

McKeon Farm Project: Design and Habitat Management Strategies to Support At-Risk Pollinator Species

By Kitsey Snow

In 2020, two Connecticut organizations that help make up the Ridgefield Pollinator Pathway—the Norwalk River Watershed Association and the Town of Ridgefield Conservation Commission—hired Massachusetts consultants Evan Abramson of [Landscape Interactions](#) and Dr. Robert Gegear of [The Beecology Project](#) to develop landscape plans for McKeon Farm, a 43-acre property that is one of Ridgefield's town-owned open spaces. The intent was to provide key native plants that serve as food and pollen sources for several local native bee species that are in decline.



Evan earned a Master of Science degree in Ecological Design from the Conway School of Landscape Design and has served as a regional planner for several community projects across New England. Dr. Gegear is a Biology Professor at UMass-Dartmouth and founded the New England Beecology Project. Working together, they created designs that considered the different growing conditions and cultural situations the locations offered.

McKeon Farm has been farmland for over 200 years. The planted areas are varied and include a hedgerow and meadow, with full sun/part shade and average-dry soils; and a wet meadow, which has full sun and moist-wet soils.

The plantings at McKeon included about 70 different species of trees, shrubs, herbaceous perennials, vines, grasses and a meadow seed mix that Evan developed specifically for the site. While some of these species have yet to take hold, especially those that were seeds, many of the plants grew quickly and benefited the pollinators within the first season of planting.

In the hedgerow, where we removed 300' of bittersweet and barberry, we have seen hearty growth from the following: meadowsweet and steeplebush (*Spirea alba* and *S. tomentosa*), flowering raspberry (*Rubus odoratus*), St. John's-wort (*Hypericum prolificum*), native roses (*Rosa carolina* and *R. virginiana*), willows (*Salix humilis*, *S. lucida* and *S. Petiolaris*), honeysuckle (*Diervilla lonicera*), asters (*Doellingeria umbellata*, *Symphotrichum novae-angliae* and *S. novi-belgii*), Common Selfheal (*Prunella vulgaris*), Joe Pye Weed (*Eutrochium dubium* and *Eupatorium purpureum*), Pennsylvania sedge (*Carex Pensylvanica*), Eastern redbud (*Cercis canadensis*) and American holly (*Ilex opaca*).

To prepare the meadow, we de-sodded the pasture grass and seeded it with the meadow mix. Beardtongue (*Penstemon digitalis* and *P. hirsutus*), Sundial lupine (*Lupinus perennis*), Field thistle (*Cirsium discolor*), goldenrods (*Solidago nemoralis*, *S. juncea*, *S. speciosa* and *Euthamia graminifolia*), Bee balm (*Monarda fistulosa* and *M. punctata*), asters (*Doellingeria umbellata* and *Symphotrichum laeve*), and grasses (*Panicum virgatum*, *Eragrostis spectabilis* and *Danthonia spicata*) all appeared during the first season and have continued to spread.

The wet meadow was thickly populated before we planted, so we merely added diversity to what was already there by planting Pussy willow (*Salix discolor*), Swamp rose, (*Rosa palustris*), Buttonbush (*Cephalanthus occidentalis*), grasses (*Carex stricta* and *Schizachyrium scoparium*), blueberry (*Vaccinium corymbosum*), monkey flower (*Mimulus ringens*) and Swamp milkweed (*Asclepias incarnata*), Obedient plant (*Physostegia virginiana*) and Pickerelweed (*Pontederia cordata*).

The plants were sourced from EarthTones (CT), Planters Choice (CT), Vermont Willow, Kohl Gardens (MA), Native Plant Trust (MA) and the seeds were sourced from Prairie Moon Nursery (MN).

For a full project report with plant lists, please see the [Pollinator Pathway website](#).

Science Informs Design

McKeon Farm is being surveyed for pollinator species diversity and change over a three-year period by Dr. Gegear. A classic “before and after” experiment, Year One (2020) involved observing and documenting pollinator and plant species interactions on the site before any planting or landscape modifications took place.

Years Two and three (2022 and 2023) will document changes in species presence and interactions after the recommended plants, designs and management guidelines from the [Toolkit](#) have been implemented.

This [Toolkit](#) has been created to specifically target and support bee and butterfly species which are threatened or at risk in Western Connecticut. The study format is based upon years of intensive field and lab observations by Dr. Gegear, which correlate at-risk bee and butterfly species with particular pollen, nectar and host plants, as well as nesting preferences. It is expected that populations of the at-risk bee and butterfly species targeted in this [Toolkit](#) will not only be observed, but sustained on each site in Years Two, Three and beyond.

Using the Beecology app that Dr. Gegear created, citizen scientists can contribute to species observations at McKeon Farm, as well as throughout the region, by uploading videos and photographs of bumblebees on plants. Dr. Gegear and members of his lab verify every bumblebee and plant ID before they are added to the database. To become a Beecologist get started [here](#).

More Resources:

[Toolkits](#) for projects in CT and MA, including plant lists for at-risk bees

Dr. Gegear’s [list of plants](#) to support MA bumblebee species at risk:



At-risk pollinators targeted by the McKeon Farm toolkit include the Golden Northern Bumblebee (*Bombus fervidus*), left; and the Half-Black Bumblebee (*Bombus vagans*), right.

Photos: Karalyn Lamb