

News from the

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**FRIENDS OF THE
BERNARD
BIOLOGICAL
FIELD STATION**

Our Most Recent Contribution to the BFS

This fall we purchased a [malaise trap](#) for the field station to help in the collection and identification of the many species of insects that call the BFS home.

Meet the Inhabitants



Chaparral Clematis

(*Clematis lasiantha*)

Also called [pipestem clematis](#), this deciduous [native](#) California vine grows up to 20 ft long in sun or part shade. It is happy in ordinary garden conditions as long as the drainage is good. The 2 inch wide flowers appear from March to August and are followed by decorative feathery seed heads.

Rare Plant Found!



Delphinium inflexum (or *D x inflexum*) is a naturally occurring hybrid between red *Delphinium cardinale* and blue *D. parryi* subsp. *parryi*, which both occur close to where these purple-flowering plants were spotted.

Sightings



- ✓ Tongva Elder Barbara Drake and Pitzer Prof Joe Parker loading up cattails for a new Tongva house
- ✓ Turtles basking on floating logs
- ✓ Snow-capped mountains above pHake Lake; toyon decked in Christmasy berries on the shore
- ✓ Common Ravens on utility pole, taking turns croaking
- ✓ A Turkey Vulture soaring overhead
- ✓ Migrating ducks stopping over at pHake Lake
- ✓ Abundant blooms of Pine-Bush and Scale-Broom attracting fall bees and butterflies
- ✓ Empty shells left behind by dragonfly larva after they metamorphose into adults



Wrentit (*Chamaea fasciata*; photo Nancy Hamlett)

These are small grayish birds, about 5 inches long from head to tail. They have round heads, short wings, plump bodies, pale eyes and often hold their long tails upright. [Wrentits](#) are common in coastal sage scrub and chaparral, as well as in gardens. They are often hard to see since their small size, slow movements, and tendency to stay in dense shrubs camouflage them well. They eat insects and berries, including those of poison oak. Both parents make the nest, incubate eggs, and feed the young. Wrentits tend to stay close to wherever they breed—definitely not rovers.



Our Vision for an Ecological Walk: How You Can Help Make it Real!

The Field Station and the Friends have a vision for an ecological walk along Foothill just outside of the BFS fence. More than that, we have a plan, too!

If you have any suggestions for funding opportunities we could pursue, or if you would like to donate to the project, or sponsor a section, please let us know as soon as you can by contacting Sue Schenk at sschenk9@gmail.com.

Here are some excerpts from the plan: The purpose of this project is to develop an interpretive “ecological walk” along the sidewalk in front of the Bernard Field Station (BFS) – first to provide an opportunity for community members to learn about local ecosystems and native plants, and second, to illustrate a beautiful and sustainable landscape created with local native plants, which will complement the natural appearance of the Foothill Boulevard improvement project landscape and be available to all, free of charge.

Our goal for the ecological walk is that students of all ages and the general public can learn about:

- Local ecology, including the increasing rare sage scrub plant community, which once covered much of our local area.
- The benefits that natural areas provide, as well as the challenges they face, and how we can all become better stewards of the environment.
- How understanding local ecosystem function can help us make wiser choices for developing beautiful, sustainable landscapes.

In addition, the walk will connect the public to research, scholarship, and learning opportunities at the adjacent institutions – the BFS, at the Robert Redford Conservancy for Sustainability in Southern California, and the Rancho Santa Anna Botanic Garden.

An “ecological” journey that can be taken outside of the fence, using the new sidewalk, without the need to schedule a visit, will provide much greater flexibility for local educators to incorporate hands-on learning into their curriculum.

While the walk is intended to be accessible to K-12 students, the target population includes the entire population of Claremont and the surrounding Inland Empire.

The ecological walk will help residents understand our local climate and ecosystem and how our activities and decisions can work with them instead of opposing them. A simple path towards greater “ecological literacy” will be established.

