

# Cicadas: Mid-Summer Night's Screamers

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At the extension office, we are sometimes asked to help solve a problem that has no good solution. A couple questions about cicadas have fit into this category.

The first was from a lady who had moved to Lincoln from a very large metropolitan area back east. She wanted to know what to spray on her trees to get rid of the screaming cicadas because they were interfering with her sleep. She had never heard cicadas before she moved to Lincoln and the noise was driving her nuts.

The other call was from a student representing a theatrical group scheduled to give a play on East Campus during the evening hours. To their dismay, the actors discovered that the cicada din started up just about the time their play was to begin and continued throughout the time of the entire play. Again, they wanted to know how to stop (even temporarily) the cicada screaming so their audience could hear the play.

Many of us who have grown up in the Midwest are used to the sound of cicadas; we might even look forward to it because it signals the changing

seasons—the dog-days of summer. (One species, the dog-day cicada is most appropriately named.) For some of us, it is hard to believe that this noise can be annoying to anyone.

On the flip side, it is pretty amazing how much noise each cicada can make. When you have several trees in your yard, with a half-dozen singing males in each tree, plus those in your neighbor's trees, it can be pretty noisy.

Singing cicadas are exclusively male. The males attract female cicadas (who are dumb, but not deaf) for the purpose of mating and passing on their genes to the next generation of cicadas. As insects go, cicadas are very robust, and built well to produce noise. The noise is produced by the action of muscles that vibrate a pair of drum-like organs in the male cicada's body. An air cavity acts as a resonator and connects to the outside through a pair of tiny holes. Because each male is competing with other males for females, it is likely to lose out if it isn't the loudest in the tree. Therefore, you can see that there is huge selection pressure for males to sing loudly.

On the whole, cicadas are fairly benign. Immature cicadas spend their entire time sucking



Cicada

juices out of tree roots, but they don't seem to do much injury to trees.

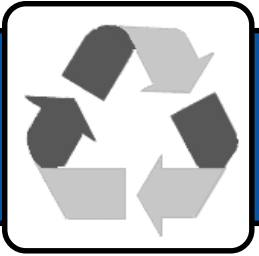
Injury to trees is usually blamed on the females who slit branches with their ovipositor in order to deposit eggs. During outbreaks of the periodical cicada (13 or 17 year locust), branches of small trees can be seriously damaged. Mature trees can withstand more damage and treatment is rarely needed.

We don't recommend insecticidal treatments to kill cicadas merely to get rid of the noise. (It's not likely to work anyway because male cicadas are mobile and fly from tree to tree.) We don't recommend cutting down trees, either.

So how do we help the folks who can't stand the noise? We suggest earplugs to enhance sleep. White noise like a fan might help drown out cicada singing. A good public address system may help people hosting outdoor events during July and August.

Unfortunately, there sometimes aren't good solutions for every problem, but call us when you do have an insect pest problem. Most of the time we can help.

## Environmental Focus



# Cicada Killers and Steel-Blue Cricket Killers

There are several species of wasps that construct nests in the ground in the Midwest, including Nebraska. The cicada killer wasp is alarming to some because it may be up to two inches long. It is black with yellow markings on the thorax and abdomen and rusty colored wings. Another species, sometimes referred to as the steel-blue cricket killer, is about one inch long and completely black with iridescent blue wings.



Cicada Killer

Both of these species are solitary wasps; which means that they live independently and do not depend on other members of a colony to share in the raising of young or the maintaining of a nest. Solitary wasps are beneficial because they paralyze insects or spiders and place these insects in the cells that they dig for their offspring.

Female cicada killer wasps capture annual cicadas in July and August and place them in cells located at the ends of tunnels they have dug in the

ground. Each tunnel is about the size of a quarter and extends 24 inches or more into the ground. One or two paralyzed cicadas are placed in each cell, and a single egg deposited before the cell is closed by the female, who flies away, never to return. The wasp grubs, emerge from the egg, feed on the paralyzed cicadas and develop into wasps that emerge the following summer.

Unlike yellow jackets and other social wasps, solitary wasps are not aggressive. The cicada killer, like other solitary wasps, has the capability to sting, but won't unless handled or threatened. Only female wasps have the ability to sting. Stings inflicted by solitary wasps are usually not severe but reaction varies with each individual.

Solitary wasps are generally beneficial and nests that are in out-of-the-way locations should be left alone. For more information about bees and wasps, contact the Lancaster County Extension Office (441-7180). (BPO)

# Leaving it to Beaver May Not be the Best Solution

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Those buck-toothed beings we call beaver are the animal world's answer to the buzz saw. They are quirkily cute, ingeniously industrious and, sometimes, pretty problematic. For instance, how about when mom's riverside fruit tree gets toppled by these nighttime lumberjacks? A new NebGuide "Controlling Beaver Damage" can offer some help in just such situations.

The beaver is well-known both as an orthodontic wonder and as a workaholic. One beaver can topple several trees in an evening, if he so desires!

The beaver is less known for his remarkable swimming ability. This is probably because, on land, our largest North American rodent looks as ungainly as a pregnant duck! But in the water his body seems to float effortlessly and dive gracefully, despite his roly-poly body build. Standing along-shore, we might wonder "When will he come up for air?" The answer is "20 minutes!" An enlarged liver that enables him to store a lot of oxygen helps.

Flaps of skin behind his teeth also allow him to swim with sticks clenched between large incisors without also gargling all that pond water! Other skin flaps close off the inside of a beaver's ears and nose as he turns acrobat through

that fluid medium.

A split nail on one of the hind toes of his very large and webbed hind foot is used to groom oil. This is collected from glands under the tail and is combed through the thick, rich fur.

It's this same fur that led the species into a drastic decline 175 years ago. Actually, this resilient fur-bearer was never in much danger of total extinction, even during those fur trade heydays. Even 200 years of trapping prior to this period, by native Americans and explorers alike, the ubiquitous beaver remained entrenched far from the reaches of settlement and exploration.

The seemingly dogged determination with which beaver cut trees and build their homes is also the homeowner's greatest obstacle in getting the beaver to manage his menu. Several remedies are available including exclusion, taste repellents, habitat manipulation and trapping.

Perimeter fences with the bottom portion buried will discourage the beaver. Sometimes these can be placed at the water's



Beavers may girdle trees and damage them seriously.



Image courtesy of Nabaskaland Magazine/Nebraska Game and Parks. Used by Permission

edge rather than around the plants to be protected. Wire mesh cylinders and even alkylid paint mixed with sand will

discourage beaver from gnawing individual trees. You can even use color coordinated paint and plants!

Flooding is an additional problem to felling and gnawing. A pond owner can place large perforated plastic tubes with wire cages around them to keep water below flooding level. These are designed so beaver do

not attempt to stop the water that enters them.

Lastly, body grip and leg hold traps as well as snares are used by professional damage control personnel or trappers to remove all or most beaver from an area. Depending upon the situation, trapping may be either the first or last method used in controlling damage caused by beaver.

The NebGuide "Controlling Beaver Damage" can be found at the publications page of the University of Nebraska's Institute for Agriculture and Natural Resources web site located at <http://www.ianr.unl.edu/>. For hard copies ask for G01-1434-A at the Lancaster County Extension Office.



Beaver shavings — tell-tale signs that a beaver has been at work.