Bee Campus USA - University of Dayton

Report on 2023

Pollinator Habitat Creation & Enhancement

Please describe pollinator habitat creation or enhancement projects in your community in 2023, and whether your committee hosted them or not.

Bee Campus members maintain the five native planting sites across the University of Dayton campus, aiming to enhance the existing pollinator habitats. They organized several volunteer shifts to recruit assistance with invasive species removal and seed collection. Additionally, Bee Campus members occasionally contribute to the campus vegetable garden by caring for the raised beds and managing small patches of native flowers along the perimeter. Additionally, Bee Campus members regularly volunteered at the Marianist Environmental Education Center (MEEC) where the primary goal is to preserve the environment and its inhabitants. Volunteer tasks included invasive species removal; harvesting and processing native prairie, woodland, and wetland seeds; cultivating species in the native plant nursery; transplanting and nurturing newly-established plants in the preserve; and supporting the annual native plant sale. While members of our committee participated in these volunteer days, we did not host or organize them.

How many habitat projects did you help to create or enhance in 2023?

6

How many people (staff, volunteers, students, partners, etc.) helped with those projects?

50

How many projects benefit monarchs, milkweed, or nectar plantings?

5

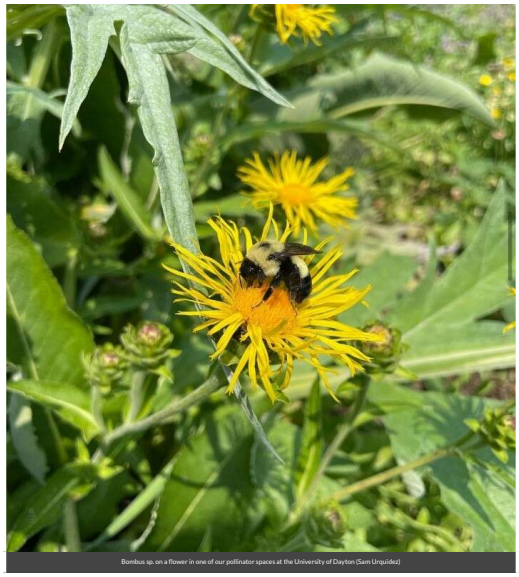
How many total square feet of habitat were created or enhanced?

270307

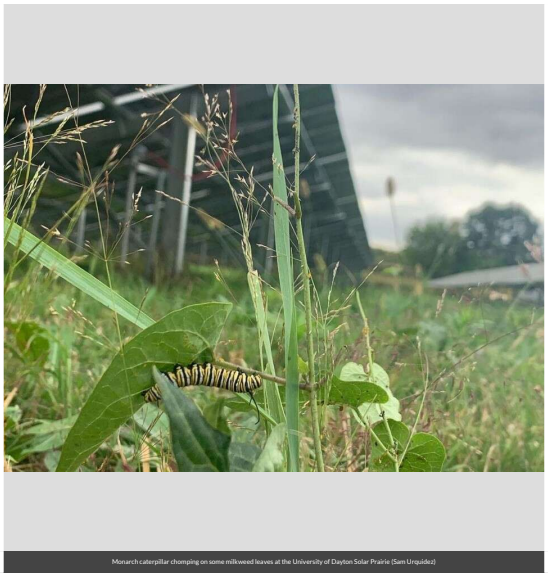
Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

- Vegetable garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Native milkweed planting for monarchs and bees (where appropriate)

- Invasive/exotic plant species removal for habitat improvement
- Native pollinator-friendly tree planting
- Native pollinator-friendly shrub border/hedgerow planting



Bombus sp. on a flower in one of our pollinator spaces at the University of Dayton (Sam Urquidez)



Monarch caterpillar chomping on some milkweed leaves at the University of Dayton Solar Prairie (Sam Urquidez)

University of Dayton solar prairie in full bloom during summer 2023 (Sam Urquidez)

Education & Outreach

Please describe pollinator conservation events or outreach activities in your community in 2023, indicating whether your committee hosted them or not.

