



THE YERBA BUENA  
CHAPTER OF THE  
CALIFORNIA  
NATIVE PLANT  
SOCIETY FOR  
SAN FRANCISCO  
AND NORTHERN  
SAN MATEO COUNTY

Vol. 29 No. 3 ■ September 2015

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## PROGRAMS

Everyone is welcome to attend membership meetings in the Recreation Room of the San Francisco County Fair Building (SFCFB) at 9<sup>th</sup> Avenue and Lincoln Way in Golden Gate Park. The #71 and #44 buses stop at the building. The N-Judah, #6, #43, and #66 lines stop within 2 blocks. Before our programs, we take our speakers to dinner at Chang's Kitchen, 1030 Irving Street, between 11<sup>th</sup> and 12<sup>th</sup> Avenues. Join us for good Chinese food and interesting conversation. Meet at the restaurant at 5:30 pm. RSVP appreciated but not required. If you wish to notify, please call Jake Sigg at 415-731-3028.

### SEPTEMBER 3, THURSDAY, 7:30 PM

#### *Nutritional Ethnobotany of California*

**Speaker: Thomas J. Carlson, M.D., M.S.**

California has a large number of native wild food plants as well as numerous introduced edible weeds that are particularly plentiful in urban landscapes. None of these nutritious native and introduced species discussed in the lecture need to be planted or watered, yet they are abundant even during drought years.

Thomas J. Carlson is a medical doctor and an ethnobotanist who is Associate Teaching Professor in the Department of Integrative Biology and Curator of Ethnobotany in the University & Jepson Herbaria at University of California, Berkeley. Tom has conducted nutritional and medical ethnobotanical research in numerous tropical and temperate countries over the past three decades.

### OCTOBER 1, THURSDAY, 7:30 PM

#### *Travels with Lepidoptera*

**Speaker: Paul G. Johnson**

The lives of plants are so closely intertwined with the lives of insects, especially Lepidoptera (butterflies and moths), that we can hardly study one without bumping into the other. California's biodiversity is so rich that we may be tempted to keep things simple by focusing our attention on a single phylum. But surely we want to know more about our friends than just their name, address, and preferences. If we embrace the opportunity to get to know everybody in the room, we stand to broaden our understanding of whichever corner of California's biodiversity we find most interesting.

Paul Johnson studied Zoology and Entomology at UC Davis, and is currently employed as the Wildlife Biologist at Pinnacles National Park. He spends much of his spare time studying Lepidoptera, being especially drawn to arid environments in the spring season. Letting the creatures lead him where they may, he often finds himself in botanically rich locations. He uses his camera not only to document his finds, but also to inspire appreciation of the little things that make the world go

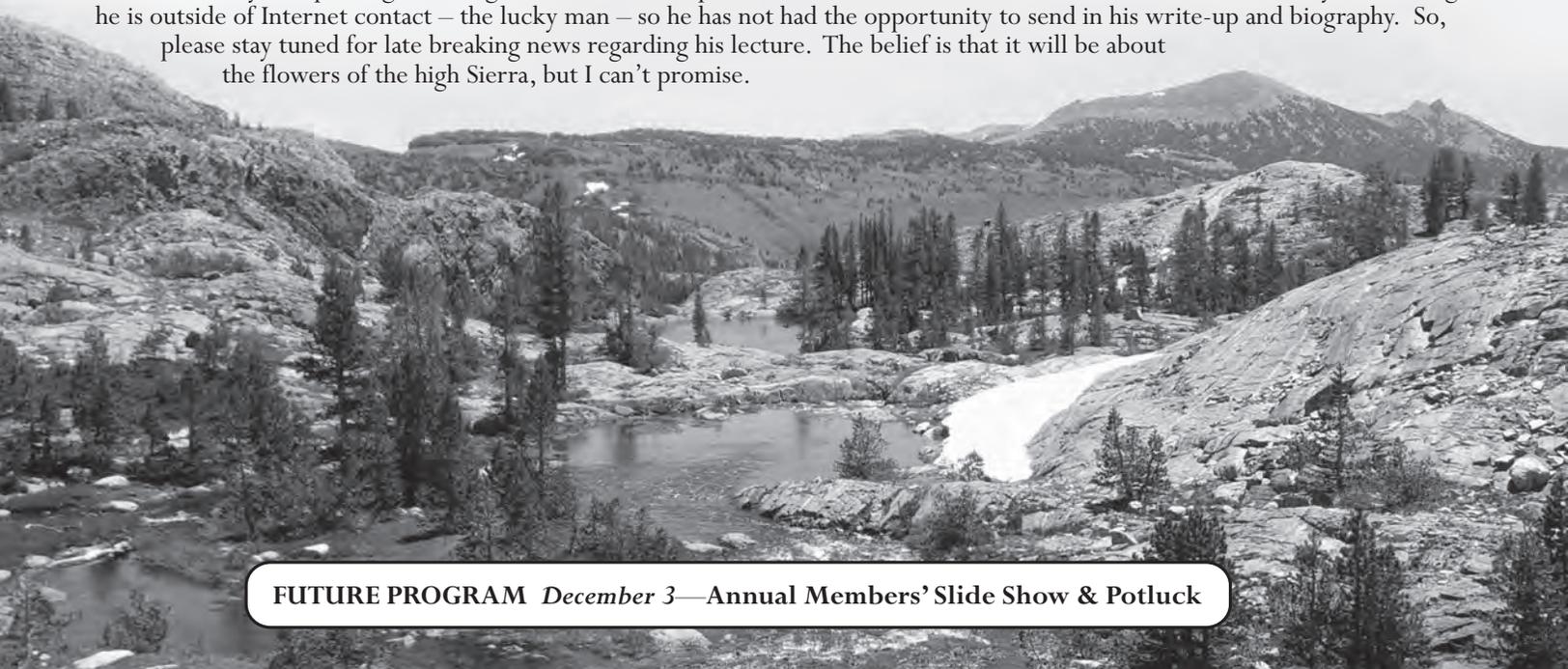
'round. His photographs have been consistent favorites in the CNPS conference photo contests. Come join us for a tour of California native plants and Lepidoptera in places including Pinnacles, Monvero Dunes, Shell Creek, Carrizo Plain, and Lockwood Valley.

