

# Pest Alert

## Elm Seed and “Tuxedo” Bugs New Invasive Seed Bugs in British Columbia

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### Introduction

The elm seed bug, *Arocatus melanocephalus* and tuxedo bug, *Raglius alboacuminatus* are native to Europe and the Mediterranean region. They were first reported in Canada in Kelowna, British Columbia in 2016. The seed bugs are not agricultural pests but can be a nuisance in high numbers because they enter homes and businesses. Elm seed bugs emit unpleasant odours when crushed and their fecal droppings on structures such as doors and windows can be unsightly. Elm seed and tuxedo bugs do not bite people.

### Identification

**Elm seed bug:** Adults are 6.5 - 7 mm (about 1/3 inch) long, black and rusty red colour with black triangle bordered by a rusty coloured rectangle on



Figure 1. Adult elm seed bug. Note triangle enclosed in a rusty-coloured rectangle. Photo credit, Ward Strong, Kalamalka Forestry Centre, Vernon, B.C.

the back (Figure 1). The outer margins of the abdomen have contrasting black and white bands. Immature stages (nymphs) have a black head and a red abdomen; older nymphs have wing buds and two black spots on the back of the abdomen (Figure 4).

**Tuxedo bug:** Adults are about 5 - 6 mm (1/4 inch) long, dark brown to black, with a triangle outlined in white, distinct paired white spots at the top and lower part of the body and a white spot at the tip of the body (Figure 2).

### Life cycle

The life cycle of elm and tuxedo seed bugs in British Columbia has not been determined.



Figure 2. Adult tuxedo bug. Note distinctive white stripes on the sides of the triangle and white spots on the upper and lower parts of the body. Photo credit, Ward Strong, Kalamalka Forestry Centre, Vernon, B.C.

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**Elm seed bug:** In Europe and the United States, elm seed bug has one generation per year. Elm seed bugs overwinter as adults in and around structures and emerge in the spring to lay eggs on elms. Nymphs feed on elm seeds from May-June and adults are present in the summer. There are five immature stages and because of the long egg laying period, life stages may overlap with adults and immature stages being present in June and July. In Interior British Columbia, In Interior British Columbia, adult and immature stages are present from May - September.

**Tuxedo bug:** Tuxedo bugs overwinter as adults and lay eggs in the ground or soil in early spring. Nymphs feed on developing seeds of plants in the mint family. There is one generation per year in the United States, two in England, and three in Russia. In Idaho, adults are active in early to mid-spring and from mid-summer into late fall. In British Columbia, adults were present in August in 2016.

### Hosts and Damage

Elm seed bugs feed on elm seeds and leaves but do not cause much damage to the trees. Tuxedo bugs feed on plants in the mint family (e.g. black horehound, lambs ears, white mullein). Elm seed and tuxedo bugs are not known to feed on agricultural crops. They do not pose a health risk to humans or pets and do not bite. They are a nuisance when they invade homes and structures in large numbers (Figure 3).

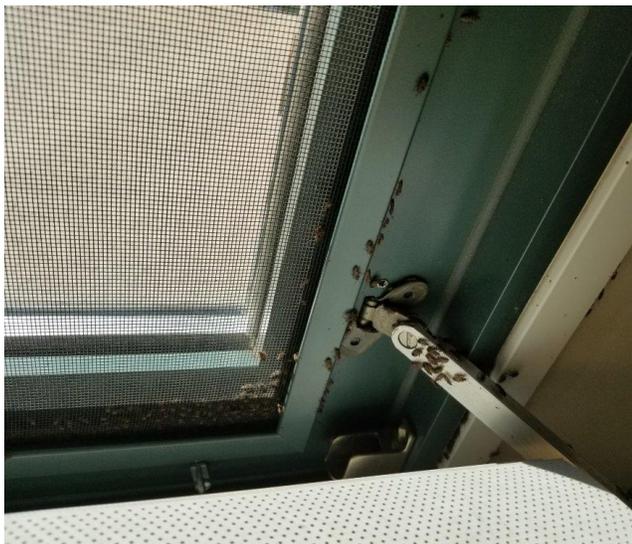


Figure 3. Aggregation of elm seed bugs in an office building. Photo credit, Tanya Littley, Kelowna.

This can be a source of discomfort and anxiety for homeowners. Elm seed bugs stink when crushed and their fecal droppings on structures are an eyesore (Figure 6).

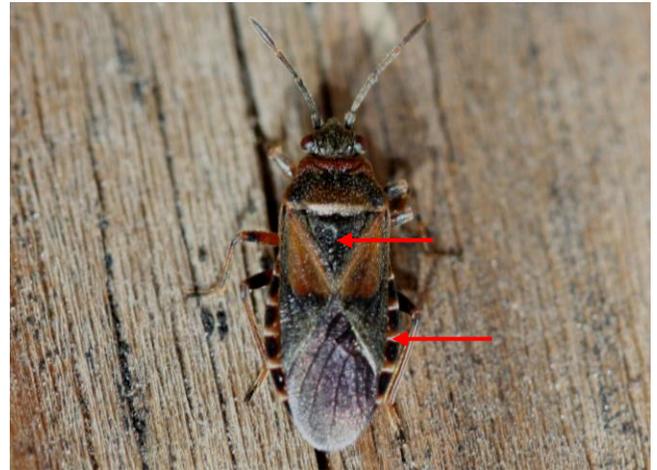


Figure 4. Top; Elm seed bug adult. Note triangle with rust-coloured borders and light bands on the outer margins of the body. Middle and bottom, elm seed bug nymphs.

## Control

Prevent entry into homes or buildings by sealing off any access points in windows, doors and screens.

Vacuum bugs in and around homes. For large numbers, use a shop vacuum with 1-2 inches of soapy water in the bottom to drown the bugs.

Remove volunteer elm trees. Where practical prune elm trees to reduce food source for elm seed bugs.

Clean up elm seeds and debris around the home and structures.

Use sticky traps for trapping bugs around window sills (Figure 5).

Inspect firewood for overwintering adults before bringing into the home.

The use of insecticides for controlling seed bugs in the home is not recommended.

For high numbers, treating immature stages outside the home with a barrier spray along foundations, patios, doors and windows will help prevent bugs from entering homes.

Products registered for use around the home containing permethrin and malathion will provide control.

Homeowners can hire a commercial pesticide applicator for more control options.



Figure 5. Fly ribbon trap with elm seed bugs.



Figure 6. Top to bottom: Elm seed bug fecal droppings, tuxedo bugs overwintering under the bark of a willow tree, and elm seed bugs on a sticky trap. Photo credits, Michele Fitzgerald, Kelowna, Robert Geismayr, Kelowna, and BC Ministry of Agriculture.

## References

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