Bee Campus USA - University of North Texas

Report on 2024

Pollinator Habitat Creation & Enhancement

Please describe pollinator habitat creation or enhancement projects in your community in 2024, and whether your committee hosted them or not.

Our ongoing habitat enhancement projects include the UNT Sustainable Arts Garden (formerly the Natural Dye Garden) which grows plants for artistic purposes with a native-plant focus. This group hosts seed paper workshops, seed saving workshops, and volunteer workdays to enhance the garden itself. The Community Garden at UNT was relocated this past year to a different location on campus. Previously, the garden hosted 20 produce-focused plant beds and the new location will host 30. The previous location is still home to the Native Garden Bed at Legends Hall which was created to bring more pollinators to the Community Garden. We have a Butterfly Flower Patch by the main campus library which is home to a variety of both nectar and host plants for butterflies with varieties such as Buttonbush, Coral Honeysuckle, Sideoats Grama, Gulf Coast Penstemon, Blanketflower, Winecups, and many more. This garden has a subsequent planting this year to enhance the existing space. After many years, our Central Campus Pollinator Project was completed, with the final touch of a permanent educational sign. This project is located immediately next to the Hurley Administration Building, where the President's office resides. This project included plantings of 100+ plants and supplemental signage highlighting the benefits of native plantings across campus. Another new location is our Chemistry Garden Bed, which was implemented by the campus Facilities-Grounds team, which created a pocket prairie of wildflowers surrounding the Chemistry Building on campus. Through this project, we were able to connect with more students due to its proximity to such a popular building on campus. The UNT Newsletter posted about it on their website, and the College of Science shared about it in their own circles as well. The Native Bee Support Initiative hosted 3 more spots around campus. At the environmental sciences building, they planted natives in designated beds all around the building, including at the Elm Fork Education center which engages a lot of grade-school age children on field trips. Their plans are to eventually add signage and bee hotels to the space. The group also planted at our football stadium which is located in a satellite part of campus. The goal here was to engage with the athletes on campus who don't regularly interact with our groups. Unfortunately, there were mowing requirements and we eventually had to move our bee hotel out of the space. In 2024 we also enhanced our "Willis Rockwall" which is also located near the main library on campus. This space has now been claimed by our Native Bee Support Initiative and two bee hotels were placed there. Multiple workdays were held to plant subsequent native plant varieties to support the native bee population in this area. Our largest native plant designated space is the 4-acre Pecan Creek Pollinative Prairie located at one of our satellite campuses. This space hosts our environmental ecology labs, providing hands-on land management and restoration experience for hundreds of students every year. Our Bird Campus Committee manages a "parking lot preserve" in the environmental science building parking lot, in which they have created a mini-park that is all native-focused. This space includes signage about birds and other wildlife, a bench for a reading nook,

and some bird boxes that protect birds in the space.

How many habitat projects did you help to create or enhance in 2024?
10

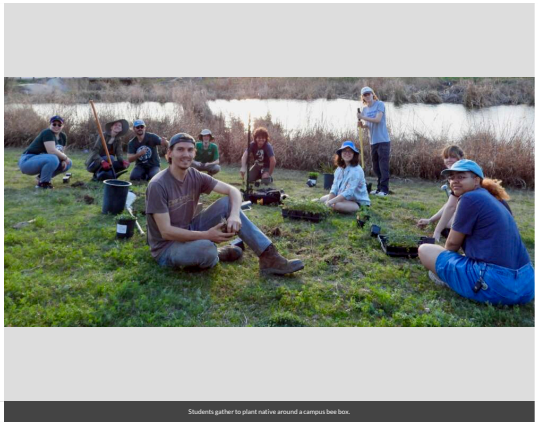
How many people (staff, volunteers, students, partners, etc.) helped with those projects?
262

How many projects benefit monarchs, milkweed, or nectar plantings?
10

How many total square feet of habitat were created or enhanced?
318859

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
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Native milkweed planting for monarchs and bees (where appropriate)
- Invasive/exotic plant species removal for habitat improvement
- Native pollinator-friendly tree planting



Students gather to plant native around a campus bee box.

