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# Plant a ~~Butterfly~~ Caterpillar Garden!

*"Happiness is a butterfly, which, when pursued, is always just beyond your grasp, but which, if you will sit down quietly, may alight upon you." - Nathaniel Hawthorne*

Last spring my Assistant Entomologist and I were asked to speak about butterflies to a garden group. Before getting on with the business of attracting them, we decided to discuss how to generate more of them (and our moth friends) through plant selection. Since a very tender age I've known the fascination of watching pet caterpillars transmogrify to something entirely other - as Buckminster Fuller said, 'There is nothing in a caterpillar that tells you it's going to be a butterfly.' Now I actually can rear them as part of my job, as staff discovered after finding the occasional one gone rogue in the lab. But it's easier to let nature do it for you: consider choices for your customer's flower garden that provide food for both the adults (butterflies, moths) and their caterpillars, many of which are beautiful and interesting in their own right. While most moths are active during evening hours - the garden is a different world worth inspecting after dark- some, like the beautiful white-lined sphinx (*Hyles lineata*) or the amazing hummingbird moth (*Hemaris diffinis*), will be active during daytime. For purposes of most readers the discussion will be restricted to herbaceous ornamental flowering plants, but woody plants, grasses, weeds, and others are hosts to many butterflies, moths and their caterpillar stages we (and hungry birds!) also like having around.



Common buckeye butterfly.

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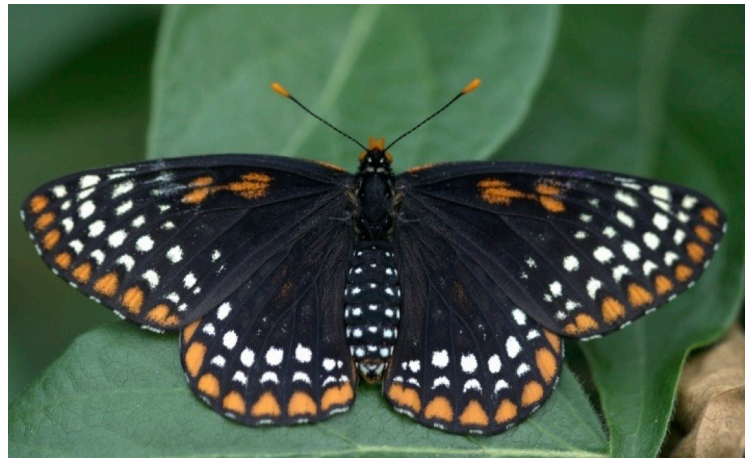
Some kinds of plants offer food for the whole family. Among the most familiar, of course, are the milkweeds monarch butterflies depend upon: the butterflies (adults) will feed on the same plants they previously consumed as caterpillars. If common milkweed and it's spreading habit won't work in the garden, try swamp milkweed or butterfly weed which helpfully tolerate wet or somewhat dry conditions, respectively. While admiring the monarchs, other caterpillars that may be seen on these plants include the milkweed tussock moth (*Euchaetes egle*) the 'unexpected Cynia' (*Cynia collaris*) or the 'delicate Cynia' (*C. tenera*). Wagner (2005) notes what I've also observed, that the milkweed tussock moth will feed on older, even yellowing, foliage, while monarchs are more associated with younger growth.

A good reason to grow turtlehead is it's one of the main host plants for the Baltimore checkerspot (*Euphydryas phaeton*), although the caterpillars will also feed on a few other hosts. The caterpillars are as beautiful as the butterfly, decorated with black spines against an orange background. They cease feeding in late summer then overwinter in a web tent and resume feeding in spring, so take care not to destroy their winter homes when found!

Camouflaged loopers, *Synchlora frondaria*, are startling sights feeding on flowers, covering themselves with petals and other bits chewed off the host. I've seen the caterpillars on Rudbeckia flowers, but look for them on ageratum, asters, goldenrods, yarrow, ironweed, and other hosts. The adult, the wavy-lined looper, is a small bright green moth I've encountered during the day resting on leaves.



Whitemarked tussock moth caterpillar.



Baltimore checkerspot butterfly Photo David Cappaert, Bugwood.org.



Baltimore checkerspot on turtlehead Photo J. Gilrein.



Wavy-lined emerald moth, the adult of the camouflaged looper.



Find the caterpillar! A 'camouflaged looper' is at the lower right of center



Giant leopard moth caterpillar. Photo M. Daughtrey.

