Those Awful Mosquitoes!

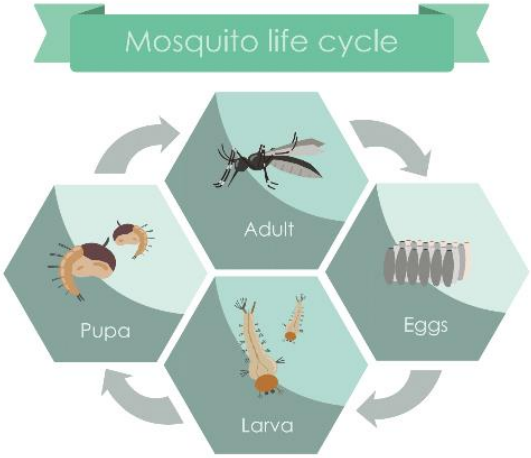
The word "mosquito" comes from the Spanish word for "little fly." But perhaps it should come from a word that means "persistent little monster." Whether you live in the city or in the country, mosquitoes can be a nuisance when you are outdoors.

Mosquitoes have been around much longer than we have. About 200 million years ago, in prehistoric times, they sucked the blood from dinosaurs. They were about four inches long, with a five-inch wingspan. Today, mosquitoes are about a half-inch long, and their average wingspan is about three-tenths of an inch.

There are more than 3,000 types of mosquitoes. They seldom live longer than 20 to 30 days at most. However, they can do a lot of harm in that short period. Many mosquitoes spread disease with their bites.

Life Cycle

When mosquitoes first hatch from their eggs, they look like little worms. Their bodies are segmented, and they're about the size of rice grains. They stay at that stage for a couple of weeks. Then they grow shells and spend a few days in them. After that, they break out as adult mosquitoes. The adults are so light and skinny that they can stand on the surface of water.

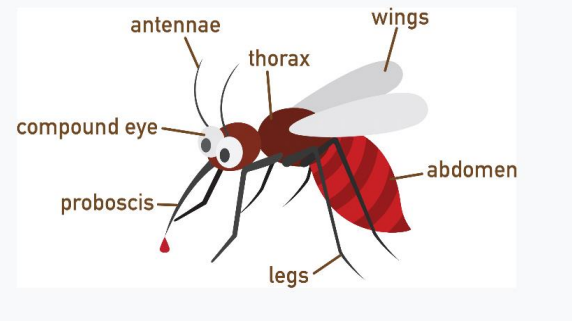


Body Parts

Mosquitoes' bodies are made up of three sections. Like all insects, they have six legs. Mosquitoes have antennae, too. A male mosquito's antennae are big and fluffy. Females, on the other hand, have antennae that are skinny and mostly hairless. Mosquitoes do not have ears. They use their antennae to sense auditory input and to feel things in their environments.

Mosquitoes have compound eyes, which are clusters of small, identical little eyes called facets. They do not see as clearly as humans do. Mosquitoes zero in on their prey mostly with their sense of smell. But compound eyes let mosquitoes detect motion much more quickly than we can. That's why they often get away when you try to catch them!

Unlike others in their insect family, mosquitoes have only two wings. When mosquitoes fly, their wings beat between 450 and 600 times per second. This is why you can hear a soft, audible buzz when one gets near you. They navigate through the air using two special limbs called halters. There is one halter on each side of a mosquito, located below each wing. They allow mosquitoes to keep their balance in the air. Otherwise, they would run into things all the time.



Studying Mosquitoes

Scientists who study insects are called entomologists. These scientists place mosquitoes in the same insect family as gnats and flies. Gnats buzz around peoples' faces and get in their mouths and ears. Flies can easily spread diseases.

You might think that it would be a good thing if all of these insects went extinct, but it would not. Birds, bats, fish, and many other animals depend on mosquitoes, flies, and gnats for food. It would damage the ecosystem if these pesky insects vanished completely.

Entomologists have long known that it's the female mosquitoes that bite people. They use blood to produce eggs. Female mosquitoes extract the blood with their long, sharp noses. Male mosquitoes have sharp noses, too. But the noses of males are not as long as the noses of females. Males use their shorter noses to take juices from plants; they never bite people or animals.

Spreading Disease

When mosquitoes bite, they use their saliva to help their noses enter their victim's skin. It's this saliva that causes the red, itchy bump on your skin. Some people are very allergic to mosquito bites and break out in a rash when they are bitten.

Mosquitoes have played an important part in history, but never in a good way. In the early 1900s, they attacked French workers trying to dig the Panama Canal. The workers became infected with Yellow Fever and malaria, and work on the canal stopped. After a man named Colonel William Gorgas found a way to rid the area of the mosquitoes, the Canal was successfully built.

Later, during World War II, mosquitoes caused problems again. There was a sudden outbreak of Yellow Fever in Asia. Scientists realized that the local mosquitoes had been feeding on monkeys that lived in the forests. The forests were cut down during the War, and the monkeys moved elsewhere. The mosquitoes did not, though; they came down to the ground and started biting people. Many people became sick, and many died.

Pesticides

Controlling mosquitoes is important. The problem is finding ways to save people without wiping out mosquitoes altogether. Pesticides have been used to kill mosquitoes in large numbers. A pesticide is a chemical mixture created for destroying unwanted pests.

One very effective pesticide was DDT, which cleared many areas of mosquitoes. People in mosquito-infested areas were pleased with its success. But unfortunately, there were side effects. DDT did not just wipe out mosquitoes. It also got into plants and water and entered many food chains. Eventually, many animals were harmed or killed by the chemicals.

In addition, mosquitoes developed a resistance to DDT. In other words, their bodies changed, so that the pesticide no longer affected them. The side effects and mosquitoes' resistance both detracted from the chemical's effectiveness. Today it is illegal in many countries to use DDT.

Controlling Populations

Female mosquitoes lay their eggs in still water. This can be a pond, a swamp, a birdbath, or a bucket of water. Mosquitoes can be controlled by eliminating some of these wet areas. In some places, this is an easy task. In other tropical areas, however, it is very difficult. Tropical climates are distinguished by heavy rains, so it is impossible to dry out every area in which mosquitoes breed.

Still, entomologists continue to develop new ways of fighting mosquitoes. New pesticides have been developed that can handle the creatures without harming the environment. But because the conditions that mosquitoes need to reproduce are so common, we still have a long way to go in controlling them.