounted specimens. That started me doing the mounting for the Herbarium. I later learned that there were two cabinets full of unmounted specimens – some two to three thousand specimens. What developed was that Dr. Vernon Oswald would get mounting paper and a box of 150-200 unmounted specimens and take them to his home in north Chico, where I would pick them up. Later I would come to his home

and deliver boxes full of mounted specimens. We would unpack the specimens and later Vern would sort the plants into families and record each species in the herbarium accession book. He would do this on his



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computer, print the pages, and take them and the mounted plants to the herbarium. Vern then put the new pages in the accession book in the herbarium, and he would stamp the herbarium logo and accession number on each sheet, and then file the plants in their proper species folders in the herbarium cabinets. It took considerable time to do all this.

From 1991 on I mounted all of the backlog of unmounted plants at the Herbarium, the new incoming unmounted plants, my own collections, Vern Oswald's collections (plus Lassen Volcanic National Park duplicates for their office herbarium at Mineral, and the Sacramento National Wildlife Refuge duplicates for their office herbarium at the Refuge) and of course the very many Oswald and Ahart collections.

On 11 February 2002, Vern Oswald died. I then had to go to the Herbarium to bring the mounted plants and get unmounted specimens and mounting paper. Our curator, Lawrence Janeway, has been very helpful keeping me supplied with unmounted specimens, paper and fragment folders. You can review past issues of the Friends of the Herbarium *Newsletter* to follow my progress.

Collecting and a New Weed for Butte County

Collecting continued on page 8

Why am I rare? A case study of a rare serpentine endemic: *Packera layneae* (Asteraceae)

by 2010 Jim Jokerst Field Botany Award winner—Melanie Williams

Packera layneae (Asteraceae) is a rare serpentine endemic, occurring in Butte, Yuba, Tuolumne and El Dorado Counties. Due to small populations and a fragmented distribution, it is state listed as rare and federally listed as threatened. *Packera layneae* is a perennial herb, growing up to approximately 0.5 m in height, and occurring primarily in open, rocky areas in chaparral and cismontane woodlands on serpentine and gabbroic soils.

To better comprehend why *P. layneae* populations are consistently small and have a limited distribution, even within the serpentine soil bands, my approach to the study which is the basis of my Masters thesis is six-fold:

- 1) characterization of species' habitat including associate species;
- 2) evaluation of dispersal distance;
- 3) evaluation of seed germination in a greenhouse setting;
- 4) seed bank experiment to determine presence/absence of seed bank;
- 5) compare germination and seedling performance in soil collected near plant populations as well as from areas where plants are absent;
- 6) development of a species habitat model.

The work I have conducted thus far has focused primarily on seed dispersal as a possible factor in this species' limited and patchy distribution. During the summer of 2010, I set up



Seed Matt Array (left) for evaluating the dispersal direction and distance. Most of the seeds fall close (<1m) to the mature plant and there is a tendency for seeds to be in the southerly directions from the dispersing plant (Table)

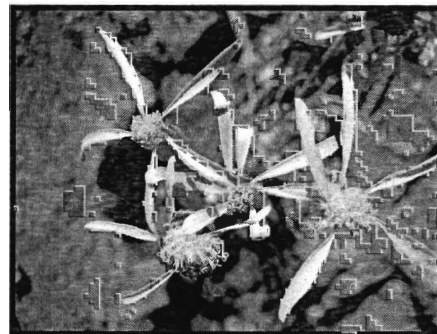
Distance from Mature Plant	Direction from Mature Plant							
	N	NE	E	SE	S	SW	W	NW
4 m	0	0	0	0	0	0	1	0
3 m	0	0	0	0	0	0	0	0
2 m	0	0	0	0	0	1	1	0
1 m	0	0	0	7	0	2	7	1
30 cm	2	14	3	69	8	22	1	5

two seed dispersal arrays to assess dispersal distance. I found that the majority (88.7%) of *P. layneae* seeds disperse within 30 cm of the parent plant; the furthest distance any seed reached was 4 meters. This suggests that restricted seed dispersal dominates in determining where *P. layneae* seeds germinate and establish which in turn may account for the restricted local patchy distribution.

