



Erosion Control Pollinator Meadow

Permaculture Gardens

Electrical Infrastructure Right of Way  
Demonstration Pollinator Garden

Low Impact Development  
Stormwater Management

Poor Soil Meadow

Formal Pollinator  
Dry and Wet Meadows

Visitor Parking

First Year Seeded Meadow

The "Big Meadow"

Dee's Bees Garden

Tall Grass Meadow

Mini Meadows

Stormwater Wetland

Pollinator Plantings in Median

UNIVERSITY OF NORTH CAROLINA ASHEVILLE  
POLLINATOR TOUR

35 MPH Pollinator Garden

CAMPUS DRIVE

UNIVERSITY HEIGHTS

BROADWAY

BOTANICAL GARDEN

WT WEAVER BLVD

## **UNC Asheville Pollinator Gardens**

**Permaculture gardens** on campus present a unique opportunity to provide food for both humans and insects. At the Millar Complex, the permanent agriculture includes both native and non-native species, including: persimmons, apples, peaches, pears, chestnuts, mulberries, pecans, black walnuts, raspberries, blackberries, elderberries, blueberries, figs, jerusalem artichokes, herbs, sochan, and maypops. Also located at Millar is JC's Pollinator Garden which includes: brown eyed susans, frost aster, cup plant, New York aster, sunflowers, Culvers root.

**Low Impact Development** is a stormwater management strategy that endeavors to mimic natural systems. At the Sam Millar Facilities Management Complex this stormwater management strategy includes trees, shrubs and herbaceous perennials that also benefit pollinator species.

**Main Entrance Stormwater Wetland:** This constructed wetland treats 33 acres of campus runoff. Within the wetland there are several habitat zones including, dry land, deep channel and pond, and shallow marsh. Each zone has the ability to support a wide range of plant and animal species. Pollinator supporting vegetation includes: maples, pine, willow, sycamore, alder, silky dogwood, aronia, spirea, cardinal flower, pickerel weed, duck potato, wool grass, sedges and rushes, sneezeweed, hibiscus, burr reed, nuphea, and waterlilies.

**Poor Soil Meadow:** Nutrient poor, acidic, heavy clay soils provide another medium for a biodiverse selection of vegetation. Species in this area include American plum, oaks, broom sedge, grey goldenrod, wild quinine, coreopsis, frost aster, and late purple aster.

**Tall grass Meadow** is located on a south facing slope and designed to mimic a natural high elevation plant community. Native grasses (which provide nesting habitat for bumblebees) including little blue stem and indian grass were sown amongst planted white pine and maple. The indian grass quickly spread to all areas of the slope and essentially choked out the little blue stem and many of the forbs. This is an early example of a meadow that required much more management than what the grounds department can provide.

**First Year Seeded Meadow:** This area of the campus was sown in March 2015. Because of the prominent location of this meadow, a hard fescue, cool season, grass species was used rather than warm season native grasses. The primary species that germinated were black eyed susan, yarrow, and coneflower. The annual brown eyed susan bloomed throughout the summer. The coneflowers did not bloom the first year.

**Erosion Control/Permaculture Meadow:** This meadow was created on a very steep, cut slope above the Millar Complex as part of a grant from The NC Farmland Preservation and Agricultural Trust Fund. The slope has a thin layer of soil that eroded in heavy rains. The grant provided funds for planting nut and fruit trees and shrubs, as well as hydro-sowing a pollinator habitat seed mix. The vegetation cover provided by the pollinator meadow has resolved the erosion issues on this slope.

**Electrical Infrastructure Right of Way Demonstration Pollinator Garden (The Wire Garden):** On the UNC Asheville campus, Duke Energy maintains their rights-of-way with forestry mulching machines. Approximately two years ago (2013), the rights-of-way were mown. In the first year, many native species, existing in the seed bank under the forest canopy, grew to begin to fill the open cut. Unfortunately, both invasive plants and root sprouts from canopy trees grew in the cut as well. The first summer approximately 90% of the tree sprouts were treated with herbicide. During the second year exotic invasive plants were removed through pulling and herbicide treatment. Management of invasive species will continue for many years.

**Formal Dry and Wet Pollinator Meadows:** This meadow was designed by local landscape architect Randy Burroughs and implemented by UNC Asheville students. Funded by Burt's Bees Greater Good Foundation and the Blue Ridge National Heritage Area, the dry and wet meadows were placed in a very prominent location on the campus as a demonstration of the beauty of pollinator meadows. The wet meadow is a good place to see all life stages of the monarch butterfly.

**The "Big Meadow":** Up until twenty five years ago the big meadow was maintained as a pasture. When management strategy of this area changed to once per year mowing, many native grasses and forbs emerged under the canopy of shortleaf pine. Since 70% of bee species nest in the ground and many pollinators overwinter in dry hollow stems, these natural, undisturbed areas are vital to many insect pollinators' life cycles.

**Mini Meadows:** The mini meadows along the greenway include a low area that intercepts run off from the road and a "sandy" dry meadow. Soil preparation of the dry meadow included incorporation of river sand. Species in the mini meadows include little blue stem, indian grass, sunflowers, penstemon, goldenrod, phlox, new jersey tea, wild quinine. In the wet meadow, species include blue mist flower, cardinal flower, wool grass, iron weed.

**Dee's Bees Garden:** This garden was created as a part of an Environmental Studies Course taught by Dr. Dee Eggers. The students studied the requirements of a healthy pollinator habitat and drew up ideas for a garden. Dee's Bees Garden was created from those ideas.

**Pollinator Plantings in Median:** A median in a roadway provides another opportunity to provide sustenance to pollinators. There is a wide range of tree, shrub and herbaceous perennials that benefit pollinators and are able to thrive surrounded by asphalt.

**35 MPH Pollinator Garden:** This garden was created along a busy roadway that leads to downtown Asheville. The garden is designed to be viewed by both pedestrians and vehicle drivers. It contains species that are bold and beautiful. Species in this garden include: Sunflower, aster, bee balm, goldenrod, purple headed sneezeweed, new jersey tea, arrowwood viburnum, buttonbush, milkweed, and boneset.