Bee Campus USA - University of Richmond

Report on 2021

Pollinator Habitat Creation & Enhancement

Through classes and involvement from campus organizations, we hosted a number of planting and cleanup projects to enhance pollinator habitats on campus. In Spring 2020 a biology class started around 150 milkweed seedlings (common milkweed, swamp milkweed, and butterfly weed), however due to COVID-19, two biology faculty planted them. The seedlings struggled due to poor soil conditions and unpredictable rain patterns over the summer. An Intro to Sustainability class replanted swamp milkweed and boneset in 2021. From Fall 2020 through Fall 2021, many groups of students have participated in service days in the Eco-Corridor. Groups assisted with invasive species management, organic mulching, and planting projects in the Eco-Corridor and the organic community garden. Students manually removed invasive species like porcelain berry, field bindweed, Japanese stiltgrass, and English ivy. These service days are completed in conjunction with educational tours of our pollinator meadows and organic community garden. Our organic community garden has approximately 30 beds. Gardeners plant flowers, a variety of vegetables, and herbs every year. The garden is located by one of the pollinator meadows. Other enhancement projects include adding bee houses in the Eco-Corridor, along with planting more native pollinating flowers in our two pollinator meadows.

Fall 2021 Intro to Sustainability students planting swamp milkweed and boneset.

A section of a pollinator meadow in the Eco-Corridor.

A student preparing garden beds in Abby's Garden in Fall 2020.

Education & Outreach

Every semester, we host many different classes and student organizations in the Eco-Corridor that houses our campus pollinator meadows. These groups include, but are not limited to, biology and environmental studies students, spiritual groups, sustainability-related groups, and Bonner Scholars. Tours visit the pollinator meadows to learn about biodiversity, including invasive and native plant species. Additionally, the tours discuss the importance of habitat management as critical for the support of healthy pollinator populations. Due to restrictions around the COVID-19 pandemic, outreach events have been very limited, however we held a virtual brown bag discussion event. The Bee Campus Committee highlighted pollinator conservation projects on University of Richmond's campus, including studies on native solitary bees and monarch butterflies. Lastly, a biology professor specializing in bat studies presented on the significance of bats as pollinators. The Office for Sustainability occasionally posts about pollinator conservation practices on its social media channels. These posts share updates about what the University is doing in support of pollinators.

Students receiving an educational tour of the Eco-Corridor in Fall 2020.

Courses & Continuing Education

Many undergraduate biology and environmental studies students use the Eco-Corridor to study topics with pollinator benefit in mind, including a recent project that examined plant diversity in a pollinator meadow. There are also a couple of living lab courses that have included elements of pollinator conservation. One recurring living lab course studies invasive species removal at Huguenot Flatwater along the James River. Other relevant recent courses include Biodiversity & Conservation, Introduction to Ecology, Landscape Ecology, and Insects and People. Some of these courses include lab

sections where students complete hands-on research projects on campus. University of Richmond's School of Professional & Continuing Studies offers a Permaculture Design Certificate program in partnership with the Shenandoah Permaculture Institute. The program examines topics like design process, regenerative agriculture, social permaculture, water conservation, soil management, and integrating built environments into permaculture systems. Program participants complete a collaborative hands-on design project in the Richmond area.

A presentation during the Permaculture Design Certificate course.

Service-Learning

Sponsored by the Bonner Center for Civic Engagement, students were invited to participate in a "Day of Action" in September 2021. Participants helped with invasive species removal and beautification along the Eco-Corridor. Many of

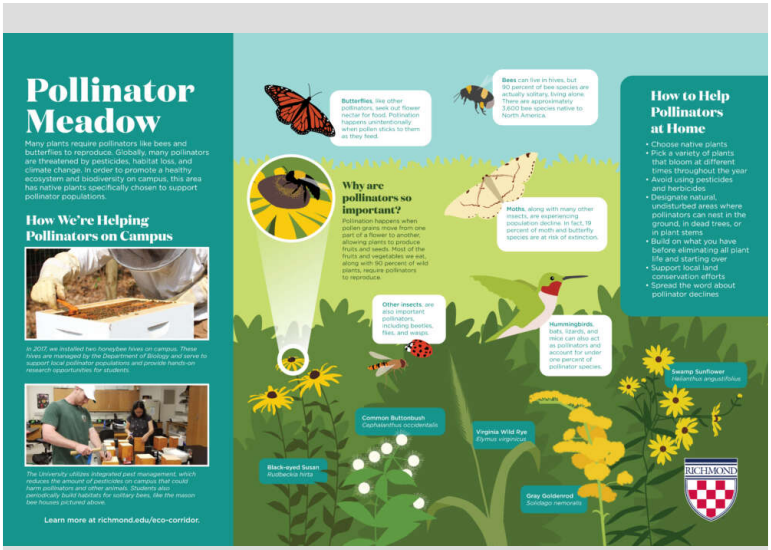
our service-learning opportunities support pollinator health and habitat enhancement. These projects are listed in the habitat enhancement section above.

"Day of Action" participants working in the Eco-Corridor in Fall 2021.

Invasive species removal near a pollinator meadow and Abby's Garden.

Educational Signage

There are a couple of permanent educational signs on campus. We also have an opportunity to partner with Dining Services during their Earth Week programming to post temporary signage highlighting the relationship between pollinators and food.



A permanent sign in the Eco-Corridor describing the pollinator meadows and pollinator conservation.

A permanent trailhead sign that includes information about pollinator meadows and Abby's Garden.

Policies & Practices

The Eco-Corridor is a 13 square-acre section of campus that serves as a model for natural landscape practices. The Landscape Services team avoids the use of pesticides in designated pollinator habitats and sensitive sites. Beyond the Eco-Corridor, landscape practices are in alignment with the University's Integrated Pest Management Plan (IPM), which works to manage and improve the landscape in a healthy and sustainable way. There is an Integrated Pest Management Specialist on the Landscape Services team who oversees all IPM practices on campus. All new construction on campus also avoids the use of irrigation systems by using native plants and less-water intensive plantings. Abby's Garden, UR's community garden, also adheres to organic practices. No synthetic fertilizers, pesticides, or herbicides are used. Weeds and invasive species present in the garden are manually managed. Gardeners are provided compost for use in their plots. In Fall 2021, University of Richmond hired grazing goats from local farm, RVA Goats and Honey, to manage invasive species and overgrown areas in the Eco-Corridor. Goat browsing reduces the need for harmful herbicides. Trail users and members of the campus community love the goats, which has raised awareness for the significance of natural landscape management practices that reduce harm on the environment.

Integrated Pest Management Plan: IntegratedPestManagementPlan20220111[61].pdf
https://facilities.richmond.edu/about-us/environment-operations/landscape/IntegratedPestManagementPlan20220111.pdf

Recommended Native Plant List:
https://drive.google.com/file/d/1gTpNIJdukZfIVdOyIKnAMRSUQLac0zBX/view?usp=sharing

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Recommended Native Plant Supplier List: Recommended Native Plant Supplier List.pdf

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Grazing goats in the Eco-Corridor, Fall 2021.

Learn More

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