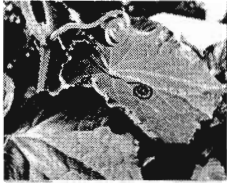


I have also worked towards characterizing the environment in which *P. layneae* exists. Based on data collected from monitoring plots installed at three locations in the Yuba County foothills, I have found that the main canopy dominants, Ponderosa pine and Incense cedar, are found at all sites. However, the two serpentine sites are quite different in community composition from the gabbro site. Additionally, I have found that *P. layneae* occurs with many other rare plant species including Sanborn's onion, Sierra erigeron, Ahart buckwheat and Motherlode yampah.

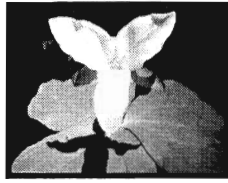
My current and future work focuses on germination, seed bank studies and species habitat and distribution modeling.



Contest Continued from page 1



2010 Second Place –
“Cucumber Swirls” by
Karlene Shippelhoue, HHS



2010 Third Place – “Trillium
Flower” by Katie Beal, PHS

Bidwell Junior High School, and Red Bluff High School. Last year’s winner hails from Los Molinos High School, with a Hamilton High School student taking second and a Paradise High School student taking third.

The Herbarium Open House, including the photo contest, coincided with the Department of Biology’s annual Poster Display and awards ceremony. With so many projects on display, and the excitement of upcoming graduation and summer, this day is always a visually stimulating and stress-relieving experience. As you stroll through Holt Hall checking out the student projects, be sure to stop by Holt 129 to visit with herbarium curator Lawrence Janeway, the student assistants, and some of the many volunteers that help to keep this stunning collection of plant specimens a valuable, vibrant and interactive resource.

Be sure to bring by a sample or photo of that plant you’ve been wondering about to quiz the experts!

If you know of a budding young photographer keep in mind that we will be having the photo contest again next year.



Message from the Herbarium Director

When the Dean of the College of Natural Sciences asked if I would consider serving as Director for the Herbarium I was simultaneously humbled and excited. I fully recognize the tremendous value the Herbarium provides for the University, the community, the North State as well as at the national level. While we may be considered a small, regional herbarium, the resources we have and the geographic area we represent are truly unique. The Herbarium will play an increasing essential role in understanding our future changing landscape. As Director, my role is to strengthen the partnership among the University, the College of Natural Sciences, the Biology Department and the Friends, to ensure that we are all working together to optimize the Herbarium’s potential. The Friends Board and I are also working to develop a strategic plan for both the Herbarium and the Friends that will help guide us toward achieving well defined short and long-term goals.

One of the many strengths of the Herbarium is education. The Friends and I work to engage students more as illustrated by four current graduate students who were the featured speakers at the Friends annual meeting where they presented their Masters research. We also currently have three students working in

the Herbarium, interacting with volunteers on a regular basis. One is working closely with Lowell Ahart to identify a camera set-up in order to establish a digital specimen archive. The exciting news is that we currently have more botanical related Masters students now than we have had in almost a decade!

Herbarium curator, Lawrence Janeway was instrumental in the Herbarium partnering with the Consortium of California Herbaria in a recently awarded National Science Foundation grant. The overarching goal of the project is to predict, understand and monitor the effects of climate change. Chico State Herbarium will be an active partner in the georeferencing of more than one-half million specimens. I will also continue to look for funds to help support our overabundance of specimens and to increase the capacity of the Herbarium. Though the Herbarium has undergone a series of administrative changes within the University over the last few years, the Herbarium remains strong and vibrant primarily due to the dedication and service of the Friends board and a strong network of volunteers. It is a true honor to work with such a passionate, committed group of folks.



