



# Bee Campus USA Annual Report Pollinator Conservation & Education 2019



## California State University Northridge Northridge, California

### EDUCATION & OUTREACH



A volunteer harvests kale at the Outdoor Garden Education Center



Volunteers learn about harvesting herbs at the garden

Institute Sustainable Garden Education Center work days: February 9, March 2, March 30, April 13, May 10, September 7, October 12, February 15

Sustainability Day: October 24

Garden workshops/tours: HR Personal and Professional series, Walkability Wednesday (4/10/19), 5 attendees

Class presentations:  
Sustainability 300 with 42 students  
Civic and Community Engagement 200 with 12 students  
Geography 351 with 35 students



Volunteers learn about the role and importance of pollinators at the garden.

### Conferences:

Sustainability Day, October 19th 2019. 400 attendees

Marilyn Magaram Center workshops/garden tours: Held regularly throughout the year, approximately 300 attendees

Farmers Markets: 28 (every Tuesday during the academic year)

The Institute for Sustainability initiated a “pollinator pocket” community beautification project with the Northridge Beautification Foundation and Council District 12. This partnership will lead to multiple pollinator habitats in underutilized city spaces around CSUN. More information at:

<https://csunshinetoday.csun.edu/health-and-fitness/pocketful-of-pollen-csun-partners-with-community-on-havens-for-pollinators/>

CSUN is also in the process of creating a new beekeeper certification program with a local beekeeper organization, The Valley Hive (<https://www.thevalleyhive.com> ). This program will begin in 2021.

## POLLINATOR HEALTH & HABITAT



Volunteers pose next to one of the trees they planted during Earth Fair 2019



One of the flowers at CSUN's pollinator garden

Most of CSUN's pollinator habitat efforts in the past year were undertaken by the campus Grounds team. They perform a number of landscaping renovations each year, and expanding pollinator habitat is now a key function of their improvements. Water-intensive turfgrass is removed in selected areas, then replaced with drought-tolerant, native plants that also play a role in attracting and supporting pollinators.

The Grounds team renovated 3 different areas in this way over the course of the last year: two patches of lawn on the north and west sides of Sequoia Hall, and another on the east side of Redwood hall.



The new pollinator-friendly landscape by CSUN's Redwood Hall, formerly turfgrass



One of the flowers at the new pollinator-friendly planter west of CSUN's Sequoia Hall

Students and volunteers play a role in other habitat expansion events. A tree planting held each year during Earth Fair features the installation of several trees, some of which are native and many flowering. Earth Fair attendees are invited to participate in planting the trees, and are educated about their role in providing pollinator habitats and other valuable ecosystem services.

To conserve water in the drought-prone region in which CSUN is located, the campus is continuously reducing the water needs of its landscape by replacing turfgrass with native and drought-tolerant species.

Going forward, this effort will be aligned with CSUN's pollinator-friendly landscaping principles to continuously expand pollinator habitats on the campus.



Volunteers fill in dirt to support a tree just lowered into its hole

# SERVICE LEARNING



Students learn about the pollinator-friendly border of plants around the Institute for Sustainability's Outdoor Garden Education Center



Students help make improvements to the pollinator-friendly border of plants around the garden

Six service learning classes completed projects in the Sustainable Garden Education Center and Pollinator Garden. Classes included Liberal Studies (Minor in Sustainability), Biology, Communications, Geography (2), Community and Civil Engagement. Each class offered students 5 to 20 hours of service learning with approximately 450 service-learning students at the garden. The Biology class had approximately 84 students with more than 10 hours each at the garden. Three of these classes received funding from the Office of Community Engagement for projects including purchasing plants and seeds of pollinator-friendly plants.

Service learning activities at the garden teach students about the role pollinators play in sustainable food systems, and give them the opportunity to participate firsthand in organic gardening practices.

