



Friends of the Herbarium

The Chico State Herbarium
California State University, Chico



Volume 22 Number 2
October 2016

Newsletter

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Friends of the Herbarium Annual Meeting

The Diverse World of Salvias

A Genus Well Traveled

By John Whittlesey

Canyon Creek Nursery & Design

Author of *The Plant Lover's Guide to Salvias*

5 p.m. Saturday 29 October, 2016

170 Holt Hall

Chico State University

Free Admission!

Everyone is also invited to:

Reception 3-4 pm; Holt Hall 129

Snacks, and the native plant photo submissions will be on display.



Bumble bee on Salvia carduacea



Salvia dombeyi



Honeybee on *Salvia cyanescens* demonstrating salvia's staminal lever mechanism



The **Friends of the Chico State Herbarium**, 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, in particular the curator's position. Scientific and academic pursuits are the focus of the group. The Friends also offer 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.

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Newsletter

Volume 22 Number 2

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

Upcoming Workshops

For all upcoming workshops and how to register, check out the Friends' webpage: www.friendsofthechicostateherbarium.com. All workshops are in the Herbarium, Holt Hall 129 on the CSU Chico campus unless noted otherwise.

October 22: Tree Identification

Led by Linnea Hanson and Emily Doe, this workshop will focus on trees found in Northern California urban landscapes. What are the key characteristics that distinguish individual species and what are the generalities and similarities between tree species to help you group them into families? Saturday: 9am-5pm. Note: this workshop qualifies for International Society of Arborists (ISA) units



November 12: Identification of Northern California Grasses (*Poaceae*)

This workshop will familiarize participants with identification of grasses from the Northern Sacramento Valley, Southern Cascade and Northern Sierra-Nevada Ranges. Specimens of more than 20 genera and 45 species will be provided for study. Emphasis will be placed on terminology and morphological features used to circumscribe genera and select species, using *The Jepson Manual*. This workshop will be led by John Dittes, Senior Biologist with *Dittes & Guardino Consulting*. Saturday: 9am-4:30pm.



December 3: Wreath Making with Native Plants

Bring native plant beauty and cheer into your Holiday Season! Learn about native plants and preserve them in a naturally fragrant native plant wreath. Led by Jennifer Jewell, host of "Cultivating Place" on NPR and Adrienne Edwards, you will create a fragrant wreath.



There are two new students and one returning student working the Herbarium this semester. Experienced volunteers are instrumental in training and guiding them in the nuances of the Herbarium. Have time on Friday? Consider volunteering. We would love to have you!

Contact :

Lawrence Janeway at LJaneway@csuchico.edu or Colleen Hatfield at chatfield@csuchico.edu



Claire Meehan is a returning student helping out in the Herbarium

2nd Annual Endowment Drive in support of the Herbarium

Thanks to the generous support of over 69 donors last year, we had a highly successful campaign to build the endowment to support the operations of the Herbarium. The impetus for that first endowment campaign was the generous challenge put forth by an anonymous donor. The donor provided the opportunity and agreed to match dollar for dollar all contributions made to the endowment up to a maximum of \$30,000. We far exceeded that amount, raising a total of \$77,000, which is a large step in our goal to reach an endowment of \$500,000. This level of funding would ensure that the Herbarium's mission has a secure future.

It is with great excitement and appreciation that we announce the second annual CSU Chico Herbarium Endowment Drive. This effort has already been initiated by an anonymous donor who has offered the same challenge as last year, matching dollar for donated dollar up to a maximum of \$30,000. We have until Monday, **December 19** to reach this goal. The gifts of support must be in hand at the University by that date in order to receive the full challenge match of \$30,000. So stay tuned, details will follow. We anticipate reaching out to herbaria across the country to help out with this effort. Resource agencies who value the Herbarium will also be contacted to help us reach this goal.

