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CICADA KILLER WASP (*Sphecius speciosus*)

The Eastern cicada killer wasp is New England's largest species of solitary wasp, and a common source of curiosity (and a little bit of concern) during the hot summer months when adults are active.



Fig. 1: Female Cicada Killer carrying captured cicada prey. Note the three bright yellow stripes on the abdomen.

Description and Behavior:

Ranging from 1.5 to 2 inches in length, female cicada killers owe their imposing size solely due to the size of their prey. Cicadas are robust insects ranging from 1 to 1.5 inches in length, and the wasps need to be able to subdue and carry their paralyzed prey. The wasp's head and thorax are brownish, the

legs are orange, and the abdomen is black with three bright yellow stripes (Fig. 1).

Male wasps are similarly marked as females, but smaller-bodied, and are most often seen assertively flying around and defending small territories from other males- (Fig. 2). Male behavior may cause alarm, but it is all a bluff; as the male wasp lacks both a stinger and venom. Stings from female cicada killers are rare occurrences, and generally are a panic response inflicted due to direct handling. Cicada killers, like all solitary wasps, lack the aggressive nest-defending instinct which gives social wasps such as yellowjackets and hornets their hostile reputation.

Life Cycle:

Each female cicada killer excavates her own nesting site in loose sandy soil. She will fly up into the tree canopy in search of prey. Captured cicadas are stung and paralyzed, and the female wasp will then carry her prey back to her burrow and seal it in an individual underground chamber within the 6-inch-deep tunnel. Each chamber contains a single wasp egg. Developing female wasps will be provided two cicadas while males are given one – the female wasp can actively control the sex of the eggs she lays.

Within weeks of the wasp larvae hatching, the cicadas are consumed, and the mature larvae will spin silk cocoons in preparation for overwinter diapause. They will pupate and emerge as adults the following summer. Wasps permanently disperse from their natal burrows; populations persisting in an area year to year is due to continued habitat suitability, not colonization.

Although there is little to no sting risk, the wasps can be a nuisance if female wasps choose inconvenient areas to dig burrows such as in a lawn, a playground sandbox or at the edge of a patio.

there is a high risk of non-target effects on local pollinators. In particularly difficult situations, a pest management professional should be contacted to help resolve the issue.



Fig. 2: Male Cicada Killer perching in his territory. Males do not have stingers.

Control and Prevention:

Burrowing wasps are ultimately an indicator of poor soil quality. Lawns containing sandy soil and lacking in organic matter and roots is attractive habitat for burrowing wasps. Encouraging lawns with thick-rooted turf with fertilizer and fall seeding will discourage wasp excavations in future years. Flooding nests with water daily in problematic areas may discourage further excavation. Pesticide applications for cicada killer wasp control is not recommended, as