Students installing our first bee hotel on campus.

Volunteers installing plants at the environmental science building.

Education & Outreach

Please describe pollinator conservation events or outreach activities in your community in 2024, indicating whether your committee hosted them or not.

In 2024, a subcommittee of the UNT Bee Campus Committee created what is called the Native Bee Support Initiative. Through this group, which is fully led by students, we were able to increase our outreach and conservation efforts significantly. This group helped to host regular meetings that focused on building community between students who were passionate about pollinator life, and also included a guest speaker lecture series about careers who support pollinator wildlife. The NBSI also created additional bee boxes on campus, which included events to construct the boxes themselves as well as events to install them. We also hosted volunteer workdays for all our native and pollinator friendly spaces which involved educating volunteers about the difference between invasive, native, and adaptive plants as well as their benefits to pollinator life. Some examples of this include UNT's Make A Difference Day and The Big Event, where volunteers who would not otherwise be exposed to native landscaping are able to learn new skills and gain volunteer experience for their resumes. Some of our other events included make your own soil workshops where students were able to create their own soil mixture for pollinator and native plants in their own space, and seed paper making events where we sprinkled native hand-picked seeds into upcycled recycled paper that could be reused and planted once discarded. Additionally, we hosted Bioblitz and 'Dawn-to-Dusk' events which involved students participating in various activities on our campus Pollinative Prairie all day long. Events included a Bioblitz, a jam-session, and of course prairie maintenance. Our committee was also present at campus-wide sustainability events such as the Campus Sustainability Fair hosted in October for Campus Sustainability Month, and Earth Fest which is hosted in April for Earth Month. We were able to engage about 200+ students at each event regarding pollinator friendly topics and the various things we do on campus to support pollinators. We are dedicated to hosting and attending a variety of events that would engage students who are not normally thinking about pollinators. We make sure to attend every orientation for new students, any campus-wide events, and collaborate with departments such as the College of Visual Arts and Design who would otherwise not be engaging in pollinator-friendly topics.

How many pollinator-related events or outreach activities did you host or help with in 2024 (in total)?

33

How many people attended those events (in total)?

985

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

39

Number of temporary interpretive/educational/Bee Campus USA signs installed in 2024?

14

Image of two students tabling at a campus event about bees.

Volunteers at a campus wide event hold up flower frames.

Seed paper created at an event.

Interpretive signage at the central campus pollinator project.

Sign in front of native plants noting a biodiversity hotspot.

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Curriculum, Continuing Education, & Service Learning

Please describe the curriculum your campus engaged in 2024, indicating whether it was part of a for-credit course or continuing education.

Our campus had 11 for-credit courses that included pollinator-related information: Insect Biology, Behavioral Ecology, Principles of Ecology, Ornithology, Environmental science for non-majors, Environmental Science Laboratory, Ecology laboratory, and summer Ecology. These courses ranged from very basic introductions to pollinators in the ecology and environmental science labs, to more in-depth courses related to specific pollinator functions in the environment. The ecology and environmental science students have requirements in the curriculum to do research in the Pecan Creek Pollinative Prairie, where many pollinators and native plants thrive. Other offered classes include an Insect Biology course and a Behavioral Ecology course; both of which are open to graduate and undergraduate students. These both have course content related to pollinators and pollinator protection. Our biology department also has a Laboratory dedicated to pollinator research which had 3 graduate students and 11 undergraduates this past year. One of their projects included creating a database of bees and butterflies in the Elm Fork Natural Heritage museum. A lot of the records are publicly available here: https://ecdysis.org/collections/misc/collprofiles.php?collid=143 We hosted 1 continuing education course this year as part of the Elm Fork Master Naturalist program. The course was about entomology and hosted about 100 students.

How many of your for-credit courses included pollinator-related information in 2024?

11

How many students attended those for-credit courses?

