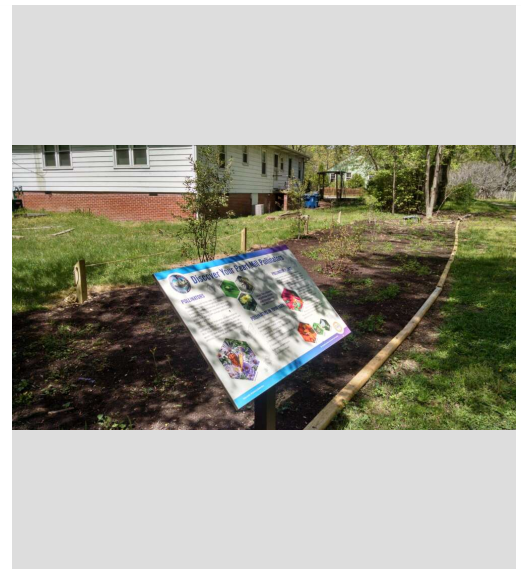
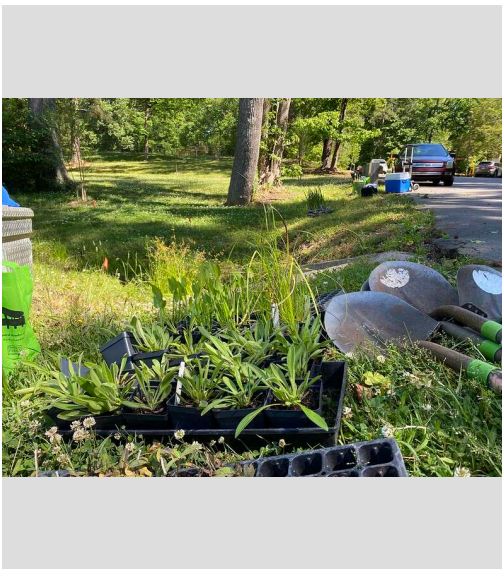


Bee City USA - Durham

Report on 2021

Pollinator Habitat Creation & Enhancement

Together with 10 volunteers, Hub Farm created a 100 sq. ft pollinator garden plus ¼ acre flower meadow of zinnias, sunflowers, cosmos. The City of Durham's Landscape Services Division created one completely new, complex pollinator habitat in downtown Durham, the Rotary Plaza Pocket Prairie, management of which will be done through hand-weeding and cutting plants back once per year. This planting consisted of 1,580 herbaceous perennials and woody ornamental shrubs, all of which are native to the Durham County area and are important for pollinators, 14 of them being keystone pollinator species. The Landscape Services Division also enhanced pollinator habitat in 14 landscapes across downtown Durham, an area of approximately 56,000 ft². The Ellerbe Creek Watershed Association enhanced their 500 sq ft Pearl Mill Nature Preserve pollinator garden, and held a controlled burn at Glennstone Nature Preserve within city limits. Extra Terrestrial Projects installed 1 acre of pollinator plants (5000 plants of over 100 distinct species) to enhance their Prairie Island installation. The Durham Master Gardeners created two new beds of pollinator plants of approximately 320 sq ft in front of their Extension Building. Keep Durham Beautiful installed a new riparian buffer bed with pollinator friendly plants of approximately 2000 sq ft at a local park, as well as a 1,900 sq ft bioretention cell at their offices, complete with native plants such as *Virburndum dentaum* and *Rudbeckia hirta*. KDB also worked with volunteers to enhance at least 7 community gardens and pollinator gardens, including one at a local business. City of Durham's General Services Department (Urban Forestry, Landscape Services) planted 598 trees that are generally accepted as beneficial to pollinators, all species except 2 being NC natives.



Keep Durham Beautiful installed the Lakeview Park Bioswale Riparian Buffer at Lakeview Park through a grant from Arbor Day Foundation supported by Bank of America.

Teachers and their families make bouquets for a morale boost at the Durham Hub Farm Pollinator Meadow

Ellerbe Creek Watershed Associations Pearl Mill Preserve Pollinator Garden, which borders a heavily used greenway segment.

