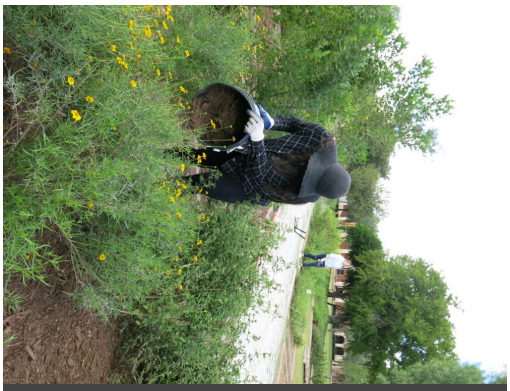
Bee Campus USA - The University of Texas Rio Grande Valley

Report on 2021

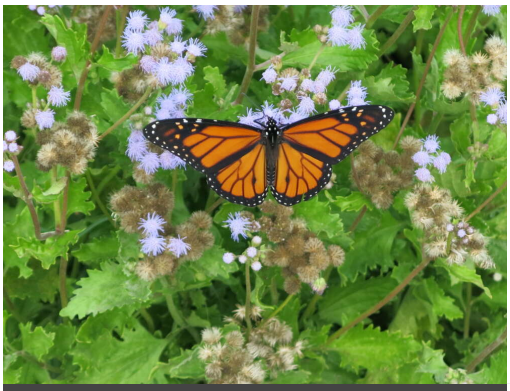
Pollinator Habitat Creation & Enhancement

UTRGV significantly expanded the existing garden (known as the Pollinator Cantina) with the addition of 18 new beds providing 2234 ft2 of new, high-quality pollinator habitat. The plants selected for the new garden section bloom at different times throughout the year providing a consistent food source for multiple pollinator species. As well as providing nectar and pollen, several of the planted species also act as larval hosts for butterflies. Plantings in the new beds include Zizotes milkweed, a larval host for Monarch butterflies. The new beds contain over 30 native plant species that use pollinators for reproduction. Additionally, 13 native shrubs and small trees that also recruit pollinators were planted outside the garden beds, in the surrounding area. To make habitat for tunnel nesting native bees, stumps were collected when tree removal activity was detected around town. Stumps of various lengths (1 – 3 ft) were drilled with 4-6" deep holes of varying diameters. Also, nesting habitat for ground dwelling native bees was established. For this, a 6 X 8 ft plot adjacent to the garden beds was cleared of all vegetation (mostly grass) and delimited with a combination of plastic and reclaimed brick edge. The ground nesting plot was covered with cardboard for several months in order effectively prevent grass regrowth. In addition, the original pollinator habitat (preexisting beds) was enhanced by replacing some plants, adding a thick layer of mulch, and adding drilled stumps for tunnel nesting bees. A total of: 3554 square feet was created to enhance pollinator habitat at UTRGV. • UTRGV Pollinator Garden Enhancement/Service Learning Project: 2234 sq. ft. • Veteran Affairs Grounds: 245 sq. ft. • School of Medicine Grounds: 375 sq. ft. • Science Lab Circle: 230 sq. ft. • New Engineering Building Grounds: 120 sq. ft. • New Science Building/Lab Grounds: 350 sq. ft.

UTRGV Students work on Pollinator Cantina Garden expansion and enhancement (Photo by Dr. Julie Mustard)



Student working on adding mulch to UTRGV pollinator garden beds (Photo by Dr. Julie Mustard)



Monarch Butterfly sips on a blue mist flower at one of many UTRGV Pollinator Friendly Gardens (Photo by Dr. Julie Mustard)

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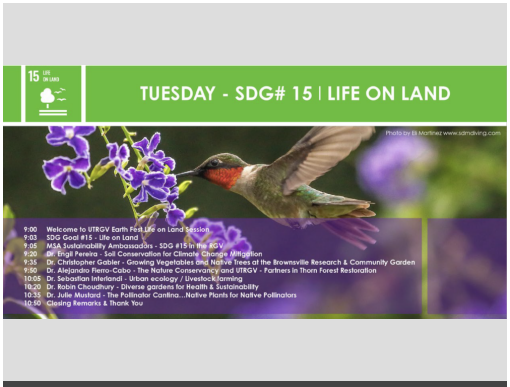
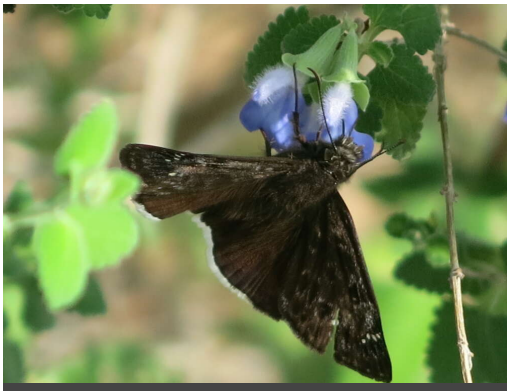
Education & Outreach

A virtual/hybrid Earth Fest celebration was hosted, given Covid-19 modification restrictions for large person groups over the course of 5 days. The Pollinator Day celebration was done in conjunction with Earth Fest, which allowed student, staff, and faculty to learn about the importance of bees and other pollinators throughout the week. The virtual/hybrid event matriculated 800-1500 individuals per day, given the participation with external organizations and school districts which attended virtually. A total of 5 new grounds and maintenance projects were committed and launched to create and enhance habitat through out UTRGV. A Service Learning habitat project was also added this year to expand the UTRGV Pollinator Garden, which allowed for the development of new native flower beds, area for ground nesting bees). Additionally, we enhanced the existing garden beds (replacing/adding native plants, pruning, weeding, applying mulch to control weeds).



