

Butterflies Need Weeds

Butterflies bring joy to our lives. Just the sight of a monarch or tiger swallowtail flitting about my yard makes me happy. If you want to attract butterflies to your yard, you need to provide both host plants and nectar plants. Host plants are those specific species that butterflies lay their eggs on or near so that their caterpillar larvae can eat them. Larval host plants include trees, shrubs, perennial flowers, native grasses, and vegetables. Some of the perennial plants critical for butterfly maturation are considered weeds.

You may know that monarch caterpillars require milkweed (*Asclepias spp.*) as a host plant to survive. A monarch caterpillar that does not have milkweed to eat cannot complete its life cycle. Milkweed is sometimes considered a weed, but it is the only plant genus a monarch can eat during the larval phase of its life. Monarchs are not the only caterpillars that are picky eaters. While most adult butterflies are not highly choosy about which flowers provide their nectar, many butterfly caterpillars feed on only one plant genus or several very closely related plants. Their highly selective diets have coevolved over many thousands of years with their host plants.

Like the monarch, the painted lady (*Vanessa cardui*) is a migratory species that overwinters in the southwest U.S. and northern Mexico then flies northward each summer. This colorful butterfly needs thistles (*Cirsium spp.*), borage (*Borago officinalis*), and common mallow (*Malva neglecta*) as host plants. Nothing screams “weed!” more than thistle. Native thistles are not only an essential host plant to the painted lady, they also provide high-quality nectar for numerous adult butterfly species. Be careful to distinguish our native thistles such as tall thistle (*C. altissimum*) and field thistle (*C. discolor*) from the invasive Canada thistle (*C. arvense*), bull thistle (*C. vulgare*), and musk thistle (*Carduus nutans*). The Xerces Society offers a free online publication to help with native thistle identification.

Fritillary butterflies in our region eat only violets (*Viola*) and passion vines (*Passiflora*). If I hadn't allowed wild violets to grow in the flower bed along my sidewalk, I would not have noticed variegated fritillary caterpillars (*Euptoieta claudia*) eating them. Adult female fritillaries often lay their eggs not on the violets themselves, but on other plants near the violets. When the eggs hatch, the tiny, hungry caterpillars have a short distance to travel to the violets, on which they immediately start feeding.

The common buckeye (*Junonia coenia*) has distinctive large eyespots, an adaptation thought to ward off birds who would like to eat it. The buckeye feeds on several weedy host plants, including narrowleaf plantain (*Plantago lanceolata*), purple gerardia (*Agalinis purpurea*), and blue toadflax (*Nuttallanthus canadensis*). Plantain is commonly found popping up in lawns. By removing it from your lawn, you are eliminating one of the buckeye's host plants.

Another common butterfly in Pennsylvania is the common sootywing (*Pholisora catullus*), a small, black species in the skipper family. Sootywings feed on lambsquarters (*Chenopodium album*), another weedy plant. The orange sulfur (*Colias eurytheme*), a pretty yellow-orange butterfly, requires clover and alfalfa as host plants. These are just a few examples of weedy plants and the butterflies that need them to survive.

Evidence is mounting that butterfly populations are declining at an alarming rate largely due to habitat loss and fragmentation, including loss of their host plants. Widespread use of insecticides and herbicides is another major factor in their decline. We can help these little beauties by making sure their host plants are readily available. Your backyard could be the perfect place for a butterfly garden that includes both host and nectar plants. Many host plants would do well in an informal area of your yard, separate from the more formal, mown area. Alternately, consider converting part of your sunny lawn into an area that hosts butterflies. As you may have guessed, a well-coiffed lawn composed of just turf grass will not attract butterflies. If at all possible, avoid using insecticides and herbicides on your property.

By providing both host and nectar plants for butterflies, you can play a critical role in their survival. If you can tolerate some weedy host plants in your yard, you will be rewarded with frequent sightings of this beautiful symbol of transformation, hope, and the triumph of the human spirit.

~ Beth Jacoby, Master Gardener



Variegated fritillary caterpillar eating wild violet leaves. Photo taken and submitted by Beth Jacoby



Variegated fritillary adult butterfly. Photo taken and submitted by Beth Jacoby