

# Bee Campus USA - Berea College

Report on 2022



## Pollinator Habitat Creation & Enhancement

A sunny pollinator garden was created on campus using native species, including milkweed, columbine, asters, etc. Plants were chosen so that the bloom time is extended from early spring through fall, maximizing the impact of the garden for longevity of pollinators. An additional annual bed was created to have more flowers throughout the campus for pollinators. There were continued enhancements for a large plot of land that is a mix of woodland, wetland, and meadow. The area was mowed as needed to discourage non-native grasses and invasive trees were removed. , Overseeding of native flowers and grasses occurred throughout the seasons, and mulching or weed-eating occurred around young native tree seedlings, such as papaws, persimmons, dogwoods, and redbuds, to help them get established.

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

3

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

43796

*How many volunteers helped with those projects?*

4

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

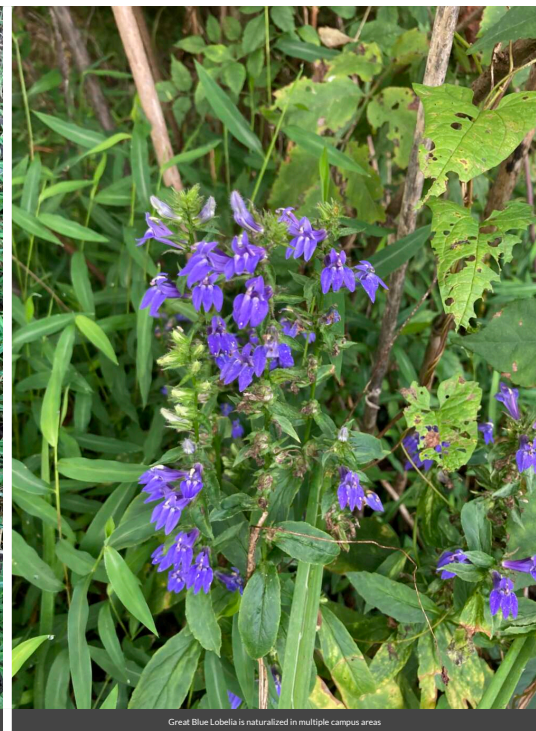
- Flower garden
- Natural area with tree snags and stumps, and bare areas for ground nesting species
- Meadow
- Native milkweed planting for monarchs and bees (where appropriate)
- Invasive/exotic plant species removal for habitat improvement



Spigella Seed source, which are also being sowed in the College cool greenhouse for transplants



Cardinal flowers have naturalized in at least three campus areas



Great Blue Lobelia is naturalized in multiple campus areas

## Education & Outreach

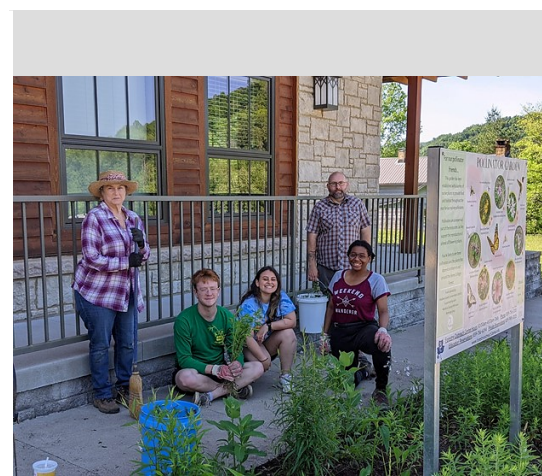
Berea College’s Forestry Outreach Center (FOC) hosted pollinator garden talks that educated the public community, as well as students, on pollinator-friendly plants, techniques, and garden fostering so they may go on to build their own pollinator-friendly gardens. Several of the garden talks were led by students who were guided and taught by Wendy Warren, FOC Coordinator, and John Abrams, FOC Naturalist/Research Technician, who are both part of Berea’s Bee Campus USA committee. Seed and plant giveaways were hosted to increase awareness on the benefits of pollinator gardens as well as to assist the community in growing their own pollinator gardens. Additional FOC pollinator events included moth nights focused on nocturnal insects and their benefits, pollinator-themed activities for school-aged children, and pollinator surveys in gardens and native tallgrass prairies. Each activity was immersive and included a time for questions and answers so that the participants could learn as much as possible during their time at the FOC.

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

15

*How many people attended those events (in total)?*

190



Volunteer Ann Longworth and Forestry Outreach Center employee and Bee Campus USA committee member John Abrams working in the pollinator garden with Berea College Labor Students Chase Asherman, Malena Calamoss, and Malaya Wright.



Pollinator garden talk with Berea College students lead by members of FOC.



Berea College Student Chase Asherman leading a pollinator tour for a group of community members and Berea College students.