UTRGV 2021 Earth Fest - Pollinator Day Virtual Program Presentations

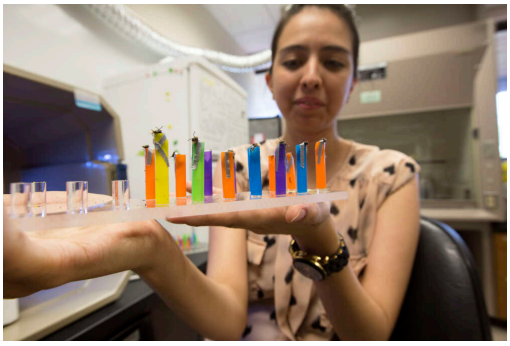


UTRGV Pollinator Garden visitor on a shrubby blue sage flower (photo by Dr. Julie Mustard)

Monarch caterpillars at UTRGV garden consuming Zizotes milkweed (Photo by Dr. Julie Mustard)

Courses & Continuing Education

Restoration Ecology; General Biology, Plant Animal Interactions; Cell & Molecular Biology; Conservation Biology



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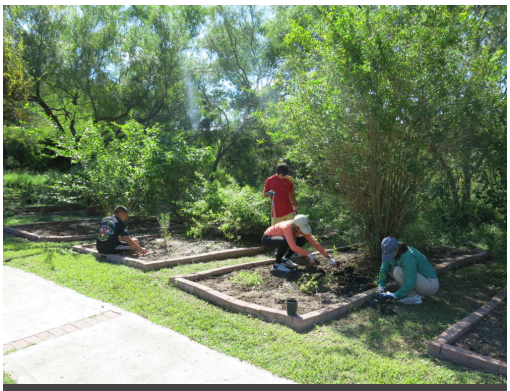
UTRGV Students working with busy buzzing bees! (Photo by Julie Mustard)

UTRGV Student conducting careful and meticulous research with bees.

UTRGV Lab Work & Research in session with Dr. Julie Mustard.

Service-Learning

UTRGV significantly expanded the existing Pollinator Cantina Garden as a Service Learning project, with the addition of 18 new beds providing 2234 ft2 of new, high-quality pollinator habitat. The new beds contain over 30 native plant species that use pollinators for reproduction . Additionally, 13 native shrubs and small trees that also recruit pollinators were planted outside the garden beds, in the surrounding area. To make habitat for tunnel nesting native bees, stumps were collected when tree removal activity was detected around town. Stumps of various lengths (1 – 3 ft) were drilled with 4-6" deep holes of varying diameters. Also, nesting habitat for ground dwelling native bees was established. For this, a 6 X 8 ft plot adjacent to the garden beds was cleared of all vegetation (mostly grass) and delimited with a combination of plastic and reclaimed brick edge. The ground nesting plot was covered with cardboard for several months in order effectively prevent grass regrowth. In addition, the original pollinator habitat (preexisting beds) was enhanced by replacing some plants, adding a thick layer of mulch, and adding drilled stumps for tunnel nesting bees.



UTRGV students engaged in Service Learning at the Pollinator Cantina Garden (Photo by Dr. Julie Mustard)

UTRGV Students maintaining and enhancing existing beds at the Pollinator Cantina Garden (Photo by Dr. Julie Mustard)

A Happy Honey Bee at UTRGV enjoying the nectar of a Texas Sage Flower

Educational Signage

Signage on the Brownsville campus include a large welcome sign with changing pollinator information, and 24 small permanent signs with specific information on a plant species and its most frequent pollinator or larval guest. We also have 15 Bee Campus USA Pollinator Friendly Garden signs between both the Edinburg and Brownsville campus gardens. We added (3) temporary signs at different construction sites where pollinator friendly landscaping is underway.

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Informative Signs in the Pollinator Cantina Garden include common names in both English and Spanish

UTRGV Sign for Good Pollinator Trees through out campus

Look for UTRGV "Pollinator Friendly Garden" since 2018 Signs though out campus

Policies & Practices

Implemented or maintained a written IPM plan, Avoided use of pesticides in designated pollinator habitat and other sensitive sites (except when targeted herbicide use is deemed the best option for invasive or noxious weed management), Reduced the number of sites where pesticides are used. Please see attached IPM plan

Integrated Pest Management Plan:
https://reports.aashe.org/media/secure/1017/7/659/5033/UTRGV%20Integrated%20Pest%20Management.pdf
Recommended Native Plant List:
https://www.utrgv.edu/pollinatorcantina/en-us/plants/index.htm
https://www.wildflower.org/collections/collection.php?collection=TX_south
Recommended Native Plant Supplier List:
https://www.valleynaturecenter.org - http://heepsplants.com - http://www.valleygardencenter.com

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UTRGV Campaign "Only Rain Down the Drain" to protect our waterways from pesticides and many other harmful chemicals

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Learn More

https://www.utrgv.edu/sustainability/programs/bee-campus-usa/index.htm
sustainability@utrgv.edu

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https://www.facebook.com/UTRGVSustainability/

UTRGV Bee Campus USA Advisory Committee

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