

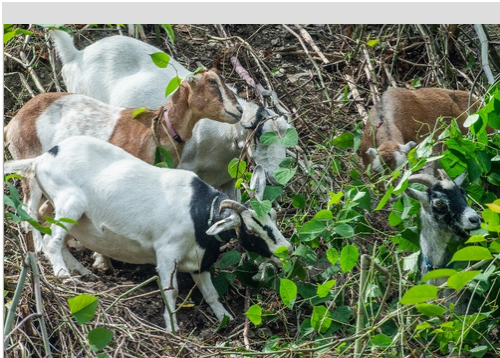
Bee Campus USA - University of Pittsburgh

Report on 2021

Pollinator Habitat Creation & Enhancement

In 2021, the University of Pittsburgh helped create or enhance 18,000 square feet of our campus grounds to benefit pollinators. This includes three specific projects: 1. Centre Avenue Slope: To remove invasive species Japanese Knotweed on the Centre Ave slope, the University of Pittsburgh implemented sustainable landscape management best practices by hiring a team of 12 goats to organically remove the Knotweed. Pitt hired the Have U Herd goatscaping company twice in 2021 to tame overgrown vegetation in this steep location. 2. Posvar Pollinator Garden on Clemente: As part of a group project for an Environmental Studies “Sustainability” course taught by Ward Allebach, a group of undergraduate students designed and planted a new 2,300 square feet pollinator garden on the South side of Pitt’s Posvar Hall. Dubbed the “Posvar Pollinator Garden on Clemente,” this garden is the University’s fifth dedicated pollinator garden and features 75 native plants known to provide food and habitat for local pollinator species. Learn more: <https://www.sustainable.pitt.edu/posvar-clemente-pollinator-garden/> 3. Pawpaws: In August 2021, a first-year Provost Academy class of undergraduates led by Dr. Patrick Shirey planted 27 Pawpaw trees at the corner of Vera Street and Robinson Street near Pitt’s Petersen Sports Complex. These native trees will grow to be about 10 feet high and their flowers are pollinated by flies, helping support the biodiversity of our pollinator community.

<https://www.sustainable.pitt.edu/posvar-clemente-pollinator-garden/> 3. Pawpaws: In August 2021, a first-year Provost Academy class of undergraduates led by Dr. Patrick Shirey planted 27 Pawpaw trees at the corner of Vera Street and Robinson Street near Pitt’s Petersen Sports Complex. These native trees will grow to be about 10 feet high and their flowers are pollinated by flies, helping support the biodiversity of our pollinator community.



Goats clearing invasive and overgrown vegetation on the Centre Ave slope of the University of Pittsburgh's Pittsburgh campus.



University of Pittsburgh students planting Pitt's newest pollinator garden "Posvar Pollinator Garden on Clemente" near Posvar Hall.



Twenty-six University of Pittsburgh first-year students helping plant Pawpaw seedlings next to Pitt Baseball's stadium outfield wall at the corner of Vera Street and Robinson Street.

Education & Outreach

May 2021: In May 2021, we hosted a virtual lunch and learn with the Executive Director of the Allegheny County



Conservation District, who taught participants how gardens can thrive in small urban spaces, patios, containers and larger suburban yards. This session was recorded and is now on the Pitt Sustainability YouTube page to increase access; event video: <https://www.youtube.com/watch?v=tS6gBUDU-78> June 2021, Pollinator Week: Pitt annually celebrates Pollinator Week every June by hosting an event and creating an educational outreach campaign on our social media. In June 2021, we hosted a lunch and learn with the Sustainable Landscape Program Coordinator from Phipps Conservatory and Botanical Gardens, to teach the Pitt community how to create their own pollinator garden. On social media, we made and promoted educational content highlighting what a pollinator is, why pollinators are important, the newest campus pollinator garden, our existing campus solitary bee houses, and our Bee Campus USA certification. We also create a webpage featured on the Pitt Sustainability's web landing page during Pollinator Week with the goal to educate people about supporting local species. – Pitt Pollinator Week Post:

