



Non-biting midge larva

Larva about 1/4 inch long  
Black is the digestive tract  
Red is from hemoglobin  
Often called bloodworms  
Lives along bottom of ponds, lakes,  
and streams, among sunken leaves  
and debris for 1-3 years as a larva.  
Adult midges look a lot like  
mosquitos and live only a few  
weeks.  
They join together in swarms,  
often in the early evening, dancing  
in the air, sometimes over an  
object like a bush, a hilltop, a pool  
of water, or a person,  
They do not bite.  
Larvae are a food supply for fish  
and salamanders, and adults are  
food for birds and dragonflies.

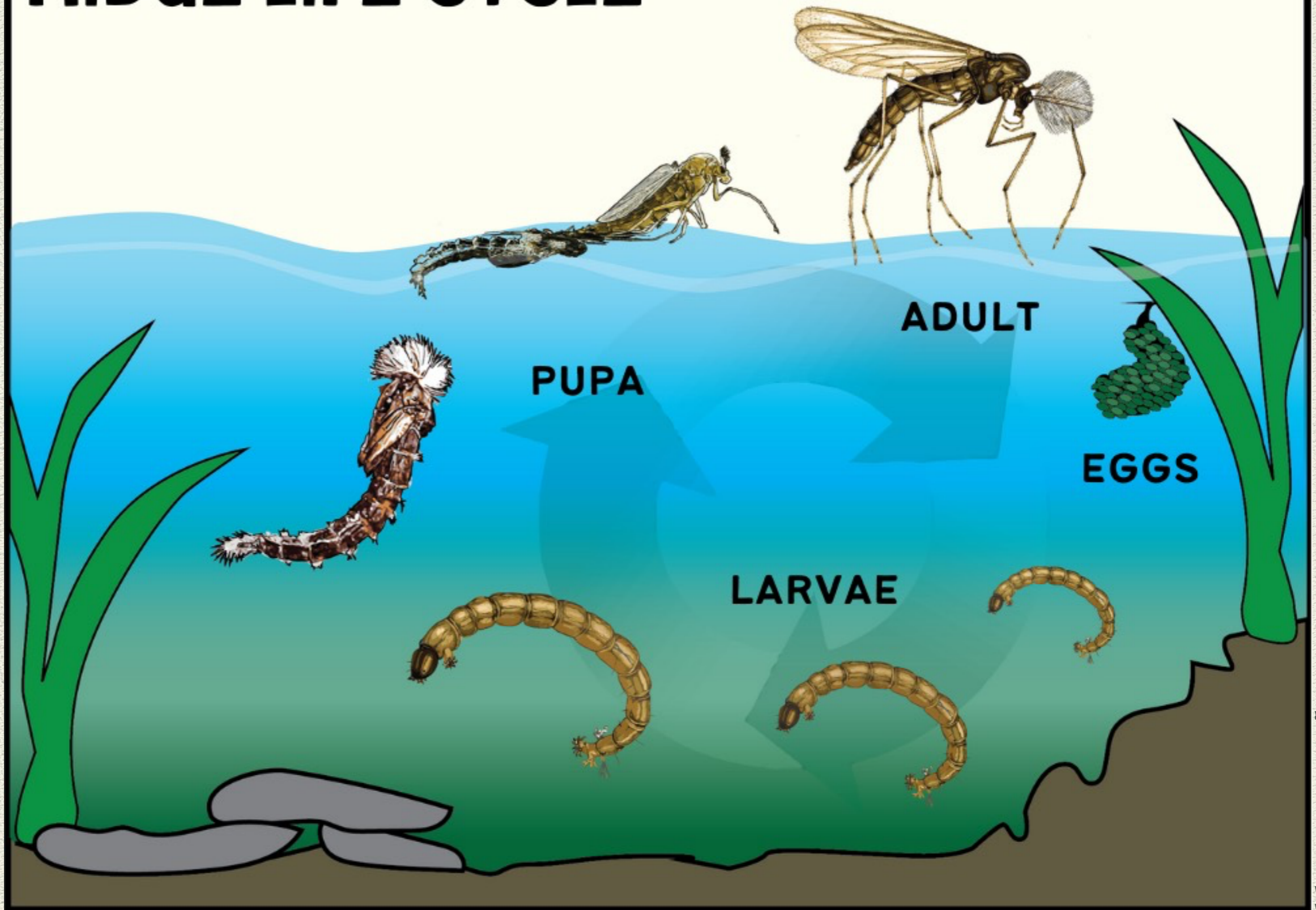




iNaturalist

Biting midge larva

# MIDGE LIFE CYCLE



# What is a midge?

- ◆ Midges are small flies, but there are many kinds of midges, and not every small fly is a midge. Midges are a distinct insect, just like dragonflies, mayflies, and stoneflies.

Larvae are red in color because their blood contains hemoglobin. They are able to extract oxygen directly from water. This allows them to remain on lake bottoms for the duration of their larval period, rather than having to constantly travel to the surface for air and back to the bottom to feed the way mosquito larvae have to do. This is why mosquitoes primarily breed in shallow water. Healthy bodies of water can contain huge numbers of chironomid midges.





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## *Biting Midges*

Eggs are laid in wet organic material, such as mud around ponds or in moist decaying leaf matter.

Eggs are smaller than the dot of an i, and adults are smaller than the thickness of a penny or of a nickel.

They are sometimes called *no-see-ums* because of their smallness.

They can be a vector of disease in man and livestock.



Biting midges can be a nuisance to campers, fishermen, hunters, hikers, gardeners, and others who spend time outdoors during early morning and evening and even during the daytime on cloudy days when winds are calm. They will readily bite humans. The bites are irritating, painful, and can cause long-lasting painful lesions for some people.



A common observation upon experiencing a bite from this insect is that something is biting, but the person suffering cannot see what it is. Biting midges are sometimes incorrectly referred to as sand flies. Sand flies are insects that belong to a different biological group and should not be confused with the biting midges.





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*Focus stacking, polarized light, and birefringence*