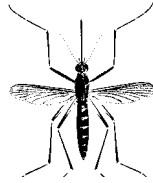


# MOSQUITO NOTES



## COOL WEATHER MOSQUITO

### *CULISETA INCIDENS*

### LIFE CYCLE

#### GENERAL INFORMATION

*Culiseta incidens* is often referred to as the "cool weather mosquito". This species (seldom) breeds during summer except in coastal areas.

These are large robust mosquitoes, dark brown to black in color. The tip of the abdomen is blunt, with white cross bands present on all abdominal segments when viewed from above.

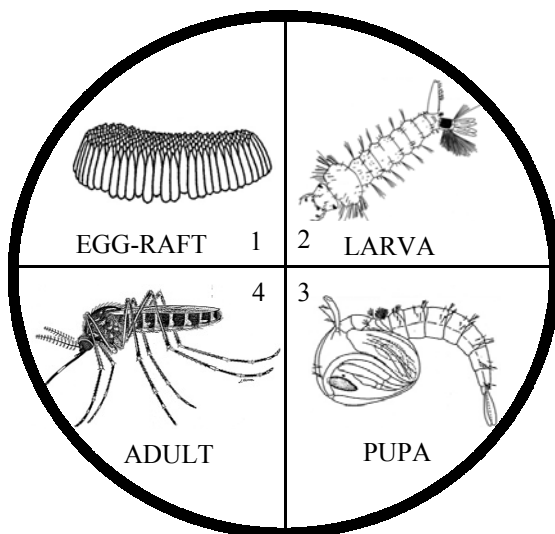
This specie occurs from Alaska to the Southern California border, primarily west of the Rocky Mountains. In California it occurs from below sea level to at least 9,500 feet elevation and has been recorded in every county.

Mosquitoes have four distinct life stages as seen in the illustration, with the first three stages of *Culiseta* (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.

The eggs hatch into larvae (wigglers), which then feed on small organic particles and microorganisms in the water. About 10 days are required for larval development. 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.

Larvae are found in a wide variety of standing water sources including creeks, fish ponds, abandoned swimming pools, stagnant and polluted waters, log ponds, reservoirs, snow pools, brackish water, horse troughs, artificial containers, and even discarded automobile tires.

Under optimum conditions development from egg to adult takes about two to three weeks. However, all mosquito developmental times are dependent on the temperature and food values of the water in which they develop.



## HABITS (ADULT BEHAVIOR)

Females feed primarily on fowl and domestic animals but on occasion will bite man. Due to the limited flight range of this mosquito, most breeding sites are located near the area of complaints. Males do not bite, but feed on nectar and plant juices.

## ECONOMIC AND MEDICAL IMPORTANCE

*Culiseta incidens* is primarily a domestic nuisance and in some regions is considered relatively unimportant as a human pest. Successful laboratory experimental transmission of St. Louis Encephalitis (SLE), Western Equine Encephalitis (WEE) and Japanese B Encephalitis (JBE) virus does indicate a potential medical importance for this mosquito.

## CONTROL METHODS, PREVENTION AND CORRECTION

Where breeding sites exist in standing or slow-moving water, corrective action to permanently eliminate them by such means as filling, pumping, ditching or draining is recommended. Ornamental ponds and watering troughs are common sources.

## BIOLOGICAL CONTROL

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



FEMALE

## CONTROL MEASURES

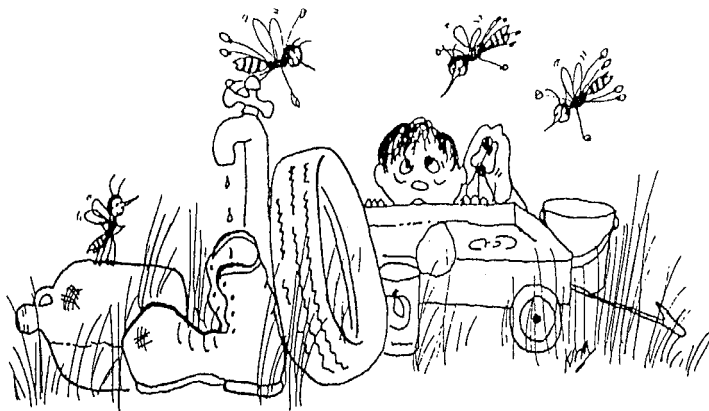
Due to the often delicate environmental inter-relationships of some ponds, chemical control should only be practiced by trained mosquito abatement or health department personnel. These officials have knowledge of the proper compounds and application techniques to assure minimal environmental side effects. 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 where large numbers of this species 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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