

# Bee Campus USA - University of Illinois at Chicago

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.*

1) BSB Garden Commissioning Event On Tuesday, Sept. 5, 2023, a kick-off event was held to welcome all UIC students, especially first-year students enrolled in the fall 2023 LAS 110 seminar- to the new sustainable space that LAS 110 alumni helped to create. The BSB green space renovation was made possible through generous support from the UIC Sustainability Fund and campus leaders. Our BSB event welcomed over 400+ students to meet with LAS advisors, LAS student leaders, LAS Career Development and campus departments like PSPM and the Academic Center for Excellence. 2) New Heritage Garden on the west side of University Hall The UIC Heritage Garden and the Latino Cultural Center have taken a bold step with the proposed "Reimagining Climate Change Action through a Pilot Native Garden Demonstration Site at UIC". The project makes use of already-existing initiatives such as the UIC Heritage Garden Internship as well as cooperative efforts with other departments, including PSPM and Grounds Services. Drs. Rosa Cabrera and Lori Baptista's participatory action research provided the program's intellectual framework, which lays a strong basis for the project. A partnership with Dr. Eli Suzukovich III, an anthropologist with expertise in ethnobiology, contributes priceless customary indigenous information regarding native flora found in the area. Over time, this cooperative effort has expanded to incorporate educational materials from the Field Museum, increasing the ecological potential of the Heritage Garden. This educational project supports biodiversity and eco-friendly activities, which are in line with UIC's commitment to sustainability. The plaza west of University Hall, the site of choice, deliberately converts open grass into a biodiverse, pollinator-friendly area. There is a strong reason for UIC to host a native garden demonstration site. Universities like UIC are realizing more and more how important it is to battle climate change. The planned location will serve as a teaching tool, highlighting the many advantages of native plants, including their support for biodiversity, ability to regulate temperature, absorb water, sequester carbon dioxide and reduce air pollution. 3) Polk Street Residence Hall Courtyard Garden At the Polk Street Residence Hall, 1933 W. Polk Street, an innovative pollinator-friendly garden flourishes in a sunken courtyard, defying the challenge of limited sunlight. This verdant oasis showcases a tapestry of resilient perennial plants carefully curated to thrive in low-light conditions, transforming the courtyard into a haven for biodiversity. Designed with sustainability in mind, the garden serves as a stormwater absorption hub, efficiently managing rainwater runoff. Native plants dominate the landscape, providing crucial sustenance for pollinators. The strategic arrangement of flora fosters a harmonious ecosystem, supporting diverse insect species that contribute to the local biodiversity. Beyond its environmental benefits, the garden serves as an educational focal point in student life and teaches students about the importance of ecological resilience. This sunken courtyard, once an overlooked space, now stands as a testament to the university's commitment to sustainability and ecological stewardship, fostering a vibrant and resilient microcosm in the heart of campus life.

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

3

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

23

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

3

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

10201

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

- Flower garden
- 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
- Rain garden/bioswale



## Education & Outreach

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

1) Sustainability Internship Program – James Woodworth Prairie Tour The Sustainability Internship Program carried out experiential research at James Woodworth Prairie (JWP), which is located at 9845 N. Milwaukee Ave. in Glenview, IL. The guided tour, led by Sir Alan Molumby, revealed the history of the prairie, from its beginnings as a part of the Peacock farm to the risks posed by urbanization after 1956. This natural treasure has been protected since 1968 thanks to strict conservation efforts led by Professor Molumby. With 4.01 acres of Grade A residual mesic tall grass prairie, JWP is home to more than 140 species that are native to Illinois. Since 1972, the Sustainability Internship Program has focused on controlled fires as a means of managing the grassland. These burnings have changed from being on a set timetable to focusing on particular areas, eliminating invasive species and allowing for closer inspection. The tour emphasized JWP's dedication to continuing research by highlighting studies on soil formation, nitrogen deposition, and the population dynamics of prairie cicadas. The prairie's efforts to promote native species, control overabundant ones and manage fires are examples of its commitment to environmental sustainability. This comprehensive analysis, made possible by the Sustainability Internship Program, provides fascinating information about the rich history, varied fauna and vital role that JWP plays in environmental preservation. The tour is proof of the prairie's perseverance and the program's dedication to comprehending and advancing sustainable techniques.