<https://www.sustainable.pitt.edu/pollinator-week-2021-june-21-27/> – Pitt Pollinator Week Tweet example,

<https://mobile.twitter.com/SustainablePitt/status/1406982241146781696> – Pitt Pollinator Week Instagram example:

https://www.instagram.com/p/CQYk2TaB_DY/ October 2021: The University of Pittsburgh's Department of Theater Arts performed the play "Somewhere" in October 2021. This play is set during future climate collapse, chronicling two protagonists' journey to track the world's last monarch butterflies. Pitt Theater created props from upcycled materials and included educational content about supporting pollinators, like the monarch butterfly, in the playbill. More info:

<https://www.pitt.edu/pittwire/features-articles/somewhere-play-sustainably-produced>



Creative Gardening for Any Space


Featuring: **Heather Manzo**

May 13th 12-1pm

Learn how gardens can thrive in any space. Explore how to choose plants and get tips from an expert!

Pitt Sustainability

Advertising for May 2021 University of Pittsburgh Sustainability virtual lunch in learn featuring local native gardening expert.



SOMEWHERE

A PRIMER FOR THE END OF DAYS

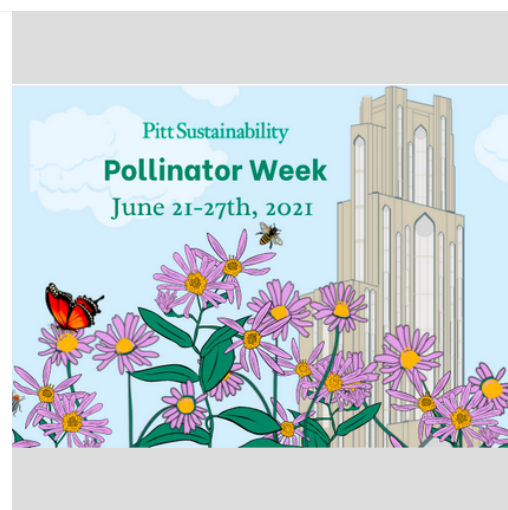
OCTOBER 16 - 22, 2021

CHARITY RANDALL THEATRE

WRITTEN BY MARISELA TREVIÑO ORTA

DIRECTED BY RICARDO VILA ROGER

University of Pittsburgh Theater Arts 2021 "Somewhere" play advertisement, featuring butterflies.



Pitt Sustainability

Pollinator Week

June 21-27th, 2021

University of Pittsburgh 2021 Pollinator Week Instagram educational campaign introduction post.

Courses & Continuing Education

In 2021, Dr. Tia-Lynn Ashman, an active member of the University's Pollinator Habitat Advisory Committee, taught



“Introduction to Plant Biology” (BioSci 1350) with 75 students learning about the role of pollinators and how to help protect pollinator biodiversity through plant selection. In Fall 2021 and 2020, Dr. Sara Keubbing taught “Urban Ecological Field Studies,” where students completed a three-week module studying urban pollinators. This course included a trip to Phipps Conservatory and Botanical Gardens’ Center for Sustainable Landscapes (one of only a handful of Living Buildings in the world), where students closely studied pollinators visiting the blooming goldenrod. Continuing education courses taught by Pitt OSHER that had pollinator related information included: Spring 2021 – Fun with Plants in the Winter, Climate Change-Global Meets Local, Nature as Muse, & An Early Start in the Garden Summer 2021 – Gardens of the World: Ideas for Your Garden, Consider the Bee, & Money, Power, & Climate Change. Fall 2021 – The Evolution of Green Buildings, Fall Birding, Fun Fall Gardening, Hiking and Observing the Fall Season, Hiking for Wild Edibles, & The Continuing Story of Pittsburgh’s Forests. Day-long educational outings – Tour of ‘Burgh Bees Community Apiary & Tour of Pittsburgh Botanical Gardens The University of Pittsburgh also offers a Sustainability professional certificate for employees that includes a 2-hour session called “The Environment, Ecosystems, and You.” This session touches on pollinator-related information including campus initiatives, pollinator and rain gardens, and the biodiversity impacts of climate change. It was taught two times in 2021 to 86 attendees.





