

Fact/Info Sheet for Bucks County Mosquito Disease Control Program

If you'd like to use our Info Sheet for information to put on your website, please email Art Carlson aecarlson@buckscounty.org

There are approximately 60 species of mosquitoes in PA.

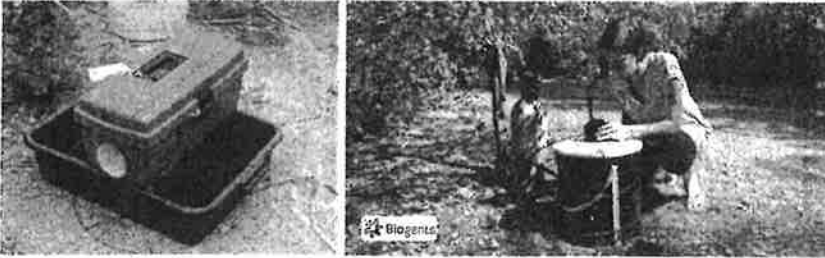
The main species that we are concerned with are:

Culex pipien/Culex restuans species: carry West Nile Virus, active at dawn and dusk, brown color

Aedes albopictus species: also known as the Asian Tiger mosquito. Small with black and white stripes, bite during the day, **do not** carry WNV, **common nuisance species**

How do we conduct surveillance?: Gravid traps: black basin with smelly water attracts adult mosquitoes looking to lay their eggs. The box on top contains a fan and a net that traps the mosquitoes. This is the trap that attracts primarily the species that carries WNV.

BG traps: white cylinder with a cooler of dry ice above it. The adult mosquitoes are attracted to the CO2 off of the dry ice and the lure in the trap that mimics human scent. The fan traps the mosquitoes in the net. This trap primarily attracts nuisance mosquitoes such as *aedes albopictus*.



<https://www.cmmcp.org/arbovirus-surveillance-program/pages/reiter-cummings-modified-gravid-trap>

<https://www.bg-sentinel.com/>

Where do mosquitoes breed?: Mosquitoes breed in shallow, still water. Examples of this are puddles, floodwater, plastic containers, flower pots, and tire ruts. Depending on the mosquito species, the lifecycle from egg, to larvae, to pupae, to adult takes a few days to a week.

How do we treat breeding areas?: We treat areas of standing water that are breeding mosquitoes with products called larvicide. The larvicide stops the mosquito larvae from forming to pupae or to adults. Depending on which type of larvicide and the environment it is used in, the larvicide can be effective from 7 days to 180 days. Larvicide we commonly use are:

Altosid XR Briquets <https://www.centralmosquitocontrol.com/all-products/altosid/altosid-xr-briquets>

Natular XRT Briquets <https://www.clarke.com/natular>

Spheratax WSP <https://www.arbico-organics.com/product/Spheratax-WSP>

Aquabac <https://www.arbico-organics.com/product/aquabac-bti-mosquito-control-granular-bacillus-thuringiensis-israelensis-bti/pest-solver-guide-mosquitoes>

What do we do with adult mosquitoes? Specifically, ones that test positive for WNV?: When we set a trap, we send the adult mosquitoes to the Department of Environmental Protection lab in Harrisburg where they are counted, identified, and tested for West Nile Virus. If we get a high number of mosquitoes in a trap, we first try and find if there is any standing water to treat, which is where the adults would be breeding. If the mosquitoes from a trap test positive for WNV, we will consider doing a ULV (ultra-low volume) truck spray. Our Clarke Cougar ULV mosquito sprayer is calibrated yearly to insure the proper application rate depending on the product used in the sprayer. Usually, we use Clarke Duet product at an application rate of 0.75oz of Duet sprayed per acre of land.

<https://www.clarke.com/duet>



BCDH Trucks

What can you do to prevent bites?: the culex species that carries West Nile Virus are active at dawn and dusk. If possible, avoid those times of the day. If you are out during those hours, wearing long sleeve shirts, pants, and using mosquito repellent are effective measures to take.

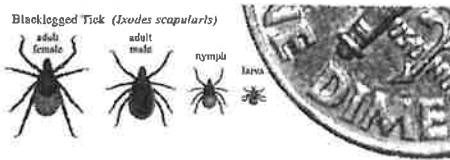
If you are enjoying time outside on a deck, a fan gently blowing is enough to keep the mosquitoes away.

Tick Info:

The blacklegged tick, or deer tick, are often found in wooded and grassy areas.

Most humans are infected with the Lyme disease bacterium through the bites of immature ticks, called nymphs, which feed in the spring and summer months

Ticks are often found attached to humans in the groin, armpits, and scalp areas, however they are able to attach anywhere on the body. In most cases the tick must be attached 36-48 hours or more before the Lyme disease bacterium can be transmitted.



Picture&info from <https://www.cdc.gov/lyme/transmission/index.html>

Ticks can be deterred by wearing long sleeve light colored clothing, pants tucked in to socks, and using insect repellent. Clothing can be treated with 0.5% permethrin which is effective in repelling ticks.

Trexler Game Preserve in Lehigh County has an informational sign at their trail entrances which is an excellent example of the measures that can be taken to educate the community. Other measures that can be taken by local agencies to prevent tick bites are cutting back foliage on paths or maintaining wider trails.

