

### **17-Year Periodical Cicadas**

Periodical Cicadas only occur in the eastern United States. Their red eyes distinguish them from all other cicadas.

In late spring 2004, Brood X of 17-year periodical cicadas emerged in the northeast United States. This is the largest of all broods in existence. In 2017, we are experiencing an accelerated emergence of Brood X here in Maryland as we did in 2000.

### Why "cicada" not "locust"?

Early eastern settlers confused the huge numbers of periodical cicadas emerging and calling, with biblical accounts of ravenous migratory locusts. However, locusts are grasshoppers in the order Orthoptera. They have chewing mouthparts and a voracious appetite throughout their life. Other animals in this group are cockroaches, preying mantis and crickets.

Cicadas are in the suborder Homoptera, and have sucking mouthparts (like little soda straws). Cicadas feed mostly as nymphs underground, on tree roots. They are in the same family as the familiar annual and dog-day cicadas whose songs characterize hot summer days! Other close relatives are aphids, leafhoppers and mealybugs.

# What is a brood?

A brood is a population of cicadas isolated from all others by year of emergence or locality. In theory, there are 17 broods. However, several have not been seen in many years. Brood X is the largest of all. Many other broods are very small and local.

# How many cicadas will there be?

There could be millions, but no where near the numbers we expect in 2021. Numbers vary widely from place to place. In 1987, some woodlots held up to 100,000 per acre while numbers in other areas were very light.

# When will they appear?

Brood X will emerge as expected in 2021, but we are experiencing a four-year acceleration of a small portion of Brood X. The calls--which are produced by the males only--should continue through June. Individual cicadas live only a few weeks, just long enough to produce a new generation.



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#### Are they harmful?

These insects cannot bite or sting. The only harm they can cause is during egg-laying. Small twigs can be damaged by deep slits cut by the female as she deposits her long rows of small eggs. Very small woody stock (1-3 years) can be severely damaged by large numbers of egg sites. Larger trees tolerate cicada damage well. Those trees and shrubs that are severely hit may exhibit terminal dieback or "flagging" as twigs snap and leaves turn brown.

#### What can be done?

Consider delaying this winter's pruning of landscape materials until after egg-laying stops in June. Very small trees in the home landscape or garden should be covered with cheesecloth or other fine netting from the time 17-year cicadas are first heard until they disappear. Large trees need no such protection. Commercial growers should be prepared to delay planting new trees for one year.

#### What happens to the cicadas?

Adult cicadas die soon after they have mated and laid their eggs in small twigs and branches. After six weeks, eggs hatch and the tiny nymphs fall to the ground. They immediately tunnel downward until they find suitable small roots to feed on. They will remain forgotten underground, feeding, growing and molting for 17 years.

Scientifically, cicadas offer a unique opportunity for study. Philosophically, think of the number of times you may view this rare phenomenon in one life time! The emergence of Brood X should be looked at as a wonder, not a calamity.