

# Friends of the Herbarium

The Chico State Herbarium  
California State University, Chico

## Newsletter

Vol. 18 No. 2

October 2012

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EVERYONE IS INVITED

Friends of The Chico State Herbarium  
California State University, Chico

### Annual Meeting

☞ November 3, 2012, Saturday ☞

Holt Hall Room 129

Reception at 3:00 pm

Meeting at 4:00 pm



A short update from Friends of the Herbarium will precede the talks.

Jim Jokerst Field Botany Award winner:

Erin Gottschalk Fisher

“Evaluating vernal pool restoration for two rare grasses,  
*Neostapfia colusana* (Colusa grass) and *Tuctoria greenii* (Greene’s tuctoria)”

Special Guest Lecture:

5:00 pm in Holt Hall Room 268

by Dr. Connie Millar

“From Mountain Tops to Canyon Bottoms:  
Climate’s Variable Effect on Sierran Ecosystems”

For details about the talk please visit our web site at  
[www.csuchico.edu/biol/Herb/Friends.html](http://www.csuchico.edu/biol/Herb/Friends.html)

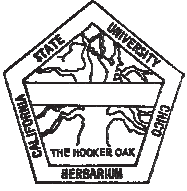


The Friends of the Herbarium will be taking our special guest out to dinner following the Annual Meeting. Please join us.

EVERYONE IS INVITED

PLEASE JOIN US

PLEASE JOIN US



## 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 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

Elena Gregg  
Jenny Marr  
Linnea Hanson  
Rob Schlising  
Adrienne Edwards  
John Dittes

### ADVISORY CAPACITY

Lawrence Janeway  
Herbarium Curator  
Newsletter co-Editor

Colleen Hatfield  
Herbarium Director  
Newsletter co-Editor

### *Newsletter*

### Volume 18, Number 2

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.

### Message from the President:

The Friends of the Herbarium (Friends) Board would like to thank all of our members and everyone who participated in our workshops this year, from the instructors to the attendees. Your continued support of our organization and its programs help to keep the Chico State Herbarium funded. We want to encourage you all to continue to watch our website for updates as our new 2013 workshop series is developed—and it is looking pretty exciting!

The Friends would also like to send a special thank you to two of our distinguished Board members, Rodney Lacey and Susan Bazell, who have recently stepped down from the Board. Their dedication and hard work never went un-appreciated!

As usual, our Annual Meeting open to the public will be on the first Saturday of November. This is a time for all members to come to the Herbarium and show their support, talk with Board members, and get the scoop on what's been happening in the Herbarium and with the Friends Board. At this year's meeting we will also be taking a vote from the members to approve our revised By-laws. The By-laws have been updated to reflect changes that have taken place at the University and with the Board

over the years. As required in the current By-laws, revisions to the By-laws must be submitted to the general membership for approval by a simple majority at the general meeting. The revised text of the By-laws has been provided on page 9 of this newsletter for all members to review. So come to the Annual meeting ready to vote! To wrap up our Annual Meeting, we are pleased to present Dr. Connie Millar as our Special Guest Speaker. She will be discussing the fascinating subject of climate change in Sierra Nevada ecosystems. We hope to see you all there!

### Photo Contest Winners on Display at the Gateway Science Museum:

The Friends are pleased to announce that the Gateway Science Museum will be displaying the past winners of the Friends' Student Photo Contest and Native Plant Photo Contest for adults. Starting with their new fall exhibit cycle, which opened on September 29th, the 2011 photo contest winners have been put on display in their Discovery Room. The goal is that this will be a regular spot to display our past photo contest winners. You will be able to see the 2012 photo contest winners on display in the Discovery Room after the first of the year when the Gateway Science Museum rolls out their spring exhibit cycle. EG

### Second Annual Native Plant Photo Contest

We are pleased to announce the second annual native plant photo contest. Entries were due by October 19th and the winners will be announced at the Annual Meeting. The First place winner will receive a free registration to a FOH sponsored workshop of their choice. Second and Third Place winners will receive a tee-shirt.

Winning photos will be on display at the FOH Annual Meeting as well as in the Chico State Herbarium.

