



Twig Feeders

Adult Cicadas Lay Eggs in Twigs



L.L. Hyche, Auburn University

UGA1204101

Brood X -The BIG BROOD

May 2004



The distribution of brood X in 1987
(After Young and Kritsky 1988)

Life cycle

Emergence depends on soil temperature

First cicadas to be heard in Mid-May (south), and about 3 weeks later in the northern part of the state.

Cicada adults can be heard for 6-8 weeks.

Mud chimneys in Orange County

4/19 (A. Boston)



Emergence Holes of Periodic Cicada

05/04



After 17 years last stage nymphs
emerge from the soil



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Shed skin

- Nymphs attach to a vertical outdoor object (tree fence post, patio furniture, grass, etc)
- Hollow shed skins are left after adult crawls out of skin



Adult Periodic Cicada 05/04



Adults Mate



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Up to 1.5 million / acre have been reported!!!



Oviposition begins



Cicadas can Injure Trees



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J. Obermeyer, Purdue University

Eggs deposited in twigs



Eggs will hatch in 6 weeks

First instar nymph



UGA1204117

Nymphs hatch from eggs, and drop to soil.

Nymphs dig into soil where they start feeding on tree roots.

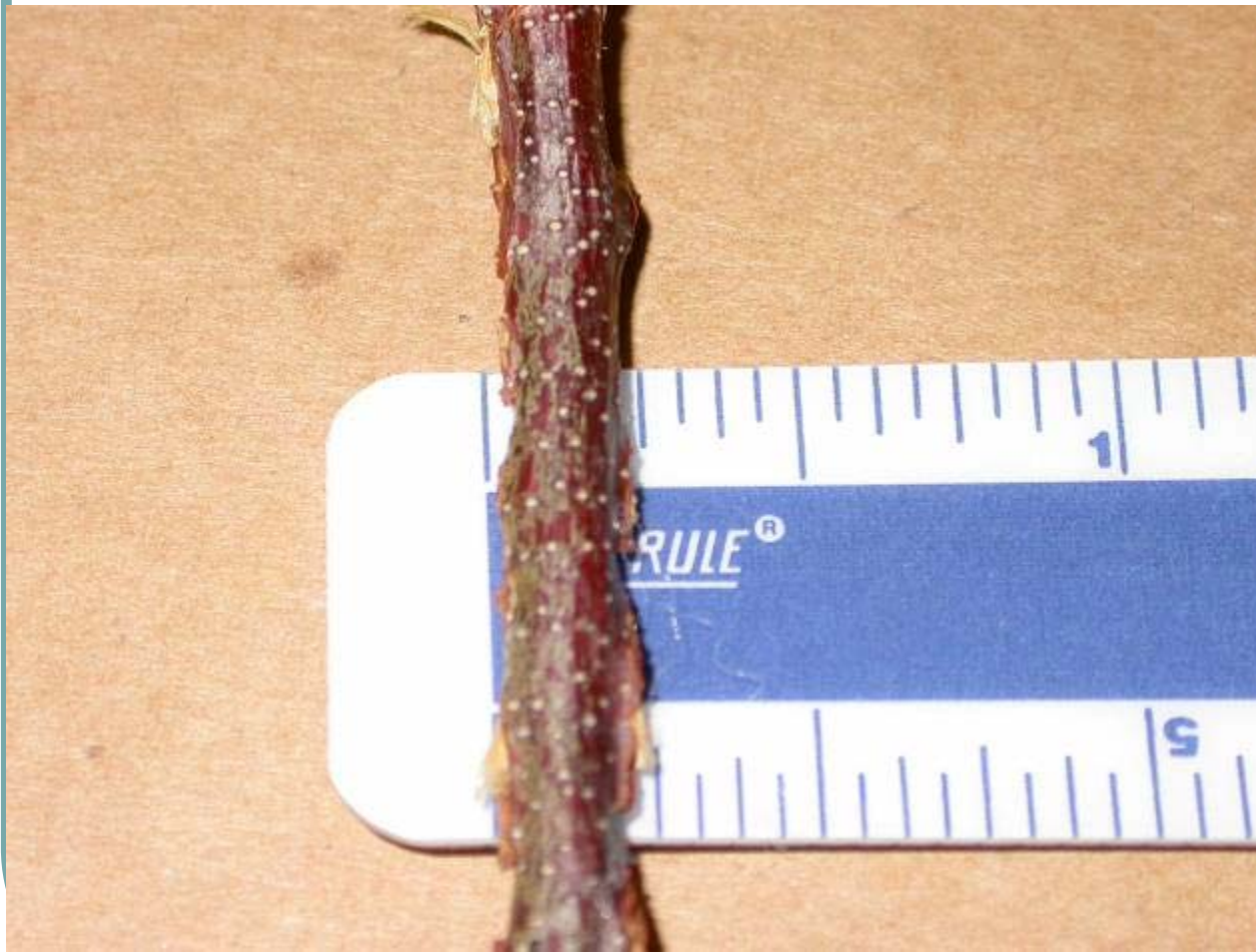
Oviposition Scars Left by Periodical Cicada

- Scarring on twig from previous year emergence.
- Most eggs are laid on twigs that are $\frac{3}{16}$ – $\frac{7}{16}$ ” diameter
- Young trees with main branches of this thickness are most susceptible to injury.



J. Davidson, University of Maryland

Eggs laid in twigs 5-10 mm wide



Only trees
with main
stems <1/2"
susceptible

Do I need to protect my trees?

- Large trees can withstand attack.
- Young trees with thin main stems can be disfigured or killed.



Preventing Cicada Injury

- Don't worry about big trees- they can afford to lose the 15-20% of twigs that are attacked.
- Protect young trees whose main limbs are thin 3/16-7/16".
 - Cover with netting < 3/8" mesh wide BEFORE emergence and keep on trees during cicada flight
 - Insecticides need to be applied too often to be practical.
 - Applications 3-4 days prevents injury
 - Application every 5-7 days reduces injury

Cicada Sounds

- Male cicadas call females during the day by vibrating a membrane.
- Male calling can be loud as lawn mowers
- Females respond with a wing flicking sound

Listen to the sounds at these links

- <http://www.ummz.lsa.umich.edu/magicycicada/Periodical/AIFFsounds/sdecimCI.AIFF> (One Call)
- <http://www.ummz.lsa.umich.edu/magicycicada/Periodical/Index.html> (Univ. Mich. – link to all calls)

Oviposition Scars



White Egg Mass of Tree Hopper, *Echinopa binotata*



Twig Girdler, *Oncideres cingulata*



Twig Girdler



Twig Pruner



Twig Pruner

