

Bee Campus USA - Washtenaw Community College

Report on 2022

Pollinator Habitat Creation & Enhancement

The Students For Sustainability Club and Sustainability Literacy Task Force planted some pollinator-friendly flowers in the Student Food Forest this year. They include things like Joe Pye weed, Anise Hyssop, Blue False Indigo, Compass Plant, Lavender, Marsh Blazing Star, Golden Currants, Borage, Sunflowers, and Oregano. We used the book 100 Plants to Feed the Bees from the Xerces Society (2016) to determine which ones to plant. They eventually learned to go over the fencing to pollinate the flowers. Milkweed planting by The PTK milkweed planting project was completed November, 2022. During October of 2022, WTMC Food and Farm Club designed and planted several pollinator beds outside of the hoop house. The students incorporated 6 different native MI species and planted over 40 plants. Students also harvested seeds from many native species around the WTMC farm that will be planted in spring 2023. The WCC Seed Library provides free seeds to grow your garden. One of the objectives of the Seed Library is to support pollinators and the WCC Bee Campus USA initiative. The Seed Library offers many flower, herb, and vegetable varieties that support pollinators including Milkweed. Multiple landscape renovation projects in 2022 created new pollinator habitats and plants for foraging. The new landscape plantings installed along pedestrian corridors included the flowering species of Astilbe, Weigela, Nepeta, Hydrangea, Sedum, and Buddleia and encompassed 2,770 square feet of renovated beds. In addition, thousands of annual flowers were planted in the spring throughout the campus, including many species that support pollinators such as Ageratum, Lobularia, Blue Salvia, Cleome, Angelonia, Lantana, Marigold, and Zinnia.

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

8

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

24025

How many volunteers helped with those projects?

151

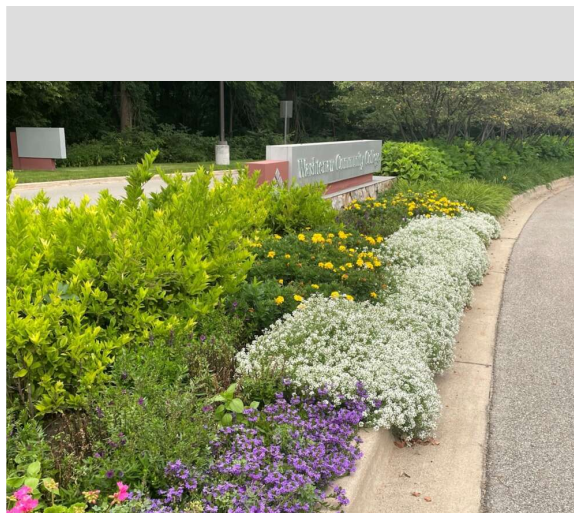
Please check all that describe the habitats your affiliate helped to create or enhance last year with pollinator benefit in mind.

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

- Pollinator-friendly lawn (with flowering clover, dandelions...)
- Herb garden
- 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
- Rain garden/bioswale
- Roadside/rights of way planting
- School garden
- Other



WTMCS students work at the student farm to plant native MI pollinator beds. image 1



Various landscape beds throughout WCC are planted with perennials and thousands of annual flowers, which are visited by different types of pollinators.



Dozens of large seasonal pots are planted every spring at WCC with bee friendly annual flowers and perennials plants.

Education & Outreach

The WCC Bee Campus USA Committee returned to in-person programs from January 2022 through December 2022. The events included: From January 2022 through August 2022, the Bailey Library supported the Bee Campus USA and Seed Library initiatives with a display of books, educational materials, and an activity table. The goal is to promote

