

Mosquito Life Cycle

Mosquitoes go through four stages within their life cycle: the egg, larvae, pupal, and adult stage. Different species of mosquito go through their life cycles in different time periods and in different locations. Some species of mosquitoes (*Culex spp.*) prefer to lay their eggs in permanent, low flow, bodies of water, while others prefer to lay their eggs in temporary water bodies that are produced by floodwaters (*Aedes spp.*). Some species have even become adapted to using only artificial containers, such as stagnant buckets of water in your yard (*Aedes spp.*).

The Egg Stage:

Adult female mosquitoes will either lay their eggs individually or in clusters called “rafts” at the surface of the water, depending on the species. After the eggs have been laid, it can take as little as a few days for the larvae to hatch out of the egg, but it all depends on the temperature.

If the eggs are laid outside of water, those eggs can lay dormant until they come in contact with floodwater. This could possibly take a few years, and they can still hatch. Some mosquito eggs are also found to overwinter and hatch when the temperature and conditions are just right.

The Larval Stage:

After an egg hatches, the larval stage begins. This stage in the mosquito life cycle can last 4 to 14 days depending on temperature, food availability, and the species. The larvae will go through 4 molts, or “instars,” where it will shed its exoskeleton as it grows.

Mosquito larvae breathe through an air tube that is located at their posterior. This is why you might see them suspended at the surface of the water. Larvae also have the name “wigglers” because they make an S shape as they dive deeper into the water to escape from predators.

The Pupal Stage:

When the larvae enter the pupal stage, they no longer feed. This is their most active stage in water, and usually the stage where we see them doing a tumbling motion when swimming. Mosquitoes stay in the pupal stage for 1 ½ to 4 days. Afterwards, the skin along the back of the pupae will split, allowing the adult mosquito to emerge.

The Adult Stage:

Male mosquitoes will usually emerge from the pupal state first, and wait around the breeding site for females to arrive. This is because male mosquitoes only live for 6 or 7 days, and usually die after mating. Females usually live 6 weeks on average, but can live up to 5 months with adequate food sources and some species can reproduce multiple times.

Within one day, 30% of a mosquito population could die off due to how quickly males die. Due to the high death rate, females lay a large number of eggs to make sure the population persists.

To watch a video showing what the stages of the *Culex spp.* mosquito's life cycle looks like, click on the link at: <https://www.youtube.com/watch?v=wFfO7f8Vr9c>

For more in-depth information about the life cycle of mosquitoes, visit the Vector Disease Control International's website at: <http://www.vdci.net/mosquito-biology-101-life-cycle>

For more recourses about mosquitoes, visit our local vector control association's (Ohio Mosquito and Vector Control Association) website at: <http://www.ohiomosquito.org/resources.html>

For more information about Ohio Department of Health's *Fight the Bite!* initiative and more information about mosquitoes, visit their website at:
<https://odh.ohio.gov/wps/portal/gov/odh/know-our-programs/zoonotic-disease-program/resources/mosquito-borne-diseases>

By Elizabeth Teaford
Meigs County Mosquito Control Program Intern