



Entomological Notes

Department of Entomology

PEACHTREE BORER

Synanthedon exitiosa (Say)

This clearwing borer is one of the most economically important species in the insect family Sesiidae. In ornamental landscapes and nurseries this species is a key pest of flowering varieties in the genus *Prunus*. The common names of some key host plants that this species attacks in the landscape include purpleleaf sand cherry, *Prunus x cistena*, cherry laurel, *P. laurocerasus*, and cherry plum, *P. cerasifera* 'Atropurpurea'. Black cherry, *P. serotina*, that grows in seed orchards is also attacked by this pest. This native clearwing borer has been known since colonial times and is a pest wherever host plants grow. It occurs mainly east of the Rocky Mountains.

DESCRIPTION

The mature larval stage of this species is about 1.5 inches long, white to cream with a dark brown head capsule. A mature larva also has two dorsally located, dark brown, sclerotized areas. One is on the prothorax (the segment behind the head), and the second is on the last abdominal segment. Light brown pupal exoskeletons may be observed partially protruding from the trunk of infested trees. The adult stages of this pest resemble wasps when flying and are often misidentified as members of the insect order Hymenoptera. The female is dark metallic blue with a broad, reddish orange band around the body on the fourth abdominal segment. The male is smaller with a shiny, dark metallic blue body (Fig. 1). Both front and hind wings have a transparent amber sheen. This species has a wingspread of 0.5 to 1.5 inches.

LIFE HISTORY

This species overwinters in the larval stage in different instars (growth stages). Larvae become active and resume feeding in April with mature larvae completing their development during late May or June after which pupation occurs. They remain in the pupal stage for about three weeks. Research has shown that adults fly during the day. They are most active between 10:00 am and 2:00 pm. The flight period is usually from late June through early September in Pennsylvania. One

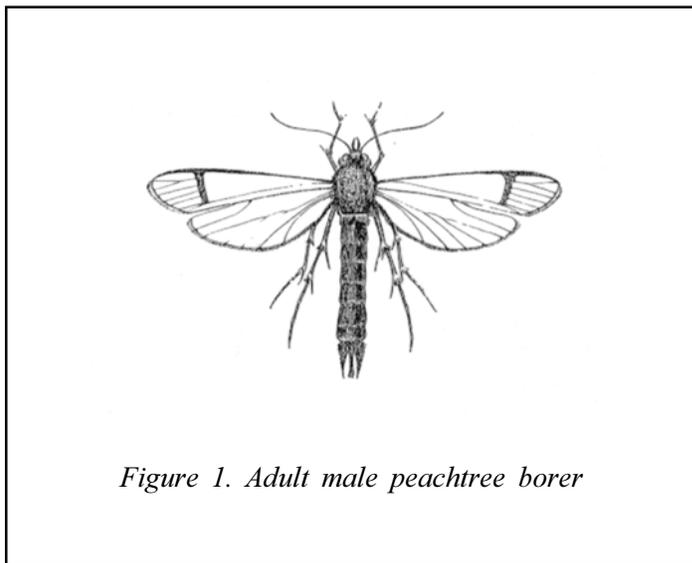


Figure 1. Adult male peachtree borer

female is capable of laying between 200 and 800 eggs. Most eggs are laid on the lower 15 cm of host tree trunks, in bark crevices or under bark flaps, and on the soil near the tree. Eggs hatch in seven days and young larvae feed on tree bark, working their way into the cambium (active layer of cells between the bark and wood that gives rise to new sap and water conducting cells) as they become larger. One generation is produced each year in Pennsylvania.

DAMAGE

One of the first signs of attack by this clearwing borer is a mass of gum exuding around the base of the trunk approximately three inches below to 12 inches above the soil surface. This gum mass or "gummosis" may contain bits of sawdust and frass (insect excrement) produced by the larval stage of this pest. Attack by this pest usually occurs on trees that are greater than two inches in diameter. Feeding injury caused by larvae weakens the tree resulting in twig or branch dieback. When larvae are numerous, this pest may cause death of an infested tree. The adult stage of this species does not feed. This pest is attracted to previously infested or injured trees. Trees stressed from transplanting, trunks wounded by landscape maintenance machinery, or host plants suffering from drought are more likely to be infested by this pest.

MANAGEMENT

An egg parasitoid and several larval parasitoids attack this pest. One pupal parasitoid and a few small mammalian and arthropod predators also feed on different life stages of this clearwing borer. If you don't want to be concerned with management of this pest in your landscape or nursery, you may choose not to plant ornamental plant species in the genus *Prunus*. If you decide to plant flowering cherry and other susceptible host plants, do not pile mulch around the base of the trunks of these trees. This practice makes the host plant more attractive to egg-laying females. Another nonchemical management tactic for this key pest is to avoid damaging the bark on the trunk at the base of host trees. Remove and destroy severely infested trees. The use of pheromone traps baited with the synthetic version of the female's sex pheromone will assist in better timing of insecticide applications in the landscape and nursery. In early June place these traps near host plants, and note when they've captured the first adult male peachtree borer. To effectively manage this pest, you should apply a registered insecticide formulation according to label directions 7-10 days after the first male was captured in the trap.

WARNING

Pesticides are poisonous. Read and follow the label directions and safety precautions. Handle them carefully and store in original, labeled containers—out of the reach of children, pets, and livestock. Dispose of empty containers quickly, in a safe manner and place. Do not contaminate forage, streams, or ponds.

Gregory A. Hoover
Sr. Extension Associate
Dept. of Entomology
December 2003

TS-40

©The Pennsylvania State University 2003

This publication is available in alternative media on request.

Where trade names are used, no discrimination is intended and no endorsement by The Pennsylvania State University or Pennsylvania Department of Agriculture is implied.

Entomological Notes are intended to serve as a quick reference guide and should not be used as a substitute for product label information. Although every attempt is made to produce Entomological Notes that are complete, timely, and accurate, the pesticide user bears the responsibility of consulting the pesticide label and adhering to those directions.

Issued in furtherance of Cooperative Extension Works, Acts of Congress May 8 and June 30, 1914, in cooperation with the U.S. Department of Agriculture and the Pennsylvania Legislature. T.R. Alter, Director of Cooperative Extension, The Pennsylvania State University.

The Pennsylvania State University is committed to the policy that all persons shall have equal access to programs, facilities, admission, and employment without regard to personal characteristics not related to ability, performance, or qualifications as determined by University policy or by state or federal authorities. It is the policy of the University to maintain an academic and work environment free of discrimination, including harassment. The Pennsylvania State University prohibits discrimination and harassment against any person because of age, ancestry, color, disability or handicap, national origin, race, religious creed, sex, sexual orientation, or veteran status. Discrimination or harassment against faculty, staff, or students will not be tolerated at The Pennsylvania State University. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Director, The Pennsylvania State University, 328 Bouke Building, University Park, PA 16802-5901, Tel 814-865-4700/V, 814-863-1150/TTY.