

# CICADA KILLER WASP

CICADA KILLER WASP, *Sphecius speciosus* (Drury), Sphecidae, HYMENOPTERA

## General Information

The cicada killer wasp has a rusty red head and thorax, russet colored wings, and a black and yellow striped abdomen. Some wasps may be 1-1/4 inches long. The translucent, greenish-white egg is often described as "cigar shaped". It is 1/8 inch or more long. The larva may reach a maximum length of 1-1/4 inches. The mature, quiescent larva, however, is somewhat shrunken and leathery. The pupa has not been described. The woven, spindle-shaped cocoon that surrounds the pupa is usually 1-1/4 inches long and 9/16 inch wide with a narrow band of pores along its center. The case is often brown and stiff.



## Biology

The cicada killer wasp occurs in all states east of the Rocky Mountains. It abounds in areas of full sun, scant vegetation, and light textured, well-drained soils. Poorly vegetated embankments seem to be favorite nesting sites. The cicada killer wasp does not feed on plants. Adult wasps feed on the nectar of flowers. They do, however, catch and sting adult cicadas to serve as food for their larvae during development. In spite of its formidable size and burrowing habit, this wasp is unusually docile and harmless. Though possibly capable of inflicting a painful sting, the cicada killer wasp is usually difficult to provoke. Mating males are aggressive and more easily disturbed, however, males cannot sting.

A noticeable mound of soil surrounds the burrow of each cicada killer wasp. Since colonies of burrows are common, infested lawns usually contain several mounds that can smother the grass. However, since cicada killer wasps prefer to nest in areas of sparse vegetation, it is likely that an infested turf was already unthrifty when the wasps arrived. They rarely burrow in thick, vigorous turf.

The cicada killer wasp overwinters as a larva within a cocoon 3/4 to 1 inch deep in well-drained soil. Pupation occurs in the spring. The cicada killer wasp's life history has not been closely studied in North Carolina, but this wasp appears as early as the first week of June in Arkansas, but rarely before July 1 in Ohio. Emergence continues throughout the summer. The female adult feeds, mates, and digs burrows for several weeks before preying on cicadas. A vertical or slightly angled burrow 6 to 9 inches deep and 1/2 inch in diameter with broadly oval cells perpendicular to the main tunnel is excavated. The excess soil thrown out of the burrow forms a symmetrical, U-shaped mound at the entrance.

Once cells have been constructed, the search for cicada begins. Canvassing tree trunks and lower limbs, the wasp stings its prey, turns the victim on its back, straddles it, and drags it or glides with it to the burrow. Each cell is furnished with at least one cicada (sometimes two or three) and a single egg before being sealed off. Two to 3 days later the egg hatches. Depending on the number of cicadas in its cell, the larva feeds for 4 to 10 days until only the cicada's outer skin remains. During the fall, the larva spins a silken case, shrinks, and prepares to overwinter. Only one generation occurs per year. These can generally be considered beneficial insects.



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