

Bee Campus USA - University of Michigan-Dearborn

Report on 2024

Pollinator Habitat Creation & Enhancement

Please describe pollinator habitat creation or enhancement projects in your community in 2024, and whether your committee hosted them or not.

Each year, the Environmental Interpretive Center at the University of Michigan-Dearborn maintains and enhances a number of ongoing pollinator-friendly sustainability projects. Such projects collectively include several acres of rain gardens, a prairie garden, a pollinator garden, a community organic garden, and a 120-acre Environmental Study Area, which consists of meadows, upland woods, floodplain beech-maple forest, an old field, a swamp, and other natural habitats. Weedy and/or invasive species, such as buckthorns and honeysuckles, are monitored and actively removed by community and student volunteers, student interns, and EIC staff during monthly Stewardship Saturdays and Adopt-a-Habitat management events. Volunteers also collected seeds of native flowering plant species which were then spread at various locations where invasive plants had been previously removed. In 2024, it is estimated that 410 volunteer hours were spent on habitat restoration efforts across campus. In June 2024, with the assistance of a Xerces Detroit Pollinator Habitat Kit, a new 400 square-foot pollinator habitat consisting of nearly two dozen different native perennial plant species was installed in the Children's Garden within the university's Community Organic Garden. The Children's Gardening Program is a popular, long-standing program offered by the campus' Environmental Interpretive Center. Children 6 to 8 years of age who participate in the program (along with friends and relatives) learn how to tend vegetables and flowers in their own garden plots. UM-Dearborn student interpreters lead the activities of this program. The pollinator habitat kit is meant to enhance the Children's Garden space to include pollinator nectar and host plants adjacent to the raised vegetable beds. These plants can then be incorporated into new learning opportunities about pollination, pollinators, and garden biodiversity, and will be highly visible to the community of garden plot holders.

How many habitat projects did you help to create or enhance in 2024?

2

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

35

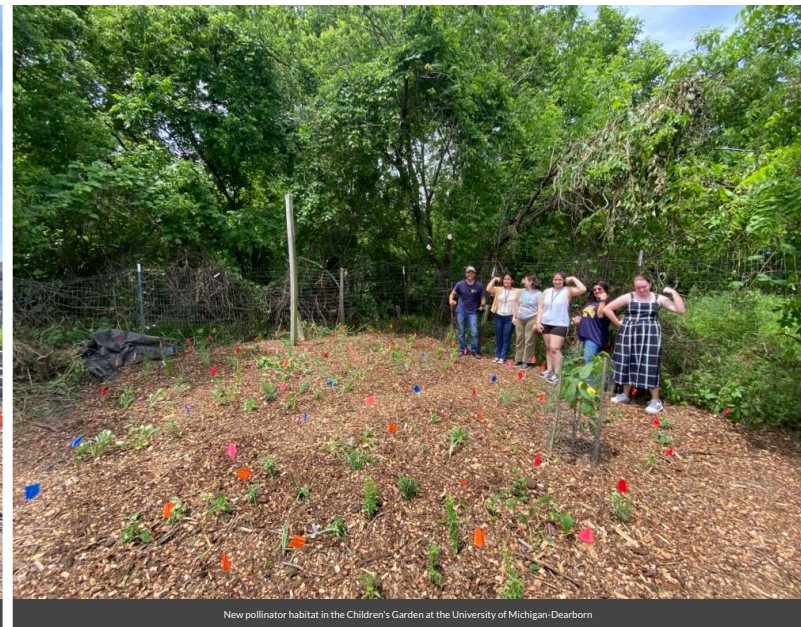
How many projects benefit monarchs, milkweed, or nectar plantings?

1

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

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

- Flower garden
- Vegetable garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- Herb garden
- 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
- School garden



Education & Outreach

Please describe pollinator conservation events or outreach activities in your community in 2024, indicating whether your committee hosted them or not.

