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First conformation of the presence of the Polyphagous Shot Hole Borer beetle and its symbiotic fungus *Fusarium euwallaceae* in the City of Cape Town Metropolitan area

To whom it may concern,

The aim of this letter is to officially confirm the presence of the invasive Polyphagous Shot Hole Borer beetle (PSHB, *Euvallacea whitfordiodendrus*) for the first time within the boundaries of the City of Cape Town Metropolitan area. We were informed of a possible infestation in the suburb of Somerset West by Mr Phumudzo Ramabulana from the City of Cape Town and Mr Paul Barker from Arderne Gardens on the 8th of March 2019. Mr. Elmar van Rooyen, a MSc student from Stellenbosch University currently working on the beetle for his thesis, collected samples from infested Liquid Amber and London Plane trees for laboratory analyses. The identity of the beetle and its symbiotic fungus was confirmed using morphological and DNA sequence analyses, and comparisons to the extensive database at the Forestry and Agricultural Biotechnology Institute (FABI), University of Pretoria.

The PSHB beetle is a well known and devastating insect pest that, together with its symbiotic fungus *Fusarium euwallaceae*, can kill a wide range of native and exotic tree hosts. It is currently causing immense damage in many other parts of the country and will likely be a significant threat to urban, agricultural and native trees in the City of Cape Town Metropolitan area and surrounds. Based on our experience with the PSHB invasion in George, Knysna, and other urban areas, trees like English Oaks are particularly susceptible and suffer from high mortality rates. A full list of known host tree species for the beetle in South Africa is available at www.fabinet.up.ac.za/pshb.

The seemingly low current infestation levels in the area indicates that this is likely a very recent invasion, but the species is capable of rapid reproduction and may also spread quickly through human mediated transport (particularly the movement of infested wood). Because of this, it is our opinion that effort should be made to extensively survey the suburb to determine the current area of extent of infestation. All infested trees, particularly those known to be reproductive hosts (refer to list on www.fabinet.up.ac.za/pshb), should be removed in an attempt to eradicate the pest and minimize its economic, social and environmental impact. For your convenience, we include photographs of symptoms on the two confirmed host tree species, Liquid Amber and London Plane, from Somerset West (Figure 1).



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We sincerely hope that the information contained within this letter would bolster future decision-making processes for collaborative research and management endeavors. For any further information, please do not hesitate to contact us.

Kind regards



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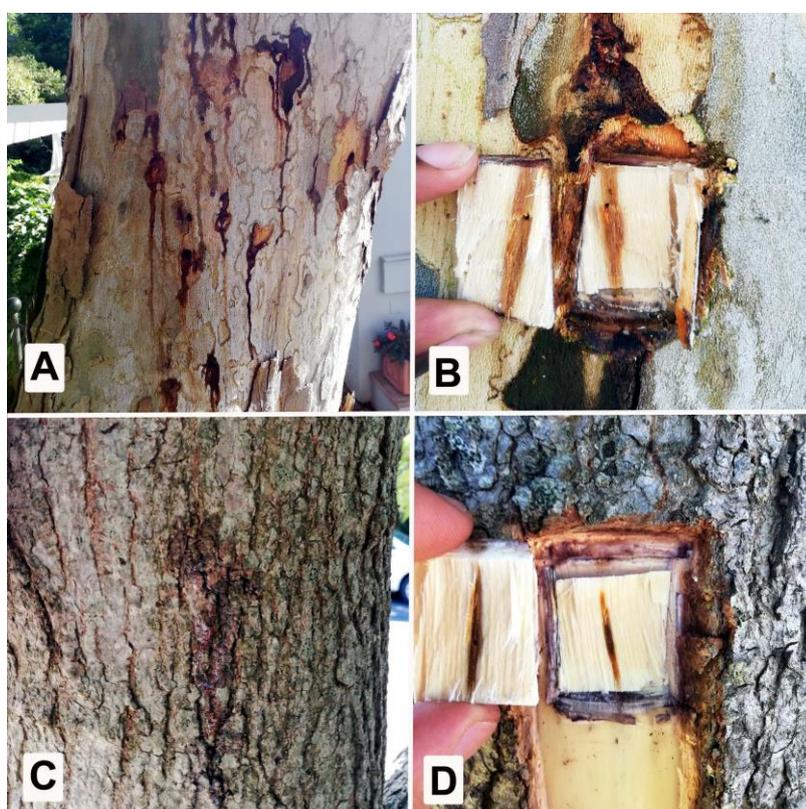


Figure 1: **A** London Plane tree showing external symptoms of PSHB beetle attack, **B** Same, internal symptoms after removal of bark. **C** Liquid Amber tree showing external symptoms of PSHB beetle attack, **D** Same, internal symptoms after removal of bark.