Bee Campus USA - University of Central Florida

Report on 2020

Pollinator Habitat Creation & Enhancement

Enhancement projects to promote pollinator habitation over the last year have included filling in existing pollinator-focused gardens with new plant material, transplanting material to locations with previously few nectar sources, and developing underutilized spaces on UCF's campus to increase their suitability for pollinators. During the Summer of 2020, the UCF Arboretum Pollinator Gardens team conducted several days of filling in three of our existing gardens with new plant material; the material either replaced plants that were non-native or dead/dying or was used to alleviate bare spaces and improve the interconnectedness of nectar sources across the campus. Another major effort to expand and connect pollinator habitats on campus involved moving plants from locations where there was already a relative abundance of floral nectar sources (such as our Greenhouse Garden) to locations where there were no nectar sources or very few nectar sources. We transplanted several Florida wild coffee plants to the courtyard of UCF's Business Administration complex, as well as planted a row of salvia and buttercups. As a result, insect activity in the courtyard—particularly bumblebee visitation—has risen steeply. We also removed several dwarf powderpuff trees from our Greenhouse Garden, where they were getting too much sun, and transplanted them along a stream bank adjacent to our apiary; the powderpuff trees have a different bloom time than the rest of the flowering plants on the bank, so they are able to provide nectar during the colder months when the other plants are not in bloom. Finally, the Pollinator Gardens team has recently commenced the rehabilitation of an abandoned garden on UCF's campus to convert it to a meadow-style pollinator garden. The garden was previously planted with several non-native/invasive species, including shrimp plant. The new design for the garden emphasizes native Florida plants that are adapted to dry soils and can be maintained by mowing, such as Gaillardia, Elephantopus, and various ornamental grasses.

In August of 2020, the pollinator gardens team filled in several bare areas in our Greenhouse Garden with new plant material, including mystic blue spires Salvia, purslane, and porterweed.

A UCF Arboretum Pollinator Gardens intern helps remove old plant material from an abandoned garden bed to prepare it for new planting.

In January 2021, the UCF Arboretum Pollinator Gardens team began restoration of an abandoned garden plot on UCF's campus to convert it into a meadow-style pollinator habitat.

Education & Outreach

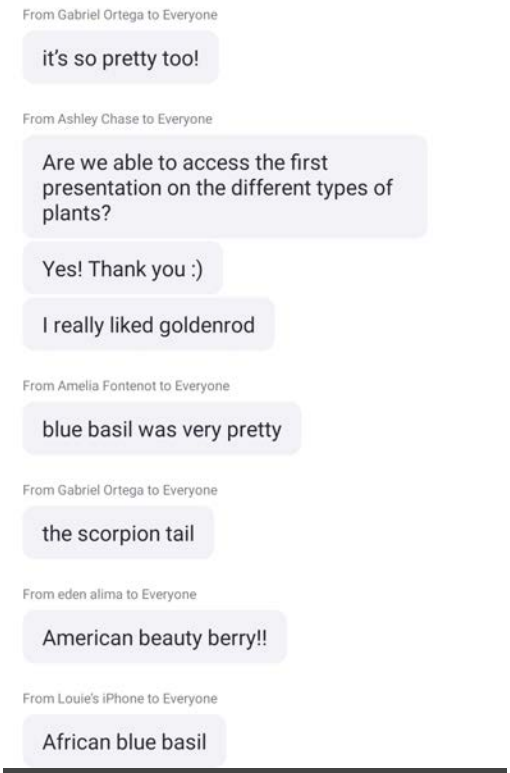
Our committee members and leaders have hosted 14 outreach events. Most of the events have described and advertised a new app developed by two of our committee members and their teams, called Lawn to Wildflowers. The app includes a pollinator identification game, tools to help users create pollinator gardens at home, and general resources for learning about wildflowers that benefit pollinators. In Fall 2021, a UCF Arboretum intern for the Pollinator Team hosted a virtual plant identification workshop via Zoom, which included a presentation of the plants in the Arboretum's Greenhouse Garden followed by a live-streamed tour of the garden and an opportunity for audience questions. This event was the first virtual workshop hosted by any team at the Arboretum and generated considerable interest from UCF students; several of the workshop attendees later volunteered in the pollinator gardens. Our final outreach strategy of 2020 was the creation and sale of a 2021 calendar, entitled "Florida Pollinator Plants." The calendar featured paintings of native Florida flowering plants found within the UCF Arboretum's gardens done by Pollinator Gardens intern Nathan Leemis, with descriptions for each plant written by Arboretum student staff member Vern Renzette. Between December 2020 and the first week of January 2021, the Arboretum sold a total of 100 calendars. Currently, the Arboretum Pollinator Gardens team has completed verbiage for several educational signs for our gardens, as well as thumbnail sketches of sign artwork, done by intern Nathan Leemis.

Making the World Safer for Pollinators
Bee Campus USA™
One Campus at a Time
An Initiative of the Xerces Society

XERCES SOCIETY
for Invertebrate Conservation

UF/IFAS Extension Orange County hosted our pollinator gardens interns and gave us a tour of their pollinator-focused gardens. We helped them plant prairie grasses and shrubs.