1117

How many of your continuing education courses included pollinator-related information in 2024?

1

How many participants attended those continuing education courses?

100

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Biology lab instructor helps install plants on workday.

Policies & Practices

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

The University of North Texas Grounds Department uses only the safest, lowest toxicity products for effective control of pests. UNT prohibits the use of pesticides containing neonicotinoids, and pesticide use was avoided altogether in areas with designated pollinator habitats. The Grounds Department has been increasing their efforts to use non-pesticide management methods, such as propane torches, frequent mulching, and the use of hand tools for weed control. Additionally, the team has maintained a 50-50 rule, meaning products must be at least 50 percent organic across campus. This year, the team continued practicing No Mow May (June and July, too!) in various spaces across campus to encourage wildflower growth during peak pollinator seasons. They began experimenting with various oils and soaps to utilize a variety of organic practices to maintain pests. Many plants sourced for campus grounds are from local landscaping shops, and any contractors used for campus grounds are encouraged to use these sources as well. The team also works diligently to identify and mitigate non-native species of plants that currently exist on spaces on campus. The Community Garden at UNT uses only organic methods of pest management, as well as removal by hand. The Garden Facilitator teaches garden members the basics of organic Integrated Pest Management. The Pollinative Prairie at UNT also only uses organic and hand removal methods of pest management and has seen hawks as a natural predator for pests that are present. The Prairie also received a burn permit to mitigate invasive species in their area, though it has yet to successfully implement the burn due to weather complications.

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

As part of a new campus committee, the President's Sustainability Committee has created a Native Plant Action Plan which has plans to be implemented this year. This plan includes newly proposed native plant beds and maintenance plans of established beds. Part of the process includes the establishment of a memorandum between the We Mean Green Fund (our campus environmental funding body) and the Facilities- Grounds team to continue to prioritize native plantings across campus. Furthermore, these initiatives include adding more sustainability and native plant initiatives into our campus master plan and our campus strategic plan. Through these conversations, we also hope to continue our efforts to increase education about native plants and the benefits of having them on our campus. Our goal is to make it campus culture to prioritize native plants and normalize educational conversations about this. Though it may be a long process, the first steps have begun and we are excited to continue having these discussions.

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

Yes; 5 full-time staff members of our Campus-Grounds team attended continuing education units about organic pesticide use on campus. Three of our full-time staff members on the campus grounds team attended lectures on soil biology and organics.

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)
- 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
- Distributed educational materials to residents or students to encourage the reduction or elimination of pesticide use
- Sourced plants for city or campus grounds using "Buying Bee-Safe Plants" methods recommended by Xerces Society. (See https://xerces.org/publications/fact-sheets/buying-bee-safe-plants)
- Sourced plants for city or campus grounds that were not treated with neonicotinoids
- Encouraged developers and private landscapers to source plants using "Buying Bee-Safe Plants" methods recommended by Xerces Society. (See https://xerces.org/publications/fact-sheets/buying-bee-safe-plants)
- Encouraged developers and private landscapers to source plants that were not treated with neonicotinoids

Photo of a flower pot from plants bought at a local native plant retailer.

Any lessons learned you would like to share?

Our primarily suggestion to people starting a new Bee Campus USA group or one looking to change their structure is to put as much focus as possible on the students. There is definitely a priority for staff to be on it, especially any sustainability staff and facilities management staff, but students help with the outreach side incredibly. We also have dedicated faculty members who teach about pollinator life both in and out of the classroom. Building this group at all three levels has been vital to our success and growth on campus.

Committee Photo

Student committee leadership with plants for their native bee support initiative.

Learn More

Integrated Pest Management Plan:
https://studentaffairs.unt.edu/desresources/_files/ipm-plan.pdf
Recommended Native Plant List: UNT Preferred Native-Adaptive Plant List.xlsx

Recommended Native Plant Supplier List:

https://beecampususa.unt.edu/
wemeangreenfund@unt.edu

https://www.instagram.com/untwmgf

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