community conservation in action

NVT's Shothole Borer Advice



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Forest & Urban Programmes

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Background to the Polyphagous Shothole Borer (PSHB)

The PSHB is a tiny beetle originating from southeast Asia that has invaded 8 out of South Africa's 9 provinces (all except Limpopo). It carries a fungus with it, that blocks a tree's vascular system, causing Fusarium dieback and oftentimes, complete death. The beetle was first detected in 2017 on London Plane trees at the KwaZulu-Natal National Botanical Gardens, in Pietermaritzburg. DNA analysis revealed that the beetle had probably arrived earlier, circa. 2012, and entered via shipping ports at Durban or Richard's Bay.

The southern Cape became an infestation hotspot around 2018/2019. Typically an invader of urban trees, the southern Cape provides a massive resource for the beetle through the extensive indigenous forests. It is continually spreading, with larger, older trees being more susceptible, as well as trees that are already stressed.

In Nature's Valley, the first reported incident was at the end of 2024. NVT has since launched a monitoring program, and have confirmed PSHB on the following tree species in the village:

Ekebergia capensis (Cape Ash), *Schinus terebinthifolia* (Brazilian Pepper), *Quercus robur* (English Oak), *Ilex mitis* (Cape Holly), *Diospyros whyteana* (Bladdernut) and *Elaeodendron croceum* (Saffron). A map of these cases can be viewed below (Fig. 1).



Figure 1: PSHB cases in Nature's Valley from 2025 till March 2026

If we suspect that PSHB is present within a tree, we place a trap on the tree, which is then monitored over a few weeks. We designed these traps ourselves and it has proven highly efficient (Fig. 2). This allows us to confirm whether the tree is infected by PSHB, or whether it is some other species.

Please note: we have plenty of indigenous bark and ambrosia beetle species that look like the shothole borer, this is why confirmation is needed.



Figure 2: A typical trap that we placed around a tree to confirm PSHB infestation

Typical signs that owners can look out for are bore holes, galleries, frass, gumming, lesions or sugar volcanoes (Fig. 3). Trees that are heavily infected typically experience a browning of their leaves, and eventual death. NVT will however come out and confirm PSHB presence.

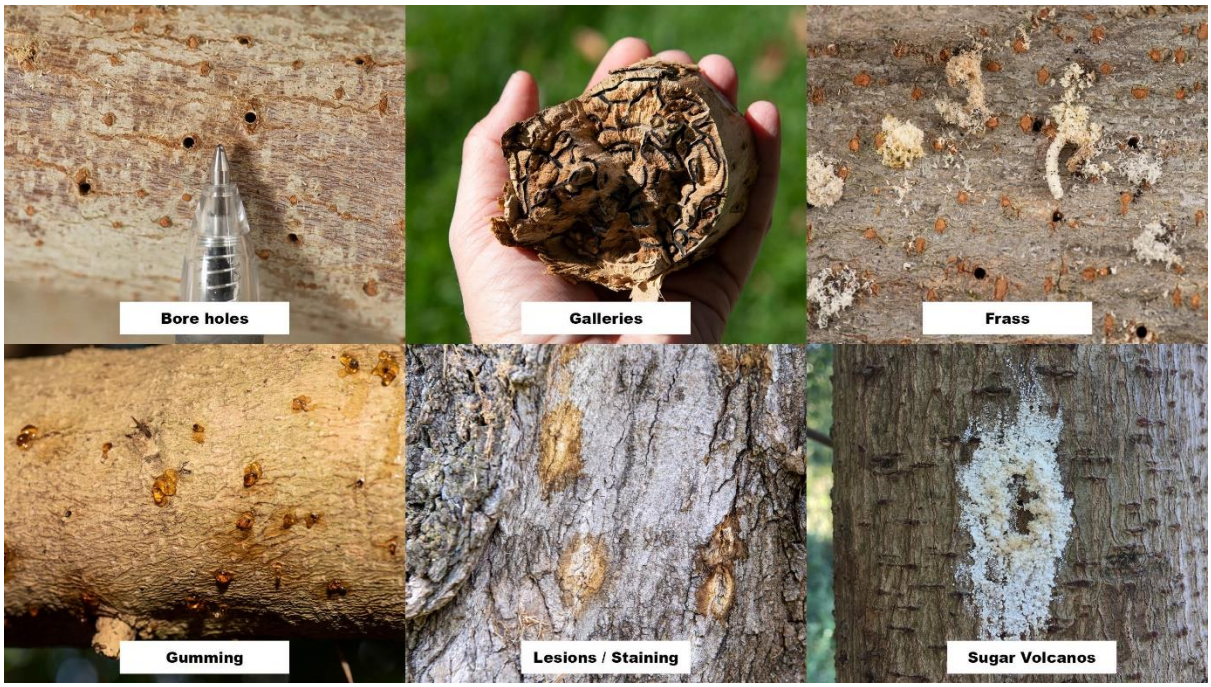


Figure 3: Signs to look out for when suspecting PSHB infestation

No officially registered treatment is currently available. Many private companies claim to be able to save infected trees. Please remember that saving an individual tree does not necessarily stop the spread – only destroying the beetle will, at this stage, curb the spread.

By law, owners are required to cut down heavily infected trees and burn the wood on site, or to seal the wood in plastic and leave it outside (called solarisation). Unfortunately, Bitou Municipality does not have a dedicated dumping site for infected wood.

Infected wood should never be moved away from the infestation site. The main mode of dispersal for PSHB is people moving wood around.

NVT keeps a database to track and monitor the spread of the beetle in the Valley. We appreciate any information from landowners. We also take info on tree species and tree size.

Please contact us at rudi.swart@nvt.org.za or giorgio.lombardi@nvt.org.za if you suspect PSHB infestation.

