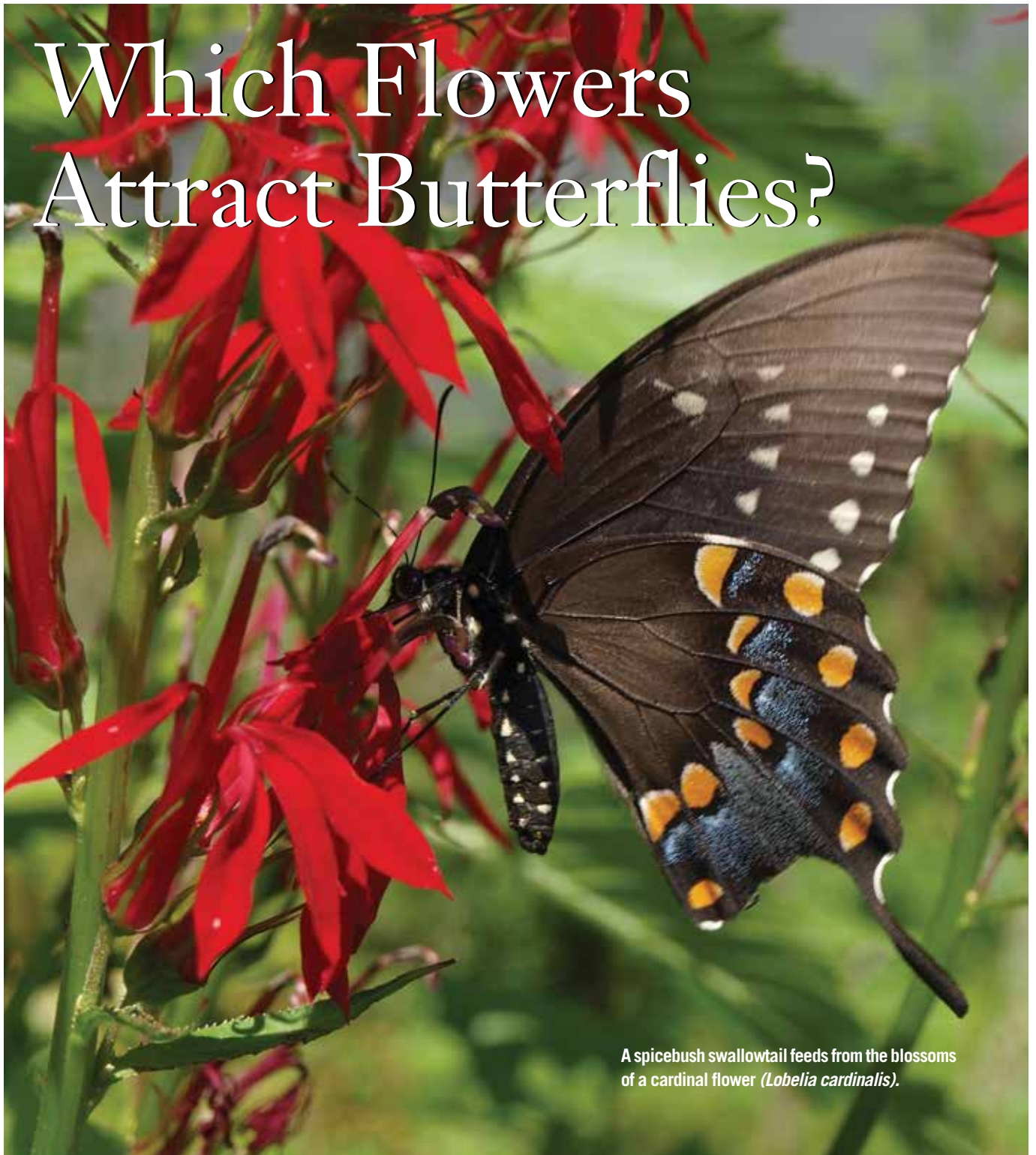


# Which Flowers Attract Butterflies?



A spicebush swallowtail feeds from the blossoms of a cardinal flower (*Lobelia cardinalis*).

Butterfly gardening creates habitats that support butterflies and bring excitement and joy to the gardening experience. Here are tips to help in selecting plants that will invite these beautiful creatures to your landscape.

ARTICLE AND PHOTOGRAPHS BY JANE HURWITZ

**M**ERELY OBSERVING flowers in a garden on a warm, sunny summer day will show you which flowers attract butterflies. Because different species of butterflies are in flight at varying times over the course of the warmer months, a single visit to a garden or garden center will not give you the knowledge needed to plan an effective butterfly garden, but it can be a valuable exercise in fine-tuning your plant choices once you have established a basic garden. Think like a butterfly and consider the following features of flower morphology when choosing nectar plants for your garden:

#### FLOWER SHAPE AND ARRANGEMENT

The relationship between a butterfly species and the food it (and its caterpillars) require has developed over millions of years and reflects adaptations by butterfly and plant. Some flowers are shaped in a way that allows butterflies to reach their nectar, but not all. Butterflies with long tongues, such as swallowtails and many skippers, can access nectar from deep flowers. Smaller butterflies tend to have

Plants that produce clusters of flowers make for more efficient feeding for butterflies. Here, a painted lady searches for nectar on a butterfly bush (*Buddleia* sp.).

shorter tongues and will seek out shorter flowers. Flower heads that comprise many smaller flowers allow butterflies to land and drink without having to expend energy to fly to adjacent flowers. When planning a garden for butterflies, start by choosing plants that among them have a variety of different-shaped flowers, so that different-sized butterflies will be able to find nectar.