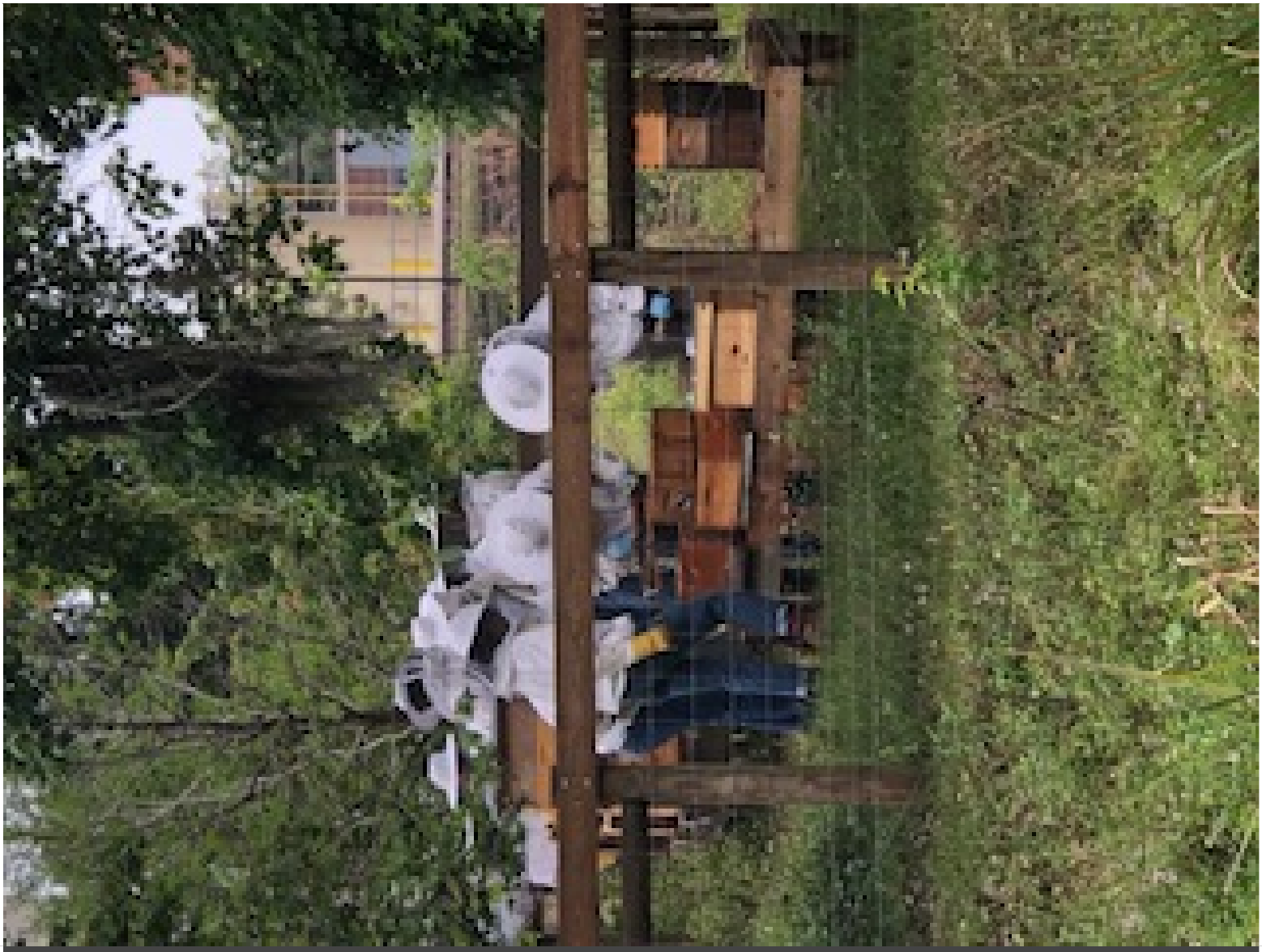
Volunteers clear an area for a new pollinator garden that will model native Florida dry prairies.



Comments from attendees of a virtual (Zoom) pollinator gardens tour and plant identification workshop, led by a pollinator gardens intern.

Courses & Continuing Education

For-Credit: 1. In the Urban Ecological Field Studies course, students completed a study analyzing the diversity and abundance of pollinator species in various landscape types on campus. Students completed observational studies as well as well as collected data using insect trapping in manicured landscapes, formal pollinator gardens, and vegetable gardens. 2. In the Honey Bee Biology and Beekeeping course, students have a comprehensive overview of honey bee biology and a practical introduction to the art and science of beekeeping. Students practice, but are not limited to, the following: weekly hive inspections, pollinator surveys, breeding pollinators, conduct wild hive collections and surveys. Continuing Education: Dr. Nash Turley hosted 9 Zoom sessions as part of continuing education pieces for Lawn to Wildflowers. Because of COVID-19 restrictions, a lot of continuing education moved remotely and presentations were given via video-chat format.



Dr. Bohlen's Honey Bee Biology Class performs a hive inspection.

Service-Learning

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Educational Signage

No permanent educational signage was installed last year, however, we began the process of creating signs. We plan on installing a sign on our longest standing garden, the Greenhouse Garden, by the end of the semester. An intern in our Learning byLeading program(UC Davis) has created original artwork based off of the Greenhouse Garden, which will be paired with verbiage written by our team. The sign will describe our garden, its purpose, and how it benefits native wildlife. ~75 temporary signs were installed by the Landscape and Natural Resources team. These signs have a QR code which redirects readers to a website called PlantsMap. Our team contributes to PlantsMap by uploading pictures and location data for plants across campus and curating “stories” and growth information for the plants, which are available for the public to access.

These are four small sketches with watercolor details. They are intended to be snapshots of our gardens, highlighting our gardens in the center of campus and the edge of campus. Each thumbnail includes space for educational and informational text.

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Policies & Practices

All chemical use in and around all of the pollinator gardens has ceased. Neonictonoid use has decreased since receiving Bee Campus Certification, but has not been completely eliminated yet. Neonicotinoid chemicals are not used in any areas with frequent pollinator activity. Alternative organic chemicals for pest and disease management have been implemented and utilized regularly around campus. Mechanical pruning of plants being inundated with pests or disease is an alternate method being utilized, rather than spraying.

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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