CONENOSE BUGS

Integrated Pest Management In and Around the Home

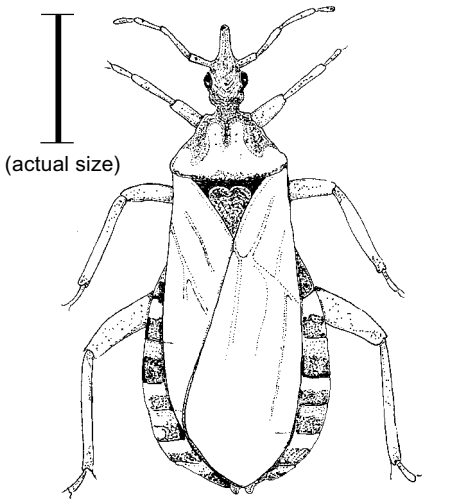

Figure 1. Adult conenose bug.

Conenose bugs (Fig. 1) are members of the family Reduviidae, which are commonly called assassin bugs. Most members of this family are predators of other insects, but the conenose bugs (also known as kissing bugs), in the genus *Triatoma,* are bloodsucking parasites of a wide variety of domestic and wild animals and humans. In California these bugs are most prevalent in the foothill areas surrounding the Central Valley and in foothills and desert areas of southern California.

The only important species in California is *Triatoma protracta,* the western bloodsucking conenose, whereas in the southern United States from the Atlantic Ocean to Arizona the most important pest species is *Triatoma sanguisuga*. *Triatoma protracta* frequently lives in aggregations in the nests of wood rats (*Neotoma* spp.), but also flies into homes and may feed on people. Although not painful, bites from conenose bugs sometimes produce allergic reactions, which can be cause for concern in sensitive individuals. In Latin America these insects are important because they sometimes carry a protozoan, *Trypanosoma cruzi*, which causes Chagas' disease in humans; this debilitating disease is rare in the United States, however, with only two recorded cases in southern Texas and one in central California.

Another common assassin bug that is attracted to lights around homes, the western corsair (*Rasahus thoracicus*) (Fig. 2), looks somewhat similar to conenose bugs but has an orange and black body with an orange spot on each wing. The western corsair feeds primarily on other insects and does not seek out warm-blooded animals or require a blood meal in order to reproduce. However, if it is picked up, it can inflict a bite that is quite painful.

IDENTIFICATION AND LIFE CYCLE

The adult western bloodsucking conenose is ½ to ¾ inch long, dark brown to black in color, and has a lateral abdominal margin that is sometimes tan. The wings are held flat over the back at rest. The head has four-segmented antennae, conspicuous eyes, and a three-segmented, straight beak that extends backward below the body. Nymphs are similar in appearance to adults except that they do not have wings and are smaller. Wing pads appear in the last instar. Conenose bugs are easily distinguished from another bloodsucking true bug group, bed bugs (see *Pest Notes: Bed Bugs,* listed in References), by the presence of wings in the adult and a more oblong shape.

The conenose bug life cycle takes about 1 year. Eggs are usually laid in summer and hatch in 3 to 5 weeks, giving rise to the first of five nymphal stages, each requiring a blood meal before molting to the next stage. Each blood meal can last 20 to 30 minutes and then takes 1 week to digest. Conenose bugs spend the winter as developing nymphs and molt into adults in spring. Adults can fly and are long-lived; frequently they are drawn to outside lights at night. Feeding occurs at night, and during the day nymphs and adults congregate in hiding places. In homes likely places for them to spend the day are in cracks or crevices around doors and window screens, in bedding or mattresses, in furniture, closets, and other dimly lit locations. Outside they can often be found in animal nests and nesting material.

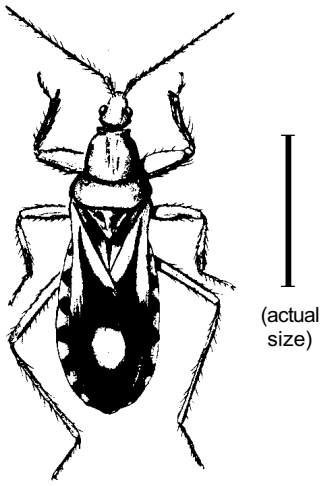

Figure 2. Adult western corsair.

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DAMAGE

Typically, bites from conenose bugs occur at night; victims are bitten in their sleep and may find the engorged bugs in their beds. Usually there are several punctures about ¼ inch apart along a straight line primarily on the torso; the bite is initially painless but may swell and cause a substantial welt that itches for several days. Fifty percent of those bitten react more severely the second time, with symptoms ranging from welts that itch to swelling of the tongue, larynx, and trachea. Bites from conenose bugs may be confused with spider or tick bites (e.g., that of the pajahuello tick).

If you suspect you or a family member might be allergic or is developing an allergy to conenose bug bites, go to a physician or allergist for testing and to find out about the availability of a desensitization program of antigen injections. Research has shown that about 7% of people tested in areas where conenose bugs are common have the potential for developing serious immediate-sensitivity reactions, including anaphylactic shock, to the bite of this insect. If treated in time, anaphylactic shock can be reversed by the effects of epinephrine (adrenaline) injected into the body. Individuals who are aware that they are allergic to bites can get epinephrine in either a normal syringe (sting kit) or in an auto-injector (Epi-Pen) from a medical doctor (it is available by prescription only). Antihistamines potentially have value combating non-life-threatening reactions, but should be used according to a physician's instructions.

The Chagas' disease protozoan, *Trypanosoma cruzi*, that is transmitted by conenose bugs is not directly transmitted during feeding but excreted in their feces. If the fecal material is scratched into the bite or onto mucous membranes, it can enter the human body; therefore, always disinfect the bite site with iodine to prevent infection, and then wash it to remove fecal material. Because Latin American species are more likely to defecate immediately after feeding than are species found in the United States, protozoan transmission is more likely in Latin America. Immediate or acute symptoms of this disease include swelling of the face, high or moderate fever that develops about 2 weeks after the victim is bitten, swelling of other body areas, and sometimes nervous system disorders. If the patient recovers, chronic infection becomes established and may result in cardiac damage or other serious disorders and even death.

MANAGEMENT

Various measures can be taken to prevent problems caused by this pest. These include removing likely harborages and sealing points of entry. Fix structural problems in buildings that permit the bug's entry. Use weather stripping, caulk, or silicone seal to eliminate small cracks and crevices. Screen all windows and vent openings. Keep fireplace flues shut. Make sure that dog and cat entrances are insect proof. Since lights attract the insects at night, move them away from doors and windows. Remove ground squirrel, wood rat, and other rodent nests within 300 feet of the house. Eliminate harborages such as piles of lumber, firewood, and debris. Check beds at night and shake out the bedding before getting into bed. Keep beds at least 1 foot from walls and place double-sided sticky tape on the legs. In extreme cases a tent of mosquito netting over the bed that is tucked in all around the mattress will provide protection from the bugs.

If the above measures do not eliminate the insects, it may be necessary to use a registered total-release pyrethrin space spray or a quick-acting fumigant. On dry surfaces, insecticidal dusts such as fumed silica (also called diatomaceous earth) can be used.

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