

The Shooting Star

Publication of the

CALIFORNIA NATIVE PLANT SOCIETY- SIERRA FOOTHILLS CHAPTER
INCLUDING AMADOR, CALAVERAS, TUOLUMNE AND MARIPOSA COUNTIES



Western Buttercup (*Ranunculus occidentalis*)

Photos: Bob Brown

What's Blooming in February

This month's location, Dragoon Gulch trail, is going to be a low elevation location that is easily accessible to everyone and also has a surprising number of species present. It is located within the boundaries of Sonora and is accessible from Woods Creek park off of Stockton road. With more than 150 different blooming species observed over a more than five month period, it offers a great opportunity for a short walk or up to 2 ½ miles if you take all of the trails and a chance to see a wide variety of flowering plants. With plants blooming from mid February to a few in late August, you will be rewarded on your visits with several to many blooms during this period.

As it is just a little early for most of the plants that you will encounter here, I have chosen a few of the earliest bloomers that you can see in mid to late February or early March. All of these are natives and are readily visible from the trail system. Our first plant is Western Buttercup (*Ranunculus occidentalis*), a yellow flowered plant appropriately named and found throughout our Mother Lode area and is a member of the Buttercup family, Ranunculaceae. The second one is a member of the Mustard family, Brassicaceae: Western Bittercress (*Cardamine oligosperma*), that has four small white petals and is easily overlooked if you are not careful. Our final flower for this area is Western Hound's Tongue (*Cynoglossum occidentale*) which has a blue flower and is a member of the Borage family, *Boriaginaceae*.



Western Bittercress (*Cardamine oligosperma*)

You can check out Bob's website (TuolumneWildflowers.com) and the Locations/Blooms tab with maps, location descriptions and lists of what plants you may find at what times of the year.



Western Hound's Tongue (*Cynoglossum occidentale*)

CALENDAR

Thursday, February 3 at 6:00 pm
Location: Tuolumne County Library, Greenley Road, Sonora. Refreshments will be served.
PROGRAM: A presentation by Dr. Tom Hofstra, Professor at Columbia College, is about our local fungi and mushrooms.

Editor's Note

The deadline for newsletter contributions or corrections is the 10th of each month prior to publishing.
Contact Conny Simonis at conny@simonis.org or (209) 588-0484

President's Message

I want to wish all of you a healthy and prosperous New Year and hope that you will make our chapter's year a great one by actively participating in all of our events and activities.

For those of you who weren't present at our December potluck, you missed an evening of good food and entertaining shared photos of lots of different plants.

Our next meeting is on Thursday, February 3rd at 7:00 PM and will highlight a presentation by Dr. Tom Hofstra about our local fungi, mushrooms and their cousins. This will be a great opportunity to learn about something that we all see from time to time on our walks and hikes but generally know very little about. With this meeting we resume our monthly get-togethers that run through May. I know it seems a little early, but I want everyone to mark their calendars for our March 6th meeting when we host Carol Witham, a noted expert on vernal pools, for what should be a very informative talk.

As the new year begins, I would like to remind all of you that it is only through your help and involvement in our chapter's activities that make all of our events possible; and with this in mind, I would encourage all of you to participate in at least a couple of our events in 2011 whether it be plant sales, field trips, meeting programs, and/or a seminar.

--Bob Brown, President



More of our "early" Spring flowers.

PLANT DNA "BAR- CODING" NEARS

"DNA bar-coding, is the reading of two DNA sequences to tell plants apart. This has worked well for animals but not plants because it has not yet been possible to find sequences of DNA which work for all plant species. It has recently been reported that two genetic sequences or loci, taken from chloroplast genes called matK and rbcL are so far the best available. They can identify 72% of all species on average and 100% of all plants can be identified to their genus using these genes. (Did you know chloroplasts have their own genes?) This is all still a work in progress as challenges remain for both plants and fungi.

In many studies large numbers of individuals or fragments of biological origin need to be identified. Why not do it the old way? Have an expert look at the plant, key it out and determine its genus and species. This is rarely possible as there is a shortage of taxonomic specialists. For a particular genus of plants there may be only one expert worldwide and in many ecological studies there are many genera involved.

At present hybrids will be identified as their maternal ancestor. But great benefits will come from rapid identification of massive numbers of samples. Still, at present DNA barcoding is in its infancy.

Plant Bar Code Soon to Become Reality. Claire Thomas. Science 325. July 2009.

Barcoding of Plants and Fungi. Mark Chase & Michael Fay. Science 325 August 2009.

TENDING THE GLOBAL GARDEN

As part of the Global Strategy for Plant Conservation, botanists and computer experts from the Royal Botanic Gardens, Kew, in the United Kingdom and the Missouri Botanical Garden in St. Louis are striving to finalize a list of the known plant species in the world before the end of 2010.

"Botanical gardens got their start in the 16th and 17th centuries as homes to medicinal plants and later as homes for species brought back from worldwide expeditions. Many, although not all, gardens now place a much greater emphasis on conservation, plant genetics, and educating the public about the importance of preserving plant diversity. More gardens are also adding collections of native plants to complement their exotic species."

"Bioinformatics experts" are using computers to figure out conflicting names many of which are synonyms since there are about a million names on record for an estimated 370,000 or so plants."

