

# Bee Campus USA - Berea College

Report on 2020

## Pollinator Habitat Creation & Enhancement

Berea College is situated on a small but very diverse campus. It includes a 9,000-acre forest and one of the oldest, continuously operating student educational farms in the United States. The College Farm includes a horticulture production area that implements initiatives such as certified organic vegetable and small fruit production; plant propagation and sales; seed production; and a small beekeeping enterprise, all of which highlight the importance of pollinators. The vegetables and fruit produced by the Horticulture Farm and sold in the Berea College Farm Store are certified organic (<https://www.berea.edu/anr/horticulture/>). The Forest and Farm are essential educational campus resources that complement and reinforce in-class academic learning by serving as the primary laboratory for many of the courses taught in academic departments such as Agriculture and Natural Resources and Biology. This necessitates continuously managed production areas and pollinator habitats that are consistently enhanced and maintained by students through the College's federally recognized work-study program with assistance from faculty and staff. Students on the Grounds Team also help maintain a campus landscape that is managed without the use of pesticides or chemicals. In recent years, the College has installed a number of certified monarch waystations. One of them is used to teach students in a Zoology class about monarchs and the importance of planting pollinators to benefit them. In 2020, First Lady Laurie Roelofs and a College staff member tended a relatively new 0.5-acre pollinator garden. This garden is surrounded by a natural habitat comprised of field, tree line with stumps, and fallen trees. Red Clover was also recently planted in the area as a pollinator-friendly ground cover. Additionally, since early 2020, the College has been planning for a new beekeeping mentorship program that will launch in the coming months. The initiative will seek to establish an expanded apiary on the College Farm to protect the local bee population. The apiary will be used as a teaching environment to develop new and existing beekeepers on campus and in the region. The initiative will also recognize the genetics of superior local feral bees and develop new strains of bees and queens that are particularly adapted to the environmental conditions of central Appalachia.





Planting the pollinator garden near the President's Home (Photographer: Laurie Roelofs).



Bees enjoying the President's Home pollinator garden. (Photographer: Laurie Roelofs)



The pollinator garden near the President's Home. (Photographer: Laurie Roelofs)

## Education & Outreach

On March 13, 2020, Berea College ceased all in-person classroom instruction, and most students were sent home to complete the term through distance learning as the COVID-19 virus began to spread rapidly across the country and the world. This shift led to unprecedented challenges as all campus community members developed new approaches to learning and work. Although the College reopened for the 2020-21 academic year for those who wished to return to Berea for an on-campus experience, a number of new policies and procedures were put into place to limit exposure to and spread of the virus, including limitations on campus visitors as well as on- and off-campus activities (<https://www.berea.edu/covid-19/>). As a result, the College offered only a limited number of pollinator conservation events during the 2020 calendar year. The College's Forestry Outreach Center (FOC) hosted two monthly Madison County pollinator group meetings in January and February before the meeting schedule was interrupted by the pandemic. The center hosted a third event in celebration of National Pollinator Week in June. This event included a socially distanced pollinator plant pick-up event and social media posts highlighting the importance of pollinators and the College's designation as a Bee Campus USA such as this Facebook post from June 22, 2020: National Pollinator Week is June 22nd-28th! Pollinators are an essential part of our ecosystem. Help them out by growing pollinator-friendly native plants near your home. We will have a limited supply of plants, so try to come early! Berea College is a designated Bee Campus by the Xerces Society, and we have a pollinator garden growing outside of the FOC building! Check it out, along with our new informative sign. For more information on how you can help: <https://xerces.org/pollin.../pollinator-friendly-plant-lists> The





final pollinator-friendly FOC event was a Tree Week initiative in October 2020 that highlighted pollinating trees. The event included a “Bioblitz” competition that challenged visitors to utilize the iNaturalist app to identify tree species in the Berea College Forest by taking photos of leaves, bark buds, fruit, and nuts. Many FOC events that would have addressed pollinator conservation were canceled in 2020, including eight school group visits scheduled for March and April, an Earth Day “Teach-in,” and a Day Camp experience in June. The College was particularly disappointed to delay the launch of its first annual Forest Festival, a large event scheduled for November 2020 in collaboration with the City of Berea. These events would have reached hundreds of K-12 and Berea College students as well as Berea residents and visitors from the surrounding area. The College’s Office of Sustainability was unable to implement its typical programming in 2020, including the annual Dandelion Festival, an event that first began in 2016 to help people understand the benefits of native pollinators and weeds such as the dandelion. The theme of the 2020 festival was “Reimagining the American Landscape,” and the event would have featured workshops, live music, activity booths, and pollinator-friendly vendors.

