

Robert J. Bernard Field Station's 2025 Report: Sustained Leadership in Environmental Research and Education

Summary: This brief report summarizes the Robert J. Bernard Field Station's (BFS) use and accomplishments over the past decade. The BFS's mission is to increase understanding and awareness of southern California's terrestrial ecosystems through research education and outreach. Our accomplishments highlight the critical role the BFS plays at the Claremont Colleges and throughout the region as we continue to build the College's legacy as a regional leader in the environmental education and research.



BFS Use: The BFS is one of the most heavily used field stations in southern California. We calculate use using two metrics:

1. User Weeks, or the number of weeks unique individuals use the BFS (Fig. 1). This metric is consistent with user days for course use (which constitutes 80% of our use) as most classes use the BFS once each week. User weeks may not be consistent with user days for research and other types of use where individuals may not use the BFS weekly, though most research requests are associated with classes. BFS use exceeds that of 14 of the 15 UC Reserves south of San Louis Obispo County who record (< 6,900 user days).

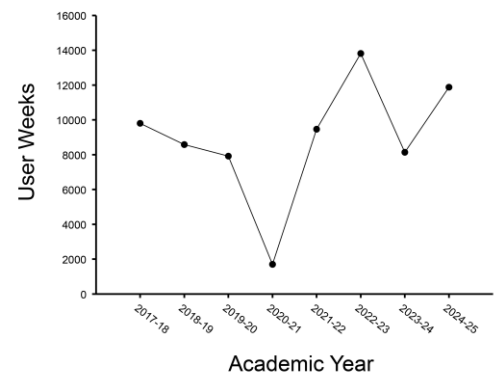


Figure 1. Documented annual user weeks at the BFS in the 2017-18 academic year through the 2024-25 academic year



Figure 2. A. HMC students collecting data from an eddy covariance tower that measures C-flux. B. Natural Sciences student in a fire ecology class working in the 2013 burn area. C. Pomona students conducting an experiment on competition in *Plant Ecology*. D. Indigenous scholar and artist, Lazaro Arvizu, working with a student in the *Outdoor Science Education* course.

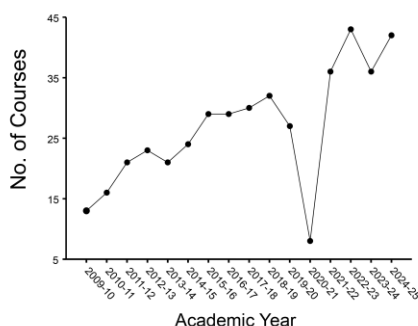


Figure 3. Total number of courses from the Claremont Colleges that have used the BFS each academic year.

2. Number of courses have continued to increase over the past decade, excluding the dip associated with COVID (Figs. 2, 3). These estimates are conservative as courses from other institutions (Cal Poly Pomona, Cal State Fullerton, etc.) and local K-12 institutions (Webb Schools, Claremont High, and many of the CUSD elementary schools) are not included. Hands-on authentic learning opportunities cannot be replicated in a classroom.

Research at the BFS: Faculty mentorship at the BFS provides numerous opportunities for students to engage in authentic research and contribute to a better understanding of how to conserve biodiversity and ecosystem functioning in our region (Fig. 4). Over the past 5 years, the BFS has averaged > 4 publications per year (Figs. 4, 5).

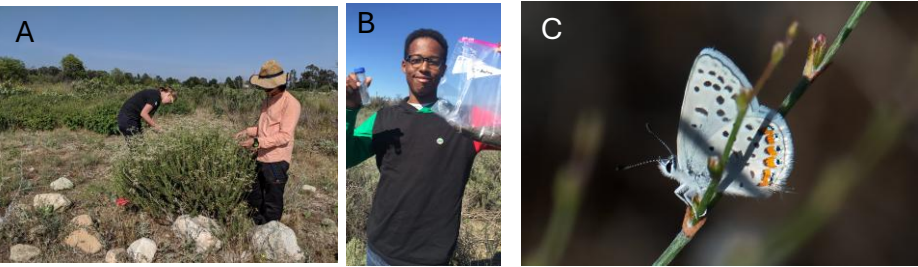


Figure 4. A. HMC students manipulating flower density to examine honeybee foraging, results in published in *Animal Behavior*. B. Pomona student collecting data on soil carbon, published in *Urban Science*. C. Picture of an Acmon blue butterfly. BFS bio-monitoring data used in a recent publication in *Science*.

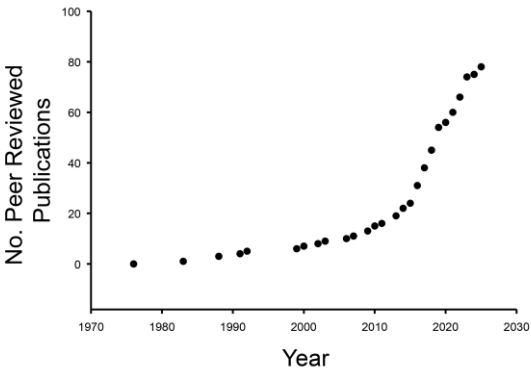


Figure 5. Total number of peer-reviewed publications from the BFS since the beginning of the BFS (1976).

BFS Outreach: BFS outreach efforts are primarily grouped into two main programs: (1) the BFS Volunteer Program, and (2) the Leadership in Environmental Education Partnership (LEEP). Prior to COVID, the BFS also hosted annual BFS Earth Day Events. We hope to start Earth Day activities again in spring 2026.



Figure 6. A. Students from Claremont High planting native shrubs contributing to the ecological walk. B. Volunteers cutting cattails at pHake Lake.

1. The BFS’s Volunteer Program is one way the BFS engages with the Claremont Community (Fig. 6). Over the past decade, we have attracted volunteers from the Colleges, and the broader Claremont community including many students from Claremont High. The work the complete is invaluable to the functioning of the BFS.

2. The BFS’s LEEP Program run through the BFS Director’s *Outdoor Science Education* course (Fig. 7) has provided the primary link between the BFS and Claremont Unified Schools. This past year LEEP provided opportunities for > 220 students to visit the BFS multiple times during the spring semester and learn about southern California ecology.



Figure 7. Students from Sycamore Elementary learning about food webs at the BFS’s outdoor classroom during one of their LEEP visits.

BFS Director Efforts: The BFS Director has focused his efforts over the past decade on expanding the important work being conducted at the BFS and developing novel ways for people to engage with Southern California ecosystems (Fig. 8).



Figure 8. A. Students and faculty working on an analyses of RESCUE-Net project. RESCUE-Net is a region wide research network funded by an NSF grant to the BFS Director. B. Jason Keller, new faculty at CMC collecting samples for a MONet grant to explore soil microbial function at the BFS. C. Pictures of artists and Pitzer students and museum curators at an event that culminated our first one-week artist in residence program.