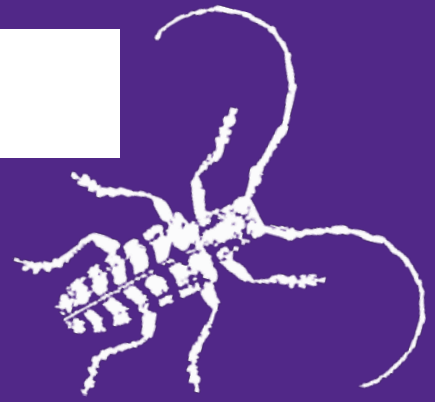


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News Corner

- Cicada Killer

NEWS CORNER

Cicada Killer

We have received several inquiries associated with large wasps flying around in landscapes and gardens. These large wasps are the Eastern cicada killer, *Sphecius speciosus*. Cicada killer adults are approximately 2.0 inches (5.0 centimeters) long and black with yellow banded markings on the abdomen. The head and transparent wings are red brown (Figure 1). Cicada killers are intimidating, especially the males, but they are not harmful to humans. Cicada killers are solitary wasps, not social wasps like yellowjackets. Adults live up to 75 days from July through September, and feed on flower nectar and plant fluids.

A female cicada killer digs a 6.0 to 10.0 inch (15.2 to 25.4 centimeter) burrow in sandy or loose soil that is approximately 1/2 of an inch (1.3 centimeters) in diameter. A pile of sand or soil will surround the entrance. Cicada killer females then

search for dog days cicada, *Tibicen pruinosus*, adults located on the trunks and lower branches of trees. The female stings an adult cicada using her egg laying device or ovipositor, flips the cicada over, straddles the



Figure 1. Cicada killer adult (Raymond Cloyd).

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cicada, and then transports the immobilized or paralyzed cicada back to the burrow in the soil (Figure 2). Each burrow contains three to four cells with one or two cicadas. The dead cicada serves as a food source for the cicada killer larvae, which are legless and grub like. A female will lay one egg per cicada if the egg is unfertilized. Larvae that emerge (eclose) from unfertilized eggs are males whereas larvae that emerge from fertilized eggs are females and are provided with two cicadas. Larvae emerge from eggs in two to three days and feed on paralyzed cicada(s). The female will eventually cover the burrow, dig another one, and repeat the process. Full grown larvae overwinter inside silken cases, pupate in spring, and adults emerge from July through August. There is one generation per year in Kansas.

Cicada killers are an urban nuisance pest, especially when large numbers are nesting in bare areas, in turfgrass, or around a structure. People are generally concerned because cicada killers resemble giant yellowjackets or they think cicada killers are the so called "Murder Hornet". However, in general, cicada killers will not sting an individual. Wasp and bee female stingers are modified egg laying devices (ovipositors), so males cannot sting. Females may sting if they going to be stepped on with bare feet or grabbed with bare hands.

Male cicada killers establish aerial territories and fly around looking for intruders. A male cicada killer prevents other males from entering his territory. The very large wasp hovering in front of the face that moves to the side and back typically confronts an individual that walks into the territory. However, after determining that the intruder is not a rival or a threat, the male cicada killer ignores the individual. Nonetheless, an individual walking across a lawn, fairway, or other area where cicada killers are nesting, may experience the same treatment through each male's territory. Sometimes there can be up to 20 cicada killer males in one area. After females have left the nest, males will eventually leave the area.

Cicada killers are common in areas with bare soil, so mulching, planting ground covers, or sodding may reduce potential problems with cicada killer populations. Cicada killers can be a problem in well maintained areas such as irrigated and regularly fertilized turfgrass. Cicada killers can also be a problem when nesting in areas accessible to or frequented by the public. Applying carbaryl or pyrethroid based insecticides containing the active ingredients; permethrin, bifenthrin, cyfluthrin, and/or lambda-cyhalothrin to the burrowed (nesting) area may kill females in golf course sand traps. In home yards, cover sandboxes with a tarp when not in use to deter cicada killers. Sand below swings, jungle gyms, or other playground equipment should be replaced with bark mulch or shredded tires.



Figure 2. Cicada killer female transporting a paralyzed cicada to her nest (Raymond Cloyd).

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Managing cicada killers in baseball infields and volleyball courts is difficult because people with minimal clothing and exposed skin are diving and sliding onto the soil. Hence, the use of an insecticide may not be an option. However, in the case of a volleyball court, a geotextile fabric placed beneath the sand may create a barrier that prevents cicada killers from creating burrows.

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HOME

Sincerely,

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