Beetle infesting trees in Perth could pose deadly threat to Moreton Bay figs

WA scrambles to control polyphagous shot-hole borer, which has spread to 200 locations in state's capital



The polyphagous shot-hole borer beetle poses a grave risk to such species as Moreton Bay fig if it moves out of Perth. Photograph: Southern Lightscapes-Australia/Getty Images

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A new, invasive insect that has caused the removal of hundreds of trees in Perth could attack much-loved species such as Moreton Bay figs if it escapes quarantine zones, conservationists say.

While the east coast has been responding to the <u>incursion of the varroa mite</u> in bees, Western Australia has been managing another invasive insect known as the polyphagous shot-hole borer (PSHB).

The <u>tiny beetle</u>, which is native to south-east Asia, is a "fungus farmer" – it burrows into trees and spreads a fungus that can kill the host.

It was first detected in a tree in Perth in September last year and has since spread to 200 locations in Perth's western suburbs.

The WA government has been containing the spread with quarantine zones in 21 local government areas in Perth, restricting the movement of any wood or green waste material that could host the borer.

Because there is no treatment for infested trees, the primary industries department has removed more than 370 trees to reduce the risk of further spread.

The Invasive Species Council says the incursion highlights the need for a well-funded biosecurity system to tackle the continual threat of harmful pests arriving in Australia.

The council's conservation director, James Trezise, said although the borers were small, they were capable of taking out large trees and it would be a "disaster" if the beetles started to affect environments and parks across the country.

"At the moment it's having an effect on highly urbanised areas, but if it escapes current quarantine zones into the nearby forests or gets to the east coast, it could be a major issue," he said.

"To put it in perspective, it could potentially mean you lose some of those huge old trees in places like [Sydney's] Hyde Park."

The beetle is considered an environmental and agricultural pest. It farms a fungus to feed its young and some host trees can die within two years of infestation.

The beetle is unable to establish the fungus in all species and it is not clear how many types of trees in Australia – native and introduced species – could become targets. Overseas, more than 400 host species have been recorded.

In WA, the main host identified has been the box elder maple. Other trees being monitored include oak, plane, avocado and fig.

Trezise said the beetles were known to target ficus species, of which there are 45 in Australia, including the Moreton Bay fig - a feature of east coast cities and parks and a critical part of many east coast ecosystems.

He said the lack of understanding about which trees the beetle could strike underlined the need for more investment in environmental biosecurity research to better understand the risks to native ecosystems and what is needed to tackle them.

"The shot-hole borer is known to prefer ornamental and fruit trees, but we don't have a complete understanding of their potential impacts on our native forests, which is part of the problem," Trezise said.

It is unclear how the beetle arrived in WA. Authorities have considered several possibilities, including that it "hitchhiked" on untreated wooden articles and packaging.

Sonya Broughton, the primary industries department's chief plant biosecurity officer, said the beetle's natural spread was limited because only the females could fly and only over short distances. This meant the biggest risk came via human transport.

"Early detection and the prompt removal or pruning of infested trees is key to containing PSHB spread and minimising further impact on neighbouring host trees," she said.

Broughton said managing the pest had involved the biggest surveillance program in the department's history, with staff inspecting more than 1m trees on more than 25,000 properties in the past 12 months.

"Between the combined efforts of surveillance, trapping, tree management and quarantine restrictions, together with public information, every effort is being made to contain the spread of PSHB in WA," she said.

The federal agriculture minister, Murray Watt, said the WA government was managing the response and his department was "keeping me abreast of response activities".