We hope that we can also count on you as well as we launch this all-important CSU Chico Herbarium Endowment Drive whose single purpose is to ensure the Herbarium has the ability fulfill its mission into the future. Join us in the excitement and anticipation as we charge ahead! If you would like to get onboard



6th Annual Student Spring Photo Contest Results

The Annual Student Photo Contest was a huge success. For the Herbarium Open House in May of this year, the halls were adorned with 25 photographs submitted by students from a number of area schools. Three photography classes from Chico High, who submitted a number of the photos, also came to the Herbarium for a tour, to see the



Highlights from Recent Workshops

Botanical Illustration, with Judy McCrary, April 30, 2016 (by Marla Knight)

I attended the botanical illustration workshop with one goal in mind: to see if I could still draw after 40 years of a career with the Federal government. Lo and behold, Judy's instruction was new and different, and my goal was met.

We started the class with a round of introductions, which included a summary of our experience drawing with varied mediums. The class was full, every seat taken, and there was quite a variety of students from novice to experienced! Judy then explained what the morning and afternoon sessions would consist of: am: quick sketching techniques with pencil (there was a term I can't remember now), to be refined into a line drawing; pm: ink drawings, to scale.

Judy provided all materials, including paper, pens, erasers, and rulers, and also brought a large selection of reference and line drawing books to look at. Class participants brought plants and flowers to draw.

I thoroughly enjoyed the class. Judy's method of instruction was perfect. She would explain the goal, demonstrate techniques, answer questions, and then let us go! It was so quiet in the room as we were all concentrating on our pieces. At the end of the period, we went around the room and shared what we had done. I think I was the only one who didn't follow directions exactly, go figure, but seeing what the other students had done was great. There is no "right" way, it was all good! Drawing to scale, as for accurate botanical drawings, was very tedious and time consuming, and I gained an appreciation for the time commitment and skill needed for the drawings in the Jepson Manual!

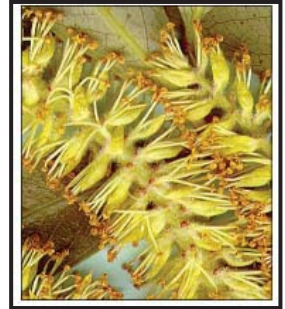
Thanks to the Chico Herbarium for a wonderful experience!



Set up for the Botanical Illustration Workshop

Introduction to the Willows (*Salix*) of California— June 25, 2016 (by Elena Gregg)

If you have ever tried to identify willows in the field, you know how vexing it can be! Due to the confounding nature of willows and the frequent lack of flowering parts typically needed to move through the identification keys, help is often needed and sought after. On June 25th, FOH was pleased to sponsor the Introduction



Salix laevigata from Oswald 2002

to the Willows of California workshop presented by John Bair. John is a recognized expert in willow and cottonwood taxonomy and physiology who earned his Master's degree working with Dr. John Sawyer at Humboldt State University analyzing riparian initiation and establishment processes on the Trinity River. John's workshop provided the much needed help to those who attended on how to identify willows in California. The focus was on the leaf, stem, and growth characteristics that are useful in making an identification while also emphasizing the regional distributions of the different species. An amazing array of fresh cottonwood and willow material collected from far-flung areas of California from the coast to the mountains was provided to illustrate the variety of vegetative and flowering characteristics. Also provided were helpful corrections and updates to The Jepson Manual key based on John's experience and expertise. The workshop was well attended and all who attended left the workshop feeling much more confident in their ability to identify willows!

Introduction to Native Bees as Pollinators. 14 July 2016 (by Rob Schlising)

Rob Irwin and Rob Schlising welcomed registrants from Shingletown, Redding, Anderson, Sacramento, Yreka and Humboldt Areas, as well as from Orland, Paradise and Chico. This weekday workshop enjoyed air conditioning in the Herbarium while it was 103 degrees F outside! Two new



Xylocopa californica foraging on *Monardella ord-oratissima*

(Continued on page 11)
(photo by J. Whittlesey)

Plant Collecting History around Mt. Linn By John Whittlesey (FOH Board Member)

In preparing to lead a CNPS hike to Square Lake—small glacially-formed lake on the north slope of South Yolla Bolly, (aka Mt Linn) in late July, some homework was necessary. It had been 6 or 7 years since I last led a hike there, so besides reviewing notes from prior trips I consulted the CalFlora having heard about the *What Grows Here* tool on their website. Zooming in on the interactive map so Ides Cove Trailhead, Square Lake and Mt Linn were visible, it was an easy step to draw a rectangle around the area and select search. In theory the plants displayed are ones that have been observed growing within those boundaries—most of these being records of herbarium specimens from the Consortium of California Herbaria.

