



GOLD FIELD NOTES

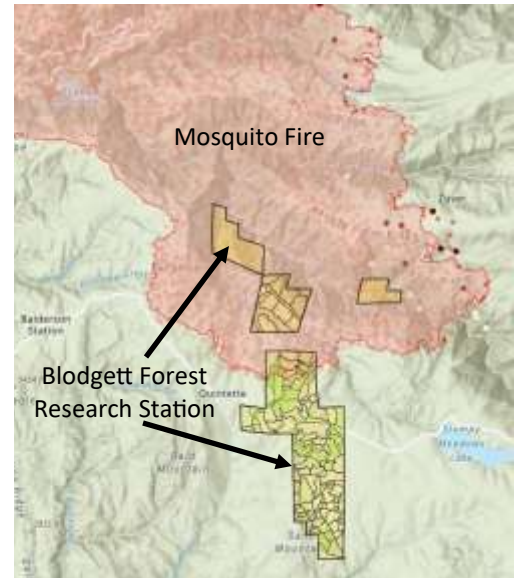
EL DORADO CHAPTER ☼ CALIFORNIA NATIVE PLANT SOCIETY ☼ NOVEMBER-DECEMBER 2023

NOVEMBER 28 PROGRAM PYROSILVICULTURE AT BLODGETT FOREST

Join us for an evening program via Zoom on the Blodgett Forest Research Station (<https://forests.berkeley.edu/forests/blodgett>), its experimental forest management regimes, and the varied effects the Mosquito Fire (9/12/2022) had on forest impact and recovery due to *pyrosilviculture*.

This program is on Tuesday, November 28 at 7 pm. A Zoom link will be available on the website before the meeting. This program is being held a week later than usual to avoid Thanksgiving week.

You can learn more about this topic at the following website: <https://forests.berkeley.edu/news/2022/09/blodgett-forest-research-station-the-mosquito-fire-912-update>.



Article in New York Times: <https://www.nytimes.com/2022/09/16/us/california-wildfire-research.html>

CALENDAR

November 16 (Thursday)
Program.

Bombus – Living With, and the Natural History of - Bumble Bees. John Whittlesey hosted by Friends of the Chico Herbarium. Zoom presentation, 7-8 pm, see link for details:

<http://friendsoftheahartherbarium.org/eventsviewcalendar/ferns-t9abk>

November 28 (Tuesday)

Chapter program.
Pyrosilviculture at Blodgett Forest. See article to right for details.

January 8-9 (Monday-Tuesday)

Conference.
Plant Diversity and Viability in Uncertain Times, Northern California Botanists. See inside for details.

January 23 (Tuesday)

Chapter program.
Restoring Coastal Grassland and Tidal Marsh at Elkhorn Slough Reserve. See inside for details.

Available Anytime!

Botanical programs.
View past presentations from the Friends of the Chico Herbarium's "All Things Botanically Related" series. Check this website for program links:

<http://friendsoftheahartherbarium.org/presentation-series>

Evening programs (with occasional exceptions) are held on the fourth Tuesday of January, March, May, July, September, and November. The program begins at 7 PM and may be in-person or hosted via Zoom. Check the chapter website for details on Zoom link and location (<https://www.eldoradocnps.org/>).

NATIVE PLANT USES IN CENTRAL SIERRA FOOTHILLS

I have lived on the south-facing slope of Mameluke Hill just north of the town of Georgetown in the central Sierra Nevada for over 40 years. It seems likely that members of the Nisenan tribe (or possibly Maidu or another tribe) of Native Americans had a camp on my neighbor's property, just up the hill from my home.

When the Gold Rush occurred in 1848, Georgetown was founded about 10 miles above Coloma where gold was first discovered. When the incipient town of Georgetown first burned down in 1852, the stand of sugar pines located just above the settlement was cleared and the current town established. Directly north of the town, across a small creek, is

Mameluke Hill. It is an ancient volcanic mudflow, and covered a buried 10 million year old river, with gold-bearing gravel. The Native Americans were likely quickly driven off or murdered (see Margolin p. 159-163), and tunnels into the ancient river were established to extract the gravel and the separate the gold. Much of the area has been disturbed by mining, roads, and other disturbances, and a weedy shrub, scotch broom established itself.

