Bee Campus USA - University of California Irvine

Report on 2022

Pollinator Habitat Creation & Enhancement

In celebration of Earth Week, our Bee-Friendly Committee partnered with the ASUCI Garden Commission to host "Peter's Planting and Pot Painting Party." This event took place at the Ants in Your Plants (AIYP) Garden, where produce gets donated to our campus food pantry. During the party, volunteers planted pollinator-attracting plants such as multicolored sunflowers and native California shrubs. The garden team also offered free succulents and terracotta pots, along with materials to paint them. Currently, the AIYP Garden contains seven 8×4 feet beds dedicated to pollinator-friendly plants. Student volunteers maintain these beds every week. In addition to the garden, UCI sustains several unique habitats that are attractive to pollinators. This includes the UCI Ecological Preserve, 60 acres of coastal sage scrub and disturbed grassland habitat; Aldrich Park, a 19-acre botanical garden with ornamental plants; and five other community gardens, such as UCI Aquaponics and the Sustainable Polyculture Project. UCI also co-manages the UCNRS San Joaquin Marsh Reserve, a 199-acre wetland adjacent to campus; Burns Pinyon Ridge Reserve, 306 acres of desert habitat near Yucca Valley; and the Steele/Burnand Anza-Borrego Desert Research Center, located in California's largest state park. Each site contains species that are used by pollinators.

How many habitat projects did you help to create or enhance last year?

1

How many total square feet of habitat were created or enhanced? **224**

How many volunteers helped with those projects?

14

Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

- Flower garden
- School garden







Bee swarm at the San Joaquin Marsh Reserve. Photo provided by the Marsh's faculty co-director, Dr. Peter Bowler.

Education & Outreach

Since receiving certification in 2021, our committee has hosted 4 events. The first was a webinar titled "Bee-ing Green in Quarantine"; two professors and two students presented on the importance of pollinators, along with different ways individuals could support pollinators from home. The second event was a virtual "Pollination Celebration" in which community members learned about what it means to be "bee-friendly" before exploring nature poetry and an interactive website about endangered species (species-in-pieces.com). Third, we coordinated an asynchronous scavenger hunt where





students followed a map to pollinator-friendly plants on campus, answering trivia questions about bees along the way. Lastly, we organized a booth called "A-Bee-C's on Bees." With our booth placed outside our campus Student Center, students stopped by between classes to learn about pollinators, win freebies, or plant a seed to take home. Our community's Sustainability Resource Center also hosted a lesson about bees at their Little Ants Nature School. The educational program features art, story, and science time for children of any age.

How many pollinator-related events did your affiliate host or help with last year (in total)? 4

How many people attended those events (in total)? **229**



Courses & Continuing Education

Since UCI received certification, for-credit courses have tackled pollinator-related topics in a variety of ways. To begin, biology courses — such as Ecosystem Ecology, Ecosystem Services, and From Organisms to Ecosystems — taught students scientific foundations regarding environmental processes and the value of biodiversity. One biology course — titled Ecology and Diversity of Insects — even allowed students to focus their study on the fundamental role of insects in "human health, agriculture, and natural ecosystems"; in the process, they enjoyed interactive demonstrations, an optional weekend trip, and lectures on insect conservation. Meanwhile, humanities classes — such as Techno-Ecologies of the Anthropocene and Humanities Core — used literature to illuminate human impacts on the environment. In these courses, students discussed swarms and challenges to pollinator species. Finally, in Earth System Science courses such as Environmental Issues in Sustainability, students synthesized scientific, technological, political, and economic perspectives to critically analyze several environmental challenges. We are not currently aware of any pollinator-related continuing education





opportunities on campus.

How many of your for-credit courses included pollinator-related information last year? 8

How many students attended those for-credit courses? **1627**

How many of your continuing education courses included pollinator-related information last year?

How many participants attended those courses?







Service-Learning

Firstly, our campus offers service-learning at the AIYP Garden, a student-driven effort to fight food insecurity and promote sustainable practices. Ultimately, the garden is a collaborative project between the ASUCI Garden Commission, the UCI Sustainability Resource Center, the FRESH Basic Needs Hub, and Arroyo Vista Housing. However, any student can volunteer to help with maintenance, and no prior gardening experience is needed. Through training and service,





volunteers can learn about sowing, irrigation, weeding, harvesting, and IPM, all while maintaining pollinator-friendly beds in the garden. So far this school year, volunteers have contributed over 170 hours and harvested about 160 pounds of food. In Dr. Kathleen Treseder's Global Change Biology course, students learned how to build a bumblebee nest. With materials they found at home — fallen leaves, dead grass, cotton balls, pet fur — they were able to construct small, cozy burrows for pollinators. The activity was intended to help students learn about and practice restoration work in local ecosystems.

How many service-learning projects did your campus host and/or support to enhance pollinator habitat on and off-campus? **2**

How many students participated in service-learning projects last year to enhance pollinator habitat on or off-campus? **281**







Sunflowers planted by volunteers at the AIYP Garden. Photo by the Sustainability Resource Center's Garden Fellow, Tristan Zabala.

Educational Signage

At the AIYP garden, a "Pollinator Habitat" sign adorns one of the beds, informing visitors about the pollinator-attracting plants there.

Number of permanent interpretive/educational/Bee Campus USA signs installed to date? **1**





Number of temporary interpretive/educational/Bee Campus USA signs installed last year?











Policies & Practices

Our IPM plan involves a variety of pollinator-friendly measures aimed at providing the least risk to both humans and the surrounding environment. This includes "minimizing the quantity and toxicity of chemicals used"; when chemicals and pesticides are used, it is only "after preventative measures are evaluated or exhausted." In these cases, Facilities Management limits chemical use to "targeted locations and for targeted species." Additionally, any pesticides used are considered least-toxic based on EPA Acute Toxicity Signal Words. Those overseeing the campus AIYP Garden go even further by prohibiting the use of pesticides or herbicides there altogether. This not only promotes pollinator survival, but also eliminates potential health hazards and ensures that any produce grown can be donated to the local community.

In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?

Please describe actions by your affiliate to attend training on ecologically-based Integrated Pest Management and/or to review IPM plans and programs considered of high quality by Bee City USA?

Integrated Pest Management Plan: https://www.fm.uci.edu/fm_units/pest_management.php%20 Recommended Native Plant List: https://bit.ly/UCIpollinatorplants Recommended Native Plant Supplier List: https://bit.ly/UCIplantnurseries







The AIYP Garden in June 2022, courtesy of UCI Housing's Dr. Rachel Harvey.

Learn More

https://sustainability.uci.edu/sustainablecampus/bee-campus/ sustainability-center@uci.edu

https://www.instagram.com/ucisustainability