### NOVEMBER 5, THURSDAY, 7:30 PM

#### *Flowers of the High Sierra*

**Speaker: Michael Uhler**

Mike is currently backpacking in the high Sierra, and we hope that he will be back in time for his talk in November. As you can imagine, he is outside of Internet contact – the lucky man – so he has not had the opportunity to send in his write-up and biography. So, please stay tuned for late breaking news regarding his lecture. The belief is that it will be about the flowers of the high Sierra, but I can't promise.



FUTURE PROGRAM December 3—Annual Members' Slide Show & Potluck

## FIELD TRIPS

Members and non-members are encouraged to attend these FREE walks. Contacts for additional information are listed at the end of each trip description. If rain is forecast (we're optimists), we recommend checking with the contact a couple of hours before the trip.

### SEPTEMBER 19, Saturday, 10 am–1 pm

#### *San Bruno Mountain: Saddle-Bog Area*

##### **Leader: Doug Allshouse**

Though Doug usually leads a Saddle-Bog walk in January (and will again in 2016), any time of year is a good time for an easy walk on the park's most popular trail. The Saddle-Bog area occupies the northernmost several hundred acres of the park and features species-rich grasslands and the headwaters of Colma Creek, along with less welcome stands of eucalyptus (*E. globulus*) and monocultures of gorse (*Ulex europaeus*). In fall, we expect to see the yellows of goldenrod (*Solidago velutina*) and gumplant (*Grindelia hirsutula*), and the snowy shades of pearly everlasting (*Anaphalis margaritacea*). On clear days there are panoramic views from San Jose to the Marin Headlands. Bring binoculars to get a better look at migrating raptors and other birds—we might see hawks, kites, or kestrels—and bring a lunch or snack to eat while we debrief at the picnic grounds after our walk. Wearing layers is recommended. **Significant rain will postpone the trip to September 26.** Meet in the main parking lot; there is a \$6-per-vehicle entry fee payable at the ranger kiosk. Contact Doug at dougsr228@comcast.net or 415-584-5114 with questions.

### OCTOBER 11, Sunday, 11:00 am–3:30 pm

#### *Geology of the San Miguel Hills*

##### **Leader: Paul Heiple**

Join us for a tour of several sites in the center of the city where rock outcrops make the subterranean world visible. Paul is a naturalist with particular knowledge of botany and geology, and

trip participants will likely learn about plants as well as the rocks around them. Our focus will be Franciscan chert, the reddish, erosion-resistant rock that edges O'Shaughnessy Blvd (see article on **page 7**). Instead of rushing past at car speed, we will walk along these beautiful cliffs to get a good look and learn what they reveal about the past. We will be sure to visit the spectacular slickensides at Corona Heights. While the exact itinerary is still being worked out at press time, on past trips we also stopped at places of geological interest on Twin Peaks and Mount Sutro. We will choose a meeting place where there is transit access and street parking, and though for insurance reasons CNPS can't take responsibility for carpools, participants who want to use resources efficiently can make their own sharing arrangements at the start of the trip. Bringing lunch and liquids is strongly recommended. **If there's substantial rain, we'll try again on October 18.** To RSVP and learn the meeting place, contact Jake Sigg at jakesigg@earthlink.net or 415-731-3028.

### NOVEMBER 14, Saturday, 10 am–1 pm

#### *San Bruno Mountain: Dairy Ravine-Cable Ravine*

##### **Leader: Doug Allshouse**

Dairy Ravine and Cable Ravine form the north-facing slopes across from the main park entrance. Both feature coastal scrub plant communities and endangered butterfly habitat threatened by eucalyptus plantings. We'll walk the Dairy Ravine and Summit Trails to the top of the mountain, then to Kamkatcha Point for a look at two lovely manzanitas, *Arctostaphylos uva-ursi* forma *suborbiculata* and the endemic *Arctostaphylos imbricata*. We'll also see two huckleberries: not only the well-known evergreen (*Vaccinium ovatum*) but also dwarf (*V. cespitosum*), which is rare on the coast. Weather on the mountain is a box of chocolates, so bring layers. **Heavy rain will postpone to November 21, and heavy rain on the 21<sup>st</sup> will cancel.** Pay the fee (\$6 per vehicle) at the entrance, then turn right at the stop sign, follow the road under Guadalupe Canyon Parkway, and meet in the small parking area. Contact Doug at dougsr228@comcast.net or 415-584-5114 if you have questions.