Though much of the area was disturbed, some of the native flora still remains. The dominant vegetation today is a mixed coniferous forest. I have been gradually controlling the weedy scotch broom. It is

a very long lived and persistent weed though, with seeds surviving 40+ years in the soil. The remnants of the original flora were likely established or at least encouraged by the Native peoples. The following is a list of many of the plant species found either in the immediate area or nearby. Their possible uses by Native Americans are included.

Plant species common name, scientific name, possible Native American uses noted with the following key: a= food plant, b=household material, c= fiber source, d= firewood, tool or structural wood, e= drugs or medicine). * denotes that the plant is found nearby.

<u>Common Name</u>	<u>Scientific Name</u>	<u>Use</u>	<u>Notes on Use</u>
Brodiaeas	Dichlostemma sp., Tritelia sp.	a	Edible corms, several species.
Cattails*	Typha sp	a, b, c	Young flowers and root eaten. Stems for clothing and housing
Bulrush*	Scirpus sp.	b, c	Stems for housing, etc.
Bitter Dogbane	Apocynum androsaemifolium	c	Fiber used in many ways.
Milkweed*	Asclepias sp.	c	Several species, mostly used for fiber, but sap could also be processed into something like chewing gum.
Miner's Lettuce	Clavtonia perfoliata	a	Used as salad, or steamed.
Red Maids*	Calandrinia ciliata	a	Small seeds were ground for mush.
Soap Plant	Chlorogalium pomeridianum	a, b, c	Soap, food, fish poison, brushes, etc.
Tarweeds	Madia, Hemizonia, Blepharizonia spp.	a	Seeds were widely consumed.
Turkey Mullen	Croton setigerus	b	Fish poison
Strawberry	Fragaria sp.	a	Who doesn't like strawberries?
Mugwort, Wormwood	Artemesia douglasiana	b, e	Used to repel insects and to treat arthritis and rheumatism.
Big-leaf Maple	Acer macrophyllum	b, c, d	Bark used for clothing, nets, flags.
California Bay	Umbellularia californica	a, b, e	Many uses, repel insects, treat sore muscles, make bows, etc.
California Buckeye*	Aesculus californica	a, b, d	Not a preferred food, but seed was used when needed.
California Hazel	Corylus cornuta var. californica	a, b, c	Used for food, stems for baskets and other items,
Calif. Wild Grape*	Vitus californica	a, b, c	Fruit eaten, vines used for tying, leaves for baking.
Manzanita	Arctostaphylos sp.	a, d	Fruit processed and eaten, wood for tools, firewood, etc.
Sugar Pine	Pinus lambertiana	a, d	Sugar Pine seeds, though difficult to collect, were very digestible, and were often given to babies and the elderly.
Madrone	Arbutus menziesii	a, d	Fruit is edible. Wood has many uses.
Black Oak	Quercus kelloggii	a, d	Black Oak acorns were the most desirable acorn. They often would be traded to other tribes.
Incense Cedar	Calocedrus decurrens	b, c, d	Wood for houses, canoes, bark for roofing, dye for tattoos..



Red maids. Photo: Beatrice F. Howitt © California Academy of Sciences.

