

PEST ALERT

Granulate Ambrosia Beetle

Xylosandrus crassiusculus (Motschulsky)

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Synonym: Asian ambrosia beetle



Lateral view (Right) - Female

Photo: C. M. F. Pierce & M. A. McDonough

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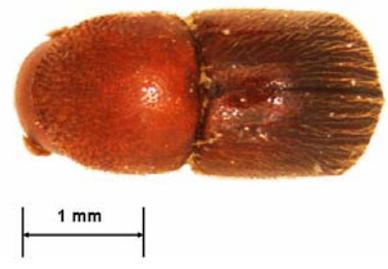


Ventral view - Female

Photo: C. M. F. Pierce & M. A. McDonough

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Dorsal view - Female

Photo: C. M. F. Pierce & M. A. McDonough

CAUTION: This small beetle is a relatively new and potentially serious pest of woody ornamentals, fruit and nut trees throughout Indiana and can cause significant damage in nursery landscape and orchard settings.

The granulate ambrosia beetle comes from China and it spreads by natural distribution and through shipments of contaminated plant material. This pest was first detected in the U.S. in peach trees at Charleston, South Carolina in 1974. Since then it has become widespread, but localized in many North Carolina counties and most of the southeastern, Gulf coast, and surrounding states ranging from Texas through Oklahoma and east to Virginia. It has also been reported in coastal regions of Maryland.

In 2002, it was first discovered in Indiana in Jackson County. In 2007, granulate ambrosia beetle occurs in 41 counties in Indiana: Bartholomew, Boone, Brown, Clark, Clay, Crawford, Delaware, Dubois, Floyd, Fountain, Greene, Jefferson, Hamilton, Hendricks, Henry, Howard, Jackson, Jennings, Johnson, Lawrence, Marion, Monroe, Montgomery, Morgan, Orange, Parke, Perry, Porter, Posey, Putnam, Randolph, Scott, Spencer, Sullivan, Switzerland, Tippecanoe, Vanderburgh, Vigo, Wabash, Warren, Wayne, and White.

DESCRIPTION: *Adult:* The adult female beetles are 2.1-2.9 mm long, stout bodied; the mature color is dark reddish brown, darker on the posterior end of the wings. Males are much smaller and differently shaped than females, being only 1.5 mm long with a radically reduced thorax and a generally "hunch-backed" appearance.

HOSTS: The granulate ambrosia beetle is capable of breeding in a wide variety of hosts. Known hosts in the U.S. include: azalea, Bradford pear, Chinese elm, dogwood, fig, golden rain tree, magnolia, ornamental cherry, peach, pecan, persimmon, plum, redbud, red maple, Shumard oak, stryax, sweetgum, and sweet potato.



Granulate ambrosia beetle, *Xylosandrus crassiusculus* (Motschulsky), on a dime (Photo: C. M. F. Pierce)

Granulate Ambrosia Beetle—CAPS-2-W



Granulate ambrosia beetles, *Xylosandrus crassiusculus* (Motschulsky) entrance hole, feeding gallery with eggs, and ambrosia fungus. The beetles inoculate the galleries with ambrosia fungus on which the brood feeds. (Photo: C.M.F. Pierce and M.A. McDonough)

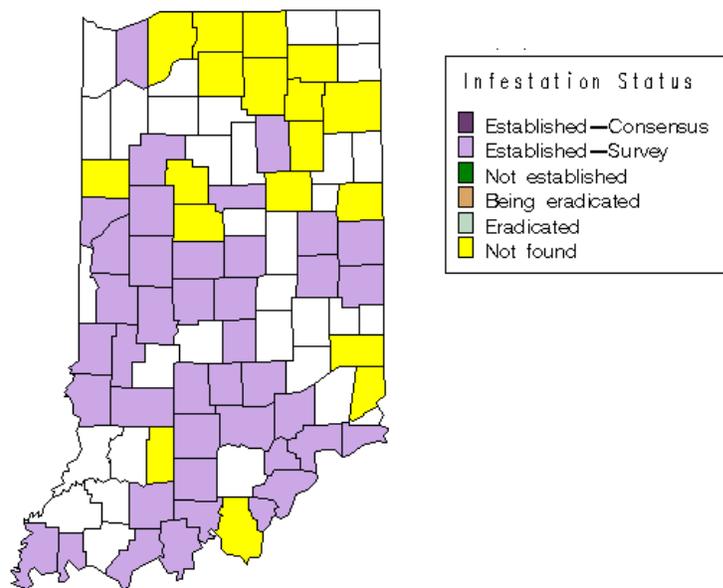


Granulate ambrosia beetles, *Xylosandrus crassiusculus* (Motschulsky) attack the trunk of the tree and push the frass out of galleries in a typical toothpick fashion. The beetles inoculate the galleries with ambrosia fungus on which the brood feeds. (Photo: Timothy J. Gibb)

DAMAGE: Females bore into twigs, branches, or small trunks of susceptible woody plants and push the frass out of galleries in a typical toothpick fashion (see photo to the right). The beetles inoculate the galleries with ambrosia fungus on which the brood feeds.

CONTROL: Pyrethroids have been found to provide control of attacking adults if applied prior to the closing of the galleries with frass. Once the beetles are in the tree and have frass packed in the entry holes they are isolated from the outside. If infestations occur, affected plants should be removed and burned and trunks of remaining plants should be treated with an insecticide labeled for this pest or site and kept under observation.

Reported status of Granulate ambrosia beetle, *Xylosandrus crassiusculus* in Indiana. Data retrieved from National Agricultural Pest Information System on 03/22/2007.



The Center for Environmental and Regulatory Information Systems does not certify the accuracy or completeness of the map. Negative data spans over last 3 years only.

CONTACT: If you have any questions, please contact the Indiana Department of Natural Resources Invasive Species Hotline at 1-866-NO-EXOTIC (1-866-663-9684). Visit Purdue University's Entomology Extension website at: <www.entm.purdue.edu/CAPS/>.



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