

We are receiving inquiries regarding large wasps flying around. These are the Eastern cicada killer (*Sphecius speciosus*); not the Asian Giant Hornet (*Vespa mandarinia*). Cicada killer females search for, kill, and provision each cell within a nest located in the ground with a dog day cicada (*Tibicen pruinosus*) adult. The dead cicada is a food source for young cicada killer larvae. Cicada killers are an urban nuisance pest, especially when nesting in large numbers, 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 Asian giant hornet. Cicada killers are approximately 2.0 inches long and black with yellow-banded markings on the abdomen. The head and transparent wings are red-brown (Figure

1). Cicada killers are not dangerous, but they are intimidating; especially the males. Cicada killers are ground-nesting solitary wasps, with the female digging a 6 to 10- inch burrow (1/2 inch in diameter) in the ground; usually in sandy or loose soil. A pile of sand or soil, depending on soil type, will surround the entrance.

Females search for and sting large insects such as a cicada or katydid, and then bring the immobilized or paralyzed prey back to the burrow

The female places prey into a chamber in the nest and then lays an egg on the body. Afterward, the female covers the burrow, digs another burrow, and repeats the process. A legless grub-like larva will emerge (eclose) from the egg and proceed to consume the prey. Full-grown larvae overwinter in the burrow, pupate in spring, and emerge as adults from July through August. Male cicada killers establish aerial territories and patrol for intruders. A male cicada killer wards-off other males that enter his territory and attempt to mate with females. An individual that walks into the territory is typically confronted by a very large wasp hovering in front of the face and 'zips' to the side and back. However, after determining that the intruder is not a rival or a threat, the male cicada killer ignores the individual. Nevertheless, an individual walking across a lawn, fairway, or other area where cicada killers are nesting, will experience the same treatment through each male's territory. After females have left the nest then males will eventually leave. Cicada killers, in general, will not sting an individual. Wasp and bee stingers are modified egg-laying devices (ovipositors), so males cannot sting. Females, however, may sting if crushed or if stepped on with bare feet, or grabbed with bare hands.

Cicada killers are common in areas with bare soil, so mulching, planting ground covers, or sodding may reduce issues with cicada killers. Cicada killers can be a problem in well-maintained areas such as irrigated and regularly fertilized turfgrass. In addition, cicada killers can be a problem when nesting in areas accessible to or frequented by the public. Applying carbaryl or pyrethroid insecticides containing the active ingredients; permethrin, bifenthrin, cyfluthrin, and/or lambda-cyhalothrin to the burrowed area will kill females in golf course sand traps. In home yards, sandboxes should be covered 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. Managing cicada killers in baseball infields and volleyball courts is more challenging because people with minimal clothing and exposed skin are diving and sliding onto the ground; thus making it difficult to recommend using an insecticide. 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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