## Attracting Butterflies to Your Garden

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When it comes to attracting butterflies to your garden, everyone is tempted to look to nectar-rich flowers. Nectar is one of two keys to butterfly gardening. First, nectar-rich flowers attract adult butterflies that will seek food while they mate and lay eggs. Second, host plants are those plants upon which the adult lays the eggs and the plant acts as the "host" or food for the caterpillar stage. Insects and plants have co-evolved together and this association with each other has resulted in many unique physiological adaptations and specialized interactions in both. Ecologically speaking, the plants you choose for your butterfly garden can have a profound effect on biodiversity. Non-native plants from other area of the world simply do not have the same food value to Virginia butterflies because they have not co-evolved with our butterflies. "Research has shown that alien ornamentals support 29 times less biodiversity than do native ornamentals" writes Doug Tallamy in his pivotal book "Bringing Nature Home". Choose plants for your garden that are native to Virginia and more specifically native to the Northern Neck. And remember that many of our trees host dozens if not several hundred species of butterfly and moth caterpillars. In fact, research has found that oaks host 532 species of caterpillars while Black Cherries and Willows host well over 400 species - all of the catipillars being nutritious bird food, especially for baby songbirds. Always keeping in mind that both nectar and host plants are essential.

Offering host plants is one of the most effective ways to entice butterflies into your garden. The very best gardens are those which combine nectar plants and host plants together. Adult butterflies may only live a few days or several weeks, and must find the appropriate host plants on which to lay their eggs, in a very short time – if the species is to survive to another generation. By providing host plants to your garden, you will encourage butterflies to spend more time there as the females explore sites for laying eggs. Although adult butterflies are able to use a variety of nectar plants for food, they require very specific plants for laying their eggs, because the caterpillar offspring or larvae can only feed on the leaves of particular species. The caterpillars of some species, like the monarch, can only feed on one kind of plant; in the monarch's case it's milkweed. For some Fritillaries it is violets, and for the Zebra Swallowtail, it is PawPaws. If these butterflies do not find the appropriate host, there will be no next generation of butterflies! For more information on important host plants, see the Butterfly Host Table and don't forget to plant trees and shrubs! Some of the best host trees for butterflies are Oaks, Black Cherries, Hackberries, River Birches, and native Willows.

While adult butterflies need a ready supply of nectar through the seasons from spring through fall, they require nearby host plants to lay their eggs on. These adults prefer to feed on flowers planted in masses or broad sweeps. It is always best to have a variety of different flower types and shapes to accommodate a wide variety of species. Some of the best spring nectar plants include Violets (Common Violet, *Viola sororia*; Birdsfoot Violet, *Viola pedata*; and Field Pansy, *Viola bicolor*; Golden Ragwort, (*Packera aurea*); Golden Alexanders, *Zizia aurea*, *Phlox* spp. such as Wild Blue Phlox (*P. divaricata*) and Moss Phlox, (*Phlox subulata*); Wild Geraniums, *Geranium maculatum* and *G. carolinianum*, and Pussytoes, *Antennaria* spp. And don't forget the early spring blooming spicebush, *Lindera benzoin*, that does double duty a an early spring nectar plant and a host for the beautiful Spicebush Swallowtail.

Summer butterfly favorites for your garden include Coneflower (*Echinacea purpurea*), Coreopsis (*Coreopsis spp*.), and Blazing star (*Liatris spicata*). Mints, Bee Balms including Monarda didyma, fistulosa and punctata and Mountain Mints such as the Thin-leaved and Blunt-leaved Mountain Mints, (*Pycnanthemum teuifolium and muticum*) attract a constant crowd of butterflies and other pollinators and are deer resistant too boot. Black-eyed Susans (such as *Rudbeckia hirta* and *R. fulgida*, and their cousin the Cutleaf Coneflower, *Rudbeckia laciniata*) are also great.

