

Bee Campus USA - University of Pittsburgh

Report on 2022



Pollinator Habitat Creation & Enhancement

In 2022, the University of Pittsburgh helped create or enhance 8,000 square feet of our campus grounds to benefit pollinators across 3 specific projects: 1) Relearn Our Land Garden on Posvar Patio: Students team created a native pollinator garden as part of a class project. 5 students researched plant species and designed the plot layout. In April 2022, they planted 240 native plants in a 2,000 square foot raised bed, including a range of species to ensure the garden is in bloom from April to October. 2) Another student team planted 13 pawpaw trees behind the Peterson Sports Complex, expanding the Vera Street Garden. These native trees will grow to be ~10 feet high and their flowers are pollinated by flies, helping support the pollinator community diversity.

How many habitat projects did you help to create or enhance last year?

2

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

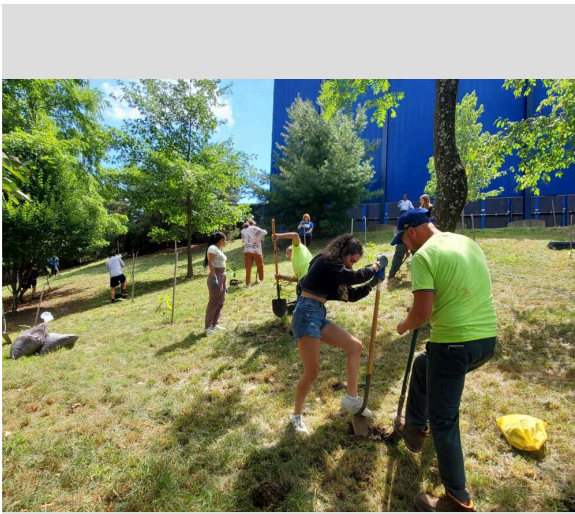
8000

How many volunteers helped with those projects?

17

Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

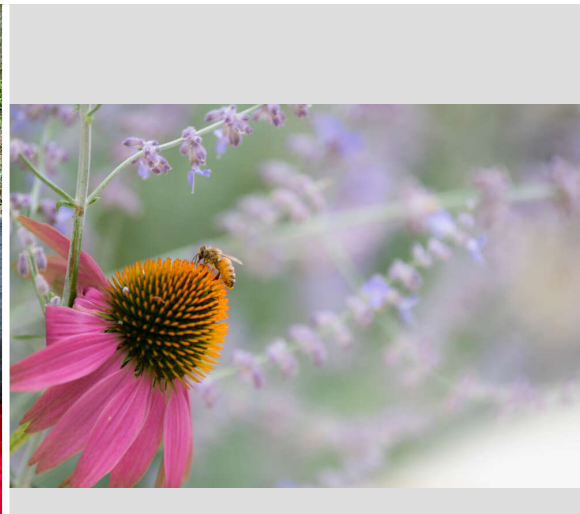
- Flower garden
- Native pollinator-friendly tree planting



University of Pittsburgh students plant pawpaw seedlings in the Vera Street Garden near the Peterson Sports Complex.



University of Pittsburgh students plant pawpaw seedlings in the Vera Street Garden near the Peterson Sports Complex.



The University of Pittsburgh's "Robarn Our Land Garden" features 240 native plants in a 2,000 square foot bed; bee enjoying a purple coneflower.

Education & Outreach

May 2022, Pollinator Educational Tours – 50 middle schoolers from Winchester Thurston visited the University of Pittsburgh’s campus to tour our pollinator gardens and learn about sustainable landscaping practices. June 2022, Pollinator Week: Pitt celebrates Pollinator Week every June by hosting events and creating an educational outreach campaign on our social media. In 2022, we hosted:

