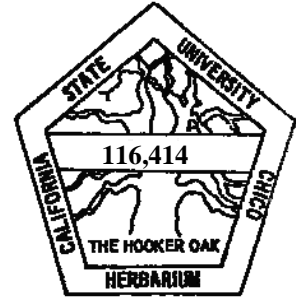




Friends of the Herbarium

The Chico State Herbarium
California State University, Chico



Volume 22 Number 1
April 2016

Newsletter

Articles in this Newsletter:

- Page 1 FOH Open House
FOH New Website
- Page 2 Upcoming Workshops
- Page 3 2015 Herbarium
Accessions
- Page 4 Specimen Spotlight
- Page 5 Herbarium in the
News
Chico State Slime
Molds Discovered
- Page 6 A New Onion for
Butte County
- Page 7 Endowment Drive
Photo Contest
- Page 8 Odd Clover Discovery
- Page 10 Recent Workshops

Know a budding young photographer? Want to help ignite the appreciation of plants for the next generation?

Spread the word! The Friends are hosting their 6th Annual Plant Photo Contest for Students. Deadline for submission: April 29th

Join us for the annual FOH Open House to celebrate our budding plant photographers.

**Friday May 13th
1:00-4:00; Holt 129**

Student Photo Contest Winners will be announced

Herbarium Open for Tours and Refreshments to whet your appetite

Please come celebrate

2015 Winning Photos Plant Photo Contest for Students



Photo by Maddi Miller



Photo by Hannah Torlorich

Prizes
1st Prize: \$75 and Herbarium T-shirt
2nd Prize: \$50 and Herbarium T-shirt
3rd Prize: \$25 and Herbarium T-shirt

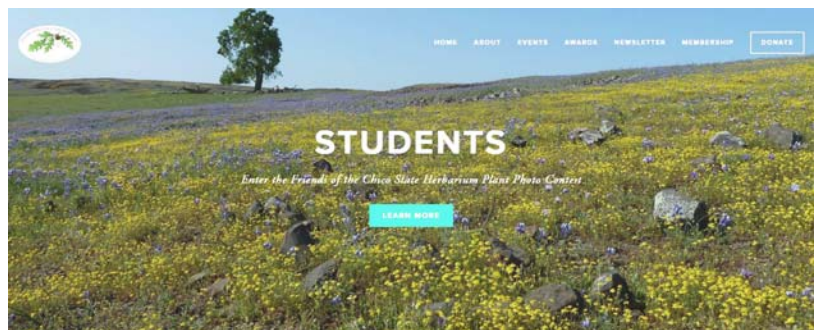


Photo by Chloe Baer

Who is Eligible?
6th through 12th grade students

Friends of the Herbarium have a new website!

The Friends of the Chico State Herbarium have a new website! Visit the website at: friendsofthechicostateherbarium.com to learn more about our organization, the benefits of membership, and the awards we support. The website also has the most up to date information about our upcoming workshops and events, and includes an archive of our previous newsletters.





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 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.

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Herbarium Curator
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Newsletter co-Editor

Newsletter

Volume 22 Number 1

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

April 30th: *Botanical Illustration*

Led by Judy McCrary, this popular workshop offers you the chance to learn, experiment and draw plants and flowers. The focus will be on pencil and ink techniques though other media will be explored. You are encouraged to bring plant cuttings and flowers to share and draw. Saturday: 10am-5pm.



May 24th: *Rare Moss Field Trip*

With this workshop you will visit sites in the Plumas National Forest to see five rare mosses. You will learn field identification characteristics under the guidance of Colin Dillingham who recently published "A Catalogue of the Mosses of Plumas National Forest, California" in Madroño 62(4): 209-240. 2015. Tuesday: 9am-4pm.



Anomobryum julaceum

June 9th: *Butte County Butterflies and Their Host Plant Affinities*

Dr. Don Miller of CSU Chico will lead you through an exploration of the biogeographical and evolutionary aspects of butterflies and their host plants. You will also become familiar with local butterfly species and their habitats. Thursday: 9am-5pm.

There is also an optional fieldtrip the following day not sponsored by the FOH that is free of charge. This fieldtrip will visit several habitats throughout Butte County to observe and identify butterflies in a natural setting.



Don Miller leading a butterfly workshop

June 25th: *Introduction to the Willows of California (Salicaceae)*

This technical workshop, led by willow expert John Bair, will focus on identifying cottonwoods and willows using vegetative characteristics. These are the most common riparian hardwood species in California and are often difficult to tell apart. Saturday: 9am-5pm.



