Cicadas Sing Songs of Summer
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The hot, humid dog days of August make us slow up a bit, as they should. Summer is winding down, gardens are producing with abundance and the song of the cicada whines through the trees on those lazy, steamy afternoons.

Cicadas are most curious looking insects with their large eyes, stocky bodies and veined wings. They belong to the insect order known as Hemiptera, which is the same one that spittlebugs and leafhoppers are in.

Mostly male cicadas ‘sing’. Their songs vary by species and have been described sometimes as sounding like buzzing, whining, scratchy radio waves, an alien (not sure what an alien would actually sound like!) or grating. Go to www.cicadamania.com to hear many of the species living in Connecticut. Of the 190 varieties of cicadas in North America, there are at least nine species of cicada found here. Most of us only become aware of them when news breaks of the emergence of the 17-year cicada, which happened last in 2013 in Connecticut.

Most of the cicada species in Connecticut are annual species, although that categorization is a little misleading. These species are present each year but they may take 2 to 5 years to go from egg to adult. They include the dog day cicada that sings now on sunny afternoons. It is named, like this time of year, for coinciding with the appearance of Sirius, the Dog Star, in the morning sky, which can be seen from late July into September.

The largest cicada in North America is the northern dusk singing cicada and there has been land issues in Wallingford as locals try to protect a rare sand plain that the cicadas and other endangered species inhabit which was slated for
development. As of July 2018, plans for development were withdrawn. Other annual species include the swamp cicada, Say’s cicada, the lyric and the dark lyric cicadas, and Linne’s cicada.

Quite fascinating to many is the 17-year or periodical cicada (*Magicicada septendecim*). In North America, there are 12 distinct 17-year broods and the one that will emerge next in Connecticut in 2030 is Brood 2.

After emergence and mating, female cicadas make grooves in tree limbs using her ovipositor. About 20 eggs are deposited in each groove but females can lay up to 600 eggs. The grooves are often in the thinner stems towards the ends of the branches and cause the branch to partially be severed from the rest of the tree, a condition known as ‘flagging’. While this looks unsightly, mature trees and shrubs generally recover so no treatment is advised.

Eggs hatch in 6 to 10 weeks and in the meantime, the adults’ life has ended. The eggs hatch into first instar nymphs and then drop to the ground. Both nymphs and adult cicadas feed on the sap of mostly deciduous but also some grass plants. Some species are more specific in their feeding preferences than others, but in general, they will feed on maples, oaks, willows, ash, and fruit trees. Also, both young and adults have a rostrum or beak that they use to suck the sap from a plant’s xylem.

The young nymph burrow into the ground and seek out tender grass roots to feed on. As they develop, they will switch over to feeding on the sap of tree roots. The nymphs of the 17-year cicada will remain underground for 17 years. How they know when to emerge is still not fully understood.

A short time before emerging in their seventeenth year, the nymphs build exit tunnels to the soil surface. Sometimes mud ‘turrets’ are constructed over their exit holes. It is thought that soil temperature is a key factor assuring synchronous emergences. Often tens to hundreds of thousands will emerge the same night.

While a number of birds, insects and other animals consider cicadas a tasty treat, so many emerge at once that even with the predators eating their fill, there are left more than enough to ensure a future generation will succeed them.

Next, the newly emerged nymphs have to go through one last molt to enter adulthood. When their exoskeleton hardens and darkens, they are ready to take on their role as adult cicadas. There have been some occurrences of newly formed adults with deformed or underdeveloped wings and it is thought this may be due to overcrowding or possible pesticide applications.

The males start singing to attract females. They create their species specific songs by flexing their tymbals, drum like organs in their abdomens. Muscles pull these organs in and out creating their unique sound.

Cicadas are fascinating and harmless creatures. They will not bite or sting you if you pick them up. Normally they will avoid human contact and struggle if picked up. Often they are present on woodland edges as the adults and older nymphs feed on trees while the younger nymphs feed on grass species. Maintaining a variety of ecosystems in our yards, towns and state is key to preserving the unique biodiversity we treasure.

If you have questions on cicadas or on any home or garden topic, contact the UConn Home & Garden Education Center, toll-free in CT, at (877) 486-6271, visit us at [www.ladybug.uconn.edu](http://www.ladybug.uconn.edu) or call your local Cooperative Extension Center.