(Continued on p. 3)

NATIVE PLANT USES *(continued from p. 2)*

<u>Common Name</u>	<u>Scientific Name</u>	<u>Use</u>	<u>Notes on Use</u>
Mountain Dogwood	<i>Cornus nutallii</i>	e	Bark reputed for use against fevers
Ponderosa Pine	<i>Pinus ponderosa</i>	a, d	Seeds were eaten, wood for construction, firewood.
Wild Iris	<i>Iris douglasiana</i>	c	Fiber plant
Yampa	<i>Perideridia</i> sp.	a	Corms used for food, seeds added to other seeds for flavor.
Oregon Grape	<i>Berberis aquifolium</i>	a, d	Berries used as food, yellow dye from roots.
California Rose	<i>Rosa californica</i>	a	Ripe rose hips eaten.
Whitebark Raspberry	<i>Rubus leucodermis</i>	a	Fruit eaten.
Thimbleberry	<i>Rubus parviflorus</i>	a	Fruit eaten.
Coffeeberry	<i>Frangula californica</i>	e	Fruit used as laxative.
Chokecherry	<i>Prunus virginiana</i> var <i>demissa</i>	a	Fruit eaten.
Toyon	<i>Heteromeles arbutifolia</i>	a	Berries eaten.
Giant Trillium	<i>Trillium chloropetalum</i>	e	Many of the Trillium species were used to aid in child birth.
California Buttercup	<i>Ranunculus californicus</i>	a	Seeds used as food.
Blue Wildrye	<i>Elymus triticoides</i>	a	Seeds were toasted and ground into meal. Many other grass seeds were also used, e.g., wild oats (<i>Avena barbata</i>) were quickly adopted as a food after it was introduced to California by the Spanish from Europe.
Bracken Fern	<i>Pteridium aquilinum</i>	b, c	Basketry material.
Arroyo Willow	<i>Salix lasiolepis</i>	b, c	Basketry material
Service Berry	<i>Amelanchier alnifolia</i>	a	Edible berry
Mountain Misery (kit-kit-dizze, the native name)	<i>Chamaebatia foliosa</i>	e	Used to treat skin problems and rheumatism.
Taw Manroot	<i>Marah watsonii</i>	b, e	Used to stun fish and as a soap

The reality is that nearly every plant that could be used was. It is likely some of the less common plants had specific uses that have been lost or not identified. A similar list could be developed for any other specific location. This list is for one portion of the Central Sierra foothills and is likely not complete. Plant populations were manipulated by Native Americans through selective broadcast seeding, prescribed burning, pruning and occasionally transplanting. European Americans have been doing their own (mostly) unconscious manipulating of native plant populations through various forms of building,

cutting and replanting of ancient forests, agricultural development, and a policy of fire suppression that alters burn cycles. Added to that is the (mostly) accidental introduction of thousands of plant species from various parts of the world and our current (often) chaotic natural world is the result.

Ray Griffiths

References

- Bibby, B. 2005. *Deeper Than Gold: A guide to Indian life in the Sierra foothills*. Heyday Books.
 Heizer, Robert F. and Albert B. Elsasser,

1980. *The Natural World of the California Indians*. University of California Press.

Lightfoot, K.G. and Parrish, O. 2009. *California Indians and Their Environment*. University of California Press.

Clarke, B.C. 1977. *Edible and Useful Plants of California*. University of California Press.

Margolin, M., 1981. *The Way We Lived: California Indian Reminiscences, Stories and Songs*. Heyday Books.

Secrest, William B. 2003. *When the Great Spirit Died, The Destruction of the California Indians 1850-1860*. Craven Street Books.

Rose hips, California rose. Photo: ©2009 Keir Morse ([CC BY-NC-SA 3.0](https://creativecommons.org/licenses/by-nc-sa/3.0/))



Coffeeberry (Photo: ©2012 Jean Pawek ([CC BY 3.0](https://creativecommons.org/licenses/by/3.0/)))

CA buttercup flower and seed head. Photos ©2020 John Doyen ([CC BY-NC 3.0](https://creativecommons.org/licenses/by-nc/3.0/))



The Nature Nook

A special garden at the Placerville library.

FALL TIDY-UP AT THE NATURE NOOK



On October 24, eight to 10 volunteers came out to rake, plant, weed, deadhead, prune, and more at the Nature Nook. A mostly native garden on the grounds of the Placerville Library, the Nature Nook has been a project of the El Dorado Chapter of the California Native Plant Society.

