

Pest Alert

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Another Asian Ambrosia Beetle Established in Florida (Coleoptera: Curculionidae: Scolytinae: Xyleborini)

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INTRODUCTION: The ambrosia beetle *Xyleborinus andrewesi* (Blandford) was recently collected in Ft. Myers, Lee County, Florida. Over 30 beetles were reared from a branch section taken from a sugar apple (*Annona squamosa* L.) tree. *Xyleborinus andrewesi* is widely distributed throughout the Old World tropics (Browne 1961). It is not native to the New World, but has been reported from Hawaii (Cognato and Rubinoff 2008), Cuba (Bright and Skidmore 2002), and Jamaica (Wood and Bright 1992). Surveying is needed to further assess establishment of *X. andrewesi* in Florida.

Also reared from the same wood were two cerambycids (*Leptostylopsis terraecolor* (Horn) and *Leptostylus transversus* (Gyllenhal in Schoenherr) (both native species)) and four other scolytines (*Xylosandrus crassiusculus* (Motschulsky) and *Xyleborinus saxesenii* (Ratzeburg) (both introduced Asian species)), *Xyleborus affinis* Eichhoff and *Hypothenemus squamosus* (Hopkins) (both native species).

IDENTIFICATION: *Xyleborinus andrewesi* is a small, reddish-dark brown, elongate-cylindrical beetle about 2 mm long. It is easily distinguished from the two other Florida species of *Xyleborinus* by the subacuminate elytra and rows of numerous strong, acuminate tubercles on the first and third interstriae (Fig. 1).

BIOLOGY: Beetles lay eggs in newly felled green timber (Stebbing 1914), or in damaged or dying trees (Schedl 1962). So long as the bark is not dehydrated, *X. andrewesi* will attack twigs and branches of different dimensions, regardless of whether the branches are exposed to sunlight or not (Schedl 1962).

Xyleborinus andrewesi is an ambrosia beetle. It does not consume the wood in which it lives, but rather excavates galleries in the xylem and inoculates them with the fungi on which it feeds. No information is currently available about *X. andrewesi* and its fungal associations.

HOSTS: *Xyleborinus andrewesi* is not host-specific (Beaver and Browne 1975). Only one host is currently confirmed from the U.S.: *Annona squamosa* L. (sugar apple, custard apple, sweetsop), which is a new family host record for *Annonaceae*.

Worldwide, there are 59 recorded hosts in 29 families (Beeson 1941; Browne 1961; Schedl 1962; Wood and Bright 1992): Ampellidaceae; Anacardiaceae; Apocynaceae; Bombaceae; Burseraceae; Caesalpiniaceae; Combretaceae; Dilleniaceae; Dipterocarpaceae; Euphorbiaceae; Fagaceae; Guttiferae; Lauraceae; Leguminosae; Malvaceae; Meliaceae; Mimosaceae; Moraceae; Myristicaceae; Myrtaceae; Rubiaceae; Rutaceae; Sapindaceae; Sapotaceae; Sterculiaceae; Theaceae; Tiliaceae; Urticaceae; and Verbenaceae.

ECOLOGICAL AND ECONOMIC IMPORTANCE: Unless they occur in very large numbers, damage is minimal (Stebbing 1914). *Xyleborinus andrewesi* is unlikely to become even a minor pest, though it may spread throughout Florida, as many



other exotic species of xyleborine beetles have done. *Xyleborinus saxesenii* was introduced to the United States from Asia and has since become widely spread throughout Florida, but has failed to become a pest. It is likely that *X. andrewesi* will compete with other ambrosia beetles — both native and previously introduced — in Florida. The ecological consequences of such competition are unknown.

DISTRIBUTION: *Xyleborinus andrewesi* previously has been recorded (Wood and Bright 1992) from: Andaman Islands, Bangladesh, Burma, China, India, Indonesia, Japan, Malaya, Micronesia, Nepal, New Guinea, Philippine Islands, Ryukyu Islands, Seychelles Islands, Sri Lanka, Thailand, Vietnam and New Zealand (an incorrect record, according to Brockerhoff, et al. 2003). It has also been reported from Africa — with single records from Kenya and Zambia, but it has not been found there recently (Beaver and Browne 1975, 1978). It has been introduced to Cuba (Bright and Skidmore 2002), Hawaii (Cognato and Rubinoff 2008), Jamaica (Wood and Bright 1992) and Thailand (Beaver and Browne 1975).

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Figure 1. *Xyleborinus andrewesi* (Blandford), dorsal, oblique, and lateral views.