The Herbarium is so fortunate to have a great group of volunteers who share their Fridays with us.

Please consider joining this family of volunteers that support the Herbarium

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



Chico State Herbarium Accessions during 2015—a year in review

by Lawrence Janeway, Herbarium Curator

Seventeen years ago Vern Oswald started the 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. Here is the summary for 2015. The total number of accessions for 2015 was 2969 specimens.

We continue to owe a HUGE debt of gratitude to our volunteer mounting specialist and plant collector extraordinaire, Lowell Ahart. Aside from a few exchange sheets that came to the herbarium already mounted, and the bryophytes and lichens that are accessioned into the collection in folded paper packets rather than mounted, Lowell mounted almost all of the specimens accessioned into the herbarium in 2015. In fact, Lowell has mounted almost all of the specimens accessioned into the herbarium each year since 1995! For 2015, this means that Lowell prepared about 2500 beautifully mounted specimens that were accessioned into the collection during the year (and many more that haven't been accessioned yet), all as a volun-

teer! 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 year (and filing) has been done by our wonderful volunteers Cindy Weiner, Mari Moore, Herman Gray, Lily Price, Paula Cunningham, and students Kristin Quigley, Karen Galvan, Daysi May, and Aurelia Gonzales, and Herbarium Assistant Emily Meigs Doe.

Also, thanks also to all of the collectors, as shown below, for their time spent collecting, identifying, and making labels for all of the specimens that they contributed to the herbarium. A tremendous amount of time goes into this process and I know that most, if not all, of this time is volunteer time on the part of the collectors.

The following table summarizes the plant specimens accessioned into The Chico State Herbarium during 2015, based on plant group, local collectors, and county.



2015					
GRAND TOTAL	2969	LOCAL COLLECTORS		TOTAL CALIFORNIA	2708
		– more than 10 collections –		– top 10 counties –	
Lichens	52	Lowell Ahart	1306	Butte	819
Mosses	387	Lawrence Janeway	407	Plumas	306
Liverworts	44	Barbara Castro	126	Tehama	181
Club mosses	3	Peter Zika	53	Modoc	146
Horsetails	2	Loren Gehrung	43	Siskiyou	121
Ferns	19	Barbara Wilson	25	Yuba	107
Conifers	3	Don Lepley	23	Lassen	106
Flowering plants	2459	David Isle	20	Trinity	104
		Dean Taylor	20	Glenn	90
		Jessica O'Brien	13	Colusa	90
		Julie Kierstead Nelson	13		
		Robin Carter	11		

Specimen Spotlight

In the last newsletter this column featured a specimen collected by Ida Ryan in 1893, which included a label with a header reading “Herbarium of State Normal School, Chico, Cal.” I asked the readers if anyone could provide any information about this and similar specimens from several different female collectors in the 1890s. Cindy Weiner, a very dedicated herbarium volunteer, responded with the following wonderful bit of local detail about these collectors and why they were collecting. I’ve included the image of another specimen from this period, this time by Margie Collins, about whom Cindy also provides interesting details.

—Lawrence Janeway
Herbarium Curator

Chico Normal School and Student Collections

by Cindy Weiner

In the October 2015 newsletter Lawrence Janeway wrote in “Specimen Spotlight” about some very old specimens from the 1890s from different collectors, bearing the label “Herbarium of State Normal School, Chico.” Lawrence suspected the collectors were students fulfilling a class assignment and asked if anyone could provide any information about why these collections were made or who the collectors were.

That sounded like something I could do! Having a serious love affair with native plants is not my only obsession. I’m also an amateur genealogist, and I’ve spent lots of time squinting over census records and poking around obscure corners of the internet looking for information about people in my family tree. This challenge was right up my alley.

A digitized version of *The Seventh Annual Catalogue and Circular of the State Normal School, Chico, California, for the school year ending June 30, 1896* can be found online at Google Books. A description of the biology curriculum and facility starts on page 30. At that time, the Department of Biology consisted of three divisions: botany, zoology and physiology. All work took place in a large room (75 by 150 feet) called the Museum. The Museum contained six large alcoves for classrooms, offices, study tables and a library. Tables for dissections and microscopic work lined the wide corridors separating the alcoves. In addition, there were cases for storing mammal, bird and mineral collections, plus an herbarium with a reference collection of around 750 plants. Work in botany consisted of studying the morphology, function, structure and classification of plants “from germ to fruit.” Each student was expected to

prepare a personal herbarium as a foundation for further collecting. Lawrence’s speculation that students were required to make their own collections for a class is confirmed.

