

# Household and Structural

Department of Entomology

## CICADA KILLERS

*Timothy J. Gibb, Extension Entomologist*

Cicada killers are large, ominous looking wasps that evoke a good deal of fear among people. They look like a giant hornet or huge yellow-jacket and are somewhat aggressive. However, the cicada killer is a solitary wasp, not a social wasp, and as such is not likely to sting unless directly handled. Most of the wasps seen are males that patrol the nesting area. They may fly about people, dive bomb, or even hover in front of faces, but because they are males they cannot sting. Females do not defend their burrows, and will sting only if mishandled.

Cicada killer wasps may nest in aggregations (several nests in the same area) but do not live together socially as do social bees and wasps. Such aggregations may contain from a few to a hundred or so individual burrows, and may persist for several years in the same location.

Normally, female cicada killers dig a burrow in well drained, light textured soil, in an area with full sunlight. The 1 1/2 inch diameter opening leads into an oblique tunnel that runs for 12-18 inches and reaches a depth of 6-10 inches. The female cicada killer forms four to five cells off of the main

tunnel which she uses for a nursery. Sometimes secondary tunnels are built off the primary tunnel, allowing a female to rear up to 16 larvae in a burrow.

After digging the tunnel, the female wasp locates a cicada in a tree or bush and then inflicts a very precise, paralyzing sting before dragging it to the entrance of its burrow. The cicada is not dead but merely immobilized - sometimes continuing its incessant buzzing even while being dragged to the hole. The cicada killer wasp is amazing, not only for being able to detect and paralyze its prey, but also because of its ability to fly carrying a cicada that is proportionally equal to or heavier than the wasp itself. This is an amazing aeronautical feat.

Equally interesting is the reproductive behavior of the Cicada killer. After stuffing the cicada into a small nursery cell, the wasp lays an egg, then seals off the chamber. The egg hatches in 2-3 days, then the larva burrows into the cicada carcass and begins the slow process of devouring the immobilized, but still-living cicada from the inside out. They overwinter in their cells, emerging the next July as adults. Between mating (shortly after emergence) and mid August, new adults dig soil burrows, stock them with cicadas, and the cycle is repeated. Adults die by mid September.

A large nesting aggregation sometimes results in unsightly mounds of soil that are the remains of the tunnel excavation. Otherwise, cicada killers do very little damage.

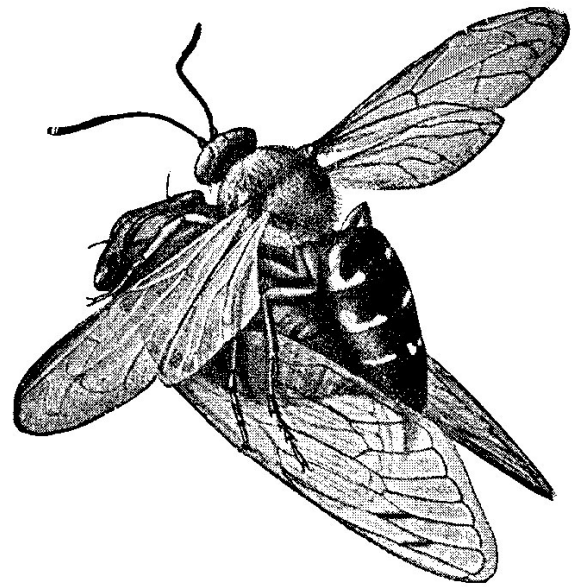
Control of cicada killers is safely and effectively done by placing a small amount of 5% carbaryl (Sevin) dust down into the soil tunnel entrance. For a large nesting aggregation, the area can be sprayed. In both cases, the tunnel entrances should be left open to encourage the wasp into the treated area.



Cicada killer, *Sphecius speciosus* (Drury)  
on a branch.  
(Photo Credit: J. Obermeyer)



Cicada killer, *Sphecius speciosus* (Drury)  
large but mostly harmless.  
(Photo Credit: J. Obermeyer)



Cicada killer with paralyzed cicada

**SPECIES INFORMATION:**

*Sphecius speciosus* (Drury) — Cicada killer

READ AND FOLLOW ALL LABEL INSTRUCTIONS. THIS INCLUDES DIRECTIONS FOR USE, PRECAUTIONARY STATEMENTS (HAZARDS TO HUMANS, DOMESTIC ANIMALS, AND ENDANGERED SPECIES), ENVIRONMENTAL HAZARDS, RATES OF APPLICATION, NUMBER OF APPLICATIONS, REENTRY INTERVALS, HARVEST RESTRICTIONS, STORAGE AND DISPOSAL, AND ANY SPECIFIC WARNINGS AND/OR PRECAUTIONS FOR SAFE HANDLING OF THE PESTICIDE.

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