While not a complete list of all that grows there, the number of species displayed would vary from 180–240 depending on how the irregular polygon was drawn. For each plant listed there are usually several excellent photos along with a category of “Records” under the botanical name. Once I clicked on the records link it was like opening a book that can’t be put down. A whole history of plant collections and collectors was revealed beginning as early as 1892 and continuing to the present day. So many familiar names – even for a non botanist such as myself – Jepson Munz, Oswald, Ahart, Dittes..and more. It was fascinating to realize the collecting history in this remote part of California.

Clearly the varied terrain resulting in diverse plant communities was attractive then as it continues to be today for botanists and those of us interested in our native flora. From the talus slopes of South Yolla Bolly (elev. 8,092’, the highest peak in the Coast Ranges south of the Trinity Alps) 300-500 year old stalwart Jeffrey Pines, holding their own on wind swept ridges, give way to a myriad of low alpine plants – such as monardella, eriogonum, penstemon and astragalus. Below the peak on the north slope, lush meadows are fed by melting snow leading to tiny Square Lake brimming with aconitum, ranger’s buttons,



Ericameria greenei by Robert Fisher



View looking southwest from near the top of Mt. Linn

lilies, columbine along with the accompanying insect life.

I ask myself how did T.S. Brandegee in 1892 decide to make the effort to collect there? Maybe there were others before him, but I saw no record of that. It is an out-of-the-way place – even by today’s standard. Twenty miles of dirt/gravel road filters out the number of visitors today. So what did he know of the place before embarking on what must have been an arduous journey five years before W. L. Jepson made his collecting trip through northwestern California in 1897. On this trip in September of 1892 Brandegee collected *Ericameria greenei*. In 1980, 88 years later, Jim Jokerst also made a collection of this plant, followed by Lowell Ahart and Vern Oswald in 1990, then John Dittes and Josephine Guardino in 2003. These last 5 are very familiar and highly respected names in the botanical community of the North State.

Another plant collected in 1892 by T. S. Brandegee was *Claytonia saxosa*, a California endemic annual also known as Brandegee’s Spring Beauty. This was collected years later by P. A. Munz in 1951, and a year after that by Louise Kellogg. Her name came up frequently as someone who collected quite a number of plants around Mt. Linn in July of 1952. She was 73 when she collected in the Yolla Bollys, 2 years after her lifetime friend and collecting partner, Annie Alexander who was 83, had died. What interesting lives the two of them led! The most recent collection of *Claytonia saxosa* was by Wes Dempsey in 1980.

So many familiar names and many not familiar have hiked the terrain around the peak looking for plants. Not surprisingly, Chico State Herbarium curator, Lawrence Janeway has also made his contribution of plant material from these same trails. Becoming aware of this collecting history in the Yolla Bollys brought to life not only the who’s who of plant collectors but also to the importance of herbariums holding these place markers of what grew where and when for perpetuity – preserving plants of yesterday and today for the science of tomorrow. 🐾

A Former Student's Recollection of their time at Chico State and the Herbarium

Below is a letter that was received at the Herbarium from R.J. Wakeman, a former student at Chico State. These letters are truly legacy letters demonstrating that the impact the Herbarium on their lives outlasts their time here.