Using online google and specialized genealogy searches, I was able to put together a brief biography on each woman Lawrence named. As Lawrence guessed, they were all students at Chico Normal School in the 1890’s.

Ella Icard was born in 1874, the youngest child of John and Margaret Icard, who farmed in Rough and Ready, Nevada County. Apparently Ella was a good horsewoman as she placed fifth in a Ladies Equestrian Tournament in 1892. She’s listed in the 1895 Oakland City Directory as a nurse at Dr. Taylor’s Sanatorium. She married William Peters, a medical student at UCSF, around 1898 and in 1900 was working at a hospital in Honolulu. Ella and William had two children, one born in Hawaii and one in California. She died in 1956 in San Diego.

Ida Ryan was born in 1872, the oldest child of Thomas and Emily Ryan of Red Bluff, where Thomas was a miller. After he died in 1897, Emily and her children moved to Chico. Ida was a teacher in several schools in and around Chico for around 30 years. Sometime before 1930 she left teaching and opened a candy store, which evolved into a grocery store and post office branch by 1940. Ida never married. She died in 1947 and is buried beside her parents in Oak Hill Cemetery in Red Bluff.

One of five children of Addison and Matilda Collins, Margaret (Margie) Collins was born in 1875. Addison first came to the Chico area in 1858 as foreman of Rancho Chico and then at Llano Seco Ranch. Matilda and her children moved to town after her husband died in 1887. Her biography in the *History of Butte County, California*, published 1918, states “Mrs. Collins has given her children the very best education within her means.” Margaret taught in Chico Schools until her marriage in 1923 to James Doyle, son of a pioneering family in Cherokee. They lived in San Francisco and then Sacramento, where he was on the staff of Cap-



CHSC 76969 Collins
1894 *Fritillaria recurva*
specimen and label



Eleanor Stilson

(Continued on page 11)

The Herbarium Attracts the Local News and Beyond!

Supporting a North State Resource: Chico State's Herbarium is a key contributor to local ecological research

In case you didn't see it, the Herbarium was featured in the February edition of "Inside Chico State". The university publication, devoted to highlighting the outstanding people and programs at CSU Chico, turned its focus to the Herbarium. The article showcased the dedicated students currently

working on projects in the Herbarium, the passion of the curator and the incredible commitment of the Friends and volunteers that contribute directly to the success of the Herbarium.



To read the full story at www.csuchico.edu/inside/2016-02-15/article-herbarium.shtml

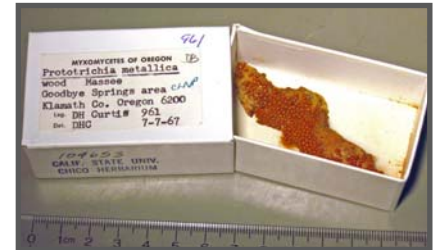


Discovery of a Hidden Collection of Slime Molds at Chico State University

by Dr. Andrew N. Miller, amiller7@illinois.edu
Microfungi TCN PI, University of Illinois
March 7, 2016

One goal of the National Science Foundation Advancing Digitization of Biological Collections program is to expose unique and often cryptic collections by making their data publicly available through one of the numerous online data portals serving data to *iDigBio* [Integrated Digitized Biocollections – www.idigbio.org]. The *Microfungi Collections Consortium TCN* [www.microfungi.org] was recently afforded this opportunity thanks to a tip by Dr. Richard Rabeler (Collections Manager, University of Michigan Herbarium) about a hidden gem of a collection of ~10,400 specimens of myxomycetes (slime molds) at Chico State University (CHSC) in northern California. Upon contacting the Herbarium Collections Manager, Lawrence Janeway, it was determined that not only were these specimens databased, but most had already been georeferenced. A large portion of this valuable collection consists of specimens assembled by Donald Kowalski, who taught at Chico State until his retirement in the early 1990s. It is believed many type specimens occur in this collection and getting them online will help promote their discovery and determination. "This collection represents the most significant resource of myxomycetes from northern California known to exist" according to Dr. Steve Stephenson (myxo expert, University of Arkansas). Kowalski, with whom Stephenson corresponded prior to the former's retirement, collected extensively in areas at higher elevations in California and several other western states, and the specimens at Chico State University include an appreciable number of specimens of "snowbank" myxomycetes. These are myxomy-