## Avenue 9 Art Gallery Exhibit

Art, Science, and Education combined in the Avenue 9 Gallery's exhibit "It's our Nature" which was held in the gallery from June 29 to July 29, 2012. The ceramist Tedo Best was featured, who recycles found objects and broken parts of her own work, explores the nature of clay. Many of her objects that were featured included flowers in different forms. The exhibit also celebrated the Friends of the Chico State Herbarium with six framed herbarium specimens of wildflowers, illustrations from Susan Bazell, and a brochure about the Friends of the Herbarium activities. Linnea Hanson led a group of local artists on a wildflower tour of Table Mountain in the spring and a selection of paintings that resulted were shown. Children from the Wildflower Charter School, whose curriculum combines art and science, also displayed their wildflower drawings. The recent *Wildflowers of Table Mountain* book was featured with copies of the book for sale, an illustration from Larry Jensen and a continuous slide show of Table Mountain photographs from Albin Bills.



On Friday June 29 from 5 to 9 pm there was an Opening Reception with refreshments and music by Chico Strings. This was well attended by many people from throughout the Chico community.

There were two Saturday receptions in July at the Avenue 9 Gallery that were well attended. On July 14, Linnea Hanson talked about the Friends of the Herbarium, the Chico State Herbarium and herbarium specimens. Many interesting questions were raised by the audience about the herbarium and how specimens are collected and preserved. Samantha Hillaire attended and helped answer questions about the new Table Mountain book, since she is one of the authors. Linnea brought wildflower coloring pages from the US Forest Service Celebrating Wildflowers website for children to color during the afternoon. The children from Wildflower School sang songs for everyone's enjoyment. Naty Osa read from her children's books that her son has illustrated, which was a delight.

On July 21, Albin Bills, one of the new Table Mountain book authors, and Jenny Marr talked about Table Mountain and also the Chico State Herbarium. Jenny shared a summary of the history, significance and relationship of the Chico State Herbarium and the Friends of the Herbarium. She talked about the pressed herbarium specimens on display and how important contributions of these have been used recently in studying the effects of climate change on vegetation in California. She invited anyone interested to visit the herbarium on Fridays, and offered brochures and membership details for becoming a member of the Friends of the Herbarium. Albin presented a beautiful and inspiring slide show that illustrated the intricate geology, natural history and biologically rich uniqueness found on the North Table Mountain. His presentation was well received, and led to many questions. Samantha Hillaire and Larry Jensen, illustrator of the new Table Mountain book, were there to help answer questions also. It was great to see such an enthusiastic and interested audience, and to receive such a positive reception in the Avenue 9 Gallery!

Linnea Hanson/Jenny Marr



## Appreciation for Dedicated Service to the Friends of the Herbarium and the Chico State Herbarium

The Board of Directors for the Friends of the Chico State Herbarium would like to thank Rod Lacey and Susan Bazell for their valued work on the Board. Both Rod and Susan are leaving the Board and we thank them for their numerous contributions.

Rod Lacey joined the Board in 2008. He was our scribe for several years taking notes at board meetings. He helped develop the policies and procedures that the Friends use for the workshops and other activities. He was instrumental in starting the Student Plant Photo Contest in 2009 which occurs each spring during the Biology Department Open House. He also developed the Friends of the Herbarium Facebook page.

Susan Bazell joined the Board in 2010. In addition to her time volunteered to databasing herbarium specimens, she helped develop the new Friends of the Herbarium logo. She also spent many long hours last spring developing the display of spring flower photos in the hall case outside of the herbarium in Holt Hall. Susan was very involved with the Avenue 9 event this past summer selecting the specimens to be on display at the art gallery and submitting some of her own drawings for display. Susan also has brought the Chemistry of Plants workshop to the Friends of the Herbarium.



With Rod and Susan leaving the Board, we will be actively looking for new Board members. If you are interested in joining the Friends of the Chico State Herbarium Board, please contact Elena Gregg, Board President at [friendsoftheherbarium@gmail.com](mailto:friendsoftheherbarium@gmail.com).



