Pollinator Teaching Harding Township School

New Vernon, NJ

June 11, 2019

Each fall, millions of monarch butterflies migrate from the United States and Canada to mountains in central Mexico where they wait out the winter until conditions favor a return flight in the spring. The monarch migration is truly one of the world's greatest natural wonders, yet it is threatened by habitat loss at overwintering grounds in Mexico and throughout breeding areas in the United States and Canada.

The Potted Garden donated the development of a pollinator teaching garden

with a focus on the monarch butterfly to the Harding Township School. This was provided to the school at their request to supplement a district wide, cross curriculum capstone project.

Beth Riley, owner of The Potted Garden, explained that, "a monarch butterfly and wildlife habitat garden design provides a place to feed, rest and breed." Meeting with the cross curriculum team in the winter of 2018-19, Beth evaluated the proposed site and identified action plans to prepare the site including drainage improve-

ment, sunlight considerations, soils and garden bed preparation. This was done in parallel with the design development.

"This garden was designed with native, native cultivars, and other sequentially flowering perennials and shrubs. Butterflies and native plants have co-evolved over time and depend on each other for survival and reproduction. Native plants provide butterflies with the nectar or foliage they need as adults and caterpillars," said Beth.





Pollinator Teaching Garden Final Planting

"The design assures that the maximum number of monarchs survive in this habitat through the density of the planting. Planting host and nectar plants close together contributes to this shelter for monarchs and other wildlife," Beth explained. All monarch life stages need shelter from predators and the elements. The Pollinator Teaching Garden, installed by The Potted Garden in June 2019 was used to illustrate that monarch, other butterflies and numerous pollinators need nectar. Providing nectar sources that bloom sequentially

or continuously during the season creates a habitat that provides resources for monarchs throughout the breeding season and the migration in the fall.

Beth's design illustrates the monarch habitat which should include a place for butterflies to rest and drink. "Butterflies need sun for orientation and to warm their wings for flight. Placing flat stones in a garden provides space for butterflies to rest and bask in the sun. Butterflies often congregate on wet sand and mud to partake in pud-

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dling where they will drink water and extract minerals from damp puddles," she described.

The Potted Garden suggested the school register the garden as an official Monarch Waystation, which was accomplished in the same year the garden was installed. (See the nationally recognized www.monarchwatch.org to register your habitat). The Potted Garden also counseled the school on appropriate management of their habitat garden. Pursuing land stewardship, most beneficial to wildlife includes prohibiting use of insecticides along with tasks such as soil amendment, removing dead stalks, watering and constant watch and removal of invasive plant species.

Beth provided curriculum resources for the teaching staff to be used in conjunction with the new garden. Educational opportunities including hands on activities to maintain the habitat garden, lesson plans bridging the garden and indoor classrooms in conjunction with the long term nurturing of the garden were provided. A preexisting outdoor education pavilion already present within the garden coupled with paths through the plantings all contribute to the enhancement of the student outdoor learning experience.

The garden is meeting its objective as an inspirational cross curriculum program. Mathematics teacher, Susan Engelsman and member of the cross curriculum team excitedly announced three months after the garden was installed, "There are monarch caterpillars in our butterfly garden!"

"The students, in studying grit and tenacity as part of this capstone project will appreciate that there is no effort too small to have a positive impact. By creating and maintaining this pollinator teaching garden, students will contribute to monarch conservation efforts that will help assure the preservation of the species and the continuation of the spectacular monarch migration phenomenon," said Beth.