Colleen Hatfield, Herbarium Director



Strategic Planning Continued from page 4

were talking about the Herbarium itself or the Friends of the Herbarium. So, we realize we need to get that distinction clearer in the future.

We began to talk about our vision for the Herbarium for the future. It was wonderful to hear everyone’s ideas. Once we developed our visions we grouped the topics. We also realize we had lots of ideas of what could be done but we need to be realistic of what we can actually accomplish.

We broke into small groups to develop how we are going to

actually implement the ideas we had come up with. We realized that putting into practice the ideas that were generated throughout the day will take time.

We have continued the process of determining how to implement our ideas after the strategic planning day ended.

We had a potluck lunch in the middle of the day which was enjoyed by all who attended. All in all it was a very fruitful day and hopefully lots of the ideas that were generated that day will be used in the future to help sustain the Herbarium.



Continued from page 5

Ahart—Collecting

In the winter of 2007, I mounted specimens donated to the Herbarium by Rob Preston. They consisted of a weed known as *Dittrichia graveolens*. He had been finding it along freeways in the Bay Area, and at several places along I-5 to Redding. A little while later I started mounting exchange specimens from the folks at the Department of Food and Agriculture Herbarium at Sacramento. Two of their specimens were also this new weed, from central California. Fred Hrusa had on his label “probably in most counties.” Well, at the time I knew of none from Butte County!!!

On 12 October 2007 I went to Chico and made a delivery of mounted specimens to the Herbarium. I unloaded the mounted specimens and got unmounted ones. I then took Highway 99 to Gridley. Just a little ways past the intersection to Richvale I saw some *Conyza*-like plants on the west side of the Highway. “What is that?” I thought as I glimpsed at it while driving at 65 miles per hour. That may be the new weed and I will have to return another day.

On 30 October 2007, I decided to see my good friend Pete who lives near Lake Wyandotte. As I drove along Lower Wyandotte Road I noticed a nice number of *Conyza* plants. They had small yellow flowers. **Yellow flowers?!** That’s certainly not *Conyza*! Then what is it? Perhaps this is the new weed – I will check it out when I return. Well, Pete was not home so I returned to Lower Wyandotte Road and stopped at the water ditch where there is a wide place to park. *Dittrichia graveolens* was common on both sides of the road. I collected small and medium sized plants (Ahart 14,506). I then collected *Baccharis*, *Aster*, and *Ambrosia*. **Oh, what Fun!** I then went to Highway 162 and went west to Highway 99. A little south past the Richvale intersection I turned onto Badger Creek Road and parked. I walked back along the highway a little ways and collected branches from large plants of *Dittrichia* (Ahart 14,510).

I then returned home. I had a problem – how do you prepare a label for a specimen if the plant is not in any of our local floras? Well, it just so happened that I had not yet delivered the collections from the Department of Food and Agri-

culture to the Herbarium. All I had to do was sort through the boxes of mounted specimens and find the collections of *Dittrichia*. This I did and was also able to make certain that my field identification was correct.

Now that I know what the weed looks like I have found it in more places. On 3 November 2007, on my way to near Kunkle Reservoir, I found that north of Oroville the weed grows along the east side of Highway 70. On returning from Kunkle Reservoir I saw and collected it (Ahart 14,577) on the west side of Highway 70, just before Thermalito. I now know it from three other places (where I didn’t collect it) where a few plants grow. I also found it in Yuba County, north of Loma Rica (Ahart 14,547). On 8 November 2008, I collected *Dittrichia graveolens* in a parking area on the west side of the Midway, west of the intersection of Midway and East Park Avenue, in Chico (Ahart 15,445). So, now we have a new weed to keep an eye out for. ~~Dear readers, it's only a new weed, but~~ **All Right!!!**

These are the Butte County Flora items that Lowell refers to:

Taylor, M.S., J.D. Jokerst, R.A. Schlinging, & L. Ahart. 1980. *Flora Buttensis* 1(3): 1-85. Checklist of the Ferns and Seed Plants of Butte County, California.

