



Common West Virginia Butterflies

West Virginia has more than a hundred different species of butterflies. Some are common and others are rare. Those described here are common and can be seen throughout the state in appropriate seasons.

Monarch

The monarch is one of the best-known butterflies and belongs to a group known as milkweed butterflies. Caterpillars of this group feed on plants of the milkweed and dogbane families. Two hundred species occur worldwide but only one, the monarch, occurs in West Virginia.



Monarch

The monarch has a wingspan of almost 4 inches. Monarchs are orange to orange-brown with black veins and black wing borders. A series of white and yellow spots dot the forewing

and wing borders. Males are more brightly colored than females. Males also have a scent patch in the shape of an enlarged black spot along the vein in the lower hindwing.

Monarchs like open places including fields, pastures, roadsides, and yards. Adult monarchs feed on nectar and visit flowers of milkweed, red clover, goldenrod, ironweed, and thistles. They often will visit gardens which have asters, marigolds, chrysanthemums, and butterfly bush.

Milkweed butterflies, including monarchs, lay their eggs on milkweed leaves. Several species of milkweed grow in West Virginia, including common milkweed, swamp milkweed, and the attractive orange-flowered butterfly weed. Many, although not all, milkweeds contain toxins. Monarch caterpillars eat these toxins, which make the caterpillars distasteful to predators, such as birds and reptiles. The toxins remain in the body of the adult butterfly, concentrated in the wings and abdomen. The bright orange and black coloration of the monarch is a warning to predators--who learn after a "bad taste test" not to snack on anything that looks like a monarch.

Other tasty, but nontoxic butterflies, such as the orange-and-black viceroy, which resembles the monarch, have mimicked the monarch's color in order to avoid becoming a meal. The viceroy, a member of the brushfoot group of butterflies, inhabits West Virginia.

Monarch butterflies can't endure freezing temperatures, so they migrate south for the winter, beginning their southern trek when the temperatures drop to about 60 degrees. In West Virginia, birds and monarch butterflies often share the same migration route. Most monarchs from eastern North America winter in the central Mexico mountains, where they assemble in huge aggregations. The butterflies stay somewhat inactive and may have enough stored fat to get them through winter without feeding.

They begin the return trip north in February or March.

Monarchs mate on or just after leaving their wintering grounds, laying eggs as they move north. Monarchs wintering in Mexico probably do not return to their northern range, although monarchs spending the winter in the south can live up to 6 months. Those summering here have a life span of only a few months. Most monarchs produce a brood as they migrate north and it is this brood that returns north. Monarchs return to West Virginia in May and lay eggs, which turn into adults by August. These monarchs produce the ones that migrate south. Peak migration occurs in September and October, but you can see monarchs into November.

Black Swallowtail

Swallowtails are attractive butterflies whose vibrant colors and large size make them conspicuous. West Virginia has several species of swallowtails. They are easily recognized by the taillike projections from their hind wings that resemble tails of swallows'.

The black swallowtail has a wingspan of about 3 ¾ inches. The hindwing taillike projections are prominent. Their background color is black. Males have a band of bright yellow markings (called a submarginal band) located near the edge of the wing, and another band of yellow dots and crescents at the edge of the wing. Females may lack the bright yellow band or have yellow markings that are not as bright as the males'. Females have a patch of blue on the hindwing. Both sexes have an orange spot with a black center in the hindwing and patches of blue.

The black swallowtail likes open places, such as fields, pastures, shrubby hillsides, roadsides, weedy areas, wetlands, and gardens. Adult butterflies nectar from many plants, including clovers, milkweed, thistles, ironweed, and joe-pye-weed. Caterpillars of

black swallowtails feed on many plants belonging to the carrot family, including Queen Anne's lace, cultivated carrot, dill, fennel, and parsley.

Black swallowtails fly from early April through June, when another generation emerges and flies until August. Some from this group may produce another brood of adult butterflies, or in colder areas in the state, overwinter as a chrysalis. Black swallowtail adults can be seen as late as October.

Eastern Tiger Swallowtail

The Eastern tiger swallowtail, which is the most common and widely distributed of all the swallowtails, is large with a 2 ½- to 4 ½-inch wingspan. This butterfly is bright yellow with black, tigerish stripes traversing its forewings. Both wings have a broad black border with a row of yellow spots and crescents. Females have a great deal of blue



on the hindwing, but males don't have as much. The underwings of this butterfly have similar markings to the upperside, but the underside features orange with blue-green

scaling. Eastern tiger swallows have color variations. Female eastern tiger Swallowtails often are more charcoal or black than yellow, but the darker stripes are still obvious. These dark females actually are imitating or mimicking the appearance of the dark-hued pipevine swallowtail. The pipevine, like the monarch, consumes toxic materials in the pipevine plant, which makes it unappetizing to predators. The darker Eastern tiger swallowtail females are less likely to be someone's meal than the yellow forms.

The Eastern tiger swallowtail is a butterfly of deciduous forests but lives in many different places, from woods to open fields to wet meadows and gardens. Tiger swallowtail males often fly along roads and streams at all heights, from a few feet high to above the treetops. During spring, you can find large numbers of males congregating at springs or moist places around roads and stream edges.

