
Obispoensis

Newsletter of the San Luis Obispo Chapter of the California Native Plant Society

Fremontodendron Cov.

Flannel Bush

Bonnie K. Walters



May 2013

Flannel Bush (*Fremontodendron californicum*)

This month's cover drawing by Bonnie Walters is a repeat of flannel bush, *Fremontodendron californicum*. It was last used on the *OBSIPOENSIS* cover back in 1991. Does anybody remember it? It is being reused now due to a request Bonnie received to use some of her drawings for a project associated with "Learning among the Oaks" program. Of course, this required us to go back into our archives to find it. Also, it was obvious to us that the write-up that accompanied the earlier cover was clearly out of date. Back then the article stated that flannel bush was "a member of the moderately large (65 general and 1000 species) and predominantly tropical family, Sterculiaceae. The most famous member of this family by far is cacao, *Theobroma cacao*, the plant from which chocolate is made." Today we have to accept the conclusion that flannel bushes are part of the large (266 genera & 4025 species), cosmopolitan (but still favoring warmer regions of the earth) Malvaceae. This family is most often called the cotton, hibiscus or mallow, and obviously chocolate family. The most obvious characteristic shared by flannel bush and the rest of the Malvaceae is the fusion of their stamen filaments into a tube that completely surrounds and thus hides the ovary and style base. One other note, the beautiful yellow perianth elements found on flannel bushes are sepals not petals; *Fremontodendron* does not have petals. This is because there is only one whorl of perianth and when that happens, botanists almost always define them as sepals.

Back in 1991, it was noted that *Fremontodendron* in California had only two species – *F. mexicanum* and *F. californicum*. In 2013 we have to acknowledge that there are now three recognized species. A new species with a very restricted range (found only in Yuba & Nevada Counties) has been separated from *F. californicum*. This new species is *F. decumbens* or the Pine Hill flannel bush. Unlike the other species which are erect, small trees or large shrubs, Pine Hill flannel bush grows flat on the ground. The new *Jepson Manual* indicates that this species is "morphologically, genetically" distinct (i.e. looks different and doesn't cross with) from the other species.

As one might guess because of its large flowers, flannel bushes ought to be sought after as horticultural plants. The problem is that they are considered hard to grow. They require well drained soils with little summer water. If one tries to plant them in clay, such as found around San Luis Obispo, one internet reference recommended digging a large hole (three feet across and deep) and filling it with sand before planting. This will keep the soil in contact

with the root crown from prolonged contact with moist soil. Summer watering (after establishment) and/or moist soil in contact with the root crown will kill it in a couple of years. The pure species in cultivation is mostly *F. mexicanum* as it has the largest flowers. However, this species is restricted to extreme Southern California and adjacent Mexico. Because of this, gardeners have created hybrids and selections that combine the environmental latitude of *F. californicum* with the large flowers of *F. mexicanum*. Thus making the hybrids much more garden friendly. Gardeners on the internet stress that flannel bushes are large plants and don't fit well into small suburban settings. They also noted that the pubescence (hairs) that shed from the twigs can be very irritating. Therefore, it might be best to plant it where people do not congregate.

F. californica is found in desert washes and on dry, well drained foothill slopes. It is particularly common in the high desert and southern Sierra foothills where it prefers locations soil surfaces are habitually dry yet have available water from relatively shallow water tables. This is because their root crowns are particularly susceptible to various pathogenic fungi that live near the surface. It is these soil pathogens that make it difficult to maintain in cultivation. It can be found in our county in scattered colonies along the crest of the Santa Lucia Mountains and on a few of the higher peaks in the interior. The most accessible stand is just east of the forest service road to the Sergeant Cypress Grove on West Cuesta Ridge. Most of our plants have smaller, three-lobed leaves instead of the more common five-lobed leaves characteristic of the species. Because of this Dr. Robert Hoover named our local plants, *F. californicum* var. *obispoense*. I also think I remember Dr. Robert Rodin, a plant anatomist and morphologist, telling me that the flannel bushes on West Cuesta Ridge also had one less chromosome than the rest of the species. If this is true, it would further strengthen the separation of our plants into a distinct variety.