Education & Outreach

Despite the restrictions of the pandemic, Durham Bee City Committee Members hosted over 50 successful pollinator conservation events in 2021. Keep Durham Beautiful partnered with New Hope Audubon Society (NHAS) to launch the “Leave the Leaves” Campaign, in which over 200 Durham citizens pledged to leave the fallen leaves in their yards in place for the benefit of overwintering pollinator species. This project was completed as part of a Sustainable Communities grant from Triangle Community Foundation, and included development of materials such as brochures, yard signs, posters and toolkits for elementary, middle and high school students, and 11 presentations to close to 500 people. NHAS also conducted 28 bird-friendly residential yard visits in Durham City and County, covering 82 acres of habitat. Project Pando gave away 3400 pollinator-friendly native trees, Keep Durham Beautiful gave away 6550 flower bulbs and 300 sunflower seed packets, and Ellerbe Creek Watershed association and Toxic Free NC both hosted pollinator-friendly plant giveaways in two underserved communities. The Museum of Life & Science hosted a Virtual Storytime and a “Hivestream” of their onsite beehives during Pollinator Week, both of which had over 80 attendees. Hub Farm hosted a Pollinator Habitat Summer Camp with the Durham County Library, with 110 kids and adults in attendance. Triangle Land Conservancy hosted a youth outreach event at their Horton Grove Nature Preserve called “Get Wild: Pollinator Wizards!” with two dozen adults and children in attendance. The Durham Extension Master Gardeners hosted a talk series focusing on native plants and pollinators with 47 people attending virtually and 17 in person. Durham County Beekeepers Association held their Bee School virtually with around 45 students, and Hana Lee Flowers serviced 2 pollinator-friendly weddings with over 400 people attending. Buddha Bee Apiary conducted 1,048 Host-A-Hive visits, and gave presentations to 2 local garden clubs, 3 schools and 1 garden center. Their podcast about bees, “Behind the Veil”, was listened to 4,628 times across 25 countries! Toxic Free NC also distributed pollinator education materials at a farmworker family vaccination event with over 100 people in attendance, helped with the Saving America Pollinators Act lobby day, installed 600 “Spray Free Zone” signs, led a “Join the Yarden Revolution” educational campaign promoting native and pollinator-friendly landscapes as a solutionary alternative to petrochemical-reliant lawns and turf grass. 20 Durham Public School teachers and staff received Biodiversity training at Durham Hub Farm through grants from Burt’s Bees and City of Durham Sustainability. Mayor Schewel issued a Mayor’s Monarch Pledge and committed to activities to support Monarch habitat in 2021.





Get Wild: Pollinator Wizards! Event at Triangle Land Conservancy's Horton Grove Nature Preserve. Pictured: Bee bath craft to educate on importance of clean water to pollinators health



One of Buddha Bee Apiaries youngest beekeepers-in-training, Mako, learning the ropes during a Host-a-Hive visit.



Flyer from the New Hope Audubon and Keep Durham Beautiful partner project, Leave Your Leaves, in which 200 people pledged to leave their fallen leaves for the benefit of overwintering pollinator species.

Policies & Practices

Using the Rotary Plaza Pocket Prairie as an example, nearly a year of cover crops preceded prairie planting (first crimson clover and winter rye during winter-spring, then pearl millet during summer-fall) meaning no herbicide was needed as the cover crops outcompeted a large portion of the weeds, and no mulching material was imported to the site as cut pearl millet served the purpose. No fertilizer was imported to the site (crimson clover provided nitrogen, all cover crops provided organic matter), the site was solarized between cover crops as another means to avoid application of synthetic pesticides, and only native plants suited to the site were incorporated into the design so they will not only be aesthetically pleasing but will be healthy, which is the best way to obviate the need for water and synthetic chemical inputs. The inclusion of many different plant species means that the biodiversity in the garden is high, i.e. another way to improve an ecosystem's sustainability through resilience despite minimal inputs. Management will be done through hand-weeding and cutting plants back once per year – a dramatic reduction in chemical, water, and mechanical inputs compared to a standard urban landscape. These more sustainable landscapes allow City of Durham's Landscape Services to avoid use of pesticides in city sites that have pollinator habitat, implement non-chemical pest prevention and management methods on city grounds, eliminate pesticides used solely to maintain aesthetics on city grounds; reduce the area of city-managed lands to which pesticides are applied; and adopt a no-neonicotinoid insecticides practice. In addition to this, Toxic Free NC participated in a national coalition that added important protective language for pollinators that was included in the infrastructure bill, and distributed information about the impacts of bee-harmful neonicotinoids and submitted a public comment to EPA during its registration process of that family of pesticides.

Integrated Pest Management Plan:

<https://ipm.ces.ncsu.edu/>

Recommended Native Plant List:



<https://ncwf.org/habitat/native-pollinator-plants/>

Recommended Native Plant Supplier List:

<https://docs.google.com/spreadsheets/d/1HAFFrqkUSgBfgAVmmx3H-zEJxJnKjqz7of926Elw0sE/edit#gid=0>

Learn More

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