

Bee Campus USA - University of Central Florida

Report on 2022

Pollinator Habitat Creation & Enhancement

in spring 2022, we enhanced two of our gardens including our Trevor Colbourn Hall Garden and Business Administration 1 Building (BA1) Garden. We started the semester by redoing the front of the Trevor Colbourn Hall Garden. This included transplanting some golden rod and Elliot's lovegrass, while adding scarlet sage and climbing aster. We got the entire team out for this planting which made for a lovely bonding experience. In addition to this planting one of the three beds in the BA1 Garden needed to be spruced up so we cleaned out the bed and filled it with Ajuga 'Chocolate Chip' Bugleweed, which was a nice addition to this space. An additional project in spring included expanding a native tree planting area with funds provided to the UCF Audubon student group, the Knighthawks. Last year we planted an area of native shrubs and small native trees to enhance bird habitat and all of those plants were also excellent pollinator plants. This year we planted addition trees in April, including magnolias and red maples which provide resources for pollinators. In the summer we enhanced a large area of our biggest garden, the Greenhouse Garden. With the help of dedicated volunteers and a cat we planted African blue basil, pentas, frog fruit, and sneeze weed. This day was very hot but nonetheless we successfully added resources to add additional resources for pollinators during the stressful summer period when pollinator resources are more limited in Florida. Lastly during the fall semester, we had a small planting in our Audubon Garden where we added a few scarlet sages. New team members got to partake in their first planting adding to this small but loved garden. In addition, at the end of the semester one team member got to install a bee house next to our BS garden and this spring we have gotten to observe pollinators inhabiting it!

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

4

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

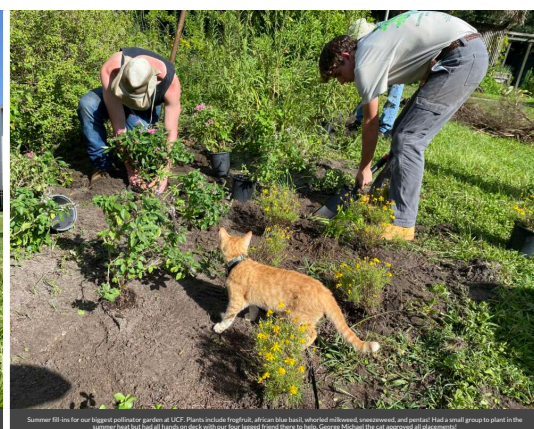
220

How many volunteers helped with those projects?

36

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

- Flower garden
- Native pollinator-friendly tree planting



Education & Outreach

In the last year in our community, the University of Central Florida Arboretum hosted 3 pollinator conservation events. On February 28th, 2022, Ethan Hudson, Jude Wages, and Blake Robert hosted an educational tour of our space for boy scout pack #157. On March 11th, 2022, Kelsie Johnson and Fabiana Antezana hosted an instructional propagation workshop for about 20 boy scouts in which the children were taught how to propagate pollinator friendly plants, and then applied these methods establishing lavender plants. On June 20th, 2022, Ethan Hudson, June Davison, Jeff Ehrlich, Dylan McKim and Jude Wages hosted an Easy Living Flowering Pressing Tour in which 14 students were led on a hike through the Arboretum's Flower loop while being educated on nature journaling and native flora and fauna.

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

3

How many people attended those events (in total)?

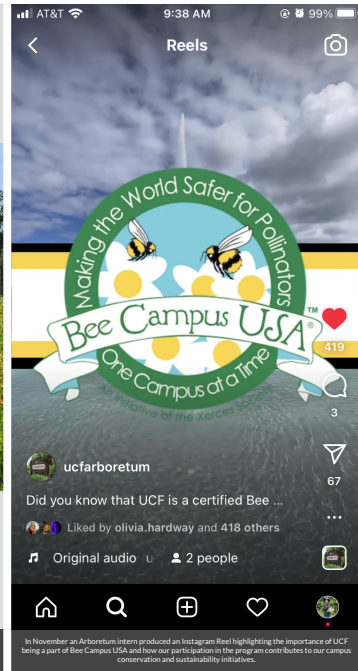
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Pack 157 Avalon Park had a great time on the Sniff 'n Taste tour of the Pollinator Gardens and the vegetable garden. They smelled calamint, African Blue Basil, spearmint, and rosemary. They pressed the leaves of the Scuddline Mimosa to see the leaves close together. Finally they tasted Crabsfoot fibrous and soirel. They learned about erosion and our storm drain, as well as lots of information on gopher tortoise and prescribed burn. An activity they loved was nature journaling and walking through Whittier's Walk.