Shown in the image are (left to right) Madeline Franke, John Jenkinson, Cindy Podsiadlo, and Helen LeVasseur.

Photo: Kathleen Barco.

TAKING UP A CARBON NEUTRAL PLEDGE

By being members of CNPS, we are champions for native plants in our community – not just plants, but pollinators, birds, and other wild creatures that thrive among the plants in the forests, woodlands, chaparral, and in our own backyards. Even as we enjoy and conserve nature, our activities release carbon dioxide and other greenhouse gases into the atmosphere.

I invite you to read about our chapter's carbon neutral journey. We made a carbon neutral pledge in 2019 and developed tools to enable us to become carbon neutral for the last three fiscal/activity years. CNPS headquarters has made a similar pledge for 2030, but we chose to dive right in, believing that doing something toward reducing the effects of climate change now was better than waiting. Our method in brief was –

Best guess to start. Just start. Then collect data. Fix guess. Next, better data. Fix guess again. Repeat...

In January, I hope to form a committee to look at possible carbon offset projects for this year. The discussions are via email. If you are interested in joining, please fill out the Contact Us page on the chapter's website.



To view the full presentation highlighted to right, click on this link (https://drive.google.com/file/d/1EeA8qmVX4kfJAKQsBw8GQeh8a-lu_UJE/view?usp=sharing) or scan code below.



CONFERENCE HIGHLIGHTS: CALIFORNIA INVASIVE PLANT COUNCIL

The conference covered a wide variety of topics with focuses on integrating weed management with restoration, fire, and roadside weed and fire control by planting natives unlike previous years that had a lot of talks on herbicides.

One of the most popular talks is the weed alerts – new weeds, new weed expansions, or anything alarming about an invasive plant. This year northern California weed alerts were presented by Jutta Burger, Science Program Director, California Invasive Plant Council (email her with new findings: jburger@cal-ipc.org). Luckily none of the weed alerts occurs in or close to El Dorado County but these two plants are jumping around a bit and may land near us.

Garlic mustard jumped from the SF Bay area to southern California in 2020 and was found in 2022 to the far north in Trinity County, likely from a separate introduction there and not from natural spread (Fig 1). Given its wide range of habitats and naturalizations elsewhere we should keep our eyes and noses open for this plant – the crushed leaves smell like garlic.

The second notable species, Prickly goldenfleece, widely naturalized in other continents, has been around and spreading from Berkeley since 1915 and is expanding in Butte County and recently into wildlands (Fig. 2). The reason I'm including this is because at first pass we might think it is common sowthistle (*Sonchus oleraceus*) – examine the detailed slide to see the differences (Fig. 3)

Dr. Chris Borkent of the California Dept. of Food and Agriculture (chris.borkent@cdfa.ca.gov) presented "Biological control agents of weeds in California: Overview of rearing, releases, and monitoring by the CDFA Biological Control Program." (Fig. 4)

One of our most widespread and troublesome weeds is Yellow Star Thistle (YST). A biological control program for YST began in the 1960s (see <https://weedcut.ipm.ucanr.edu/biological-control/yellow-starthistle/#gsc.tab=0> for details). A few of the biocontrol agents that established (Fig. 5) resulted in over 80% seed control in some places but that is just not enough.

For the first time in 30 years a new insect biocontrol agent was released in 2020 (Fig. 6). The Rosette Weevil, *Ceratopion basicorne* (Coleoptera: Curculionidae), was released 3 times in the state, AND it was released in 2021 at the Bureau of Land Management's Magnolia Ranch in El Dorado County. Over 15 years of research were spent on this insect to be sure it was safe to release (L. Smith 2007). It may also attack tocalote (*Centaurea melitensis*), another invasive weed.

(Continued on p. 6)



Fig. 1. Garlic mustard distribution and spread (J. Burger).