## ACTIVITIES

### PLANT IDENTIFICATION WORKSHOPS - NEW FORMAT

Second Thursday of the month 6 – 7:30 pm.

Next workshop is September 10, 2015.

San Francisco State University

1600 Holloway Avenue

Hensill Hall, Botany Lab, Room 440

**We will discuss a plant family for approximately 30 minutes and then delve into keying plant(s) of the same family.** Understanding the characteristics of plant families is important not only when keying plants but also when seeing them in the field. So, let's be adventurous on this, the first leg of our fall journey, and see how much we can learn about plants and the families they belong to. All aboard!

Talented and knowledgeable graduate botany students at San Francisco State University lead the workshops on the second Thursday of the month. The fall workshop dates are September 10<sup>th</sup>, October 8<sup>th</sup>, November 12<sup>th</sup>, and December 10<sup>th</sup>. The atmosphere is relaxed and there are no tests to take. If you have the old or new edition of the *Jepson Manual*, bring that along or

*Plants of the San Francisco Bay Region: Mendocino to Monterey*, and a hand lens. If you have any further questions, please email Mila Stroganoff at milastroganoff@sbcglobal.net.

Getting to SFSU by public transit: MUNI's M-Ocean line and #28 bus both stop at 19<sup>th</sup> Ave & Holloway Street. At the Daly City BART station, board a SFSU shuttle which runs every 10-15 minutes. If you drive, there is street parking on 19<sup>th</sup> Avenue as well as paid campus parking. Hensill Hall is located just off 19<sup>th</sup> Avenue, between Winston and Holloway.

### Candidates for 2015 Chapter Election

President — Ellen Edelson

Vice President — Gerry Knezevich

Secretary — Olga Beguin

Treasurer — Adrian Stroganoff

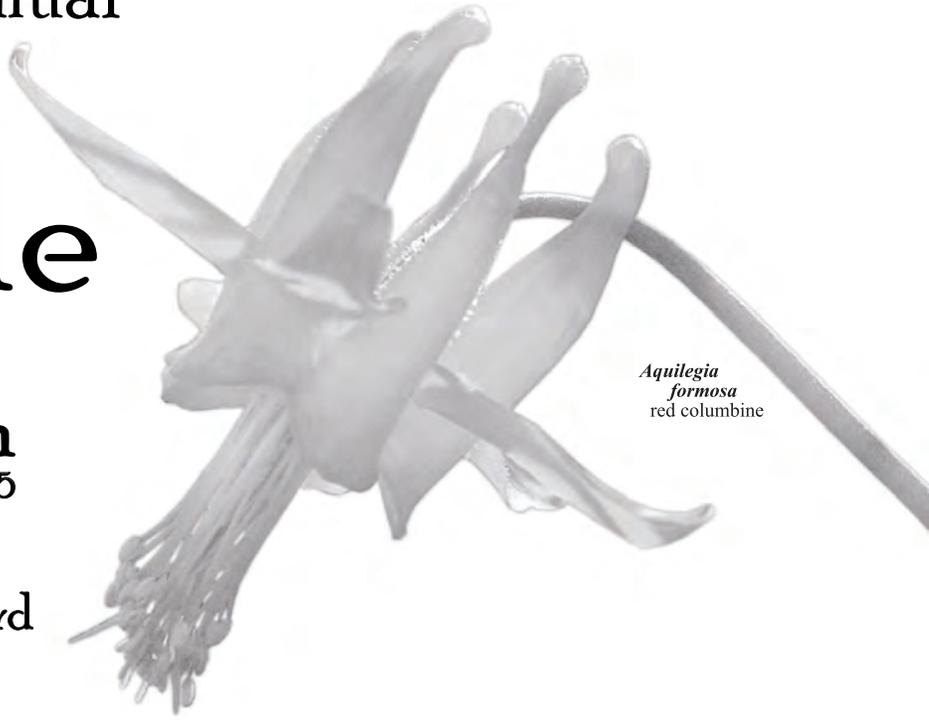
The election will be held at the October 1st member meeting.

# The 21<sup>st</sup> Annual Native Plant Sale

Saturday,  
October 24<sup>th</sup> 2015

@ Miraloma Park Improvement Club  
350 O'Shaughnessy Boulevard

1-5 pm cash, checks and  
credit cards accepted



*Aquilegia  
formosa*  
red columbine

## The Yerba Buena Native Plant Sale

is an opportunity to find a great many native plant species that aren't readily available at garden centers. Our focus and offerings, as always, will be native plants local to our chapter area: San Francisco and northern San Mateo County, including Montara and San Bruno Mountains. These are the species already adapted to our area's climate, soils, and habitats--and are also important to our local fauna.

