

News from the Friends of

The Robert J. Bernard Biological Field Station

of the Claremont Colleges

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"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." An Unfinished Dream, 1981, Robert J. Bernard, Guide of the Claremont Colleges Group Plan

The Decorative Vine on this Newsletter

Wild cucumber, *Marah macrocarpus*, is a perennial vine which begins growth in January, then dies back in May or June. The shoots can grow as long as 25 feet and can be seen at the Station hanging in dense sheets from oak trees and covering the ground like a blanket.

The enormous roots store food and water so the plant can remain dormant during the hot, dry summer. This storage capacity also allows the plant to be among the first to reappear after a fire when its lush, green shoots contrast boldly with the blackened earth.

Stems of small, creamy, male flowers with a female flower at the base appear in spring. The ovary develops into a four-inch, oval, bright-green fruit covered with vicious prickles. Indians used the large, black seeds as beads. In spite of its common name, wild cucumber tastes extremely nasty to human beings and was given its botanical name in allusion to the bitter waters of Marah mentioned in the Bible.

What is a Field Station?

A field station is an area set aside for the scientific study of natural processes. It is a real-world laboratory. The land is not manicured but is left in its natural state. The plants have seeded themselves and are those that have evolved to cope with the normal conditions of the site. All of the animals that have evolved with the plants are welcome too. These thousands of organisms depend on each other and form a complex set of interactions whose study is fascinating and important to the preservation of the world around us.

Its usefulness as a serious teaching and research tool depends on its size since, in small areas, populations can fluctuate widely, causing extinctions and obscuring relationships. The Station's 85 acres are just enough.

History of the Station

The station is named after Robert J. Bernard who guided the growth of the Claremont Colleges for many years.

In 1926, Ellen Browning Scripps made a considerable gift of land for educational use as part of the Claremont Group Plan. Much of this land has been used for colleges, some was sold to the School of Theology, and some to the Rancho Santa Ana Botanic Garden. Some of the remaining land has been rented out as a golf course.

There were several proposals for the 85 acres of land at the corner of Foothill and Mills. It was suggested in 1976 that the land be sold for development. Donald McKenna arranged for the donation to Claremont University Center of the money to buy this land from the Scripps Trust. It was decided to use it as a field station so it would be in educational use and therefore tax-free.

Robert J. Bernard, in his history of the Claremont Colleges, says *"They (the trustees) were delighted with such an outcome: it would insure such a facility for all the colleges and the region."*

This wonderful gift has afforded students an opportunity rare among undergraduate biology programs since field stations are usually far from a campus. The nearness of the BFS allows it to be included in all levels of undergraduate education and the fence makes it a safer place for students and equipment. It has also enhanced the education of many Claremont school children.

Who uses it?

The Station is used by both College and community groups. Claremont Colleges faculty and students, and college classes which come from as far away as Long Beach, work at the BFS. Many members of the public and many Claremont schoolchildren visit the Station each year as well. Thousands of user-days a year are logged in the guest book.

What's the Habitat Like?

There are over 30 acres of the fast-disappearing coastal sage scrub community in the west and across the front, with a number of species categorized as of special concern.

Since much of Claremont was covered with coastal sage scrub before the city was developed, it is a fascinating window into the 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.

✓✓✓ Sightings

- *This month, dozens of tiny toads emerged from the vernal pool on the proposed KGI site.
- *The coast homed lizard, a species of special concern, was once again sighted on the BFS this month.
- *At least three different coastal cactus wrens have been seen this spring, one on the proposed KGI site.
- *An uncommon reptile, a legless lizard, was also seen.
- *This has been a great year for tiny, yellow sundrops, tall, blue penstemons, and fluffy popcorn flower.

LEEP Ahead!

Congratulations to Paul Faulstich and Pitzer College for starting this program!

Over the past three years, the Leadership in Environmental Education Partnership (LEEP) program has enabled 400 school children from schools in Pomona and Claremont to study ecological and environmental issues at the Bernard Biological Field Station. Once each week for 11 weeks, college students teach the children about ecology and environmental concerns in our community. The children also learn about the college experience and are introduced to positive role models and mentors.

LEEP provides hands-on lessons in environmental awareness and appreciation, ecological diversity, habitat restoration and pollution prevention. Learning about nature from direct contact is important; book learning alone is not enough to understand or reduce human impacts on the natural world. As our remaining natural areas decrease, we need to learn how to do a better job of managing the remaining fragments of wildness.

By helping children to understand and appreciate their local environment, the program also fosters good citizenship and social responsibility. It encourages children to be active rather than passive; to take control of their learning and allows them to experience the thrill of discovery.

