

Saving the Small Things: Insect Pollinators in the Garden

By Laura Huenneke

Most gardeners appreciate the importance of pollinators – animals, chiefly insects, that carry pollen from one flower to another. Roughly three-fourths of our crops depend on pollinators to produce fruits and vegetables. We've domesticated honeybees (originally from Europe and Asia) to do this work. Native bees and other insects in North America are equally effective as pollinators, though. In fact, the southwestern U.S. hosts the most diverse set of native bees on the continent.

Some bees are tiny while others are large – for example, the huge but harmless black carpenter bee, *Xylocopa*. Small, metallic green bees on my herbs are members of the halictid family. Other native bees closely resemble honeybees, with gold and black stripes and large pollen “baskets” on their legs.

Bumblebees are large, non-threatening, and entertaining to watch. I'm thrilled each year to see the first bumblebees in my garden. Sadly, bumblebees are in trouble. Science shows climate change is eliminating them from locations that are lower in elevation and therefore hotter. They are apparently not successfully migrating northward or towards higher elevations.

Do you want to learn more about native bees? The Xerces Society, a non-profit focused on insect conservation, provides a free guide to identification with suggestions for encouraging their success in your landscape. “The Bees in Your Backyard” (2016), by J.S. Wilson and O. Messinger Carril, is a fantastic book with photos and range maps for hundreds of bee species. Another book, “Our Native Bees” (2018) by P. Embry, contains entertaining stories of bees and their relationships with plants.

Butterflies and moths are lovely visitors to our landscapes. Black swallowtails lay eggs on plants of the carrot family (both wild and in the garden, like dill and parsley) but most other swallowtail species rely on native trees and shrubs. Tomato hornworms and related caterpillars mature into spectacular sphinx moths and clearwing hummingbird moths. When my tomato plants are growing vigorously, I often leave one or two hornworms to feed on them, with the philosophy that there's enough to share.

Monarchs are our best-known butterflies, but they have declined drastically in recent years. The U.S. Fish and Wildlife Service has proposed putting them on the

Endangered Species list as threatened. You may have seen references to growing “Milkweeds for Monarchs,” as monarch caterpillars feed exclusively on milkweed plants. Other insects, too, specialize on milkweeds, while adult monarchs seek nectar from a wide variety of flowers. Planting native milkweed along with other nectar flowers is a great way to support monarch conservation.

There are numerous pollinating insects beyond bees and butterflies. Many wasps rely on flower pollen, from delicate thread-waisted wasps visiting garden herbs to impressive tarantula hawks (spider-eating wasps) on milkweeds. Daily I see bee flies (bombylids), small beetles, and many others on my garden and landscape flowers. Tellingly, there are many species with the common name “flower beetle,” such as the Tumbling Flower Beetle and the Shining Flower Beetle.

To encourage pollinators and native insects, you can buy bee “houses” and tubes for nesting, but other steps are equally useful. Minimize your use of insecticides; bees are very sensitive to these. Water is beneficial; adding a sponge or rock can help bees and butterflies access your birdbath or water feature.

Growing native plants, or select non-natives producing plentiful nectar and pollen, can attract bees, butterflies, wasps, and small flies. Two small examples: I let native Rocky Mountain beeplant (*Cleome serrulata*) grow in my iris bed during summer, and I grow blue-flowered borage in a small pollinator garden near my vegetable beds. Both are buzzing with bees all summer.

I recently learned about Homegrown National Park - not a place to visit, but a grassroots movement encouraging the creation of native plantings. The initiative was co-founded by entomologist Doug Tallamy and entrepreneur Michelle Alfandari. Tallamy points out that if half the lawns in the U.S. were converted to native plants, the acreage would equal that of our largest national parks. Homegrown National Park provides peer support and expert resources such as lists of keystone native plants for each region. People around the country proudly share photos of their yards, plants, caterpillars, and pollinators under this tagline. Join them by growing a few native plants for pollinators yourself!