cetes that fruit in late spring and early summer near melting snowbanks in alpine areas. Mr. Janeway, and Herbarium Director Dr. Colleen Hatfield, were thrilled by the opportunity to share these data, which have been uploaded to the *Mycology Collections Portal*. The MyCoPortal comprises nearly 2.3 million records of fungi from 64 collections throughout North America. Its success is due in part to wonderful contributions of high-quality existing datasets from numerous institutions such as Chico State.



A typical slime mold specimen from the Chico State Herbarium collection. You can find these at the *Mycology Collections Portal*: mycoportal.org/portal.



Another typical slime mold specimen from the Chico State Herbarium collection.

The above article was recently published on the *iDigBio* website at [www.idigbio.org/content/discovery-hidden-collection-slime-molds-chico-state-university], and is reprinted here with permission of the author. This article announces to the botanical community that the label data for all of the Chico State Herbarium's specimens of slime molds is now available for searching on the Mycology Collections Portal, as described in the article. The article

(Continued on page 8)

A “new” onion for the Butte County flora

by Lawrence Janeway
Herbarium Curator

On March 5, 2015, a Thursday, on my way home from my job in Oroville working for the Plumas National Forest, I made a short excursion west on Nelson Road and across the Thermalito Forebay to where I often go to stretch my legs for an hour or so following a day in front of the computer. As I exited my truck to start my walk up Nelson Road, I noticed an unfamiliar mass of white flowers, mixed in with a scattering of the blue flowers of *Triteleia laxa*, just 30 ft away. Of course I had to go see what it was. What I found was an unfamiliar onion. As I looked around I saw in the distance, along the same band of gentle slope southward to the Forebay, more narrow bands of dense white flowers just like the patch of onion plants in front of me. I took a quick look in “Vern Oswald’s Selected Plants of Northern California and Adjacent Nevada” but these plants didn’t fit any *Allium* there. These plants would only key to *Allium amplexans*, but I knew that was wrong because these plants had flowers with a little more pink than I’m used to seeing in *Allium amplexans*, the pedicel lengths were longer, the leaves were wider and more fleshy, and the plants were growing in large dense patches. I didn’t have time this late in the day to dig into “The Jepson Manual” so I did what any self-respecting herbariophile and collectaholic would do, especially since I was worried that I had stumbled upon an invasive onion new to the area – I put a few samples into a press and also kept some samples in a little water in a jar for easier keying later.

In the herbarium the next day I spent some time keying the plants and kept coming to *Allium hyalinum*. And it did seem to match the few specimens of this species in the Chico State Herbarium from much farther south. But this didn’t seem to make any sense since the distribution of *Allium hyalinum*, as shown by a query of the Consortium of California Herbaria database, is from Sacramento County south to Kern County along the lower foothills of the Sierra Nevada and the adjacent Great Valley. And there is no mention of this species in any of our usual Butte County references! While the geographic locality along the base of the Sierra Nevada fit my site, the only collection from north of Sacramento County was a single collection by Robert Ornduff from 1967 in Butte County. Butte County!? Yes, indeed, this collection, at the Jepson Herbarium at UC Berkeley, had even been annotated to this species in 1996 (although the CCH record didn’t record by whom, although I suspect it was Dale McNeal, who already knew about this specimen), with an added

note on the specimen “This locality is considerably farther north than published accounts for *Allium hyalinum* indicate.” This specimen was from “a grassy field ... at junction of Cherokee road and Chico-Oroville road.” Very curious!

Not to leave the issue hanging, on the following Monday, March 9, again on my way home from working in Oroville, I revisited the site along Nelson Road to do some more exploring to see how much *Allium hyalinum* was out there (and again on Monday, March 23). On my way I drove by the area of the Ornduff collection along Table Mountain Blvd (this was Chico-Oroville Hwy before Hwy 70 was built), but didn’t spot any of this species along there, which is now mostly houses and apartments. But, my explorations (and a couple of more collections, of course) showed that there are numerous

patches of *Allium hyalinum* along the slopes just north of the Forebay from a little west of Nelson Road eastward all the way to Hwy 70, with a few small patches continuing on the east side of Hwy 70, a total distance of 2.1 miles. And those patches of *Allium hyalinum* next to Hwy 70 at Garden Drive are only 1.1 miles northwest of Ornduff’s collecting site! All of these patches are in small shallow swales with very thin clayey soil over fractured Lovejoy basalt. This is the basalt that makes up the Campbell



Allium hyalinum in Butte County. Plants are usually growing in very dense patches with the bulbs tightly packed together. Flower color ranges from white to pale pink.