❖ Meet the Inhabitants! ❖

Each issue will introduce a plant and an animal

Rats! (Woodrats, that is)

The desert woodrat, *Neotoma lepida*, is one of the many charming inhabitants of the Field Station. These nocturnal mammals are gray above and white below, and about a foot long with nine-inch, furry tails.



They are often called "packrats" because of the "houses" they make in the base of shrubs using sticks, rocks, dried manure, tin cans, discarded pens, and just about anything else they can find. They eat assorted plant material, including cactus pads which, in the hot, dry summer, provide them with water.

Three or four babies arrive in spring and they hold on to the teats tenaciously. In fact, if the mother is forced to leave the nest suddenly, she may drag them along with her! Owls, snakes, and coyotes all eat woodrats, so student research on the relationship between number of woodrats and the type of vegetation helps to shed light on how these tasty morsels reduce their chances of becoming dinner.

Dodder (that orange, threadlike stuff)

Love-vine, Strangle-weed, Witch Hair, and Golden Thread are all common names for *Cuscuta californica*, more prosaically known as Dodder.

This parasitic plant germinates on the ground and sends out long shoots which twine around nearby plants. The shoots send out extensions which grow into the gas-exchange openings normally present in the leaves of their victims and tap into the water and food conducting tissues of the host. The unwelcome guest loses its chlorophyll and grows into the tangled mass of brilliant yellow-orange threads which cover many Coastal Sage Scrub plants.

Although it looks peculiar, Dodder is a flowering plant, and produces tiny, white flowers in October. Fortunately, Dodder flowers are a principal food plant for caterpillars of the Western Brown Elfin butterfly which eat the buds and slow the spread of this fascinating parasite.

OpportunitiesAnnouncements***Events***Activities***

Tours of the Station

We would love to show you around the Field Station, so come and see what's there. One and a half hour guided tours of the Station may be arranged by calling 621-6381. Dress for hiking and wear sunscreen.

Oh, the Cattails You'll Pull...!

Volunteers needed!

Life is teeming at pHake Lake and the biggest "teemsters" are the cattails which are doing so well they are clogging up the shoreline. The trail around the lake needs trimming again, too.

We had work days in fall and in the spring and cleared a goodly area but lots more needs to be done.

Join us for the next volunteer day-- It's satisfying aerobic exercise and you have a great excuse to play in the mud!



Weaving Webs

The Friend's website is www.fbbfs.org.

The BFS home page is a work in progress but you can learn about the geology and some of the plants and animals at the Station by clicking on the link to it from our website.

Wish List

The BFS budget is small so if you have any of the following that are in good condition but just hanging about unused, please consider sending them our way:






metal lockers	air compressor
bike rack	garden tools
laser printer	small chainsaw
desktop copier	binoculars

By any other name...

Our newsletter title lacks pizzazz. Use those little gray cells and submit ideas for a new name.

You are Invited...

We would love to have others join in the production of this new sletter. Call 621-6381 if any of the following appeal to you:

-  biological illustration
-  drawing cartoons
-  writing articles
-  desktop publishing
-  distribution

Update on the NCMP

On May 24, the Architectural Commission approved the North Campus Master Plan and issued a Statement of Overriding Consideration asserting that the benefits of the project outweigh the damage.

The offer of land to add to the Wilderness Park was considered a major benefit, even though 3/4 of the land has strings attached. In order to get some or all of these 180 acres, the city will have to allow CUC to use them as a "benefit" or mitigation to gain approval for the master plan CUC will present in 10 years. If the plan is not approved, the taxpayers may have to pay CUC \$750,000 for the land. Even if the plan is approved, the City may have to buy whatever land wasn't used for mitigation.

The Friends have filed an appeal which is scheduled to be heard on June 21, at 6:30 pm, probably at City Hall.

→!!Bumper stickers!!← (see back of newsletter)

Upcoming events

June 10: Yard sale at 115 East 7th St, 8am to 3pm to raise money for the Coalition to Preserve Claremont's Character which will sponsor a referendum against the NCMP approval. Info: 932-1529 or 625-5395
Their website is cpcnc3.net

June 21: City Hall, 6:30 pm.. The City Council is scheduled to consider the appeal of the approval of the North Campus Master Plan and to approve the development agreement for the project.

July 4: The Friends will have an information booth in Memorial Park during the day. If you can help out for an hour or so, please call 621-6381.

We will also have a float in the parade. Call 626-1185 if you would like to help us plan our entry or march.

October: We will have a booth at Village Venture with activities for children. If you have any suggestions for activities, or would like to help staff the booth, please give us a call or send email from our website.

Coming soon: Several artists have donated paintings for us to auction as a fundraiser. Watch for a display in