In 2023, we hosted an educational booth dedicated to promoting solar prairies as safe habitats for pollinating species at our university's annual Earth Fest. During this event, we distributed 'seed balls'—clay balls containing seeds of native flowering plants—for attendees to plant in their own yards to support local pollinator populations. Also, our Bee Campus student members organized and hosted two PATH (Points Accumulated Toward Housing) sessions. During these sessions, they presented to their peers about the critical role of native pollinators and offered guidance on practical ways our campus can support these native species. Although our committee was not responsible for organizing the Oakwood Bioblitz, an annual event led by a University of Dayton biology professor, we volunteered to support this initiative. The Oakwood Bioblitz, hosted at a library near campus, is dedicated to heightening awareness about the importance of preserving a diverse ecosystem. Participants at this community science initiative identified and catalogued numerous species within a specified area utilizing tools such as iNaturalist and guided by local pollinator specialists and volunteers.

How many pollinator-related events or outreach activities did you host or help with in 2023 (in total)?

4

How many people attended those events (in total)?

200

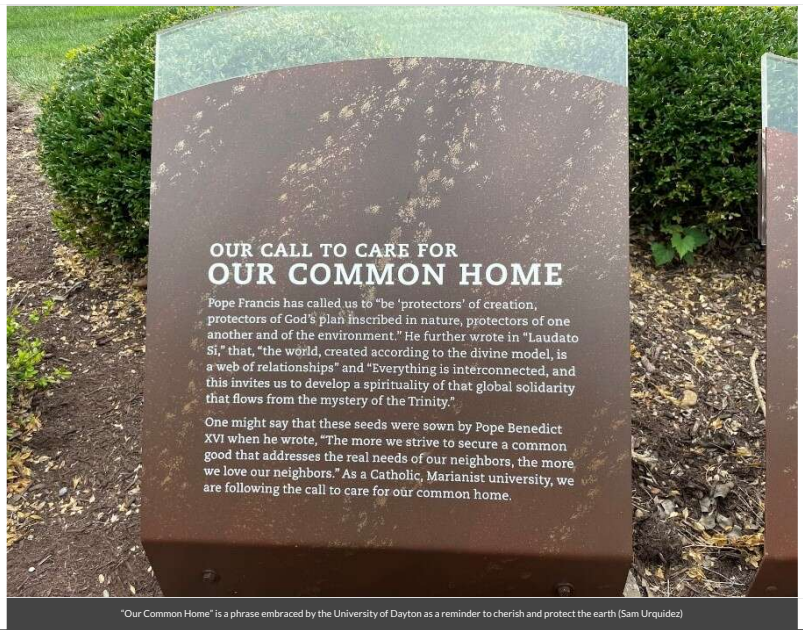
Number of permanent interpretive/educational/Bee Campus USA signs installed to date?

10

Bee Campus members and volunteers from the University of Dayton Insect Ecology Lab educating the public on insect identification at the 2023 Oakwood BioBlitz (Sam Urquidez)

Members of Bee Campus at the University of Dayton braving the cold during the 2023 Annual Earth Fest celebration to educate attendees about the importance of pollinators (Abby Carter)

Signage highlighting the benefits of solar prairies for sustainable energy and pollinator habitat (Sam Urquidez)



"Our Common Home" is a phrase embraced by the University of Dayton as a reminder to cherish and protect the earth (Sam Urquidez)

Curriculum, Continuing Education, & Service Learning

Please describe the curriculum your campus engaged in 2023, indicating whether it was part of a for-credit course or continuing education.

In 2023, the University of Dayton offered five for-credit courses that included pollinator-related content for students. These courses were: Entomology; Introduction to Bees and Beekeeping; Biology II; Ecology; and Invertebrate Zoology. Each of these courses incorporated brief units covering plant reproduction and the significance of pollinators. Among them, "Introduction to Bees and Beekeeping" stands out as particularly informative. This course delves into Eastern United States native and invasive bee species, along with the habitats that are crucial for their survival.

How many of your for-credit courses included pollinator-related information in 2023?

5

How many students attended those for-credit courses?

