

“The Great Southern Brood” is Emerging in Georgia this Spring

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Everybody knows that this summer we will have dog-day cicadas (annual cicadas) singing every evening. But this year, millions of *periodical* cicadas will be emerging in Georgia during the spring before Memorial Day. Brood XIX (“Brood 19”) is Georgia’s only 13-year cicada and this is the largest periodical cicada brood in North America, “The Great Southern Brood,” covering at least a dozen states in the Southeast.

Periodical cicadas are found only in the eastern U.S., nowhere else in the world. The rest of the world has annual cicadas just as we do (the ones that emerge after June every year). Periodical cicadas have black bodies, red eyes, and clear orange-tinted wings.

And periodical cicadas are perfectly harmless – they cannot bite or sting and they are not poisonous. They are harmless to plants (except small trees that have been planted this year – so don’t plant any trees before June 1st), and do not transmit any diseases.

What will happen?

Periodical cicada nymphs (“babies”) live below ground for 12 years and 11 months. They have been living underground, sucking sap from tree roots since 2011. They feed only on deciduous (hardwood) tree roots. So you won’t find them under pines (pine sap has turpentine in it – would you want to drink pine sap?).

If the mature tree wasn’t there 13 years ago, there will be no Brood XIX feeding on its roots. If the tree is cut down, all the cicada nymphs feeding on its roots die.

So, after almost 13 years of being underground, these cicada nymphs all emerge from the ground in one month. How do they know to do that? No one knows.

The typical periodical cicada lives as an adult only a couple of weeks. The majority of them will emerge by mid-May and almost all of them will be dead by the first week of June.

The cicada nymph typically emerges from the ground at night (to avoid predators), climbs up a tree trunk, and hooks its claws into the bark. The skin along its back splits and the adult emerges through this slit. The newly-emerged adult cicada spreads its wings; once the wings dry, the cicada is able to fly. By daylight, most of them are flying up into the tree tops.

Only male cicadas sing, and they sing only to lure in a female, beginning their chorus as the sun warms them.

Once the female is attracted, she approaches the male, and they mate. Then the female must find the end of a tree branch in which to lay her eggs. She inserts the tip of her abdomen under the bark near the end of a branch and deposits her eggs between the wood and flexible bark. Soon thereafter the adult cicadas die.

A month or two later the cicada eggs hatch and the nymphs emerge from under the bark and fall to the ground. They burrow into the soil and find a tree root, insert their mouthparts and start sucking root sap.

Injury to the branch tip due to egg-laying may produce leaf death, causing browning, a condition called “flagging.” Eventually this part will dry up and fall off, a natural pruning that protects the tree from winter damage due to ice and snow weight on these tender branches.

Meanwhile, the nymphs are underground, feeding on root sap, and growing for almost 13 years. Somehow they know when 13 years later they are supposed to emerge, and they all come out within a month of one another to maximize the chance of finding a mate.

Such massive numbers also means that predators cannot eat them all, ensuring some survive to reproduce.

Bodies of dead cicadas fall into lakes to feed fish and to the ground to nourish wildlife; those not consumed will decompose and fertilize the soil.

Periodical cicadas are harmless. They cannot bite or sting. They are not poisonous, so anything can eat them (even deer). Dogs may gorge on them and vomit them up (too much roughage at one time). But they will then resume eating cicadas.

Cicadas make great cat toys. They make noise; they spin across the floor when you bat them. Hours of cheap entertainment.

Humans can eat cicadas; they're like softshell crab. So it is important to harvest them while they are still soft, before their skin hardens. Go out very early in the morning, before dawn, and collect newly-emerged adults that have just come out of their nymphal skins. Remove the legs and wings. Sautee them in garlic butter and serve hot. Recipes can be found online.

Weeks after all Brood XIX have died off, tree branch tips may turn brown and fall off where the cicada eggs were laid. This is harmless. In fact it is beneficial to the tree, “Nature’s Pruning Service.” Next winter there will be less risk of ice damage because the weak branch tips have been removed.

Periodical cicadas are not pests and there is no need to attempt to control them. Again, most of them will be dead in a couple of weeks. Use this opportunity to teach your kids and grandkids about how cicadas aerate the soil, recycle nutrients, and foster environmental health.

Download the iNaturalist app and report cicada sightings. Be the first to report Brood XIX in your county!

Periodical cicadas are not locusts (locusts are grasshoppers); cicadas are more closely related to aphids (though they are very different).

Periodical cicadas come out in the spring; annual cicadas come out in the summer and fall. Any cicada you see before June is a periodical cicada; any cicada you see after June is an annual cicada. Periodical cicadas have black bodies and red eyes; their clear wings are tinted orange. Annual cicadas are larger than periodical cicadas and typically have green bodies with black eyes. Annual cicadas (“dog day cicadas”) emerge every year.

Only male cicadas sing and they sing only during the day; anything you hear at night is probably crickets, katydids, or frogs.

Brood XIX cicadas have been verified in 75 Georgia counties (during their last emergence in 2011). No Brood XIX have ever been reported from the Atlanta metro area (habitat has been destroyed, so all populations died out when trees were cut down, the ground was bulldozed, and the area was paved). Report any periodical cicada sightings at iNaturalist.