- June 21 – “Make a Splash: Creative Butterfly Puddlers” with the Center for Creativity; participants made their own backyard puddlers. (9 participants)
- June 22 – “Pitt to Porch” – Attendees toured Pitt pollinator gardens and local restaurant The Porch’s rooftop beehive to learn about how Pitt’s commitment to pollinators supports our local food system. (26 participants)
- June 24 – “Everything but the B’s” virtual lunch & learn featuring Veronica Iriart, who taught attendees about the importance of less popular pollinators like flies and bats, along with how to support pollinator diversity. (41 participants)
- On social media, we created educational content highlighting why pollinators are important, tips on how to design your own pollinator garden at home, Pitt’s Bee Campus USA designation, and events celebrating Pollinator Week.
- We also created a webpage featured on the Pitt Sustainability’s landing page during Pollinator Week to educate people about supporting local species.
- Pitt Pollinator Week web post: <https://www.sustainable.pitt.edu/pollinator-week-2022/>
- Pitt Pollinator Week Tweet example: <https://twitter.com/SustainablePitt/status/1539249697856028672>
- Pitt Pollinator Week Instagram example: <https://www.instagram.com/p/CfOsTQlOsG7/?igshid=YmMyMTA2M2Y>

November 2022, Solar Farm Tour: 21 Pitt community members toured the Vesper Gaucho Solar Farm, under construction near the Pittsburgh International Airport. It will supply 100% of its electricity to the University of Pittsburgh for 20 years and is prioritizing pollinator-friendly landscaping at Pitt’s request. December 2022, Growing Native Plants from Seeds Starts Now: Virtual lunch-and-learn hosted by Pitt’s Pollinator Habitat Committee focused on how to start pollinator-friendly native plants from seeds using reused containers. Growing Native Plants from Seeds YouTube Video:

<https://www.youtube.com/watch?v=ZxIOiubKUjY&t=3024s> Scholar CHEF: Pitt's Honors College ScholarCHEF program hosted events throughout 2022 that engaged 74 students. Events included: 1) Student field trip to Triple B Farms for pumpkin, apple, and flower picking that also highlighted the benefits of pollinators; 2) Volunteer day at Hilltop Urban Farm or the Plant 2 Plate Garden to help take care of growing operations and established pollinator gardens. In 2022, 74 students participated in ScholarCHEF programming. Osher Lifelong Learning Institute Botanical Garden Tours: Pitt Osher hosted 2 educational outings to the Pittsburgh Botanical Garden with expert Doug Oster (60 attendees, Summer & Fall) Pitt posts pollinator educational content on its social media accounts year-round; Twitter example: https://twitter.com/search?q=pollinatorsustainablepitt&src=typed_query&f=live

How many pollinator-related events did your affiliate host or help with last year (in total)?

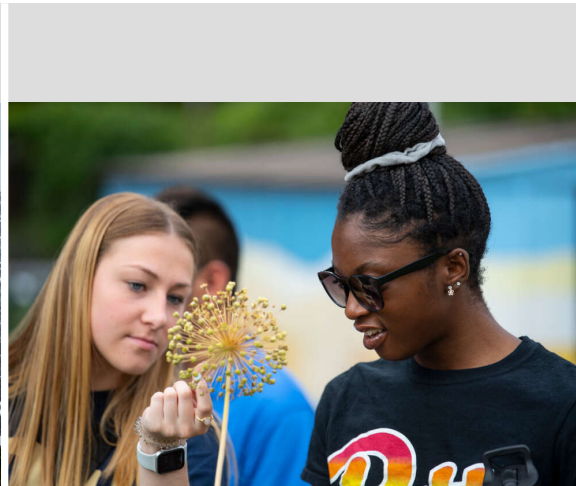
8

How many people attended those events (in total)?

374



Vesper Gaucho Solar project under construction; project will provide 100% of its electricity to the University of Pittsburgh over 20 years and is prioritizing pollinator-friendly landscaping.



University of Pittsburgh students learn how to harvest seeds from native plants on the 2022 "Pitt to Patch" tour during Pollinator Week.



The University of Pittsburgh's ScholarCHEF program took a field trip to Triple B Farms for pumpkin, apple, and flower picking, highlighting the benefits of pollinators.

