



SWALLOWTAIL BUTTERFLIES

A WORLD OF TAILS, TRICKS, AND TRANSFORMATION

POLLINATOR PARTNERSHIP

Protect their lives. Preserve ours.

Swallowtail butterflies (family Papilionidae) are among the most striking and recognizable butterflies in the world. With their large wings, bold patterns, and graceful flight, they are favorites of gardeners and naturalists alike. Nearly 600 species can be found worldwide, while about 30 species are found in North America. Swallowtails aren't simply beautiful; as these insects travel from flower to flower feeding on nectar, their fuzzy legs and bodies can carry pollen between plants, helping support the reproduction and genetic diversity of flowering plants across landscapes.

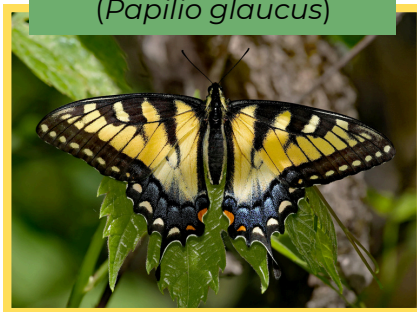
Swallowtails are not only pollinators, they are also an important part of the wider ecosystem. As herbivorous caterpillars, they consume a lot of plant material and contribute to nutrient cycling, and they provide food for birds, spiders, and other wildlife, supporting the broader food web that depends on insects as a source of energy. Understanding their life cycle and habitat needs can help us better protect these remarkable butterflies and the landscapes they depend on.

Their name comes from the distinctive “tails” that extend from their hindwings, resembling the forked tail of a swallow bird. These tails are more than decorative—they help swallowtails survive attacks from predators. Birds often strike the tail first, and damage to this expendable part of the wing may allow the butterfly to escape.



COMMON SWALLOWTAILS IN NORTH AMERICA AND THEIR HOST PLANTS

Eastern tiger swallowtail
(*Papilio glaucus*)



Host plants: tulip tree, wild cherry, ash, willow, and magnolia

Western tiger swallowtail
(*Papilio rutulus*)



Host plants: willow, cottonwood, alder, and chokecherry

Black swallowtail
(*Papilio polyxenes*)



Host plants: parsley, dill, fennel, carrot, Queen Anne's lace, and other plants in the carrot family

Giant swallowtail
(*Papilio cresphontes*)



Host plants: trees and shrubs in the citrus family, including citrus, prickly ash, and hop tree

Two-tailed swallowtail
(*Papilio multicaudata*)



Host plants: ash, chokecherry, bitter cherry, and other trees in the rose family

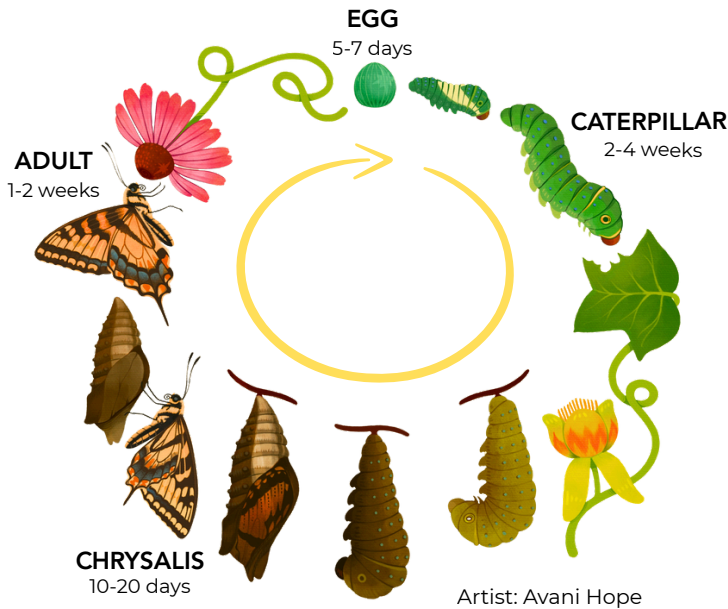
Spicebush swallowtail
(*Papilio troilus*)



Host plants: spicebush and saffras

HOW SWALLOWTAILS LIVE

Swallowtails go through four life stages: egg, caterpillar, chrysalis, and adult butterfly. Females lay eggs directly on host plants. After hatching, caterpillars feed on the leaves and grow rapidly over several weeks. When fully grown, the caterpillar forms a chrysalis where it transforms into an adult butterfly. Many swallowtails overwinter as a camouflaged chrysalis, with the adult butterfly emerging the following spring. Depending on the species and climate, swallowtails may produce one to several generations each year.



DID YOU KNOW?

Male swallowtails often gather at damp soil or puddles to drink minerals in a behavior called “puddling.” These minerals are later transferred to females during mating and may improve egg production.



Swallowtails are generally not toxic to predators, but some species mimic toxic butterflies which can help protect them from predators. However, the pipevine swallowtail butterfly is toxic and is risky to handle, even for researchers, as the toxins are contained in the scales on their wings.

A LIFE TIED TO PLANTS

Like all butterflies, swallowtails depend on plants throughout their life cycle. Plant diversity helps support different swallowtail species because each relies on plants for nectar and particular host plants.

Nectar plants: Adult swallowtails feed on nectar from flowers. As they move between blooms, pollen can stick to their bodies and be transferred to other plants. Butterflies are generally less efficient pollinators than bees, but their movements across the landscape can help transport pollen between plant populations.

Host plants: Female butterflies lay eggs on specific plants that their caterpillars will eat after hatching. Without host plants, swallowtail populations cannot persist.

REMARKABLE CATERPILLARS

Swallowtail caterpillars have amazing defenses. Young caterpillars often resemble bird droppings, helping them blend in and avoid predators. As they grow, some species develop large eye-like markings and body shapes that resemble a snake when threatened. Older caterpillars also have a bright orange forked organ hidden behind the head called an osmeterium. When disturbed, this organ extends and releases a strong odor that helps deter predators. These adaptations help swallowtail caterpillars survive to transform into butterflies.



HOW YOU CAN HELP

- Plant regionally native swallowtail host plants and native nectar-rich flowers that bloom from spring to fall to provide food for caterpillars and adults
- Avoid pesticides, especially insecticides
- Leave leaf litter and undisturbed garden areas for shelter and overwintering habitat
- Spread the word about the wonderful world of swallowtail butterflies!