

WHAT IS A VECTOR?

A vector is an insect or any other animal that transmits a disease to other animals or humans.

MOSQUITOES

Mosquitoes successfully transmit various diseases such as West Nile virus, Western Equine Encephalomyelitis virus, St. Louis Encephalitis virus, canine heartworm and malaria. There are approximately 3,500 species of mosquitoes distributed worldwide, 53 different species occur in California and over 20 are found in Sacramento and Yolo Counties.



SACRAMENTO-YOLO
MOSQUITO
& VECTOR
CONTROL
DISTRICT

FIGHT THE
BITE

OFFICE LOCATIONS AND HOURS OF OPERATION

Sacramento County

8631 Bond Road
Elk Grove, CA 95624
Phone: 1-800-429-1022
Fax: 916-685-5464
Web site: FIGHTtheBITE.net
Hours: 7:00 am to 3:30 pm

Yolo County

1234 Fortna Avenue
Woodland, CA 95695
Phone: 1-800-429-1022
Fax: 530-668-3403
Web site: FIGHTtheBITE.net
Hours: 7:00 am to 3:30 pm

VECTORS OF CONCERN

SACRAMENTO-YOLO
MOSQUITO
& VECTOR
CONTROL
DISTRICT



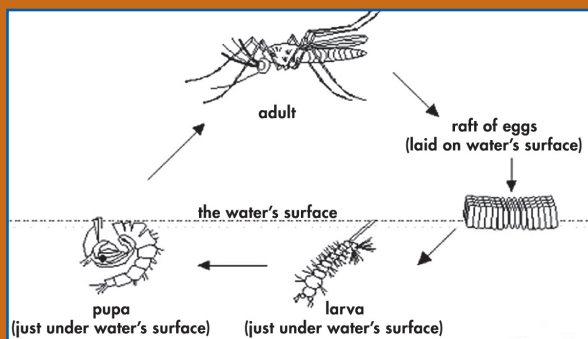
FIGHT THE
BITE

SACRAMENTO-YOLO MOSQUITO & VECTOR CONTROL DISTRICT

MOSQUITO LIFECYCLE

Water that remains stagnant for more than five days can breed hundreds of mosquitoes therefore it is imperative to properly manage water on your property. Without water, mosquitoes cannot survive.

The illustration below depicts the mosquito life cycle from egg, larva, pupa to adult. You can prevent mosquitoes from developing by draining any container that supports this life cycle.



MOSQUITO HABITATS

In Sacramento and Yolo Counties immature mosquitoes develop in agricultural, industrial, domestic and natural habitats.

MOSQUITOES AND PUBLIC HEALTH SIGNIFICANCE

Encephalitis Mosquito (*Culex tarsalis*)

This mosquito can transmit the encephalitis virus to humans. It has been known to transmit West Nile virus, Western Equine Encephalomyelitis virus and St. Louis Encephalitis virus. The Encephalitis Mosquito is distributed throughout Sacramento and Yolo counties. Immature mosquitoes develop in wetlands, duck clubs, rice fields and irrigated crops. The adult mosquito prefers to feed on birds and mammals. It is most active during summer and fall months.



House Mosquito (*Culex pipiens*)

The House Mosquito has been known to transmit West Nile virus and St. Louis Encephalitis virus. It is common throughout Sacramento and Yolo counties. Immature mosquitoes develop in foul water sources such as dairy drains, catch basins and artificial containers. It prefers to feed on birds but will readily feed on humans. This mosquito is most active during the summer and fall months.



Inland Floodwater Mosquito (*Aedes vexans*)

This mosquito is a secondary vector for dog heartworm and is a severe outdoor pest. It is common in irrigated pastures and in woodland water course pools. It feeds primarily on mammals. This mosquito is most active in early spring through late fall. *Ae. vexans* typically blood feed at dawn and dusk but may also occur during the daylight or evening hours.



Western Malaria Mosquito (*Anopheles freeborni*)

Anopheles freeborni can transmit the malaria parasite to humans. It is common in rice growing regions of California. Immature stages develop in rice fields, wetlands, duck clubs and rain pools.



It prefers to feed on mammals. This species is most active from late winter to early fall.

Western Treehole Mosquito (*Aedes sierrensis*)

This mosquito can transmit the dog heartworm parasite *Dirofilaria immitis*, and is a severe outdoor pest. It is common in oak woodlands. Immature stages develop in tree rot holes. It feeds primarily on mammals. This mosquito is most active during the late winter months through early spring.



Wetlands Mosquito (*Aedes melanion*)

Aedes melanion is involved in the encephalitis transmission cycle and is a severe outdoor pest. It is common in Sacramento and Yolo Counties. This mosquito develops in wetlands, duck clubs and irrigated pastures. It prefers to feed on mammals. *Ae. melanion* is most active during the fall and spring months.



TICK

The bacterium that causes Lyme disease is called *Borrelia burgdorferi*. The primary vector for Lyme disease in Sacramento and Yolo Counties is *Ixodes pacificus*, also known as the Western black-legged tick.



Ticks are usually found in grassy areas, brush or wooded areas. They wait on the tips of vegetation for a human or other animal host to pass by (this is called "questing"). As the host brushes against it, the tick makes contact, looks for a suitable location and begins the feeding process.

Contrary to popular belief, ticks do not embed their heads into the skin. Ticks are equipped with mouthparts adapted to penetrate and hold fast in the skin of its host. Additionally, they secrete a cement-like material that helps them stay attached to their host.

Ticks go through four life stages: egg, larva, nymph and adult. Both males and females require blood meals in the last three stages of their life cycle.

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