Some of the plants for sale will have been grown by chapter volunteers from seeds, cuttings, or divisions-- from garden plants or other sources from our chapter area. Great efforts are made to learn the provenance of the plants at our sale, as we understand the importance of maintaining a local gene pool.

Growing locally native plants is an important way to:

- Attract pollinators, including native bees, butterflies, moths, and birds--for your pleasure and their benefit
- Provide for endangered species (such as by growing host and nectar plants for the Green Hairstreak butterfly)
- Enhance corridors for native wildlife
- Use less water (and less energy pumping that water)
- Save money on utility bills
- Reduce the use of fertilizers and pesticides
- Have a beautiful, colorful, lively garden
- Inspire your neighbors to do the same!

For up-to-date information visit:

[www.cnps-yerbabuena.org/plantsale](http://www.cnps-yerbabuena.org/plantsale)

Featuring San Francisco native  
plants propagated from local  
sources

## Sponsored by the Miraloma Park Improvement Club

To assist with your plant selections, you will find:

- A plant list of our 2015 offerings on our website prior to the sale
- Articles and links on "Gardening with Natives"--always on our website
- Plants grouped roughly according to their general plant community of origin
- Signs indicating the plant type, habit, size, soil preferences, and wildlife interest for each species
- Photos of the flower and/or form of each plant
- Volunteers with native gardening expertise offering advice
- Books and other materials available for reference
- Books and posters available for purchase

Fall is the ideal time for planting. The Annual Plant Sale is a source of funding for the Yerba Buena Chapter; it helps us to put on our programs--and strive to fulfill our mission. Get great plants for your garden and help support CNPS!

Cash, checks and credit cards will be accepted for plant and book sales. For additional information, or to volunteer to help with the plant sale, contact Ellen Edelson (415-531-2140 or [e.edelson@sbcglobal.net](mailto:e.edelson@sbcglobal.net)).

# FOCUS ON RARITIES

## Locally Significant Plants of San Francisco County

by Michael Wood

Six years have passed since I announced that the Yerba Buena Chapter was initiating its first attempt at compiling a formal list of the locally significant plants of San Francisco County (Yerba Buena News, 2009, vol. 23, no. 3). In that article, I outlined why this undertaking is important in preventing the continued loss of our botanical heritage. Last fall I wrote a brief discussion of the legal implications for designating species as significant under the California Environmental Quality Act (CEQA) (Yerba Buena News, 2014, vol. 28, no. 3).

Although our chapter had compiled a preliminary list of locally significant plants in 1996, it was based more on intuition than on a set of defined criteria; that list was never considered complete and we had

intended to expand it based on a more formalized selection process. For many years we have wrestled with the development of scientifically defensible criteria for making a determination of “significance” in the legal sense used in the CEQA.

The first step in this process was, of course, to prepare a more thorough list of what grows here and where. This step was completed in the spring of 2014 with the release of our *Annotated Checklist of the Vascular Plants of San Francisco’s Natural Areas* (Wood, 2014a); the checklist is described in Yerba Buena News (vol. 27, nos. 2 and 3). Spin-off projects from this data set include lists of the rare plants of San Francisco (Wood, 2014b) and the extirpated plants of San Francisco (Wood, 2014c).

The data set used to create the checklist includes site location data for all extant plant species, and the number of occurrences is one of the eleven criteria used to determine significance. The other ten criteria include

the following: rarity status, extirpation, local population size, habitat specificity, life form, threats, geographic range, endemism, if SF supports the type locality, and wildlife value. A range of values was assigned to each criterion for each native taxon. The values for all 11 criteria were summed to create a Significance Index (SI) score. Thresholds were then assigned to the SI scores to determine a taxon’s locally significant plant (LSP) rank. These ranks are defined in Table 1. The criteria and scoring used for determining the SI are explained in Table 2.

The new list of Locally Significant Plants of San Francisco County (Wood, 2015) covers the 729 native extant and extirpated plant taxa recorded from the County. As presently assigned, a total of 98 taxa are ranked as A1 (61 of which are extirpated) and 304 taxa are ranked as A2 (127 of which are extirpated). These two ranks comprise those taxa for which impacts must be evaluated in CEQA documents. In total, 402 taxa (188 of which are extirpated) are considered CEQA-worthy, representing 55.1% of the native extant or extirpated taxa in the County. By comparison, 816 of the 1303 (63%) native taxa in the East Bay are considered CEQA-worthy. The two watch lists include 78 taxa in Rank B and 33 taxa in Rank C; impacts to these taxa would not be regarded as significant pursuant to CEQA. As new information becomes available, the list will be revised.

This revised list of the locally significant plants of San Francisco incorporates what we currently understand of the number and size of plant populations, the rarity of the habitats in which they occur, threats, their isolation from other populations, and whether or not they are at the limits of their distribution, among other criteria. Following the lead of Dianne Lake’s ground-breaking efforts in the East Bay (Lake, 2010), this effort removes the subjectivity from our previous attempt to determine the significance of components of our flora. This new list should hold up to scrutiny during CEQA review and help guide the City and County of San Francisco in making wise land use decisions.

