

Know your Mosquitoes:

Comparing GLOBE Observer Mosquito Habitat Mapper Taxa



	<i>Anopheles</i>	<i>Culex</i>	<i>Aedes aegypti</i>	<i>Aedes albopictus</i>	Other
Common Name			Yellow fever mosquito	Asian tiger mosquito	"Nuisance species" are not vectors of disease.
Distribution	<i>Anopheles</i> mosquitoes can be found anywhere in the world with the exception of Antarctica.	<i>Culex</i> mosquitoes are distributed worldwide in tropical and temperate regions, with the exception of extreme northern latitudes.	<i>Aedes aegypti</i> are distributed in tropical and subtropical areas worldwide ¹ .	<i>Aedes albopictus</i> are distributed in tropical and subtropical areas worldwide.	Mosquitoes are found on every continent except Antarctica.
Eggs	Laid singly, on water and each egg has floats.	Multiple eggs are laid as rafts on water	Laid singly on the side of container and above the waterline.	Laid singly on the side of container and above the waterline.	Varies depending on species. Some are laid on water, on soil, or on plants.
Larval habitat	Larvae can be found in a wide range of habitats, but most species prefer clean, unpolluted water. Larvae have been found in fresh or saltwater marshes, rice fields, mangrove swamps, grassy ditches, the edges of streams and rivers, and temporary rain pools ² .	<i>Culex</i> utilizes an exceptionally wide range of larval habitats. The water used by this species can vary from nearly clear to grossly polluted ³ . Various bodies of standing fresh water: puddles, pools, ditches, tin cans, buckets, bottles, and water storage tanks.	<i>Aedes aegypti</i> prefer manufactured containers such as discarded tires, flowerpots, etc., over natural container habitats. Larvae have been found in a range of water conditions.	<i>Aedes albopictus</i> are commonly found in both natural and artificial container habitats but prefer natural containers over artificial. Larvae have been found in a range of water conditions.	Depends on the species.
Larva resting position	Larvae rest horizontally, beneath the water's surface.	Larvae hang at an angle from siphon from the water surface.	Hang at angle from a siphon just under the water surface.	Hang at an angle from a siphon just under the water surface.	Most species hang at angle from siphon just under the water surface ⁴ .
Larva breathing apparatus	Larvae breathe through posterior spiracles (a pair of respiratory openings).	Larvae breathe through a siphon.	Larvae breathe through a siphon.	Larvae breathe through a siphon.	Larvae breathe through a siphon.

¹The United States. *Aedes aegypti* is found in the more southern states, while *Aedes albopictus* can survive colder temperatures and has a wider geographic range.

² <https://www.cdc.gov/malaria/about/biology/mosquitoes/index.html>

³ vectorbio.rutgers.edu/outreach/species/rest.htm

⁴ Some, like species of genera *Mansonia* and *Coquillettidia* have a sharp pointed siphon to pierce aquatic plant tissue and breathe through the plant roots and stem.

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Adult biting behavior and habitat	Adults are active between sunrise and sunset and can be found both indoors and outdoors. ⁵	Adults feed at night on humans and animals and are found indoors and outdoors.	Unlike most other mosquitoes, adult <i>Aedes</i> mosquitoes are active and bite only during the daytime, with peak activity during the early morning and in the evening before dusk ⁶ .	Unlike most other mosquitoes, adult <i>Aedes</i> mosquitoes are active and bite only during the daytime, with peak activity during the early morning and in the evening before dusk.	Depends on species.
Preferred host	Some species have a preference for human blood like the <i>Anopheles gambiae</i> , which can carry and spread Malaria. <i>Anopheles arabiensis</i> isn't picky and feeds on both animals and humans. Other species prefer bird blood, but most of them will accept any blood they can find.	Varies by species.	<i>Aedes aegypti</i> are typically found in urban areas. They are active biters both indoors and outdoors. <i>Ae. aegypti</i> has a preference for human blood.	Mostly associated with areas of vegetation and is found primarily outdoors; the female will bite domestic and wild animals, as well as humans.	Many of the approximately 3,500 mosquito species prefer to cows or pigs, dogs, or other animals. All males and the females of many species feed exclusively on plant liquids, including nectar, honeydew, fruit juices and exudates ⁷ .
Disease vector for pathogens that cause:	Malaria. Only an estimated 40+ species of the over 400+ Anopheles species can serve as a vector for malaria.	Lymphatic filariasis Eastern Equine encephalitis, Japanese encephalitis, Rift Valley fever, Sindbis fever, and avian malaria.	Yellow fever, West Nile Virus, dengue, Zika chikungunya, and other viruses.	Yellow fever, West Nile Virus, dengue, Zika chikungunya, and other viruses.	Rift Valley Fever (<i>Aedes vexans</i> and other <i>Aedes</i> species).
Protection	Bed nets, surveillance, habitat mitigation, and education.	Surveillance, habitat mitigation, and education.	Surveillance, habitat mitigation, and education.	Surveillance, habitat mitigation, and education.	Surveillance, habitat mitigation, and education.
Notes for your region:					

⁵ Most Anopheles mosquitoes are crepuscular (active at dusk or dawn) or nocturnal (active at night). Some Anopheles mosquitoes feed indoors (endophagic) while others feed outdoors (exophagic). After blood feeding, some Anopheles mosquitoes prefer to rest indoors (endophilic) while others prefer to rest outdoors (exophilic). Biting by nocturnal, endophagic Anopheles mosquitoes can be markedly reduced through the use of insecticide-treated bed nets (ITNs) or through improved housing construction to prevent mosquito entry (e.g., window screens). Endophilic mosquitoes are readily controlled by indoor spraying of residual insecticides. In contrast, exophagic/exophilic vectors are best controlled through source reduction (destruction of the breeding sites). Source: <https://www.cdc.gov/malaria/about/biology/mosquitoes/index.html>





⁶ <https://www.bcm.edu/departments/molecular-virology-and-microbiology/emerging-infections-and-biodefense/mosquitoes>

⁷ <http://mosquito-taxonomic-inventory.info/simpletaxonomy/term/6045>

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