Taylor, M.S. 1981. *Flora Buttensis* 2 (1): 1-10. Supplement to the Butte County Checklist.

Taylor, M.S. 1981. *Flora Buttensis* 2 (3): 1-9. Second Supplement to the Butte County Checklist.

Oswald, V.H. 1994. Manual of the Vascular Plants of Butte County, California. California Native Plant Society, Sacramento, CA.

Notes about *Dittrichia graveolens* by Lawrence Janeway:

According to records at the Consortium of California Herbaria, the first California specimen of *Dittrichia graveolens*, also known as Stinkwort, was collected in Santa Clara County 1984. It was 13 years before it was collected from outside of the southern San Francisco Bay Area. Now there are specimens from 30 California counties from San Diego

County to Shasta County, and from sea level in the Bay Area to 2300 ft elevation in the Sierra Nevada foothills. While initially restricted to roadsides and vacant lots, *Dittrichia* is now found expanding into parks, open space, pastures, and even into vernal pools. It is also reported to be able to invade serpentine soils – soils usually resistant to invasive weeds.

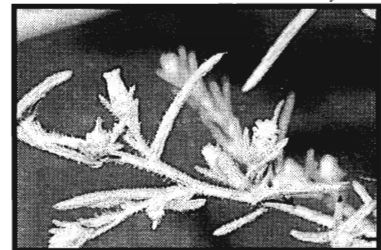
These plants are annuals that don’t start flowering until early fall, and then continue flowering until heavy frost kills them. Individual plants can produce as many as 30,000 seeds, which are easily spread by wind, vehicles, animals, and water. These plants have a shallow taproot and are relatively easy to pull up. There are some reports of contact dermatitis from the sticky oils that the plants produce.

For more information, see the Cal-IPC plant profile about this species at: www.cal-ipc.org/ip/management/plant_profiles/Dittrichia_graveolens.php

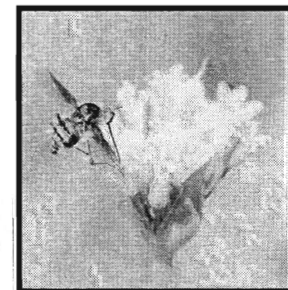
Other references:

- Consortium of California Herbaria search page: <http://ucjeps.berkeley.edu/consortium/index.html>
- Cal-IPC

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Allium jepsonii
(courtesy of Susan Bazell)

FRIENDS' FRAMES

As the Gateway Science Museum prepared for a major fall 2010 exhibit on forest trees and wood products, museum director Rachael Teasdale and FOH Board members discussed how a specific “northern California touch” might be added to the overall exhibit. Board member Rob Schlising gets credit for the project idea, and Rachel gets credit for “providing a whole wall” and for enthusiastically promoting and helping develop the northern California project. The FOH Board gets credit for soliciting a monetary donation from a friend of the Herbarium that was earmarked specifically for the project planned for this wall. The donation permitted the purchase of 16 custom-made picture frames in which full-sized herbarium specimens could be displayed.

Members of the Board made first use of the Friends' Frames after Herbarium

Curator Lawrence Janeway signed out a formal, 4-month loan of 16 valuable mounted specimens to the Board. The group carefully inserted the specimens (16 species of Northern California conifers, labels and all) into the glass-fronted frames. The pressed specimens represented some of the most prominent Chico State Herbarium collectors, including Lowell Ahart, Lawrence Janeway, Jim Jokerst and Sue Taylor. The Board then assembled additional objects for the display—16 dried, real, 3-dimensional (not pressed!) cones. These were glued onto squares of white posterboard, to display on the



Dicentra uniflora (Steer's-head) a small, ephemeral geophyte. Butte County

wall just above the hanging picture frames. And a second set of cones was assembled to provide close-up viewing in a glass-fronted stand near the rest of the wall display.

