

News from the

Volume 19, No. 1, June 2018

Email to: friends@fbfbs.org

Website at: www.fbbfs.org



**FRIENDS OF THE
BERNARD
BIOLOGICAL
FIELD STATION**

Stop by our booth in Memorial Park on the 4th of July 10 am to 2pm, and join us in the 3pm parade!

Meet the Inhabitants



California Vole (*Microtus californicus*)

Sometimes called a “meadow mouse”, this charming animal is found from Baja to Oregon in various grassland habitats. Small, with a body length of 6-7" and a tail about 2-2 ½ " long, it has reddish to dark brown fur, grey feet and a white patch near the tail. Committed vegetarians, voles eat grasses and sedges mostly, often standing on their hind legs and reaching up to cut off seedheads. They themselves are a favored food of hawks, owls, coyotes, skunks and garter snakes, all of which visit the BFS.

California voles are active from dusk to dawn and spend most of the daylight hours in their single-ended burrows which can be as much as 35 ft long. They build nests out of dried grasses a few inches below the surface of the ground; one male may live there with several females and a number of young. Voles can breed year-round but do so mostly in the spring. Pups are ready to find their own food at about three weeks, when females are often ready to mate for the first time. The life of a vole is short, usually less than a year even if it isn't

food for something else, but they are important parts of the ecosystem. (Photo from BFS website)

Sightings



- ✓ Rancho Santa Ana Botanic Garden volunteers taking a tour in May
- ✓ Community members taking part in activities and tours honoring Earth Day
- ✓ Sapphire blue flowers of *Eriastrum* on the paths
- ✓ Coots and ducks diving
- ✓ Lizards scurrying
- ✓ Silvery stems of California aster, promising purple flowers in August
- ✓ Masses of pearly everlasting
- ✓ Creamy yellow flowers on elderberries
- ✓ Drifts of penstemon
- ✓ Curvy brown phacelia seed heads
- ✓ The last small, charming fronds of gold-back fern
- ✓ Industrious insects on the ground and in the air
- ✓ Cottony cochineal bugs on the cactus



California Thistle (*Cirsium occidentale*)

This California native is also called the “cobweb” thistle because of the mass of soft, white hairs in the flower heads. Biennial or a short-lived perennial; not at all invasive. Most at the BFS have deep pink flowers up to 3" across in the spring, and grow 4-5 ft tall, with silvery, hairy, deeply-lobed, prickly leaves. Attract butterflies and hummingbirds; insects that eat the plant attract

predatory insects and insect-eating birds; hairy seeds provide nesting material as well as food.

Plenitude of Papers! (From the May 22, 2018 blog post by Nancy Hamlett)

Since our last publication update in August 2016, BFS researchers have been very active indeed. We’ve posted seventeen new peer-reviewed articles and conference papers on the BFS website!

The new publications report research on a wide variety of projects, including carbon and nitrogen storage in soil, effects of drought on bird species richness, a revised taxonomy of a cleptoparasitic (cuckoo) bee genus, refuges that enable native snails to avoid heat and desiccation, genetics of nitrogen-fixing symbiotic bacteria, interactions of non-native grasses with native annuals, genetics of fairy shrimp, using underwater robots to track marine life and examine archeological sites, effects of leg loss on reproduction of Green Lynx Spiders, effects of disturbance on ground spider populations, and others!

We at the Claremont Colleges are incredibly fortunate to have a resource that supports such diverse research. In fact, Onuferko (2018) states in the Acknowledgements of his article:

We are still asking:

If the center part of the BFS which the lawsuit settlement calls the “temporarily restricted property” is now permanently protected as was promised when the eastern 36 acres were sold to Pitzer, Harvey Mudd, and Scripps, why not say so? If it isn’t, then why not? Please email TCCS (The Claremont Colleges Services, formerly known as the Claremont University Consortium) CEO Stig Lanesskog and ask.

stig_lanesskog@cuc.claremont.edu.

*“I thank the Claremont Colleges and in particular Dr. Wallace Meyer (Pomona College) for giving me access to collect *Epeolus* and other bees at the Robert J. Bernard Biological Field Station in Claremont, California. The area hosts several uncommon/rare cuckoo bees, and its importance as a refugium for native species in an otherwise completely human-transformed environment cannot be overstated.”*

See a complete list of new articles with links to abstracts and the full text of the articles (where available), along with a few photos of some of the experimental subjects at <http://research.pomona.edu/bfs/2018/05/22/a-plenitude-of-papers/>

Some Recent Photos



Top: Sundrops, golden currant, path to Foothill
Middle: Milkweed buds (inset-open flowers), silvery
asters and purple penstemon, pearly everlasting
Bottom: Coffeeberry, purple nightshade
At right: Phacelia seedheads; sagebrush looking its best



Tours of the BFS

Community and school groups can arrange to take tours. If you are interested in bringing your group to the BFS to learn about what is there, contact the Director: 909-398-1751 wallace.meyer@pomona.edu

BFS Volunteer Days

First Saturday of the month, 10:00 a.m. until noon, followed by a tasty pizza lunch for the volunteers. If you have questions or want to be added to the volunteer list, please contact the BFS Volunteer Coordinator: Nancy Hamlett (909-964-2731) (hamlett@hmc.edu)

Claremont Garden Club

Free and open to everyone interested in any type of gardening. Meetings are second Wednesday of most months, 6:30-8:30 pm at the Napier Center at Pilgrim Place, 660 Avery Rd. Talks start at 7pm. For more about the club: www.claremontgardenclub.org info@claremontgardenclub.org

Friends website

www.fbbfs.org
for past newsletters and a map showing which colleges now own which parts of the Field Station.

City of Claremont: www.ci.claremont.ca.us
P.O. Box 880, Claremont, CA 91711
City Clerk: 399-5460
Claremont Colleges: www.claremont.edu
The Claremont Courier : (909) 621-4761
114 Olive St, Claremont, CA 91711

*The Friends is a non-profit,
grassroots organization*

*“Dedicated to Education
and the Environment”*

The BFS: A Facility of the Claremont Colleges

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. 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.

The current 85 acres from College to Mills is just large enough to maintain reasonable stability in the existing ecosystems. The center bit of the BFS alone, which is all that is currently protected, would not be sustainable if Harvey Mudd, Scripps, and Claremont Graduate University build on the parts they have now purchased.

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 and for research by other institutions.

What's there?

There are over 30 acres of the fast-disappearing coastal sage scrub community along with a number of species of state or federal concern. 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.

→ *Since much of Claremont was originally covered with coastal sage scrub, it is a fascinating window into our past*



“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” pg 708