

BUTTERFLIES

Butterflies (Lepidoptera) are one of nature's most beautiful and amazing insects. They pass through an incredible four-stage lifecycle from egg to caterpillar to chrysalis to butterfly. Along with birds, bees and bats, they help pollinate over 1/3 of the fruits and vegetables we eat. Butterflies are a sensitive indicator species of the health of our natural environment. Unfortunately, pesticide use and habitat loss have significantly reduced butterfly populations and endangered many butterfly species.

You can make the difference for butterflies by creating a butterfly garden or naturescape and using natural pest management instead of pesticides.

Study

- Read books, identification guides and check with local agriculture extension service or native plant society to help identify butterflies and host plants native to your area

Do Not Use Pesticides

- Pesticides kill butterflies and other beneficial insects like ladybugs and dragonflies

Where to Plant

- Plant your butterfly habitat in a sunny area that is sheltered from wind, and near a porch or window where you can enjoy it
- Good locations are along a south facing wall or fence
- Place a few large stones in the sunny spots for butterflies to warm themselves
- Do not plant near bird feeders
- Put up a butterfly house

What to Plant

- Plant both native host and nectar plants for the butterfly life cycle
- A native host plant is what a butterfly lays its eggs on and what caterpillars eat
- A nectar plant has flowers that provide nectar for adult butterflies
- Butterflies lay their eggs on specific host plants, but will feed on many nectar plants
- Butterflies also need shrubs and trees to roost in at night and on cloudy days
- Plant masses of host plants near shrubs or trees so caterpillars can feed and have a place to roost and make their chrysalis
- Plant a variety of nectar plants
- Butterflies especially like red, orange, yellow and purple colored flowers like those on lantana, verbena and butterfly bushes
- Black-eyed Susan, cosmos, lavender, Mondardia, Echinacea, salvia and mints are some popular nectar plants
- Plant host plants like parsley, forget-me-nots and wild geraniums for some of the first butterflies that emerge in the spring to eat



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Water

- Butterflies drink from water drops on leaves or from puddles on the ground
- Male butterflies like to “puddle” or gather around patches of damp sand or drying mud to lick up dissolved salts
- If you don't have water puddles in your garden, you can make one by putting a tray-like container of moist sand on the ground

Trim Your Butterfly Garden in the Spring

- Don't trim your garden in the fall, wait until after the last spring frost to cut perennials or shrubs
- Butterflies that do not migrate spend the winter suspended from leaves and branches in their chrysalises until they emerge in the spring
- Trimming later in the season will give your plants more protection against cold weather and provide places for other beneficial insects to hibernate

Butterfly Life Cycle

- Butterflies have a **four-stage life cycle**: egg, caterpillar, chrysalis, butterfly
- Each butterfly species lays its eggs (ovum) on specific host plants
- The eggs hatch into caterpillars (larva) and feed on the host plant continuously until they complete several molts
- The caterpillars form a chrysalis (pupa) where they will complete their metamorphosis into an adult (butterfly)
- A butterfly will emerge from the chrysalis in about ten days to two weeks and feed on nectar plants at specific times each day
- The entire cycle takes a couple of weeks
- Adult butterflies live about one week but longer if they migrate

Butterfly Facts

- There are 760 species of butterflies in North America.
- Butterflies are as small as a nickel or as large as a Frisbee!
- They like to stop at flowers that face straight upward.
- Their feet (tarsi) serve as taste sensors and when they touch something sweet it makes their tongue come out.
- A butterfly's tongue is 3 times longer than its body.
- They drink from puddles and water droplets
- Nectar from flowers provides butterflies with sugars and energy they need to live and fly
- When they feed on flowers they pollinate plants
- Butterflies with short tongues feed from flowers where the nectar is close to the top, while butterflies with long tongues feed from longer flowers
- Butterflies are cold-blooded and have green blood
- They need the sun to warm their circulatory system before they can fly

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- A butterfly's wings act like mini-solar collectors capturing sunlight for warmth
- Most butterflies don't fly until it's a least 55 to 60 degrees outside
- On cloudy days and at night butterflies roost in protected places in trees and under leaves and between bark crevices with their head down
- The scales on their wings overlap like roof shingles and help butterflies escape from spider webs by not sticking
- Butterflies scales give them their pattern and color
- You can identify males and females by their wing patterns
- The scales on the wing produce color through chemical pigments or by reflecting light
- Male butterflies can identify a female in its chrysalis and will compete to mate with her when she emerges
- Female butterflies flutter around looking for host plants where they deposit an egg or two on the underside of a leaf
- After hatching a caterpillar will increase its body size over 30,000 times before it forms a chrysalis
- Birds and wasps eat butterflies as part of the natural cycle of life

Common Butterflies

- Black Swallowtails migrate from the southern U.S. into the Midwest and like plants in the carrot family like fennel, dill and parsley
- Giant Swallowtails also migrate from the south and like citrus trees
- Buckeyes are a southern species but migrate into the Midwest and feed on plants in the figwort family like snapdragons and plantain
- Cabbage Whites came from Europe and feed on plants like broccoli
- Painted Ladies are widespread and feed on many plants like thistle
- Pearl Crescents are common across North America and like asters
- Viceroys feed on willow leaves and resemble monarchs – and like monarchs they also have a toxic chemical that makes them taste bad to predators
- Zebra Longwings feed on passion vines and live along the Gulf Coast and migrate into the Midwest during mild winters

Monarch Butterflies

- Monarch butterflies weigh as much as a penny but have wings as strong as steel
- They only lay their eggs on, and the caterpillars only eat, milkweed plants that make them poisonous to predators
- Monarchs live about six weeks but the fifth – or winter – generation lives up to six months on the body fats they store up for migration
- Every fall this single generation migrates up to 3,000 miles south to the same 50-acre pine forest habitat in the highlands of Michoacán Mexico.
- They have never made the trip before but will travel over 200 miles a day and take several months to arrive at their winter habitat.
- There they will spend the winter in tree branches, sometimes over 10 million in a single tree!

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- In mid to late March this same generation will mate and reproduce the first new generation that will begin the migration north.
- Successive generations will continue the lifecycle and flying north until they reach their summer habitat in the U.S. and Canada.
- No other butterfly and few birds migrate as far as monarchs.

The Difference Between Butterflies & Moths

	<u>Antennae</u>	<u>Fly</u>	<u>Caterpillars Eat</u>
Butterflies	Club bed at end	During the day	Specific host plants
Moths	Pointed and feathered	Mostly at night	A variety of plants

Butterfly Treats

- Mash a ripe banana or strawberry, or make some scrapes on a slice of watermelon for the juice to collect and place outside for butterflies to eat
- Place a small mineral or salt block on a sunny rock and sprinkle with water

Resources

[Butterflies and Moths of North America.](#)

[Journey North](#)

[Monarch Watch](#)

[North American Butterfly Association](#)

[Noah's Notes Creating Naturescapes](#)

Noah's Notes Natural Pest Management