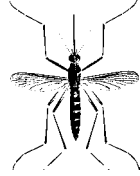


# MOSQUITO NOTES



## TULE MOSQUITO

### ***CULEX ERYTHROTHORAX***

#### **GENERAL INFORMATION**

*Culex erythrothorax* is commonly referred to as a "tule" mosquito because the larvae are usually found associated with tules, cattails or grasses.

The adult female tule mosquito is fairly easily recognized by the distinctive reddish color of its' body. It is medium sized with very narrow white bands on the blunt-tipped abdomen. There are no bands on the legs or proboscis (beak).

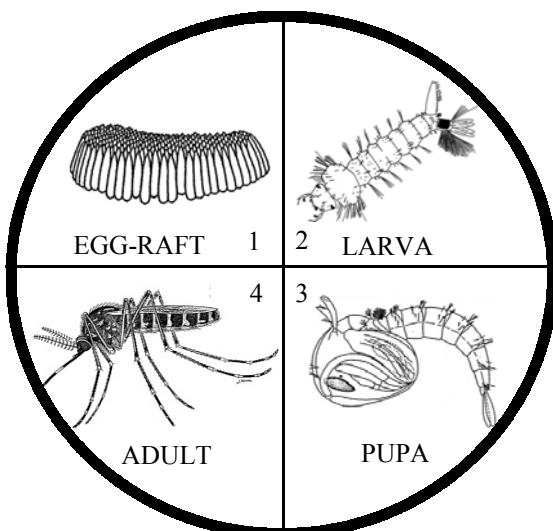
This mosquito is found through most of California at lower elevations. It also occurs in Arizona, Nevada, Idaho, Utah, New Mexico, Texas, Colorado and Mexico.

#### **LIFE CYCLE**

Mosquitoes have four distinct life stages as seen in the illustration, with the first three stages of *Culex* (egg-larva-pupa) being spent in the water. An adult female lays about 150-200 eggs in clusters called rafts, which float on the surface of the water until they hatch in about two days. Females lay eggs in water with dense vegetation.

The eggs hatch into larvae (wigglers), which then feed on small organic particles and microorganisms in the water. These mosquito larvae are often found where the tules are matted down so much that the water can't be seen. At the end of the larval stage, the mosquito molts and becomes the aquatic pupa (tumbler). The pupa is active only if disturbed, for this is the "resting" stage where the larval form is transformed into the adult. This takes about two days during which time feeding does not occur. When the transformation is completed, the new adult splits the pupal skin and emerges. Under optimum conditions development from egg to adult takes about two to three weeks.

However, all mosquito developmental times are dependent on the temperature of the water in which they mature.



## HABITS (ADULT BEHAVIOR)

The female readily bites man although the primary hosts seem to be other mammals and birds. This species typically bites at dusk or after dark but will bite during the day if disturbed. They generally bite below the waist, but occasionally attack above the waist. The bite of this mosquito is considered to be more painful than many other species. Males do not bite, but feed on plant juices.

## ECONOMIC AND MEDICAL IMPORTANCE

The tule mosquito is principally a rural or suburban nuisance but occasionally does affect industry or agriculture located near marshes. Only recently has this species been found to carry the viruses of St. Louis and Western Equine Encephalitis (SLE and WEE) in California, and virus of the California Encephalitis group in Utah.

## CONTROL METHODS, PREVENTION AND CORRECTION

Where possible, the best approach is to prevent mosquitoes from breeding by eliminating breeding sites. Cleaning out some of the tules will also allow fish access and reduce the amount of larva.

## BIOLOGICAL CONTROL

Often the tule mosquito may be controlled in a source by stocking mosquito fish (*Gambusia affinis*).



FEMALE

## CONTROL MEASURES

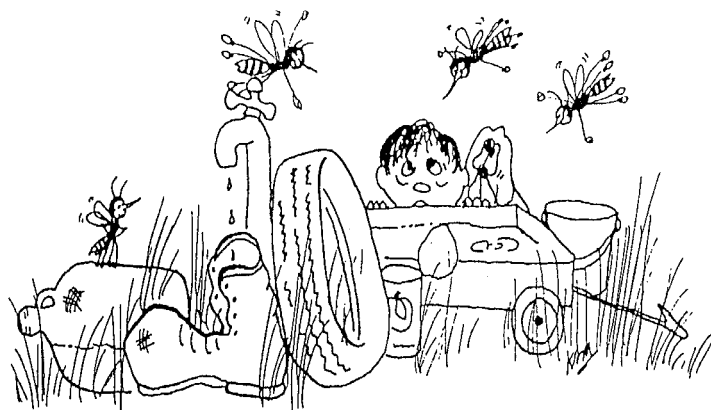
Due to the often delicate environmental inter-relationships of some ponds, chemical control should only be practiced by trained mosquito abatement or health department personnel. These officials have knowledge of the proper compounds and application techniques to assure minimal environmental side effects. Public health agencies generally are able to provide information and assistance where organized mosquito control programs are unavailable.

It is important to remember that chemical control provides only temporary relief and is used by public agencies until other measures can be implemented.

Commonly available insect repellents may be useful if it is necessary to be in an area at twilight where very large numbers of this specie exist.

## YOU CAN PREVENT MOSQUITO BREEDING

### MOSQUITO SOURCE...



### WHAT TO DO?

- EMPTY OR COVER RECEPTACLES THAT WOULD OTHERWISE HOLD WATER.
- PUT MOSQUITO FISH IN PERMANENT PONDS.
- STORE OLD TIRES INSIDE OR COVER THEM.
- CLEAN CLOGGED GUTTERS.
- MANAGE IRRIGATION WATER EFFECTIVELY.
- REPORT MOSQUITO BREEDING SITES.

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