

# Bee Campus USA - University of Central Florida

Report on 2023

## Pollinator Habitat Creation & Enhancement

*Please describe pollinator habitat creation or enhancement projects in your community in 2023, and whether your committee hosted them or not.*

In 2023, we hosted 43 bee campus and pollinator gardens volunteer shifts aimed to promote garden health. Activities include weeding, pruning, spreading pine straw, and invasive species removals. In addition to these volunteer shifts, our team completed two plant fill-in shifts where staff, interns and volunteers planted pollinator plants in bare spots in our gardens. We had a major garden fill in, spanning 2 of our gardens, and a minor fill in where we planted salvia and tickseed in one garden.

*How many habitat projects did you help to create or enhance in 2023?*

5

*How many people (staff, volunteers, students, partners, etc.) helped with those projects?*

264

*How many projects benefit monarchs, milkweed, or nectar plantings?*

6

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

4609

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

- Flower garden
- Vegetable garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Herb garden
- Native milkweed planting for monarchs and bees (where appropriate)

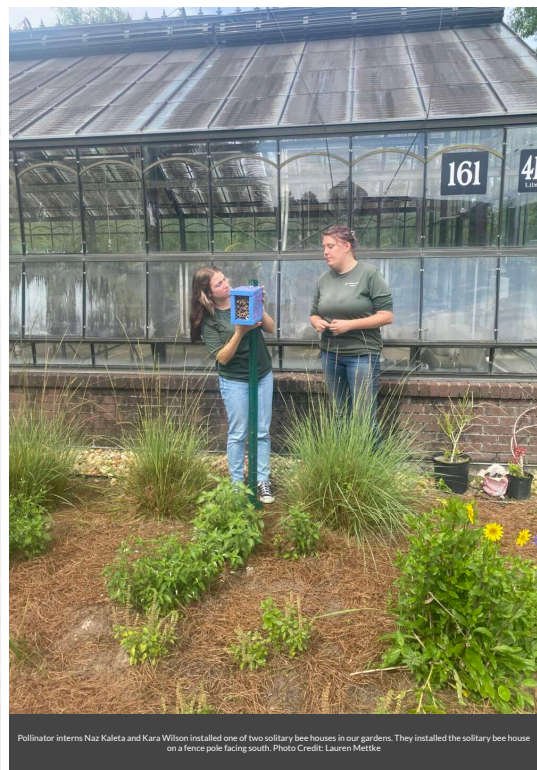
- Invasive/exotic plant species removal for habitat improvement
- Native pollinator-friendly tree planting
- Roadside/rights of way planting



Our Trevor Colburn Hall Garden in bloom this year. Established in 2018, the garden is positioned in the heart of campus, providing scenic views for students, and resources for pollinators. This photo features PowderPuff (*Calliandra haematocephala*), Dwarf PowderPuff (*Calliandra haematocephala*), Coral Porterweed (*Stachytarpheta mutabilis*), and Violet Porterweed (*Stachytarpheta frantzii*). Photo Credit: Stephanie Morris



These volunteers are planting lanceleaf tickseed (*Coreopsis lanceolata*) as part of our garden fill-in that happened on April 19th, 2023. Student leader Stephanie Morris taught interns how to properly plant the tickseed and then laid pine straw on top. Photo Credit: Stephanie Morris



Pollinator interns Naz Kaleta and Kara Wilson installed one of two solitary bee houses in our gardens. They installed the solitary bee house on a fence pole facing south. Photo Credit: Lauren Mettke

## Education & Outreach

*Please describe pollinator conservation events or outreach activities in your community in 2023, indicating whether your committee hosted them or not.*

On October 5th, our team mentor and 2 student leaders, Stephanie Morris and Lauren Mettke, visited a 4th grade science classroom at Goldsboro Elementary in Sanford, FL. Together, they educated students on the types of bees and their life cycles. Then, they led the class to the school's pollinator garden to catch bees and wasps in vials for the children to be able to have hands-on experience with native pollinators. On April 14th Lauren Mettke and Cori McWilliams hosted a pollinator seed bomb making and seeding workshop. They took attendees on a tour of the UCF Arboretum pollinator gardens, where they talked about different plants, pollinators and their importance. Then, the attendees created clay seed bombs and painted small clay pots. After letting the pots dry they filled them with soil and planted pollinator friendly seeds in it. Lauren and Cori then gave attendees tips on how to germinate the seeds and care

for the seedlings. In total there were 6 attendees.

