

Plymouth State University Named New Hampshire's First Bee Campus USA

by MELISSA MOORE

warded on March 1, 2020, Plymouth State University is New Hampshire's first Bee Campus USA. Mattea Powers, a PSU honors student majoring in environmental science and policy, got the ball rolling. Knowing food security for humans is dependent on pollinators, Mattea set out to make a difference. First on the list was to spread the word and form a committee. As president of the Plymouth State Common Ground and Environmental Justice Organization, she invited like-minded students and staff to join the newly formed Bee Campus Committee. Spurred to action by their passion for sustainability, 20 or more members got on board for pollinator protection.

From the outset, Mattea worked with Professor Mary Ann McGarry to make their application a reality. McGarry is an Associate Professor of Environmental Science and Policy. Her work nationally and globally for healthy habitats has been a lifelong commitment. Through course work and club affiliations, McGarry has encouraged students to complete campus tree inventories, present educational talks, and participate in campus events like the annual Earth Jam.

Now that the university is a Bee Campus USA, McGarry predicts her course assignments and hands-on learning experiences will expand. Students will design pollinator gardens, host campus walks to showcase PSU's native plants and trees, and build meaningful networks with other pollinator protection advocates.

Plymouth State University is a 183acre campus, located in north central NH where the Baker River joins the Pemigewasset River. The Grounds Department describes the campus as "mixed use" with 75 acres of lawn and athletic fields, 50 acres of woodland, and 27 acres of impervious ground cover such as parking lots, walkways, stairs, and roadways.

Pollinators find forage at the Peace Garden and from nectar-rich blooms in container plantings. Campus trees supply essential pollen. PSU, also designated a Tree Campus USA in 2018, is home to many varied tree species.

Interstate 93 parallels the campus along its eastern border. Just beyond this corridor, acres of open fields used for hay and pasture surround the developed town and campus center.

A member of the Physical Plant Department sits on the Bee Campus Committee. Their strategy for grounds maintenance is compatible with pollinator health, so the designation as a Bee Campus will not force any big changes.

"Our goal is not to set hives and keep bees," Powers says. "We want to be ambassadors for all beneficial pollinators."

Last fall, Powers and McGarry arranged a screening of the movie "Queen of the Sun" to raise awareness of pollinator protection. This awardwinning film showcases the perils of honey bee decline. The screening was well attended and helped the new Bee Campus Committee decide on a future plan of action.

For a NH viewpoint on bees, the committee decided their next step should be to tour an apiary. But where?

As they considered where to go, Kathy Tardif, Catholic Campus Minister and Bee Committee member, had an "Ah-Ha!" moment. She recalled a feature article on a NH beekeeper and chandler in her most recent issue of Parable Magazine, a publication of the Diocese of Man-

chester: Her recommendation won the Bee Committee's unanimous approval. Soon they were on a road trip to Marklin Candle Designs and Windover Farm in Contoocook, NH. Both businesses are owned by Martin and Christine Marklin.

At their candle manufacturing facility the Marklins produce and design thousands of liturgical candles for worldwide sales. This year, special Paschal candles from Marklin Candle Designs spanned the globe for Easter services in Guam, throughout Europe, the continental U.S. and Hawaii. Martin says, "I started this business 35 years ago in the basement of my parents' St. Louis, Missouri home. I saw a gap in the production of these beautiful candles and decided to specialize in this area."

Catholic Church guidelines call for liturgical candles to be at least 50% beeswax. Annually 30,000 pounds of beeswax are used in the production of Marklin Candles. To secure this high volume of beeswax, Martin sources his raw material from both domestic and international sources.

Martin says, "I'm one of seven companies in the U.S. that supply liturgical candles."

He got into beekeeping later and steadily increased his hive numbers. Currently he manages 120 hives in bee yards at his Windover Farm and throughout the surrounding area. He says, "Prior to keeping bees, I realized I didn't have a clue how beeswax was made. Since my business is built on this ingredient, I felt compelled to learn. Beekeeping is now my avocation, and it's changed how I live my life."

When the PSU students arrived for their tour, they got a better picture of how bee colonies operate and



The Bee Campus USA Committee toured Marklin Candle Designs and the bee yards at Windover Farm. Martin Marklin is shown at left leading the tour. The students were joined by Kathy Tardif, PSU Catholic Campus Minister (second from the right). Photo credit: Mary Ann McGarry

how there's more to a hive than just honey.

Kathy Tardif reports, "The students and I learned so much on our tour. It changed us. We gained an appreciation for all the ways pollinators take care of creation. As long as we humans don't get in their way and disrupt the process with hostile practices, then they'll keep doing what's in their nature to do."

Kathy adds, "As a minister, it's my habit to always say grace before a meal. Traditionally I offer a blessing for the hands that have prepared it. Now my blessing includes the bees and other pollinators because I know they've made it possible."

Kathy was instrumental in the creation of the Peace Garden on campus. Its central feature is a labyrinth surrounded by native plants. The sustainable design was installed by Jamie McMillan of McMillan EcoDesign in nearby Thornton. Jamie is a PSU alumnus with a degree in environmental planning. Kathy says, "The Peace Garden's design and plant population is completely in sync with the goals of Bee Campus USA. We were thrilled to have Jamie return to campus and do such a great job with the installation." The Peace Garden's regular maintenance is done by Jodi Schaefer, gardener with the PSU Grounds Department, whose pesticide/herbicide-free maintenance strategy is 100% compatible with Bee

Campus USA's recommendation that its affiliates reduce chemical controls as much as possible. The national organization also requires its affiliates to continue to sponsor education classes on pollinator conservation. The goal is to involve both students and the public in these educational opportunities. PSU exceeds this requirement through its robust academic offerings and club activities. Many students complete courses offered in permaculture, which is a big-picture way of looking at your surroundings and adopting practices to conserve and renew resources. At the heart of best permaculture practices is building and maintaining sustainable and resilient ecosystems.

McGarry says, "Our experience with the application process was positive. We're thrilled to be a Bee Campus USA. We just don't know all the benefits yet of earning this designation but we're looking forward to what the future will bring."

Melissa Moore has been a beekeeper for four years. She is a member of her local and state bee clubs. She has written for publication in the areas of horticulture, agriculture,



and environmental science. Melissa has a degree in library science and educational technology. She lives on her family's 210-acre farm, where she gains hands-on experience though her involvement with their diversified farm.





