Butterfly Gardening

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What is butterfly gardening?

Butterfly gardening is the art of growing plants attractive to butterflies.

Is it really that simple? Yes and no.

Yes, because all you really need to do is provide plants on which the caterpillars can feed and flowers from which adult butterflies can sip nectar.

And no, because butterflies don't care about garden style or aesthetics, but people do.

So by keeping in mind some basic concepts and design principles, you will be able to create a butterfly garden that both you and the butterflies will appreciate.

Determine which butterfly species live in your area and which ones you want to attract to your garden. Make a list.

There are approximately 750 species that can be found in North America and 148 in New Jersey. You can obtain more information on each of these butterflies by visiting the USGS website: http://www.npwrc.usgs.gov/resource/distr/lepid/bflyusa/chklist/states/counties/nj_37.htm or by purchasing one of the many books available on butterflies at your local bookstore.

Site Selection

Examine your proposed garden area. The ideal site is relatively undisturbed (low traffic) yet open to your view. You want to find a site that provides –

Plenty of sunshine

All insects are cold blooded and cannot internally regulate their body temperature. The butterfly's body temperature must be between 85 – 100 degrees Fahrenheit in order for it to fly. So pick a site that receives sun at least 6 hours a day.

Full sun is also important to the plants. Many of the perennials, wildflowers, and annuals frequented by butterflies grow best in full sun. The amount of nectar produced by flowers and the amount of foliage produced by host plants is directly connected to the amount of sun they receive.

So, sunny gardens will not only attract more butterflies, but may also

produce more butterflies.

Shelter

A butterfly garden should be planted in an area that is sheltered from the wind. This helps butterflies in two ways: breezes reduce their body temperature so sheltered areas will help them maintain their body temperature and they won't have to expend extra energy fighting the wind currents as they try to feed, mate, and lay eggs. Shelter can be provided by a fence or wall, a row of shrubs or trees (especially evergreens) – wind blocks are usually located along the north side of the garden. Warm, protected sunny spots are most important in the spring and fall when the nights are cooler and it takes the butterflies longer to warm up.

During a rainstorm, butterflies will hide beneath leaves, rocks, logs and deep within a shrub with their wings held tightly together in an effort to protect them.

Plant Selection

Each stage of a butterfly's life has amazingly particular tastes. Some species of caterpillar will only eat one species of plant. For instance, the monarch caterpillar will only eat the leaves and flowers of the milkweed family.

Find out about those species of butterflies you want to attract – their preferred habitat and adult & caterpillar foods.

Be sure that your garden offers nectar-producing flowers throughout the blooming season by creating a three-season garden. This will ensure that the butterflies will always be able to find a nectar source. Plan for continuous bloom spring through fall and choose flowers that bloom for long periods.

Choose nectar plants of various heights, smaller butterflies tend to feed low – while larger butterflies tend to feed higher.

You need to choose a combination of nectar and host plants. Nectar plants provide butterfly food and host plants provide an area for the butterfly to lay eggs and then a food source for the emerging caterpillars. Butterflies that come to your garden for nectar may linger and explore possible sites

to lay eggs. This means butterflies may spend their entire life cycle in your garden – ultimately, you will have more butterflies in your garden.
Butterflies are first attracted to specific colors. You'll want to plant large bold splashes of color that are easily visible. Butterflies can identify their favorite plants from miles away and travel for hours to taste the nectar of those flowers. Butterflies will seek nectar from many different types of plants – annuals, perennials, wildflowers, shrubs and trees.

When selecting nectar plants consider shape, color and fragrance.

Shape

The shape of the flower is important because butterflies cannot hover for long periods and need a place to land and gain easy access to the nectar source.

Composites (example on left): Daisy like flowers.

Panicles (example on right): Large clusters of blooms on a stem.

And

Umbels (example on right): Flat-topped flowers that originate from a single apex.

They prefer:

Color

Butterflies are attracted to bright bold splashes of color – they are especially attracted to purple, red, orange and yellow blooms. The adult butterfly can see a larger spectrum of colors than many other animals. They can see all of the colors in the spectrum including ultraviolet colors.

Ultraviolet colors are important to butterflies during mating and feeding. There are ultraviolet colors on many flowers that help the butterfly find the flower's nectar supply. And there are ultraviolet colors on the wings of the butterflies, which can help them distinguish between species and sexes.