I have one last note. A member of our chapter enters the story of producing a much more water-tolerant *Fremontodendron* garden. This cross, between *Fremontodendron californicum* and the tropical monkey's hand tree (or *Chiranthodendron pentadactylon*) was being propagated for eventual release into the trade at Rancho Santa Ana by then Rancho graduate student and later SLO County Chapter member Austin Griffiths. At least one of these inter generic hybrid plants was planted on the Cal Poly campus. I do not know if it is still living there.

- Dirk Walters, illustration by Bonnie Walters

Chapter Meeting

Thursday, May 2, 2013, 7:00 p.m. at the San Luis Obispo Veterans Hall, 801 Grand Avenue, San Luis Obispo.

Research on the "Hidden Flowers, *Cryptantha* (Boraginaceae): Recent Insights" by Michael Simpson, Professor of Biology at San Diego State University. He received his Ph.D. from Duke University. His expertise is plant systematics, including phylogenetic relationships of flowering plants, taxonomy related to species and infraspecies delimitation, and floristic studies. He is the author of the textbook *Plant Systematics*, 2nd ed. (Elsevier-Academic Press, 2010).

This talk will present recent studies summarizing aspects of taxonomy and phylogenetic relationships of the genus *Cryptantha* and close relatives. The methodology, evidence, and rationale for splitting the genus into separate genera, all named by previous workers decades ago, will be explained. Current studies and some preliminary results with regard to species and infraspecies definition, including some recent discoveries, will be presented.

We will be hosting a plant ID workshop from 6:00 to 6:45 p.m. The focus of this mini workshop will be the genus *Cryptantha*. Dr. Michael Simpson, Professor at San Diego State University and author of *The Jepson Manual* treatment for *Cryptantha* will be leading the workshop. Please bring a copy of the new *Jepson Manual*, if you have one, and a hand lens. Collections of several of our local *Cryptantha* species will be provided. Workshop participants may also bring in their own *Cryptantha* collections to identify. Please join us for this exciting opportunity, which is sure to be a fun and informative event!

Dr. Simpson will provide samples of herbarium specimens and microscope slides with mounted fruits (nutlets) of several species of *Cryptantha*. Using the key in *The Jepson Manual*, 2nd ed., participants may practice identification of some of the taxa. Some dissecting microscopes will be provided. See Dr. Simpson's website for more information about *Cryptantha*: <http://www.sci.sdsu.edu/plants/cryptantha>.



Michael Simpson



The San Luis Obispo Chapter of CNPS holds its meetings the first Thursday of the month, October through June, except January, at the Veterans Hall, Grand Avenue, San Luis Obispo. Refreshments at 7:00

and program at 7:30 p.m. You don't have to be a CNPS member to attend!

Obispoensis is the newsletter of the San Luis Obispo Chapter of CNPS. It is published October through June except January. Items for submittal to *Obispoensis* should be sent to rhotaling@charter.net. The deadline is the 10th of the preceding month. Botanical articles, news items, illustrations, events, and tidbits are welcome!

To find out more about the California Native Plant Society visit our websites, cnps.org and cnpsso.org.



A manzanita ID workshop at our monthly meeting

President's Notes

Near the end of March Linda and I took off for the central US, mainly to see the mass gathering of sandhill cranes on the Platte River, but also such wonders as the World's Largest Ball of Twine. The drought we have been experiencing in SLO is nothing compared to what is happening in New Mexico and Kansas. We have seen wildlife refuges for wildfowl completely devoid of water, no grass left on the range, dry rivers and a host of other problems. Luckily the strange weather produced a later than usual number of cranes, which were a mind-bender. By the time you read this the annual field trip meeting will have taken place, so think of Kansas if things were not too plentiful. I hope to see you at the May meeting. ☘

David Chipping

Field Trips

Saturday, May 4, 9 a.m., Buds, Birds, and Blooms field trip, River Road, Santa Margarita Lake.

Enjoy a late spring outing, sponsored by the California Native Plant Society (CNPS) and the Morro Coast Audubon Society (MCAS). Join leaders Bill Waycott (CNPS) and Chuck Woodard and Jan Surbey (MCAS) at the River Road access of Santa Margarita Lake. Expect to see a variety of spring wildflowers along with observing nesting behavior of birds, sightings of spring migrants, and possibly wood ducks.