## Upcoming Workshops Sponsored by Friends of the Herbarium

### Saturday, December 8th 1-3pm- Wreath Making Workshop

Bring a little native plant cheer into your Holiday Season! Wreaths have been created since ancient times to represent the virtues and harvests of many cultures and religions (for example, the Greeks used oak leaves to symbolize wisdom). Did you know that Hollywood was named for the holly-like appearance of our native toyon (*Heteromeles arbutifolia*)? Hollies have been used in wreaths since at least the late Middle Ages to symbolize eternity and new life. Come create a wreath of fragrant native plant clippings such as white sage (*Salvia apiana*), incense cedar (*Calocedrus decurrens*), coast redwood (*Sequoia sempervirens*), manzanitas (*Arctostaphylos* spp.), California bay (*Umbellularia californica*), and other plant clippings and adornments (cones, acorns, oak galls, berries). If you have any plant clippings or decorations you wish to add, we recommend you bring them (including grape vines for a vine-and-wire base)! We will provide a small handout on the history of wreaths through time, and some ethnobotanical information on the native materials as well. These small wreaths are fragrant and beautiful on interior mirrors, garden gates, mantelpieces, and tables.



Toyon Wreath

Cost: \$20 materials fee to make one 10-12 inch wreath (or pay an extra \$10 to make two wreaths during the workshop).

**February 9th—The Wild Dessert: Preparing Food from Native Plants** by Alicia Funk, author of the popular book entitled *Living Wild*.

**April 27th—Botanical Illustrations and Teaching Nature Journaling** by John Muir Laws

**May 11th—Poaceae-1; Springtime Grasses of California Valleys and Foothills** by John Dittes

**June 22nd—Introduction to the Willows of California (Salicaceae)** by John Bair

All workshops unless noted otherwise are held in Holt Hall 129 on the CSU Campus. Check out the FOH Workshop website for updates on these workshops as well as more workshops in our spring lineup at [www.csuchico.edu/biol/Herb/Events.html](http://www.csuchico.edu/biol/Herb/Events.html).



## Workshop & Event Highlights

### Introduction to Native Bees as Pollinators—July 26, 2012

Rob Schlising and Rob Irwin presented their workshop for the third year. The class was full, with participants from points as distant as Carmichael, Davis, Gold River, Occidental and Redding. It was special to have several members of the Xerces Society enrolled. And since several enrollees raise domestic honeybees, there were good discussions comparing honeybees with native bees. There was ample time to key preserved bee specimens to family and genus using the Herbarium's excellent 'scopes and a shortened basic key made by Rob Irwin. Throughout the day, the instructors presented Powerpoint sessions on "what is a bee?," "evolution and biogeography of bees in California," and "appreciating native bees in the field and garden--without a microscope." There also were six sessions describing the six families of native bees in northern California. Almost half of the class took the optional fieldtrip the next day, to high elevation margins of Butte County. It was very dry here, but many pairs of eyes and much athletic enthusiasm permitted many bees to be collected with nets, viewed in small bottles, and then released. Steve Fischer (standing at left, in his picture of the field group) has posted his pictures of native bees seen here at: [http://www.stephenfischerphotography.com/Nature\\_trips/Chico\\_native\\_pollinator\\_field\\_trip\\_2012-07/index.html](http://www.stephenfischerphotography.com/Nature_trips/Chico_native_pollinator_field_trip_2012-07/index.html)



### Fendango! A Workshop on Bryophytes and Vascular Plants of Fens—August 18, 2012

A diverse group of participants joined Instructors Carl Wishner and John Dittes at UC Berkeley's Sagehen Creek Field Station in the northern High Sierra Nevada, arriving from as far away as Mendocino and the Sequoia National Forest. It rained the night before and drizzled a few times during the cool overcast day; it was as refreshing as educational. Carl led the workshop, with John helping, describing the many "big and little pictures" presented by the fens. Central to the day were two fine handouts, kindly produced and provided by Carl. We started with an introduction to Fens and overview of Sagehen Creek using his information-packed, 26-page workshop handout, complete with diagrams, a site-specific bryophyte list and references! Once up-to speed on basics, we meandered through the coniferous forest, wetted our feet crossing the creek and entered onto the first fen of the day. Carl then guided us through his recently published, highly detailed *Bryophytes of Fens in the Northern Sierra Nevada, An Illustrated Booklet* (USDA, August 2011). Using hand lenses and with his excellent teaching skills, we learned ecology, terminology, and morphological characters as we keyed the various moss and liverwort species selected. As we poked along into each new fen and microhabitat, John would add-in, pointing out and naming the vascular plants present. The instructors' expertise, enthusiasm and many hours of preparation paid off; much was learned and a good time had by all.