Recently my cousin who lives in Chico, sent us the newsletter article on the Chico State Herbarium that was published in the May 6th *Chico Enterprise Record*. I was delighted to see the Herbarium to have greatly increased in size and importance. When I was a student there in the 1950's and early 1960's, the Herbarium occupied just two or three large lockable metal cabinets. It was only venerable Dr. Vesta Holt who worked with the collection; she usually was there in her flowered apron mostly weekday mornings. She carefully identified, dried, and formally mounted each specimen. The Herbarium was located in the same room where they kept the preserved animal and bird skins—a kind of biological museum. Once or twice a month they would seal the room at night and release sulfur dioxide fumes into the room to kill any insects (usually small beetles) that could attack the dried plant specimens or skins.



Vesta Holt in her flowered apron circa early 1960's. (Photo Source Unknown)

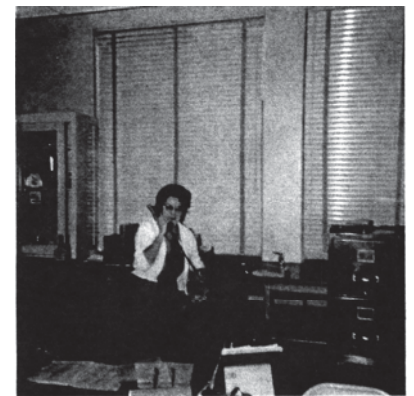
I did collect and donate a few specimens to the Herbarium. I remember finding an unusual wild buttercup (*Ranunculus* growing near a lake in Round Valley Mountain (or was it Round Mountain Valley?) in the mountains east of Redding. This *Ranunculus* was unusual in that it had tomentose leaves. Dr. Holt was delighted to identify and add it to the Herbarium. I remember standing at the edge of that lake; we could see water from an underground spring bubbling into the lake water and where the water inflow was churning, large green colonies of *Nostoc* algae were thriving as they slowly rotated in the inflow. I remember also finding some rare specimens—grasses, I think—growing in Scott Valley near Fort Jones, southwest of Yreka. This is one of the isolated areas where native California grasses could still be found growing.

I do not know but assume Dr. Stern had to wait until Dr. Holt had left Chico and moved to the retirement facility in

the Bay Area before he could supervise the Herbarium. He was a good teacher and a good friend; one August he had me check the automatic sprinklers at his home when he and his family were away on vacation. Dr. Stern did the formal monograph of the genus, *Dicentra*. He travelled to several places around the world to collect, identify, and systematize the various *Dicentra* species. Bleeding hearts will grow here in the Valley, but they need mostly full shade and they seem to thrive best if the soil is slightly damp. Their delicate fern-like leaves make even the foliage attractive. For some reason garden snails do not seem to attack the Bleeding hearts, despite the rather succulent leaves.

Dr. Stern had originally come from South Africa. If I recall correctly, he told us that as a young teenager he and his family emigrated; he said it was due to the unfriendly and even aggressive attitude of the Dutch Boors in his area. So, when he came to the States, he had a strong accent in his speech. At some point he decided to rid himself of the accent and sound like a native, which he eventually did. I can't image it was easy.

I left Chico State in September of 1964; a very long time ago. As a student I had worked part time with Alice Stone in the Biology stockroom and worked for a couple years in the greenhouse. I came to know Dr. Holt rather well; she had me help a couple of times move her equipment from one room to another. She sometimes would bring homemade cookies for us; I used to wonder if she actually ever ate any herself. Dr. Holt lived in a small white house next door to the Veteran's Memorial Building. I once visited her home when I went to take Alice Stone home. Alice suffered from Lupus Erythematosus and used to have occasional severe episodes. Sometimes Dr. Holt had Alice stay at her home until Alice was feeling and doing better. Dr. Holt once gave me a signed copy of her small spiral-bound book, "Keys for Identification of Wild Flowers, Ferns, Trees, Shrubs, and Woody Vines of Northern California."



Alice Stone, biology stockroom technician, photo taken in early 1960's. (Photo Source Unknown)

Older graduates from Chico State seem to have unforgettable memories of Dr. Holt when she was chairman of the department. She had something of an aggressive repu-

(Continued on page 7)

Specimen Spotlight

by Lawrence Janeway, Herbarium Curator
Chico State Herbarium accession number 54.