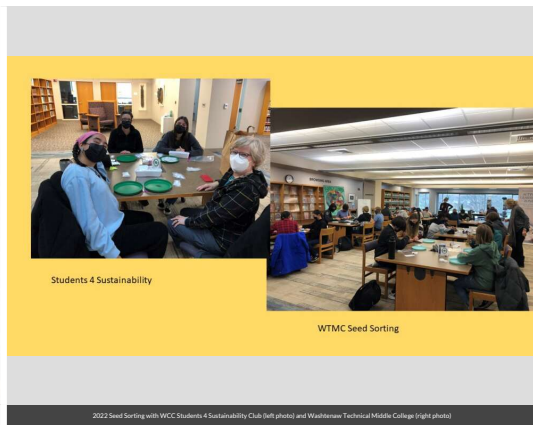
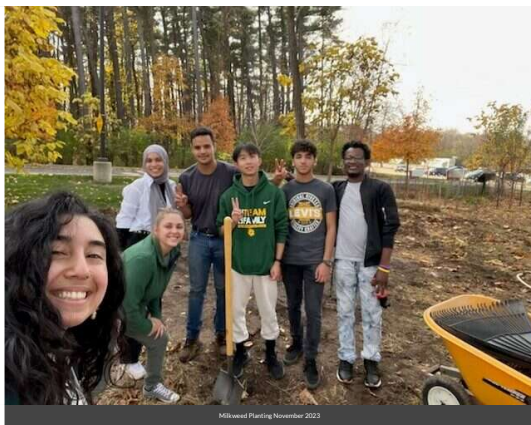
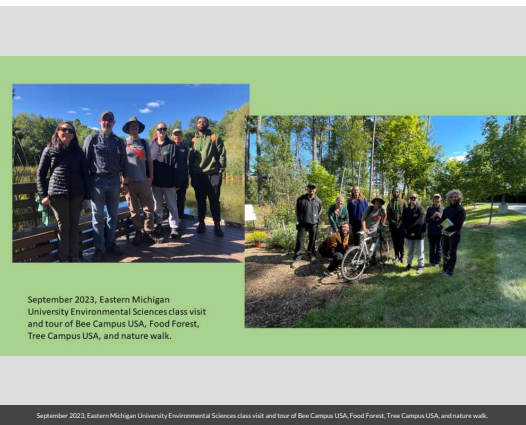
awareness of pollinators and what you can do to help the bees. In April 2022, The Tree Campus USA Tree Walk tour provided by Campus Landscape & Grounds continues to highlight our campus trees and pollinators. WCC Welcome Day is a time to share information about the campus as well as promoting the awareness of the WCC Bee Campus USA initiative. May 2022, WCC Campus participates in No Mow May to help our bee pollinators. May 2022. "Not mowing for one month is not a magic fix to the problems bees are facing, but studies have shown that reducing and/or eliminating mowing in the spring can increase bee abundance and bee species diversity when compared to more frequently mowed lawns." In May of 2022, WTMC offered a Sustainability Research and Action Class (Hoop House/WTMC Student Farm). Students learned about the importance of biodiversity and native pollinator species. The class participated in an action project where the students removed an invasive weed species outside of the hoop house and planted native pollinator plants. In September, we ran a Food Forest Harvest Day, led by the Students for Sustainability Club along with the Sustainability Literacy Task Force. These groups then gave away the harvested food (along with food purchased from the Farmers' Market) at Welcome Day. About 12 people were involved in Harvest Day and about 70 people picked up food at Welcome Day. On September 23, 2022, two environmental sciences professors and their students from Eastern Michigan University interested in a forest restoration project at their campus scheduled an outdoor tour of the Washtenaw Community College campus. The tours were led by representatives from Bee Campus USA, the Sustainability Literacy Task Force, Tree Campus USA, the Nature Trail, and the Students for Sustainability. September 28, 2022, biology instructor David Wooten led a student nature walk tour of the campus greens emphasizing the importance of our pollinators play in our daily lives. The tours included examination of the campus bioswales, the Food Forest, and the Nature Walk, all of which feature a variety of pollinator plants. October 4, 2022 Nature walk from Ann Arbor Nature Preserve. We sponsored a Nature Walk in the campus Natural Areas focusing on wildflowers. The walk leaders were Matt Spoor and Michael Hahn from the Natural Area Preservation. This event was organized by the Sustainability Literacy Task Force In October, the Student Food Forest Cleanup Day was held by the Students for Sustainability with the Sustainability Literacy Task Force. We got the Food Forest ready for winter, brought in prepared food in, and had a celebration! October, 2022 Leave the During October of 2022, WTMC Food and Farm Club designed and planted several pollinator beds outside of the hoop house. The students incorporated 6 different native MI species and planted over 40 plants. Students also harvested seeds from many native species around the WTMC farm that will be planted in spring 2023. Leaves blog post with the Library -Leave the leaves is a new slogan by the Bee Campus USA initiative (Xerces Society) to help pollinators survivor winter. Help protect our pollinators by not racking your leaves this fall or consider leaving a pile of leaves for their winter survival. The Bee Campus USA is helping the fight for the survival of bees threatened by habitat loss, pesticide use, diseases, and climate change. Take part in the national Bubble Bee Watch by submitting your campus photos to the Bumble Bee Watch. November 11, 2022 Milkweed planting by The PTK milkweed planting project was completed on 11/5/22

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)?

351



Courses & Continuing Education

Washtenaw Community College offers for-credit courses that include pollinator-related information and several personal enrichment courses by the WCC Economic and College Development (ECD) Division. Below is a brief description of pollinator educational topics for each for-credit course. BIO 101 – Concepts of Biology. In this course, we discuss the basics of evolution, ecology and sustainability. Lectures include an overview of pollinators. BIO107 – Field Biology – we directly examine in the natural areas around campus bee, wasp, hornet and flower identification, the importance of wildflower diversity and pollination ecology, conservation biology, and invasive species ecology. BIO 161 – Ecology and Evolution. In this class we discuss the coevolution of flowers and pollinators, pollination network ecology, conservation biology, and invasive species ecology. BIO227 – General Zoology – The course we discuss the evolution, anatomy and physiology, and ecology of social insects including bees and wasps. We discuss the coevolution of pollinators and the niche ecology of such species. ENV 101 – Environmental Sciences – The course includes a bee lab. The bee lab was included in the assignment Misinformation & Journal Analysis. Students used a journal article about bees to learn about the parts of an article and to pick our important information from a scientific article. They learn about the importance of pollinators while gaining familiarity with the structure of journal article. The current bee lab is called Bumble Bees and Fungicide. Students are using data from a scientific study of bumble bees to determine if giving them flowers that have been sprayed with fungicide impact the biomass and numbers of bumble bees at different life stages (larvae, pupae, adult worker bees and queen bee). They use the study to learn about native bumble bees, student t-tests and they ask "does a chemical labeled bee safe really have no impact?". The WCC Economic and College Development (ECD) offered six (6) pollinator related non-credit courses during 2022, this included: Composting: The Ultimate Recycling Build Your Own Rain Garden Container Gardening Gardening for your feline friends Homesteading Fall Gardening Tips

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

74

How many students attended those for-credit courses?

