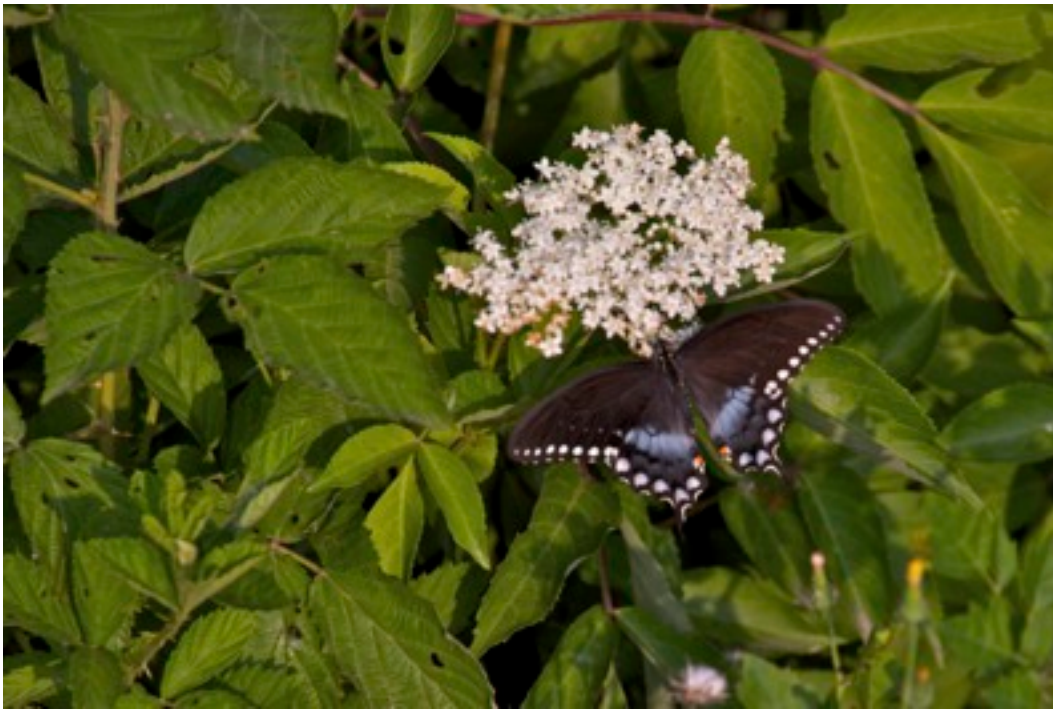


B U I L D I N G M E M O R I E S

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PIPEVINE SWALLOWTAIL BUTTERFLY

A BEAUTIFUL BUTTERFLY MIMICKED BY OTHERS



Pipevine Butterfly

Introduction

Our first interest in the Pipevine Butterfly began on the banks of the Mulberry River in the Mulberry Recreation Area. As I was taking reflections of the still July waters, I noticed a beautiful black caterpillar arrayed with orange rows of spines. I wanted to capture this beauty to remember and to share with others. It was crawling up a vine wrapped around a stalk of cane. It was even more beautiful and interesting than the river I was photographing because it was alive and so colorful.

When I returned back home and began looking at the images we captured, I was wondering what type of butterfly was this caterpillar to become. So this is where our interest began and interestingly we found out it was to be a Pipevine Swallowtail Butterfly Caterpillar beginning its life feeding upon as you would guess a Pipevine known as the *Aristolochia macrophylla* Lam plant species.



Not every creature can feed upon the leaves of this vine as they are toxic to many animals and insects. It seems God has created this caterpillar to have a natural protection from the toxins contained in its leaves.

Birds have developed an instinct to avoid this caterpillar that displays the bright orange markings seeming to say, "warning". The toxic buildup remains within the caterpillar as it becomes a butterfly, thereby making it toxic to eat and birds have learned to avoid both in their diet. So the Pipevine Swallowtail Butterfly has a special protection to allow it to have an opportunity to survive from its natural bird predators.

Mimicry

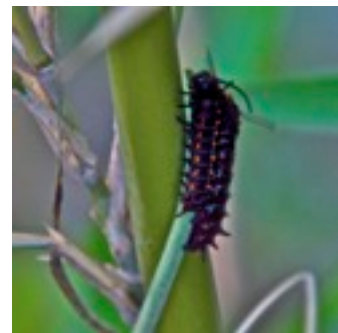
Just as interesting, was for us to learn that other butterflies mimic the Pipevine Swallowtail and enjoy the same protection. We thought we had a photograph of a Pipevine Swallowtail Butterfly but we found that by close examination of our images that we had images of Eastern Tiger Swallowtail females, Eastern Black Swallowtail, Spicebush Swallowtails and Red-spotted Purple butterflies. So our search continued for a Pipevine Swallowtail in hopes of capturing and images of them. As we researched the common color architecture of these butterfly designs we discovered that researchers had noted that these other butterflies had evolved to “mimic” the Pipevine Swallowtail to gain their same protection though they are not actually poisonous. As we explore more of the insects and wildlife in Arkansas we see this God given ability of creatures to “mimic”.

This form of mimicking is termed “mimicry” by scientists. While other species of butterflies enjoy protection by mimicking the appearance of a Pipevine Swallowtail, there are many species of insects and animals that enjoy mimicked protections of appearance, sound, scent, behavior and even location. So the more we research and the more we explore the more our interest grows and the awareness of what we see, hear and smell in the woods.

With an informed awareness of mimicry you will see beyond the mimicked camouflage of the species that hide themselves on the backdrop of a trees bark, a leaf, the colors of weeds or even the behavior to just simply remain still.

Identification

In the photo, the Pipevine Swallowtail caterpillar can be seen going up a pipevine wrapped around a bamboo stalk. It is named from its primary food source that provides its nutrition as a caterpillar and the ingested toxins from the plant protects it from bird predators as the toxins are absorbed into the caterpillar and retained in the full grown butterfly.



When it is fully grown it is black in color with bright red or almost florescent orange spines on its side. They are beautiful to see and may be up to three inches in length.



The main toxin found in the leaves and stems of pipevines are Aristolochic acids. These plants are very toxic to humans an ingestion could cause kidney failure among other problems. The pipevine can be identified by its heart leaves attached to winding vines. The primary hosts plants are *Aristolochia tomentosa*, but realize that there are many different pipevine host plants for the caterpillars.

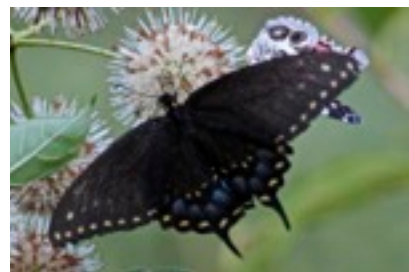
The Pipevine Swallowtail Butterfly is difficult to identify from those that mimic it for their protection. Spicebush swallowtails, red-spotted purples and Eastern black swallowtails all mimic Pipevine Butterflies. The photos below may help in identifying the numerous species of butterflies that mimic the Pipevine Butterfly.



Spicebush Swallowtail



Red-Spotted Purple Butterfly Puddling



Eastern Black Swallowtail