

## Five Facts about those Annoying Box Elder Bugs

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October 2020

Are the box elder bugs worse this year, or is 2020 just making everything seem “extra”? Gardeners in Klamath Falls are asking about these annoying home invaders, insects that congregate on and sometimes inside our homes as weather cools in fall.

Box Elder bugs are a frequent subject of inquiries to the Extension office and plant clinic. For bugs inside the home, the vacuum is the easiest, safest, and most reliable removal method. Many references suggest that removal of Box Elder (*Acer Negundo*) trees will eliminate the insects: in fact, a tree of the same species in a neighbor’s yard, or even other Maple species close by, can support the insects too. Often, Box Elder bugs cause alarm based on sheer numbers: on sunny fall days they congregate on rocks or the sides of houses in large numbers. They do no real harm to trees or homes.

**Their family name is misleading.** Box Elder bugs belong to a family called Rhopalidae, often referred to as the “scentless plant bugs”. Rhopalids are close relatives of the Coreidae, known for horrible smells emitted as warning when the insects are alarmed. Probably the most easily recognized Coreidae are squash bugs and leaf-footed bugs. Rhopalids may not have as strong a scent as their smellier cousins, but they are certainly not scentless. Their unpleasant “alarm smell” is one reason vacuuming is preferable to smashing when the insects get in our homes.

**They are “true bugs”.** Both Coreids and Rhopalids belong to a larger Order of insects known as the Hemiptera. All Hemiptera have piercing- sucking mouthparts and outer wings that are half-leathery and half membranous- the origin of the order name, meaning “half-wing”. Most Hemiptera are plant feeders, including the notorious lygus, chinch, and stink bugs. When entomologists refer to “bugs”, they are speaking not of insects in general, but members of the Hemiptera.

**They feed on more than Box Elder.** Like the family name, the common name for this insect is misleading. Female Box Elder trees are the most common host plant for these bugs, but they are also found on male Box Elders, a few other Maple species, and Ash trees. In fall, Box Elder bugs will feed, like stink bugs, on developing fruits (i.e., apple, pear). Numerous insects feeding on the fruit cause damage called catfacing: the fruit gets lumpy and misshapen. It is on fruit trees that these insects are most likely to cause actual damage.

**Chemicals not recommended.** Chemical treatments for Box Elder bug are rarely more effective than vacuuming. A few active ingredients are listed for the outsides of homes- these should be applied by a licensed applicator. Again, the insects are a nuisance- their fecal pellets can stain walls or surfaces- but they do not cause structural damage, or kill the trees they feed on. Large populations late in fall are a natural result of the reproductive strategy of this insect. A cold winter will kill off most of the overwintering adults without chemicals.

**Exclusion is the way to go.** In this age of inclusivity and understanding, Box Elder bugs are the exception. Excluding them from the home by sealing up cracks and crevices, repairing window screen holes, and insulation are all suggested. This fact sheet from the University of CA- Davis has more information on the Box Elder bug and its exclusion, such as removing places the insects may seek winter protection: <http://ipm.ucanr.edu/PMG/PESTNOTES/pn74114.html>. Fewer sources of shelter in winter mean fewer insects will remain the following spring to renew the cycle.

Those who have moved from the Eastern US may have noticed here that the Box Elder bugs are different- Eastern and Western Box Elder bugs are two closely related species. Both types of Box Elder bugs are similar to the Red- Shouldered bug, which is most common in the south and southwest. For more info about the Red- Shouldered bug, try this fact sheet from Kansas State:

<https://bookstore.ksre.ksu.edu/pubs/mf2580.pdf>. To add further identity confusion, the young of all three species look almost exactly alike, and have more red coloring than any of the adults.

Box Elder bugs are annoying, unwanted house guests that can require frequent vacuuming- but don't cause real damage to houses or trees. On the other hand, brown marmorated stink bug is another insect that comes into homes in late fall and winter, with potential to do a great deal of damage to food crops. If you think you have found brown marmorated stink bug in your home, please check this ID fact sheet:

<https://catalog.extension.oregonstate.edu/em9054> and contact the author. OSU is attempting to understand the range of this pest in Oregon.