How many pollinator-related events or outreach activities did you host or help with in 2023 (in total)?

46

How many people attended those events (in total)?

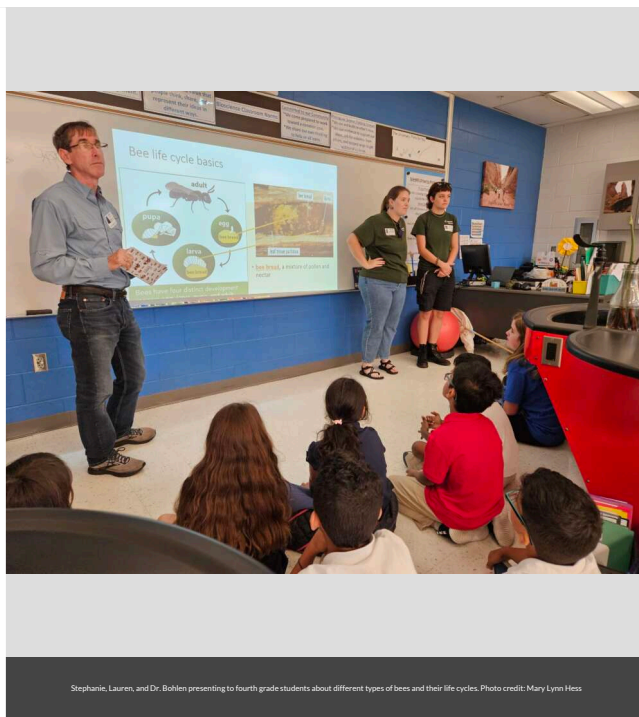
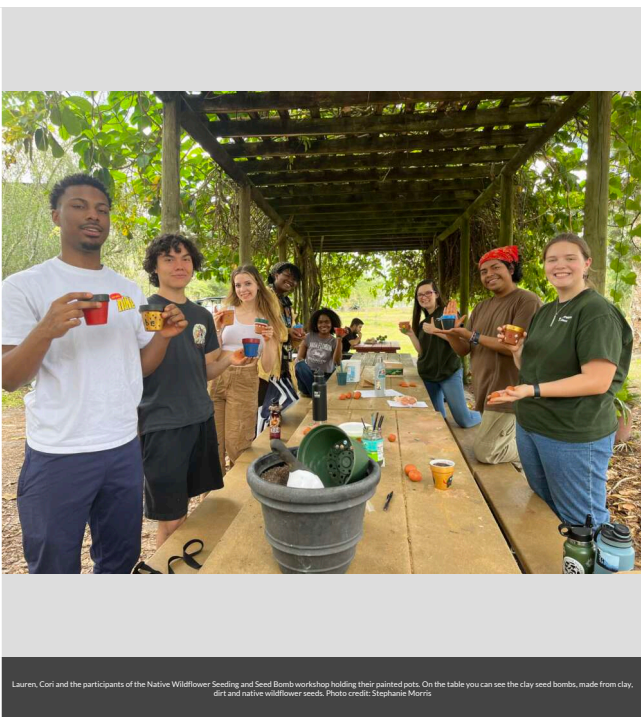
325

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

5

Number of temporary interpretive/educational/Bee Campus USA signs installed in 2023?

1





In November 2023, the bee campus and pollinator gardens team installed an informational sign in our greenhouse garden. The sign details the history of the garden, provides information about Florida native pollinators, and points out that UCF is a certified bee campus. There are also five detailed illustrations showing important pollinators in Florida. Photo Credit: Kassidy Headlee



Pictured is an example of the pollinator habitat signs that we plan to install in all five of our gardens. This sign is made and sold by the Xerces society, and will help communicate to the public critical information about the pollinator habitat we have on campus. We are also planning to pair the sign with a QR code to inform passersby why our gardens look different from other gardens on campus as well as the importance of pollinator gardens in urban settings. Photo Credit: Lauren Mettke

## Curriculum, Continuing Education, & Service Learning

*Please describe the curriculum your campus engaged in 2023, indicating whether it was part of a for-credit course or continuing education.*

Formal class curriculum included basic co-evolution of between insects and flowering plants, eusocial behavior of different pollinator groups, mangrove pollination, pollination biology, and pollinator health as part of a larger case study on ecosystem service provisioning. Two courses included field exercises examining pollinator communities in different habitats, and one of those was a research-intensive class that involved a semester-long pollinator ecology project.