The herbarium accession number on this R. J. Wakeman specimen is a very low number: 54. This shows that this specimen was among the original collection of specimens that Kingsley Stern, new faculty member at the time, inherited from Vesta Holt in the early 1960s. In a short article that Dr. Stern wrote for this newsletter in 2006 (Vol. 13, No. 1) he recounted that he received “roughly 2,000 sheets” when Vesta Holt retired in about 1960 and that he soon “set to work to get them accessioned.” This accessioning involved stamping each sheet in the lower left corner with a logo that identifies the herbarium (see this surrounding the number 54 on this R. J. Wakeman specimen), and stamping an herbarium number on each sheet (here that is the “0054”).

Dr. Stern took over teaching of the plant taxonomy course in 1960, where he said that he started requiring each of the students to produce a small collection of specimens. Over the years, many of these student collections have been used to enhance the Chico State Herbarium collection.

This specimen from R. J. Wakeman was collected in February of 1964, presumably as a requirement for Dr. Stern’s plant taxonomy class. The label for it is in the pre-printed label format that Vesta Holt used on most of the student collections that she had saved, and on her own, before Dr. Stern arrived on campus. Most of the specimens from Vesta Holt have her initials typed in the lower right corner. This R. J. Wakeman specimen has “RJM”



CHRS 54 RJ Wakeman sn
Penetagramma pallida

typed in the lower right corner. I assume that was to show that he typed the label (and not Vesta Holt, who had been retired for several years by this date).

Looking through the records in the herbarium database, I have concluded that Dr. Stern did the first batch of specimen accessioning in 1964, later in the year than this R. J. Wakeman specimen was collected. That first set of accessions was of 2272 specimens, 2144 of them with the initials VH in the corner. My guess is that most, if not all, of the remaining 128 specimens were from Dr. Stern’s early plant taxonomy student collections, including this excellent R. J. Wakeman specimen which was included in that initial set of accessions that formalized the beginning of The Chico State Herbarium.

Note that the plant on this sheet, now known as *Pentagramma pallida* (white-backed fern), is uncommon in our area, whereas *Pentagramma triangularis* ssp. *semipallida* (silver-backed fern) and *P. triangularis* ssp. *triangularis* (gold-backed fern) are the usual forms that we see around here.



(Continued from page 6)

tation for guarding the interests of her department and students. We used to wonder and worry about her in the early 1960’s; she drove a Packard automobile and we could tell she was not the most careful driver. I never managed to make it back to Chico to see Holt Hall; it was built after I had left. I worked for forty-four years as a lab technician in the Plant Pathology Department at U.C. Davis.



Vesta Holt in the field, circa 1930-40’s. (Photo Source Unknown)

During my college years I never owned a camera. Thus I do not have many photographs of that time. For the enclosed page of photocopies, one photograph of Alice Stone in her office section of the Biology stockroom—about 1962. The one of Dr. Holt mounting herbarium specimens is also from about 1962. The earlier one of Dr. Holt in the field must be from the 1930’s. Or possibly the 1940’s...?

It is good to know the Chico State Herbarium now has its own website. Congratulations for your efforts; the staff and students appear to be an active group with good facilities.



See “Specimen Spotlight” on this page for one by R.J. Wakeman’s contributions to the Herbarium.

***Tuberaria guttata* (L.) Fourr. In the family
Cistaceae, a new plant for Butte County
By Lowell Ahart**

Early in 2015 Peter Zika e-mailed me with a request to collect *Castilleja* species (paintbrushes, owl's-clovers). He was working on *Castilleja* keys for the Flora of North America North of Mexico project. He very much wanted to try out the keys on new material and it would help if I took some of the flowers apart while collecting them so he could clearly see the bracts, calyces, and corollas. A normal herbarium specimen has the flowers all smashed together and is difficult to see the separate parts.

