

Bee Campus USA - The University of Texas at Dallas

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 planted a 14-tree fruit tree orchard at our campus microfarm consisting of peach, plum, fig, persimmon, and pecan trees. These trees were planted with the assistance of our Grounds department and maintained primarily by students with assistance from staff and community volunteers. The microfarm itself was also expanded to include room for growing more vegetables. Plants at the microfarm are generally left to bolt (flower) in between winter and spring to provide food for the pollinators since it is typically scarce that time of year. We also have a community garden on campus where students, staff, and faculty can rent plots to grow herbs and vegetables to take home. The community garden site also features a native plant/pollinator bed to encourage pollinators to visit the garden. The third campus garden that is maintained is the Blanca Botello Garden at Facilities Management. The Blanca Botello Garden is managed by and for Facilities Management employees to enjoy fresh produce year-round. Each spring, we also maintain and expand a pollinator garden as part of our programming for our Sustainability Service Honors program. Graduates who earn a certain number of volunteering hours related to sustainability are honored in a ceremony when they graduate. As part of their campus legacy, they plant native pollinator plants in a garden outside our campus library. Another addition to campus in 2023 was our office pocket prairie. This is an experimental area where native plants are planted and native successional species are encouraged to take over in stark contrast to the rest of campus, which is more manicured and traditional. We also hosted a pollinator planting for Earth Week in our native Blackland Prairie restoration area in the south portion of campus. In addition to providing habitat for pollinators year-round, during our Earth Week event, we planted native milkweed for monarchs in that area. Another Earth Week event we completed was a habitat restoration project at an off-site location just off campus. The space is normally maintained by Texas Master Naturalists with assistance from volunteers, including UT Dallas. During the winter months, we work with the City of Richardson for "Operation Bloomtown," where the city plants pollinator seed mixes in the medians and in some campus locations. We also worked with our campus construction team to plant native grasses (Native American Seed's "drain slope" and "drain basin" mixes) to naturally and sustainably prevent erosion on the site of a new detention pond on campus. Additionally, we maintain two campus apiaries where our service-learning projects take place. Each apiary has approximately 8 hives. All projects were supported by the committee although not all projects were led by the BCUSA committee.

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

13

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

580

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

5

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

1220187

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
- Orchard
- Meadow
- Herb garden
- Native milkweed planting for monarchs and bees (where appropriate)
- Roadside/rights of way planting
- School garden



UT Dallas Sustainability Service Honors graduates planting a pollinator garden on campus. Photo by UT Dallas.

Education & Outreach

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

In 2023, the University hosted a number of outreach activities including hive buildings (constructing hives to install on campus), hive paintings, a student honey bottle art label contest, tabling at the Office of Sustainability's annual Earth Fair, harvesting honey for our annual honey sale, and bottling honey. In general, these events support the maintenance

and expansion of our campus apiaries, honeybee and pollinator education, or work in support of our annual Comet Honey sale.

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

29

How many people attended those events (in total)?

138

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

7



UT Dallas staff members with their bottles of Comet Honey. Photo by UT Dallas.



A wildflower sign on campus. Photo by UT Dallas.

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.

The primary pollinator-related course on campus is BIOL 3388.001: Honey Bee Biology taught by Dr. Scott Rippel. This survey course explores the biology of honey bees at the colony, organism, and molecular levels. Topics include honey bee anatomy, nest architecture, caste development and social organization, reproduction and genetic diversity, pheromones and communication, foraging behavior, colony reproduction, pest and disease management, and basic beekeeping. UT Dallas also offers HONS 3103.hn1: Honey Bees and Society. This course explores topics ranging from the biology of individual bees to how the colony as a superorganism makes decisions. Covers concepts from history

through modern agriculture to give a complete view of the importance of honey bees in our culture. This class is taught by Dr. Scott Rippel and Dr. Christina Thompson.

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

2

How many students attended those for-credit courses?

88

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

30

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

138

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

In addition to the habitat restoration projects outlined above, UT Dallas also hosts a number of bee-related events each year. We complete hive inspections at our two campus apiaries, collect and bottle honey to sell in support of campus sustainability and pollinator efforts, put out swarm traps when needed. For all of these events, students are involved and engaged in the process. Student volunteers also assist with honey tasting tables at various campus tabling fairs where they get to learn about different types and flavors of honey and assist their peers with the tasting process.