The Board thus successfully brought a specific “northern California touch” to the Museum's grand and general forest display. The Board also provided public exposure for Chico State Herbarium's mounted specimens.

The Friends' Frames totally protected the Herbarium's hanging specimens, and permitted finger-free and nose-close examination. Even if you missed viewing this bit of the Herbarium in the context of the Museum's overall fall exhibits, it is likely that you can view the Friends' Frames containing different Herbarium materials in the future—at the Gateway or in some other venue.



FRIENDS OF THE HERBARIUM ANNUAL MEETING Saturday, November 6 2010

As always, the annual meeting of the Friends of the Chico State Herbarium was both fun and interesting. Between 3 and 4pm attendees talked and sampled the wonderful food brought by Board members. Then everyone took seats for the program.

First, curator Lawrence Janeway reported on what had been accomplished in the Herbarium during 2010. Out of the total of 104,529 accessioned specimens, 2854 specimens were accessioned in the last year, and about 4000 additional specimens had been acquired and were waiting to be accessioned. The number of our databased specimens had risen to 99,414 as of that date (all vascular plants, bryophytes, lichens and most of the myxomycetes). All of the databased California vascular plants are queryable at the Consortium of California Herbaria website, an immensely valuable resource.

Melanie Williams was able to continue as part time Work Study student thanks to College of Natural Sciences funding and two other students. Erin Gottschalk Fischer

and Tim Hanson, were also assisting in the Herbarium thanks to a donation from a generous supporter. The Herbarium also was receiving administrative help from Julie Braden in the Biology Department office thanks to support from the College.

Lawrence acknowledged all the volunteers who do the mounting, georeferencing and databasing of specimens. Lowell Ahart had mounted a total of 1817 specimens since the last annual meeting, including 1007 of his own collections. Bill Carlson had georeferenced about 3000 specimens during the year, for a total of about 43,000. Lawrence then introduced the current board of the Friends of the Herbarium: Jenny Marr, Caroline Warren (leaving the board after 10 years), Rod Lacey, Rob Schlising, Linnea Hanson, Gail Kuenster (leaving the board after 9 years), Elena Gregg, and new board members, Adrienne Edwards and Susan Bazell.

Next, the 2010 Jim Jokerst Field Botany Award winner, Melanie Williams, presented her research on “Why am I rare? A case study of a rare serpentine endemic:

Packera layneae (Asteraceae)”. Following Melanie we heard a wonderful series of short talks by Chico State graduate students, describing their current research projects. They were:

Melissa Patterson - “Conservation biology of a rare Northern Californian endemic plant, *Phacelia cookei*”;

Nicole Habecker - “The ecological niche scenario as an isolating factor between *Mimulus glaucescens* and *Mimulus guttatus*”;

Erin Gottschalk Fischer - “Vernal pool restoration for two rare grasses, *Neostapfia colusana* and *Tuctoria greenei*, at the Sacramento National Wildlife Refuge Complex”;

Tim Hanson - “Assessing the ecology and life history traits of a rare California endemic, *Monardella douglasii* ssp. *Venosa*”;

Melissa Ha - “The selection of pollinator-mediated competition and facilitation on phenology in the genus *Clarkia*”;

Rachel Francis - “Assessing restoration in Sierra Nevada meadows”.

Yes! I would like to join!

____ Student \$20.00
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This is a renewal for 2011

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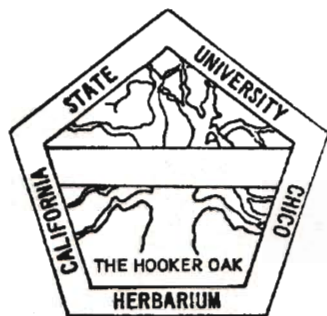
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Friends of the Herbarium

The Chico State Herbarium
California State University, Chico

Newsletter



*Watch the Friends website for details on the upcoming
Fall Native Plant Photo Contest*

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