I started collecting where I had found castillejas before in Butte County. Later I made several trips to the North Coast Range to collect more castillejas. It was a good year for Owl's-clover everywhere.

I remembered many years ago going up Swedes Flat Road (north of Bangor) and collecting an *Orthocarpus* (now *Castilleja*) and I decided to see if I could recollect it for Peter. So on 18 April 2015, I took my pickup truck to Bangor, then to Swedes Flat Road. As I drove along I looked for *Castilleja lacera* for it has showy yellow flowers. I spotted some and parked well off the road. I made collection Ahart 20,042 of the *Castilleja lacera*. Then I saw some *Castilleja attenuata* and collected some of it too (Ahart 20,043). It takes a lot of time to gather and put the plants in my press, and much more time to take the flowers apart before pressing them.

I noticed a large yellow flower while collecting the castillejas. I did not recognize the flower or the plant, so I collected a lot of this unknown plant (Ahart 20,044). That evening at home I recorded the day's plants in my plant journal. The one plant with the yellow flower was smashed so much that I could not tell the number of petals, stamens, etc. And the plant produced mostly cleistogamous flowers without showy petals. Without a good flower I had no way of getting it to family in the keys. I had taken a clod of dirt with several plants, so when I got home I put the clod in a pot and watered it. I got no more flowers and the plants dried up. I dumped the pot of dirt on a mound in the garden area and hoped to go collect new plants in the spring of 2016.

On 11 April 2016, I was weeding in the garden. There were weeds on the mound and I got busy removing them. I noticed an unusual plant and I picked it up and wondered what it was. I took it into my home and put the roots in water. It was several days before I remembered that it was *Moenchia erecta* ssp. *erecta*; of course I put some in my press (Ahart 20,741-A). I had found the



Lowell Ahart on a collecting trip in the Southern Cascades in September 2015 (photo by J. Dittes)

Moenchia before, at two different cemeteries in Butte County. I wondered how it had gotten in the garden, then I remembered that was where I had dumped the dirt from Swedes Flat Road.

Does *Moenchia* really grow along Swedes Flat Road? I decided I should go back and see. On 15 April 2016, I took my pickup truck again to Bangor, then to Swedes Flat Road, and parked where I had parked last year. Most of the plants here were not as mature as last year. I started looking for *Moenchia* and found it immediately (Ahart 20,744), and also the unknown from last year (Ahart 20,745). I spent five hours making various collections along the road. I got another clod of dirt with the unknown plant and returned home. There were no showy flowers on the unknown plant, but I took apart what I had. The flower parts were confusing! Well, I thought! I wonder how the family keys work in The Jepson Manual 2. Much to my surprise the unknown plant went easily through the keys and I came out at Cistaceae. I continued



CHSC 116643; Ahart 20745 *Tuberaria guttata*—a close-up of the specimen on the right

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More news about *Allium hyalinum* in Butte County by Lawrence Janeway, Herbarium Curator

You may recall that in the last Friends of The Chico State Herbarium newsletter there was an article that I wrote about the finding of *Allium hyalinum* and how it was “new” to the Butte County flora and a range extension north from Sacramento County. Well, as that article was going to press, Barbara Castro was verifying the identity of an *Allium* from just a few miles southwest of where I was reporting about *Allium hyalinum*. The *Allium* that Barb was looking at was from clay soil around the edges of vernal pools near Wilbur Road, and while it keyed to *Allium amplexens*, Barb thought it was much more robust and with flowers more pink than she was used to seeing of *Allium amplexens* from its more “usual” habitat on thin soil over rock outcrops like on the North Rim of Chico’s Upper Bidwell Park. And she knew that I had just written an article for this newsletter about similar clues leading me to the discovery of *Allium hyalinum* nearby.