1509

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

6

How many participants attended those courses?

39



Left photo: Dr. Emily Thompson, BIO faculty, at the Food Forest with ENV 105 students Spring/Summer 2002. **Right photo:** David Wooten, BIO faculty, with Field Biology students Fall 2022.

Left photo: Dr. Emily Thompson, BIO faculty, at the Food Forest with ENV 105 students Spring/Summer 2002. Right photo: David Wooten, BIO faculty, with Field Biology students Fall 2022.

Service-Learning

An ongoing program is the The Bee Campus USA service learning projects including projects from Washtenaw Technical Middle College (WTMC) and the Seed Library. WTMC planted herbs, flowers, and vegetables and students sorted seeds for pollinators. Washtenaw Technical Middle College (WTMC) 9th grade Environmental Science students maintained (planted, watered, weeded, and prepped beds for fall) six outdoor raised beds with a variety of bee friendly plants that

bloom at different times of the year.

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 last year to enhance pollinator habitat on or off-campus?

144



Educational Signage

4 temporary signs were installed in 2022 that focused on pollinators and sustainable systems. Bee Campus USA “No Mow May” signs were placed at various locations around campus including at the Children’s Center, at the perimeter of parking areas, on an adjacent vacant parcel of land, and near our parking structure.

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

4

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

4



*Temporary No Mow May signs installed in 2022 identifying campus locations participating in the spring initiative to reduce mowing and support pollinators.



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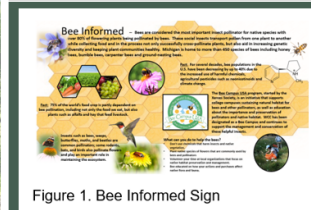


Figure 1. Bee Informed Sign



Figure 2. What is a Food Forest? Sign.



Figure 3. What are Areas of Natural Beauty? Sign.



Figure 4. Bee Campus USA and WCC sign.

*Graphic display of our series of permanent educational signs highlighting pollinators and special habitats, installed throughout campus. The last sign is to be placed this spring at our new pollinator garden scheduled for installation.

Policies & Practices

WCC maintains a written IPM Plan, and reviews management practices annually for updates and revisions. The IPM plan outlines a four tiered approach not to eliminate pests, but to find a balance in the landscape. Our program avoids all pesticide use in sensitive areas and gardens, such as the Food Forest, WTMC Hoop House, green roofs, and other

designated pesticide free zones. We utilize, and also specify that contractors must use pollinator friendly products such as Acelepryn for turf care in lieu of neonicotinoids, and limit applications to a single treatment. WCC is also increasing the use of bio-pesticides, which are developed from naturally occurring compounds or agents that are obtained from animals, plants, and microorganisms. Other management practices include installing chipped mulch to all landscape planting beds, and around bases of trees to reduce the applications of pesticides for controlling invasive and undesirable weeds. Plant materials and shrubs that are known to require pesticide applications for sustaining proper health are avoided, and pest free native and adaptive plant materials are utilized instead for new campus plantings.

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 use of neonicotinoid insecticides on city or campus grounds

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

No new policy initiatives are underway at this time.

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?

Landscape & Grounds staff attend regular training on proper use of pesticides, and are required to be licensed by the State of Michigan to handle and apply pesticides to the landscape. CEU's are obtained from attending seminars, classes, and site tours on research studies, pesticide alternatives, and best practices. Proper timing, application rate, correct pest identification, education, etc. are all factors that contribute to reducing pesticide use. We are active members of the Michigan Green Industry Association, and routinely attend training sessions on protecting pollinators, integrated pest management, and sustainable practices.

Integrated Pest Management Plan: [IPM Plan LandscapeGrounds 2023.pdf](#)

https://libguides.wccnet.edu/BeeCampus/habitat_plan

Recommended Native Plant List: [Athletic Field Bioswale Plant List.pdf](#)

https://libguides.wccnet.edu/BeeCampus/habitat_plan

Recommended Native Plant Supplier List:

<http://www.nativeplant.com/index.html>



“The Hoop House and outdoor classroom, utilized by the Washtenaw Technical Middle College Program is one of several pesticide free zones on WCC’s campus.”

Learn More

<https://libguides.wccnet.edu/BeeCampus>
mccarthy@wccnet.edu; holly@wccnet.edu



From left to right: Emily Thompson, Monica Milla, Holly Herman, David Wooten, Sandy McCarthy, Kimberly Hill-Edwards. Missing: Jeremy Podolak and Lisa Babe.