

## Friends of NCTC Program Activity

### **Why are there so many bugs? 17 Year Cicada**

Ages 5 and up

#### **Background**

This year a natural phenomenon will occur. Every 17 years, periodical cicadas emerge on the east coast of America. This year's hatching is called brood x. They'll be found from New York all the way down to Georgia and as far west as Michigan. Cicadas have a very interesting lifecycle. Most of their lives are spent underground. While underground, they survive by eating tree sap from roots. After living this way for 17 years, they emerge. At night (9pm is a good time to watch), they tunnel out of the ground: these holes can be seen now. The freshly emerged cicadas do not have wings yet. They will travel onto trees, bushes, or tall plants and molt. Molting is another word for shedding, in this case, cicadas shed their old exoskeleton- or outer skin. Their exoskeleton shells can be found all over the place. Freshly molted cicadas are white with black spots above their red eyes- which makes them look like they have thick eyebrows. These white cicadas stay still because they need to harden. This soft phase of cicadas is when their wings unfurl. After a few hours, the cicadas will harden as well as darken. By morning, most of the cicadas will appear black with red eyes. This is their final phase. These adults will usually climb higher into the canopy to breed. Males sing to attract females. Males will work together to form a louder chorus. Their song can reach 100 decibels (equivalent to the noise heard while riding a motorcycle!). Luckily for us, cicadas only sing during the day. Once a pair had mated, females will lay 20-600 eggs on tree branches. Adult cicadas live for 2-4 weeks above ground and do not eat while above ground. They serve as an excellent source of nitrogen for the soil and a wonderful meal for birds and mammals alike. Once the eggs hatch, the nymphs (or immature cicadas) will travel underground to start the cycle over again. An interactive view of the cicada's lifecycle can be found in the helpful hint section. Images from various stages can be found below too.

#### **Images**



Holes from cicada emergence



Nymph



Exoskeleton



Recently Molted Cicada



Adult Cicada

### **What to Do**

Go outside into your backyard or local park and see if you can find:

- Holes from emergence
- Nymphs before shedding
- Exoskeleton shells
- White- recently molted- adult
- Black adult cicadas
- Eggs
- Nymphs returning to the ground

If you want to be featured on our website, feel free to send us pictures of you and the cicadas. The app, Cicada Safari, is using citizen collected photos and locations to determine Brood X's distribution. For those interested, a link for the app is provided in helpful hints.

### **Helpful Hints for Adults**

Interactive cicada lifecycle by Washington Post: [The life cycle of a Brood X cicada - Washington Post](#)

Radio Interview with Jim Siegel (FWS): [Panhandle Live! 5-14-21 by Panhandle Live! • A podcast on Anchor](#)

An app created to map brood X's distribution: CicadaSafari (found at Apple app store and Google Play) information about this app can be found at [Cicada Safari](#)

Additionally, these cicadas are edible; however, we do not encourage kids to try them in fear of misidentification or allergic reactions.