*How many of your for-credit courses included pollinator-related information in 2023?*

7

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

3466

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

50

*How many students participated in service-learning projects in 2023 to enhance pollinator habitat on or off-campus?*

305

*Please describe the service-learning projects your students were engaged in 2023, indicating which, if any, were associated with a course.*

One service learning project that our team engaged in was creating a tour for our pollinator gardens to give on community day at the arboretum. We designed a tour focusing on the history and importance of the pollinator gardens. We had the Bee Campus and Pollinator Gardens Interns prepare for and give the tour as well as point out specific pollinator plants that provide plentiful resources or are specially adapted. Our volunteer shifts are also considered service learning. While volunteers work, we encourage our interns to teach volunteers about various facets of maintaining a pollinator garden. For example, we often teach our volunteers to spread pine straw after weeding, as it helps with promoting soil health and gives nutrients back to the garden. At the UCF Arboretum, we offer internships to students in all majors. In 2023, the Bee Campus and Pollinator Gardens team had 11 interns between the spring 2023 and fall 2023 semesters. Our interns complete semester-long projects related to pollinators as part of their internships. Some examples of these projects are the pollinator seed bomb event put on by Cori McWilliams and Lauren Mettke, the construction of two solitary bee houses by Naz Kaleta, the creation of a poster highlighting native pollinators of Florida by Carson Bassett, and Pruning schedules for the plants in our garden. These projects require the interns self-research topics on pollinators. In addition to these projects, our interns lead the majority of the volunteer shifts our team has. This year we visited Goldsboro elementary as part of a service learning project by the Bee Campus and Pollinator Gardens team. Steph Morris and Lauren Mettke, the team's co-coordinators, researched bee life cycles, created a lesson plan and powerpoint and educated fourth graders at Goldsboro. In addition to the presentation we visited the schools pollinator garden where we taught the students how to catch bees with sweep nets, and we placed captured bees and wasps in glass vials so students could hold them and examine them closely. The students were very excited to see the bees up close and we plan to visit this school annually.



Students enrolled in ENY3571, Honey Bee Biology and Beekeeping, with Dr. Patrick Bohlen, conduct pollinator surveys on campus landscaping to gather data for their class research project. Photo Credit: Lauren Mettke



## Policies & Practices

*Please describe actions taken to make pest management more pollinator-friendly.*

The university currently has an integrated pest management plan. This plan includes thresholds for treatment and a policy of never applying pesticides to plants in flower. Overall campus pesticide use is dominated by herbicide use with less reliance on insecticides and fungicides.

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

We would like to update our campus integrated pest management plan and do a better job of evaluating trends on pesticide use and eliminating neonicotinoid insecticides, but we have not had the staff resources to accomplish that. A goal for the coming year is to come up with a plan for evaluating the total application of pesticides, the breakdown between herbicides, insecticides and fungicides, and identifying whether there are any classes or uses of insecticides that we can eliminate and replace with alternatives.

*Did your committee participate in any continuing education on ecologically-based Integrated Pest Management planning?*

The committee did not participate in any continuing education on ecologically-based IPM planning.

*Please check actions you have taken to make pest management practices more pollinator-friendly.*

- Implemented or maintained a written IPM plan
- Avoided use of pesticides in public sites containing designated pollinator habitat or other sensitive features (except when targeted use is deemed the best option for invasive or noxious weed, insect or disease management)
- Sourced plants for city or campus grounds that were not treated with neonicotinoids

*Any lessons learned you would like to share?*

Our experience in leading is guided not by telling what others to do, but rather giving them the tools they need and helping them complete a goal. Being part of Bee Campus through the Arboretum has shown the importance of teamwork, communicating and collaborating. We also learned that there are many opportunities for more service learning and continuing education activities and we want to focus on those activities in the coming year to extend the reach of our outreach efforts.



Inside of our park gardens, our teams use organic treatments for our gardens. This includes organic fertilizers, and natural pest treatment. Photo Credit: Lauren Mettke

# UCF Bee Campus Committee 2023



UCF Arboretum



Facilities Operations



Student Leadership



Faculty



UCF Bee Campus Committee 2023. Photo Credit: Lauren Mettke

Learn More

Integrated Pest Management Plan:

<https://www.green.ucf.edu/wp-content/uploads/2015/01/IPM-Plan.pdf>

Recommended Native Plant List: [Native Plant List.pdf](#)

<https://www.plantsmap.com/organizations/24666/collections/31873>

Recommended Native Plant Supplier List: [Native Plant Suppliers.pdf](#)

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