

Celebrating Our Native Bees



Bumble bee photo by Joseph Berger, Bugwood.org

Did you know that there are about 340 species of native (indigenous) bees in Connecticut? It's true, and they pollinate 80% of our native plants, trees and shrubs. The bumble bee is most recognizable and is our only truly social bee who creates a small hive. Other native bees are solitary in nature and have no hive to defend. Most dig hatcheries in the ground while others utilize hollow stems and pre-existing tunnels in trees. Bumble bees and solitary bees are not aggressive, unlike yellow-jackets and other wasps. Native bees simply go about their business of collecting pollen.

Native bees are our most important and successful pollinator. While other pollinators (butterflies, beetles, flies) visit flowers solely for nectar, native bees intentionally visit flowers to collect pollen for their offspring. Tucked under hairy bellies or in pollen “baskets” on their legs, these adaptations make native bees better pollinators. When foraging, pollen-covered hairs brush against flowers and pollination ensues. Conversely, honey bees (unlike native bees) groom themselves to make a pollen-nectar paste for carrying back to their hive. It is this neatness that makes them less efficient at pollination than native bees.

Beekeeping is not bee conservation. Not indigenous to North America, honey bees were introduced by European colonists in the 17th century. Today, honey bees are important for large-scale agriculture. Considered domesticated livestock, they are sheltered and cared for by beekeepers. While there have been hive losses, honey bees are not at risk of extinction. It is estimated that there are more honey bees now than at any time in history. In contrast, many bee species native to North America are endangered and at risk of extinction. This is primarily due to loss of habitat and floral resources for food and natural areas for shelter and nesting. **The better approach to pollinator conservation is to focus on providing natural and pesticide-free habitat.**



Squash bee photo by Susan Ellis, Bugwood.org

Native bees are very important to agriculture. As major pollinators of tree fruits, berries and vegetables, native bees add an estimated \$3 billion worth of crops annually to the U.S. economy. Native bees are more resilient and tolerant of cold and wet weather than honey bees. And according to The Xerces Society for Invertebrate Conservation, flowers pollinated by native bees will have larger and higher quality fruit.

Bumble bees have the ability to “buzz pollinate” to shake pollen loose. They are highly effective pollinators of plants in the Solanaceae family that includes tomato, pepper, eggplant and potato. They are also important pollinators of blueberry, cranberry, and raspberry. **Squash bees** are “specialist” pollinators of plants in the Cucurbit family, pollinating squash, cucumber, melon and pumpkin. Fast-flying **mason bees** are efficient pollinators of fruit and nut trees: apple, cherry, plum, peach, pear, and almond. It takes 40,000 honey bees to pollinate one acre of apples as efficiently as 250 orchard mason bees. The **Eastern carpenter bee**, also a buzz pollinator, is an efficient pollinator of many flowers and vegetables. Other solitary bee species, small and tiny in size, are important pollinators of many plants, trees and shrubs. They include **cellophane**, **mining**, **sweat**, and **leafcutter** bees.

Native bees emerge at different times throughout the growing season. While most are “generalist” pollinators, every bee species includes some “specialist” pollinators who require specific flower pollen to feed their young. Providing native plants that attract specialists benefit all native bees and other pollinators. Visit our website for a list of plants that benefit specialist bees as well as plants for seasonal bloom.

The resilience of our environment and our very existence depends on our native bees and the pollination services they provide. The best way to help all pollinators is by planting a diversity of native plants for continuous bloom throughout the entire growing season and by preserving natural areas for nesting and shelter. As always, keep it pesticide-free.