

# Bee Campus USA - Southwestern University

## Report on 2020

### Pollinator Habitat Creation & Enhancement

1) Wildflower Plantings (34,720 sq ft): As part of Dr. Burk's spring Ecology class, students planted wildflower plots within the triangular space between the Robertson center and the Chapel. During Campus Sustainability Week in the fall, the Grounds Ambassadors lead a wildflower planting event in the same area. 2) Oak Tree Planting (535 sq ft): For Texas Arbor Day, Facilities Management led a tree planting event. A 22-year old native Oak tree was planted in its forever home in front of the campus' library. Native oak trees support pollinators by providing winter shelter and habitat. 3) arden Work Days (27,830 sq ft): The Garden Club hosted various workdays in the campus community garden where volunteers helped plant pollinator-friendly crops, learned organic gardening and water conservation techniques, and released beneficial insects such as ladybugs and praying mantises as a pollinator-friendly form of pest management. Students in Dr. Niemeyer's Farm to Table class assisted in the garden throughout the fall 2020 semester.



Grounds Ambassador Sophia Potempa '21 prepares wildflower seed bombs to be thrown into SU's designated wildflower field.



Students and staff help plant Hokey, a 22-year old native Oak tree in front of the library on Texas Arbor Day.

### Education & Outreach

1) Bat Appreciation Webinar: To celebrate Bat Appreciation Day and Southwestern University's new bat houses, the Office of Sustainability hosted a Bat Appreciation Webinar with co-founders of Austin Bat Refuge, Dianna Odegard & Lee Mackenzie, and bat conservationist/filmmaker, Emily Stanford, to talk about bat conservation and dispel negative myths



about bats. 2) Racing Extinction Virtual Screening: For Earth Day, Southwestern University hosted a virtual screening of "Racing Extinction," a 2015 documentary about the ongoing Anthropogenic mass extinction of species. 3) Native Plants Webinar: As part of the Office of Sustainability's fall Sustainability Webinar Series, the Grounds Ambassadors hosted a Native Plants Webinar to introduce the campus community to both iconic and lesser-known plant species in Central Texas.



A Broad-Tailed Hummingbird with iridescent green and pink feathers on its throat, perched on a white feeder.

## Native Texas Pollinators

- Monarch Butterflies
- Longhorn Beetle
- 90% of native Texas bees are solitary, honey bees are not native to Texas
  - Pictured: mason bee!
- Black Witch Moth
- Mexican Free-tailed Bat
- Broad-Tailed Hummingbird



A Mexican Free-tailed Bat hanging upside down from a rock, using its tail membrane as a support.



A large, iridescent moth with metallic blue and purple scales on its wings.



A longhorn beetle with a patterned body and extremely long antennae.



A vibrant orange Monarch butterfly with black veins and white spots on its wings, resting on green grass.



A mason bee with metallic blue and green highlights on its body, pollinating yellow flowers.

The Grounds Ambassadors host a Native Plants Webinar, focusing on the central Texas plants most beneficial to native pollinators.

## Service-Learning

1) SU Community Garden: The campus garden is a place for students, faculty, and staff to learn about natural gardening practices. Frequent garden workdays and workshops provide the opportunity for SU community members to learn about the importance of pollinators. 2) Solitary Bee Houses: For her Grounds Ambassador project, student Ceanna Cooksey



bought, built, and installed on campus 4 houses meant for native mason bees. These houses will facilitate small colonies of mason bees and other native wood-nesting native insects. 3) Wildflower Experiment: Students in Dr. Burks' Ecology class conducted a wildflower experiment. Students seeded eight plots marked off by string and stakes to study how seeding amount and timing affected community diversity. 4) Native Planting Events: Students and staff helped plant bluebonnet, red poppy, and rudbeckia seeds during Campus Sustainability Week and plant an oak tree for Texas Arbor Day.



Students plant vegetables, flowers, and herbs in the campus community garden.



Student-installed mason bee houses.

## Educational Signage

1) Pollinator Landscapes - temporary; located at the SU Community Garden. 2) Tropical Milkweed (x2) - temporary; located at the Lois Perkin's Chapel parking lot. 3) American Beauty Berry - temporary; located on the side of the Prothro Center. 4) Prickly Pear Cactus - temporary; located on the side of the Alma Thomas Fine Arts Center. 5) Butterfly Sanctuary - temporary; located in the courtyard of the Library. 6) Pollinator Education (x2) - temporary; located in front of the Fondren Jones Science Building and the Cullen Building. 7) Protected Native Habitat - permanent; located east of the sports fields and bordering the walking trail.





## KEEPING SOUTHWESTERN ABUZZ Pollinator Landscapes

- This section of the Community Garden has been dedicated to providing sources of pollen and nectar for bees, moths, butterflies, and hummingbirds.
- Grown by these native flowers, they pollinate help to pollinate the crops grown in the insect garden beds.



## NATIVE PLANT PROFILE American Beauty Berry

- This native shrub is true to its name, providing aesthetic value as well as a vital food source for bees and other insects.
- An excellent fruit for attracting the longer-tongued birds.



A permanent sign was installed in SU's designated protected native habitat, and temporary signage was placed all over campus to educate the community on native plants, pollinators, and our Bee Campus USA status. An educational map of all our Bee Campus USA signage is available on Southwestern's Bee Campus USA webpage.

## Policies & Practices

1) Bat Houses: Facilities Management installed 3 bat houses to promote bat populations on campus to naturally decrease mosquito presence on campus without the use of pesticides. 2) Seasonal Bug Releases: Throughout the year, Facilities Management and the Garden Club released praying mantises, beneficial nematodes, predatory wasps, predatory beetles, predatory mites, green lacewings, lady bugs, mason bees, and butterflies to increase pollinator populations and reduce the need for pesticide use.

### Integrated Pest Management Plan:

<https://www.southwestern.edu/live/files/8691-integrated-pest-management>



Recommended Native Plant List:

<https://www.southwestern.edu/live/files/8692-native-plant-list>

Recommended Native Plant Supplier List:

<https://www.plance.org/>



Installed near the SU golf course, these two bat houses can provide home for up to 240 bats.

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## Learn More

<https://www.southwestern.edu/about-southwestern/sustainability/recognition-and-reports/bee-campus-usa/>  
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