Some of the most widespread and popular butterfly nectar plants include the following:

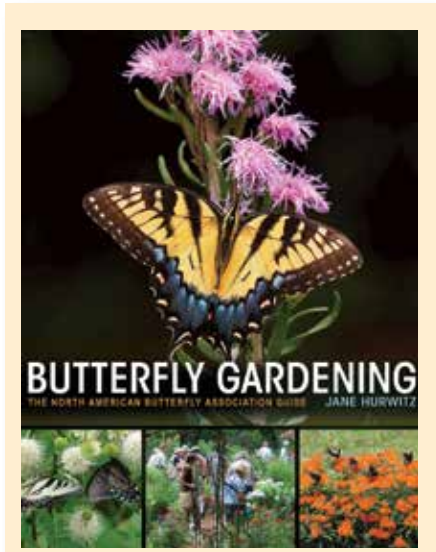
■ Plants in the aster family (Asteraceae), such as purple coneflower (*Echinacea purpurea*), blazing stars (*Liatris* spp.), goldenrods (*Solidago* spp.), and sunflowers (*Helianthus* spp.). Plants in this huge family feature many small, nectar-producing flowers in each flower head. The small flowers, called florets, open in sequence so that any one flower head includes nectar-producing flowers at



various stages from unopened (and not yet producing nectar) to beginning to open (and maybe not producing abundant nectar) to fully open, ready-to-pollinate florets (an irresistible feast of nectar), and finally to a pollinated floret (exhibiting an “expired sell-by date” to pollinators). When a butterfly lands on an aster family

flower, it may be able to drink from many florets without having to move anything other than its tongue.

■ Plants in the mint family (Lamiaceae), such as beebalms (*Monarda* spp.), giant hyssop (*Agastache foeniculum*), and mountainmints (*Pycnanthemum* spp.). Unlike culinary mint, which can spread



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vigorously by underground stems, beebalms and mountainmints tend to be slower in their colonization and are usually easy to pull out if they spread beyond their designated spots. Giant hyssops may spread by seed if conditions are right, but do not spread by underground stems. All of these mint family plants bloom over a

long period and produce many flowers per plant. Mountainmint flowers tend to be small and are a favorite with small butterflies, such as hairstreaks.

**LANDING STAGE** Flowers that provide a stable landing platform where a butterfly can perch and sip nectar with minimum

expenditure of energy are important to include in gardens. Observe butterflies nectaring (drinking nectar) on zinnias or purple coneflowers: to access nectar they merely move their tongues from floret to floret while having a stable base of petals on which to stand.

**FLOWER SCENT AND CONDITION**

Flowers that have recently opened are visually attractive to humans and often attractive to butterflies as well. But after a flower has been pollinated, various signals serve to decrease its attractiveness to butterflies and other pollinators: The flower's color may become less vibrant, its scent may change or decrease, and its orientation can shift (by drooping or crumpling). These changes indicate to pollinators that they will earn no reward for visiting the already-pollinated flower.

It should be noted that floral scent for butterflies is not necessarily the same as an intense flower fragrance that gardeners might covet. Roses, for example, are completely ignored by butterflies! Some flowering plants, such as garden phlox (*Phlox paniculata*), are both attractive to butterflies and have a very pleasant scent that will be noticeable in gardens, but floral scents that draw butterflies to nectar sources are more than pleasant smells. These scents commu-





With an open wingspan of approximately three inches, the monarch is fairly large for a North American butterfly, but the blooms of Mexican sunflower (*Tithonia rotundifolia*) are large enough to provide it with a stable landing pad for nectaring.



flowers, flying butterflies recognize blocks of color, so massing one particular species of plant in a group increases the likelihood that passing butterflies will be attracted to your welcoming garden. Butterflies also see in the ultraviolet portion of the light spectrum (which is not detectable by human eyesight), allowing them to view flowers in a way that we cannot. Once butterflies get close to flowers, certain details in the light reflected in the ultraviolet range provide them with important clues about the availability of nectar.

Many flowers, such as fringleaf wild petunia (*Ruellia humilis*), have patterns on their petals that are visible only in the ultraviolet range. These patterns—which can consist of lines, dots, or differently colored petals—are called nectar guides and serve to direct butterflies toward the center of the flower where they can quickly access the flower’s nectar. These guides are obvious on fully open flowers that are producing nectar, while on flowers that

**Left:** Using its long tongue, a silver-spotted skipper sips nectar from the tubular flowers of purpletop vervain (*Verbena bonariensis*). **Below, left:** Great spangled fritillaries gather on butterfly milkweed (*Asclepias tuberosa*).



have not yet fully opened or have started to wilt the nectar guides will not be visible, allowing butterflies to direct their foraging efforts elsewhere.

Butterflies in the wild generally live from a few days to a few weeks (although a few live considerably longer). The length of a butterfly’s life span varies from species to species, and weather impacts a butterfly’s life span as well. During their short lives, butterflies must mate and, if female, find an appropriate egg-laying location. During all this activity, they must also find and drink enough nectar to sustain their energy levels. The constant whirl of activity we so enjoy as butterfly watchers is in fact just part of a race for survival from the butterfly’s point of view. As gardeners, we can help them by creating a hospitable habitat filled with nectar-rich plants in our landscape. 🦋

nicate information from plants to butterflies—they can attract butterflies to flowers that are ready to be pollinated, but they can also be produced to repel egg-laying by butterflies whose caterpillars will harm the plant. The interrelationships between plants

and butterflies are extensive and highly complex and provide a variety of levels of study and observation for those who are curious.

**NECTAR GUIDES** Butterfly vision differs greatly from our own. When looking for

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