(RARITIES continued on page 6)

**Table 1. Locally Significant Plant Ranks**

Rank	Explanation	SI score	Notes
A1	Species with a Significance Index (SI) score $\geq 20$ . <b>Impacts must be analyzed pursuant to CEQA.</b>	$\geq 20$	<ul style="list-style-type: none"> <li>All federally or state listed species fall into this category.</li> </ul>
A2	Species with a Significance Index (SI) score of 10-19. <b>Impacts must be analyzed pursuant to CEQA.</b>	10-19	<ul style="list-style-type: none"> <li>All CNPS List 1, 2 and 3 species fall into this category or higher.</li> <li>All species with 1-2 occurrences fall into this category or higher.</li> <li>All species thought to have been extirpated from SF fall into this category or higher.</li> <li>All species endemic to SF fall into this category or higher.</li> <li>All species that function as a host plant for listed wildlife species fall into this category or higher.</li> </ul>
B	A High Priority Watch List. Species with a Significance Index (SI) score of 5-9. <b>Analysis of impacts is NOT required pursuant to CEQA.</b>	5-9	<ul style="list-style-type: none"> <li>All CNPS List 4 species fall into this category or higher.</li> <li>All species with 3-5 occurrences fall into this category or higher.</li> <li>If SF represents a range extension or discontinuity, or if the species is otherwise highly restricted, it falls into this category or higher.</li> <li>All SF species with a high threat of extirpation fall into this category or higher.</li> </ul>
C	A Second Priority Watch List. Species with a Significance Index (SI) score of 3-4. <b>Analysis of impacts is NOT required pursuant to CEQA.</b>	3-4	<ul style="list-style-type: none"> <li>All SF species with a moderate threat of extirpation fall into this category or higher.</li> <li>If SF represents the northern or southern limits for a species, it falls into this category or higher.</li> </ul>



# DOUG'S MOUNTAIN JOURNAL

## A Chronicle of Natural History on San Bruno Mountain

by Doug Allshouse

Summer on the mountain is a mixed bag—mostly gray and wet but occasionally quite pleasant with sunsets over Point Reyes. By the time our Indian summer kicks-in around September the sun has moved south of the Point which means shorter days are quickly upon us and autumn has arrived. The rain season here starts on July 1 and ends June 30. For 2014-2015 we received 21.94 inches of rain on 61 days of precipitation (including days of fog) and it beat 2013-2014 by 8.09 inches with 21 more days of rain. That qualifies as an average year at 20-24 inches. The days of fog that I mentioned have an extreme effect on the health and welfare of many plant and lichen species. The total trace precipitation received for the year was .78 inches. I mentioned in the last journal that this might be an early year for wildflowers and it was, with one caveat. Thanks to a wet February and a decent March/April the season extended well into May—an unusually gray May I might add. The four-year drought has caused some poison oak to turn fiery-red by the first week of June; easily 3-4 weeks earlier than last year and by early July the coast red elderberry began shedding its leaves. To balance the early departures we welcomed an early arrival—the goldenrod began blooming in late May.

Do gophers prefer walking forward or backward? I have an answer! Plopped right in the middle of the Bog Trail there is this really plump gopher, not moving; and here I am standing about ten feet away engaged in a staring contest that lasts at least a minute. I blink first because I've got to get home and begin walking towards it and it moves *backward* off the trail. So there you have it, the answer to the question you have yet to ask. Cross that one off your list!

It's always a crapshoot when I schedule a field trip on the Ridge Trail and sometimes we get challenging weather—as in windy, foggy and cold or still, sunny and hot. There are great conditions between those two extremes but this year we got the first one. It actually did not start too badly and by the time we got to Blue Blossom Hill we stopped and found some California mustard (*Caulanthus lasiophyllus*) just off the road. What really caught our attention was a pretty robust infestation of tocalote, a plant in the star-thistle tribe. We pulled about 40 out of the ground before I called a halt and promised to come back and do more damage... and it turned out that a lot more was required. I found so many more plants that I filed for a Site Activity Review with the county to pull and monitor tocalote until September 30. I am a bit north of 3000 plants removed so far. The good news is I see fewer plants each time out.

One morning walk started out with wet fog in the air and I was under the eucalyptus and cypress trees in Fog Forest. Looking up I could see a few small patches of blue sky—a sure sign of clearing—and within two minutes the fog had completely disappeared! I was shocked how quickly it happened. Then something magical occurred that I had seen only a few times before. There were fine misty droplets of water floating in the air, coupled with large drops falling straight down from the tree tops making splashing sounds as they struck the understory, and all this was backlit by the sun.

Moments like that need to be experienced to comprehend, but to think that 120 seconds earlier it was gray and uninspiring is shocking at best. Foggy mornings are also great for exposing spider webs and none are more impressive than those of the Labyrinth Spider (*Metepeira*). This particular one contained nine orbs and this is the earliest I have seen these webs. They usually appear in late August or September.