### Introduction to Keying Sunflowers (Asteraceae)—September 8, 2012

This popular FOH workshop was again presented by John Dittes, this time using the new Jepson Manual (JM2). A bright display of fresh specimens was provided with collections made in the Transverse Ranges of Southern California, northern Sacramento Valley, Sierra and Cascade Range foothills, and High Cascade Range. A total of 54 species, representing 40 genera and 13 of the 15 subfamily groups were on hand. We started with an overview of the family, discussing morphology of the "typical" sunflower. Then we were presented with "variations of the theme." Participants were shown the often-small outward differences in individual flower morphology that belie sexual function. Group- and genus-defining combinations were demonstrated: male and female capitulae or "heads" on separate plants; separate male and female heads on individual plants; and within bisexual heads on single plants, we learned to recognize individual flowers that were bisexual, pistillate, staminate or neuter! By lunch participants were discerning these features on the challenging *Pseudognaphalium*. After the break we progressed through other groups and genera until arriving at the "sticky" tarweeds, one of the instructor's favorites. Much territory was covered that day. In review, one participant wrote, "There are several reasons why John's workshops are so beneficial. He knows his plants exceptionally well and with diverse and abundant fresh material, he leads participants through a key together. With one plant at a time he carefully describes diagnostic features...all the way to genus or species. He obviously loves sharing his knowledge of plants."



## How is the Herbarium at CSU Chico Used?

As discussed in the last FOH Newsletter, the Herbarium at California State University, Chico houses a regionally important plant collection that is used by diverse botanists. In 2010 and 2011 alone, over 350 person-visits were made, representing 9 universities, 9 government agencies, and 12 consulting firms. They travelled from as far away as San Diego, Washington, Illinois and Ottawa, all coming to examine first-hand some of the 109,288 specimens held. How are these botanists “using” the collection? Why did they come?

The herbarium collection represents a “snap-shot” in time, and a “cross-section” of a significant portion of California’s biodiversity. The geographic range covered, the diversity of species represented, and the number of different collections of species from diverse locales makes it an important reference for those delving into unfamiliar local floras for the first time and for those trying to understand and describe elements in the overwhelmingly diverse California flora.

For 2010 and 2011, the visitor log lists the “task at hand” for each visitor. In summary, those coming to learn about plants of a particular geographic area list as floras of interest, “Merced, Mendocino and Humboldt Counties”, “Lassen, Modoc and Plumas Counties”, Mendocino National Forest, Table Mt. (Butte County), Ishi Wilderness, Inner North Coast Range, Western Sacramento Valley (saline), High North Coast Range (serpentine), Yolla Bolly Wilderness, Mill Creek (Tehama Coun-

ty), Mt. Eddy, Walker Ridge, Berry Creek, Little Grass Valley Reservoir, Diamond Mountains (Lassen County), Antelope Lake (Lassen County), Mojave Desert, Ajumawe State Park (Shasta County), the Southern Sierra, Thompson Valley (Plumas National Forest), Kanaka Glade, Bear Wallow, Scotts John Creek and Coyote Ridge (Inyo County).

Also among visitors during these two years are botanists working on taxonomic treatments. Among registered names are Barbara Ertter from UCB (*Potentilla*), Richard Lis from CDFG (*Spiraea*), Michael Mesler from Humboldt State University (*Ribes*), Nancy Morin from Point Arena (Campanulaceae), Julian Starr and Tamara Villverde from University of Ottawa (*Carex*, *Eriophorum*), Michael Williams from Butte College, (Berberidaceae) and Peter Zika from University of Washington (*Carex*, *Luzula* and *Juncus*). If we delve back into logs from previous years, we would see more names working in the lead-up to Jepson Manual-2 and Flora of North America volumes.

And finally, consultants and agency botanists come to see specific genera and species as they conduct floristic inventories for environmental impact analysis; they need to see “real-life” examples as they work their way through dichotomous keys, making their lists. What better way to assure accuracy and completeness of floral surveys? All in all, the visitor log lists 11 families, 70 genera and 25 species (11 of which are rare), that for one reason or another were of particular interest to visitors of the CSUC Herbarium those two years.

