RESEARCH LABORATORY TECHNICAL REPORT

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Boxelder Bug

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Boxelder bug (*Boisea trivittata*) is a true bug (order Hemiptera) in the family Rhopalidae. Although most members of this family live and feed on herbaceous plants, this insect is generally associated with trees. Its range includes much of the continental United States and southern portions of Canada. Boxelder bug is primarily a nuisance pest to humans and causes little damage to its host trees.

Description

Adult boxelder bugs are approximately 0.5 inch (1.3 cm) in length with fully developed, membranous wings that fold together over the abdomen when not used for flight. Adults are brownish-black with distinctive red lines on their thorax and wings (Figure 1). Immature boxelder bugs, or nymphs, resemble smaller versions of adults, but are reddish-orange and lack fully developed wings (Figure 1). All life stages of the boxelder bug feed on plant material using a piercing, sucking mouthpart called a proboscis.

Figure 1: Boxelder bug adults and several stages of nymphs on bark

Photo Credit: William M. Ciesla, Forest Health Management International, Bugwood.org

Host Plants

While boxelder bug feeds on a variety of plants, its preferred host is boxelder, *Acer negundo,* particularly the samaras produced by female trees. Occasionally, boxelder bugs will also feed on the fruits of apple, cherry, and other fruit trees. Although large aggregations can occur (Figure 2), they are not a significant threat to landscape plants.

Figure 2: Large aggregation of boxelder bug adults and nymphs on a tree trunk

Management

As temperatures begin to drop, adults will attempt to overwinter in warm, sheltered areas, including homes. Building entry points should be thoroughly sealed in the fall to prevent adults from gaining access. Adults found inside buildings do not pose a threat to people, products, or structures, and they do not reproduce

indoors. If adults are active inside, they are unlikely to survive for more than a few days. Adults should be removed with a broom as some people report an offensive smell associated with the insect, especially when crushed. In the landscape, removing female boxelder trees may help reduce the local boxelder bug population. When this is not practical, raking and removing the fallen samaras from boxelders and other maple species can limit the amount of available food. In landscapes where population outbreaks frequently occur, product applications can be administered in the spring or fall to individuals clustering on boxelder fruit, foliage, or bark. Please contact your Bartlett Arborist Representative to learn about management strategies.

Founded in 1926, The Bartlett Tree Research Laboratories is the research wing of Bartlett Tree Experts. Scientists here develop guidelines for all of the Company's services. The Lab also houses a state-of-the-art plant diagnostic clinic and provides vital technical support to Bartlett arborists and field staff for the benefit of our clients.