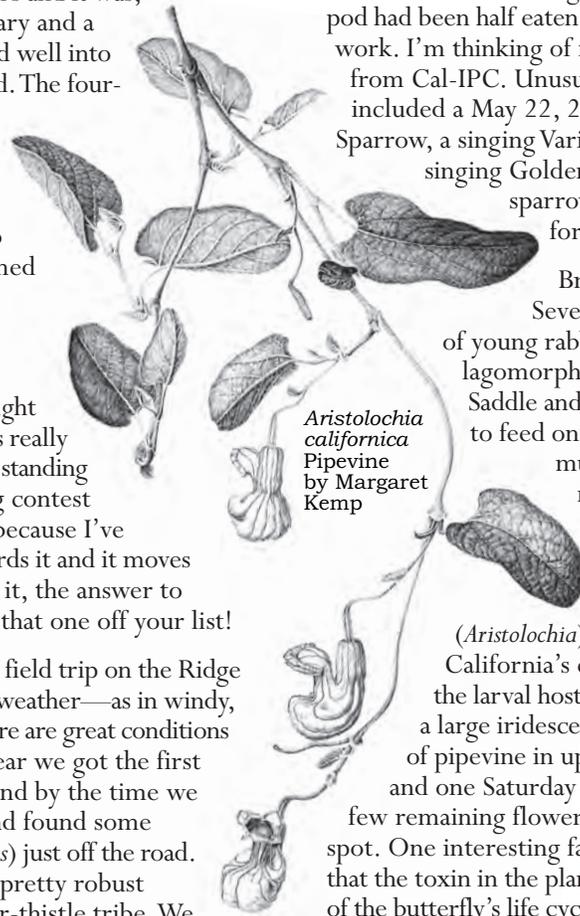
Late spring and early summer are good times for eastern migrants when we see a few Rose-breasted Grosbeaks instead of our native Black-headed Grosbeaks. I was excited to lift my trusty Trailblazers to my eyes to check a bird on top of an elderberry bush to find myself looking at a male Indigo Bunting. It's been almost four years since the last encounter. In this same area a small flock of Purple Finch families hang out. Imagine my glee when I saw one adult hanging onto a wild oat stem and eating the grass seeds. A few days later I noticed a few strange-looking wild radish plants. I walked over to investigate and lo and behold almost every seed pod had been half eaten! Those finches were doing volunteer weed work. I'm thinking of nominating them for the Jake Sigg Award from Cal-IPC. Unusual over-wintering birds on the mountain included a May 22, 2015 observation of a White-throated Sparrow, a singing Varied Thrush last heard on May 26; and a singing Golden-crowned Sparrow in June and July. This sparrow should have been singing in the boreal forests in Canada or Alaska.

Brush rabbit have wild population swings. Several years ago there was a massive die-off of young rabbits. This year is a very good year for local lagomorphs with many bunnies being seen on the Saddle and bog. Up near the summit they seem happy to feed on seed heads and stalks of Scouler's catchfly, munching them to the ground—not good news for future recruits.

Firth Canyon is located at the southern end of Brisbane and it yields some of the rarer species of plants. One is pipevine (*Aristolochia*) which is a remnant vine from an era when California's climate was somewhat tropical. It is also the larval host plant of the Pipevine Swallowtail butterfly, a large iridescent blue-black beauty. There is a large patch of pipevine in upper Firth sharing space with coyote brush and one Saturday a few of us got to see about 20 larvae, a few remaining flowers, flying adults and one cocoon all in one spot. One interesting fact about pipevine and the swallowtail is that the toxin in the plant, aristolochic acid, is present in all phases of the butterfly's life cycle. We also discovered some dwarf brodiaea hiding in the grass nearby which was a nice treat.

On the first day of June I got a wonderful surprise. I saw a Western Tiger Swallowtail butterfly hanging upside-down on a fallen English ivy leaf. I picked up the leaf and placed the butterfly on the back of my hand. He was in immaculate condition and showed no interest in nectaring when I tried to place him on some wild radish flowers so I carried him with me. I finally concluded that he was a new adult and his wings were not *quite* in good working condition yet so I took the opportunity to admire the gorgeous colors and markings of this magnificent creature. I eventually placed him on a coffee berry bush. Something like this doesn't happen very often but it reinforces a fact of life. Every day brings something new into your life—a new sight or sound, maybe even a sniff of something—that makes you happy that you took time to walk with nature.

See you on the mountain...



