

# 17-year cicadas and tree damage: Expert on what to expect from Brood X bugs

3 May 2021



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Noisy Brood X periodical cicadas will soon emerge in parts of southeastern Michigan and in a handful of other states in the eastern half of the country, after developing underground for 17 years.

Cicadas do not bite and are harmless to humans. However, they can damage [small trees](#) and shrubs if too many of them feed from a plant or lay eggs in its twigs. The city of Ann Arbor says covering vulnerable or smaller [trees](#) with mesh or netting is the best defense against [cicadas](#) and that insecticides should not be used.

Overall, cicadas may be good for forests, which may experience a growth spurt the year after an emergence, said University of Michigan entomologist Thomas Moore, a professor emeritus in the Department of Ecology and Evolutionary Biology and at the Museum of Zoology. Cicada emergence holes allow sunlight, air, water and nutrients to penetrate more rapidly and to greater depths into the soil than typically, according to Moore. In fact, the very presence of cicadas is a

sign of a robust forest, he added.

Tom O'Dell is a collections and [natural areas](#) specialist at U-M's Matthaei Botanical Gardens and Nichols Arboretum. He recalls the last time 17-year cicadas visited Ann Arbor, in May 2004, and offers some advice.

## What was it like in the U-M botanical gardens the last time the Brood X cicadas emerged?

I remember seeing cicadas in a grove of buckeye trees. There were thousands of individuals on the branches and trunks. And though they were concentrated in the buckeyes, they did lay eggs on other [tree species](#) in the immediate area such as ash, oak and black cherry.

They did not seem too particular about the species, as long as the tree had some stems in the half-inch-diameter range. They were found on trees of varying ages, but the female cicadas do prefer younger trees. Relatively few individuals were found in our display gardens and landscape areas close to our building, which was about a quarter mile from the emergence epicenter.

## How loud were they?

The volume of the brood was loud enough to be heard up to a half mile away. When standing in the middle of the brood, the volume was so loud that two people within a few feet of each other had to raise their voices to converse. I guess I would describe the sound as a continuous droning.

## What was the extent of the damage to trees at the botanical gardens after the 2004 cicada emergence?

The most obvious damage was found on trees in and close to the epicenter of the emergence. One could see browning and drooping of branches, but nothing devastating. Since this was in a woodland

area, we were not too concerned about the damage. There was also minor damage to the plants in our [garden](#) areas, and we did some pruning of what we thought was excessive damage on some of our ornamental plants.

**Did any of the trees die, and is the 2004 damage detectable today?**

We did not lose any plants to the insect. The damage was largely cosmetic, and there is no visible remnant damage to be seen today.

**What advice do you have for homeowners in potentially affected areas such as Ann Arbor?**

Young trees could be vulnerable to female cicadas laying eggs in their stems. Until emergence begins, homeowners will not know if they are in an area where large numbers will appear, so it's difficult to predict the risk of plant damage. It is also a matter of how much damage one finds acceptable. Mature trees will recover just fine.

I think the information put out by the city of Ann Arbor is helpful, and I would recommend that homeowners be prepared to protect their young trees of greatest value.

**Will the U-M botanical gardens be taking any special precautions?**

We will not be taking any extraordinary measures to protect plants here at the gardens, but we will keep an eye on younger [plants](#) that are more vulnerable to incurring excessive levels of damage.

I think that knowing more about the ecology of these insects and their place in the natural world will help reduce anxiety and increase the fascination for the upcoming [emergence](#), and it will also help people decide how they will respond.

Provided by University of Michigan

APA citation: 17-year cicadas and tree damage: Expert on what to expect from Brood X bugs (2021, May 3) retrieved 17 May 2021 from <https://phys.org/news/2021-05-year-cicadas-tree-expert-brood.html>

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