John Dittes 🐼

## The FOH 2012 Jim Jokerst Award: Evaluating vernal pool restoration for two rare grasses, *Neostapfia colusana* (Colusa grass) and *Tuctoria greenei* (Greene’s tuctoria). Erin Gottschalk-Fisher, Dept of Biological Sciences, CSU Chico

Vernal pool habitats and associated plant and animal taxa have been significantly reduced by conversion to agriculture and urbanization. As a result, a number of vernal pool-dependent species have become rare and extirpated both locally and range-wide. This is true for several endemic vernal pool plants including *Neostapfia colusana* (Colusa grass) and *Tuctoria greenei* (Greene’s tuctoria) (Orcuttiae tribe of the grass family, Poaceae). Building upon previous conservation research on these two grasses, the goal of my research is to examine the potential for introductions of rare grasses into vernal pool habitats. To this end, I have established four study sites, two sites with restored vernal pools and two reference sites with extant populations of the rare grasses. During spring and summer 2010-2011 I collected information on vegetation associates, dry-down hydrology, and



Left: Vina Plains where a large population of Greene’s tuctoria is found and part of the study area. Right Greene’s tuctoria growing out of an experiment packet

Colusa grass and Greene’s tuctoria population locations to compare and inform introduction success. In January 2011, I introduced Colusa grass and Greene’s tuctoria into the restored pools and, for comparison, reintroduced the grasses into the reference pools. I monitored the four sites collecting germination, survivorship, and reproduction information. Preliminary results show a range of 5-70% germination at the four sites. Greene’s tuctoria introduction at the restored site was particularly

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## Old Plants, New Names and Discovery of False Indigo (*Amorpha fruticosa*) in Butte County

By Lowell Ahart, Spring 2012

Finding a new native plant in Butte County is often quite accidental. The beginnings that ultimately led to my new discovery came about when Josephine Guardino got me interested in cataloging and collecting plants in the eastern addition to Upper Bidwell Park. Early on, John Dittes introduced me to trails here—from Ten Mile House starting at Highway 32 down to the Guardian and other Trails in the canyon of Big Chico Creek.

Another thing happened that ultimately promoted my finding the new plant. The new Jepson Manual, second edition (TJM2)<sup>1</sup> came out early in 2012. I spent over a month converting a very familiar book, Oswald's Selected Plants of Northern California<sup>2</sup>, into a new version with changed plant names, so that I could more quickly make labels for my northern California plant collections. I made two more copies of the updated Selected Plants, for Josephine and for Lawrence Janeway. Lawrence is now making changes in Selected Plants for a new edition, and has already had me proof-read his updated version of the Asteraceae. Hopefully we can have a new Selected Plants printed in 2013. My updated book soon came in handy.

In early spring 2012, Rob Schlising emailed me that Dan Potter, of the University of California, Davis, was giving a workshop in Chico for Friends of the Herbarium, on plant name changes in TJM2. Rob requested that I help collect local plants for use in the workshop planned for April 21st. Since I had already figured out and noted down all the changes that pertained to our northern California plants, all I had to do was find the plants in flower and bring them to the Herbarium the day before the workshop.

On the 16th of April I met Josephine, Linnea Hanson, and Susan Bazell to continue work on recording plants in Lower Bidwell Park. That day I asked Susan if she would collect Coast Redwood (*Sequoia sempervirens*) for the workshop, since it represented a change in family from Taxodiaceae to Cupressaceae. To help provide material for the workshop Susan also agreed to collect some McNab Cypress (*Cupressus macnabiana*) in Magalia, since the new genus name was now *Hesperocyparis*. These were the first of many plants with new placements or with name changes that were assembled for the workshop.

