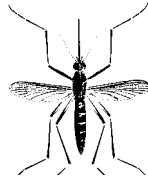


MOSQUITO NOTES



A PALE MARSH MOSQUITO

OCHLEROTATUS DORSALIS

LIFE CYCLE

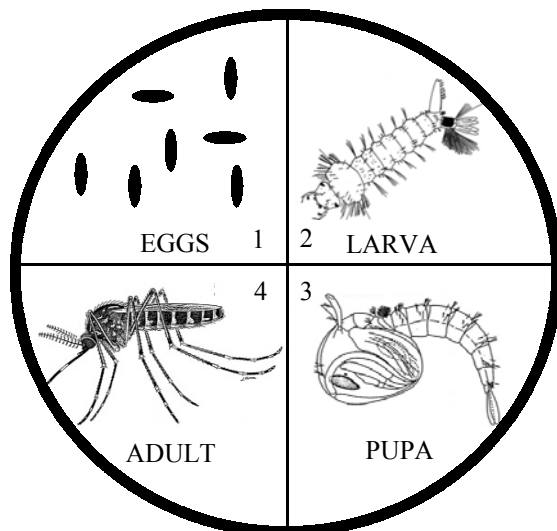
GENERAL INFORMATION

Ochlerotatus dorsalis is commonly called the pale marsh mosquito because of its' whitish-gray appearance. This mosquito breeds in coastal salt marshes, brackish waters of the Sacramento-San Joaquin Delta and some inland lakes of Northern California. This is a major pest mosquito in the San Francisco Bay area. Adults are medium size mosquitoes with yellow to straw coloration and a long white band seen from above. The end segments (tarsi) of the legs have broad white bands.

The wings have narrow white and dark scales, having a "salt and pepper" appearance.

This specie is found throughout most of the United States, excluding the Southeast. In California distribution is primarily coastal, being common along the western border of the state.

Mosquitoes have four distinct life stages: egg, larval, pupal and adult as seen in the illustration. The female *Oc. dorsalis* deposits its' eggs singly on the mud along the edge of receding tide pools. Winter is usually passed in the egg stage. The eggs hatch during the first warm weather of spring or during subsequent re-flooding of the marshes. This often results in multiple generations of mosquitoes emerging during the summer. Eggs can remain viable for several years and do not all hatch with the next flooding. After marsh flooding, most of the eggs hatch into larvae within a short period of time from water contact. The larvae feed on small organic particles and microorganisms suspended in the water. Feeding may take place either at the bottom or near the water surface. At the end of the larval stage, the mosquito molts and becomes the pupa (tumbler). The pupa is active only if disturbed for this is the resting stage where the larval form is transformed into that of 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 7-10 days. However, all mosquito developmental times are dependent on the temperature and food values of the water in which they develop. *Oc. dorsalis* can produce continuous broods through the spring and summer having 8-12 hatches per year.



HABITS (ADULT BEHAVIOR)

Female *Ochlerotatus dorsalis* are vicious biters, attacking human beings and other animals at any time of the day or night, but are most active toward evenings or on calm cloudy days. The females are strong fliers, dispersing long distances (up to 20 miles or more); sometimes males accompany the females on these flights.

ECONOMIC AND MEDICAL IMPORTANCE

This species is known to harbor California Encephalitis virus in California. However, its' vicious biting habits can render areas where it is present virtually uninhabitable for man or other animals. This species can be very annoying to livestock, resulting in reduction in feeding and possible injury to frantic animals attempting to escape the severe attacks.

CONTROL METHODS, PREVENTION AND CORRECTION

The most important method of controlling salt marsh mosquitoes is to eliminate or modify the specific water areas in the salt marshes where the larvae occur. This may be accomplished by circulation ditching, which permits the water from very high tides or rains to flow back into the bay or ocean.

BIOLOGICAL CONTROL

Because of the salinity variance and shallowness of many of the durable breeding sources of this mosquito, the use of mosquito fish (*Gambusia affinis*) has not been feasible, and other methods have not yet been developed.



FEMALE

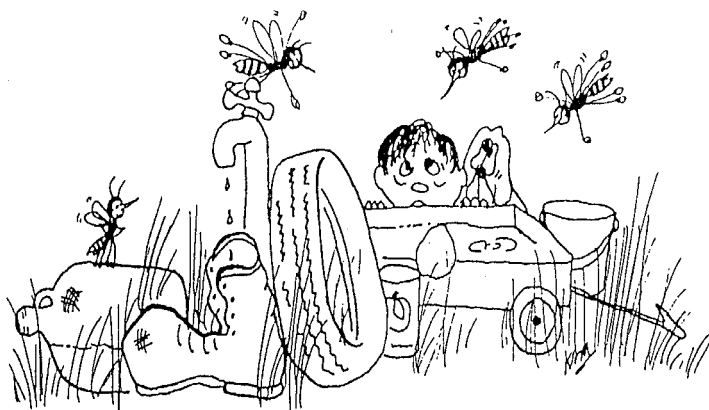
CONTROL MEASURES

Problems with drainage or prevention may develop which can make it necessary to use chemical control. Due to the often sensitive ecological relationships on our marshes, chemical control should be carried out only by trained mosquito control personnel. Control agencies have knowledge of the proper compounds and application techniques to assure minimal environmental side effects.

Insect repellents may be useful if it is necessary to be in an area where large numbers of these adults are present.

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.

MARIN / SONOMA MOSQUITO
& VECTOR CONTROL DISTRICT
595 HELMAN LANE
COTATI, CA. 94931
707-285-2200 or 800-231-3236
www.msosquito.com