



Plane *Platanus* sp. Pests and Diseases



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Plane Wilt (*Ceratocystis platani*)

Plane wilt, also known as plane canker stain, is a disease caused by the fungal pathogen *Ceratocystis platani* which causes infection through wounds and root contact. The disease is already present in the US, Armenia and parts of Europe but not yet the UK.

Main symptoms:

- Yellowy-green xylem staining can be seen underneath bark (Fig. 1) or in trunk cross-sections
- A single infection can cause a canker 2-2.5m long within a year (Fig. 2)
- Infected trees show severe wilting, dieback and eventual death (Fig. 3)



Figure 1. Staining as seen on the trunk after removing bark



Figure 2. A large *Ceratocystis* canker as seen on *Populus tremuloides* (Mike Schomaker, Colorado State Forest Service, Bugwood.org)



Figure 3. Dieback compared to a healthy tree

Plane Lace Bug (*Corythucha ciliata*)

The plane lace bug is a highly invasive insect and obligate feeder on plane trees. Adults and nymphs feed on the leaf's underside. Native to North America, these lace bugs are now widely distributed, present in Asia, South America, Oceania and Europe.

Main symptoms:

- The insects are tiny: just ~3mm in length and 2m in width (Fig. 1)
- Adults and nymphs are found feeding on the underside of leaves (Fig. 2).
- Heavy infestations cause chlorosis on both sides of the leaf, leading to leaf fall and dieback (Fig. 3).



Figure 1. Place lace bug adult (C. Malumphy, Fera)



Figure 2. Feeding. (Kansas Department of Agriculture, Bugwood.org)

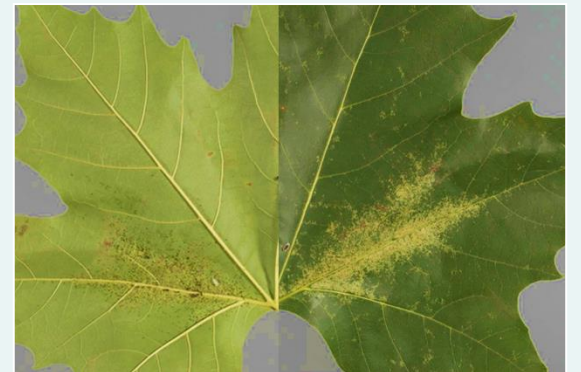


Figure 3. Damage showing on both sides of a leaf (C. Malumphy, Fera)

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

The polyphagous shot hole borer (PSHB) vectors the fungus *Fusarium euwallaceae* which causes Fusarium Dieback. This disease can affect and kill over 110 different tree species, including plane. Experts believe the PSHB was introduced to California from Southeast Asia, and the borer (along with Fusarium Dieback) has also been found in South Africa and Israel.

Main symptoms:

- Adults are tiny, smaller than a sesame seed (2-2.5mm long) (Fig 1)
- Larvae are small and white in appearance (Fig 2).
- The beetle is named for the cluster of multiple boreholes which can be seen in infected trees (Fig 3).



Figure 1. The tiny PSHB adult (Javier E Mercado, Bark Beetle Genera of the U.S., USDA APHIS PPQ Bugwood.org)



Figure 2. PSHB life stages (Michael Lewis, University of California-Riverside, Bugwood.org)



Figure 3. 'Shot hole' exit holes symptomatic of a PSHB infestation (Akif Eskalen, University of California-Riverside, Bugwood.org)