Courses & Continuing Education

For Credit In 2022 the "Nature, Cities, Humans" First-Year Seminar took 15 students to the Plant 2 Plate student-run garden. During the visit, the garden intern shared Plant 2 Plate's history and how to get involved. She spoke about Pitt's larger efforts to expand pollinator gardens on campus and the importance of pollinators in the Oakland neighborhood; she also pointed out key pollinators that could be found in the garden. The "Introduction to Sustainable Food Systems" class took 12 students visited Garfield Community Farm, Hilltop Urban Farm, Black Urban Farm and Garden, The Porch

Rooftop Garden, and CHS Food Pantry Edible Garden (which they also did work in). At each location, students learned about pollinators and discussed the importance of incorporating food for pollinators into farming practices to get the most out of growing food. The Biology department discussed pollinators in numerous courses. • Spring 2022 – “Ecology” (BIOSC 0370; 80 students) discussed pollination and different kinds of pollinators/pollination syndromes. • Fall 2022 o “Foundations of Biology” (320 students) ran a flower microbiome lab where students learned about pollinators and visited pollinator gardens on campus. o “Plant Biology” (65 students) also included extensive discussion of pollinators. o “Urban Ecological Field Studies” (6 students) discussed pollinators in an urban context. o “Life Cycle Assessment Methods and Tools” (CEE 2609; 56 students) course used insect pollinators to motivate students thinking on challenging environmental problems and how LCA can be leveraged to address these issues. Non-credit The week-long “Urban Ecology and Sustainable Food Systems” course taught 12 incoming first-year students invited to the Pitt Provost Academy about the native pawpaw, a fruit important to pollinators, Native Americans, European Colonists, and African Americans. On the first day of class, students were served a homemade pawpaw dessert to get them excited about the native fruit. As part of the curriculum, students removed invasive vines in Emerald View Park and planted 13 pawpaw seedlings from Tree Pittsburgh in the Vera Street Garden near Peterson Sports Complex. To connect students to campus and their own future, this learning experience asks the students to envision harvesting the fruit of these trees at their fifth-year homecoming post-graduation. Continuing education courses taught by Pitt Osher Lifelong Learning Institute that had pollinator related information included: • Spring 2022 – Take Your Garden to the Next Level • Summer 2022 – Take Your Summer Garden to the Next Level • Fall 2022 – Wild Edibles of the Fall, The Continuing Story of Pittsburgh’s Forests 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 2022 to 68 attendees.

How many of your for-credit courses included pollinator-related information last year?

7

How many students attended those for-credit courses?

554

How many of your continuing education courses included pollinator-related information last year?

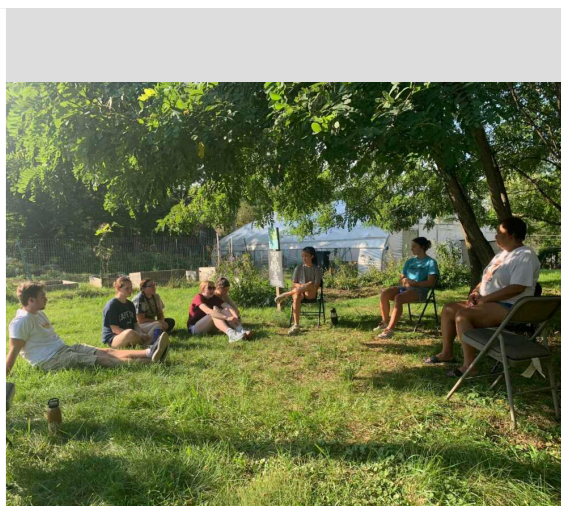
6

How many participants attended those courses?

393



Students learn firsthand about pollinators' impact on our local food system at the University of Pittsburgh's student-run Plant 2 Plate urban garden on campus.



The University of Pittsburgh's "Introduction to Sustainable Food Systems" class visited the Back Urban Farm and Garden to learn about the importance of incorporating plants for pollinators into farming practices.



University of Pittsburgh students worked on the CHS Food Pantry Edible Garden, getting hands-on experience with farming techniques that help support local pollinator populations.

