Bug of the Month

by Jim Revell

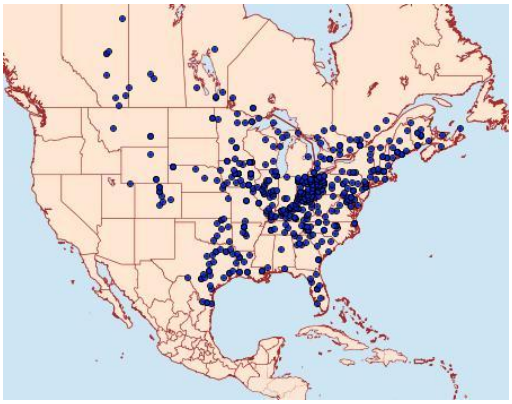
Waved Sphinx Moth ■ Imperial Moth ■ Southern Masked Chafer Beetle

This month, it's "three for the price of one!" We'll look at the Waved Sphinx Moth (thanks to Master Gardener Byron Maddox), the Imperial Moth (thanks to Master Gardener Phyllis Turner), and the Southern Masked Chafer Beetle (thanks to Master Gardener Linda Esser).

First, let's look at the Waved Sphinx Moth.

Waved Sphinx Moth

Class: Insecta (Insects)
Order: Lepidoptera (Butterflies & Moths)
Family: Sphingidae (Sphinx Moths)
Genus: Ceratomia
Species: undulosa (Waved Sphinx)



Caterpillar & Moth: uky.edu
Map: mothphotographersgroup.msstate.edu

A fully grown (up to 8.5 cm) Waved Sphinx Caterpillar, with yellow-green color above, and sea green color below spiracles, is one of six hornworms commonly found on Ash trees in the eastern US. The spiracles are orange, and the horn is generally reddish to pinkish in color. The caterpillar looks very similar to the Tobacco/Tomato Hornworm and is often mistaken for them.

The caterpillar pupates underground and adults emerge in two to three weeks. The pupae is typically brown to reddish brown, two inches or more in length, and many have a pronounced "snout" off the head end.

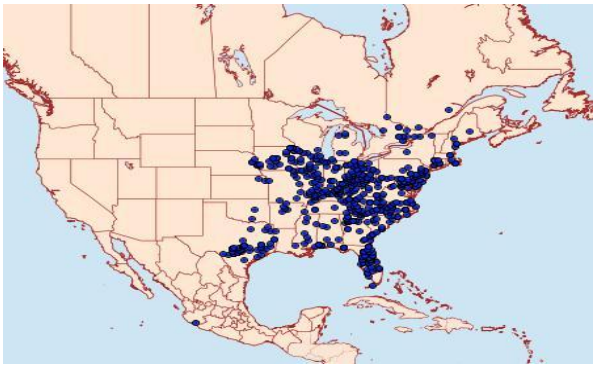
The Waved Sphinx Caterpillars are solitary feeders. They are usually few and widely scattered, therefore, causing minimal damage; due to this, they are rarely seen.

Adult moths are strong flyers and often called Hawk Moths. Their wingspan is 3-4.5 inches, and their forewing is normally pale brownish gray with well-defined jagged black lines and black dashes; the hind wing is gray with diffused darker gray lines.

There are two broods in the South from March to October, and one in the North from May to August. Host plants are ash (a favorite), privet, fringe-tree and lilac, with adults not known to feed. Their habitat is varied among forested and open areas, ranging from Maine to Florida, western north Dakota, the Gulf Coast and Texas. Controls are not generally needed.

