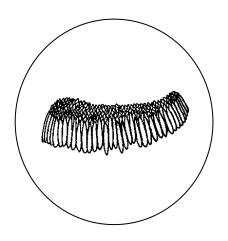


Metamorphosis

Mosquitoes grow to adulthood through four stages. This process is called metamorphosis. Many other insects, including butterflies, moths, dragonflies and beetles, undergo metamorphosis. The four stages in mosquito metamorphosis are egg, larva, pupa and adult.

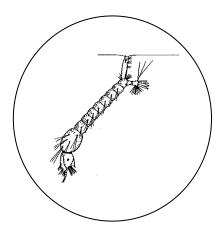


EGG

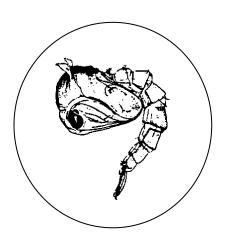
Female mosquitoes, depending on the species, may lay eggs on the surface of standing water in groups called rafts, or individually, on dry or moist ground or on vegetation. All mosquito eggs, regardless of species, need water to hatch. Depending on the availability of water, the eggs may hatch within a few minutes or lay dormant for years before they finally emerge as larvae. One square foot of salt marsh may contain over 10,000 salt marsh mosquito eggs waiting for a high tide or heavy rain to provide conditions suitable for hatching.

LARVA

When a mosquito egg hatches, the immature mosquito begins its life in the larval stage. Mosquito larvae, or wrigglers, live only in water. If their habitat dries up before they have developed into adults, they will die. The mosquito larvae are small, worm-like animals with no legs. They have many hairs, especially around their mouthparts. AT the tail there is a tube called the siphon. The larvae stick their siphons out of the water to breathe. Larvae move through the water column by jerking their bodies back and forth. Close observation will reveal their constantly working mouthparts, as they search for small organic particles of food. Mosquito larvae are generally found in shallow water, either fresh or salt, depending on the species.



As the larva eats, it grows to the point where it can't grow further, due to its hard **exoskeleton**. The larva then sheds, or **molts**, its exoskeleton, leaving beneath a much softer one that will stretch as it grows. The larva will continue to eat and grow and will molt four times. Each of the four larval stages is called an instar. A mosquito larva goes through four instars, and during the final molt, the pupa emerges.

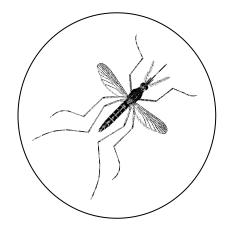


PUPA

The pupa, or tumbler, resembles a fat comma. It does not feed and has no eyes. This period of time in the mosquito's development is devoted to growth and change. The pupa normally rests at the surface of the water with its two breathing tubes, or **trumpets**, connected to the water's surface. Occasionally, if danger threatened, the pupa will tumble to the bottom. When the pupa is fully developed, it will come to the water's surface one last time to emerge into the adult mosquito.

ADULT

When the adult mosquito is ready to emerge, the pupa will rest at the top of the water's surface and straighten out its body. The back of the exoskeleton splits and slowly the adult mosquito emerges. Like a scene from a science fiction movie, a creature with very little resemblance to its former self, emerges out of the pupal skin. The adult mosquito rests briefly on the water's surface, then flies a short distance to some surrounding vegetation to rest and allow time for the newly developed wings to dry.



Cut out these pictures and put them in the correct circle for the mosquito life cycle.

