

Ash Dieback Disease Survey Report 2017 – 2024

Report by Cambridge City Council's Tree Team November 2024

National context

Ash Dieback Disease, caused by the fungus *Hymenoscyphus fraxineus*, is a serious disease affecting ash trees in the UK. It was first detected in the UK in 2012 and has since spread widely. The disease can affect ash trees of all ages, leading to leaf loss, crown dieback, and lesions on the bark. It is predicted that ash dieback could kill up to 80% of the UK's ash trees, significantly impacting the landscape and biodiversity.

National efforts are ongoing to manage the disease, including monitoring and removing infected trees, and researching resistant ash varieties. The disease poses a substantial threat to both forest ecosystems and urban environments where ash trees are common.

Ash in Cambridge

Ash trees have been estimated to make up around 22% of the total number of trees in Cambridge¹. Ash Dieback Disease has been officially recorded as being present in the Cambridge area since 2014.

In 2024 we had around 1500 individual ash recorded on our tree management database (excluding groups & woodlands) growing in our parks, highways, and communal housing areas.

Survey methodology

A randomised sample of ninety-nine trees was taken from the Council's managed population in 2017 and surveyed in September of that year. The aim of the survey is not to identify Ash Dieback Disease but to monitor ash condition as indicative of the spread and effect of the disease.

Follow-up surveys have been undertaken annually except in 2020 and 2021. Each survey measures the amount of regrowth, deadwood, and defoliation, present in each tree. The sample results are presented below.

¹ <https://www.cambridge.gov.uk/media/3257/analysis-and-interpretation-of-tree-audit-data.pdf>

Survey results 2017 - 2024

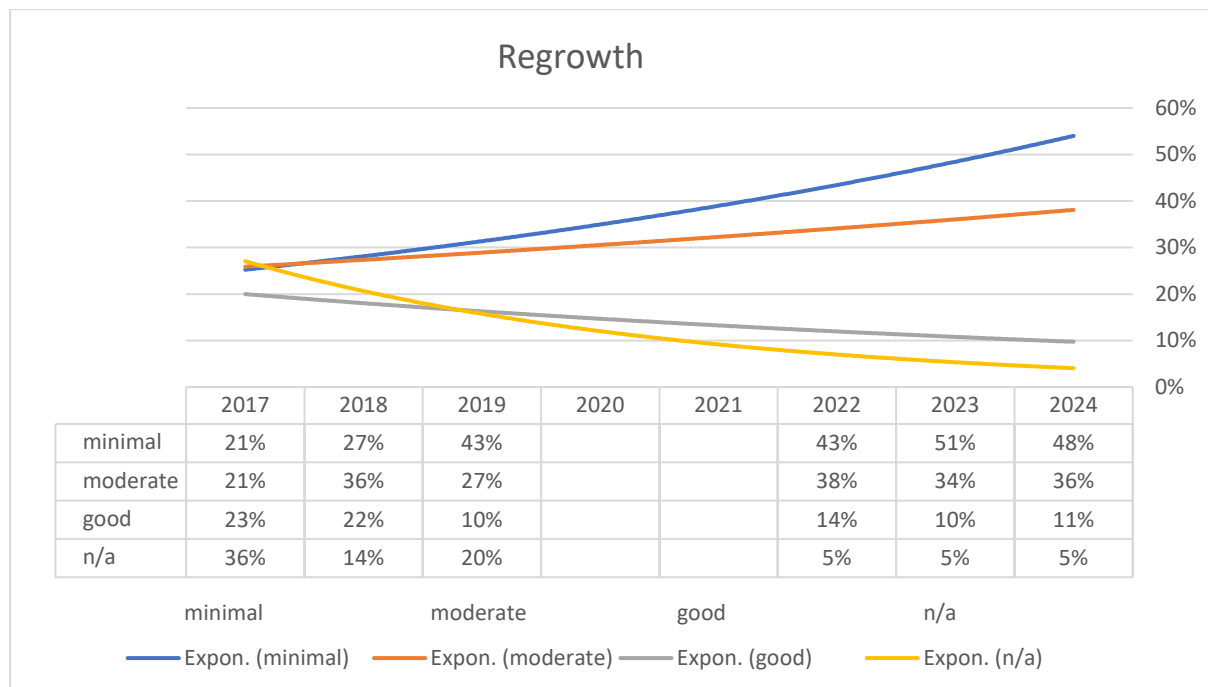


Figure 1 Regrowth

Ash Dieback Disease kills live foliage; some trees can respond by producing new growth (regrowth). The proportion of regrowth and its density can indicate both spread and resilience to the disease.

The chart indicates an increase in the 'minimal' and 'moderate' categories and decrease in the 'not applicable (n/a)' category that can be explained by an increase disease infection.

Decreases in the 'good' category indicates low resilience to the disease over time.

