

Periodical Cicadas



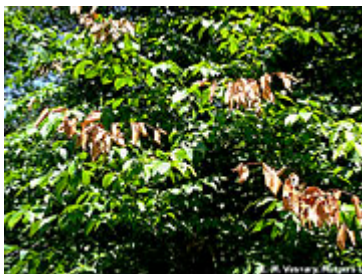
Adult Cicada

After spending seventeen years in the ground, periodical cicada nymphs, or “17-year locusts” emerge from the soil before the middle of May and adults are evident until late June. Shortly after adult transformation, individuals move or fly to nearby shrubs and trees and start their droning mating song. Male cicadas “sing” during the day to attract females. This is accomplished by vibrating membranes located on the sides of the insect beneath the wings.

Appearance and Life Cycle

Adult cicadas are about one and one-half to two inches long. They have a heavy black body with reddish-brown eyes and orange wing veins. Toward the outer edge of the front wings there is a black ‘W’ marking.

A week after emergence, the adults mate and the females deposit eggs in groups on twigs near the end of branches of more than 200 kinds of trees. The eggs hatch in about six weeks. The young or nymphs drop to the ground where they burrow into the soil and feed on the sap of tree roots for the next seventeen years. During the spring of their last year, the nymphs



Damage to tree from egg-laying

tunnel to the soil surface and emerge. Eventually they crawl onto tree trunks, posts and other upright structures and after a short period shed their skin to become winged adults. The empty skins are left clinging to objects.



Cicada nymph emerging from soil

Damage

Adult cicadas cause no important feeding damage. The only damage cicadas cause to plants results from the egg-laying habits of females. They use an appendage, called an ovipositor, to gouge longitudinal slits in twigs into which they then deposit eggs. The ovipositor cannot harm people. Twigs with many slits often break or hang down from the tree. On well-established trees this damage, called flagging, is not serious. The trees will easily replace branches that have been broken or “pruned” by cicadas. However, young or newly planted trees may be killed, or their growth retarded, if this type of injury is extensive. Some common trees that are most susceptible to cicada damage include oaks (*Quercus*), maples (*Acer*), cherry (*Prunus*) and other fruit trees, hawthorn (*Crataegus*), and redbud (*Cercis*). However, cicadas will damage over 200 types of trees to some extent. Evergreens are rarely attacked. Adult cicadas pose no health threat to people or pets, although consumption of large numbers should be discouraged.

Management

Control is not necessary on established trees. Insecticides are ineffective for significantly reducing cicada abundance and damage. Insecticides also pose a risk to people, beneficial insects, and birds. If you intend to plant trees or shrubs in a year when cicadas emerge, consider delaying planting until fall when the cicadas are gone. Small ornamental trees, shrubs, and fruit trees may be protected by covering them with

plastic mesh (<1/2 inch openings) that is sold in garden supply centers. The plants should be protected from the time cicadas emerge until they are gone 6-8 weeks later.

Ornamental ponds should be covered with screen or plastic mesh to prevent cicadas from accumulating. Large numbers of decomposing cicadas could cause problems with oxygen depletion in the water. Clean pool skimmers/filters frequently during cicada emergence to keep them from getting clogged.

Reviewed by: Gaye Williams, Maryland Department of Agriculture



Egg laying slits in twig

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Common Questions about the Periodical Cicada

What geographic areas do the periodical cicadas affect?

Periodical cicadas are found in eastern North America. Within this region, there are different groups called *broods* that emerge on different 17-year cycles. Several different broods can be found in Maryland, but the largest and most important is Brood X (Brood 10).

How long will they last?

Adult periodical cicadas live between 2 and 6 weeks after they emerge from the ground. Adults will begin emerging in mid-May and will last through mid-June.

How are periodical cicadas different than the cicadas I see every summer?

Periodical cicadas are smaller and have much more red-orange coloring than the common, large, green “dog day” cicada (genus *Tibicen*) we see and hear later every summer. Dog-day cicadas are not periodical. Although their life cycle is typically 2-3 years long, we see some emerging every summer.

How many cicadas do we expect to see this year?

Cicada emergence density can be as high as 1 million per acre (An acre is a little smaller than a football field!).

However, how many we will see this year depends greatly on the amount of urbanization, deforestation, or fire that has occurred within the last 17 years.

Will periodical cicadas eat or damage my flowers, shrubs, or trees?

Periodical cicadas do not damage flowers, but they may damage newly planted or young trees and some shrubs. Damage results from female cicadas laying eggs in small twigs and branches, not from adult feeding.

Do cicadas bite or sting?

No. Cicadas do not sting like wasps and bees. Female cicadas have a blade-like organ called an ovipositor that they use just for laying eggs in twigs. Adult cicadas may make a loud buzzing sound if handled, but cannot bite.

Why do we only see periodical cicadas every 17 years?

By coming out *en masse*, periodical cicadas are able to avoid or overwhelm enemies. No predator can possibly eat *that many* cicadas, chances of individual reproduction and survival increase.

Authors: M.R. Raupp, F.E. Wood, J.A. Davidsion, & J.L. Hellmans, Department of Entomology, University of Maryland. Revised: H. Menninger, & S. Frank, Dept. of Biology & Entomology, University of Maryland University of Maryland

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