## Courses & Continuing Education

Berea College is a private, liberal arts, undergraduate institution that does not offer continuing education courses. The College offered the following for-credit courses last year: Ecology (SENS/BIO 310) This course is an introduction to the basic ecological principles of terrestrial and aquatic systems. Emphasis is placed on experiential learning through field and laboratory studies. Principles of energy flow, material cycles, physiological ecology, population ecology, ecological succession, community ecology, and biological diversity are addressed. Hands-on exercises and experiments are integrated with lectures, discussion groups, student research projects, and computer exercises to demonstrate the process of scientific inquiry into ecological issues. The course is structured as two class periods and one laboratory period each week. Intro to Agriculture An overview of ecological production systems managed to generate food, fiber, fuel, and other natural resources for human use and the academic disciplines associated with them. The course surveys the diverse natural-resource systems upon which we depend while also emphasizing biological systems managed for the production of renewable resources. Historical and current understandings of sustainable resource use are examined and applied to evaluate local, national, and international issues confronting human society today. Students are introduced to the fields of agriculture, forestry, and wildlife and fisheries management, and have the opportunity to explore careers in these areas. This course is recommended for all first-year students intending to major or minor in Agriculture and Natural Resources as well as any students interested in exploring the major. Plant Science This course is designed to develop an understanding of the processes and factors affecting plant growth and development. Biological, soil, genetic, and environmental factors are discussed in relation to agronomic, horticultural, and forest plants. Sustainable practices in crop production and management are also introduced. Environmental Economics The aim of this course is to analyze the role that public policy currently plays—and the role it should play—in helping manage and protect our local, national, and global environment. Pollinator services were discussed as part of the course.

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

4

How many students attended those for-credit courses?

70

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

How many participants attended those courses?



Students in the weeds management class.

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## Service-Learning

The College continued work last year that began during a “Design and Production in Woods” class during the Fall 2021 Term. This was designated as a service-learning course in collaboration with Berea’s Grow Appalachia food security program. The course involved students working with Grow Appalachia staff to design beehives for the College’s beekeeping initiative. The service-learning course provided students with experiential learning beyond the textbook. The Technology and Applied Design Department will continue its collaboration with Grow Appalachia with the goal of building and distributing the beehives to new and established beekeepers in the area. As one student described, “It’s different from other design classes because in those, you are not really working with anyone in practice. But in this class, we can apply what we’re learning. We’re serving a purpose, so it’s really different. Usually, we’re doing projects for ourselves or for a grade, but now it’s for someone.” Production design continued last year as students worked to refine the structure of beehives.

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

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

9

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## Educational Signage

Four No Spray Practices Signs (installed in 2018, permanent) Forestry Outreach Center Pollinator Sign (installed May 2020, permanent) Two Bee Campus USA Signs (installed June 2020, permanent) Two Pollinator Interpretive Signs and Murals (installed spring 2022, permanent) Five Bee Awareness Signs (currently in production for installation this year) In recent years, the College has installed permanent educational signage on campus and at the Forestry Outreach Center that offers information on pollinators, trees, and the College’s “no spray” approach to landscape management. Two additional permanent signs were installed in the summer of 2020 to notify the campus community and visitors of Berea’s status as a Bee Campus USA-certified institution. One was placed near a gateway area of campus and the second was posted near a large Monarch Butterfly Waystation on the main campus. Two temporary educational notices installed during the Fall 2020 Term to raise student awareness of endangered pollinators remain posted in high-traffic areas on campus. The College commissioned two bee mural panels that were installed permanently on campus with interpretive signage in 2022. A new pollinator garden was planted at one of the mural sites. A design for semi-permanent educational signs was just finalized and they will be produced in the coming weeks.

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

7



## Policies & Practices

Berea College implements “No Spray” practices on its main campus, meaning that no pesticides or herbicides are used to discourage the growth of weeds and only organic fertilizers are used on landscaped beds (<https://www.berea.edu/sustainability/campus-culture/berea-college-grounds/>). This allows all native plants to grow on campus grounds and these practices are communicated to and reviewed by the Grounds Management Team on a regular basis and training is provided to new team members. In addition to protecting the health of the campus community and pollinators, the practice is essential because the College’s main campus falls on the intersection of four watersheds and it is vital to limit pollution from water runoff in order to preserve the surrounding natural ecosystems. However, the College’s Grounds Management Team does try to remove non-native plants, such as honeysuckle, given their detrimental effects on local ecosystems beyond their potential benefits to pollinators.

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

- **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**

- Restricted pesticides used to organic pesticides on city or campus grounds
- Eliminated use of neonicotinoid insecticides on city or campus grounds
- 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>)
- Sourced plants for city or campus grounds 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?*  
 Only horticultural oil has been judiciously sprayed in some of the annual beds.

*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?*

Best practice professional development opportunities for the new director have been a priority in this year.

**Integrated Pest Management Plan:**

<https://www.berea.edu/sustainability/learn-landscape-lesson-2-0%20/>

**Recommended Native Plant List:**

<https://www.berea.edu/sustainability/bee-campus-usa/>

**Recommended Native Plant Supplier List:** [Regional Suppliers of Native Pollinators Links.docx](#)

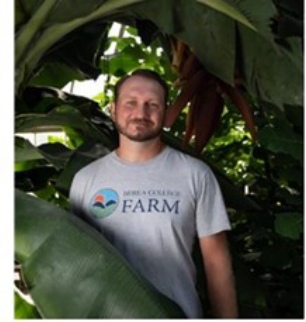


Permanent signage on the main campus that explains the College's "No Spray" practices.

Learn More

<https://www.berea.edu/sustainability/bee-campus-usa/%20%20thompson@bera.edu>





*Berea College Bee Campus USA Committee  
2022 - 2023*



Top row, from left to right: John Abrams, Rosemarie Adams, Dr. Nancy Gift, and Kenny Holbrook Bottom row: Laurie Roelofs, Teri Thompson, Wendy Warren, and Dewey Williams Not pictured: Rose Cottrill, Ashe Hacker