



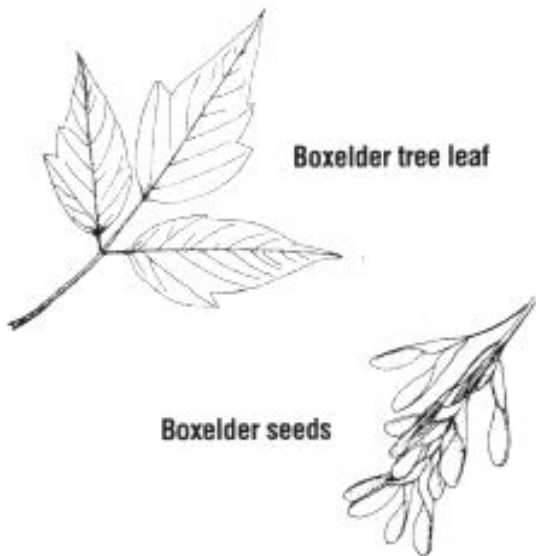
## Boxelder Bug

Boxelder bugs may invade buildings, especially during the warm days of autumn, to seek shelter sites for over wintering. They are attracted to lights and will readily fly in open doors and windows. Indoors, these bugs are a nuisance by their presence, produce a foul odor when crushed and, may stain curtains with fecal matter. Outdoors, they can be found clustering in large numbers on the sides of trees, buildings and other structures. Large populations are often correlated with long, hot, dry summers. During warm winter and spring days, they may become active, moving from their hiding places into living spaces. Although they do not cause damage to buildings, clothing, food or humans, populations are annoying.



### Identification

Adult boxelder bugs are flat-backed, elongate, and narrow, about 1/2 inch long, 1/3 inch wide and dark brownish-black with three lengthwise *red* stripes on the pronotum (area behind the head). The head is black with the "beak" or proboscis reddish-orange and the long, thin, four-segmented antennae, half as long as the body. Wings are thick and leathery at the base and membranous at the tip. There are *red* veins in the wings and the abdomen is bright *red* under the wings. The nymphs or immatures resemble the adults in shape except they are smaller, more rounded, wingless and bright red. Eggs are dark reddish-brown.



### Life Cycle and Habits

During the autumn months (around October 1), adult and large nymph boxelder bugs congregate in huge numbers primarily on the bark of boxelder trees and then begin migrating to a place for over wintering (frequently around foundations and windows). Only full-grown adults over winter, moving to hibernation sites either by crawling or flying. They may crawl from a nearby tree or fly about two miles to find shelter. These bugs hide in cracks and crevices in walls, in door and window casings, around foundations, in stone piles, in tree holes and in other protected places. On warm days during winter and early spring, they sometimes reappear on light-painted surfaces outdoors on the south and west sides of the house, resting in the sun.

Over wintering adults leave their hibernating quarters with the coming of warm weather (last week of March); arid females begin laying eggs (late April to early May) in crevices of tree bark, stones, leaves, grasses and on other objects near host plants. Eggs hatch in 11 to 19 days, with bright red nymphs appearing about the same time new tree leaves develop. There are five nymphal instars. The instars get progressively darker *red* with each stage. In July, new adults lay eggs that result in a second generation by early autumn. Boxelder bugs feed primarily on the seed-bearing boxelder trees by sucking sap from the leaves, tender twigs and developing seeds. Occasionally, they have been observed feeding on ash, maple, plum, cherry, apple, peach, grape and strawberries, causing some scarring or dimpling of fruits. However, boxelder bugs seldom develop in large enough numbers to become a nuisance, unless able to feed on seed-bearing boxelder trees. Apparently, they do little actual feeding damage to boxelder trees. There may be one to two generations per year.

## Control Measures

### Prevention

Since boxelder bugs feed and reproduce primarily on pistillate (female) boxelder trees, removal of these trees, especially around the house, would eliminate nuisance populations. Some towns have outlawed pistillate trees. However, adults are capable of flying two or more miles for suitable hibernation quarters. If boxelder trees are desirable for shade, ornamental beauty or other purposes, use only propagation



(cuttings) from the staminate (male) trees. Eliminate potential hiding places such as piles of boards, rocks, leaves, grass and other debris close to the house. Rake leaves and grass away from the foundation in a six- to ten-foot-wide strip, especially on the south and west sides of the structure. Be sure to caulk and close openings where boxelder bugs can enter the house such as around light fixtures, doors and windows, unscreened vents, holes in walls around utility pipes or conduits, air conditioners, heat pump lines and through the foundation. They are also attracted to lights and can fly in open doors or windows. Screen all windows, doors, crawl spaces, exhaust and roof vents and louvers. Clusters of bugs may be killed by pouring boiling water on them. Be careful to avoid killing grass and other desirable plants with boiling water.

### Insecticides

Should boxelder tree removal be impractical, treat the young, exposed boxelder bugs "nymphs" on the trees during spring and early summer to prevent potential large populations and indoor migrations in the autumn. Some homeowners report effective, cheap control by spraying a soap mixture on the nymphs and adults as they begin congregating in late summer. The spray consists of about 1/2 cup of a laundry detergent in one gallon of water applied by a hand sprayer or squirt bottle directly on the boxelder bugs as often as necessary. The soap mixtures kills only the bugs sprayed, but does not prevent others from coming to the site. Test the mixture first on an inconspicuous spot before application as it might stain cedar and other siding. Applications of Orthene, Sevin or Dursban sprayed to tree trunks, limbs and foliage are effective. Sprays can be applied on foundation walls, sidewalks, fence rows, etc. as boxelder bugs mature and migrate from the trees. Cracks and crevices, wall voids and similar areas may be treated with dusts and/or aerosols. When applications are needed on tall trees or large areas requiring specialized equipment, it is best to employ a reputable pest control firm. Indoor control is often difficult since the bugs may be scattered throughout the house. Household aerosol pressurized sprays containing pyrethrins will give temporary control. When applying these materials, fill the entire room with a mist spray and close it off for several hours. Later, use a vacuum cleaner and/or broom and dustpan to pick up dead and dying bugs.

Information obtained through the Ohio State Extension Factsheet HYG-2106-94



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