Participants will be walking on gentle sloping terrain for about 3-4 miles (out and back). The daily vehicle fees (\$3) will be waived for trip participants.

There is a portable restroom in the parking lot at River Road. Trip participants should bring snacks and water (no potable water available at River Road) and are welcome to enjoy a picnic lunch at the conclusion of the trip (no tables available, so bring along a blanket etc.).

Directions: From Hwy. 101, take the Santa Margarita (Highway 58) exit and drive through the town of Santa Margarita. Turn right on Highway 58. At the junction with Pozo Road (in approximately 2 miles), stay on Pozo Road for approximately



Cynoglossum grande
Hound's tongue

14.8 miles (passing the turnoff to the "front entrance" of Santa Margarita Lake at about mile 7). After crossing a small bridge, turn LEFT onto RIVER ROAD and continue approximately 2.3 miles. The parking lot for the River Road access will be on the left side of the road. Allow 50-60 minutes from the San Luis Obispo area. Please e-mail Jan (jansurbey@earthlink.net) or Bill Waycott (bill.waycott@gmail.com) for directions and further information.

Saturday, May 11, Big Sur Botany Hike from Cruickshank to Soda Springs trailheads.

Join Neil Havlik and Bill Waycott on an outing focused on the floristic diversity of the southern Big Sur coastal mountains. The hike will make a series of short breaks along the route to discuss the changes in plant communities. This hike is moderately strenuous, 10-mile hike, 2200 ft. gain. The trail begins with ascent to panoramic overlook of the southern Big Sur coastline, then enters Villa Creek Canyon and to Buckeye Camp for lunch, and finally across Redwood Creek to Soda Springs trail junction. Bring lunch, snacks, water, and dress for the weather. Ticks and poison oak are possibilities. Meet at the Santa Rosa Park in SLO at 7:15 am or at Washburn Day Use Area in San Simeon State Park at 8:00 am. From there, we will drive 40 miles to Cruickshank trailhead, first leaving a shuttle car at Soda Springs trailhead 4 miles south. To participate in this hike, you will need to contact Bill Waycott, bill.waycott@gmail.com , (805) 459-2103 to be included.

Sunday, May 19, 9:00 a.m., Arroyo De La Cruz.

This is a field trip to one of the "hottest" spots for botanical diversity in San Luis Obispo Co. Our leader will be D.R. "Doc" Miller. Arroyo De La Cruz features a variety of plant communities and a number of endemics, found only in this relatively small area, full of rare and endangered plants. These may include the bluff California lilac (*Ceanothus maritimus*), and possibly the dwarf goldenstar (*Bloomeria humilis*). Meet at the parking lot of Spencer's Market in Morro Bay, 2650 Main Street, at 9:00 a.m. From there we will drive north with a brief stop at the Elephant Seal Overlook at 9:30 a.m., to pick up any participants from Cambria and the North County, and then proceed on to Arroyo De La Cruz site. Dress in layers for the weather; a hat and sturdy shoes are advised. Info.: Bill Waycott, (805) 459-2103 (bill.waycott@gmail.com). Points of interest during the field trip will be within easy walking distance of our vehicles and should last about 3 hours.

CALIENTE MOUNTAIN, CNPS TRIP April 13, 2013

A warm sky enveloped us at 3900 feet in the Caliente Range. Clear and clean with no wind, perfect weather. The flowers weren't as good. Southern slopes were parched and barren in this drought year. There were no colorful blankets. Many of the annuals were smaller than usual. But we found many things of interest and had a really good day.

Lynne Peterson, Marti Rutherford, Diana and Dennis Sheridan, John Chesnut, Marlin Harms, Bob Hotaling, Dirk Walters and myself journeyed up Caliente Ridge. The photograph shows part of our group. From the left, Marlin, Bob, Lynne, Marti.



