## NATURE AROUND US J. Morton Galetto, CU Maurice River



Native to N. America the psorophora ciliata is an intimidating large mosquito known for its aggressive persistent biting. See size against nickel and note multiple painful bites in one site.

## Pesky Mosquitoes

Standing water is the key component of the mosquito cydle that you need to unlink.

Wow, the only thing I know that really likes adult mosquitoes is dragonflies. Mosquitoes harbor many devastating diseases such as malaria, yellow fever, dengue, West Nile Virus, and Eastern Equine Encephalitis (EEE). Each year the latter two are found in Cumberland Co. along with other locations in NJ. And local horses have died from EEE. Fortunately it is rare that you hear of people in NJ contracting any of the human diseases, but nevertheless mosquitoes are clearly a nuisance and can also have quite serious impacts. One of my father's uncles died from encephalitis. When I was a child, we rented a bayside bungalow each summer. If my father saw as much as a single mosquito in our bedrooms he would get out a tin pump can of spray and bomb our room.

Furthermore I remember as kids that if the "mosquito truck" were spraying the neighborhood, all of us would get on our bikes to ride in and through the fog, myself included. WHAT? I kid you not. Hopefully today folks are more educated about the dangers of pesticides!

Other animals besides humans are adversely affected by mosquitoes, in particular dogs and cats. Without proper care they are prime candidates for heartworms carried by mosquitoes. A regular dose of heartworm preventative is far preferable to the need for expensive and lengthy treatment.

Spraying should be a last resort, since you may unintentionally kill mosquito predators like dragonflies and that is clearly counterproductive. There are many easy and harmless ways to reduce this nuisance.

The most basic and first advice is "Clean up your act." Yup, there it is, I said it, as in most cases in my life I have found the enemy, and it is I. Standing water is the key component of the mosquito cycle that you have to break. The adults must lay their eggs in water. Something as small as child's plastic toy can be an offender i.e. a frisbee left outside, a plastic car. The major culprits are tires, gutters, hubcaps, puddles, a tarp over equipment, or the top of a rain barrel, but anything that can hold water is problematic. A full bottle cap can comfortably sustain 100 larvae. I attended a lecture on mosquito control and one item that the expert pointed out as a haven for larvae is the accordion-like downspout extensions. She said that for many folks whose property she has inspected this has been a major source. Each fold holds water and can support thousands of unwanted quests.

If you have junk you need to declutter. If anything holds water it's a problem; sometimes an item can simply be turned over. Don't let water sit for over 5-6 days, since it takes 7 to 10 days from egg to adult. I recommend 5-6 in hopes of foiling my own forgetfulness. So if you have a bird bath, empty it often and keep it fresh. Scrub out containers that may have leftover eggs. Dump and drain water from all outdoor receptacles.

Make sure your gutters are clean and pitched. If you have a puddle where soil is compacted, take a pitchfork and loosen the earth to allow water to percolate downwards. Consider a container at the base of some plants that is laced with BTI granules to attract adults, making them lay eggs in an inhospitable and unproductive solution. If you have a pond, support frogs and not fish; fish eat frogs and frogs are more beneficial. And goldfish and most other fish sold for backyards are not native and when they get into the waterways, and they WILL, it spells trouble. How about gambusia (commonly called mosquito fish)? Well, that's a loaded question. There is a lot of controversy in the environmental community about introducing a nonnative that competes with our own fish. And yes, they WILL, too. There are also questions about their effectiveness. So rather than enter the debate here let's just go with frogs, dragonflies, and cleaning up our act.

Your mission is to stop the little buggers in their larval stage because adults often mean bites and the need to resort to insecticides. And let me repeat for clarity – YOU NEED TO GET RID OF STANDING WATER.

I invited John Betz from Cumberland County's Mosquito Control to visit so that I could share with our CU Maurice River members his techniques. He did me one better: he spoke at one of our meetings about the pesky critters. But at my home I was getting gold stars until we got to a tarp I had over a stack of salt hay and a wheelbarrow. Busted. I rectified that situation.

If you have done proper recognizance on your property and mosquitoes are still a nuisance in your yard, or nearby properties are harboring them, call Cumberland County Mosquito Control (856) 453-2170 (or if you are from any of southern NJ's other counties contact your County office for the proper control unit). Mr. Betz explained to us that since mosquitoes are a health risk inspectors can look at neighboring properties and see that they too clean up their act. These services are free of charge, so no excuses!

So you're still bugged? There are many repellents, both natural and chemical like DEET. People swear by homemade solutions. Most involve various essential oils like eucalyptus, lavender, or herbs like rosemary, basil, and witch hazel, mixed in alcohol or vodka. Honestly, I played around with all of these and I have bought many "natural" products. I can't say I have found them very effective. What I have found is that the oils do not come out of your clothes easily. Nor did they come out of the woman's clothes on the lower deck of the Bonanza whom I doused from the upper deck as I showed off my newest "natural repellent;" unfortunately the oil made the nozzle dump out along with the liquid. Not my finest hour. She smelled like a citronella factory.

So maybe our readers could suggest what has worked for them. The art of not being bitten is more extensive than the space allowed here. But there are a couple of tips. The little buggers are most active in the early morning and dusk. Wear long sleeves and pants. And my favorite tip: don't scratch. Most bites go away in about 45 minutes if left alone.

We didn't get into the breeds of mosquitos. We have natives, but many varieties come here from all over the planet, in the bilges of ships and probably even in bottle caps. And as a result new diseases are always a possibility.

So by all means, "Clean up your act."