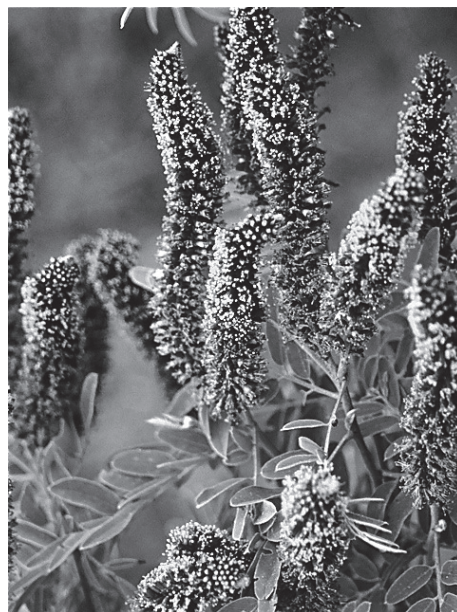
The next day, near Gridley I collected Box Elder (*Acer negundo*) which is now in the Sapindaceae rather than the Aceraceae. Then, at the Oroville Wildlife Area I collected Northern Watermeal (*Wolffia borealis*) which is transferred from the Lemnaceae to the Araceae. I picked up Valley-tassels (*Castilleja attenuata*) now in the Orobanchaceae, another family name change (from Scrophulariaceae). Foothill Lotus (*Lotus humistratus*) was collected because now, as *Acmispon brachycarpus*, it would illustrate changes in both genus and species names. At home, in my garden I took some Scarlet Pimpernel (*Anagallis arvensis*) to represent a change from Primulaceae to Myrsinaceae. Nearby, at North Honcut Creek, I collected some very good California Pipevine (*Aristolochia californica*) to represent another type of name change. The old Division Anthophyta has been split into five new groups called "major clades"—which are named Nymphaeales, Magnoliids, Ceratophyllales, Eudicots and Monocots. Pipevine is now in the major clade Magnoliids.

I emailed Rob about all these collections, and that I was going to collect more in the new area of Upper Bidwell Park and would meet him at the Herbarium at 4 p.m. on the 20th. By then Rob and Susan would have taken the route to Table Mountain and would have collected workshop material of several "lilies"—many of which were now in new families in TJM2. Robert Fischer was to pick up Indian Warrior (*Pedicularis densiflora*), changed from Scrophulariaceae to Orobanchaceae, and Rock Phacelia (*Phacelia egena*), changed from Hydrophyllaceae to Boraginaceae. Obviously, all the fresh specimens on hand would nicely illustrate major name changes that common northern California plants have undergone!

As planned, I walked down Ten Mile House Road into Bidwell Park from Hwy32, all the way to Big Chico Creek. To the north a bit I collected some California Bay (*Umbellularia californica*), now considered to be in the new major clade Magnoliids. Then I came to an open grassy area where I collected some *Trifolium bifidum* to send to Randall Morgan (now "the clover man"). Then I crossed a deep drainage and looked for some *Luzula* for Peter Zika, who needed more material for a class on rushes planned for June.

Then, deciding to save time getting back to Ten Mile House Road, I followed the deep drainage, and made my new discovery: I encountered a low shrub with leaves like Black Locust. I remembered collecting something like this many years ago in the Sutter

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(Continued from page 7)

Buttes on the Dean Ranch, and sending specimens of it to John Thomas Howell at the California Academy of Sciences in San Francisco. Since the plant was not yet in flower I did not collect any of it. When I got to Ten Mile House Road I could still spot the plants down below—ready for revisiting at a later time.

I took the South Rim Trail (called Annie Bidwell Trail on some maps), and in a pond was able to collect Hornwort (*Ceratophyllum demersum*) no longer listed under Anthophyta, but rather in the major clade Ceratophyllales. On basalt rocks farther along on the same trail Austin's Rockcress (*Arabis breweri* var. *austini*) was collected for the workshop, for this plant's name has been changed to *Boechea breweri* subsp. *shastaensis*—both a genus and a subspecies change. At this point I asked a passing hiker the time. It was already 3:10, oops!! I was going to be late getting to the Herbarium. Off I went up Bloody Pin Trail (it was steep and it was very hot!). Making it to Guardian and Ten Mile House Trails and then plodding along up to Highway 32, I was happy to make it, considering the heat of that afternoon!

When I got to Holt Hall an hour and a half late, Susan and Rob, who were just about to leave, were glad to see me; they helped put the specimens in glass jars of water. They were very happy with all my collections, and when emailed of their thanks after the workshop the next day, I was informed that the class was a great success. Dan Potter was impressed with the diverse local materials made available for it.

But the second part of this story—discovery of that new plant deep in the canyon of Bidwell Park—represents another success. I returned to collect it (still not in flower) on 12 May (*Ahart* #18,027) and keyed it to False Indigo (*Amorpha fruticosa*). I collected it again, now in flower, on 9 June (*Ahart* #18,177). Not only was this a new record for Butte County, but this plant represents a new addition to Oswald's Selected Plants. In the decades, counties visited and many miles traveled in our northern California botanical explorations, this was “a first” for the genus.

