

Bee Campus USA Annual Report for 2018 Pollinator Conservation & Education

University of North Texas Denton, Texas



EDUCATION & OUTREACH



Photos: Dr. Jaime Baxter-Slye and Erik Trevino

Pollinative Prairie Spring BioBlitz.(April 28) Pollinative Prairie Summer BioBlitz (June 13) Pollinative Prairie Fall Seeding (October 22) Pollinative Prairie Winter clean-up (December 17) Big Event (March 24) Freshman Orientations (June 15,18, 22, 26, 29; July 9,12,16, 20, 22, 25, 28; August 3, 6, 8, 11, 14,16, 20, 23)

POLLINATOR HEALTH & HABITAT



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March 5 – Native pollinators were added to the UNT Natural Dye Garden to enhance the pollinator habitat. Student volunteers, and volunteers from the community, worked together to plant native pollinator plants. Extra mulch was laid to protect the plants. Plants added included Texas Star Hibiscus, Four-Nerve Daisy, Rough Sunflower, Texas Primrose, Blue Flax, Moonshine Yarrow, Prickly Pear Cactus and Rock Rose.

March 24 – The Big Event - The UNT Grounds Team planted 300 – 1 gallon Black-eyed Susans around Library Mall area with the help of 60 student volunteers.

April 28 – Pollinative Prairie Spring BioBlitz. Assessed all plant, insect, and bird life found on the Prairie. Participants were mainly Ecology undergraduates.

June 13 – Pollinative Prairie Summer BioBlitz - Assessed all plant, insect, and bird life found on the Prairie. Participants were mainly Ecology undergraduates.

October 22 – Pollinative Prairie Fall Seeding – Seeded one acre of the Pollinative Prairie with native Texas forbs. Participants were mainly Ecology undergraduates.

December 17 – Pollinative Prairie Winter clean-up – Workday to remove trash, and invasive weed species from the Pollinative Prairie.

March 3 & September 15 – All garden workdays include maintenance of pollinator habitats by planting, pruning, weeding, removing litter, watering, mulching, etc. Participants included UNT students, faculty, and staff members. Habitat type: herb, flower, and vegetable garden.

POLICIES & PRACTICES

The committee is made up of students, faculty and staff who have a passion for enhancing pollinator habitats. Having the diversity within the committee makes it easy for innovation on multiple levels of the institution through student engagement, policies, and curriculum.

> Recommended Local Native Plant List Pollinator-Friendly Integrated Pest Management Plan

SERVICE-LEARNING

February 16 - BIOL 2141 Ecology lab plant assessment of the Pollinative Prairie. 50 students conducted a plant assessment of one acre.

April 18 - DFW Airport Earth Day event. Insect program – Insects in general but also pollinator displays and Monarch Butterfly. This is a large program and reaches 500-600 Elementary and Middle School students

April 28 – Pollinative Prairie Spring BioBlitz. Assessed all plant, insect, and bird life found on the Prairie. Participants were mainly Ecology undergraduates (approximately 30).

June 13 – Pollinative Prairie Summer BioBlitz - Assessed all plant, insect, and bird life found on the Prairie. Participants were mainly Ecology undergraduates (approximately 30).

September 4 – Natural Dyes incorporated into shibori and embroidery project. Students visited the Natural Dye Garden to learn about the native pollinator plants that can be used for natural dye purposes. Students harvested Madder root, Sunflowers, and Goldenrod. (18 students)

October 1 – A harvest in the history class plot took place. Interactive lessons in the garden about the history of American food production were incorporated into the course HIST 4275: American Environmental History.

October 1 – BIOL 2141 Ecology lab plant assessment of the Pollinative Prairie. 50 students conducted a plant assessment of one acre.

October 22 – Pollinative Prairie Fall Seeding – Seeded one acre of the Pollinative Prairie with native Texas forbs. Participants were mainly Ecology undergraduates (23 students, 1 staff).

November 11 – Make a Difference Day– The UNT Grounds Team planted 1000 flowering bulbs and installed 8 cubic yards of mulch around the Hurley Administration Building with the help of 50 student volunteers. Garden workdays were service-learning projects that taught students how to maintain a garden as a habitat for pollinators.

December 17 – Pollinative Prairie Winter clean-up – Workday to remove trash, and invasive weed species from the Pollinative Prairie. (approximately 10 students)

CURRICULUM

BIOL1132 Lab– Environmental Science for non-majors. During this laboratory course, we discuss soil properties, invasive species, climate change, and sustainability during the 13 laboratory assignments. Specific to Bee Campus USA, colony collapse disorder, carbon sequestration in plants, invasive plant species, chemical contaminants, and importance of native biodiversity is discussed. The lab has approximately 450 students per semester. Working at the Pollinative Prairie is used as extra credit. We are developing a plant lab that would incorporate the prairie directly into the curriculum.

BIOL2141 lab – Ecology Laboratory for majors. This is a required course for all UNT Ecology majors. Each semester, approximately 50 students conduct a plant assessment of the Prairie and learn quadrant percent coverage techniques. We take sample of the plants and mount them for identification and curation of the Prairie herbarium. Ecological resources from prairie habitats is covered. Landscaping with Natives to Attract Birds to your Back Yard: Continuing Education • This course explores the use of native plants to attract birds to your back yard. It will cover the basics of what birds need to thrive, native plants that attract birds and why, and bird-nesting preferences. It covers what determines "nativeness" for plants and why it is vital in attracting birds and how to insure you will have an endless "supply" of birds year-round. Also, the class will discuss the use of hardscaping that provides birds an attraction to your back yard.

Getting to Know Your Backyard Birds: Continuing Education • Get to know the birds that call your neighborhood home. Learn their feeding preferences and to recognize their behaviors and habits as well as their good looks. This early advanced class covers our common fall and winter species. An introduction to Cornell University's Project Feeder Watch is included in the class and a field trip to the Clear Creek Natural Heritage Center near Denton.

Birding Basics: Continuing Education • This course, which will be an introduction to birding, begins by becoming familiar with the tools birders use, starting with GISS, General Impression Size and Shape, as the first step in identification. To complete an identification birders have to become familiar with habitat, behavior, range and season (often referred to as status and distribution), as well as songs, plumage patterns, and details of individual species. This course is intended to introduce interested individuals to these basic skills. It includes a discussion of binoculars, spotting scopes, the plethora of field guides and other useful birding equipment.

Propagation, Pollination, and Pollinators of Native Plants: Continuing Education • How did we get such a diversity of plants and those that pollinate them? What's the difference between pollination and pollinators? What does it mean to propagate plants? This class will explore the differences between pollination and propagation and the importance to gardeners. It will also explore the role pollinators play in insuring continued pollination of plants and agricultural crops. Participants will learn how to more effectively propagate native plants in their landscape. A new segment of this workshop focuses on container gardening.

BIOL 4070/5070 Insect Biology 36 students - Topics covered in class include pollination, Laboratorystudents learn to identify all pollinator insects to family, by sight.

BIOL 2251: Biodiversity and Conservation of Animals, BIOL 3160: Conservation Biology, PHIL 4450: Philosophy of Ecology

EDUCATIONAL SIGNAGE



In 2018, designs for signage to be placed around campus to mark pollinator habitats were created. 2019 is the installation year of the signage.

CONTACT US!

Committee: Bee Campus USA - University of North Texas; Emily Bilcik, Chair **Website**: https://beecampususa.unt.edu