2) STEM Initiative Garden Tour and Seminar Approximately 48 students from UIC's President's Award Program STEM Initiative went on a guided tour of Arthington Mall on July 28. With its natural vegetation and sustainable features, this green space offered an educational setting. The students learned about the various ecological types in Illinois, biodiversity and the importance of planting native plants. It's interesting to note that they could already identify common milkweed and understand its importance in preserving monarch butterflies. The seminar's topic was UIC's Climate Action Implementation Plan, which detailed the university's aim to become carbon neutral by 2050. Students gained knowledge of sustainable methods and witnessed firsthand how the campuswide Sustainability Internship Program helped students apply what they had learned in the classroom to practical projects. By providing a detailed look at sustainability at Arthington Mall, the STEM Initiative Garden Tour and Seminar fostered a deeper relationship between STEM professions and real-world environmental practices.

3) Early Outreach Program Greenhouse Event On July 18, Planning, Sustainability and Project Management collaborated with the UIC Greenhouse to host an educational event for the UIC Urban Health Outreach Program. During this event, 26 students between the ages of nine and eleven learned about plants and biodiversity and the importance of native plant habitat spaces. The students participated in three activities during their stay at the greenhouse: potting tick-seed plants, making seed bombs, and monitoring milkweed plants for monarch butterfly eggs. While potting the tick-seed plants, students got the chance to get their hands dirty and learn about the importance of native flowers and natural fertilizer sources. The students got to make

seed bombs, which are small balls of clay that contain a variety of native plant seeds. They also learned about what makes a space friendly for plants to grow there and the importance of spreading native plants and flowers across the city. Finally, the students got the chance to examine milkweed plants to check if monarch butterflies had laid eggs on the plants. In the process, students also learned about the life cycle of monarch butterflies and what their migration paths look like, as well as why this species is so important to try and protect. 4) ERC Pollinator Webinar On November 14, 2023, the Energy Resources Center (ERC) at UIC collaborated with Planning, Sustainability, and Project Management to host a webinar about the ways that different groups across UIC are working to promote pollinator conservation both on and off campus. During the webinar, Dr. Christopher Anderson shared information about UIC's efforts to enhance and expand its campus pollinator habitat. Through education and outreach, ongoing work to create pocket pollinator gardens and limiting pesticide use on campus, UIC works to achieve its goal of protecting pollinators. Additionally, an ERC team explained about the work they do to protect pollinators through facilitating the Right-of-Ways as Habitat Working Group, a cross-sector collaboration to support habitat conservation on working lands. This working group facilitates the Monarch Candidate Conservation Agreement with Assurances, a voluntary conservation program that encourages energy and transportation lands to create pollinator habitats on their lands in exchange for regulatory assurances if the monarch butterfly is listed as endangered.

*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)?*

152

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

6

*Number of temporary interpretive/educational/Bee Campus USA signs installed in 2023?*

1

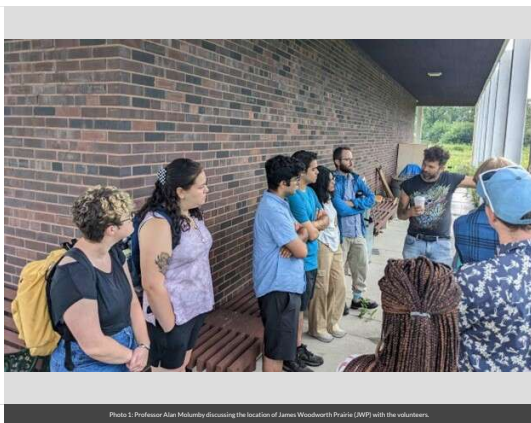


Photo 1: Professor Alan Melourby discussing the location of James Woodworth Prairie (JWP) with the volunteers.

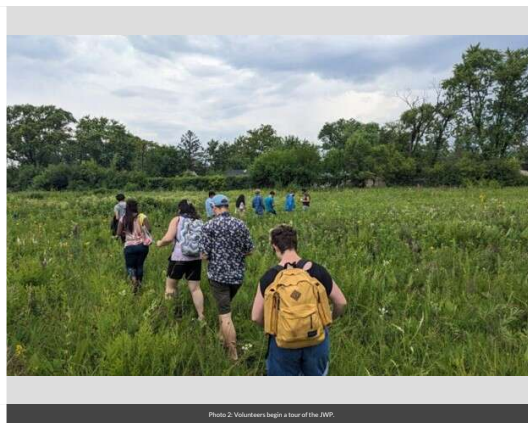


Photo 2: Volunteers begin a tour of the JWP.



Photo 3: PSM interns and UIC Urban Health Outreach Program students made seed bombs to support and preserve monarch habitats.