Adequate funding for the project is the largest problem in this effort to determine just how many species of plants there are and which of these are threatened.

Tending the Global Garden. Science. Vol 329. September 10, 2010.

--Steve Stocking, Education Chair.

Membership: If you change your mailing or e-mail address, be sure to send a notice to: Jennie Haas, <jhaas953@gmail.com> 19287 James Circle, Groveland, 95321, (209-962-4759); and California Native Plant Society, 2702 K. St., Ste 1, Sacramento, CA 95816.
This will keep your Newsletter on time and save postage.
Non-member subscription: \$6.50/year.

Dedicated to the Preservation of California native flora

FROM HEADQUARTERS Workshops

January 31-February 2

Vegetation Mapping

University of Redlands and surrounding field sites

Instructors: Todd Keeler Wolf, Julie Evens, and John Menke.
Three day combination of lecture, computer lab exercises, and field exercises. Fees: CNPS members: \$665; Non-members \$690.

There are still a few spaces left in this Redlands. Workshop and registration details are at <http://cnps.org/cnps/education/workshops/index.php>

February 15

Rare Plants of the Central Valley- UC Davis

Fees: CNPS members \$150; Non-members \$175

Instructors: Carol Witham with assistance by CNPS Rare Plant Botanist, Aaron Sims

Course Description: Many view the central valley as a place to get through. No so for John Muir when he first visited the area in 1886 he described it as 'all one sheet of plant gold'. Since Muir's time, the central valley has been invaded by a plethora of European annual grasses that have displaced much of the great displays of annual forbs. However, from intertidal mudflats in the delta to the oak savanna foothills, the central valley habitats are refugia for many native species including a large number of rare, threatened and endangered plants.

This one day laboratory course will focus on identification of the rare plants of the Sacramento Valley. While much of the emphasis will be on vernal pool taxa, we will also explore those of the grasslands and riparian areas. Participants will learn characters used to distinguish the rare species beyond those used in the typical dichotomous plant key. Specific microhabitat for the species will also be discussed. Participants will receive numerous handouts to aid their future rare plant survey work.

For more details and registration please go to <http://cnps.org/cnps/education/workshops/index.php>



FIELD TRIPS

The field trip committee is putting together another outstanding schedule. Check the March Shooting Star for March field trips. We'll publish the 2011 field trip schedule in the April Shooting Star.

If you have ideas or would like to lead a field trip, contact Jennie Haas soon (209) 962-4759 or jhaas953@gmail.com. --Jennie Haas

PRUNING NATIVE PLANTS by Allison Levin

California native plants can be used in every garden style: formal, Japanese, architectural, you name it. But even when the garden is "wild and natural," gardeners usually want to know about pruning their trees, shrubs, vines, perennials and grasses. Over the year, I'll be writing about when, why, and how to prune various California plants in the garden. In particular, I'll be writing about trees and woody shrubs.



Ask Yourself Why

When you think about pruning any plant, ask yourself what do you want to change, and what do you want to achieve? Are there branches that are dead or rubbing against each other? Do you want the plant to stand out as a focal point in the garden? Has it become too leggy? Do you want to control its size?

As you think about why you want to prune, don't expect to achieve everything at once. Plants are the controlling partners when it comes to their form, size, and growth. If you take your time, you'll learn how each

species responds to pruning. Make pruning plans that are two, three, and five years in the making.

Check the Calendar

The time to prune a plant is very important, for a few reasons: Pruning weakens a woody plant, because it takes away part of the plant's food source (leaves); it also creates a wound that the plant needs to heal. To minimize these two aspects, prune when the tree (or any woody plant) is dormant -- AND when it is just about to start pushing out new growth. That's because, with that new growth, healing tissue starts to form, beginning the process of covering the wound with healthy tissue. (Of course, removing dead wood doesn't weaken the plant at all, and can be done at any time.) And, pruning just before a plant leafs out results in a more beautiful plant. New growth hides any awkwardness that pruning cuts might make. One way to anticipate the onset of new growth is to observe a plant's flowering. Notice that, as the tree's flowers fade, new foliage begins to emerge. Because so many of our California woody plants are dormant in summer and do their growing when the rain kicks in, the deep of winter is usually the wrong time for pruning. Exceptions to that rule include pines and arbutus. For these species, plan on making any needed structural cuts in December or January. Annual, finer pruning work on pines can be scheduled for October or November.

Allison Levin is an aesthetic pruner and native plant consultant living in Sausalito and working in the greater SF Bay region. You can send her questions for this series at gonative@sonic.net.



CNPS Sierra Foothills Chapter
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 Groveland, CA 95321

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FIELD TRIP COMMITTEE	Jennie Haas	962-4759	jhaas953@gmail.com
EDUCATION CHAIR	Steve Stocking	754-9020	snlsox@earthlink.net
MEMBERSHIP COORD.	Jennie Haas	962-4759	jhaas953@gmail.com
GROWING AREA MGR.	Stephanie Garcia	586-3593	sgarcia@mlode.com
PLANT SALES CHAIR	Carolee James	928-4886	cjames@frontiernet.net
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PROGRAM CHAIR	Bob Brown	928-9281	rbrown4674@aol.com
NEWSLETTER EDITOR	Conny Simonis	588-0484	conny@simonis.org
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