

Mosquitoes and West Nile Virus

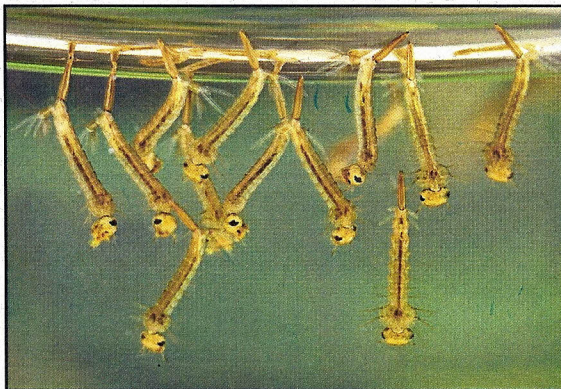
Mosquitoes are a common insect of summer. Although known for their irritating bites, not all species of mosquitoes bite. Of those that do, only the females seek blood meals for nourishment while breeding. The males feed on nectar or plant juices.

Mosquitoes rest in the cool shade of shrubs, grasses and other plants but look to other areas to reproduce. Some species lay their eggs on the surface of standing water or on floating vegetation; others, in dry areas that periodically fill with water, such as depressions in the ground, old tires or empty jars. Eggs from the latter can remain dormant for months in their dry environments until conditions allow them to develop.

Once in the water, and when the weather is warm, mosquito eggs can hatch into larvae within a few days. The larvae grow in the water for about a week before entering a pupa stage for two or three days. After emerging as adults, the females are ready to begin biting within a day or two.

Identification

Mosquito larvae swim on or near the water's surface. Their long, thin, legless bodies have large heads, which have bristly mouths and breathing tubes that cut the surface of the water.



The characteristics of the adult mosquito are similar. Its slender body has long, fragile-looking legs and veined wings. Antennae on the male are bushier than those on the female. The mouth part on the female is at the end of a long tube, or "proboscis," and is used not only to reach plant nectar but also pierce skin in search of blood. The chemical that it uses to keep the blood from coagulating is what causes the bites to itch.

Control

Under normal conditions, the Forest Preserve District does not engage in nuisance-mosquito control efforts. Mosquitoes are an important part of the food chain and as such are an important food source to a variety of desirable wildlife (bats, turtles, dragonflies, etc). Mosquito larvae help local waterways by filtering bacteria and organic material. One larva can filter up to a half ounce of water each day. If you multiply this rate of filtration by many thousands of larvae, it can add up to a significant public service.

With the arrival of West Nile virus, the Forest Preserve District of DuPage County holds the health of citizens in high regard. A certain genus of mosquito, the *Culex*, is most likely to transmit West Nile virus. *Culex* are known as a "drought-driven" species. Rather than multiplying in healthy wetlands or after heavy rains, they do so after long, dry spells that produce warm, stagnant water. Consistent with the Illinois Department of Public Health's regulations and to reduce the threat to public health, the District's West Nile virus mosquito management program specifically targets this species.

Forest Preserve District employees continue to work to locate and address areas that could potentially hold stale, stagnant water such as truck beds, dumpsters, buckets and gutters.

District personnel licensed by the Illinois Department of Agriculture monitor over 170 sites bimonthly throughout the mosquito-breeding season for *Culex* larvae. The sites selected are in close proximity to high-use public areas such as adjoining neighborhoods, parking lots, visitor centers and picnic areas. If larvae are found, or if adult mosquitoes carrying West Nile virus are found, the District responds in accordance to state guidelines and treats those areas with a larvicide. The District also collaborates with state, county, and local health departments and shares developments with the scientific community across the country.

In Your Yard

Homeowners may be surprised to learn their own backyards are ideal *Culex* breeding grounds. Breeding areas can be reduced by eliminating standing water in water-holding receptacles. Cleaning clogged roof gutters



and repairing faulty faucets or leaky pipes can also be beneficial. Wading pools or bird baths should be emptied and cleaned twice a week, and water dishes for pets should be emptied daily. For more information on reducing mosquito breeding locations around the home, call the Illinois Department of Public Health at (217) 782-5830.