Barb did finally conclude that her *Allium* is indeed *Allium amplexens*, but in the process she was looking at Vern Oswald’s photos of *Allium amplexens* in his CD/DVD version of his “Selected Plants of Northern California and Adjacent Nevada” (2002). What she saw there was that two of Oswald’s four photos looked more like the *Allium hyalinum* that I was writing about than they looked like *Allium amplexens* (remember that *Allium hyalinum* is not mentioned in any references to the plants of our part of California, including Vern Oswald’s books and CDs). She also saw that the caption on these two photos described the location where I had reported the *Allium hyalinum* and also described some of the characteristics of that species: “Adjacent to Nelson Avenue and the Thermalito Forebay, Butte County, in late March. These plants are part of a dense population in a vernal wet drainage on basalt cobbles. Flower color varies from white through various shades of rose-pink.”

Barb immediately emailed me asking what I thought of these photographs (I just happened to be doing some Forest Service work in the herbarium that Wednesday afternoon) and I immediately recognized them as *Allium hyalinum*. I then looked in the text of the Vern Oswald book and saw that Oswald reported a voucher specimen of *Allium amplexens* from the same location as my original sighting of *Allium hyalinum*, that correlated with his photographs: “*But 4477*: West border of Thermalito Forebay near Nelson Ave.” Since I was in the herbarium as this mystery was playing out, I immediately looked up that Oswald specimen and, just like in the two photographs, this specimen is indeed *Allium hyalinum*! I also checked the other 78 specimens of *Allium amplexens* in The Chico State Herbarium to see if there were any other hidden specimens of *Allium hyalinum*. They are all truly *Allium amplexens*, although there is a tremendous amount of variation among the specimens from different habitats, as Barb had noted when comparing the plants she was seeing around vernal pools outside of Oroville vs. the plants she’s used to seeing on the shallow soils on the Tuscan Mudflow bedrock of Upper Bidwell Park.

Now I have to correct the article I wrote for the last newsletter to say that my collection of *Allium hyalinum* from along Nelson Road on March 5, 2015 is the third specimen of this species from Butte County and north of Sacramento County, not the second. The second specimen is now *Oswald 4477*, April 1, 1991! Ah, well. Still very much an exciting find!

So how did Vern Oswald mistake his collection #4477 for *Allium amplexens*? Most keys have these two species keying out next to each other, with crests on the ovary for



Photographs of *Allium hyalinum* from Vern Oswald’s 2002 2-CD set of “Selected Plants of Northern California and Adjacent Nevada” mistakenly identified there as *Allium amplexens*.



CHSC 54022
Oswald 4477
Allium hyalinum

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with the keys and came to *Tuberaria guttata*. On page 653 there is an excellent line drawing of the plant. I went to the CalPhotos web site and there is an excellent picture of the flower by George Hartwell. [The Consortium of California Herbaria web site shows this species at numerous locations along the Sierra Nevada foothills, but only south of Hwy 50, while the NRCS PLANTS Database web site shows this species as only from California and no other place in North America – ed.]

I had a good day! I collected *Moenchia erecta* ssp. *erecta* from a new location. I knew only two other locations in Butte County, both at rural cemeteries [there are only two other locations known in California according to the Consortium of California Herbaria web site, both in Mariposa County – editor comments]. Also, I discovered *Juncus kelloggii* at this site (Ahart 20,750), which again I have only found in only two other locations in Butte County [this species is better known in California from outside of Butte County – editor comments]. In five hours I collected 11 numbers and had a really good plant day. *Tuberaria guttata* is a new weed for Butte County and can be added to Vern Oswald's Selected Plants of Northern California and Adjacent Nevada when a revision is made. It was a struggle to identify, and it's only a weed, but... **All Right!!!**



Intrepid Lowell Ahart, a major contributor to the Herbarium collection and responsible for some of the most beautifully mounted specimens ever. Seen here in 2005 in Long Valley, Lassen County, CA (Photo J. Dittes)



(Continued from page 9)

Allium amplexans vs. no crests on the ovary for *Allium hyalinum* being the main character to separate the two species. That should be easily visible on fresh three-dimensional plants, if you know what to look for, but tough to make out on pressed dry specimens. Also, if he wasn't sure if he was seeing crests or not, he would have thought he was 100 miles north of the range of *Allium hyalinum*, so perhaps he relied too heavily on the reported distribution, leading to his mistake. Regardless of this, the mistake is now rectified, and the second edition of Vern Oswald's Selected Plants of Northern California and Adjacent Nevada, expected sometime in late 2017 or 2018, will have *Allium hyalinum* firmly part of our Butte County and northern California flora.