Fig. 2. Prickly goldenfleece distribution and spread (J. Burger).



Fig. 3. Key differences between Prickly goldenfleece and common sowthistle (J. Burger).

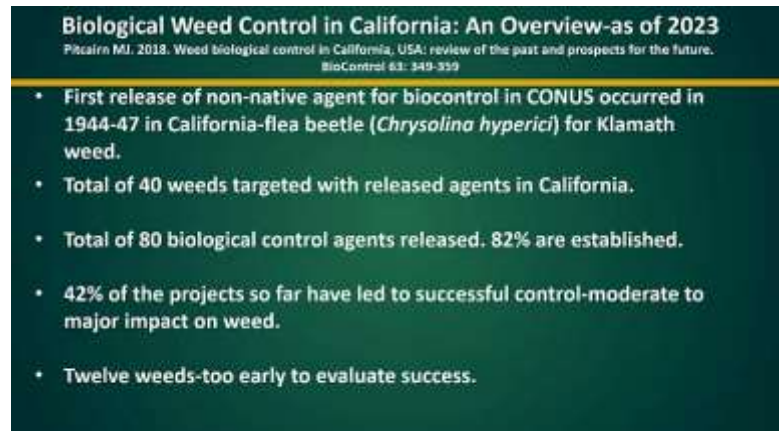


Fig. 4. Overview of weed biocontrol in California (C. Borkent).

CONFERENCE HIGHLIGHTS

(continued from p. 5)

Unlike previous biocontrol agents, this insect feeds on the young plants instead of the seeds and flower heads. It has only one generation per year so buildup of weevil populations in nature will take several years and it is challenging to rear adequate numbers in the USDA laboratories for release. Look for adults in the early spring on young YST plants, feeding and laying eggs on the leaves, and then later in the summer after the adults emerge. The larvae burrow down into the roots and pupate inside the plant. Adults emerge in late May – June, feed and mate on the plant for a week or two, then disappear until the next spring – over-summering (aestivating) and overwintering (hibernating) in dormant phases. **The insect doesn't kill the plant but stunts it reducing seed production.** Dr. Borkent says in an email, “We certainly hope that it will be spreading around the county and elsewhere into CA.....we have still not had any recoveries of the adults in the field (just a few plants that appeared to have larval mines) so if you or any of your members come across it we would love to hear about! It is of course a very small beetle, but people may notice it if focused on looking for it on YST” (chris.borkent@cdfa.ca.gov). So keep an eye open for it when you're out and about this spring.

Deb Ayres
Weed co-chair

Smith, L. 2007. Physiological host range of *Ceratapion basicorne*, a prospective biological control agent of *Centaurea solstitialis* (Asteraceae). *Biological Control*. 41: 120–133.



Fig. 5. Established biocontrol insects for YST (C. Borkent)



Fig. 6. Rosette weevil biology (C. Borkent).

UPCOMING CONFERENCE: PLANT DIVERSITY AND VIABILITY IN UNCERTAIN TIMES

The Northern California Botanists will be holding their 2024 symposia “Plant Diversity and Viability in Uncertain Times” on January 8-9, 2024. The 2024 symposium will be a combination of in-person and online sessions. Registration will begin soon and Regular Registration ends Dec. 15, 2023.

Take a look at the sessions at <https://norcalbotanists.org/symposia/2024-symposium/program-and-workshops/>.

INTERESTED IN ATTENDING ONLINE?

If you would like to attend online please let Deb (drayres@ucdavis.edu) and Ginna (vcmeyer@me.com) know WHY in a short paragraph. The Chapter may be able to fund your registration fee of \$100 depending on your WHY paragraph!



HELP WITH RIPARIAN RESTORATION IN PLACERVILLE

A member of CNPS, in cooperation with Community Pride, a City of Placerville chartered gardening group, has been asked to help restore riparian habitat along Randolph Creek, located behind Mosquito Creek Outfitters along the bike trail. The City is dredging part of the creek for flood control and placing the dredged materials on the banks. Native grass seeds will immediately be applied, with jute fabric installed. However, we have riparian Carex, Juncus, etc., that will need to be planted during the winter months.

