



Critters in Our Midst: Spy Fly

I prefer nature's "cloud" to the AI Cloud and machine learning.

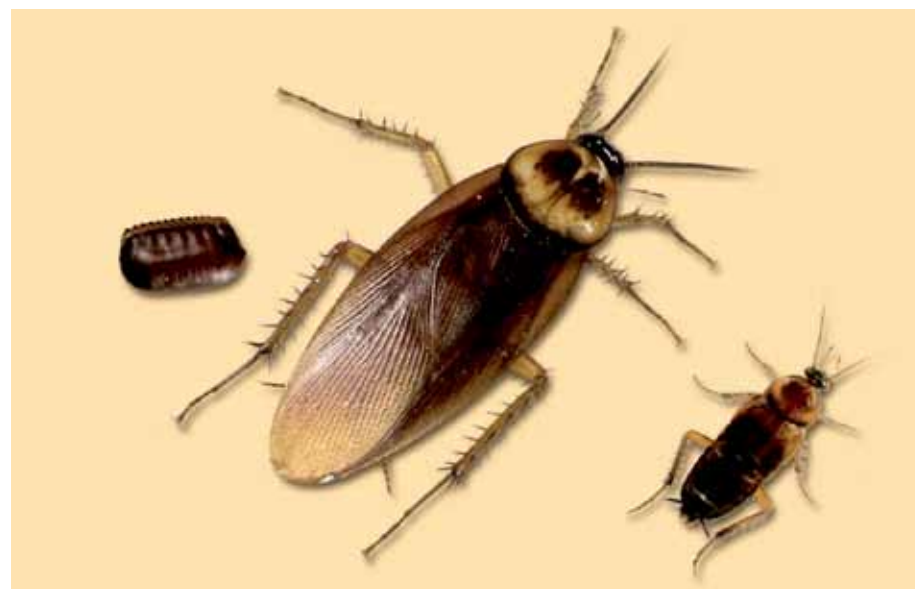
by Carol Ellis

In a perfect world, all insects would stay outside and be perfectly content in their soil filled, green leafed, decaying mulch environment. Unfortunately sometimes conditions are such... like when it rains a lot, the bugs decide to cross that sacred threshold, and enter.

Of all the creatures, the one I cannot stand is the cockroach, or palmetto bug. They are the stuff of nightmares, as they fly through a room. The cockroaches hide in dark places and emerge when no-one is looking. I always imagined cockroaches living in my sister's beehive hairdo, a style popular in the 1960s. Her hair would be teased and sprayed, and wound into a tall bun. When my sister styled one of these hairdos, it would last for days, even withstanding potential collapse during sleep.

Last summer, as part of plumbing maintenance, we had our drain pipes pressure cleaned. The plumber inserted a video camera through a roof vent to show the grease and scale accumulated on the

pipes, and the hundreds of creepy cockroaches living there. The second video taken after the cleaning showed the pipes clean and



American cockroach egg case, adult and nymph. Adult actual size 1-1/2" (38 mm). Photo by UF/IFAS.

as good as new. Throughout this process, the cockroaches in the pipes escaped through the roof vent. I needed a video of the plumber doing his crazy dance, as he brushed the creepy, crawly cockroaches off his arms and legs! Unfortunately, some of the cockroaches escaped by way of the sink drains inside our home... an unintended consequence, to say the least. Most roaches were contained, but there were

some that managed to evade capture. The cats would find and play with one or two, but for the most part just ignored

them. If I saw one I would attempt to step on it, but I hate that popping sound when they go squish. To control the cockroaches, I'd put combat gel or boric acid in cracks, out of reach from the cats. That worked okay, but a natural solution was on the horizon.

Another insect recently appeared on my patio. It had wings like a fly, but long jointed legs that resembled a cricket. Its overall

dimension was about the size of a dime. Whenever I opened the sliding glass door to go onto the porch, the creature would buzz my face, land on a wall, briefly, then buzz me again. It was trying to be my friend, I think. But what was it? I am not naive when it comes

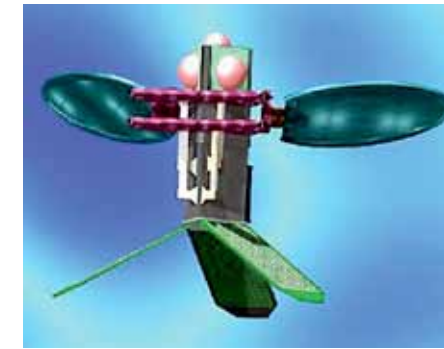


Evania appendigaster, also known as the blue-eyed ensign wasp.

to advances in technology. Could this be a drone disguised as a fly? Sound far fetched? A patent has been issued to Georgia Tech Research for their electromechanical insect,

Spy Fly CONTINUED *Photos by Carol Ellis except as noted.*

the Endomopter. About the size of a housefly, it's designed to fly through vents and crawl under doors, to do tasks such as photograph and record sound. UC Berkeley is working on their version called Robofly.



Robofly. Photo courtesy R.Fearing/UC-Berkeley. Artist rendering of a micromechanical flying insect.

Is my new insect friend the proverbial fly on the wall, able to watch what happens without people knowing? We all have experienced our phones eavesdropping on conversations, and later displaying ads related to the conversations. Well if Siri is listening, and if the tech folks are getting a direct feed from their consumers, and if the government is watching our every move... at least we are keeping everyone busy.

Since the fly creature was friendly, it allowed me to photograph it. Via my post on iNaturalist, my "super spy" creature was identified as an Ensign wasp. These wasps live to exterminate cockroaches! Indeed my friend! Evania appendigaster, also known as the blue-eyed ensign wasp, lay their eggs in cockroach



Spiny Orbweaver. The spider has six pointy "thorn-like" projections around its body, and are bright red, yellow, black and white in color.



Spiny Orbweaver spins a yellow and white silky case to house 100-260 eggs, and provide nourishment for developing young spiders.



Baby orbweavers stay inside the egg case for several weeks where they learn to move around.

egg casings. The wasps' eggs hatch, and the larvae eat the roaches within the egg case. These wasps are not known to sting humans. So what do you do if you find an Ensign wasp in your house? Leave it alone to look for cockroaches!

There is another creature on my patio that I literally ran into... a spider who spins its web all around the screen porch, and I often encounter their low webs. Aargh! Its spiny body looks ominous, but in fact they are friendly. The common Spinybacked Orbweaver, *Gasteracantha cancriformis*, are often called "crab spiders," because they look a little like crabs. The Spiny orbweaver is a beneficial spider that feasts on garden pests, and flying insects such as whiteflies, mosquitoes, and wasps. Outdoors they spin their webs within trees and shrubs.

Their webs are about 12 inches across, with many connecting strands. The patio is covered with them, but the lowness was bugging me! I discovered a solution by accident, when a helium balloon got loose on the



Helium balloons float around our screen enclosure forced the spiders to retreat to higher ground.

CAROL ELLIS has lived in South Florida her entire life and Key Largo for 37 years. Currently a Master Gardener volunteer, Carol has a degree in Journalism from the University of Florida and is the resident photographer /artist at Ocean Reef Club.

patio. As it floated around inside the enclosure, the spiders relocated to spaces beside the high beams where the balloon couldn't affect them. Problem solved. Now we buy balloons just for the purpose of releasing. Nature has a solution for everything. We just have to be patient and observe the world around us, and pray that my Ensign wasp... my "super spy fly" friend... doesn't decide to visit the spiders.