

## Highveld Tree Fellers Strategy for Polyphagous Shot Hole Borer Beetle

*Euwallacea Forficatus* or better known as the Polyphagous Shot Hole Borer Beetle is a small 2mm long beetle that originated in the far east. It was first discovered in the Botanical gardens of Pietermaritzburg in 2017. It has spread quickly to the Cape and here in Gauteng, (mainly Sandton and surrounds)

The Polyphagous Shot Hole Borer Beetle, or PSHB is associated with different fungi. The *Fusarium Euwallacea Fungus* is secreted from the females mouth when she lays her eggs. PSHB and the Fusarium fungus have a symbiotic relationship as the fungus is the food source for the larvae and the beetle. The fungus gets its substance from the nutrient rich cambium and phloem ring, by attacking the vascular system, thus depriving the tree of its nutrients and water flow, and causing it to die

Detecting the beetle is difficult (especially in the beginning of the infestation) as they are very small. However, you can detect them by looking for symptoms on infected trees, which are:

Wilting leaves or dying/dead branches  
Oozing resin or sugary volcano at exit holes  
Look for small entry/exit holes (only on living trees)  
Shot gun like holes and teardrop sap coming from lesions  
Sawdust or wood powder on bark or at base

Treatment of infected trees is quite controversial with varying opinions and schools of thought  
The prevailing method is to fell the tree, and destroy the breeding/host colony responsibly (Chipping, incinerating or smothering)

Our Strategy is as follows:

Identify infected trees as early as possible  
Ascertain the amount of infection and weather it must be felled or treated  
Severely infected trees are removed and destroyed to prevent further infestations  
Some trees are resistant and seem to live despite being heavily infected (Plane Trees)  
Trees showing resistance to beetle are treated  
Young trees with little infestation are treated  
Dead limbs on infected trees can sometimes be removed and tree treated  
High value un-infested host species (Acer, Plane etc) preventive treatment

Treatment includes spraying with surfactant (aids in absorption of treatments), fungicide and insecticide

The efficacy of treatments is not yet proved but are aimed at the PSHB and the Fusarium Fungus

These treatments must be followed up regularly and if need be treated again (especially in Summer)

Due to the very nature of the infestation and variable natural factors, no guarantee is/can be given, despite high success with this strategy so far

For any help or assistance call Joe on 082 792 4512 for an obligation free assessment

