



Granulate Ambrosia Beetle

Xylosandrus crassiusculus Motschulsky (Coleoptera: Curculionidae: Scolytinae)

Granulate Ambrosia Beetle (GAB) is a small, invasive beetle that attacks over 200 species of plants, primarily hardwoods. It aggressively attacks stressed, transplanted, freshly cut, and even apparently healthy trees. Trees with a diameter of $\leq 3"$ (7.6 cm) are preferred, and seedlings and newly transplanted trees are especially vulnerable. GAB has become a serious pest of woody ornamental, fruit and nut trees in the U.S.

IDENTIFICATION:

- Adults have a downward facing head completely hidden from the top view.



UGA5209016

- The front of the head and the lower back part of the wings are dull and grainy looking ("granulate"), with fine hairs.



UGA5159032

- Females are 0.08-0.11" long (2-2.9 mm), and can fly.
- Males are smaller, ~ 0.06" long (1.5 mm), and flightless.

Actual Size:



- The body is stout, "hunch-backed," and reddish-brown with brown to black forewings.



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- GAB Larvae are white, legless, "C" shaped, with a well developed tan head capsule. They can not easily be distinguished from the larvae of many other scolytid beetles.



UGA2912072

What to Look For:

Adult activity begins in March, peaks in April, and remains at low levels into fall. There may be 2 or more generations a year. All life stages can be found together in the galleries by late summer. Infestation usually occurs on the main trunk close to the ground, but can be found throughout the tree in heavy infestations. Trees can decline rapidly, going through wilt, dieback, and then death. Tree death occurs more commonly from attacks during the leafing-out stage.

Symptoms of GAB infestation include:

- Wilted foliage and branch/twig dieback.
- Heavy sap bleeding on the trunks of hosts with high resin levels, such as *Prunus* spp.
- Toothpick-like spikes of frass (compacted sawdust), up to 1.5" long (38 mm), sticking out of the tree trunk. Spikes break off easily and may not always be seen.



- Numerous, perfectly round, pencil-lead size holes (~ 0.08" or 2 mm) can be seen if frass spikes and/or gummosis are missing.



- Splitting open a section of trunk or branch may reveal galleries in the sapwood.
- Fungal staining from ambrosial fungi is often seen in wood next to GAB galleries.



- On rare occasions, adult GAB are seen sticking out of their holes in a tree trunk, but they are difficult to accurately identify.

Identification of bark beetle species is difficult and specimens should be submitted to a professional entomologist for confirmation.

Image Credits

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UF Tree with frass spikes: R. F. Mizell, University of Florida.

UGA1879056, UGA1879050: G. Keith Douce, University of Georgia, Bugwood.org

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<http://hgic.umd.edu/faq/sendAQuestion.cfm>

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