

Polyphagous Shot Hole Borer (*Euwallacea* sp.) and *Fusarium* dieback (*Fusarium euwallaceae*)

The Polyphagous Shot Hole Borer (PSHB) is an ambrosia beetle native to Southeast Asia. In 2017 this pest was detected on London Plane trees in the KwaZulu-Natal National Botanical Gardens, Pietermaritzburg. It has been confirmed in Durban, Hartswater, Bloemfontein, George, Knysna and Johannesburg. The beetle has a symbiotic relationship with the fungus *Fusarium euwallaceae* which serves as a food source for the adults and their larvae. In susceptible trees the fungus causes *Fusarium* dieback which can lead to branch dieback and tree death. The beetles can attack a wide range of exotic and indigenous trees in urban, agricultural and natural landscapes.



The adult female is 1.8 - 2.6mm long. Males are smaller and flightless.



Chinese maple killed by PSHB and its fungus

PSHB is not able to complete its life cycle on all of the tree species it attacks, those that the beetle is able to breed on are referred to as 'reproductive hosts'. Important reproductive hosts include species of oaks, maples, willows and coral trees, avocado and castor bean. The full list of confirmed hosts in South Africa can be viewed at www.fabinet.up.ac.za/index.php/research/7

The movement of infested wood is an important pathway for spread of the beetle and appropriate disposal of infested trees (by chipping/composting, solarisation or burning) will be key to reducing the spread of this damaging pest.

Surveys to monitor the spread of the beetle and fungus in South Africa are continuing. The public can assist by looking out for symptoms. Suspected instances can be reported on iNaturalist.



Reproductive galleries in pecan



PSHB galleries in coral tree



Shot gun-like symptoms on London Plane