Native perennials in the milkweed genus are very important to butterflies for both nectar and reproduction of our beautiful Monarchs, such as common milkweed (Asclepias syriaca). swamp milkweed (*A. incarnata*) and butterfly weed (*A. tuberosa*), which also have rich reservoirs of nectar and pollen. But be sure to choose species native to your area, as some popularly touted species such as , (A. curavssica), from Mexico have been shown to cause problems for Monarchs in delaying migration and may not be as nutritious. The phlox genus is also a good choice with thick-leaf phlox (*Phlox carolina*) and summer phlox (*P. paniculata*. Other beneficial natives that bloom in late summer and attract a large number of butterflies include Joe Pyeweed species (Eutrochium dubium and fistulosum and others) which are also host to about 3 dozen species of butterflies and moths. Their smaller cousin, Blue Mist Flower (Conoclinium coelestinum) blooms for several months with soft blue flowers and is a butterfly magnet. Other plants I couldn't be without include the lovely native Lobelias. Cardinal Flowers, (Lobelia cardinalis) a favorite of Cloudless Sulphurs which are attracted to the color red, Great Blue Lobelia (Lobelia siphilitica), and Downy Lobelia (Lobelia pubescens) which all feature tall spires of tubular flowers and often have several butterflies nectaring on them at once! They have the added benefit of attracting hummingbirds to the late summer garden! The lovely native Verbena Verbena hastata also adds height to the summer garden with tall spires of small purple flowers that attract a diverse number of butterflies. Skippers seem to be especially fond of the Verbenas. All of these beauties bloom for a number of weeks during the summer months.

Plants that bloom in fall, like goldenrods (*Solidago rugosa, S. sempervirens,* and *S. odora*) and Asters (the Aster genus has now been divided into several genera with long names such as (*Symphyotrichum*, and *Eurybia*) are particularly important for butterflies preparing for winter. No matter what name they go under the Asters are indispensable butterfly and garden plants including: the Smooth Aster (*Symphyotrichum laeve*), the New England Aster (*S. novae-angliae*), Seaside Aster, (*S. sempervirens*), as well as the shade loving Asters, Blue Wood Aster (*S. cordifolia*) and White Wood Aster, (*E. divaricata*). New York ironweed (*Vernonia noveboracensis*) and Sunflowers like Narrowleaf or Swamp Sunflower (*Helianthus angustifolius*) are also important late season nectar plants. All will extend the beauty of your garden until frost and are critical nectar sources for fall migratory butterflies such as the Monarch, Cloudless Sulphur, and Painted Lady. These fall blooming nectar rich Goldenrods and Asters, top the list of perennials that are host plants for butterflies and moths, with both supporting over well 100 species of Lepidoptera.

Finally, a lot of gardeners enjoy planting annuals such as Zinnias, Mexican Sunflowers, Lantanas and a variety of herbs, all of which provide nectar to butterflies. The aptly named Butterfly Bush certainly attracts a variety of butterflies to its nectar, but be forewarned that it is invasive in some areas, and does not *host* a single butterfly species. If you choose to plant this, be sure to also plant several host plants that do support all stages of butterflies to insure we have butterflies in our gardens in future years.

Butterflies need a damp spot for drinking water. They prefer mud puddles or wet, sandy areas. You can sink a bucket completely filled with sand into the soil and fill it with water so that the top is damp. A rock or twig in the sand will provide a perch. Butterflies prefer sunny sites with protection from wind. Several species are attracted to over-ripe or decaying fruit or animal feces and may feed on nectar only as a supplement. You can sometimes attract them by putting a shallow bowl of over-ripe fruit such as watermelon out near the garden to attract them. And finally, never apply pesticides to your butterfly garden, and be sure the plants or seeds you buy have not been treated with neonicotinoid pesticides at nurseries or growers. This group of pesticides, often just called 'Neonics', are systemic poisons which means they are taken up throughout the plant, and persist in all parts, even the nectar and pollen, long after the seeds or seedlings were treated, posing a grave threat to all pollinators and songbirds! And finally remember that some butterflies overwinter as chrysalises in leaf litter or attached to dead plant stalks, so allow your garden to "go a bit wild" and leave the leaf litter in your garden beds as a natural mulch and leave the dead stalks standing until spring, where they add beauty silhouetted against the winter sky, often etched in frost or snow, and provide winter food and shelter for a number of species of pollinators and other wildlife. Have fun, add plenty of natives, and go wild for butterflies, songbirds, and beauty!