

When I was thinking about what to do for this presentation, I happened to see a list of the top ten things people feared. I thought it was interesting that insects and bugs made the top three and that inspired me to introduce some of the cool and beneficial bugs that live here in Northern Virginia.

## 2 – Assassin Bug

To start, it's important to remember that not all insects are bugs, although all bugs are insects. True bugs, like this assassin bug, are a specific type of insect with leathery wings folded across their back and mouth parts that pierce and suck plant juices or fluids from other animals, including insects.

## 3 – Milkweed Beetle

The hardened wings that meet straight down the back say this is a beetle, not a bug. This Milkweed Beetle gets everything it needs from the milkweed plant. In fact it spends its entire life there. It lays eggs on stems near or just below the soil line. When they hatch, the larvae burrow in and spend the winter in the roots.

## 4 – Flower Longhorn Beetle

Another beetle, Flower longhorn beetles with their long antenna live in wooded areas around us where the larvae feeds on decaying wood and adults nectar at flowers. Beetles make up the largest order of living things with about 290,000 species known worldwide.

## 5- Virginia flower fly/yellow-jacket Hover Fly

Insects can be confusing. At first you might think this is a yellow jacket but it's actually a Virginia flower fly. You can tell right away because bees have four wings and flower flies have only two. They also hover. Some like to buzz around people's heads, folklore says it's a sign good news is on the way.

## 6 - Short-tailed Ichneumon Wasp

Short-tailed ichneumon wasps are important pollinators, especially for orchids. They're parasites that lay their eggs in the caterpillars of various Noctuid moths –

such as loopers. They fly at night and are easily seen near porch lights in spring and fall.

## 7- Paper Wasp

We've all met paper wasps, semi-social insects that live in colonies under a caste system with workers, queens and males. Everyone dies in winter except for fertilized queens, which overwinter sheltered in cracks and crevices. In the spring she'll emerge, chose a nesting site and begin anew.

## 8 – Preying Mantis

When Preying Mantis mate, the female does not always bite off the male's head but it did happen here. Mantids are amazing insects that can turn their head from side to side in a full 180-degree angle. They see movement up to 60 feet away and have stereoscopic vision, they can gauge distance.

## 9 – Lesser Angled Katydid

This is a baby katydid, a nymph that goes through several molts and grows into the adult we hear rubbing their legs together, singing from the treetops. Some types of katydids rarely leave the forest canopy while others, such as this lesser-angled katydid, like to visit porch lights at night.

## 10 – Tree Cricket

This Narrow-winged Tree Cricket was perched on a leaf by my front door getting ready to use a tree cricket trick to increase the volume of his song – he's found an opening that's nearly the same size as his opened wings so when he sings, the edges of his wings touch the sides of that leaf, acting as a baffle.

## 11 – Monarch

Milkweed is the only plant Monarch caterpillars can eat and they are eating machines that grow from egg to adult in about 30 days. In late summer the adults light up our fields and back yards. They have one job – mate and reproduce –

except for those that emerge in late summer, which must migrate to central Mexico.

## 12 – Tiger Swallowtail

The Eastern Tiger Swallowtail butterfly begins life as a caterpillar that mimics a bird dropping. After about a week, the caterpillar grows and molts and looks very different. The adults are common in local back yards. Tiger Swallowtails are one of our largest butterflies and Virginia's state insect.

## 13 – Carolina Satyr

You can find the Carolina Satyr in a few spots in PWC. It used to live only farther south but they've popped up in several unlikely spots in the DC region and seem to be moving northward. They like forest edges and fields, where they bop along low to the ground or stop to puddle, lap up salts from puddles or scat.

## 14 – Soybean Looper

There are an amazing number of moths, more subtle but just as beautiful as their butterfly cousins. One is the Soybean Looper, which looks like a queen in her ceremonial robes. I've read that the metallic glow you see is actually brass, but how these moths produce this is a mystery.

## 15 – Plume Moth

Tiny moths – so small it's hard to see just what they look like with your eye. They have unusual wings, which they extend to the sides and rolled up when resting. They pass themselves off as a piece of dried grass or a thorny stem to avoid being noticed by predators, even in exposed situations in daylight.

## 16 – Tobacco Hornworm & Spinx Moth

You might have noticed a Tobacco Hornworm munching your tomato plants this summer. We think they're garden pests until they mature into cool spinx moths. Most, such as this Snowberry Clearwing, hover midair as they collect nectar, like hummingbirds. They are very fast flyers that offer a little competition to...

## 17 – Common Green Darner

... dragonflies, the fastest insect. This Common Green Darner is one of the largest dragonflies anywhere. They sometimes engage in spectacular aerial battles defending their territory. All dragonflies have excellent eyesight with a nearly 360° field of vision, useful for catching insects on the wing.

## 18 – Needham's Skimmer

Needham's Skimmers are strong flyers who spend much time patrolling their territories – around brackish waters, such as marshes along the Potomac River. As with many dragonfly species, the male and female look completely different, challenging to identify.

## 19 – Familiar Bluets

These are damselflies, mating Familiar Bluets. They'll break soon so the female can make her way down to the water to lay her eggs. Most damselflies mate perched along the waters edge, but dragonflies actually do it on the wing, imagine them flying in tandem over ponds and streams.

## 20

So now we can cross insects and bugs off the list. Once you start looking, you'll notice cool insects everywhere... pollinating plants, decomposing dead animals and trees, and providing a feast for bluebirds, swallows, frogs, fox kits and many other animals.

With just a couple exceptions, all the insects in this presentation were taken at Merrimac Farm WMA or my back yard.