Help Needed For: supervisors of volunteer planting crews and/or planting

Where: Randolph Creek behind Mosquito Creek Outfitters in Placerville

When: Winter months to be arranged with flexibility

What to bring: gloves, scissors or knife, hand trowels, water and snacks if needed.

More about the location and work: Restrooms are located a block away in Mid-town Mall.

Note that the planting will be done standing on sloped creek banks, cutting through jute and digging through fist-sized river rock, gravel and sand. Plants are in 3 -inch and 1-gallon containers.

Feel free to invite a friend, or pass this message on to others who might be interested in volunteering. This can be a hands-on educational opportunity for scouts and small groups.

PLEASE RSVP to: Jennifer Tucker (tucker4nature@outlook.com) so that we can create a list of supervisors and planters to be contacted.

We look forward to hearing from you.

JANUARY 23 PROGRAM RESTORING COASTAL GRASSLAND AND TIDAL MARSH AT ELKHORN SLOUGH RESERVE

This talk will be presented by Andrea Woolfolk and Monique Fountain, Elkhorn Slough National Estuarine Research Reserve. This program is on Tuesday, January 23 at 7 pm. A Zoom link will be available on the website and in the next newsletter.

You can learn more about the Elkhorn Slough National Estuarine Research Reserve at the following website: <https://elkhornslough.org/reserve/>



Randolph Creek, from below the overpass to the small bridge, is the site of a Community Pride garden. Populated by native riparian plants, this garden was started and maintained these last 15 years by CNPS members Steve Dowty and Jennifer Tucker. Photo: Jennifer Tucker.



El Dorado Chapter
 California Native Plant Society
 P.O. Box 1948
 Placerville, CA 95667

November-December 2023

For Updates Visit Us on the Web
www.eldoradoCNPS.org and



CALIFORNIA
 NATIVE PLANT SOCIETY

DEDICATED TO THE
 PRESERVATION OF
 CALIFORNIA'S NATIVE FLORA

The California Native Plant Society is a statewide nonprofit organization of amateurs and professionals with a common interest in California's native plants. The mission of the Society is to conserve California native plants and their natural habitats, and increase understanding, appreciation, and horticultural use of native plants. Membership is open to all.

Membership includes the journal *Artemisia*, quarterly magazine, *Flora*, which gives statewide news and announcements of Society activities and conservation issues, and the chapter newsletter *Gold Field Notes*. To join, call our main office in Sacramento, (916) 447-2677, or visit www.cnps.org to join online.

CHAPTER OFFICERS AND COMMITTEE CHAIRS

Contact Chapter Leadership at web.eldoradocnps@gmail.com

PRESIDENT	Vacant
VICE PRESIDENT	Debra Ayres
SECRETARY	Sue Wallace
TREASURER	Ola Jane Gow
BOOKS & POSTERS	Christie Johnson
CONSERVATION CO-CHAIRS	Lester Lubetkin
	Sue Britting
SCIENCE COMMITTEE	Deb Ayres
	Ginna Meyer
CLARK YOUTH FUND	Chelsea Morgan
FIELD TRIPS	Ginna Meyer
INVASIVE EXOTICS CO-CHAIRS	Debra Ayres
	Virginia Meyer
LIBRARY DEMO GARDEN CO-CHAIRS	Cindy Podsiadlo
	Madeline Franke
MEMBERSHIP	Cindy Podsiadlo
PLANT SALE CHAIR	Kit Veerkamp
PROGRAMS	Debra Ayres
RARE PLANTS	Vacant
VOLUNTEER COORDINATOR	Vacant
FACEBOOK	Annie Walker
COMMUNICATIONS	Kathleen Barco
WEBMASTER	Deborah Nicolls
NEWSLETTER	Sue Britting