There are now four reservoirs and over 9,000 acres of managed forest lands to maintain a healthy ecosystem for both wildlife and humans.

People from the Cherokee and Shawnee nations have cared for this land for thousands of years. We honor all who continue to protect the watersheds and ecosystems that sustain our lives.

Thousands of people come to hike in Berea each year. In 2019, over 20,000 people visited the FOC building and The Pinnacles averaged 5,000 hikers a month!

The Berea College Forest is a rich ecosystem with unique biodiversity. Over 2,100 species have been logged on iNaturalist with over 12,000 individual observations.

Spending time outdoors reduces your stress and lowers your blood pressure. Just 15 minutes outdoors can relax you and restore your mental and physical health. *(The Nature Fed)* So take a break from your screen and head outside!

**August Skies Over the Forest**  
 August 3rd: Full moon  
 August 11th: Last Quarter Moon  
 August 19th: New Moon  
 August 25th: First Quarter Moon  
 The Earth is passing through the trail left by a comet so keep your eye out for a meteor shower! Jupiter, Saturn, and Mars are also visible throughout the month.  
 Check out the Skies Over the Pinnacles page under Forest Ecosystems on our website for more info! <https://forestryoutreach.berea.edu/skies-over-the-pinnacles/>

**Forest Spotlight: Brushy Fork**  
 Also referred to as the “cross country trails,” Brushy Fork is a trail system right behind Alumni Field! With just a short walk from campus you can be greeted by trees and a peaceful place to relax. There are different trail loops you can take with varying mileage and difficulty. Or, you can find a lovely place to sit to do homework, read, or just enjoy the outdoors. You may catch a glimpse of some forest friends, too!  
 A bridge over the stream is a great starting landmark. A map is available there and on our website under “Hiking Adventures”.

**Alumni Fields Pollinator Garden**  
 First Lady Laurie Roelofs is a butterfly lover. She has raised and released monarch caterpillars for years and has helped the FOC in that mission as well. Ms. Roelofs established a pollinator garden to provide habitat for our pollinator friends, as they play an important role in keeping a healthy, happy ecosystem. As you walk to the Brushy Fork bridge, you’ll see the garden on your right. Check it out!

**Reach Out!**  
 Questions about the forest? Hiking? The natural world? Feel free to reach out to:  
 FOC Director: [wendy\\_warren@bera.edu](mailto:wendy_warren@bera.edu)  
 FOC Naturalist: [john\\_abrams@bera.edu](mailto:john_abrams@bera.edu)

Get a FREE plant to feed the pollinator friends near your home!

**POLLINATOR PLANT PICK-UP**

TO CELEBRATE NATIONAL POLLINATOR WEEK!

**WEDNESDAY JUNE 24TH**  
 1:00-3:00 PM  
 OUTSIDE THE FOC BUILDING,  
 2047 BIG HILL RD.

**LIMITED SUPPLY AVAILABLE!**

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*Compliments of the Madison County Conservation District, grown locally by the Berea Urban Farm and in cooperative effort with the Madison County Pollinator Working Group*

Page two of the August 2020 Forestry Outreach Center’s monthly newsletter, which highlighted the pollinator garden established by First Lady Laurie Roelofs.

A Facebook post advertising the Forestry Outreach Center’s Bioblitz event in October 2020.

A social media post on the Forestry Outreach Center’s Facebook page advertising the pollinator plant pick-up event on June 24, 2020 (<https://www.facebook.com/beracollegefoc/>).

## Courses & Continuing Education

The College offered the following for-credit courses in 2019-20: Ecology Course Description 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. Ecological Weed Management Course Description A study of ecological weed control principles. At least one-third of all crop losses worldwide are due to weeds. Weeds affect all areas of landscape and agricultural management: pastures, orchards, row crops, greenhouses, ornamentals, lawns, golf courses, and wilderness. Students in this course gain a broad understanding of weed management practices and a detailed understanding of how to manage weeds in many different contexts. Intro to Agriculture Course Description 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.







Introduction to Agriculture students examining a field of sunflowers in a pumpkin farmer's field. They learned that the sunflowers help foster the bee pollinators necessary to pollinate the pumpkin crop. (Photo credit: Nancy Gift)

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## Service-Learning

Although service-learning is an integral component of the high-quality liberal arts education offered at Berea College, COVID-19 restrictions limited nearly all on- and off-campus activities to ensure the health and safety of students, staff, faculty, and the wider community.