# RARITIES *(continued)*

Table 2. Criteria for Determining Significance Index

Criterion	Standard	SI Score	Notes
Rarity Status	Federally or State-listed Endangered, Threatened, Rare, or Candidates for listing	20	Enter highest value. Otherwise, enter 0.
	CNPS List 1, 2 and 3	10	
	CNPS List 4	5	
# of SF populations	1-2	10	Number of natural areas at which species is known.
	3-5	5	
	6-10	0	
	≥11	-1	
Extirpated	Extirpated from SF	10	If yes, threat criterion is assumed to be high. Enter 0 if extant.
Size of Local Populations	if typically few, infrequent, or widely scattered	1	Otherwise, enter 0.
Habitat Specificity	If species is restricted to a narrow ecological niche or a rare habitat type in SF	1	For SF, these areas include serpentinitic soils, freshwater and saltwater wetlands, sand of dunes or beaches. Otherwise, enter 0.
Life Form	If the species is an annual, biennial, fern or fern ally, or geophyte	1	Otherwise, enter 0.
Threat of Extirpation in SF	high	5	Perceived threats to extant populations such as development, invasive species, off-trail travel. Not based on current owner or management.
	moderate	3	
	low	1	
	stable	0	
Geographic Range	If SF represents a range extension or discontinuity or the species is otherwise highly restricted.	5	Otherwise, enter 0.
	If SF is at the northern or southern limits of a species' range; the species is restricted to the Bay Area; the species is restricted to 3 or fewer coastal counties; the species is considered relatively uncommon regionally.	3	
Degree of Endemism	Species is endemic to SF	10	
	Species is endemic to CA	1	
	Species occurs outside of CA	0	
SF is type locality	SF is type locality for the species	1	Otherwise, enter 0.
Wildlife Value	dependent species is rare	10	If species is required for the completion of the life cycle of any listed rare wildlife species. Otherwise, enter 0.

Literature Cited

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## RADIOLARIAN CHERT

by Jake Sigg

The warped, stratified rocks in this picture tell a very interesting story and it unfolded over hundreds of millions of years. Yet it is passed at high speed by several thousand people every day without an acknowledgment of its existence. Shame.



by Margo Bors

The rock is radiolarian chert, a formation that cuts diagonally across San Francisco from Bayview Hill through Bernal Hill, Mt Davidson, Glen Canyon, Twin Peaks, Corona Heights, Mt Sutro, Sunset Heights (Hawk Hill to Grandview Park), Rainbow Falls in Golden Gate Park, and enters the Golden Gate west of the Golden Gate Bridge. It comprises most of the Marin headlands.

The sedimentary rock was formed deep in the ocean bottom by successive periods of dead radiolarians raining down onto the ocean floor. A radiolarian is a single-celled aquatic animal that has a spherical, amoeba-like body with a spiny skeleton of silica. Most such organisms have exoskeletons containing calcium, which dissolve in water, thus leaving no fossils. Silicon does not dissolve as readily, so these layers of exoskeletons built up over eons, and they can be seen in chert under high magnification.

Tectonic movement brought them to California. The heat and pressures caused them to fracture, warp, and buckle. This picture of buckled rock above is on O'Shaughnessy Boulevard at the base of the high cliffs across the road from a dying eucalyptus grove. Drivers cannot take their eyes off the road safely, so you need to park on Malta Street and walk up. If you walk on the west side of the road you can get a close look at the folds, twists, and warping shown in this picture. Wear sturdy shoes; the terrain is rough.

The rock is visually beautiful and rewards close inspection. Bayview Hill and Mt Davidson have walls and stairways of this chert constructed by the Works Progress Administration in the 1930s. Corona Heights has a huge cliff of slickensides (off Beaver Street), where two large blocks rubbed against each other under pressure, leaving a slick, glassy surface. Twin Peaks Boulevard offers closeups of the rock, including pillow basalts, which are volcanic extrusions.

The grandest chert outcrops in terms of structure are The Rocks at 14th Avenue and Ortega Street. In the right light - foggy or stormy weather - they look like a Wagnerian stage set and sometimes I think I have seen Valkyries emerging from the mists and vaulting over the peaks.

Our CNPS chapter has scheduled a chert field trip led by geologist Paul Heiple (see field trips **page 2**). You are bound to be interested in Paul's illuminating remarks.

## BOARD MEETINGS

Board meetings are open to all Chapter members. They are held on the second Monday of every month (except August and December) at 350 Amber Drive (SF Police Academy) and start at 7 pm. Contact Ellen Edelson (e.edelson@sbcglobal.net) for more information.