23S Open	BIOL 3388.001	Honey Bee Biology (3 Semester Credit Hours)	Scott Rippel	Tuesday & Thursday 10:00am - 11:15am FO 3.222		Class Detail Syllabus Instructor CV More Options...
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[class overview](#)
[syllabus](#)
[\(textbooks\)](#)
[evaluation](#)
[instructor cv](#)

Course Title:	Honey Bee Biology			
Class Info:	Class Section:	BIOL3388.001.23S	Instruction Mode:	Face-to-Face
	Class Level:	Undergraduate	Activity Type:	Lecture
	Semester Credit Hours:	3	Class/Course Number:	21049 / 014460
	Grading:	0	Session Type:	Regular Academic Session
	Add Consent:	0	Orion Date/Time:	
Status:	Enrollment Status: OPEN Available Seats: 1 Enrolled Total: 29 Waitlist: 0			
Description:	<p>BIOL 3388 - Honey Bee Biology (3 semester credit hours) This survey course explores the biology of honey bees at the colony, organism, and molecular levels. Topics include honey bee anatomy, nest architecture, caste development and social organization, reproduction and genetic diversity, pheromones and communication, foraging behavior, colony reproduction, pest and disease management, and basic beekeeping. Optional hands on experience may be provided. Prerequisites: (BIOL 2281 or CHEM 2401 or equivalent) and BIOL 2311 and BIOL 2312. (3-0) Y</p>			
Enrollment Reqs:	<ul style="list-style-type: none"> Prerequisites: (BIOL 2281 or CHEM 2401 or equivalent) and BIOL 2311 and BIOL 2312. 			
Instructor(s):	Scott Rippel · Primary Instructor · rippel@utdallas.edu			
TA/RA(s):	(none)			
	<p><u>Class Location and Times</u></p> <p>Term: 23S January 17, 2023-May 5, 2023 Tuesday, Thursday</p>			

Photo of the course listing for Honey Bee Biology in Spring 2023. Photo by UT Dallas.



Students participating in hive installs during Earth Week 2023. Photo by UT Dallas.



Students participating in a Comet Honey bottling event. Photo by UT Dallas.

Policies & Practices

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

Our campus has written and follows an IPM plan for our Grounds operations. Pesticides are only used as a last resort on campus, and are not used in pollinator-friendly areas. Our Grounds team has also reduced the area to which pesticides are applied on campus. Last year, Grounds did not use any neonicotinoid insecticides. The last time our Grounds manager recalled using them, they used extreme caution and only used it because it was so far from an apiary.

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

UT Dallas is located within the boundaries of the City of Richardson's "urbanized area" (UA) and is regulated under the Texas Commission on Environmental Quality (TCEQ) Phase II Municipal Separate Storm Sewer System (MS4) permit. The overall goal of the MS4 permit is to improve the water quality of Cottonwood Creek flowing through our campus into receiving waters and to protect the US waterways from pollution. Environmental Management manages the

University's storm water compliance programs, including permitting, spill prevention, above-ground storage inspections, and outfall inspections.

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

No.

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

- Implemented or maintained a written IPM plan
- Only use pesticides as a last resort within the 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)
- 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

Any lessons learned you would like to share?

As the Eco Rep working in collaboration with professors Rippel and Thompson, and the UT Dallas Office of Sustainability, I love engaging other students, staff, and our local community in pollinator advocacy. Student leadership drives our program and opening our events to students of all majors has contributed to diversity in how we provide outreach. Having apiaries on campus and professors to help manage them, has been central to our program. Students arrive excited to experience beekeeping and leave learning more about all kinds of pollinators and asking what we can do for them.

Bee Campus USA Committee

Gary Cocke	Co-Chair
Eve Gersh	Co-Chair
Dr. Christina Thompson	Faculty Representative
Dr. Scott Rippel	Faculty Representative
Dale Bufkin	Grounds Supervisor
Avery McKitrick	Staff Representative
Craig Lewis	Staff Representative
Sravya Thotakura	Sustainability Club Representative
Isabelle Bartlett	Student Representative
Shreya Billa	Student Representative
Nathan Collins	Student Representative
Vedant Sapra	Student Representative
Arsh Syed	Student Representative

Screenshot of the UT Dallas Bee Campus USA committee 2023. Photo by UT Dallas.

Learn More

Integrated Pest Management Plan: [Integrated_Pest_Management_Plan.pdf](https://sustainability.utdallas.edu/download/Integrated_Pest_Management_Plan.pdf)

https://sustainability.utdallas.edu/download/Integrated_Pest_Management_Plan.pdf

Recommended Native Plant List: [Bee_Campus_USA_PREFERRED_Plant_List\(1\).xlsx](#)

https://sustainability.utdallas.edu/download/Bee_Campus_USA_PREFERRED_Plant_List.xlsx

Recommended Native Plant Supplier List:

<https://www.txnativeplants.org/portfolio/where-to-buy/>

<https://sustainability.utdallas.edu/campus/bees/>
sustainability@utdallas.edu

https://www.instagram.com/utd_sustainability