Imperial Moth

Class: Insecta (Insects)
Order: Lepidoptera
Family: Saturniidae
Genus: Eacles
Species: E. imperialis



"Here's lookin' at you, kid"

Top Right: Female (L) / Male (R) Imperial Moth: Wikipedia.org
Map: mothphotographersgroup.msstate.edu
Imperial Moth Eggs: ag.auburn.edu
Imperial Moth Caterpillar (green form) on Virginia pine: ag.auburn.edu
Imperial Moth Caterpillar (above center): extension.missouri.edu
Adult Imperial Moth (at left): Contributed by MG Phyllis Turner

This moth is a member of the Giant Silkworm and Royal Moths. The adult's wingspan is 80-174 mm (25mm=1 inch) with the female being larger than the male. Female wings are yellow, spotted and shaded with pinkish, orange-to-purplish brown, while males are generally more heavily marked (this seems to be especially true in the South). They are found in eastern US, Quebec and Ontario in deciduous, mixed and coniferous forests.

Adults are nocturnal and attracted to light. They fly June-August in the North, and April-September/October in the South. Adults do not feed. The larvae feed July-October on Bald Cypress, Basswood, Birch, Cedar, Elm, Hickory, Oak, Pine and others.

Adult females lay large yellow eggs singly or in groups of 2-5 on both surfaces of the host leaves. It takes two weeks to hatch, and the larvae are solitary feeders. Pupation occurs underground in burrows. They overwinter as a pupa (cocoon) in the soil, only to emerge one day in the Spring before sunrise and mate after midnight the next day. There is one generation per year in the North and one or two generations in the South.

Controls are not needed.

As the name implies, it is one of the more majestic insects – from its large, often brightly colored and spiny horned caterpillar to its large beautifully marked adult moth.

Southern Masked Chafer Beetle

Class: Insecta (Insects)
Order: Coleoptera
Family: Scarabaeidae
Genus: Cyclocephala
Species: lurida

Above center: Masked Chafer Beetles: ipm.ucdavis.edu
Top R: Adult Masked Chafer Beetle: nathistoc.bio.uci.edu
Right: Masked Chafer Beetle Grub: cals.arizona.edu

Masked Chafer Beetles are native to North America. The name "Masked" refers to its smooth head and dark coloring (like a mask) between its eyes.

The Northern Masked Chafer ranges from New York to Florida and west to Iowa, Kansas and Texas. The Southern Masked Chafer is common from southern Pennsylvania to Nebraska and south. It can be distinguished from the Northern Masked Chafer by its hair. The northern variety has conspicuous hair, while the southern variety has sparse hair. Southern Masked Chafers have been collected from Central and South America as well. In southern Indiana, Illinois, Iowa and Nebraska, it has recently become more of a pest.

Adult males of the Southern Masked Chafer emerge just before sunset and begin their prowl, skimming along the ground in search of un-mated females.

Beetles are about one-half inch long and do not feed. Their larvae (one of the white grubs) feed on turfgrasses – Kentucky Bluegrasses, perennial rye grass to tall fescues – eating the roots, and, in great numbers, can cause severe damage to lawns. These grubs are an attractive food source for vertebrate predators, especially skunks (their foraging can, also, cause damage to lawns).

Females tunnel 4-6 inches into soil and lay about 12 eggs. Depending on soil moisture, optimum hatching of eggs is close to three weeks. In a dry year, few eggs will make it. The larvae move to the root zone and feed on roots and other organic matter. When the ground temperature cools, the larvae move deeper into the soil. Pupation occurs in May and early June.

They can cause major damage, and if controls are needed, check with the Virginia Cooperative Extension *Pest Management Guide*.

Waxed Sphinx Moth Research references:

Caterpillars of Eastern North America by David L. Wagner
www.butterfliesandmoths.org/species/ceratomia-undulosa

Imperial Moth Research references:

Caterpillars of Eastern North America by David L. Wagner
http://bugguide.net

Southern Masked Chafer Beetle Research references:

http://bugguide.net
Beetles of Eastern North America by Arthur V. Evans
Field Guide to Insects and Spiders of North America by Arthur V. Evans
The Ultimate Guide to Backyard Bugs: Garden Insects of North America by Whitney Cranshaw

Jim Revell is a Bedford Extension Master Gardener Volunteer.
Read more of his articles on the "Jims Bugs" page @ www.BedfordMasterGardeners.org