

## The Buzzer is Back

Linda S. Kollett

When my mother turned 80 I took her on a road trip, and we have done it once a year ever since. This year when she turned 90 she wanted to see Graceland, so after a trip to Chicago we headed south to Tennessee. Driving through 90° heat with the windows closed and the air conditioning on high we began to hear a loud buzzing sound along the edges of the road. Soon enough large slow-flying insects began to occasionally hit the window shield. We were driving through an emergence of the periodical cicadas. This happened once when I lived in New York State and the experience moved quickly from unique and interesting to downright annoying as the cicadas sing loudly while looking for a mate, and it can go on ceaselessly for weeks.

I happen to be a fan of periodical cicadas. They have an excellent genus name, Magicicada. When I was a little girl, my dad gave me a book that I think was called *Animals Under Your Feet*, although I can't find any reference to it on line. At any rate, my favorite chapter was on what are called the 17-year locusts (more correctly, cicadas.) Early settlers called them locusts because when they appeared there were so many of them that it seemed like a Biblical locust plague. These cicadas spend just a few weeks above ground, maturing and mating.

Look for the females on tree trunks and branches, or on nearby shrubs. They deposit eggs in slits they cut into the bark which hatch into larvae. The larvae then drop down to the ground and burrow into the soil where they spend the next 17 years (or in southern states it may be 13 years) underground feeding on the roots of plants, growing and molting.

The next emergence of periodical cicadas in Massachusetts is due in 2025 - a full 17 years after the last one in 2008.

Periodical cicadas are organized into broods in order to study them. There are five broods in Massachusetts. The largest was actually described by Governor Bradford (Brood XIV) and is found on Cape Cod and in Plymouth. All of the cicadas in a brood emerge at about the same time, which may be related to soil temperature. If for some reason the females do not reproduce, that will be the end for that brood. This rarely happens, as a brood count may be a million or so per acre.



This picture of a cicada was taken in Sandwich in June, 2008, the last year the 17-year periodical cicadas emerged.

Photo courtesy of Jon Rowe

Cicadas have many natural predators, including birds and wasps, but there are just so many cicadas that the predators become full and stop eating them long before the population is seriously reduced (predator satiation). After a few days, the males begin to call and take short awkward flights around the relatively stationary females on nearby trees, looking for receptive females. Females indicate their choice by flicking their wings.

There are lots of good sites to read up on periodical cicadas. Two that are particularly helpful are [http://www.magicicada.org/magicicada\\_xix.php](http://www.magicicada.org/magicicada_xix.php) and <http://www.massaudubon.org/printwildlife.php?id=4>.

We have annual cicadas here in Norton every summer. They emerge in July and August to feed on tree sap. Their nymphs also tunnel into the ground but spend a much shorter time there, maybe 2 to 5 years. Each year there are nymphs ready to emerge, mature, feed and mate. Cicadas love the heat, and if one of them starts to “sing”, they all join in. My mother used to call the cicada song “the buzzer”. If we heard the buzzer we knew the day would be hot.

Cicadas use special structures on their exoskeletons called tymbals to make the low-pitched sound. Contraction of the tymbal muscles vibrates the tymbals and the sound is amplified in the abdomen. As with the periodical cicadas, only the males make sounds. The females have special receiving structures called tympana, which they use to detect the male calls.

The buzzing of the cicadas is a familiar background sound during the “dog days” of summer. When you hear it, think of these interesting insects that spend much of their time underground, emerging for only a short time to sing and mate. While you are at it, try to figure out why the northern periodical cicadas emerge only every 17 years – no one knows why.

Keep your yard welcoming for wildlife, big and small. Make it a Certified Wildlife Habitat (a National Wildlife Foundation program.) Visit our web site [www.nortonlandpreservation.org](http://www.nortonlandpreservation.org) or go to the National Wildlife Federation website: [www.nwf.org/In-Your-Backyard.aspx](http://www.nwf.org/In-Your-Backyard.aspx)

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