This swallowtail produces two broods a year. The first brood emerges as early as March in warm areas. A second brood emerges in July and flies until late September. Individuals from this group survive the winter as pupae.

Eastern tiger swallowtails get nectar from many kinds of trees, shrubs, and plants, including mimosa, azaleas, milkweed, thistles, ironweed, dogbane, lilies, and red clover. Caterpillars feed on yellow poplar, black cherry, ash, and spicebush.

Cabbage White

The cabbage white butterfly, which was introduced from Europe, is probably the most common butterfly in West Virginia. Relatively small, it has a 1 ¾-inch wingspan. This white butterfly has gray forewing tips and a black spot in the fore and the tip of the hind wings. The female has two forewing spots. In both sexes, the underside of the hind wing is yellow. In spring, the spots may be indistinct.

Cabbage whites are at home in a variety of habitats, including fields, pastures, woods, yards, and gardens. Cabbage whites, as their name implies, live where any plants of the mustard family, including cabbages, grow. Adults also obtain nectar from clovers, mints, various mustards, and dandelions. Caterpillars feed on winter cress (a mustard) and cultivated members of the mustard and cabbage families including broccoli, cauliflower, and cabbage.

Cabbage whites can be seen from March until September in many places in the state. They produce three to four summer broods. The larvae of cabbage whites--in case you find them in your garden--are green, smooth, and about an inch long.

Other white butterflies in the state resemble the cabbage white, including the West Virginia white, found in wooded areas, and the checkered white, which is a southern butterfly sometimes seen in West Virginia.

Clouded Sulphur

Sulphurs are a group of colorful butterflies whose wings are white, yellow, or orange, usually with black spots and margins. Sulphurs have a rapid flight.

The clouded sulphur has a wingspan of about 2 inches. Males and females have bright yellow wings with black borders on the upper surface. The male has a solid border, and the female has a border interspersed with a row of yellow spots. Both sexes have a dot in the upper center of the forewing. The underside of the hindwing may be green or yellow with a red-rimmed silver spot in the center and a row of small dark spots. Almost a third of the females are not yellow, but white.

Clouded sulphurs are often seen flying around open areas, including fields, meadows, railroad grades, and lawns. Males stop frequently to get nectar and gather at puddles to sip moisture. Clouded sulphurs obtain nectar from a variety of flowers, including dandelions, goldenrod, asters, and garden flowers such as marigolds and chrysanthemums. Larvae feed on white and red clover. Clouded sulphurs fly from March until as late as December and overwinter in the chrysalis (pupa) stage. There are several other kinds of sulphurs in West Virginia. The orange sulphur resembles the clouded sulphur, but is orange instead of yellow.

Eastern Tailed Blue

The group of butterflies known as blues are small, and males and females are colored differently. Males show blue and iridescent coloration, while females are often brown and gray with blue patches.

The Eastern Tailed Blue has as a $\frac{3}{4}$ - to 1-inch wingspan. It is the only small blue butterfly with tails in West Virginia. Males are deep blue with a small orange and black spot on the hindwing. Females are brownish with patches of blue and one or two black-centered orange spots. Both sexes have a white fringe.

Eastern tailed blues prefer open areas, such as fields, pastures, roadsides, and woodland clearings. This butterfly has a short proboscis and seeks suitable plants for nectar, including peppermint, white and red clover, and white sweet clover. Males visit wet places to sip moisture. Females usually oviposit (lay eggs) among flower buds or leaves during the afternoon.

The larvae eat buds and leaves and attract ants that eat the larvae's honeydew secretions. The ants return the favor by helping protect the larvae from predators.

In West Virginia, the Eastern tailed blue has several brood. It flies from April to October.

Great Spangled Fritillary

Fritillaries belong to a group of butterflies known as longwings, which live in temperate (warm) regions of the Northern Hemisphere. They rest with their wings closed and bask in the sun with their wings outspread to soak up the sun's warming rays. Fritillary eggs do not mature until late in the season.

The great spangled fritillary is a large, bright orange butterfly with a 3-inch wingspan.

The male is orange and marked with black spots, dashes, and crescents. The underside of the wing has silver spots. The female is more brownish.

The great spangled fritillary likes open areas, such as farms, fields, wet meadows, and yards, and can be seen from May through October. Females begin laying eggs in August. Larvae hatch and crawl to a protected area, becoming adults the next spring. Young larvae often feed on leaves of violets. The great spangled fritillary gets nectar from a variety of plants, including milkweed, thistles, ironweed, and clovers. Violets are host for the larvae—more than 20 species grow in West Virginia.

Several other fritillaries live in West Virginia, including the diana, one of the most beautiful of the fritillaries, which is found in the southern part of the state, and meadow fritillary, found in most of West Virginia.

Question Mark

The question mark butterfly belongs to a group known as brushfoots. Many species of



brushfoot butterflies have bright orange, brown, and black coloration. They may spend the winter months as hibernating larvae or as adults.