University of Pittsburgh students observing pollinators at Phipps Conservatory and Botanical Gardens' Center for Sustainable Landscapes in Pittsburgh



University of Pittsburgh students recording pollinators visiting goldenrods in bloom.

Service-Learning

The University of Pittsburgh's Student Sustainability Symposium consists of semester-long service projects completed in Ward Allebach's class. In 2021, there were several projects involving pollinators, including: 1. A student project group researched locations and bat boxes suitable for on campus locations. 2. A student project group designed and planted the Posvar Pollinator Garden on Clemente to support local pollinator species. (<https://www.sustainable.pitt.edu/posvar-clemente-pollinator-garden/>) 3. A student project group focused on green roofs helped gather and create information about campus green roofs and pollinator patios, to be published on the Pitt Sustainability website. 4. A student project group focused on indigenous gardens researched and designed a garden to support pollinators using native plant species important to the indigenous people of the area and used in traditional



medicine or ceremony. This garden will be planted in Spring / Summer 2022. Pitt Provost Academy: Urban Ecology and Sustainable Food Systems (8/20/21)- In August 2021, 26 Pitt students planted 27 Pawpaw seedlings next to the Pitt Baseball stadium outfield wall at the corner of Vera Street and Robinson Street. Urban Ecology Field Lab Course (Fall 2021 & 2020)- Pitt students in the “Urban Forestry” module of this annual course learn common techniques for measuring the growth and health of trees and the understand the ecological benefits and costs of urban forests. To achieve these learning goals, the students used the Pitt campus tree inventory to locate trees on campus and collected ancillary data (e.g., tree health, proximity of tree to each other and buildings, etc.). Students then entered relevant tree data to the USFS iTree “MyTree” tool (<https://mytree.itreetools.org/#/>) to calculate estimated ecosystem benefits (i.e., carbon storage, water runoff prevention, air pollution reduction, and building energy savings) of individual trees on campus. Other Pitt 2021 service-learning projects focused on pollinators, but not associated with a course are outlined below. These projects focus on trees, which have been included because native flowering trees provide vital foraging for local pollinator species:

1. Oakland Street Tree Planting w/OPDC & TreeVitalize (11/20/21)- University of Pittsburgh students and employees helped the community partner Oakland Planning and Development Corporation (OPDC) plant 14 new street trees in the University’s home neighborhood of Oakland along Parkview Avenue in partnership with the local “TreeVitalize Pittsburgh” program. Twenty (20) individuals helped plant, stake, and mulch trees for three (3) hours, including University students and employees alongside OPDC and TreeVitalize staffers.
2. Girty Woods Cleanup (10/30/21 & 11/5/21) – 35 students from Epsilon Eta (University of Pittsburgh’s co-ed environmental service fraternity) hiked along trails in Girty’s Woods, picking up litter to improve the health of the forest. Epsilon Eta also raised over \$1,200 dollars to help save Girty’s Woods from being developed through fundraising efforts.
3. Civic Action Week 2021 (10/08/21 & 10/09/21) – The University of Pittsburgh’s annual Civic Action Week is organized by several University entities, including PittServes, the Office of Engagement and Community Affairs, and the Signature Days of Service Committee. This week-long event focuses on civic engagement and serving the different communities around Pittsburgh, featuring in-person volunteering opportunities for employees and students. Two full-day projects focusing on trees were featured in 2021. One opportunity with Friends of South Side Park included 23 Pitt community members helping mulch young trees and removing competitive species harmful to the urban forest (such as grapevines that were encroaching on trees and invasive knotweed. Media: <https://www.wpxi.com/news/top-stories/pitt-faculty-staff-students-help-plant-trees-south-side/TIKXNPXACRADVKXQM4TKLZ4MMY/>). The second project was with “Plant Five for Life,” who 19 Pitt community members helped plant 150 trees at Beulah Presbyterian Church to help increase tree canopy and prevent erosion on the hillside (Media: <https://www.plantfiveforlife.org/blog>).





