



Creature Feature: Fall 2010

By W. Scott Douglas

Bumblebee moth



With fall nipping at our heels, I spent a few days preparing our garden for winter's sleep. While I was working, my wife called out to me to look at a strange looking bee working the coneflowers. The rapidly flitting insect was large (wingspan of 1¼ inches), with yellow and black markings, but it behaved more like a hummingbird than a bee. I quickly pointed out that it was not a bee at all, but a bumblebee moth, a relative of the large sphinx moths that come to lights at night. These moths mimic bumblebees, gaining the protection from predators who don't realize

that the moth has no painful sting. Bumblebee moths (in this case *Hemaris diffinis*), and their larger cousins the hummingbird moths are members of the family Sphingidae. You can see from the photo that the wings of these moths have large clear patches, gaining them the name "clearwing" moths in some circles. We have two species, the yellow and black "bumblebee clearwing" and the larger green and red "hummingbird clearwing". Unlike sphinx moths, clearwings are day feeders. Both clearwing moths like to live near streams and rivers, so they can be considered a "riparian" species.

Like all moths, Bumblebee moths hatch from eggs. The adults lay eggs twice a year on snowberry, honeysuckle or dogbane. The caterpillars are characteristic of the family with a long "horn" protruding from the last abdominal segment. This "horn" is not a stinger, but does give these caterpillars the common name "hornworms". If you grow tomatoes, you've undoubtedly seen very large (4-5 inch) hornworm caterpillars munching on your plants. Bumblebee moth caterpillars look similar to these monsters, but are much smaller - usually just an inch or so. They are bright green, with black spots down the side. A bit of yellow marks the back of the head and the base of the horn. The larva feeds for a couple of weeks and then will turn a light purple color and find a dark place in the leaf litter at the base of the food plant. There it will metamorphose into a simple dark brown pupa. If you find one, hold it gently. It will wiggle every once in a while, but don't be alarmed, it is completely harmless. If you want to see it emerge, place it in a jar with some of the leaf litter and place it in a shady spot outside. Put a screen over the top and observe it daily for a week or so. When the adult emerges, the wings will be dark. The scales come off after it flies around for a few hours. Do let it go after you have finished observing it, so it can do its job of collecting nectar and pollinating your flowers.