More than 30 edible plant species live in the garden. They produced food that was harvested by students and donated to them. Surplus food was donated to the CSUN Food Pantry, including many pounds of butternut squash, spaghetti squash, raw sugar cane, broccoli, celery, cilantro, several varieties of lettuce, leafy greens such as kale and mustard and many others. In 2018-19, the Institute for Sustainability Food Garden donated 548 pounds of fresh produce to the CSUN Food Pantry. The Pantry had 4,300 visits (not unique visitors) during that time.

## CURRICULUM & CONTINUING EDUCATION



A graduate student teaches workshop attendees about the benefits of certain plants to pollinators

Pollinator topics were addressed in a number of for-credit courses in 2019. Biologic Principles, Entomology, Bacterial Diversity, Conservation Biology, Evolutionary Biology, Ecology and People, Flowering Plant Systematics, and Plant Ecology all taught students about pollinators to varying degrees.

Some of these courses examine the relationship between plants and their pollinators, others look at threats and conservation efforts impacting pollinator populations, the mechanics of pollination, the impacts of humans and pollinators upon each other, and other aspects of plant/human/pollinator relationships.

Outside of for-credit courses, CSUN hosted a pollinator protection workshop as part of its 2019 annual Sustainability Day. Attendees learned about different native plants and the benefits they provide to pollinators as habitats and food sources. They also received guidance on planting different species for drought tolerance, soil health, pollinator promotion and food production.

Attendees of Sustainability Day also saw a lecture by Dr. Rachel Mackelprang, who uses the gut biome of honeybees as a teaching topic in microbiology and has several honey-producing hives on campus. She spoke of the significant role pollinators play in food production, and taught audience members about the life cycle and logistics of caring for honeybees. She also discussed the pressing threats to pollinator populations worldwide and ways to support pollinators at a local level. Approximately 20 and 200 people attended the workshop and lecture respectively.

The number of students who attended courses with pollinator-related information was calculated from the sum of students enrolled in the identified classes. If the same student took more than one of these classes, they were counted once for each class taken.

# EDUCATIONAL & INTERPRETIVE SIGNAGE



A sign depicting an image, the common and scientific name, and common pollinators of Indian Milkweed, installed in front of a specimen of the plant.



A sign depicting an image, the common and scientific name, and common pollinators of Narrowleaf Milkweed, installed in front of a specimen of the plant.



A sign depicting an image, the common and scientific name, and common pollinators of Deer Grass, installed in front of a specimen of the plant.

Permanent signs were installed at CSUN's new pollinator garden. These signs are labels for the different pollinator-friendly plants found at the installation. They indicate the common and scientific name of each species, as well as the type of pollinator each one typically attracts.

Additionally, permanent signs were installed by 17 planters around campus, identifying them as pollinator habitats planted with native species and protected from pesticide use.

Additional signage has been designed and ordered, which will denote certain areas as pollinator habitat, planted with pollinator-friendly species and protected from pesticides, and will also feature CSUN's status as a Bee Campus USA. These signs will be installed this year at certain locations across campus.



A sign depicting an image, the common and scientific name, and common pollinators of St. Catherine's Lace, installed in front of a specimen of the plant



A newly installed sign identifying a planter as a pollinator habitat. 17 of these signs were installed in February of 2020

## POLICIES & PRACTICES

CSUN has implemented an IPM plan which applies to all 356 acres of campus, with the goal of minimizing pesticide use and toxicity to the greatest extent possible. CSUN does not use broad pesticide applications, instead utilizing spot treatment.

**Recommended Locally Native Plant Species List —**

<https://www.csun.edu/sustainability/bee-campus-usa>

**Regional Native Plant Supplier List —** <https://www.csun.edu/sustainability/bee-campus-usa>

**Pollinator Friendly Integrated Pest Management Plan —**

<https://www.csun.edu/sustainability/bee-campus-usa>

## CONTACT US!

**Committee —** Bee Campus USA Committee, Nikhil Schneider and Austin Eriksson

**Website —** <https://www.csun.edu/sustainability/bee-campus-usa>

**Social Media —** not available