Fragrance

The heavier the perfume, the more appealing the flowers will be to the butterfly. Butterflies don't have noses, but they do have an amazing sense of smell. Their antennae have thousands of

tiny holes that absorb smells. Butterflies can smell flowers as far away as two miles.

Host plants

Host plants provide an area for females to lay their eggs and later the caterpillars eat these plants to fuel up for the transition from caterpillar to butterfly. In addition to food, the host plants provide shelter for all stages of the butterfly's life cycle.

Choose a mixture of perennials, wildflowers, and annuals. Annuals will bloom all summer while wildflowers and perennials usually have a defined blooming season.

Nectar Sources

Common Name	Latin Name
Red Bee Balm	*Monarda didyma*
Butterfly Weed	*Asclepias tuberosa*
Coreopsis	*Coreopsis spp.*
Blazing Star	*Liatris spicata*
Purple Coneflower	*Echinacea purpurea*
Common Sunflower	*Helianthus spp.*
Pearly Everlasting	*Anaphalis margaritacea*
Wild Bergamot	*Monarda fistulosa*
Common Boneset	*Eupatorium perfoliatum*
Goldenrod	*Solidago spp.*
New York Ironweed	*Vernonia noveboracensis*
Joe-Pye Weed	*Eupatorium fistulosum*
Spicebush	*Lindera benzoin*
New Jersey Tea	*Ceanothus americanus*
Coastal Sweet Pepperbush	*Clethra alnifolia*
Maple-Leaf Viburnum	*Viburnum acerifolium*
Black-Eyed Susan	*Rudbeckia hirta*

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Spicebush	*Lindera benzoin*
Pearly Everlasting	*Anaphalis margaritacea*
Tulip Tree	*Liriodendron tulipifera*
Bearberry	*Arctostaphylos usa-ursi*
Oaks	*Zuercus spp.*
Field Pussytoes	*Antennaria neclecta*
Flowering Dogwood	*Cornus florida*
Violets	*Viola spp.*
White Turtlehead	*Chelone glabra*
Black Bugbane	*Cimicifuga racemosa*
Black-Eyed Susan	*Rudbeckia hirta*
New York Ironweed	*Vernonia noveboracensis*

Some very popular plants (among the butterfly crowd) are:
Interesting Butterfly Facts

- Butterflies have 4 wings. There are different colors and patterns on each side of each wing.
- A butterfly's wings are covered with thousands of tiny scales. There are about 125,000 scales to the square inch. Some of these scales are colored with pigments

- little lens called ommatidia. Each of these tiny lenses gathers light and images forming a small picture—then the butterfly's brain puts all of the tiny pictures together to form one large picture. These eyes allow the butterfly to see all around themselves—not just in front or to the side.
- A system of veins can be seen on a butterfly's wings. These veins are tubes with thickened walls—they contain nerves and space for body fluids to flow through. Acting like support structures, veins give the wings the strength and foundation to fly.
- The color of a butterfly's wings can serve several functions. Bright colors can be used to warn predators of a butterfly's particularly bad taste (as is the case with Monarch butterflies), the patterns on the wings may camouflage their appearance—protecting them from predators, and dark colors can be used to soak in the warmth of the sun.
- The life of a butterfly is short. Although some butterflies may only live 3—4 days, most live between 10 and 20 days. There are exceptions—Monarchs which migrate to Mexico for the winter months can live up to six months.

Butterflies are not only beautiful, but they are fascinating!

Sugaring

In addition to having a selection of nectar producing plants, you can supplement their diet by placing a nectar feeder or overripe fruit among the nectar plants.

- Store bought nectar feeders. Shaped like a daisy and hold a home made nectar.
- Home made nectar feeder. Brightly colored sponge or other absorbent materials in a saucer of nectar.
- Overripe mashed bananas placed in a saucer of OJ.