A large patch of pale whitish-pink *Allium hyalinum* flowers in a shallow swale trending from left to right across the middle of the photo, along the Brad Freeman Trail just east of Nelson Road. Thermalito Forebay is to the far right and South Table Mountain is in the far distance.

(Continued on page 9)

Endowment Drive — a Huge Success

The Friends of the Herbarium launched their first-ever Endowment drive toward the end of last year. The effort was spurred on by an anonymous donor who challenged Herbarium supporters by offering to match, dollar-for-dollar, their contribution up to \$30,000. The results were overwhelming and we are thrilled to announce that with the drive, the Endowment grew by over \$77,000. What better evidence is there of the valued contribution the

Herbarium is making not just to the North State's rich diversity but also to the State of California and to western states botanical legacy. The ultimate purpose of the Endowment, with a goal of \$500,000, is to provide sustainable support for the curator's position and other operating expenses. We hope you will join us in celebrating this great accomplishment and we hope we can continue to rely on you to help spread the world about the great work the Herbarium and the Friends are doing. Thank you!!

Colleen Hatfield, Herbarium Director 🐾

Photo Contests Sponsored by FOH

By John Whittlesey, FOH Board Member

Viewing a landscape, a flower, or an insect, through the lens of a camera is one way to engage with the natural world. It requires paying close attention to the lay of the land, the play of light, the assemblage of plants or movement of a bee. A photographer will look at all this and attempt to compose an attractive photo, one that tells a story of season, place and relationships.

The Friends of the Herbarium holds two photo "contests" a year – one for all ages in the fall and one just for students, 6th – 12th grade, in the spring. The one for students especially is to cultivate attentiveness to the wonders of the botanical world and the photos are exhibited at our Spring Open House. Photos of native plants, while en-

couraged, are not required. The fall "contest" we host is to celebrate the wonders of the California Flora with participation mostly by adults. These are displayed at our annual meeting.

We use the word "contest" not because we want to foster a competitive atmosphere, but because we do offer monetary prizes as an incentive. A topic at some board meetings is how best to attract photographers to submit photos without making it feel competitive. There is no doubt disappointment in not receiving a ribbon when an excellent, well-considered photo is submitted. Perhaps no first, second or third place should be awarded. Maybe we just have a fall art show that is not judged. We welcome thoughts from Herbarium supporters and photographers on how best to proceed with what have become two anticipated biannual events for the Herbarium.

Fall 2015 Native Photo Contest Winners



"Field of Lupines"
Spencer Dykstra



"Male Valley Carpenter bee
on *Monardella*"
Luann Manss



"*Clarkia arcuata*"
Joan Walters



Discovery of an “Odd Clover” on North Table Mountain

by Lowell Ahart

On 20 April 2014, I decided I needed to go hunt plants. So I went to North Table Mountain, about 7 miles north of Oroville, and parked at the improved parking area. There were lots of people around so I got my backpack and went northeast, away from them, over the basalt grasslands. The lupines were abundant and tall, but I avoided them as much as possible since I could not see the ground through them and there are rattlesnakes on North Table Mountain. I crossed one of the deep drainages and on the other side at the top I could see a vernal pool complex. I went to the pools and looked for *Juncus leiospermus* var. *leiospermus* (Red Bluff Dwarf Rush). I looked for exposed basalt at the edge of the vernal pools and shallow drainages, which is habitat for the *Juncus*. I saw a likely spot and when I got near I could see thousands of plants. These *Juncus* plants are reddish in color and when abundant will show up against the color of the rock. I collected a few [Ahart 19,381] and continued on to the northeast. I went to a moderately deep drainage and saw a beetle scamper under a rock. I got out a plastic bag and captured the beetle and bagged it. I moved some more rocks and found another (I often collect bugs for John Dittes). To the north was the fence line boundary and here I went west for I did not want to continue to Coal Canyon Falls. Some people came by and went to the fence, then west along the fence to where it ends. Once around the fence they then can go on to Coal Canyon Falls. I went west also but at some distance from the fence. The area here is basalt outcrops with patches of better soil in which the lupine grows. There was a lot of large *Castilleja exserta* var. *exserta* (Purple Owl-Clover) in the area and I wanted to collect some, but there were

more people passing through. When the people had gone on to Coal Canyon Falls I got busy and collected the Owl-Clover [Ahart 19,384]. When I got to my backpack to get a large plastic bag to put the plants in, I noticed an “odd clover,” which I also collected [Ahart 19,382].