The Environmental Interpretive Center at the University of Michigan-Dearborn hosted 41 K-12 and community educational programs about pollinators and the habitats that support them for 243 participants. These programs were led by interpretive staff and students studying in environmental fields, such as environmental studies, environmental science, and biology. Specific programs included Plant Identification and Ecology, Pollination Partnerships, the Children's Gardening Program, and Young Naturalists. During fall semester 2024, student, staff, and faculty team members from Engaged Scholars, the Environmental Interpretive Center, the PolliNation Project, and the Planet Blue Ambassador Program hosted an Insect Hotel Workshop during Civic Action Week for about 20 students, staff and faculty. Participants learned about the critical roles of pollinators in our environment, and how we can help support them by providing nesting and refuge sites like human-made insect hotels. Volunteers helped to assemble 24 birdhouse-sized insect hotels during the 1-hour workshop. If they wished, workshop participants could keep the hotel they built so that they could install it back home. About half of the hotels were donated to the organization, Rescue Michigan Nature Now, a Detroit nonprofit that is passionate about revitalizing and preserving green spaces in the city. The Bee Campus USA Committee and the Environmental Interpretive Center sponsored their fifth annual Pollinator Photo Contest. The public was invited to submit photos in two categories: pollinators up-close and pollinator-flower interactions. A total of 82 photos were submitted for consideration. YouTube videos featuring some of the best photo contest entries from each of the five contest years have also been shared online. Since the inception of the photo contest during the covid-19 outbreak in 2020, 767 photos have been entered for prize consideration from 25 different states and 6 different countries.

How many pollinator-related events or outreach activities did you host or help with in 2024 (in total)?

41

How many people attended those events (in total)?

243

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

3



"Agapostemon + Coneflower" by Evan Deutsch was the winner in the Pollinator-Flower Interactions category of the University of Michigan-Dearborn's Pollinator Photo Contest



A student volunteer helps to assemble an insect hotel during an Insect Hotel Workshop.

Curriculum, Continuing Education, & Service Learning

Please describe the curriculum your campus engaged in 2024, indicating whether it was part of a for-credit course or continuing education.

During 2024, a variety of courses that include pollinator-related information were taught at the University of Michigan-Dearborn. These included the nine courses Principles of Biology (BIOL 100), Introduction to Organismal Biology (BIOL 130), Ecology (BIOL/ESCI 304), Field Biology (BIOL/ESCI 320), Plant Physiology (BIOL 335), Plant Ecology (BIOL/ESCI 337), Plant Anatomy and Physiology Laboratory (BIOL 336), and Medicinal and Aromatic Plants (BCHM 413). 646 students who were enrolled in these courses learned about such topics as the identification, classification, and taxonomy of plants and pollinators, types of pollination syndromes, classes and chemistry of secondary plant compounds for pollinator attraction and human medicinal uses, integrated pest management techniques, principles of organic farming/gardening, and threats of invasive species to native biodiversity and ecosystem structure/function.

How many of your for-credit courses included pollinator-related information in 2024?

9

How many students attended those for-credit courses?

646

Please describe the service-learning projects your students were engaged in 2024, indicating which, if any, were associated with a course.

