

## Massaria of London Plane     Glynn Percival, PhD, Plant Physiology

### Identification, Biology & Management

*Massaria* (*Splanchnonema platani*) is a fungal disease that infects branches of London Plane trees (*Platanus x hispanica*), a commonly used tree in urban landscaping in the UK. The pathogen has been present in the UK for some time, with disease recorded at Kew in 2003, Jersey in 2008 and Darlington in 2009.

### Symptoms

*Massaria* causes a long strip of pink or brown cankers on the upper side of lateral branches that darken over time as the fungus sporulates. The cankers always distinctively taper to a point (Figure 1).

Figure 1: Symptoms of *Massaria* branch infection



This can lead to branch failure as the wood cambium degrades and subsequent branch attachment becomes weakened. On smaller diameter branches 10 to 20 cm, death can occur within a year. The fracture point is very distinctive with splintered sound wood at the base and cleanly snapped wood on the upper half of the fracture.

Branches show a darker 'V' shaped area of decay in a cross section due to *Massaria* (Figure 2).

Figure 2: Cross section of infected branch



### Causal Agent

*Massaria* (*Splanchnonema platani*) is considered to be a weak pathogen, and only capable of causing minor damage. However, since 2010 *Massaria* has become a more serious problem as *Massaria* poses a high public health risk, with the potential for branch drop as disease progression causes weakness in the upper surface of branches.

*Massaria* is not fatal to trees but can cause severe unbalance of the crown due to the collapse of branches. Secondary infection from decay fungi has also been observed on cankers.

Symptoms can be difficult to detect in larger branches, especially as stains usually appear on the upper surface of branches and are difficult to identify from ground level.

Symptoms have mostly been observed across London, some parts of Oxford, and in mature trees of at least 40 years old.

## Control

There is no eradicating treatment for *Massaria*. Management relies heavily on cultural control which consists of checking for and removal of infected branches before they become a serious hazard. Across Europe, aerial inspections and necessary pre-emptive branch removal of trees are carried out three times a year.

Symptoms are not typically seen in trees with maintained reduced crowns. Consequently very light crown pruning could reduce the incidence of infection. Drought stress and poor soil condition are linked to increased ingress of *Massaria*. Monitoring soil moisture status to ensure drought symptoms do not develop, irrigation, and soil management (alleviate compaction, mulch) improve tree vitality and would therefore reduce the rate of *Massaria* spread along the branch.



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