Photographs of correctly identified *Allium amplexans* from Vern Oswald's 2002 2-CD set of "Selected Plants of Northern California and Adjacent Nevada."



Fall Photo Event Sponsored by Friends of the Herbarium

The Friends sponsored the 6th Annual Fall Photo Event, where photographers from around the area had the opportunity to submit photos of native plants or native landscapes. This is the first year we have had the two categories: native plants and native landscapes. We also added another new category: photos could be submitted for judging as in the past where cash awards were given to the winning entries. But we also added a category for photographers who wanted to submit a photograph in the non-judged photo category. All of the submitted photographs will be on display at the Annual Meeting. We hope to see you there!



Photo by Spencer Dykstra—1st Place 2015



(Workshops Continued from page 4)

handouts to go along with Powerpoint sessions were on “Evolution and Biogeography of Bees” (by RI), and “A Practical Guide to Bee-watching” (by RS). The four largest taxonomic families of bees were discussed at the workshop, with pinned specimens on hand for people to key out. Live representatives of five families were illustrated the next day in the optional field trip attended by most of the class. Flowers and bees were abundant and diverse in 2016 at the field sites near Humbug Summit (open red fir forest) and at the Butte Creek House Ecological Reserve (dry roadside and moist meadow). All day flower-visiting bees were watched before some were captured with short-handled nets and put into small glass bottles to be examined up-close before being released. One species not recorded at the Humbug site in other years—the large carpenter bee, *Xylocopa californica*—was seen foraging on *Mornardella odoratissima*. A highlight of this field trip each year is watching two species of solitary bees busily nesting in the dry soil at roadside—with females of one species loaded with white pollen from *Sidalcea glaucescens* diving into their nest holes, and their males cruising around waiting for them. A species of parasitic bee was also seen investigating nest holes this year!



People from the workshop watching bees at the dry BCHER roadside nesting site (photo by RS)



**Friends of the Herbarium will host the Biology Friday Seminar
4:00 pm November 4th
Holt Hall 170, CSU Chico**

“Post-Morgan Fire Plant Diversity & Succession: A Framework for Fire-Following Species & Fleeting Abundance”

**By Heath Bartosh, Principal and Senior Botanist
Brian Peterson, Botanist and Fire Ecologist
Nomad Ecology**

Heath Bartosh is the senior botanist and rare plant specialist at Nomad Ecology, LLC in Martinez, California. One of his primary research interests is the composition and duration of the eruptive dominance and subsequent fleeting abundance of post-fire annual plant species at regional scales within the California Coast Ranges. Having studied fires on the Monterey Coast and Diablo Range, he focuses on plant distribution, soil and geologic relationships, endemism, and regional and local rarity of these fire-following plant species.

Brian Peterson is a Botanist, Fire ecologist and GIS specialist at Nomad Ecology, LLC in Martinez California. Since 1997, Brian has worked in Southern Oregon and Northern California in fuels reduction, oak restoration and as a botanist. Brian M.S. in Ecology, Evolution, and Conservation Biology from San Francisco State University where he studied manzanita ecology with Tom Parker. Brian’s Master’s thesis research investigated the relationship between seed caching rodents, manzanita, and fire. Mr. Peterson is focused on using his skills and experience to facilitate ecologically informed land management practices.



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**JOIN US FOR OUR ANNUAL MEETING WITH SPECIAL GUEST SPEAKER, RECEPTION AND NATIVE PHOTO EVENT DISPLAY - SATURDAY, OCTOBER 29TH
EVENTS START WITH RECEPTION AT 3:00, HOLT HALL 129**

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