Checking the Consortium of California Herbaria<sup>3</sup>, one can see there are only 244 recorded collections from California. Noting the distribution of these collections, it is seen that my discovery is not only new for Butte County, but represents the northernmost known collection in California: San Diego County-129 collections; Riverside County-82 collections; San Bernardino County-8 collections; Orange County-13 collections; Los Angeles County-2 collections; Monterey County-1 collection; Sutter County-6 collections; “unknown county”-3 collections. Wow! All right!

<sup>1</sup> Baldwin, B. G., D. H. Goldman, D. J. Keil, R. Patterson, T. F. Rosatti, and D. H. Wilken. 2012. The Jepson Manual, Vascular Plants of California, 2<sup>nd</sup> Edition. University of California Press, Berkeley, CA.

<sup>2</sup> Oswald, V. H. 2002. Selected Plants of Northern California and Adjacent Nevada. Studies from the Herbarium Number 11. California State University, Chico, CA.

<sup>3</sup> <http://ucjeps.berkeley.edu/consortium/>



(Continued from page 6) Jokerst...

successful, with upwards of 60% of germinated seeds producing an inflorescence. This research is on-going and in its third year of implementation. In 2012, I revisited the introduction pools to monitor second generation plants, conduct soil salinity experiments at two of my field sites, and process inflorescences to determine the number of seeds per inflorescence. These 2012 tasks are invaluable to my thesis as they will provide answers regarding the life histories of the two grasses, comparisons of reproductive output, and the potential for successful introduction at field sites beyond the first year. The information resulting from these proposed research experiments is imperative to informing restoration efforts for Colusa grass and Greene's tuctoria populations as well as for other rare vernal pool plants.

Each spring the Friends of The Chico State Herbarium at California State University Chico offer the Jim Jokerst Award in Field Botany to support and encourage student research involving field aspects of botany and ecology. This is a competitive award and the funds go a long way in facilitating student research. The 2012 award winner, Erin Gottschalk-Fisher, will be presenting an overview of her project and an update on this years field season, partially funded by FOH, at the Annual Meeting on November 3rd. Please join us to hear about the prospects of introducing and sustaining some of our rare vernal pool native grasses.



## Save the Date—April 27th, 2013

The Friends are joining forces with the Mount Lassen Chapter of the California Native Plant Society (CNPS) to sponsor an event with the renowned John Muir Laws. Author of “The Laws Guide to the Sierra Nevada,” Laws is also an accomplished botanical illustrator, an environmental educator and the lead author and editor of CNPS curriculum *Opening the world through Nature Journaling*. The preliminary schedule includes:

- Hands on workshop on Botanical Illustration where attendees will address the skills and techniques to draw plants and wildflowers, tricks and techniques to help simplify a complex flower shape, draw wildflowers in perspective, and tricks with both watercolor and colored pencil to add color to drawings.
- Opening the world through nature journaling—a hands on workshop to learn how to integrate journaling into the classroom and daily life.
- Exploring the Sierra Nevada: nature, art and stewardship—Free Public Lecture





## \*By-laws for Friends of the *Chico State* Herbarium

### Article I – Name

The name of this organization ~~shall~~ will be: Friends of the ~~Biological Sciences-Chico State Herbarium at California State University, Chico.~~

### Article II – Purpose

The purpose of this organization is to ~~maintain~~ promote the high quality of the resource and research work that ~~has been known to be~~ is associated with the Herbarium. Primary objectives are to provide a medium for ~~support from the~~ botanical community ~~support~~ and to provide for items that are not covered under the University budget. Scientific and academic pursuits will be the focus of the group through workshops and classes on technical *and general* topics.

The geographic focus for this organization will be ~~the area north of Sacramento, to the Oregon border, excluding the coastal region-Northern California.~~

### Article III – Membership

1. Membership is open to any person or organization with an interest in supporting the ~~Biological Sciences Chico State~~ Herbarium.
2. Each member ~~shall~~ will be entitled to one vote on any question requiring a vote of the membership. Each organization may have a single membership and ~~shall~~ will have one vote.
3. Each member ~~shall~~ will be assessed yearly dues *per each calendar year*.