Service-Learning

The University of Pittsburgh's Student Sustainability Symposium occurs twice annually and features semester-long service-learning projects completed in the GEOL 0333 Sustainability class. In 2022, several projects involved pollinators, including:

- Pollinator Pals (Spring 2022) – Created installation plan for 2 pollinator gardens, 1 on Robinson & Vera Street and another on South Bouquet and Sennot Street (consisting of 4 plots). Each plot was designed to attract a different type of pollinator (bees, butterflies, birds, and a combination) using native plants.
- The Bats and The Birds (Spring 2022) – Delivered a lecture on the role of bats and birds in the environment. Researched implementation of bird friendly anticollision window decals for campus buildings and a proposed bat box behind the Frick Fine Arts building.
- Garden Rejuvenation (Fall 2022) – Created a "Garden Rejuvenation Action Plan" to help assess the health of pollinator gardens around campus. In April 2022, the Relearn Our Land Pollinator Garden was planted on the University of Pittsburgh campus by 7 students. The garden is part of a multi-year undergraduate student effort to educate the Pitt community about the diverse history of the land on which Pitt sits and the groups with historical, native ties to the Northeast region. The garden was planted with native pollinator plants including Milkweed, Creeping Phlox, Black Cohosh, Low-Grow Sumac, Agastache Blue Fortune (Anise Hyssop), Coneflowers, Lavender, and Partridge Berry. Incoming first-year students in "Urban Ecology" and "Sustainable Food Systems" removed invasive vines in Emerald View Park and planted 13 pawpaw seedlings from Tree Pittsburgh in the Vera Street Garden near Peterson Sports Complex.

How many service-learning projects did your campus host and/or support to enhance pollinator habitat on and off-campus?

3

How many students participated in service-learning projects last year to enhance pollinator habitat on or off-campus?



University of Pittsburgh planting the "Relearn Our Land" garden; in full bloom, this pollinator garden will help educate the Pitt community about plants that indigenous cultures of our region utilize.



Incoming University of Pittsburgh first-year students in "Urban Ecology" and "Sustainable Food Systems" removed invasive vines in Emerald View Park so native flora can thrive.

Educational Signage

As part of the 2022 Indigenous Cultural Festival, a temporary sign was installed to highlight the newly planted "Relearn Our Land Garden" and the role native plant species have in the indigenous cultures of our region. Several plants showcased also provide excellent foraging for pollinators.

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

Number of temporary interpretive/educational/Bee Campus USA signs installed last year?

1

Relearn Our Land Garden

The “Relearn Our Land” Initiative was formed by students to acknowledge the **Delaware, Shawnee, Iroquoian, Hopewell, Adena, and Monongahela peoples**. Indigenous tribes are the true founders of environmentalism, with a culture rich in preserving ecosystems and honoring the land.

This **educational garden**, honors and acknowledge Indigenous knowledge and wisdom. The Relearn Our Land Garden is located outside of Posvar and highlights native plants significant to Indigenous uses or beliefs.



A common phrase of respect in Iroquois language notes, **“The light in me honors the light in you.”** Through this garden, we hope to honor the light of all Indigenous peoples.



RELEARN OUR LAND

University of Pittsburgh Relearn Our Land Garden sign promoting the newly planted garden using native species significant to indigenous cultures of the region.

ETHNOBOTANY

the scientific study of the traditional knowledge and customs of a people concerning plants and their medical, religious, and other uses.



Significant to: Seminole, Cherokee, Ojibwa, Kousati, Delaware, Creek, Mido, Natches, Lakota, Navajo, Malecite, Thompson

SUMAC

The dried fruits are typically ground into a fine powder, dissolved into water, and used as a kidney ailment, urinary aid, and topically to treat burns. It is also significant for ceremonial uses and in the making of black dye. The bark is eaten as a delicacy.



Significant to: Cheyenne, Crow, Dakota, Sioux, Choctaw, Delaware, Keres, Lakota, Oglala, Zuni Navajo

CONEFLOWER

Traditionally, made into a tea used to treat stomach aches, gastrointestinal problems, urinary issues, and cold symptoms. It was also used externally to treat wounds, poison ivy rash, toothaches, burns, and draw poison from snake bites.