Then I went south and crossed a drainage and followed it to where it falls into a deep gorge. To the west was rubble basalt from rim material. Here I rediscovered *Stebbinsoseris heterocarpa* (Stebbins’ Chicory) and collected some [Ahart 19,389]. Many years ago Jim Jokerst did a Flora of North Table Mountain (Jokerst, J.D. 1983. The vascular plant flora of Table Mountain, Butte County, California. *Madroño* 30 (4, Suppl.): 1-18). I remember Jim explaining how he had found some of this *Stebbinsoseris* and the trouble he had in separating it from *Uropappus lindleyi* (Silverpuffs). So, what led me all the way back to this spot was that several years



Herbarium sheet of Lowell Ahart’s “Odd Clover” [Ahart 19,382] from North Table Mountain (top) and a close up on one of the plants on that sheet (bottom).

led me all the way back to this spot was that several years

(Continued on page 9)

(Slime molds Continued from page 5)

nically describes how this came to be and how excited we are at the Chico State Herbarium to be able to share these data with the broader botanical world.

One result of this connection with MyCoPortal is that their website includes links to similar database portals for lichen and for bryophyte collections data. As a result I contacted those portals about sharing the Chico State Herbarium data about those organisms, with the outcome that those data are now available at those portals:

for lichens – <http://lichenportal.org/portal/index.php>

for bryophytes – <http://bryophyteportal.org/portal/index.php>

for slime molds – <http://mycoportal.org/portal/index.php>

by Lawrence Janeway, Herbarium Curator

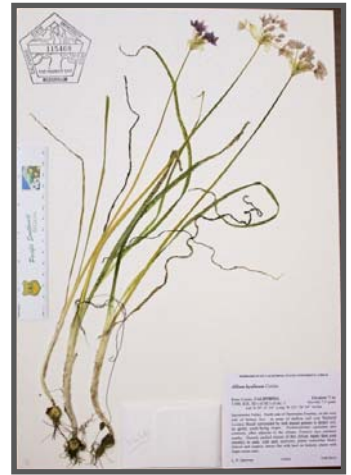


(Butte County Onion Continued from page 6)

Hills that overlook the Forebay and the slopes where the *Allium* grows, and which is an extension of the Lovejoy basalt of Table Mountain. The areas between the swales have somewhat deeper soils that are dominated by the usual annual grasses of the area, especially *Avena*, although there is a robust population of *Triteleia laxa* and other native geophytes mixed in with the grasses here. Where there is the *Allium* the onion plants are often so dense that they exclude any other species.

Of course, I can't help but wonder how, in a county so thoroughly collected by such notable collectors as Vern Oswald and Lowell Ahart, among others, a plant making large showy masses along a well-used paved public road had not yet been collected by local collectors and therefore was not represented in the flora of Butte County. Part of the explanation is that a person has to be in just the right place during one or two particular weeks of the spring. And we all know that in March and April Butte County has a plethora of places to see terrific shows of wildflowers, not the least of which is Table Mountain just to the

east of this onion. This find illustrates that, even in such a well-collected place as the Butte County foothills and grasslands, there are still new gems hidden among the grasses and wildflowers. This also illustrates the need for botanists to be making herbarium specimens of any unusual plants that they find. So... Get out there, watch for unusual plants among your usual plant friends, and COLLECT HERBARIUM SPECIMENS!



Second Butte County specimen of *Allium hyalinum*, and second collection from north of Sacramento County (Janeway 11634). The first Butte County specimen, from Oroville, is Ornduff 6942, April 15, 1967, at the Jepson Herbarium.



(Odd Clover Continued from page 8)

ago I was here and found some *Stebbinsoseris*, but all I got were a few seeds. I wanted to make a new collection of flowering and fruiting plants for the Chico State Herbarium, which I was now able to do.

