

KISSING BUGS

by

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Kissing bugs, a blood-sucking insect very common to the Tucson area, are also known by the common names conenose bug or walapai tiger. In taxonomic jargon, the common species is *Triatoma rubida*, but three other species are known from southern Arizona, *T. protracta*, *T. recurva* and *T. indictiva*. The kissing bug is normally a resident of packrat dens, but in other habitats will use such hosts as opossums, armadillos and other assorted rodents, bats, etc. As long as the host is available, the kissing bug normally stays with the residents. Thus if homeowners try to eliminate packrat nests, but fail to then deal with the bugs, rest assured the bugs will find the next readily available blood meal, generally that homeowner. Complete cleanup of the nest site, removal of all plant materials, and a thorough inspection of the disturbed nest site to find and remove resident kissing bugs is imperative for management of the potential problem bugs.

The female kissing bug lays pearly white subconical eggs singly in a habitat near its food source. These eggs hatch in from 10-30 days into a small soft-bodied nymph (similar in shape to adults but lacking wings and size) that soon will be ready for a blood meal. There are five nymphal stages, each requiring at least one full blood meal, commonly several feedings being the norm, to stimulate molting to the next growth stage. Completion of growth from egg to adult usually takes 1-2 years.

In Arizona, the activity period of adult triatomines is usually in May and June, coinciding with high nighttime temperatures in the 70's and low humidity. A second activity period may be noted in September when conditions again are similar to our early summer. This activity corresponds to new adults leaving their juvenile home and seeking mates and a new host situation. If a kissing bug does enter a home and conditions are right for reproduction, the people may encounter these bugs any month of the year. Also incidental contact with kissing bugs can occur during the other summer months, but their activity is lower then.

The adult emigrants, active at night, will fly a bit, and are attracted to lights, whether outside on a porch or merely shining through a window. One good way to manage populations is to inspect your house by the windows before going to bed, for the bugs may be sitting on the house then. During the day, the bugs seek dark shelters, so inspect beneath flower pots or other potential hiding places near the home. The bugs are flat and can enter a home through narrow openings, so good home maintenance around doors and windows is necessary to prevent entry.

If a kissing bug does get into the house, it will become active once it gets dark, and will seek out a host. Once it has bitten someone, the bug will not venture too far away, many times found between the bed frame and springs or mattress. This also will be the area a female will deposit her eggs, so check the sheets, etc. and do thorough vacuuming in the bedroom during this season. Just because you have been bitten once, or you have found an adult in your home, it does not indicate you have an infestation. A concentrated search is the most effective means of dealing with these insects, not a pesticide drenching of your home. Kissing bugs do not generally work beneath sheets or pajamas to feed on a host, preferring naked, exposed skin. This is the reason behind the name kissing bug, since the face is normally exposed during sleep. Use of mosquito netting during peak activity periods of the kissing bug may prove an effective deterrent.

Kissing bugs, being blood feeders and closely associated with humans, are sometimes vectors of Chagas' disease, known to occur in Mexico to South America. All species of kissing bugs may harbor the pathogen, *Trypanosoma cruzi*, the causative agent of this disease. Transmission of the pathogen is through the kissing bug feces that is deposited near the feeding site and later rubbed into the itchy wound site by the victim. The four species of *Triatoma* found in Arizona, due to their behavior of defecating away from their feeding site, have never been implicated in transmitting this pathogen.

The bite of the kissing bug usually is painless, because the mouthparts are very sharp and big enough for a only single blood cell to flow through. 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 resulting in an anaphylactic response. People being bitten a lot may develop this more adverse response to the bites over time and should consult a physician for proper care.

To reiterate, proper maintenance around the house is the most effective measure for preventing these bugs from getting into the home. Do not think that eliminating packrat nests will solve your problem, for there is a never-ending population of these rodents in our desert. If you do catch a rat, make sure you also deal with their home and remove the kissing bugs in residence. Check outside late at night to see if any bugs have come to your house, or check dark, moist habitats during the day for any hiding bugs. Mechanical control is the most effective, efficient and environmentally sound method of management. If you are bitten, check closely the next day around your bed and other hiding spots in your bedroom for the culprit and remove it when found. Don't fall into the trap of thinking you can spray and solve your problems the easy way. Dealing with insects of any kind means effort for success.

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