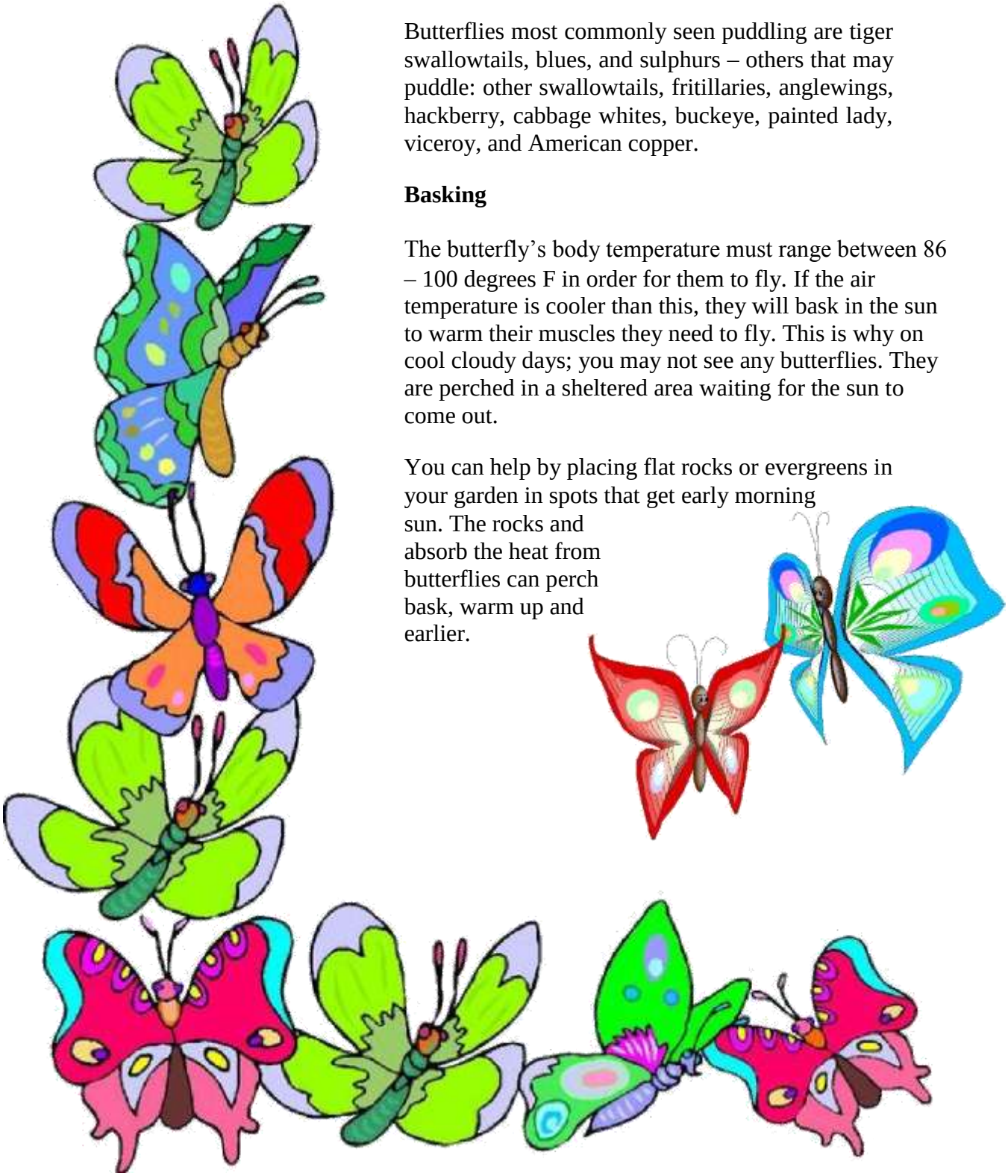
You'll want to place the feeder among the nectar plants – a few inches higher than the blooms.

If ants are attracted to the feeder, try coating the access route with petroleum jelly.

Puddling

Butterflies can't drink from open water. They prefer wet sand or soil, shallow puddles.

Interestingly enough, the majority of butterflies that puddle are males. Males need sodium and other nutrients like amino acids for mating. Sodium is important to the health and functioning of most animals, but plants provide very little.



Butterflies most commonly seen puddling are tiger swallowtails, blues, and sulphurs – others that may puddle: other swallowtails, fritillaries, anglewings, hackberry, cabbage whites, buckeye, painted lady, viceroy, and American copper.

Basking

The butterfly's body temperature must range between 86 – 100 degrees F in order for them to fly. If the air temperature is cooler than this, they will bask in the sun to warm their muscles they need to fly. This is why on cool cloudy days; you may not see any butterflies. They are perched in a sheltered area waiting for the sun to come out.

You can help by placing flat rocks or evergreens in your garden in spots that get early morning sun. The rocks and absorb the heat from butterflies can perch bask, warm up and earlier.