

News from the

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**FRIENDS OF THE
BERNARD
BIOLOGICAL
FIELD STATION**

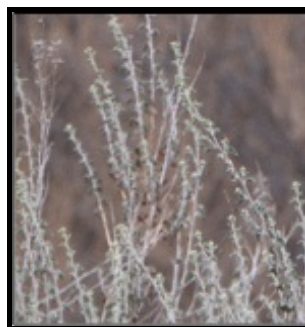
Meet the Inhabitants

***Brickellia californica* at the BFS**

***A tale of botanical sleuthing, phenotypic plasticity, and
being lost then found by Nancy Hamlett***



The Brickellbushes (genus *Brickellia*) are a genus of sunflower family plants native to the Americas. If you wondered, as I did, “What’s a brickell?”, it’s not actually a thing. The genus is named for Dr. John Brickell (1749-1809), a physician and naturalist who immigrated from Ireland to Savannah, Georgia, and documented many new plants in the United States. **(Photos: left, Nevin’s Brickellbush courtesy of Harmut Wisch; right, the newly-spotted one).**



Most *Brickellia* are woody shrubs or sub-shrubs. Many are known for their aroma, some have medicinal uses, and some are larval food sources for certain moths and butterflies. **(Photos: left, California Brickellbush near the toad pond; center, the newly-spotted one in the Neck; right, the moth *Schinia buta*, one of the species that use *Brickellia* as a host plant)**

Our Thanks

We recently received a grant from the Isabel’s Charitable Gift Fund, for which we are very grateful.

“We are giving this gift in loving memory of our dear daughter Isabel, who loved nature. Please use these funds in whatever ways will most effectively protect the field station, a wonderful island of biodiversity in the midst of development. Thank you for the work you do in the world!

Warm regards,
Carol Blaney and John Sun”



For some years at the BFS, a single *Brickellia californica* plant grew by the toad pond, but that plant died in the prolonged drought of 2011-2017, so we thought that *Brickellia* had been lost from the field station for good. But during the September monthly butterfly survey, we spotted a shrub we hadn't noticed before in the upper 'Neck' (left). It had small, grayish leaves that contrasted starkly with the golden-brown color of the surrounding dormant sagebrush (*Artemisia californica*). Closer inspection suggested it was a Brickellbush, but it looked very different from the

California Brickellbush that had grown by the toad pond. It also had not yet bloomed, in contrast to the toad pond Brickellbush, which bloomed in July. Which species was it?



At this point, we were left with two likely choices – Desert Brickellbush (*B. desertorum*) or California Brickellbush. We posted photos to iNaturalist and enlisted aid from two accomplished SoCal botanists, Keir Morse and Tom Chester, who guided us to an identification.

Our first thought was that it was Nevin's Brickellbush (*Brickellia nevinii*), which has a similar look, but flowers are needed to make an identification, so we waited. By October, the plant had buds, and by November, it had flowers, which enabled us to tell immediately, that this plant was not *B. nevinii*.

The size distribution of leaves and petioles was mostly consistent with Desert Brickellia, but there were some larger dead leaves that fell off the bottom of the stem. What about those? From the experts: "Remember that the leaf measurements in floras almost always come from herbarium samples, which almost never have the lower leaves present. So it is not surprising at all that lower leaves might be larger in all respects than given in the floras, for both species."

Desert Brickellia is, however, really much more of a desert species. So the experts suggested checking some other key characters. The result was that these were all consistent with *B. californica* and not consistent with *B. desertorum*! So a species we'd thought was lost from the BFS is still there, after all. If you're interested in the whole conversation about the identification, you can see it [here](#).

