

## Watch out for the Cicada-Killers...they may just run into you!

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It's that time of year when you'll see large Cicada-Killer Wasps (nearly 2 inches) skimming around your yard, shrubs and trees. Cicada-Killer Wasps may look



scary but they are really quite harmless. These wasps are erratic fliers that do not seem to notice humans are different than trees. If you watch them long enough you may see a male clumsily slam into the side of building.

What do they look like? Eastern Cicada-Killers have a rusty red head and thorax, amber-colored wings, and a black- and yellow-striped abdomen. Females are usually larger than males; Cicada-Killers range in size from 1 ¼ inches to 2 inches. Cicada-Killers are most commonly confused with European hornets. European hornets are yellowish-orange colored insects almost an inch long, build large paper nests, are attracted to lights, and tend to occur in natural areas.



European hornet vs Cicada-Killer Wasp Photo: Dr. Joseph Coelho

The Cicada-Killers you see zooming around are usually the males, which cannot sting. A male stinger is a modified ovipositor (egg-laying organ); no male ants, bees, or wasps can sting. To be stung by a female Cicada-Killer you need to either step barefoot on her or grab her with bare hands.

Cicada-Killers are present in the eastern U.S. from July - September. Cicada-Killers, as their name

implies, seek out Cicadas or Locusts. Cicadas damage deciduous trees (ex. maple, oak, birch) by laying eggs under the soft bark of new branch growth. Young Cicadas drop to the ground, burrow, and spend the next couple years feeding on roots. Currently human attempts to control Cicadas have not been practical or effective.

The Cicada-Killer males live for two weeks or so of intense patrolling, fighting and mating and then they die. Females live about four weeks, but they work even harder than the males, digging many burrows and hunting. In a typical season 100 female Cicada-Killers will clear over 16,000 Cicadas from the surrounding area.

Cicada-Killer females use their sting to paralyze Cicadas to feed and rear their young. A Cicada-Killer grub will hatch from the egg in a few days, feed on the Cicada and over-winter underground in a hard cocoon. It will hatch in early to mid July, dig its way to the surface and live above ground for 2-6 weeks; all adults die annually.



After emerging and mating, female wasps spend about two weeks searching for ideal areas to dig their u-shaped mound and burrows. Cicada-Killers choose the sites with the following criteria:

- Southeast facing, full sun areas with sparse vegetation
- Well-drained slopes and large deciduous trees nearby.
- Sandy soils to loose clay in bare or grass covered banks, berms, hills, raised sidewalks, driveways and patio slabs.
- Typical locations: parking lot islands with sparse vegetation, under shrubs, in planters, window boxes, flower beds, and occasionally in golf course sand traps.

**They do not nest in hydric soils.**

Cicada-Killer Wasps are generally considered beneficial insects. These wasps take advantage of the conditions in your landscape and their habitat preference leads us to the most promising ways to reduce their abundance in a particular yard.



**The burrow of a cicada killer.**  
**Photo by Zachary Huang, Mich. St. Univ.**

### Cultural practices to reduce populations

- Get your soil tested for adequate lime and fertilizer recommendations (<http://www.cals.ncsu.edu/agcomm/publications/Ag-614.pdf>) and apply to promote thick turf growth. Keep track of rainfall and make sure this area receives 1" of water per week.
- Plant dense, tall vegetation or mow lawn on the highest setting during the nesting period.
- Make sure mulch is 3" under shrubs and in garden beds.
- Try keeping the areas where they dig nests wetter than usual - fill the burrows with water and wash away the piles of dirt surrounding them. This is a great reason for saving rainwater with a rain barrel.
- Whack them with a badminton racket.
- Dr. Chuck Holliday, Lafayette University, has had repeated success with blocking the entrance with a stick and brushing away the dirt. Check after 30-45 minutes and stomp on any wasps trying to dig back in or out of the hole. Do this daily for several weeks.

Usually the perceived need for control is based in fear rather than fact. In case of a severe infestation, chemical control may be desired to prevent or allay fears of wasp stings.

If you must use a chemical, there are dusts available that can be put onto each nest entrance. Do not

disturb the burrow as the female must walk through the dust to get a good dose. Be certain not to breathe the insecticide powder, don't get it on yourself or the grass around the burrow and don't let children or pets use the area for the recommended length of time after applying the insecticide.

At close range, adults can be killed with a wasp aerosol as they light on foliage or enter the nest burrow. If you do not feel comfortable treating the area, contact a licensed pest control operator. **Before using any insecticide, always read the label directions to confirm current listing of pests, and follow safety precautions.**

Recommendations for insecticides approved for control of these insects in home lawns can be found under Bees and Wasps in INSECT CONTROL IN HOME LAWNS in the NC Agricultural Chemicals Manual.

Recommendations for insecticides approved for use on sod farms, golf courses or other commercial sites can be found in COMMERCIAL TURF INSECT CONTROL in the NC Agricultural Chemicals Manual.

Finally, time is on your side. If you've tried all these suggestions and cannot get rid of the Cicada-Killers, be patient. The wasps don't live very long, so at most they will be a pest about two months out of the year.

Sources:

North Carolina Cooperative Extension

<http://www.ces.ncsu.edu/depts/ent/notes/O&T/lawn/note63/note63.html>

Dr. Chuck Holliday, Department of Biology, Lafayette College, Easton, PA

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Dr. Joseph R. Coelho, Dept. of Biology, Quincy University, Quincy, IL 62301

<http://www.showmejoe.com/thriller/thriller.htm>

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<http://www2.ca.uky.edu/entomology/entfacts/ef004.asp>