

Colorado Insect of Interest

Two-tailed Swallowtail

Scientific Name: *Papilio multicaudatus* Kirby

Order: Lepidoptera (Butterflies, Moths, Skippers)

Family: Papilionidae (Swallowtails and Parnassians)



Figure 1. Adult female two-tailed swallowtail.

Description and Distinctive Features: The two-tailed swallowtail is among the largest butterflies in the state with a wing span that ranges from 3 ½ to 5 inches. Wings are predominantly yellow with black striping. A small second projection (tail) off the hindwing is a distinguishing feature of this species.

Wings of the females have more overall orangish hue than males and more extensive iridescent blue along the bottom half of the hind wing.



Figure 2. Adult male two-tailed swallowtail

The caterpillars are smooth bodied and area of the thorax is enlarged. Later stage caterpillars may be lime green or brown and have prominent eyespot markings behind the head.

Distribution in Colorado: The two-tailed swallowtail can be found throughout the state but is most commonly seen in populated areas where ash trees have been planted. In natural areas it is usually noted near waterways that support growth of chokecherry.

Life History and Habits: The two-tailed tiger swallowtail spends the winter in pupal stage, a gray-brown chrysalis hidden in some protective location that camouflages well with the background substrate. Adults emerge in May and June and may be seen flying about through



Figure 3. Two-tailed swallowtail egg on ash leaf



Figure 4. Early stage larva of the two-tailed swallowtail



Figure 7. Two-tailed swallowtail pupa (chrysalid)

August. They sustain themselves on nectar and frequently may be seen visiting flowers.

Eggs are laid singly on the plants fed upon by the caterpillar stage - green ash and chokecherry. Young swallowtail larvae often look somewhat like bird droppings with mottled black and white coloration. Older larvae have general orange-brown or bright green coloration with prominent "eyespot" markings on the enlarged thorax area behind the head. Furthermore, like all swallowtail larvae they are capable of extruding a Y-shaped fleshy "horn" (osmeterium) when disturbed that produces an unpleasant odor. The projecting osmeteria and eyespot markings are thought to be useful in deterring potential predators.

There is one generation produced per season.



Figure 5. Brown phase two-tailed swallowtail larva with osmeterium everted. Photograph by Frank Peairs.



Figure 6 Green phase two-tailed swallowtail larva



Figure 8. Male two-tailed swallowtail visiting mud puddle



Figure 10. Males of three species of swallowtails drinking along the edge of the Curecanti National Recreation Area. Three pale swallowtails are on the right, a single anise swallowtail on the left and two western tiger swallowtails are in the center. Photograph by Bob Hammon.

Related and Similar Species: The **western tiger swallowtail**, *Papilio rutulus* L., is similarly yellow and black patterned large butterfly that overlaps the range of the two-tailed swallowtail throughout much of the state. The adults of the two species can be separated by the presence of the second small “tail” projection at the edge of the hindwing in the two-tailed swallowtail. Larvae of the two species also are fairly similar in appearance but the western tiger swallowtail usually develops on cottonwoods and aspen. Another yellow and black species that occurs in western Colorado is the **anise swallowtail**, *Papilio zelicaon* Lucas, with larvae that develop on plants in the parsley/carrot family Apiaceae. The **pale swallowtail**, *Papilio eurymedon* Lucas, has generally cream colored background coloration along with the black markings. It is usually found in forested areas of the state along riverways where the larvae feed on *Prunus* spp. and ash.