

News from the Friends of

The Bernard Biological Field Station

Of the Claremont Colleges

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P.O. Box 1101, Claremont, CA 91711

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www.fbbs.org

★★★Get out your red, white and blue!

The 4th of July festivities will be here before you know it. Please join us in the parade at 4pm and carry a sign illustrating one of the BFS plants or animals. It's fun and an easy way to support the BFS. If you would like to help at the info or game booths, please send an email.

✓✓✓ Sightings

- ★ Golden currant branches bending under the weight of gold, orange and red fruit
- ★ A slinky California racer, black with a yellow stripe down the side, first startling, then charming students
- ★ Rabbits, frozen in place, suddenly streaking for cover
- ★ Beautiful bugs, shiny black, round and red-edged; shades of green with orange trim
- ★ Showy penstemon, in purple splendor
- ★ The large, triangular leaves of Calabazilla vines growing so fast you can almost see it happen
- ★ California quail every where
- ★ A single plant of delicate white heliotrope
- ★ Hundreds of native toads emerging from the vernal pool in the area owned by KGI
- ★ Purple nightshade dotting the landscape
- ★ Native thistle, tall and spiky, with deep red flowers and gray leaves
- ★ Lizards, lizards, everywhere
- ★ Butterflies: white, orange, yellow, black, with spots and stripes galore
- ★ Buckwheat, white to deep pink, abuzz with bees
- ★ California everlasting, masses of papery white buds dotted throughout
- ★ White sage with 7 footwands of tiny, pale lilac flowers and felty gray leaves
- ★ Mustard, horehound, and yellow star thistle; invasive exotics but appreciated by insects
- ★ Cholla patches with coastal cactus wren nests
- ★ Lovely pink milkweed, a favorite of monarchs
- ★ Tiny true-blue stars of *Eriastrum*, and white-centered pink stars of tiny canchalagu, *Centaureum venustum*.
- ★ Huge white trumpets of *Datura*
- ★ Mallards and ruddy ducks paddling on the lake
- ★ Redberry fruit, providing a feast for the birds

Important! BFS Future

It looks like the General Plan will address the issue of the Field Station since it has come up at both the Land use/economic development and Hillside/open space subcommittees. **It is very important therefore, that the city hear from everyone who wants development prevented or postponed.**

There is a committee of about 100 volunteers (note: almost 40% are college employed) broken down into subcommittees on different topics. These subcommittees are supposed to identify areas of concern and suggest solutions, developing a "vision" of what we want Claremont to be like in 20 years. This vision will be refined by a committee which includes the chairs of these subcommittees and reps from the city commissions. The vision will then be presented at a festival in the fall for citizen comments, but **you can comment starting now.**

Meeting dates and times are on the city website <http://www.ci.claremont.ca.us/>. Public comment is limited to 10 or 15 minutes at the beginning, but you can stay and hear what is said throughout the meeting. You can also send comments to Belle Newman (399-5470 or bnewman@ci.claremont.ca.us).

Land use: June 14 and 28, 6:30 pm in the Citrus Room at City Hall, 207 Harvard Ave

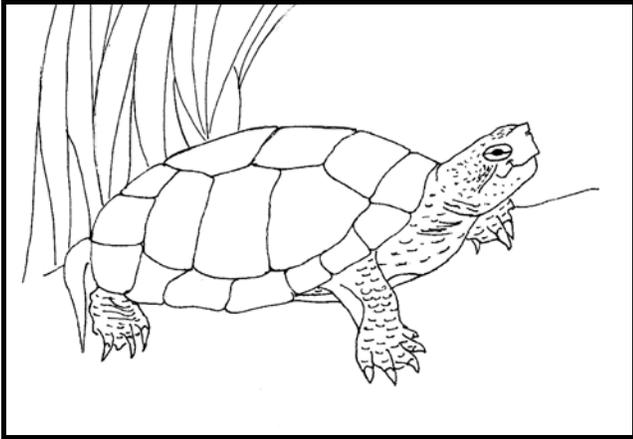
Hillside/open space: June 21, Hughes Center, 1700 Danbury Road (another meeting may be scheduled).

Visioners: Collect opinions from friends, PFA, your neighborhood, business group, etc, as a "visioneer". This just means getting people to answer the same questions as are on the insert in this newsletter, collecting the answers, and sending them in. You can get a kit from City Hall (call or email Belle), or just copy the questions from the insert, or ask people to fill out the forms on the website.

We need as many people to respond as possible!

*For copies of the newsletter insert or questions,
email the Friends or phone 621-6381*

Meet the Inhabitants



Southwestern Pond Turtle

Clemmys marmorata pallida

These turtles are the only species native to California and are listed as a California Species of Special Concern. Loss of wetlands, disease brought in by the release of non-native turtles, and predation by non-native bullfrogs have all caused a serious decline in their numbers. Western pond turtles were likely to be on the menu as late as the 1930's, and still are in some areas. Many have been killed by vehicles. The turtles on the BFS belong to the southwestern subspecies and were either rescued from pet shops or brought to pHake Lake when their habitats were lost to development. These rescued turtles have done well and the population at pHake Lake has slowly increased.