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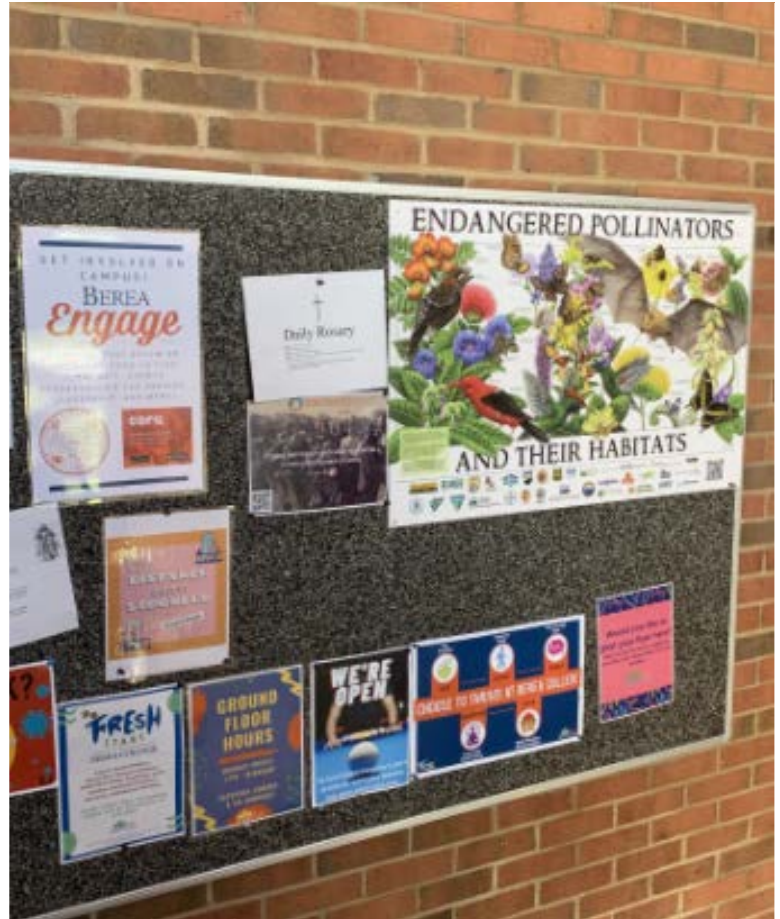


## Educational Signage

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 high-traffic gateway area of campus and the second was posted near a large Monarch Butterfly Waystation on the main campus. Two temporary educational notices were also displayed in the Fall 2020 Term to raise student awareness of endangered pollinators. One was a poster displayed near Dining Services and the second was a digital poster in the widely used Margaret A. Cargill Natural Sciences and Health Building.



One of two new permanent Bee Campus USA signs installed in high-traffic areas on campus in the summer of 2020.



An educational pollinator poster on a bulletin board outside of Dining Services.



## Policies & Practices

Berea College uses “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. 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 make an effort to remove non-native plants, such as honeysuckle, given their detrimental effects on local ecosystems beyond their potential benefits to pollinators.

### **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](#)





## LEARN ABOUT OUR LANDSCAPE

Have you heard the buzz? Bees are necessary pollinators to our native ecosystems. Unfortunately, bees are becoming endangered in many parts of America. Berea College is proud to host pollinator waystations on campus, which are beds landscaped with plants that are attractive to pollinators, including bees, butterflies and even some birds. Without these pollinators we wouldn't have the variety of flowers, fruits and vegetables that make up our food system. In addition to these purposefully landscaped beds, pollinators of all stripes (and



feathers) enjoy blooms of all types, including many flowering weeds. Thanks to Berea College's "No Spray" practices on our main campus, all of these native plants are allowed to grow for use by our wild neighbors.



Scan the QR code to learn more about our landscape on The Berea College Office of Sustainability website.



BEREA COLLEGE  
OFFICE OF SUSTAINABILITY





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

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Learn More

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



## Berea College Bee Campus USA 2020 - 2021 Committee



The 2020 - 2021 Berea College Bee Campus USA committee. Top row, from left to right: Laurie Roelofs, First Lady; Teri Thompson (Committee Chair), Vice President for Strategic Initiatives; Dr. Nancy Gift, Compton Chair of Sustainability & Associate Professor of Environmental Studies; Wendy Warren, Forestry Outreach Center Coordinator; Eric Harshman, Grounds Superintendent. Bottom row, from left to right: Andreea Teban, Strategic Initiatives Program Associate; Kenny Holbrook, BereaCorps LEAN Horticulture Program Associate; Rosemarie Adams, Landscape Specialist; Rachel Hidding, Student; John Abrams, Naturalist/Research Technician. Not pictured: Maddy Richmond, Student

