

Journal of the Arkansas Academy of Science

Volume 19

Article 9


1965

Swallowtail Butterflies of Arkansas (Lepidoptera; family Papilionidae)

E. Phil Rouse

University of Arkansas, Fayetteville

Follow this and additional works at: <http://scholarworks.uark.edu/jaas>

 Part of the [Entomology Commons](#), and the [Terrestrial and Aquatic Ecology Commons](#)

Recommended Citation

Rouse, E. Phil (1965) "Swallowtail Butterflies of Arkansas (Lepidoptera; family Papilionidae)," *Journal of the Arkansas Academy of Science*: Vol. 19, Article 9.

Available at: <http://scholarworks.uark.edu/jaas/vol19/iss1/9>

This article is available for use under the Creative Commons license: Attribution-NoDerivatives 4.0 International (CC BY-ND 4.0). Users are able to read, download, copy, print, distribute, search, link to the full texts of these articles, or use them for any other lawful purpose, without asking prior permission from the publisher or the author.

This Article is brought to you for free and open access by ScholarWorks@UARK. It has been accepted for inclusion in Journal of the Arkansas Academy of Science by an authorized editor of ScholarWorks@UARK. For more information, please contact scholar@uark.edu, ccmiddle@uark.edu.

THE SWALLOWTAIL BUTTERFLIES OF ARKANSAS (LEPIDOPTERA; FAMILY PAPILIONIDAE)

E. Phil Rouse*
University of Arkansas

Six species of swallowtails are found in Arkansas, and are among the most common butterflies in the state. They have knobbed antennae and characteristic long-tail like projections at the posterior edge of the hind wings. These butterflies are medium to large with the fully spread wings measuring 2-5 inches. The papilionids may be separated from other butterflies by the 4-branched cubitus in the front wing, and by the two anal veins in the front wing and only one in the hind wing.

KEY TO THE PAPILIONIDAE OF ARKANSAS**

1. (a) Striped greenish white on brownish black; red spot at anal angle of hind wing. Long tail. Zebra swallowtail, **Papilio marcellus** Cr.
- (b) Color combinations not as above 2
2. (a) Males yellow with black pattern, hind wing with some blue submarginally, or, males often match females. Underside of female reflects the dark wing pattern of the male. Upperside of female front wing black with one row of submarginal yellow spots along with a row of blue spots medially. Hind wing with two orange spots, and may also have a slight orange color in the submarginal spots Tiger swallowtail, **Papilio glaucus** Linn.
- (b) Color combinations not as above, mostly black with blue or yellow spots 3
3. (a) Black or dark brown with a medial yellow spot or band. No blue present above except in hind wing with a vestigial spot anterior to the small orange spot in the anal region. Blue laterally across hind wing beneath. Large butterflies with a wing spread of 4-4½ inches. Three orange spots underneath the hind wing, two of them side by side in center of the wing Giant swallowtail, **Papilio cresphontes** Cr.
- (b) Black with blue or yellow spots in the front wing and with blue medial in the hind wing 4

*Mr. Rouse is curator of the Entomological Museum, University of Arkansas.

**This key is prepared especially for the use of the collectors of Arkansas swallowtail butterflies. If an identification of an exotic species is needed, specimens may be sent to the Department of Entomology Museum, University of Arkansas, Fayetteville, Arkansas.

Arkansas Academy of Science Proceedings

4. (a) Black with yellow spots; two full rows and a partial 3rd row of yellow spots in front wing. Hind wing with one orange spot with black center in the anal region; a vestige of orange spot may be present in the cubital region. Upperside of hind wing with a submarginal blue spot or band
..... Black swallowtail, **Papilio polyxenes asterius** Stoll.
- (b) Black with yellow or grey spots in front wing. No medial spots present or if so not yellow and are indistinct 5
5. (a) Black or blue-black with a row of submarginal spots which are small, gray, and indistinct in front wing. Hind wing from upper view with no orange spots. Underside of hind wing brilliant metallic blue with orange and black spots
..... Pipe Vine swallowtail, **Papilio philenor** Linn.
- (b) Black with blue-grey to blue on hind wing. One row of submarginal yellow spots and an indistinct row of median spots as viewed from above, but can be readily seen from beneath. Hind wing above has costal and anal orange spots. Hind wing beneath has two rows of orange spots superimposed on blue-green
..... Spicebush swallowtail **Papilio troilus** Linn.

The Zebra Swallowtail, **Papilio marcellus** Cr. is a beautiful long tailed brownish grey and white striped butterfly. Because it feeds extensively on papaw (**Asimina triloba**), the more mountainous regions where papaw is abundant, may be more heavily populated than the delta regions of Arkansas. This species shows great seasonal variation, but can not be confused with any other North American species.

The Tiger Swallowtail, **Papilio glaucus** Linn., is a large yellow butterfly with black stripes in the front wing and hind wing margins, but in some of the males of this species the color pattern is very similar to the dark bluish-black females. These beautiful butterflies may readily be taken along streams and water courses in the summer and fall as their preferred hosts are Wild Cherry (**Prunus**), Birch (**Betula**), Poplar (**Populus**), and various other trees and shrubs commonly found near streams. Its attraction to garden flowers brings it into cities and towns, although it is typically a butterfly of woods and savannahs.

The Giant Swallowtail, **Papilio cresphontes** Cr. Feed largely on citrus in the Southern United States and prickly Ash (**Zanthoxylum**) in the North. It is a large dark-colored butterfly with yellow spots on the wings. It is somewhat migratory and is likely to be collected in places where other papilionids are taken. It is best collected from flowers.

The Spicebush Swallowtail, **Papilio troilus** Linn., is also somewhat migratory, and is not difficult to collect from most of the regions of Arkansas. The Spicebush (**Benzoin**), and ornamental shrubs in towns are often defoliated by its voracious larvae. Since this species also feeds on sassafras (**Sassafras**), it may be widely distributed. It is seen commonly near shady woods or mud puddles. This species is blackish,

Swallowtail Butterflies of Arkansas

with a row of yellowish spots, and with extensive blue-grey areas in the rear half of the hind wings.

Papilio philenor Linn. the Pine Vine Swallowtail is largely black with the hind wings shading into metallic green posteriorly. The larvae feed on Dutchman's pipe (**Aristolochia serpentaria** and **A. macrophylla**) a climbing shrub from which the species derives its name. The adults may be collected in the summer from button bush which grows usually where moisture is abundant. The adults like to light on flowers which they visit avidly.

The Black (or Parsnip) Swallowtail, **Papilio polyxenes asterius** Stoll. is black with two rows and a partial third row of yellow submarginal spots on the front wing. The larvae feed on carrots, parsley, and other related plants. The adults of this species are also greatly attracted to flowers. It can usually be collected from fields, roadsides, meadows, gardens, and open spaces.

The larvae of the papilionids are smooth bodied and have scent glands, or osmeteria which give off a disagreeable odor. They evert these from the upper part of the prothorax when disturbed.

There may be several generations per year. All species overwinter as pupae in the form of a naked chrysalis, attached to plant stems by the tail and supported by a loose silken girdle about the middle.