Five members of the Arboretum staff and 14 students made their way out to the Arboretum's Flower Loop trail to nature journal and collect flowers. Students were taught about the importance of nature journaling, herbariums, and native flora and fauna. It was an amazing way to start national pollinator week with hundreds if not thousands of pollinators all around us.



In November an Arboretum intern produced an Instagram Reel highlighting the importance of UCF being a part of Bee Campus USA and how our participation in the program contributes to our campus conservation and sustainability initiatives.

Courses & Continuing Education

The two formal courses that included pollinator-related information in them were Honey Bee Biology and Beekeeping and Urban Ecological Methods. The honey bee class is a research-intensive class with 16 students. The students participate in a group research project in which four teams of students make routine pollinator observation in four different habitats on campus and the each team uses the collective data to answer specific questions developed by each team. The Urban Ecological Methods class is another research-intensive course that involves class project and one of the teams did a project related to pollinator ecology. We did not offer formal continuing education courses, but Dr. Patrick Bohlen gave three public talks last year on pollinators, all of which included details on our campus Bee Campus USA program.

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

2

How many students attended those for-credit courses?

41

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

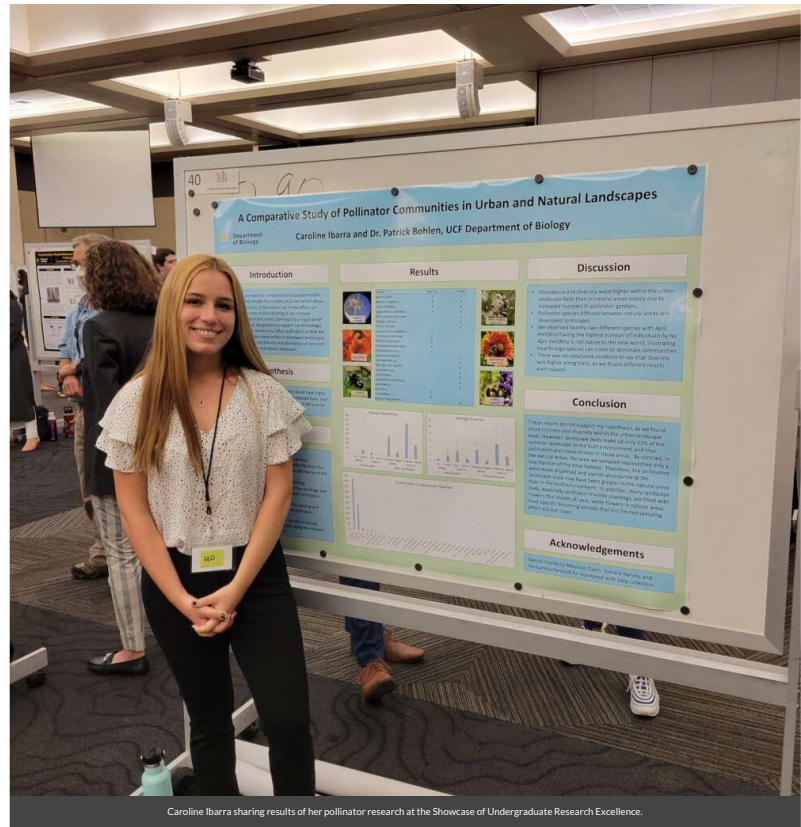
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How many participants attended those courses?

40



Students in the Spring 2022 Honey Bee Biology class getting trained on making pollinator observations in one of our campus pollinator gardens.



Caroline Ibarra sharing results of her pollinator research at the Showcase of Undergraduate Research Excellence.

Service-Learning

In the last year, our university continued the ongoing service learning project of our “Bug Closet”, officially known as the University of Central Florida Collection of Arthropods (UCFC). This is one of the largest completely databased collections in the world with over 575,000 specimen records for insects. Led by both staff and students, the Bug Closet offers tours of the collection to members of the community to educate on the topic of pollinators and other bugs. Additionally, our Arboretum Beekeeping Club carried out regular hive inspections, led by students with the impacts of educating UCF students on honeybee hives and how they are maintained. The Beekeeping Club works closely with the UCF beekeeping course, ENY 3571. Lastly, our coordinator, Kelsie Johnson, hosted tours through the UCF Natural Lands for the residents of Legacy point. These tours focused on wildflowers and their significance to pollinator diversity in natural areas. Graduate students working on a pollinator project with the Sunbridge Development District helped lead public tours of the development's pollinator gardens on October 14, 2022. This tour was part of the OUTSIDE Sustainable Landscape Collaborative's fall 2022 conference and including landscape professionals, government employees, extension agents and other interested parties.

