Get ready for... Cicadapalooza!

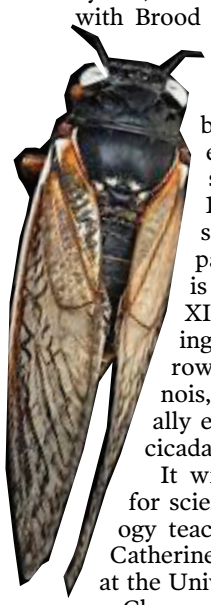
This summer. This month. Two broods. Trillions of cicadas. In coming weeks, for the first time in 221 years, massive swarms of cicadas will emerge from the ground right here in Illinois.

by AUDREY PARK
Editor-in-Chief

Soon, you might want to watch where you step because the cicadas are coming! Starting mid-May and ending as late as July, the winged insects will be everywhere — and they'll make their presence known. From the Chicago sidewalks to parks to forest preserves, you will soon hear a familiar chorus of high-pitched chirping and buzzing.

You'll probably see their light-brown, translucent-looking exoskeletons, and you might even collide with the creatures themselves.

But this year won't be ordinary. For the first time since 1803, Brood XIX, The Great Southern Brood, which emerges every 13 years, will simultaneously emerge with Brood XIII, The Northern Illinois Brood, which emerges every 17 years. Together, the two broods represent all seven periodical cicada species. While 17- and 13-year broods occasionally co-emerge, this particular emergence is rare because Brood XIX and XIII are emerging adjacently with a narrow overlap in central Illinois, resulting in an unusually expansive emergence of cicadas.



It will be an exciting time for scientists like U-High biology teacher Daniel Calleri and Catherine Dana, an entomologist at the University of Illinois Urbana-Champaign, who are interested in finding out if the broods will interbreed.

In an interview with The Midway, both scientists explained more about the emergence and what to expect. Dr. Calleri's and Dr. Dana's responses were lightly edited for length, clarity and style.

What is special about this emergence?

Dr. Dana: For Illinois, this is very special. We have five different broods in Illinois, but these broods have the largest geographical extent.

It will be from the north end to the southern end of Illinois, so it will be covered in cicadas. There are some regions where we won't see them because those places are where other broods emerge. The Illinois brood is special because it is one of the densest broods, so we will see populations of 1.5 million cicadas per acre. The Greatest Southern Brood has the largest geographical area distribution.

I like to think of it as a shared experience because so many people will see the brood. But there will certainly be gaps, areas where there are other broods or lots of development.

What should people expect?

Dr. Calleri: It will be very very loud. They will be large in quantity. If you are near an area where they are emerging, they will be everywhere. You will see them.

It will be striking. Most people don't see insects. Maybe a fly goes by or a wasp seemingly threatens you. These things will be everywhere.

What are scientists going to be doing during the emergence?

Dr. Dana: The broods are emerging right next to each other, which is interesting because we know they can interbreed, so there are some interesting questions we can ask as scientists.

It might take a long time to find answers because we won't see the results of this interbreeding for another 13 or 17 years.

One thing I will be doing this summer is finding a mating pair and taking a leg clipping. Then, I will be able to tell if they are from different species. We know they can interbreed, but the amount at which they will interbreed is something I'm very interested in. It's going to be hard to document because it will mean a lot of samples and a lot of luck.

I know other scientists will be trying to map the edges of the emergence.

I'm also looking into a cool fungus called massospora, which can entirely fill the cicadas' abdominal cavity. So they get filled with spores but can still fly around. Scientists call them flying salt shakers of death because they fly around spreading the spores.

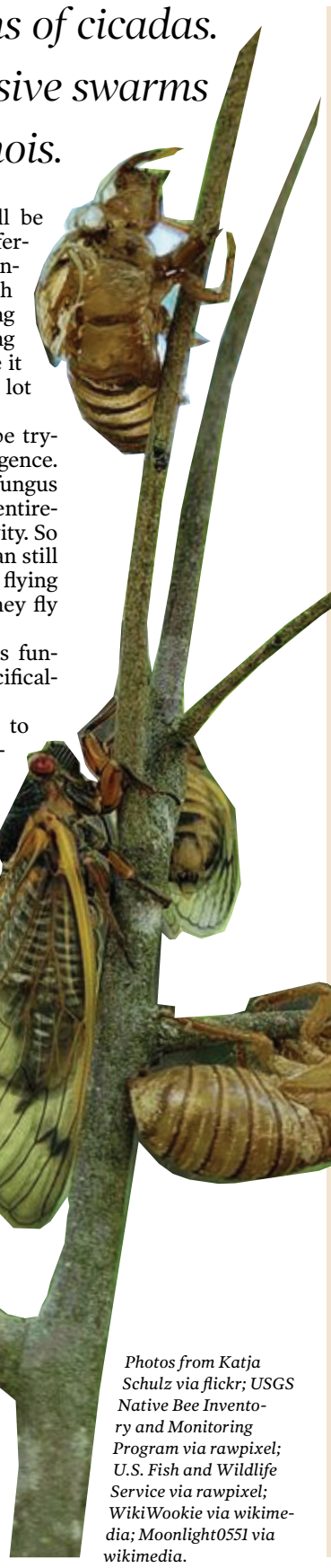
We are looking into how this fungus impacts their behavior, specifically their mating interactions.