I continued collecting with some mosses and other flowering plants. A lot of people had arrived and were apparently going to stay for a while, so I gathered up my backpack and went southwest. There were more vernal pools and I found three more colonies of *Juncus leiospermus*. Next I came to a high area and could see the reservoir. It seemed to be a mile or more away, and although I wanted to go there I decided it was too far and there were too many people around. I started back to the parking area and as I crossed below a mound of lupine I spotted more of the "odd clover." I collected some more of it here [Ahart 19,393] and made my way back to my pickup at the parking area, then drove on home and put the collected plants into the plant press. I am not carrying the plant press in the field when there are a lot of people around. I'm finding that I collect more and perhaps better by just putting the collected material in plastic bags and either put in my backpack or in a large shopping bag.

Now what is the "odd clover"? I guessed it might be *Trifo-*

lium ciliolatum (Foothill Clover) like some that grows in a pasture-form in the Honcut area. There is no involucre at the base of the flower, so it is not that. Thus it is best to use the keys and by doing that I keyed it out to *Trifolium willdenovii* (Tomcat Clover). But that can't be right either, so I put a few plants in a plastic bag and sent them to Randall Morgan, a California expert on *Trifolium*. He also thought that it seemed to be Tomcat Clover, but wanted me to tell him all about it. He then thought it might be something different, perhaps a new species. That is part of the reason I have written about the "odd clover" in this article. The large flowered *Trifolium variegatum* (White-tipped Clover) was flowering in the vernal pools and small drainages. I saw only a very few flowers of the smaller flowered form of *Trifolium variegatum*. *Trifolium microcephalum* (Small-headed Clover) was also just beginning to flower.

In summary I just want to say that there are still interesting things to collect out there. One just has to go a little earlier, or a little later, or a little farther, and something interesting will show up. In this case I went early and found an early-maturing clover. I don't know what it is yet, but **All Right!!!**



Highlights from Recent Workshops

“Mushroom Foraging and Identification

by Tim Hanson, FOH Board Member



Workshop attendees observing the wide variety of mushrooms found in the field

Our mushroom workshop on January 17th was a resounding, although a little wet, success! California mushroom expert Philip Carpenter came from Santa Cruz to help workshop participants learn the basics of mushroom foraging

and identification. This workshop had to be canceled last year due to the lack of rain and mushrooms. There was definitely not a lack of rain this time around as our workshop coincided with the first big El Niño storm of the winter.

In the morning, Phil presented a slideshow touching on some of the basics of mushroom taxonomy, morphology, toxicity, and life-history. After the initial primer on mushrooms, workshop participants suited up in their rain-gear and headed to the Big Chico Creek Ecological Reserve to get some hands-on mushroom foraging experience. The torrential rain didn't slow down our enthusiastic group and after spreading out across the reserve, everyone came back with several different kinds of fungus.

After returning from the field, we spread out the collected mushrooms and worked through the taxonomic keys in David Aurora's *Mushrooms Demystified*. Phil stressed the importance of proper identification for the safe practice of foraging for and eating wild mushrooms. After varying levels of success in taking the mushrooms through the keys, Phil gave us some background on the mushrooms we had collected and others he had brought with him from the coast. The most common mushroom we found in the field is a toxic mushroom aptly called poison pie (*Hebeloma crustuliniforme*). We didn't eat any poison pies but instead finished off the workshop by sharing the delicious candy cap mushroom cookies Phil had generously brought to share. Overall, workshop participants appreciated Phil's wealth of knowledge about the mushrooms of California and we all left with a desire to continue to learn about the diversity of mushrooms around us.

Introduction to Keying Manzanitas

(*Arctostaphylos*, Ericaceae)

by Linnea Hanson, FOH Board Member

A variety of manzanita specimens were collected by Tom Parker and Mike Vasey in the San Francisco Bay Area for the workshop. And several manzanitas in the foothills and mountains of the Sierra Nevada were also collected by Linnea Hanson and her husband, Harold Carlson.



Workshop leaders and manzanita experts Tom Parker and Mike Vasey

The workshop started with an introduction to the characters of the genus *Arctostaphylos* in California. There are 96 taxa of the genus in California with two more being described this year. Then we keyed about 10 different manzanitas together first using their new book, *Field Guide to Manzanitas, California, North America and Mexico* and then using *The Jepson Manual, Vascular Plants of California Second Edition*. It was wonderful to have two of the authors of the *Field Guide to Manzanitas* present to explain their key. It was also fascinating to see the differences with their regional keys compared to the state key in the Jepson Manual. It sure was easier using their regional keys!