Asters are hosts to many other caterpillars, many of which are also attractive in their moth stages. These include the black arches (*Melanchnra assimilis*), the asteroid (*Cucullia asteroides*), brown-hooded owlet (*C. convexipennis*), pearl crescent (*Phyciodes tharos*), Harris' checkerspot (*Chlosyne harrisii*), and the striped garden caterpillar (*Trichordestra legitima*). All are beautifully colored, most with bright striping or ground colors. Look for another attractive owlet caterpillar, the Canadian owlet (*Calyptra canadensis*), on meadow rue.

Hollyhock and lupine are among the hosts for our painted lady (*Vanessa cardui*) caterpillars; the butterflies migrate into northern areas in spring and are common garden visitors. The closely related American lady (*V. virginensis*) caterpillars are often responsible for the webbed foliage of pearly everlasting in the garden. The caterpillars are ornamented with spines and the pupal stages often have a metallic gold luster. Another migrant to northern US is the common buckeye (*Junonia coenia*). The butterflies frequent sunny areas; gerardia and snapdragon are included on the caterpillar's diet.

White-marked tussock moth (*Orgyia leucostigma*) caterpillars are quite strange-looking with long yellow stripes, bright red heads and several tufts along the back. Though encountered more often on woody plants, I've also found them on chrysanthemum.

Giant leopard moths (*Hypercompe scribonia*), bright white with black spots and circles, often draw appreciative remarks. The caterpillars are equally deserving, like all-black versions of our woolly bears with a deep red body color visible as they curl up when disturbed. They'll feed on sunflower or violet leaves as well as many other herbaceous and woody plants. The overwintering caterpillars, which hide during day in leaf litter, are sometimes found during spring gardening activities.

Black swallowtail caterpillars (*Papilio polyxenes*) are familiar to many on parsley, fennel, and dill. Other hosts include members of the carrot family (Apiaciae/Umbelliferae: (Queen Anne's lace, *Ammi majus*, lovage) and rue.

Violets are no longer an unwelcome weed since learning they are the important host plants for many of the beautiful fritillary butterflies, such as the great spangled (*Speyeria cybele*), regal (*S. idalia*), meadow (*Boloria bellona*), silver (*B. selene*) and variegated (*Euptoieta claudia*). The butterflies often appear in promotions for 'pollinator plants' that neglect to mention their dependence upon *Viola* sp.

One of the more beautiful caterpillars spotted in our gardens last year, Speyer's cucullia (*Cucullia speyeri*), was actually found on horseweed. The plant was temporarily spared while the caterpillar remained. It will also feed on asters and related plants. Other weeds are hosts for caterpillars; stinging nettle in particular supports a list of caterpillars that become some favorite butterflies like the punctual species eastern comma (*Polygonia comma*) and question mark (*P. interrogationis*), painted and American lady noted earlier, Milbert's tortoiseshell (*Aglais milberti*), and red admiral (*Vanessa atalanta*). Purslane and evening primrose are places to look for white-lined sphinx caterpillars mentioned earlier.

Read more these insects and their caterpillar food plants by searching on-line at websites like BugGuide (<https://bugguide.net>) or helpful references like David L. Wagner's *Caterpillars of Eastern North America* (2005, Princeton Univ. Press) which includes color photos of the caterpillars (and the adults) or Jeffrey Glassberg's *Butterflies Through Binoculars* series.



Black swallowtail butterfly.



Black swallowtail caterpillars are often seen on parsley but will also feed on related plants like Queen Anne's lace.



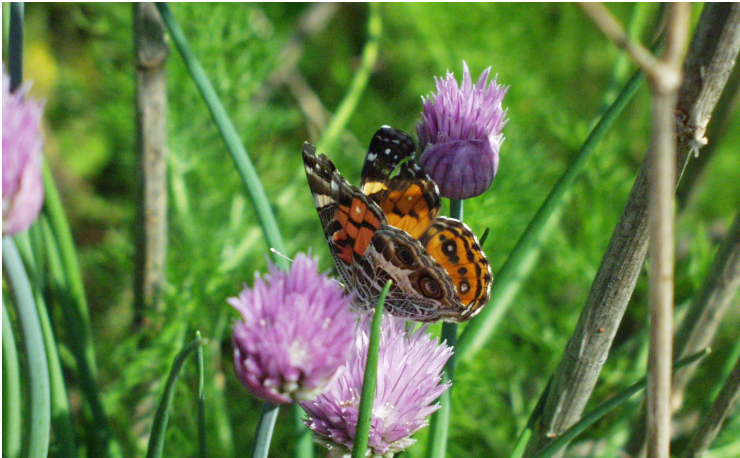
The asteroid, *Cucullia asteroides*, on aster.



Invite monarchs to stay by feeding the caterpillars.



Monarch caterpillar on swamp milkweed.



Painted lady butterfly feeding on chive flower.



Painted lady caterpillar.



Question mark butterfly.



Question mark caterpillar.

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