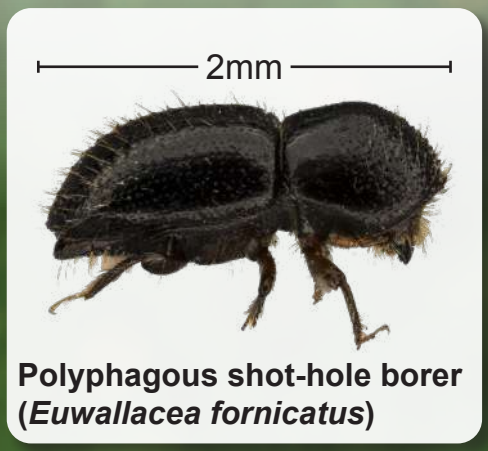
Department of Primary Industries and Regional Development

GOVERNMENT OF WESTERN AUSTRALIA

We're working for Western Australia.

Biosecurity alert: Polyphagous shot-hole borer



Polyphagous shot-hole borer (*Euwallacea fornicatus*)

What to look for and how to reduce the spread

Polyphagous shot-hole borer (PSHB) is a wood-boring exotic beetle that excavates tunnels in stressed and healthy trees in which they cultivate the fungus as a food source.

The fungus spreads inside the tunnels and disrupts the plant vascular system and the flow of water and nutrients.

Monitor trees and shrubs for symptoms including multiple entrance holes on the trunk or branches that are about the size of a ballpoint pen tip, often associated with bark discolouration, gumming, frass, crystalline foam (sugar volcanoes) exuding from the entry holes and tree wilting or dieback.

What to look for

Beetle entry hole – the entrance holes of PSHB are approximately the size of a ballpoint pen tip.

Discoloration/staining of wood – the *Fusarium* fungus cultivated by the beetle can cause dark discolouration.

Gumming – thick resin or sap sometimes pushes the beetle out of the gallery.

Sugar volcanoes – crystalline foam may be exuded from entry/exit holes. This is a common sign of infection on avocado trees.

Frass – produced by the beetle's tunneling, frass or 'noodles' may be present extruding from trees. This can indicate the infestation level is high.

Dieback – in susceptible trees the *Fusarium* fungus kills tree vascular tissue causing branch dieback and tree death.

Hosts – PSHB has a known host range of more than 400 plant species. DPIRD is currently determining the local reproductive host range as PSHB may behave differently in Western Australia. The box elder maple tree (*Acer negundo*) has been identified as the main host for the shot-hole borer.

Top hosts include:

- Maple (*Acer*)
- Oak (*Quercus*)
- Plane (*Platanus*)
- Avocado (*Persea*)
- Robinia (*Robinia*)
- Fig (*Ficus*)
- Poplars (*Populus*)
- Coral Tree (*Erythrina*)

Report suspected PSHB damage

MyPestGuide

- Online report: mypestguide.agric.wa.gov.au
- App: MyPestGuide® Reporter app

Pest and Disease Information Service

- Phone: +61 (0)8 9368 3080
- Email: padis@dpird.wa.gov.au

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agric.wa.gov.au/borer