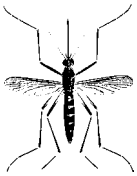
MOSQUITO NOTES



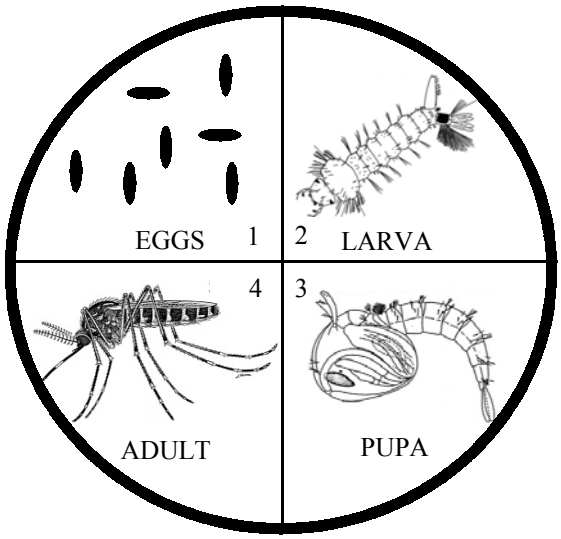
CALIFORNIA SALT MARSH MOSQUITO

OCHLEROTATUS SQUAMIGER

GENERAL INFORMATION

Ochlerotatus squamiger is commonly called the California Salt Marsh Mosquito because it breeds exclusively in the salt and brackish marshes along the California coast. It is medium to large in size with a grayish or black coloration. The end segments (tarsi) of the legs have broad white bands. The mixture of dark and light scales on the wings gives them a "salt and pepper" appearance.

This specie breeds in marsh waters following extra high tides or rains. It occurs only along the Pacific Coast from Sonoma County to Baja California. It has been the major mosquito problem in the San Francisco Bay area within the recorded history of the area.



LIFE CYCLE

Mosquitoes have four distinct life stages: egg, larval, pupal and adult as seen in the illustration.

The female California Salt Marsh Mosquito deposits its' eggs singly on the mud along the edge of receding tide pools. The eggs remain unhatched usually until the next late fall or winter rains and high tides. Eggs can remain alive for several years and not all will hatch with the next flooding. After such marsh flooding, most eggs may hatch into larvae within a short period of water contact.

The larvae feed on small organic particles and microorganisms in the water. Full-grown larvae molt and become pupae, or tumblers, in which many changes occur that lead to the development of a winged adult within the pupal case.

Oc. squamiger is single brooded with the larval stage usually maturing during winter and the adults emerging from mid February to May, and may live for up to three months.

HABITS (ADULT BEHAVIOR)

Female salt marsh mosquitoes are vicious biters, attacking man and other animals at any time of day, but maximum biting activity occurs at twilight. They may bite actively at night indoors under lights, but normally bite only out of doors. The females are strong fliers, migrating long distances (up to 20 miles or more) in large numbers.

ECONOMIC AND MEDICAL IMPORTANCE

This species is not known to be a natural vector of disease producing organisms in California. However, its' vicious biting habits can render areas where it is present virtually uninhabitable for man. 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 breeding sources for this mosquito, the use of mosquito fish *(Gambusia affinis)* has not been feasible, and other methods have not been developed.

FEMALE

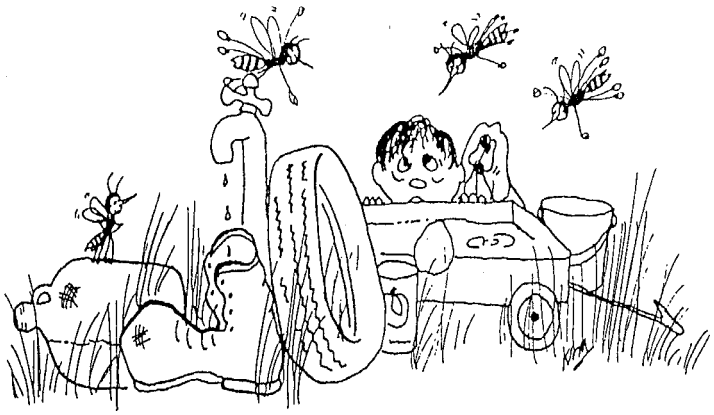
CONTROL MEASURES

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.

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