

Beware of the beetle! Tiny, but deadly, insect is wiping out SA trees

Destructive shot hole borer beetle found in Somerset West

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An elder tree killed by the polyphagous shot hole borer beetle - one of five dead trees in a street in Johannesburg.

Image: Masi Losi/Sunday Times

A beetle which carries a fungus that rapidly kills trees – thousands of oak and maple trees in Johannesburg, George, Knysna, Durban and Pietermaritzburg have already been wiped out – has now invaded Somerset West, the City of Cape Town warned on Tuesday.

The city said that the destructive polyphagous shot hole borer (PSBH) beetle had infested a "limited number" of London plane and sweetgum trees in Somerset West, about 45km away.

Microbiologist and beetle expert Wilhelm de Beer said in a recent interview: "We have never had a beetle so devastating in SA."

The beetle from southeast Asia, about the size of a sesame seed, has been detected in every province except Limpopo he said, declaring it a "national emergency".

A Stellenbosch University researcher contacted Cape Town's Invasive Species Unit in March about the beetle, after collecting samples from infested trees for DNA testing.

Chandre Rhoda, manager of the invasive species unit, said: "The infestation was discovered in Oldenland Road in Somerset West by passionate gardeners and environmentalists who noted that a London plane tree in their garden was ailing and exhibited signs of a PSHB beetle invasion."

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On April 3, the results from the student's tests confirmed that the trees had been infested by the beetle.

"It is critical that the PSHB beetles are not spread during the removal project," said Rhoda.

"An experienced invasive plant removal team trained in the dangers of vector pathways and cleaning equipment will be appointed to help the city.

"The wood will be chipped on site and carefully removed to a different site for solarisation or burning."

The beetle can survive for weeks in chopped wood and be spread by moving around timber from contaminated dead trees - so nobody should move dead trees.

The fungus from the beetle has attacked alien trees including London plane trees, sweetgums, Japanese maples, Chinese maples, pin oaks, and English oaks, the city stated.

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Microbiologist and beetle expert Wilhelm de Beer

Indigenous trees which have been infested include the coast coral tree, the forest bush willow and the Cape willow.

The symptoms of infestation differ across trees. Thousands of pin-prick size holes appear on maples, whose trunks get blackish marks like cigarette burns. On oak trees, a sawdust fills the ridges in the bark near the base. Plane trees have stains, which get calloused over time.

Professor De Beer, from the Forestry and Agricultural Biotechnology Institute at the University of Pretoria, has said: "My biggest concern is what the beetle and fungus might do to the natural ecosystem. They have already been found in about 35 species of native trees."

Johannesburg arborist Neil Hill, who has experience diagnosing beetle invasions, said that the Western Cape - with its historic oaks which also give the streets of the Stellenbosch and wine estates their character - would be hard hit by an invasion.

Unlike most pests, the beetle can make itself at home in a range of tree species which makes them difficult to eradicate.

De Beer said: "They are from more than 50 different families and these trees are unrelated: there are big trees, small trees, thick bark trees and thin bark trees. What is unique about this beetle is that it can eat many things."

Cape Town urged residents to inspect trees and report "any suspected sightings of a PSHB invasion or fusarium dieback" online by visiting the Invasive Species Unit's shot hole borer reporting tool on www.capetowninvasives.org.za