Adult Southwestern pond turtles average 5-6 inches, with females a little larger than the males. The carapace is relatively flat and marked into what look like armor plates (scutes). Scutes may be plain or have dark spots or lines from their centers to their circumference. The overall color of the turtle can be gray, olive brown, or dark brown. The underside is yellowish and a bit concave in the males. There are pale yellow markings on the mostly gray neck, front legs and tail.

Western pond turtles are omnivorous, eating algae, water plants, snails, assorted invertebrates, fish, frogs, and the occasional piece of dead bird or mammal.

Turtles are "cold-blooded" and spend a good deal of time basking in the sun. There can be a fair amount of jockeying for position, which may include nipping and nudging, at favored sites. Turtles can be seen around the edges of pHake Lake sitting on bent over cattails, and sometimes floating branches or on mats of algae. They will slip into the water with a discrete splash at any disturbance. Turtles spend time on land too, and will not necessarily stick to one location, but will walk around from stream to stream and pond to pond in wetlands.

Females start laying eggs at around 7 years of age. They dig nests 3 inches deep and wide, usually in grasslands near water, and lay 1-13 eggs, with an average of 6. One or two clutches are laid between May and August. Hatchlings emerge in about 12 weeks. Sex is determined by the environmental temperature: males if the incubation temperature is low and females if it is high. In Southern California, most baby turtles emerge in the fall, but some may stay in the nest till the next spring. Only about 10% of the hatchlings make it to 3 years old.



Sugarbush

Rhus ovata

This wonderful evergreen shrub or small tree can be found on dry bluffs and slopes below 4000 feet, in coastal sage scrub and chaparral. It grows up to 10 feet tall and as much wide, and has shiny, leathery leaves about 3 inches long, pointed at the tip and folded along the midrib. The leaf stalks and young stems are red. The white to pale pink flowers appear in dense clusters of small buds from March through May. The small fruits are red, hairy and thin-fleshed. The plant is both drought tolerant and fire retardant.

When the hot days of summer made the shade attractive, the Gabrieleño-Tongva collected "Nakwit" fruits to make cool drinks. The berries were mashed and stirred into cold water for a sweet refreshment. And just as their ancestors did, the present day Tongva dry the berries or eat them fresh. The dried fruit can be ground into a meal to make a sweet mush. The sap of Nakwit was added to acorn mush as a very welcome sweetener. Sweetening options were limited until Europeans brought hive-forming honeybees with their golden, syrupy honey.

Nakwit, like so many other native plants, also had medicinal uses. The leaves were brewed into an infusion to treat colds and coughs and to alleviate chest pains.

Teachers !

If you would like your class to visit the Station,
please phone the manager, Stephen Dreher
(909-624-6661)

Summer at the Field Station

Stephen Dreher, BFS Manager

Claremont's colleges have gone summer-dormant and the sounds of hundreds of students and children at the BFS have dissipated. Nobody's collecting water samples or monitoring pollinating bees. To the untutored eye, the field station might seem "dead", but in reality the business of reproduction, growth and the struggle for survival is in full swing for the wildlife and plants living here.

Refreshing and nurturing rains are history for this season, but despite the dryness and the recent heat, our wildlife is definitely astir. Rabbits and ground squirrels can be seen everywhere searching for food. The ground squirrels spend most of the winter below ground, even though temperatures never really get below freezing here. In late spring and early summer they emerge *en masse* with their young. The little ones are at their cutest and they are much more tentative, less brazen, than the adults. They are also the ones most likely to get snatched by a red-tailed hawk or other predator. Rabbits and their offspring are also out and about. The nocturnal dusky-footed woodrats are quite active, adding to their familial nests, the conical wood masses built under trees or large shrubs than can often attain a height of 3 or even 4 feet. Great horned owls hunt them from tree perches, and if lucky, pounce on one quietly from the darkness.

The wildflowers and shrubs that graced BFS with blooms in March and April now are adorned with maturing fruit and seeds, the life source for many animals. Squirrels relish the large nuts from the wild cucumber, or "manroot", as they drop from their spiny capsules. Ground-feeding (and often ground-nesting) birds, such as California quail, brown or rufous-sided towhees and California thrashers, are grabbing up the wildflower or grass seeds. Scrub-jays await a bumper crop of acorns. Coyotes look for it all, being omnivores like ourselves. Perhaps they can nab a young squirrel or rabbit or have a meal of wild cherry fruit (watch for those pits in their scat). The cherries will ripen in mid-summer. Surprisingly, some plants at BFS don't bloom until early-mid summer, months after the last rains! Among these are many species in the aster family, both annual and shrubby. Two summer annuals are the diminutive true-blue star sapphires (*Eriastrum*), and bright pink conchalagua (*Centaurium venustum*), a short, plant with corkscrew-like stamens, the lone BFS representative

of the gentian family. Then there's the gourd *Cucurbita foetidissima* (common names are calabazilla and stinky cucumber—if you've ever smelled the leaves you'll understand). This is a sprawling prostrate plant with yellow trumpet flowers and huge leaves that don't make an appearance until the soil is dried out. It stores large amounts of water in tuberous underground roots.