With continuing financial support of a Ford College Community Challenge Grant from Ford Motor Co. Fund, the university's Environmental Interpretive Center (EIC) continued its student-led PolliNation Project. The project is a campus and community-wide initiative to build insect hotels in order to promote pollinator awareness and conservation. Insect hotels are human-made structures created to provide shelter and nesting sites for beneficial native pollinators. Such homes for pollinators will help a) raise awareness and educate citizens about the threats to and benefits of pollinators in our environment and b) mitigate the declines of pollinator populations in our urban landscape. Since the inception of the Pollination Project in 2019, 173 insect hotels have been distributed by UM-Dearborn students to the general public. An additional 13 larger schoolyard insect hotels have also been distributed to Dearborn Public Schools, where they have been in operation in schoolyard learning gardens since fall 2022. Each schoolyard insect hotel had its own unique design that incorporated suggestions for its appearance and contents from elementary and middle school students and their teachers. The schoolyard insect hotels are situated in the outdoor schoolyard gardens that had been established a few years earlier as part of the Dearborn SHINES project funded with grant support from the Michigan Health Endowment Fund. All school and general public participants are being educated via the PolliNation Project website, as well as information brochures, to recognize the importance of pollinators and the ecosystem services they provide with the intent for them to partake in sustainable practices and other green initiatives in the city. Using two phone apps developed by senior student computer science design teams (CIS 4951/4952) from the CECS-CIS College, PolliNation Project participants are encouraged to report on the visitors to their insect hotels. A Pollinator ID app allows users to identify visitors to insect hotels using photos processed by AI. A second PolliNation Hotels App maintains an online database and map featuring insect hotel locations and construction designs, along with information about local landscape features, including type of habitat, plant species inventories, and types of pollinators observed on site. Both apps are available for download for Android and iOS operating systems. Students also created accompanying walk-thru videos explaining how to use each of the two apps.

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

1

How many students participated in service-learning projects in 2024 to enhance pollinator habitat on or off-campus?

20

Policies & Practices

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

The Grounds Department employs pest management strategies which include public education, sanitation, biological and mechanical controls, and when necessary, chemical pesticides. Turf & Irrigation: The university Grounds Crew maintains 58 acres of turf grass on campus, including fertilization, aeration, and disease prevention and treatment. The Grounds Crew maintains the university lawns at a taller height to reduce weeds and irrigation needs. Lawn clippings and leaves are mulched to provide additional fertilizer. Yard waste is composted whenever possible. Soil testing is done annually to determine the needed fertilization requirements. Irrigation is monitored by a weather system that uses current weather conditions and plant requirements to determine the amount of water used. The Grounds staff includes several employees that are certified in Integrated Pest Management (IPM). This training reduces the amounts of pesticides used to control pests. A major change that was made in 2024 was that herbicides and fungicides are no longer being applied to any turf/lawn areas throughout campus, continuing efforts to reduce pesticide applications that began in long grass areas a few years earlier. Furthermore, the use of insecticides has been restricted to a single field which has a particularly heavy insect pest infestation. Another major change that was initiated in regards to turf management in 2024 was a move to exclusively use a natural organic product, Richlawn Organic 100, as the sole type of turf fertilizer on campus. This product contains only dried poultry manure, blood meal, and feather meal. In addition, the university utilizes a pest management company called Goose Busters for geese management on campus. Geese management involves the use of dogs, primarily border collies, to harass geese away from the lawns, sidewalks, and parking lots on campus. Tree and Shrub Management: The Grounds Crew manages the wide variety of trees and shrubs on campus and treats for diseases and insect infestations. Existing plantings are maintained through scouting, pruning, trimming, fertilizing and sanitation. Pest infestations on all landscape materials are only chemically treated when other means are unsuccessful. New plants on campus are chosen by considering disease resistance, maintenance requirements, and environmental requirements. Planning is currently underway to investigate organic and bee-safe insect/fungus treatments for campus trees in the coming year. Ornamental Plantings: The Grounds Crew employs a master gardener who is responsible for maintaining and planting a variety of flowers and flower beds on campus, with an emphasis on using native species. The wide variety of perennial and annual plants adds beauty to the campus grounds. The Natural Areas Manager of the Environmental Interpretive Center stewards the 120-acre Environmental Study Area. A habitat management plan for this space has been developed and is in the process of being implemented.

Please check actions you have taken to make pest management practices more pollinator-friendly.

- Only use pesticides as a last resort within the 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
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Committee Photo

Learn More

Integrated Pest Management Plan: [Habitat Management Plan for Environmental Study Area at UM-Dearborn.pdf](#)

Recommended Native Plant List: [Pollinator-Friendly Native Plant Species List at UM-Dearborn.pdf](#)

Recommended Native Plant Supplier List: [Native Plant Supplier for the Environmental Interpretive Center at UM-Dearborn.pdf](#)

<https://www.instagram.com/planetbluedearborn>