We'll be taking soil samples to see if there are any bacterias interacting with the fungus and how cicadas can avoid it because it can cause a pretty substantial amount of death.

Which places will the emergence be most impressive?

Dr. Calleri: It should be very loud. If you live in an area that has relatively undisturbed habitat like a neighborhood like Hyde Park or neighborhoods on the west side that haven't had lots of construction, you'll most likely see a lot of cicadas.

If you live downtown where there's no trees and places where the dirt has been manipulated in the last few years, you will probably see a lot less. The places to see them will be north of the city like Lake County. Any of the public parks or forest preserves will be the prime places to see them.



Photos from Katja Schulz via flickr; USGS Native Bee Inventory and Monitoring Program via rawpixel; U.S. Fish and Wildlife Service via rawpixel; WikiWookie via wikimedia; Moonlight0551 via wikimedia.

vox pop.

Students were given an explanation of the cicada emergence this summer. They were asked to describe their reaction with one word and explain their choice.

"I feel **mortified**. Ever since I was 2, I've had a phobia of cicadas, and this is really bad for me. I don't think I'll be able to go outside all summer."
— George Ofori-Mante, junior

"I feel like I'm going to be pretty **annoyed** by the cicadas. They're really loud and obnoxious during the summer, so I am definitely not looking forward to them."
— Alex Cruise, ninth grader

"It's kind of **shocking** for me. I just really don't know how it's going to affect my summer plans."
— Katie Williams, senior

"I'm very **interested** by this because I wonder how loud the sound of the cicadas will be. I hear them every year, but I wonder how the two broods will sound together."
— Arhan Ganapathi, junior

"I'm feeling pretty **scared** of the cicadas. I'm really not a fan of bugs so the idea of stepping on bugs is a little bit disturbing for me."
— Dallan Krewatch, sophomore

"I'm **excited** honestly, I like cicadas, I think I spent a lot of time with my grandparents hearing cicadas, so they're really a part of my childhood."
— Oscar Kasthuri, junior

— compiled by Milo Platz-Walker

10 ways to get to know cicadas

1 Annual vs. periodical
Annual cicadas are found throughout the world, but periodical cicadas are unique to North America. They differ slightly in color and size, with the annual cicada being slightly larger than the periodical ones. Annual cicadas emerge every summer, but periodical cicadas occur much less frequently.

2 Life cycle
For both the 17-year and the 13-year cicada broods, life begins when the nymph (the young cicada) hatches from its egg, which is usually located in new growth of woody plants. Soon after, it buries itself underground and waits either 13 or 17 years until it emerges and begins the 4-6 week mating period.

3 Life underground
Despite the common belief that cicadas hibernate during their time underground, periodical cicadas are actually conscious and active. In their nymph forms, where periodical cicadas spend the majority of their lives, they feed on sap from tree roots and excavate tunnels. When the soil eight inches underground reaches about 64 degrees, the cicadas start to emerge.

4 Broods
All cicadas which emerge in a given year and share the same lifestyle are known as a single brood. The term is used to categorize cicadas rather than explain their evolutionary histories. Brood XIX, the 13-year brood, is geographically the largest periodical brood, and Brood XIII, the 17-year brood, is the brood with the largest size cicadas.

5 Color and size
Periodical cicadas have a black body with translucent wings and orange veins. Their eyes, a distinct bright red, are different from annual cicadas, which often have hints of green. Periodical cicadas are typically between one to two inches in length and have a three-inch wingspan.

6 Sound
The cicada's sound, a loud, high-pitched buzzing, will be noticeable for their four- to six-week period of emergence this summer. The sound is produced only by the male cicadas, which synchronize with each other in large groups to establish territory and attract mates.

7 Edibility
For both humans and animals, cicadas are edible. The high-protein, low-cholesterol insect snack has been incorporated into experimental menus and hailed for its meat-like qualities. Cicadas have long been a part of cuisines throughout the world, including Thailand and Congo.

8 Danger
The cicadas are not dangerous for humans or animals. The insects are not venomous or poisonous for pets. However, snacking on too many cicadas can cause stomach trouble for dogs and cats since the exoskeleton can be difficult to digest.

9 Ecosystem impact
Periodical cicadas are often beneficial to their environments. Cicadas can prune trees and aerate soil. Once they die, their bodies serve as a source of nitrogen for trees. When they emerge, they are also a food source for lots of wildlife, including bears, birds and racoons, partially due to their bounty.

10 Climate change
Global warming is predicted to impact the time frame for when periodical cicadas emerge. Experts predict periodical cicadas will emerge earlier in the year since warm temperatures are essential in emergence and the potential breakdown of the cicada's current periodicity.

Sources: AP News, Biodiversity Research Collections at the University of Connecticut, Britannica, University of Illinois Urbana-Champaign College of Agricultural, Consumer & Environmental Sciences, ABC 5 Chicago, National Wildlife Federation

— compiled by Mia Lipson