

## **Mosquito Control**

Mosquitoes breed in all kinds of water - from small containers such as treeholes and tin cans to large bodies of water like lakes or marshes. Mosquito breeding water may be salty or fresh, polluted or clean, standing or slow moving. All of these breeding places create a variety of mosquito problems.

Mosquitoes can be controlled either as adults or larvae. Adult mosquitoes can fly from the breeding site and become difficult to find. Controlling mosquitoes after they have become adults requires expensive and complicated equipment. This equipment is usually run by a city or county. These machines create a very fine mist of insecticide that kills adult mosquitoes flying into it.

Wherever possible, it is best to use larval mosquito control. This prevents adult mosquito problems before they get started. There are many ways to perform larval control. They may include eliminating or changing the breeding sites, using insecticides, or introducing predators such as fish. Many times the mosquitoes that are a problem to homeowners result from breeding sites in their own backyards! Water-holding containers such as treeholes, tires, tin cans, uncovered boats, leaf-clogged rain gutters and planters may breed mosquitoes. Emptying the water from these places can be a quick and effective way to control mosquito problems around the house.

## **Preventing Mosquito Bites**

- Wear light colored clothing and long sleeve shirts and long pants
- Avoid outdoor activity when mosquitoes are most active, typically dawn and dusk
- Use one of the mosquito repellents recommended by Centers for Disease Control (CDC).
  - DEET (30 percent or less for adults and 10 percent or less for children) and picaridin are considered to be the most effective mosquito repellents.
  - Oil of lemon eucalyptus also repels mosquitoes but is less effective than DEET.
  - Follow the label directions when using any of these products.
- Use screened windows and doors.
- Eliminate mosquito breeding places around the home.
  - Empty, destroy, recycle or cover containers like tires, tin cans, buckets and bottles where mosquitoes can lay their eggs.
  - Change water in bird baths and pet bowls at least once a week.
  - Remove or empty dishes under potted plants.
  - Stock ponds and ditches with fish.



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# MOSQUITOES



## SOME FACTS



**North Carolina Mosquito &  
Vector Control Association**

# Mosquitoes are annoying and are carriers of disease in North Carolina.

## Here are some facts about mosquitoes.



### **Mosquito Biology**

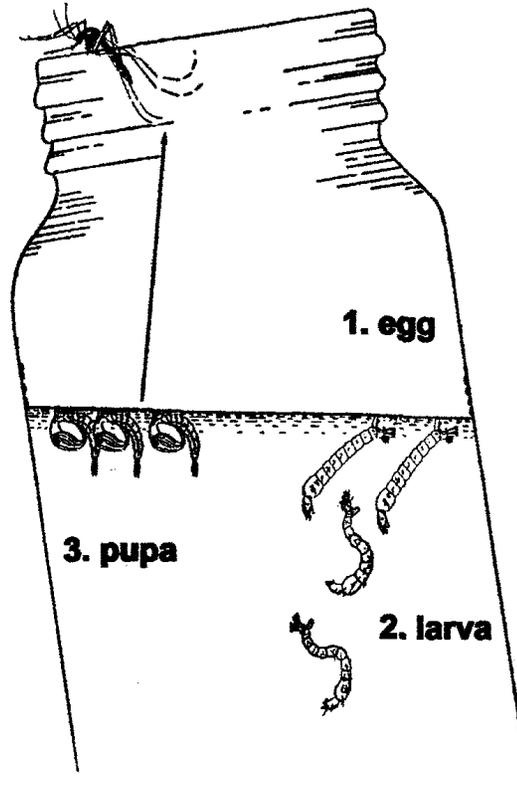
Mosquitoes are insects that are close relatives of houseflies. There are four stages of growth in the mosquito life cycle – egg, larva, pupa and adult.

The eggs of some types of mosquitoes are laid on water and hatch in one or two days. Eggs of other types of mosquitoes are laid in places that are dry but will fill with water. These eggs may survive several months before hatching. Larvae hatch from the eggs and live, feed and grow in the water. Fully-grown larvae change into 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 be as short as a week.

Soon after becoming adults, male and female mosquitoes mate. Only the female mosquito takes a blood meal; this is required to produce her eggs. Each type of mosquito may prefer blood from a

different kind of animal – birds, frogs, deer or humans.

There are more than 60 types of mosquitoes in North Carolina. Many of these are not a problem because they do not attack humans. Adult mosquitoes may live about two to three weeks, During this time the female can take several blood meals and lay hundreds of eggs.



### **Mosquitoes and Disease**

Mosquitoes are carriers (or vectors) of many diseases around the world. Malaria, yellow fever, dengue fever and filariasis are some of the most common. While these diseases occur overseas, they are not currently spread by mosquitoes in North Carolina. Malaria was once found throughout the southern United States but has been stopped in this country as a result of mosquito control, medical treatment and improved living conditions. In North Carolina, three viruses are carried by mosquitoes to people – Eastern equine, La Crosse and West Nile. In some cases, the illness caused by these viruses may be severe and result in encephalitis or death. Heartworm is a common disease of dogs carried by mosquitoes.