Mike Vasey also explained the evolution of manzanitas and the ploidy levels in the different types of manzanitas. Mike said that fires are like selection events that select for different factors in the plants that can survive the fire. Then participants individually keyed specimens with Tom and Mike assisting us with the keys in both books.



Manzanita collecting in the snow. Thanks Harold!

It was a very educational and enjoyable workshop. I certainly have a better understanding of the characters that are important in manzanitas. And with this group, having a regional key is a lot easier to use than a key to all the manzanitas in

the state! Thanks to my husband, Harold Carlson for collecting *Arctostaphylos patula* in the snow in La Porte, CA.

Lichens 2016—Frosted or Jellied

by Robert Fisher

Tom Carlberg, out of Arcata, returned for his 8th annual March lichen workshop. The Friends of the Herbarium lichen workshop took a step this year towards change and growth. Past classes were all about keying to genera but this year's theme was keying to species within 2 very diverse groups of lichens.

From the large world of macrolichens "frosted and jellied" lichens were chosen for the Saturday class. Group one were those in the family Physciaceae, represented locally by three genera, which develop some "frosting" of calcium ox-



Workshop leader, Tom Carlberg, with lichen enthusiasts.

alate. These are medium to very small (centimeter or less) foliose (leaf-like) thalli (lichen bodies). Group two were 4 local genera of blackish lichens, in the family Collema-taceae, that can be crisp and crumbly when dry, and im-pervious lumps of dark rubber when soaking wet. Moving to these species required some sectioning and microscopic study at the cellular level.

Our 11 budding lichenologists in this year's class were docents, citizen scientists, or hobbyists of natural studies, volunteers with interest and passion, but not salaried consultants or agency employees. The average age of our group did lean in the direction of senior and retired.



Physcia aipolia

In part, the beauty of lichens has much to do with their building blocks. Being a symbiosis of 2 or 3 kingdoms it is possible, with just the use of light microscopes, to see with one's own eyes how life forms can be interconnected. Seeing the cells of fungi, algae, and bacteria merged into a vast and successful array of lichen shapes and colors should make anyone ponder about how all of life.

(Specimen Spotlight Continued from page 4)

itol National Bank. Margaret died in 1966 and is buried in Chico Cemetery along with her husband and parents.

Eleanor Stilson, daughter of Charles and Emma Stilson, was born in 1880. Charles came to Butte County in 1863, where he clerked in Bidwell's store and then taught in the first public school. A nine year stint as County Clerk allowed time for him to study law, and he later opened a law office in Chico. Charles and Emma also operated a small farm along Little Chico Creek in what is now called Stilson Canyon. Eleanor's uncle was James Stilson, who moved to Chico after serving in the Civil War, where he participated in the capture of Jefferson Davis. A well-known collector of Native American relics, including many made by Ishi, a large portion of his collection formed the nucleus of the California State Indian Library after his death. After completing her studies in Chico, Eleanor enrolled at the State Normal School in Los Angeles (now UCLA). Following graduation, she taught school in Los Angeles for six years. Returning to Chico, she opened a florist shop and also worked in her father's law office. Never married, Eleanor died in 1938 and is buried in Chico Cemetery.

Agnes Riker was born in 1876 in Oakdale, Stanislaus County, one of six children of Daniel and Alpha Riker. She moved to Oroville as a young girl, where her father

was a contractor/builder. After graduating from Chico Normal School in 1898, she taught school in Woodleaf, near Challenge in Yuba County until marrying Charles Falck in 1899. Together, they operated the Woodleaf Hotel until the hotel closed after the stock market crash in 1929. Moving to Sacramento, Charles managed a grocery store, and Agnes was postmistress at a small post office. She died in 1967.

The specimens collected by these women help connect us with Chico's past, when Chico was a small town, the Normal School was new, and John and Annie Bidwell active in the community. Daughters of local pioneering families, the women were encouraged by their parents to attend college at a time when few women did. They all worked outside the home in responsible jobs and helped to pave the way for today's typical working woman.

Pictures of Ida, Margie, Eleanor and Agnes are online at CSU Chico Digital Collections archives.csuchico.edu

The 1895-1896 Chico Normal School catalog is online at Google Books "annual catalogue state normal school chico 1896"



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