University of Pittsburgh students planting street trees along Parkview Avenue in partnership with local program "TreeVitalize Pittsburgh"



University of Pittsburgh students planting trees on lawn road divider to provide habitat for local wildlife



University of Pittsburgh Pitt Provost Academy first year students planting Pawpaw saplings that will provide foraging for pollinators in the spring.

Educational Signage

Due to campus closures and supply chain disruptions caused by the Covid-19 pandemic, the University was unable to install pollinator-focused signs. Pitt's Office of Planning, Design, and Real Estate is currently working with the Office of Sustainability and students to design informational signs for campus green roofs and pollinator gardens. These signs will accompany green roofs and pollinator gardens to help educate building occupants and visitors to their purpose, benefits, and how to protect the resource. Educational facts will be provided directly on the signs, in addition to a QR code, which will direct interested parties to a dedicated University of Pittsburgh webpage with more detailed information and resources.





University of
Pittsburgh

Pitt Sustainability

GREEN ROOF

BENEDUM HALL - MCSI

SQUARE FOOTAGE: 10,000

YEAR INSTALLED: 2006

PUBLICLY ACCESSIBLE / HOW:

Green roofs help reduce combined sewer overflows, energy use, and heat island effect, while providing habitat for pollinators, and productively utilizing rainfall, among other benefits.



For more information, please visit our website.

Draft University of Pittsburgh educational sign design template for campus green roofs.



Policies & Practices

On April 5, 2017, the University of Pittsburgh published its Sustainable Landscape Design Guidelines, which were created in consultation with Phipps Conservatory and Botanical Gardens. The University's Sustainable Landscape Design Guidelines address landscape design criteria such as plant selection (native and adaptable only), minimizing hardscape and using permeable materials, stormwater management, habitat, biodiversity, and all other ecosystem services. The guidelines are consistent with the University's achievement of having the Head of Grounds and several landscape personnel achieving Sustainable Landcare Accreditation and are "Division S" of the University's larger Facilities Design Guidelines. Pitt Facilities Design Manual: <https://www.fm.pitt.edu/design-manual> The University of Pittsburgh practices pollinator-friendly pest management as outlined in Division S: Sustainable Landscape Design Guidelines. These guidelines state that pesticide usage is to be minimized and other sustainable best practices should be used like planting hearty native species and manual removal of invasive. The following excerpts come from these guidelines; "Minimize use of synthetic fertilizer, pesticides, herbicides, and de-icing salts that have adverse effects on plant" p.15 "Use of synthetic fertilizers, pesticide, and herbicides is prohibited, except for starter fertilizer used in establishing lawn grasses and the like" p.21 "Prohibit materials, including but not limited to: chemically treated wood and paper, dyed and chemically treated mulches, plastic and non-woven geotextile fabrics that contain PVC (polyvinyl chloride), synthetic burlaps, galvanized steel, mulch made from recycled rubber tires, synthetic fertilizer, synthetic pesticides and herbicides, sewage sludge, raw manure, triple superphosphate, muriate of potash, synthetically derived sulphates, calcium and magnesium, genetically modified seed." p.24 Read Pitt's Sustainable Landscape Guidelines: https://www.fm.pitt.edu/sites/default/files/pictures/Design_Manual/DIVISION-S.pdf

Integrated Pest Management Plan:

<https://reports.aashe.org/institutions/university-of-pittsburgh-pa/report/2021-02-28/IN/innovation-leadership/IN-29/>

Recommended Native Plant List:

Recommended Native Plant Supplier List:



DIVISION S
SUSTAINABLE LANDSCAPE DESIGN GUIDELINES
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04/05/2017

Sustainable Landscape Design Guidelines
Division S-1

Screenshot of Pitt's published Sustainable Landscape Design Guidelines that are available online.



Learn More

<https://www.sustainable.pitt.edu/pollinator-habitat-advisory-committee/>