Still no word from the colleges about permanent protection for the center Temporarily Restricted Property (TRP)

Interpretive Ecological Walk Along Foothill Blvd. Coming Relatively Soon

Wallace Meyer “Marty”, Director Bernard Field Station

The Bernard Field Station’s mission is to increase understanding and awareness of southern California’s terrestrial ecosystems through research, education, and outreach. Prior to COVID, we had a diversity of outreach activities, including our flagship K-12 program, the Leadership in Environmental Education Partnership (LEEP) program, and our Earth Day events which provide opportunities for the community to interact with common southern California landscapes and the diverse BFS research community.



To provide additional opportunities for the community to learn about southern California ecology and conservation, we have started a multi-year effort to develop an “ecological walk” along the newly accessible sidewalk in front of the BFS along Foothill Blvd. The interpretive ecological walk will provide opportunities for community members to learn about local ecosystems and native plants and will highlight examples of beautiful and sustainable landscapes created with local native plants. The best part is that it will be freely accessible to community members whenever they are ready to explore these topics.



If you have walked or driven along Foothill Blvd recently and seen colored flags next to baby plants, you have seen the beginning efforts of this project. Recently we have planted native shrubs in areas that will: (1) describe our Mediterranean Climate and key plant adaptations that allow plants to survive without water for more than 6 months each year, (2) describe the differences between chaparral and sage scrub ecosystems, and (3) highlight the conservation importance of the endangered sage scrub ecosystem. We intend to begin working on other components of the ecological walk in early 2022 and in the fall/winter seasons of future years, with the goal of completing this project in 2025.



The majority of the planting effort has been conducted by our amazing volunteers (*Photos: top, overview; middle, Gabriella and Josee Negrete planting a golden currant; bottom, Matt Anderson and Ashni Jarrosiak planting a white sage*). We are incredibly appreciative of all our volunteer efforts, and we intentionally develop these events to

provide opportunities for community members to learn more about native plants and southern California ecology. If you want to join us, our volunteer program meets on the first and third Saturdays of most months from 10 AM to 12 PM and requires pre-registration. If you drive or walk by, be sure to say hello or give a few honks to show your support. We are also looking for recommendations on how we might best obtain funding to complete this project. If you know of grant opportunities or can think of any creative ways to fund these efforts, please feel free to reach out the BFS Director.

I wish the BFS Community the best during this holiday season and look forward to interacting with you all during the new year.

Volunteer Workdays Resumed this Fall

With the availability of COVID-19 vaccines and the resumption of in-person classes at the Claremont Colleges, the BFS has been able to resume volunteer workdays in accordance with the Claremont Colleges COVID-19 protocols.

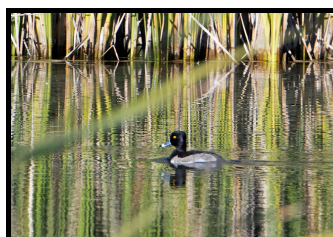
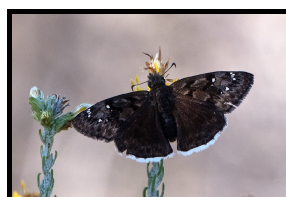
A number of measures are in place to ensure that all volunteers have a safe experience. Volunteer are required to show proof of COVID-19 vaccination, complete a health check on the day of the workday, and wear masks during the workday. In addition, the number of volunteers is



limited, and we no longer indulge in pizza or other communal eating. Although the socializing and pizza lunch or other refreshments are sorely missed, volunteers are still able to enjoy the BFS, socialize at a distance, and know they are helping the environment.

We held six workdays this fall, with 37 different volunteers participating. The volunteers cut back cattails at pHake Lake, cleared the very overgrown trail around the lake, and planted native plants in the Foothill Blvd parkway for our proposed "Ecological Walk".

Workdays for the spring semester are scheduled to begin on January 15, 2022. Please check the BFS Volunteer webpage (<https://research.pomona.edu/bfs-dev/volunteer/>) to look for more information.



Top: *Heteromeles arbutifolia*, heron, *Erynnis trista*, *Vanessa cardui*

Bottom: katydid, ring-necked duck

(Photos by Nancy Hamlett)

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
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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