



Information

Bohart Museum of Entomology

No. 005

Kissing Bugs

Kissing Bugs are true bugs (Order Heteroptera) that are so named because of their nocturnal habit of biting humans around the mouth area. Kissing Bugs belong to the genus *Triatoma* (family Reduviidae), which includes 16 species in the United States. The most common species in California is the Western Kissing Bug, *Triatoma protracta*.

Triatoma protracta is a brown-black insect approximately $\frac{3}{4}$ of an inch long, whose wings form a distinctive "X" when folded over the abdomen. They possess a long, pointed beak, or proboscis, that is used to pierce the skin to obtain a blood meal. The Kissing Bug is also known by the name of "Cone Nosed Bug" and "Mexican Bed Bug".

Kissing Bugs are predominantly nocturnal and are obligate blood feeders. They primarily feed upon small mammals such as wood rats, pack rats, opossum, raccoons, and armadillos. They are most often found in direct association with their animal hosts, for example in the nests of wood rats. Kissing Bugs are capable of taking blood meals from humans, but because of their association with wild animal hosts, human bites are more probable in areas that are surrounded by a natural environment, rather than in urban or suburban settings.

The female Kissing Bug lays single, white, cone-shaped eggs in a habitat near its food source. The eggs hatch in 10-30 days into a small soft-bodied nymph that resembles the adult except for its lack of wings. There are five nymphal stages, each requiring at least one, and typically two or three blood meals before molting to the next nymph stage. Completion of growth from egg to adult usually takes one full year.

Kissing Bugs hide in debris, vegetation, and crevices during the day, and become active, seeking a host for their blood meal, only at night. When feeding, the Kissing Bug will position itself next to (but not on) the host, and will insert its piercing beak into exposed skin. It will not feed through clothing or bedding, thus the most common site for bites on sleeping humans are around the lips, ears and eyes. The insects feed for 8 to 15 minutes at a time, and usually feed only once every three weeks, although they can survive for up to 3 months without a blood meal.

Those bitten by the Kissing Bug describe the bite as virtually painless, with a slight tingling sensation. Most

people never know they have been bitten, and the results may simply be a welt like a mosquito bite. Some people react more adversely, developing hives or in extreme cases, experiencing an allergic reaction to the Kissing Bug's saliva resulting in an anaphylactic response.

All species of Kissing Bugs are potential carriers of the parasitic protozoan *Trypanosoma cruzi*, the cause of Chagas' Disease (a form of African sleeping sickness). The mechanism for transmission of the protozoan is not through feeding, but through contamination of the bite wound by the bug's fecal material. Although North American *Triatoma* species have tested positive for the parasite *T. cruzi*, Chagas' Disease is much less of a concern in the U.S. than in other parts of the world because the North American *Triatoma* delay defecation until 20-30 minutes post-feeding. By this time, they are usually no longer in contact with the sleeping human.

Human interactions with *Triatoma* are considered to be singular events and not infestations because the insects are typically found individually inside homes and not as multiple intruders. If you have found an adult in your home it does not indicate that you have an infestation. A concentrated search is the most effective means of dealing with these insects, not a pesticide drenching of your home. Entrance into homes can be reduced by repairing damaged screens on windows and doors, placing barriers over open vents, and using non-white lights outdoors. Removal of wood rat nests near homes in more rural areas also will reduce the number of bugs, but care should be taken to carefully remove all plant materials and bugs that remain in the nest area.