## OFFICERS & CONTACTS

### President

Ellen Edelson 415-531-2140  
e.edelson@sbcglobal.net

### Vice President

Linda Shaffer 415-206-1428  
ljshaffer1@comcast.net

### Treasurer

Adrian Stroganoff 650-359-1642  
adrianstroganoff@sbcglobal.net

### Secretary

Roz Kutler 650-201-6285  
rozkutler@gmail.com

### Chapter Council Delegate

Ellen Edelson 415-531-2140  
e.edelson@sbcglobal.net

### Conservation Chair

Jake Sigg 415-731-3028  
jakesigg@earthlink.net

### San Mateo County Conservation Chair

Mike Vasey 650-359-7034  
mvasey@sfsu.edu

### Education Coordinator

*Position vacant*

### Field Trips Chair

Gail Wechsler  
wechslerifolia@gmail.com

### Garden Tour Co-Coordinator

Susan Floore  
sfloore@att.net

### Hospitality Coordinators

*Position vacant*

### Invasive Exotics Chair

Mark Heath 415-235-0987  
mark@shelterbeltbuilders.com

### Legislation Chair

Linda Shaffer 415-206-1428  
ljshaffer1@comcast.net

### Lepidopterist

Liam O'Brien 415-863-1212  
liammail56@yahoo.com

### Membership Chair

George Suter 415-665-1185  
geosuter@prodigy.net

### Newsletter Editor

Kipp McMichael 510-759-3178  
kimcmich@hotmail.com

### Outreach Coordinator

*Position vacant*

### Photo Documentation

Margo Bors 415-824-0471  
mcbors@comcast.net

Greg Gaar 415-584-8985  
dunetansy@yahoo.com

### Plant Sale Coordinator

Ellen Edelson 415-531-2140  
e.edelson@sbcglobal.net

### Posters and Book Sales Chair

Ludmila Stroganoff 650-359-1642  
milastroganoff@sbcglobal.net

### Presidio Chair

Peter Brastow  
brastow@natureinthecity.org

### Programs Co-Chair

Jake Sigg 415-731-3028  
jakesigg@earthlink.net

### Programs Co-Chair

Ludmila Stroganoff 650-359-1642  
milastroganoff@sbcglobal.net

### Publicity

Rachel Kesel

### Rare Plants Co-Chair

Peter Brastow  
brastow@natureinthecity.org

### Rare Plants Co-Chair

Michael Wood 925-899-1282  
mike@wood-biological.com

### Rare Plants Chair

San Mateo County  
David Nelson 415-925-0501  
nelsondl@pacbell.net

### San Bruno Mountain Chair

Doug Allshouse 415-584-5114  
dougsr228@comcast.net

### Webmaster

Jean-Claude Breach  
jcbreach@yahoo.com

## CHAPTER NEWS

### Community Thrift

Thank you to all who have donated furniture, clothing, books, CDs, and housewares to Community Thrift and designated CNPS as the beneficiary. Donating is easy. Simply drop off clean and saleable items at the CT donation door, open from 10 am to 5 pm every day, and **ask them to list CNPS (charity #152) as the beneficiary**. The donation door is located on the south side of the building on Sycamore Alley, parallel to 18th Street and perpendicular to Mission and Valencia Streets. Sycamore runs one way from Mission toward Valencia. Please note that, because of the February 2009 Consumer Product Safety Improvement Act, CT can no longer accept any children's items. CT is a 501(c)(3) non-profit organization. Your donations are tax-deductible, and produce more chapter income than you might think.

# JOIN THE CALIFORNIA NATIVE PLANT SOCIETY

Learn to understand California's unique flora and help to preserve this rich heritage for future generations.

\_\_\_\_ Yes, I'd like to join.

Affiliation: **Yerba Buena Chapter**

## Membership Category

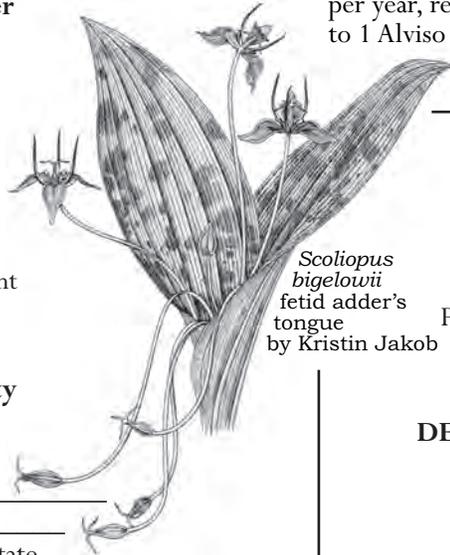
- \_\_\_\_ \$1,500 Mariposa Lily
- \_\_\_\_ \$ 600 Benefactor
- \_\_\_\_ \$ 300 Patron
- \_\_\_\_ \$ 100 Plant Lover
- \_\_\_\_ \$ 75 Family
- \_\_\_\_ \$ 45 Individual
- \_\_\_\_ \$ 25 Limited Income/Student

Make your check out to "CNPS" and mail with this form to:

**California Native Plant Society**  
2707 K Street, Suite 1  
Sacramento, CA 95816-5113

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City \_\_\_\_\_ State \_\_\_\_\_  
Zip \_\_\_\_\_ Telephone \_\_\_\_\_  
email \_\_\_\_\_

Dues above the \$12 for publications are tax deductible. You will receive the Yerba Buena News, the informative triannual journal Fremontia, and a statewide news bulletin. Members of other chapters may subscribe to the Yerba Buena News alone for \$10 per year, renewable annually. Send a check made out to "CNPS" to 1 Alviso Court, Pacifica, CA 94044-4239.



*Scoliopus  
bigelowii*  
fetid adder's  
tongue  
by Kristin Jakob

## YERBA BUENA NEWS

Volume 29, number 3 (September 2015)

Published quarterly by the Yerba Buena Chapter  
California Native Plant Society

Design & Production – Kipp McMichael

Proofreading – Linda Shaffer and Sara Greenwald

Masthead design – Barry Deutsch

Chapter logo – Nancy Baron

## DEADLINES FOR DECEMBER NEWSLETTER

Articles & general copy – October 25

Time-dependent material – November 5

Late-breaking news – By arrangement

Visit: [www.cnps-yerbabuena.org](http://www.cnps-yerbabuena.org)

California Native Plant Society  
Yerba Buena Chapter  
338 Ortega Street  
San Francisco, CA 94122

