



Pest Alert

Grape Borer Beetle (*Xylotrechus pyrrhoderus* Bates)

The grape borer beetle belongs to the longhorn beetle family (Cerambycidae). Adults live for about 2 weeks and feed on host leaves and buds. The pest’s larvae cause the most significant damage to grapevines because they complete their life cycle inside vines. Other host plants include porcelainberry (*Ampelopsis brevipedunculata*) and Boston Ivy (*Parthenocissus tricuspidata*).

Damage

The grape borer beetles prefer healthy robust grape shoots. The larvae feed inside vines and branches, which causes them to wither and die within a few days. Vines 2 or 3 years old may survive feeding but will leak dark sap from the infestation sites. In China, Japan, and Korea, where the grape borer beetle is a major pest, it has been known to reduce grape production by 10 to 20 percent.

Description

Adults first emerge around the end of July and are active until the fall. Adult beetles are about 0.5 inches long. They have a red head and black body with three horizontal white stripes. It resembles the common North American red-headed ash borer (*Neoclytus acuminatus*). Young larvae are pale yellow and about 0.2 inches long with enlarged heads. Pupae are about 0.4 inches long pale yellow, and have pale red compound eyes.

Life Cycle

The grape borer beetle has one generation a year. Adult females lay their eggs—one at



The adult grape borer beetle (top and bottom left) ranges in size from 0.4 to 0.6 inches long and lives for about 2 weeks. Larvae (bottom right) create a hollow space inside grapevine to pupate and complete their life cycle.

a time—on buds or in bark cracks of 2- to 3-year-old vines. The eggs hatch in about 5 days, and the larvae bore into vines where they feed and overwinter. Young larvae live under the vine’s bark near nodes until spring when they resume feeding and cause the most damage.

Before larvae pupate, they make a small hole in the vine. They will eventually emerge from that hole as an adult beetle. Pupation begins in July and lasts until mid-September.

The pupal period lasts between 10 and 12 days. Newly emerged adult beetles may have varied coloration. Soon after emergence, they will search for a mate and repeat the cycle.

Distribution and Spread

Grape borer beetle is present in China, Japan, and Korea. In their native range, they have one generation per year and survive in climates that are compatible with U.S. Plant Hardiness Zones 4–10.

This beetle was detected in wild grape in Massachusetts in 2020. In the United States, grapevine species (*Vitis vinifera*) are found in every contiguous State.

Where To Look

Detecting grape borer larvae is difficult because they do not excrete visible frass from the vine during feeding. Withering vines, blackened nodes (larval entry points), tar-like sap oozing from vines, and adult emergence holes are all signs of larvae feeding in shoots.

Report Your Findings

If you find an insect that you suspect is the grape borer beetle, please contact your local Extension office or State Plant Regulatory Official to have the specimen identified.

To locate an Extension specialist near you, go to www.nifa.usda.gov/land-grant-colleges-and-universities-partner-website-directory. A directory of State Plant Regulatory Officials is available on the National Plant Board website at www.nationalplantboard.org/members.html.



A newly emerged grape borer beetle's exoskeleton is discolored and will eventually harden and change color.