

**Survey of Wood-Boring Beetles in Ornamental Nurseries in OHIO:
Report 2004
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Wood-boring beetles (Scolytidae—ambrosia and bark beetles; Cerambycidae—longhorn beetles; and Buprestidae—metallic wood-boring beetles) can cause serious damage to woody ornamentals. In general, the species in these groups are considered most likely to attack stressed or unhealthy trees. During the past few years, however, there have been several incidences of ambrosia beetles attacking apparently healthy trees in ornamental nurseries in Ohio. It would be very useful to know which species of wood-boring beetle occur near nurseries and when they are active. This information will be useful in developing management programs for these insects. There are traps and lures available that are supposed to be relatively effective for monitoring various groups of wood-boring beetles.

Objectives:

Determine the species in the wood-boring beetle complex (Buprestidae, Cerambycidae, Scolytidae, etc.) occurring in and around ornamental nurseries in Lake County, Ohio. Also determine their seasonal activity (phenology).

Materials and Methods

This survey was conducted in 2003 and 2004. Twelve-segment Lindgren funnel traps (Phero Tech Inc., Delta, BC, Canada) were deployed at four commercial nurseries in Lake County, Ohio. In 2003, the traps were placed at Brotzman's, Klyn's, Moretti's, and Sunleaf, and in 2004, traps were placed at Brotzman's, Klyn's, Losely's, and Sunleaf. Two traps were deployed along a wooded border at each nursery. One of each trap pair was baited with an ultra-high-release (UHR) ethanol bait (Phero Tech Inc.) the other trap with UHR ethanol + UHR α -pinene baits (Phero Tech Inc.). Each trap was hung from a tree so the bottom of the trap was about 1 m above ground and the lures were about 1.5 m above ground. The traps in each pair were placed at least 50 m apart and the α -pinene lure was rotated between traps each time they were checked. A piece of no-pest-strip (2,2-Dichlorovinyl dimethyl-phosphate 18.6%) about 12 cm² was placed in the bottom of each trap as a killing agent. In 2003, the traps were deployed 29 April at Brotzman's, Moretti's and Sunleaf, and 6 May at Klyn's. Traps were removed 14 October. In 2004, traps were deployed 15 April at Sunleaf, 20 April at Klyn's and Losely's, and 27 April at Brotzman's. Traps were removed 14 September. In general, traps were checked at 1- or 2-week intervals.

When the traps were checked, specimens were removed and stored in plastic cups with snap-on lids for transport to the laboratory. In the lab, the specimens were stored in 70% ethanol in vials labeled by site, date, and lure combination.

Results

The first samples were collected 6 May in 2003 and 20 April 2004. Ambrosia beetles were found on both of those dates. Specimens are currently being identified. This will probably not be completed until winter 2006 at the earliest. As of Dec. 2004, the first 5 weeks of samples of non-bark/ambrosia beetles from 2003 were identified to species (except for Staphylinidae, we have not been able to key those out).