

Pest Alert: *Petrakia liobae* (“an emerging beech leaf disease in Europe”)



Fig 1. *Petrakia liobae* leaf spots on young beech growth. Photo courtesy of Ludwig Beenken, Swiss federal Research Institute WSL.



Fig 2. *Petrakia liobae* leaf spot with sharp, dark border and fluffy white fungal propagules on beech leaf. Photo courtesy of Ludwig Beenken, Swiss federal Research Institute WSL.



Fig 3. Fluffy white fungal propagules associated with *P. liobae* leaf spot. Photo courtesy of Ludwig Beenken, Swiss federal Research Institute WSL.

- ***Petrakia liobae*** is a newly identified leaf pathogen of **beech (*Fagus spp.*)** in Europe. It has also been reported on **hornbeam (*Carpinus betulus*)** in heavily infested areas.
- Infected hosts develop **brown, irregular necrotic leaf spots with sharp, dark borders** which are **around 1-50 mm** in diameter and may merge in heavy infestations (**Figures 1 and 2**). These spots are found mainly in the lower canopy and more mature lesions may have **fluffy white fungal propagules** (detachable spores) associated with the leaf spots. (**Figures 2 and 3**).
- The fungal propagules can overwinter in leaf litter and re-infect the tree or spread to other nearby hosts during the next season.
- As the pathogen's main hosts are species of **beech**, the pathogen is likely to be a pest of **woodlands or hedging plants**. The disease is relatively slow-spreading and unlikely to result in the death of mature trees. However, the disease reduces tree health and visual appeal, especially in newly planted trees.
- The pathogen was thought to be native to Japan but new research has determined ***Petrakia liobae*** is a new and separate species from the Japanese species (*Petrakia fagi*). This pathogen, ***P. liobae***, was discovered in **Switzerland** in 2008 and has subsequently been found in **Austria, Germany, Slovakia and Slovenia**.
- The most likely pathway for this pathogen to enter the UK is on **imported nursery trees and hedging from Europe**.

If you suspect the presence of the pest, please inform the relevant authority (see over for details).

For finds at garden centres, plant nurseries or private gardens in England and Wales, contact your local APHA Plant Health and Seeds Inspector, or the PHSI headquarters, in York:

Tel: 0300 1000 313 (please select option 3 when calling)

Email: planthealth.info@apha.gov.uk

Web: <https://www.gov.uk/plant-health-controls>

For Scotland, contact the Scottish Government's Horticulture and Marketing Unit:

Email: hort.marketing@gov.scot

Web: <http://www.gov.scot/Topics/farmingrural/Agriculture/plant/PlantHealth>

For Northern Ireland, contact DAERA Plant Health Inspection Branch:

Tel: 0300 200 7847

Email: planthealth@daera-ni.gov.uk

Web: www.daera-ni.gov.uk

For finds in the wider environment:

<https://treealert.forestresearch.gov.uk/>