### Article IV – Dedication of Assets

The properties and assets of the organization are dedicated to the benefit of the ~~Biological Sciences-Chico State~~ Herbarium. All dues and financial assets will be handled by the ~~University~~ Research Foundation. Scholarships and peripheral activities will be awarded from special earmarked contributions.

### Article V – Disbursal of Assets

Should the organization disband, the board of directors ~~shall~~ will disburse the assets to the Department of Biological Sciences to be used for support of the Herbarium.

### Article VI – Board of Directors

1. ~~The number of directors shall be seven.~~ *There will be at least 7 and no more than 11 directors, always an odd number.*
2. Directors ~~shall~~ will be elected by a simple majority vote of ballots received by a specified date each year.
3. Removal of officers ~~shall~~ will require a 2/3 majority vote of the total voting membership.
4. Vacancies ~~shall~~ will be filled by appointment by the remaining board.
5. The board will meet as necessary but not less than once a year and a quorum ~~shall~~ will consist of ~~four~~ *a simple majority of the board members.*
6. The duties and responsibilities of the board ~~shall~~ will be divided among the members of the Board of Directors.
7. Ad Hoc Committees will be appointed and disbanded as needed.
8. ~~Board of Directors meetings will be conducted according to Roberts Rules of Order.~~ *A member of the Board of Directors may resign at any time by providing written notice to the*

*President.*

9. *One additional non-voting position on the board will be available for a Student Liaison.*

### Article VII – Officers

1. *All officers will be on the Board of Directors.*
2. *Officers will include a President, Vice President, and Secretary.*
3. *The term of an officer will be 2 years. A person may hold the same office for more than one term.*
4. *Officers will be elected by the Board of Directors.*
5. *If a position becomes vacant, a new officer will be elected by the Board of Directors at any time. If the office of President becomes vacant, the Vice President will assume the duties of the President until the position is filled.*
6. *Any Board Member may be nominated or may nominate themselves for an office.*

### Article VIII – Ex-Officio Members

*Ex-Officio Members of the Board of Directors are non-voting members, and will include the Curator of the Chico State Herbarium, the Director of the Chico State Herbarium, and the Student Liaison position holder.*

### Article ~~VII-IX~~ – Meetings

*General membership meetings will be held at least once a year in the fall. At the fall general meeting, a financial report will be ~~reported~~ made.*

### Article ~~VIII-X~~ – Decision Making process

~~The process for general decision making of the board shall be a simple majority of a quorum of the board. The process for general decision making of the general membership shall be a simple majority of the returned ballots.~~ *A simple quorum of the Board is needed to make general decisions. When required, a simple majority of returned ballots is needed to make decisions by the general membership.*

### Article ~~IX-XI~~ – Amendment Process

*These by-laws may be amended by a minimum of five members of the board submitted for approval of the general membership by a simple majority at the general meeting or returned ballots.*

### Article ~~X-XII~~ – Records

~~A file containing the membership roster, by-laws, newsletters, minutes from board and general meetings, and records of receipts and disbursements-profit and loss statements will be kept in the herbarium by a board appointee.~~

### Article ~~XI-XIII~~ – Miscellaneous

~~No personal liability shall~~ will in any event attach to any member of the ~~society~~ organization for, by reason of, or in connection with, any activity of the ~~society~~ organization.

*\*Italicized text are proposed revisions/additions to the By-Laws and lined-through text are proposed to be deleted.*

## 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 \_\_\_\_\_

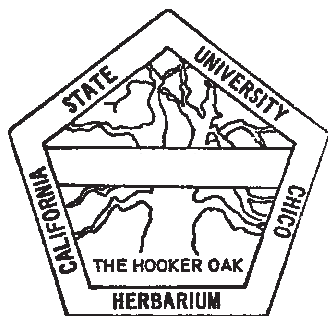
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City \_\_\_\_\_

State \_\_\_\_\_ Zip Code \_\_\_\_\_

Phone no. \_\_\_\_\_

E-mail \_\_\_\_\_



## Friends of the Herbarium

**The Chico State Herbarium**  
**California State University, Chico**

**JOIN US FOR THE FRIENDS ANNUAL MEETING**  
**SATURDAY, NOVEMBER 3—3:00 Reception**  
**CSU Chico Campus—Holt Hall Room 129**

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