## 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 Bios 120, a for-majors, required, undergraduate course which includes about 1,200 students per year, there is a lecture on the Biology of Pollinators. This covers pollination syndromes, the basics of how pollination works and the major groups of pollinators – including several families of bees. In Bios 340, Environmental Physiology, students read a paper on the thermal ecology of neotropical stingless bees. There is also some lecture material dedicated to the physiology of insects, and the chemical ecology of deceptive pollination. In Bios 294, Insect Evolution and Biodiversity, there is a two-week unit on the biology of pollinators, extensive readings on pollinator conservation, including the threatened Aztec bee and the non-honeybee *Apis* and new readings on how honeybees harm native pollinator networks. In Bios 431, Plant-Animal Interactions, there is a two-week unit on the biology of pollinators (not the same material), a lot of discussion of how pollinator networks function, and some new reading about how native honey bees in natural areas negatively impact biodiversity. In Bios 305, Plant Evolution and Ecology, there is a fair amount of material on the history of pollination. Next year, the prairie will be open to the public for a Bee Tour. In Bios 365, Human Ecological Systems, urban pollinators are addressed for approximately 1 ½ weeks. In Bios 437, Topics in Tropical Ecology, a unit covers the production of coffee beans with a focus on how pollinator health in coffee growing regions is influenced by the method of coffee plantation that is employed. In Bios 184, Basics of Neuroscience, students are introduced to the basics of bee eusociality and behavior. The relationship between bee behavior and local ecology is discussed with an emphasis placed on the importance of bees in urban environments. In Bios 236, Animal Behavior, students are also introduced to the basics of bee behavior and bee eusociality. There is an emphasis placed on the importance of bee behavior in urban environments and the importance of bees to local ecology. In Curriculum & Instruction 401, Methods of Reading: Early Literacy in Urban Classrooms, students walked the grounds of the UIC Greenhouse connecting observations, inquiries and experiences of native areas with children's books about pollinators, green spaces and ecology. Students also learned about the basics of beekeeping and bee behavior and their connection to urban ecology.

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

10

*How many students attended those for-credit courses?*

1770

*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?*

19

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

1) Sustainability Internship Program's Arthington Mall Weeding Event On June 21, 2023, the Sustainability Internship Program held an essential pollinator conservation event at Arthington Mall. After being renovated in 2021, the mall now has rain gardens, permeable pavement and more than 11,000 square feet of native plant that benefits pollinators in Illinois. Twelve interns enthusiastically participated in the event, which was intended to protect the native plant environment. The focus of the curriculum was on biodiversity, the value of native species, and an understanding of the ecology of invasive species. Known for its scalloped green leaves and violet flowers that thrive in moist, shaded soils, *Glechoma hederacea*, also known as Creeping Charlie, was one of the invasive species that the weeding event targeted. Interns gained knowledge of how to recognize and eradicate invasive species such as perennial Sow Thistle and Canada thistle. The project is in line with the main goal of creating a flourishing pollinator habitat on campus and lowering stormwater runoff through green infrastructure. The program's dedication to environmental education and protection is demonstrated by this event, which also greatly improves the biodiversity and general health of the green space outside UIC's Student Center West. 2) BA 320 BioBlitz Using iNaturalist and Seek citizen scientist tools, a group of seven committed volunteers from the College of Business conducted a week-long biodiversity study of the UIC campus from October 23 to November 3, 2023. Through their efforts, 39 different species were addressed by the 67 unique observations that were added. Students in the College of Business demonstrated their dedication to environmental stewardship and social participation through this effort. Through their active participation in the scientific process with these easy-to-use tools, the volunteers improved their knowledge of local biodiversity in addition to providing valuable data for the survey. Their efforts have an enduring impact on campus, increasing students' awareness of the environment and building a stronger sense of community. The 67 distinct observations provide a visual depiction of the varied and flourishing ecosystems on the UIC campus.



Photo 1: Tackling weeds at Arthington Mall. In June, PSPM interns worked to save pollinators and natural plants and remove invasive species like Creeping Charlie while also learning about biodiversity.

