



City of Jacksonville Streets Division



Mosquito Facts

Mosquitoes breed in all kinds of water, from small containers such as flower pots, tree holes and tin cans to large bodies of water like lakes or marshes. Mosquitoes like fresh or salt water, polluted or clean, standing or slow moving water. Adult mosquitoes can fly from the breeding site and become difficult to find.

Controlling Mosquitoes after they become adults requires expensive and complicated equipment. The City of Jacksonville provides mosquito control throughout the year. Through surveillance, City forces are able to pin point spawning areas, then deploy the most cost effective countermeasures by applying larvicides and adulticides throughout the City's ditches, streams and wetlands to decrease the population in City limits. The City treats neighborhoods, City maintained parks and City maintained stormwater collection systems by use of streets in the right of ways and easements within the City limits. The City uses a two pronged approach to control, Adulticiding and Larviciding. The delivery method for Adulticiding is through a truck mounted mist sprayer. Spraying is done when the mosquitos are most active, dawn & dusk. Larviciding is the treatment of standing stormwater that breed mosquitos. **The City does not treat private property.** The City will upon request provide an assessment at your property on areas of concern for mosquito breeding."

Beekeepers - Spraying may be harmful to the bees, but taking precautions are simple. Call the Street Department at 910 938-5333 for important information on how to keep your bees safe. Mosquito Control Application details are online at JacksonvilleNC.gov/Mosquito.

Prevention Tips - You Can Help at Home

You can help prevent the spread of mosquito populations by eliminating breeding conditions at home. Water-holding containers such as tree holes, tires, tin cans, uncovered boats, leaf clogged rain gutters, and planters may breed mosquitoes. We encourage you to take these simple prevention steps:

- Recycle or throw away trash and unwanted items
- Tip out water - cover, tip, store indoors items that fill with water
- Clean leaf-clogged gutters so they don't hold water
- Change water weekly (pet bowls, flowerpot dishes, or bird baths)

Mosquito Biology - Mosquitoes are insects that are close relatives to houseflies. The mosquito has four stages of growth; egg, larva, pupa, and adult. Mosquitoes lay their eggs on water or in places that are dry but will fill with water. Larvae hatch from the eggs and live, feed, and grow in the water. Fully grown larvae change into the pupae. During the pupal stage, feeding stops and changes occur that lead to the adult stage.

Adults emerge from the pupae, leave the water and take to the air. The cycle from egg to adult mosquito may take as little as a week, and live about 2-3 weeks. As adults, male and female mosquitoes mate. Only the female mosquito takes a blood meal (several during her short life span), in order to produce hundreds of eggs. Each type of mosquito may prefer blood from a different kind of animal such as birds, frogs, deer or humans. There are more than 50 types of mosquitoes in North Carolina and many do not attack humans.

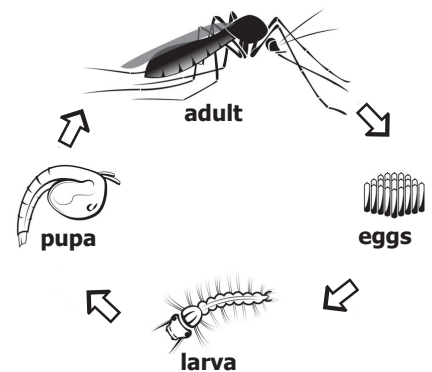
Source: epa.gov/mosquitocontrol/mosquito-life-cycle



Asian Tiger Mosquito known to carry the Zika Virus

Tips to Avoid the Bite

- Avoid mosquito hot spots
- Wear light colors
- Use insect repellent
- Avoid certain times of day
- Remove standing water
- Use an insect net
- Keep air circulated



Disease Carriers - The most common vector-borne diseases found in North Carolina are carried by ticks and mosquitoes. The most frequent mosquito-borne illnesses, or "arboviruses," in North Carolina include La Crosse encephalitis, West Nile virus and Eastern equine encephalitis. Heartworm disease in cats and dogs are caused by a parasitic worm called *Dirofilaria immitis*. The worms are spread through the bite of a mosquito. In this country as a result of mosquito control, medical treatment, and improved living conditions the spread of and elimination of diseases is possible.

Sources: <https://epi.dph.ncdhhs.gov/cd/diseases/vector.html> and <https://www.fda.gov/animal-veterinary/animal-health-literacy/keep-worms-out-your-pets-heart-facts-about-heartworm-disease>