Significant to: Cherokee, Chippewa, Iroquois, Malecite, Menominee, Meskwaki, Miami, Mohegan, Nanticoke, Ojibwa, Omaha, Potawatomi, Penobscot, Shinnecock

JEWELWEED

Traditionally, the pigment is extracted and used to make orange and yellow dye. When applied topically, the sap is used to treat dermatological pain and burns. The sap is also shown to have anti-fungal properties and is largely considered to be a ceremonial medicine.



Significant to: Algonquin, Iroquois, Abnaki, Mahuna, Meskwaki, Ojibwa, Potawatomi

MEADOWSWEEP

Considered an anti-inflammatory ailment for colds, bronchitis, upset stomach, heartburn, peptic ulcer disease, and joint disorders including gout. A natural black dye can be obtained from the roots. This herb also provides an aromatic character to vinegars and jams.



RELEARN OUR LAND



University of Pittsburgh ethnobotany sign showcased native plant species and their traditional uses in indigenous cultures. All plants highlighted help support local pollinator populations.

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 including plant selection (native and adaptable only), minimizing hardscape and using permeable materials, stormwater management, habitat, biodiversity, and other ecosystem services. The guidelines are consistent with the University’s achievement of having our Head of Grounds and several landscaping personnel achieving Sustainable Landcare Accreditation; this “Division S” is part of the University’s larger Facilities Management 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 (e.g., planting hearty native species and manual removal of invasives). 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

What actions have you taken to make pest management practices more pollinator-friendly?

- Implemented or maintained a written 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)
- Implemented non-chemical pest prevention and management methods on city or campus grounds
- 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
- Sourced plants for city or campus grounds that were not treated with neonicotinoids
- Encouraged developers and private landscapers to source plants that were not treated with neonicotinoids

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

The City of Pittsburgh’s Department of Public Works announced in June 2020 that “seven city parks will be maintained under a Green/Eco Landscaping Contract, providing organic and/or natural landscaping without the use of chemical fertilizers or pesticides, in line with City of Pittsburgh DPW landscaping operations.”

<https://pittsburghpa.gov/press-releases/press-releases/4034> Phipps Conservatory and Botanical Gardens does extensive local education (including with Master Gardeners) about Eco-Friendly Pest Management, including via this Guide:

<https://www.phipps.conservatory.org/green-innovation/at-home/greener-gardening-guide/eco-friendly-pest-management-guide>

Please describe actions by your affiliate to attend training on ecologically-based Integrated Pest Management and/or to review IPM plans and programs considered of high quality by Bee City USA?

The University of Pittsburgh has TWO external Integrated Pest Management (IPM) vendors, BOTH of whom hold the GreenPro certification, which recognizes pest management companies committed to providing commercial and residential customers with reduced risk, comprehensive and effective pest control services. 1) Witt Pest Management handles IPM in general and educational buildings managed by Pitt Facilities. 2) Ehrlich handles IPM in buildings occupied by Auxiliaries (including Housing). Ehrlich's certificate is available online here:

https://storage.googleapis.com/stars-static/secure/664/8/798/8107/2020_QualityPro_GreenPro_Witt_Pest_Management_IPM.pdf Learn more in Pitt's 2021 AASHE STARS Gold IPM documentation:

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

Integrated Pest Management Plan:

<https://reports.aashe.org/institutions/university-of-pittsburgh-pa/report/2021-02-28/IN/innovation-leadership/IN-29/%20>

Recommended Native Plant List:

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

Recommended Native Plant Supplier List:

<https://www.treemendousllc.com>



As part of the University of Pittsburgh's sustainable landscape practices, goats are used to help clear invasive species.

Learn More

<https://www.sustainable.pitt.edu/team-member/pollinator-habitat-advisory-committee/sustainability@pitt.edu>

<https://instagram.com/pittsustainability>

<https://twitter.com/SustainablePitt>