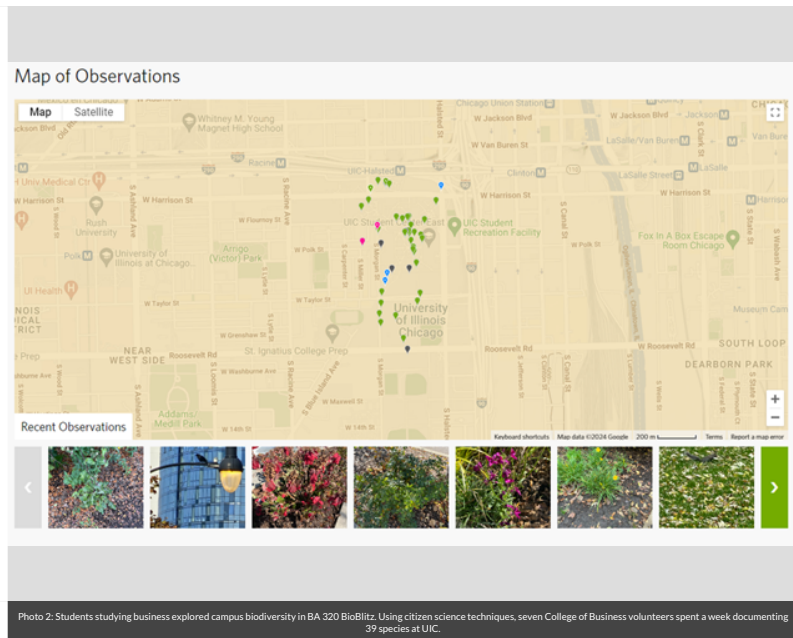


Photo 2: Students studying business explored campus biodiversity in BA 320 BioBlitz. Using citizen science techniques, seven College of Business volunteers spent a week documenting 39 species at UIC.

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## Policies & Practices

*Please describe actions taken to make pest management more pollinator-friendly.*

At the University of Illinois Chicago (UIC), a conscientious approach is taken towards pest management to minimize harm to crucial pollinators like butterflies and bees. While lacking a specific pest management plan, UIC adheres to guidance from Bartlett Tree Care when caring for trees. The institution prioritizes the protection of pollinators by exercising caution in pesticide use, limiting applications to essential areas like lawns, gardens, and sports fields. A noteworthy aspect of UIC's strategy involves a preference for mechanical over excessive pesticide use in garden maintenance. This decision aligns with a commitment to preserving the well-being of bees and other beneficial insects. By minimizing reliance on pesticides, UIC aims to strike a balance between maintaining a healthy environment and addressing the challenges posed by pests. This holistic approach underscores the university's dedication to sustainable practices, ensuring the coexistence of a thriving ecosystem and the fulfillment of its landscaping and maintenance needs.

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

-UIC Climate Commitment Action Plan 2024 Revision- UIC has been a leader in sustainability in higher education for nearly 15 years. The university adopted its first Climate Action Plan in 2009 and followed with related policies. These strategies were combined in 2018 with an added emphasis on the importance of implementation. The result was UIC's 2018 Climate Action Implementation Plan (CAIP). The 2018 CAIP predicted the need to update and revise the plan every five years to employ SMART goals, engage stakeholders and develop an actionable roadmap to achieve UIC's climate commitments by 2050. Planning, Sustainability and Project Management (PSPM) began this task in 2023. Many important aspects of sustainability have emerged since 2018, including a broader societal recognition of the importance of racial and environmental justice when considering solutions to the climate crisis. The updated Climate Commitment Action Plan (CCAP 2024) will be the University of Illinois Chicago's roadmap to achieving a just climate future for our campus, city and beyond. It will be developed through an equitable and inclusive process, leveraging both the university's Strategic Priorities and its unique position to advance climate action. Therefore, the plan must: Lead with Action. Establish clear policies, funding, and accountability for embedding climate action throughout the institution. Set clear expectations, including guidance on an achievable timeline, realistic financial implications, and clearly outline roles and responsibilities. Align operations with the chancellor's five climate commitments to become a carbon-neutral, zero waste, net zero water, biodiverse and transformative scholarship university. Inspire Commitment. Ensure that addressing the climate crisis is a top and lasting priority for the University of Illinois Chicago in terms of research, teaching, operations and culture. Transform Scholarship. Embed climate action teaching, learning, and research throughout the university.

*Did your committee participate in any continuing education on ecologically-based Integrated Pest Management planning?*

Members of the committee participated in the various education and outreach efforts described above.

*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
- Reduced the total area of city or campus-managed lands to which pesticides are applied



Photo 1: Summer Internship Program volunteers help remove invasive species at the Arthington Mall.

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[Learn More](#)

**Integrated Pest Management Plan:**

<https://uofi.box.com/s/m1k45b5y1goizabx6q0ny95puo6rfbrc>

**Recommended Native Plant List:**

<https://uofi.box.com/s/m1k45b5y1goizabx6q0ny95puo6rfbrc>

**Recommended Native Plant Supplier List:**

<https://uofi.box.com/s/m1k45b5y1goizabx6q0ny95puo6rfbrc>

<https://sustainability.uic.edu/green-campus/grounds/pollinator-habitats/bee-campus-usa/>

<https://www.instagram.com/sustainableuic/?hl=en>