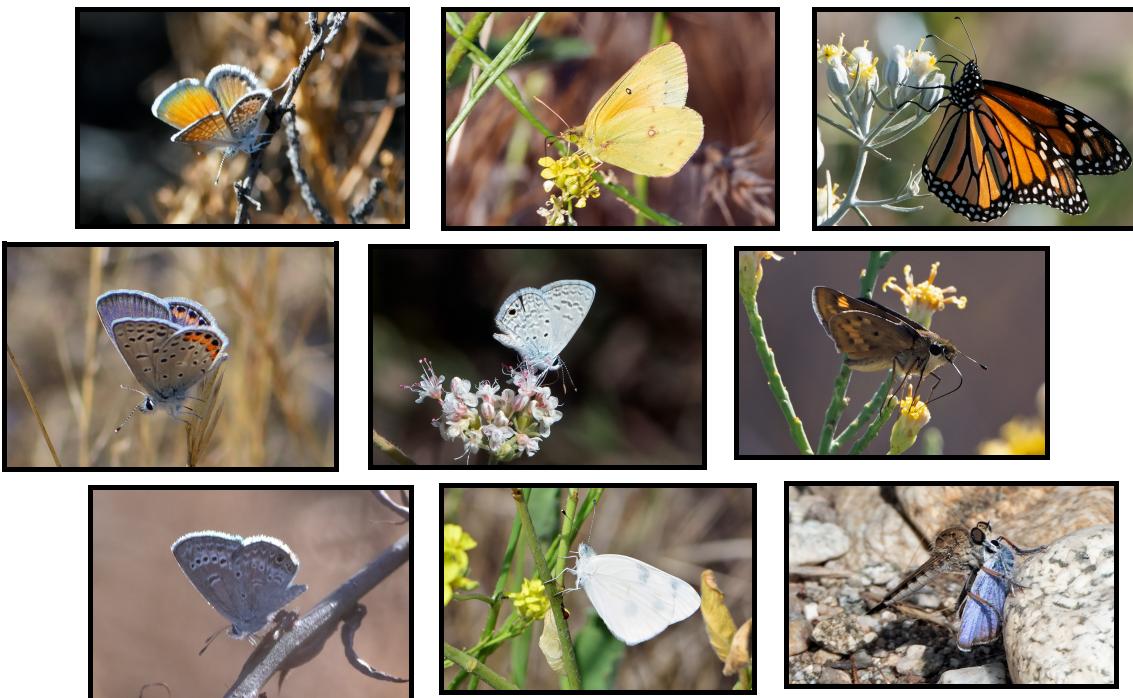
A Brief Outline of the Proposed Stops along the Ecological Walk

1. Demonstration Garden: A showcase suburban landscape featuring native shrubs, perennial flowers, and native annuals showing how we might re-envision landscaping in southern California.

2. The Mediterranean Climate and Biodiversity Hotspots: Information about our regional Mediterranean Climate, the California Floristic Province, and the conservation context of Claremont.

- 3. Sage Scrub Ecosystem:** The conservation importance of the sage scrub ecosystem and adaptations that help plants survive in our semi-arid region.
 - 4. Sage Scrub or Chaparral?** This will highlight differences between sage scrub and chaparral.
 - 5. Indigenous Plant Use:** Tongva elders will develop the learning objective and plant selection
 - 6. Native Wildflowers:** Native grasses and wildflowers.
 - 7. Plants and Pollinators:** This will highlight the many native pollinators that call the BFS home and the importance of our sage scrub plants for different parts of their life cycles.
 - 8. Milkweeds and Monarchs:** Visitors will be able to see Monarch butterflies and caterpillars on milkweed and learn about their interconnected relationships
 - 9. Rare Species at the BFS:** Featuring endangered and rare plants found at the BFS along with its many rare animals, this section will focus on how habitat loss influences biodiversity and species survival.
 - 10. Friends or Foes? Birds and Coyotes:** Bird favorites, such as toyon, laurel sumac, and elderberry, will be featured along with bird foes, such as cats – a major threat to bird populations--and bird friends, such as coyotes, which promote robust bird populations (you'll have to take the walk to find out how!)
 - 11. Carbon Storage:** Sage scrub stores more carbon than does non-native grassland, helping to mitigate climate change, as do trees.
 - 12. Water Capture and Fire:** A comparison of differences between root structure and water use efficiencies in non-native grasses and native shrubs, along with how each influences fire regimes in southern California.
 - 13. To Mulch or not to Mulch?:** Mulch helps conserve water, but... ? Research shows that mulch releases carbon to the atmosphere as it decomposes. Do the benefits of mulch outweigh its environmental costs?
 - 14. Demonstration Garden:** A second showcase demonstration garden with native plants.
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Recent Butterfly Photos (All photos in this issue except the clematis are courtesy of Nancy Hamlett)



Top: Western Pygmy Blue, Orange Sulphur, Monarch

Middle: Acmon Blue, Ceranus Blue, Fiery Skipper

Bottom: Reakirt's Blue, Checkered White (with chrysalis), Robber Fly eating that Acmon Blue!

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.

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City Clerk: 399-5460
Claremont Colleges: www.claremont.edu
The Claremont Courier : (909) 621-4761
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*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