600

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

2

How many students participated in service-learning projects in 2023 to enhance pollinator habitat on or off-campus?

12

Please describe the service-learning projects your students were engaged in 2023, indicating which, if any, were associated with a course.

In Fall 2023, Bee Campus students organized a service-learning opportunity at our solar prairie, hosting nine of their peers who were members of the University of Dayton River Stewards program. The River Stewards program is an interdisciplinary initiative that earns course credit. During the opportunity, Bee Campus students educated the River Stewards about the native pollinator habitats across campus and then guided them in implementing invasive species removal techniques in our solar prairie. Beyond campus, Bee Campus members volunteered at the Marianist Environmental Education Center (MEEC). Engaging in various volunteer duties such as seed collection, plant propagation, and invasive species removal, these members played a pivotal role in supporting MEEC's conservation efforts. Additionally, select committee members took part in the annual controlled burn of MEEC's restored prairie. This hands-on experience provided insights into an effective prairie maintenance strategy that is prohibited on campus, enhancing their understanding of ecosystem management practices.

University of Dayton ecology students conduct research on ant communities within the solar prairie (Abby Carter)

University of Dayton ecology student with wooly bear caterpillars while conducting research at the solar prairie (Abby Carter)

Policies & Practices

Please describe actions taken to make pest management more pollinator-friendly.
Our team maintains an Integrated Pest Management (IPM) plan aimed at reducing pesticide use on campus. We prioritize pollinator-friendly practices by refraining from chemical pesticides at our prairie sites and opting for low-impact herbicides when needed. Additionally, we exclusively select native Ohio plant species known to support pollinators, sourcing them from local organizations. Our plant choices include lemon mint, bee balm, coreopsis, Indian blankets, black-eyed susans, and milkweed, all contributing to a more pollinator-friendly environment.

In your city or campus, are any policy initiatives underway to further protect pollinators, people or waterways from pesticides?
Currently, there are no policies in the City of Dayton directly addressing pesticide use concerning pollinators. However, notable initiatives are underway in our area to promote pollinator conservation. The Wright-Patterson Air Force Base is a designated Bee City, making it the first military base to receive such recognition. Additionally, Five Rivers MetroParks, our regional park system, is actively taking steps to enhance pollinator habitat. They have been installing and restoring prairie areas to support native species and offering pollinator garden plots within their education and community garden spaces. These initiatives reflect a commitment to safeguarding both pollinators and the environment in our community.

Did your committee participate in any continuing education on ecologically-based Integrated Pest Management planning?
No, our committee did not participate in any continuing education courses specifically focused on ecologically-based Integrated Pest Management planning. However, we did have discussions with Rob Eichenauer, the Director of Grounds Maintenance and Operations at the University of Dayton, regarding our annual pest monitoring and control protocols. Additionally, we reviewed our current Integrated Pest Management practices in conjunction with the university's sustainability strategic plan for campus operations to ensure that our approaches remained aligned with these goals.

Please check actions you have 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
- Distributed educational materials to residents or students to encourage the reduction or elimination of pesticide use
- Sourced plants for city or campus grounds using “Buying Bee-Safe Plants” methods recommended by

Xerces Society. (See https://xerces.org/publications/fact-sheets/buying-bee-safe-plants)

Any lessons learned you would like to share?

A key lesson learned is the misconception surrounding the "save the bees" movement. Many people believe the bees have already been saved or that “save the bees” refers to European honeybees, overlooking the plight of native bee species and simply recognize. Continued education is crucial to dismiss such misconceptions and emphasize the importance of conserving all pollinator species.

Learn More

Integrated Pest Management Plan: IPM - University of Dayton.pdf

Recommended Native Plant List:
https://ohiodnr.gov/discover-and-learn/safety-conservation/about-ODNR/nature-preserves/Documents/native-plants-lists
Recommended Native Plant Supplier List:
https://www.deeplyrootedlandscapes.com/native-plant-directory

https://beecampusud.weebly.com/
sustainability@udayton.edu

https://instagram.com/http://beecampusud