The question mark has a wingspan of slightly less than 3 inches. The wings are tawny orange with ragged wing margins hooked at the tips. It also has noticeable tails on the hindwings. During summer question marks have orange on the forewing with dark spots in the center and a dark border.

The hindwing is almost black with some orange. The question mark has color differences according to the season. The winter butterflies have more orange, with violet on the wing margins.

The question mark likes a variety of habitats, including woodland openings, gravel roads in wooded areas, orchards, and stream banks. Question marks are swift flyers. Males perch on tree trunks or on the ground. Question marks often take nutrients from tree sap, rotting fruit, and dung, although they will get nectar from flowers, including milkweed and red clover. Larvae feed on deciduous trees, including elm and hackberry.

In West Virginia question marks occasionally can be seen in late winter when snow is still on the ground. These butterflies either hibernated as adults or migrated from southern locations. Usually question marks fly from April to October.

Mourning Cloak

Another of the brushfoot butterflies, mourning cloaks have a wingspan of about 2 ½ inches. They are striking dark maroon butterflies with conspicuous tan to yellow wing margins. A row of bright blue spots adorns both wings, near the bordering yellow. The wing edges are irregular with a protrusion near the tip of the forewing. The hindwing has a short tail.

The mourning cloak lives in many places, including roads in wooded areas, parks, orchards, and yards. They are most often found in wet places because the larval host tree is willow.

The mourning cloak emerges from hibernation in early spring and can be seen when snow is still on the ground.

Mourning cloak can live up to 10 months and spend much of their time during the summer in aestivation (inactive), becoming

active during the fall. Mourning cloaks in West Virginia have one brood. The female



Mourning Cloak

lays eggs on willow leaves, and the young larvae feed together in silken webs. As the larvae grow, the webs

disappear. The larvae become adults by summer, go into aestivation, feed, and store fat in the fall, and in West Virginia probably hibernate rather than migrate. The adults fly again on warm late-winter days.

Mourning cloaks prefer to take nutrients from dung, rotting fruit, and tree sap.

Red Admiral

With a 2-inch wingspan, the red admiral, another of the brushfoot butterflies, is of medium size, but its color and markings make for easy identification. The wings are black-brown with an orange-red bar across the forewing and along the hindwing border. The tip of the forewing has white spots, and has black and blue dots on the hindwing border.

The red admiral can't survive winter, so it must re-colonize northern areas through annual migrations.



Red Admiral

Red admirals prefer wooded places, but they can be found in fields and around

farms and orchards. Red admirals are swift flyers, and they may remain active after other butterflies have gone to roost.

Red admirals, some of which may be migrants flying north, can be seen as early as April. Red admirals prefer to feed on sap,

fermenting fruit, dung, and carrion, although they will take nectar from milkweed, dogbane, and lilac. The larval host plant is nettles, including stinging nettle and wild nettle.

Silver-Spotted Skipper

Skippers are a group of butterflies that are usually brown to black with various markings, including patches of silver and gold. Skippers appear robust and have broad heads and stout bodies. The club tips of the antennae are sickle-shaped or hooked. Skippers are adept fliers and they are hard to catch. They make up a third of the total number of butterfly species in the state.

With its 2 ½-inch wingspan, the silver-spotted skipper is West Virginia's largest skipper. It is brown with pointed forewings that have a band of glassy yellow-gold connected spots. The underside of the hindwing has a white patch near the center. The edges of the wings are frosted with lavender.

The silver-spotted skipper is found in second-growth areas where the forest has been disturbed, especially places where black locust grows. In West Virginia, silver-spotted skippers produce at least two generations. Recently hatched caterpillars make leaf shelters by cutting part of the black locust leaf and folding it over on the upper surface. The caterpillar lives in this leaf shelter, constructing a new and larger shelter as the caterpillar grows. The preferred larval host plant is young black locust shoots, although other plants are included in their diet. Adults take nectar from many kinds of flowers including

ironweed and clovers. This butterfly often visits flowers in home gardens.

Dreamy Duskywing

Another skipper common in the state is the dreamy duskywing. It has a wingspan of about 1½ inches. It is a small, dark brown butterfly with blue-gray and black crescents forming a chain across the upperside of the forewing. The forewing features a gray patch on the upper margin.

The dreamy duskywing likes roadsides, trails, and clearings in woods. Adults get nectar from a variety of plants, including redbud, blueberry, strawberry, vetch, dogbane, Queen Anne's lace, and black-eyed Susan. Larval host trees include willows and poplars.

To read about West Virginia's butterflies, consider Thomas J. Allen's book, *The Butterflies of West Virginia and Their Caterpillars*, released by the University of Pittsburgh Press.

This book is a comprehensive guide to West Virginia butterflies and has color photographs of butterflies and their larvae and pupae. It also contains lists of plants suitable for attracting these fascinating creatures and a wealth of information on them.

A video titled *Audubon Society's Butterflies for Beginners*, is also available for individual or classroom viewing. The 64-minute cassette features close-up looks at 32 common butterflies in North America. Thomas J. Allen shot the photography, and Paul A. Opler wrote the script.

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