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

3

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

6



Sandor "Shawn" Kelly, the Collection Manager for the Bug Closet, providing a pollinator-focused educational tour to the UCF Arboretum Bee Campus & Pollinator Gardens team.



Dr. Bohlen instructing a student on hive inspections. This is done through our beekeeping course, ENY 3571.

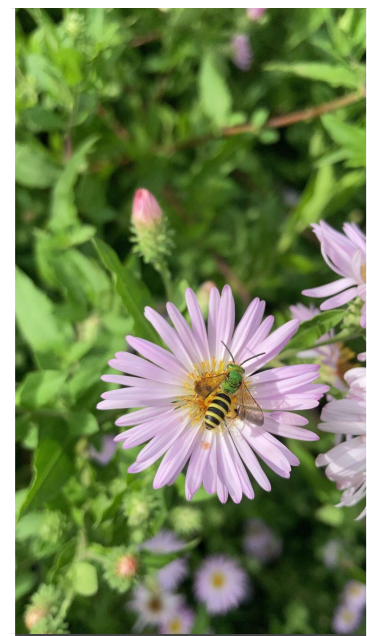


Participants gathered to hear introductory remarks before taking a tour of pollinator gardens planted at the Sunbridge development in Osceola County, Florida, near Orlando.

Educational Signage

The UCF Arboretum is planning to install an interpretive sign for our greenhouse pollinator gardens by the end of the spring 2023 semester. The sign has been in the planning stages for some time, and the pollinator team student leaders worked with their staff mentor to develop a final plan. The plan includes text explaining the features of our garden and UCF's status as the first Bee Campus USA in Florida. The sign layout will include an artist's rendering of a pollinator garden, with 5-7 rendered closeups of different native pollinators on different native plant flowers, based on photos from our garden. It will feature a QR code that links directly to our PlantsMap website which includes details on the many plants featured in our greenhouse pollinator gardens. We have hired an artist to do the artwork for the sign and are currently waiting to see the draft design. The sign will be a 2 by 3 foot laminated plastic sign with a cantilevered mount, matching our campus standard for signs in natural areas.

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



Inspiration picture for signage including a metallic green sweet bee on climbing aster.



The artists rendering for our pollinator garden signage will be based on plants featured in our gardens.



This photo will be used for a close-up emphasizing the importance of pollinator plants as host plants for butterflies, such as this Cloudless Giant Sulfur butterfly caterpillar.

Policies & Practices

Pesticide use on campus is limited to to situation where the pest problem exceeds predetermined thresholds or is leading to decline in plant health, which occurs infrequently and often involves turf. We use some organic insecticides and also use cultural control practices such as pruning plants back to reduce pest prevalence and build up. No pesticides are applied to flowering plants during periods of bloom. Herbicides are the most commonly used pesticides on campus and we are planning to work on reducing overall chemical use on our grounds as part of our campus sustainability initiatives.

What actions have you 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)
- Implemented non-chemical pest prevention and management methods on city or campus grounds
- Eliminated pesticide uses that are solely to maintain aesthetics on city or campus grounds
- Reduced the total area of city or campus-managed lands to which pesticides are applied
- Eliminated use of neonicotinoid insecticides on city or campus grounds

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

We have hired a new sustainability specialist who will be working to improve our campus strategic goal of reaching gold-level status through the Sustainability tracking and Assessment Reporting System of the American Association for Sustainability in Higher Education. One initiative will be to revisit and upgrade our campus Integrated Pest Management (IPM) Plan, with the goal of setting more stringent targets for reducing pesticide use on campus and officially eliminating certain classes of chemicals such as neonicotinoids. We use very little of these compounds but they have not yet been officially eliminated. We will be working with university leaders and student groups interested in reducing pesticide use and collaborating with the campus landscape staff members responsible for pest management to ensure that all stakeholders are included in the process, and that our Bee Campus USA initiative is integrated into our IPM program.

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?

During our revision of our campus IPM program revision, we will definitely review plans and programs that Bee City USA considers to be of high quality, and we aspire to have our plan eventually reach that status.

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](#)



This area of landscape shows Coontie palms cut back to the ground to help control scale insect. The pruning breaks the lifecycle of the scale insect and provides better airflow around the plants which reduces scale infestation.

[Learn More](#)

UCF Bee Campus Committee

Arboretum



Faculty



Students



Operations



UCF 2022 Bee Campus Committee