The shrubs were abundant and pretty healthy: California juniper (*Juniperus californica*), Tucker's oak (*Quercus john-tuckeri*), interior goldenbush (*Ericameria linearifolia*). And we saw two kinds of mistletoe, one on the junipers and one for the oaks. We found List 4 species, such as Calif. androsace (*Androsace elongata*), Salinas milkvetch



Wind poppy

(*Astragalus macrodon*), and Mojave paintbrush (*Castilleja plagiota*). Some other things on the mountain:

Amsinckia vernicosa, waxy fiddleneck
Arctostaphylos glauca, big-berry manzanita
Boechera pulchra, beautiful rock cress
Castilleja subinclusa, longleaf paintbrush
Caulanthus inflatus, desert candle
Chenopodium californicum, Calif. goosefoot
Claytonia parviflora ssp viridis, miner's lettuce
Ephedra viridis, green ephedra
Eriastrum pluriflorum, many-flowered eriastrum
Eriogonum elongatum, long-stem buckwheat
Eriogonum fasciculatum var polifolium, Calif. buckwheat
Erysimum capitatum, wallflower
Gilia latiflora, broad-flowered gilia
Leptosiphon parviflorus, baby stars
Mentzelia pectinata, San Joaquin blazing star
Monolopia lanceolata, hillside daisy
Mucronea perfoliata, perfoliate spineflower

Papaver heterophyllum, wind poppy
Phacelia distans, distant phacelia
Phacelia fremontii, Fremont's phacelia
Phacelia tanacetifolia, fern-leaf phacelia
Pholistoma membranaceum, white fiesta flower
Poa secunda, blue grass
Stipa speciosa, desert needle grass

Several kinds of cool beetles pointed out by Dennis Sheridan



The rough terrain below Caliente Mountain that we contemplated as we had lunch. The La Panza range is in the distance.

George Butterworth,
April 14, 2013

Dedicated to the Preservation of the California Native Flora

The California Native Plant Society is a statewide non-profit organization of amateurs and professionals with a common interest in California's plants. The mission of the Society is to increase understanding and appreciation of California's native plants and to preserve them in their natural habitat through scientific activities, education and conservation. Membership is open to all. Membership includes the journal, *Fremontia*, the quarterly *Bulletin*, which gives statewide news and announcements of the activities and conservation issues, and the chapter newsletter, *Obispoensis*.



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California Native Plant Society*
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Rare Plant Treasure Hunt

Explore, Botanize, Conserve

Botanical Adventures with the Rare Plant Treasure Hunt!

The Rare Plant Treasure Hunt is a citizen-science program started by CNPS in 2010 with the goal of getting up-to-date information on many of our state's rare plants, while engaging chapter members and other volunteers in rare plant conservation. Many of California's rare plant populations have not been seen in decades and some parts of the state have seen little to no botanical exploration to date. This program helps conserve our rare flora by providing valuable data to the CNPS Rare Plant Program and the Department of Fish and Game. Treasure Hunters can join an organized rare plant search or learn how to plan their own trips by attending training events; those who already have some botanical experience can start leading their own trips! You can also sign up for the mailing list to be notified of upcoming events by sending an email to treasurehunt@cnps.org

Join us for one or more trips this spring/summer! Trips are listed below, and more info can be found at <http://www.cnps.org/cnps/rareplants/treasurehunt/calendar.php> or by contacting dslakey@cnps.org.

- May 5 – Junipero Serra Peak (Monterey Co.)
- May 11-13 - Pine Ridge / Tassajara Hot Springs Backpack (Monterey Co.)
- May 16 – Sierra Azul Open Space (Santa Clara / Santa Cruz Co.)
- May 20 – 22 – Ventana Wilderness Car Camp (Monterey Co.); dates tentative
- May 25 – 27 – Cone Peak Car Camp (Monterey Co.)
- June 5 – 7 – Pine Ridge Trail / Sykes Hot Springs Backpack (Monterey Co.)
- June 8 – Andrew Molera SP (Monterey Co.)
- June 14 – 16 – Alder Creek Bot. Area / South Coast Ridge Car Camp (Monterey Co.)
- June 28 – 30 – Lion's Den Bot. Area / Cruickshank Trail Backpack/Car Camp (Monterey Co.)