"Uncommon Invertebrates"
Zebra Swallowtail Caterpillar by Brenda Huff

Latin name*: Protographium marcellus*
Family: Papilionidae

Several years ago, when cleaning up construction material around our new home, I noticed beautiful butterflies with black and white stripes with a touch of red and learned that they were zebra swallowtails (Protographium marcellus). I also learned that to have butterflies you need nectar plants but just as important, you need to have their specific host plant.

Zebra swallowtail butterflies have only one host plant in Virginia and it is the pawpaw (Asimina triloba). A pale green egg is deposited on the tip of newly emerging leaves. The larva eats the leaves which contain a compound, acetogenins, which is a repellent to most insects and birds. This helps the instar survive by not being very appetizing to predictors. I learned zebra swallowtail larvae are highly cannibalistic and that is why only one egg is deposited on each leaf.

The first and second instar are dull grey, the middle instar are dark colored with bands of black, yellow and white and the last instar are hump-backed pale green with broad black and yellow bands with an osmeterium. Next stage is the chrysalis; its color, either green or brown, is determined by the color of the leaf it attaches to. The texture and coloring of the chrysalis makes it look exactly like a leaf. During the final stage, metamorphosis, a butterfly emerges. Nature is amazing!
Caterpillars: May to November
Range: The Great Lakes to Florida
Development of egg to butterfly: Approximately one month

Photographs by Donald W. Hall, University of Florida, Dept of Entomology and Nematology

References:
Featured Creatures, University of Florida
Virginia Native Plant Society, Article by Mary Lee Epps
Caterpillars of Eastern Forests, Forest Health Technology Enterprise Team, USDA
Garden Butterflies of North America

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