Early summer also ushers in the new generation of many birds – from hummingbirds in their thimble-like nests to young Cooper's hawks in the oak trees along the entrance road and the resident coots or "mud hens" in pHake lake. With some luck, the mallards or even the ruddy ducks may stick around and nest at the lake during June or July.

Early summer is definitely no vacation for our wild friends in our wild place of BFS.

To get info about the BFS:

You can get information about the history and features of the station, as well as about its plants and animals (and some great pictures) at www.bfs.claremont.edu.

Past Issues of the Newsletter

When you suddenly have a question about pink glow worms or elderberry and can't locate the right past issue of the newsletter, log on to our website and find the info there.

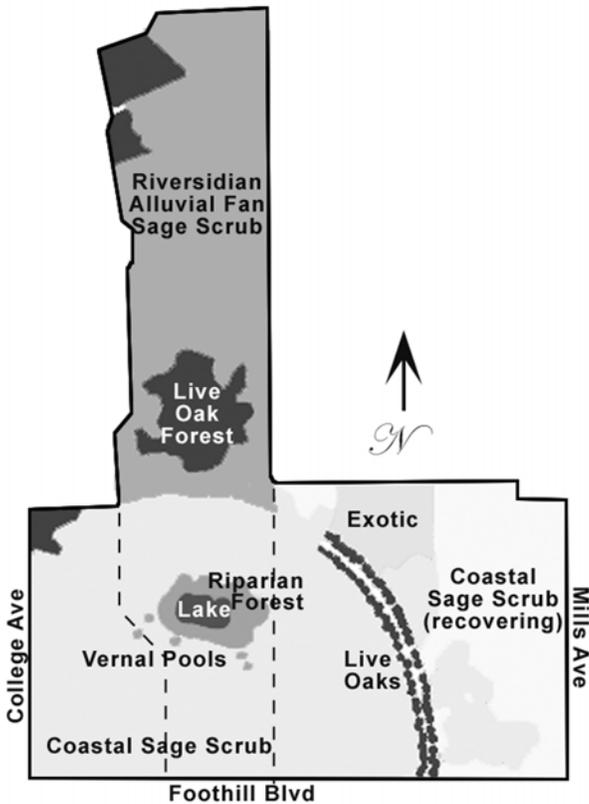


"A tour of the property readily convinces visitors of the importance of keeping such a beautiful expanse of land, shrubs, and trees for scientific purposes."

Robert J. Bernard in "An Unfinished Dream"

Coming soon: Articles on some of our less well-known inhabitants: snails, bacteria, and lichens.

@@@If you would like to be put on the mailing list, please send email to bfsfriends@earthlink.net



Now owned protected ----- not protected -----
 by KGI for 50 yrs

Useful addresses	
City of Claremont:	P.O. Box 880, Claremont, CA 91711 www.ci.claremont.ca.us
Claremont Colleges:	www.claremont.edu
The Claremont Courier:	111 S. College Ave, Claremont CA 91711 Phone: 621-4761
The LA Times:	Inland Valley Edition, 5555 Ontario Mills Parkway, Ontario CA 91764
Inland Valley Daily Bulletin:	2041 E. Fourth St, Ontario CA 91761

How big is big enough?

A field station is land left in its natural state for use in the study of complex interactions between plants and animals. The usefulness of such natural laboratories depends on size and shape. Extinctions occur frequently in small areas, due to smaller populations. The current 85 acres is just large enough to maintain reasonable stability in the existing ecosystems. Narrow shapes increase the amount of pollution by noise, air, water, and pesticides from surrounding areas, and increase the chances of competition from exotic (non-native) species.

Who uses it?

The BFS is used by Claremont Colleges faculty and hundreds of students every year, as well as by many schoolchildren from Claremont and the surrounding areas. It has also been used by college classes from as far away as Long Beach, by scout troops, and by members of the public.

What's there?

There are over 30 acres of the fast-disappearing coastal sage scrub community with a number of Species of Special Concern. *Since much of Claremont was originally covered with coastal sage scrub, it is a fascinating window into our past.*

There is a stand of oak woodland in the north where water wells up along an earthquake fault, there is annual grassland slowly returning to coastal sage scrub in the east, and there is a one-acre, man-made lake excavated in 1978 which is a sanctuary for western pond turtles displaced by development.

*“Dedicated to Education
and the Environment”*