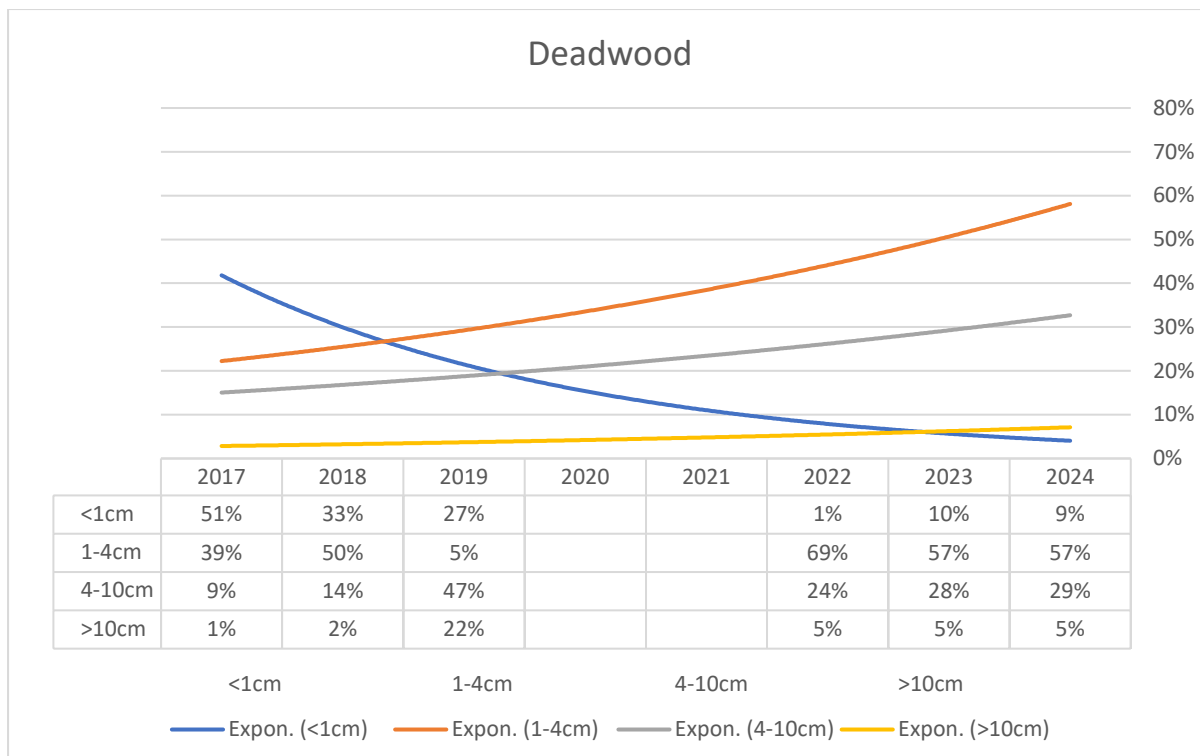


Figure 2 *Deadwood*

Ash Dieback Disease kills whole branches (deadwood). The proportion of trees affected, and the size of deadwood can indicate both spread and resilience to the disease.

The chart indicates that deadwood has both increased in the number of trees affected and its severity. The smallest diameter deadwood categories have decrease while the larger categories have increased.

This can be explained by increasing infection and severity of infection.

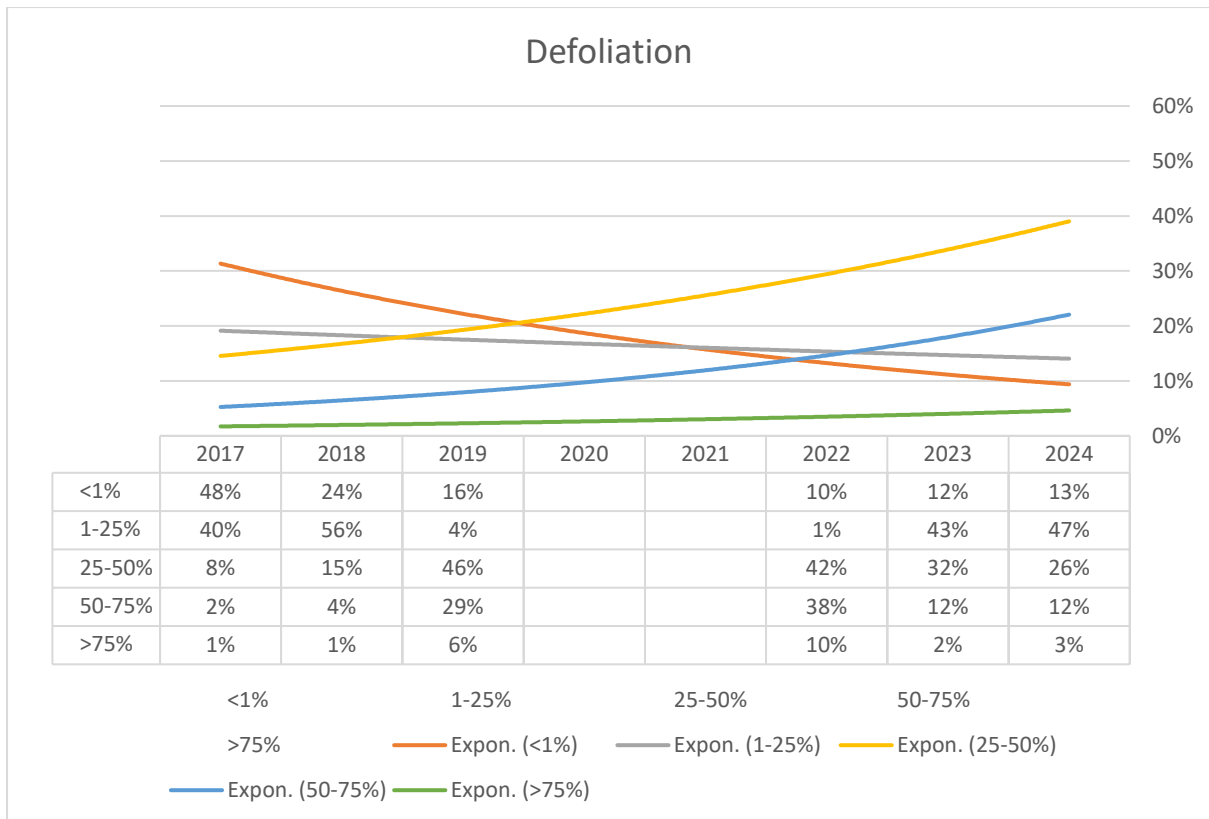


Figure 3 Defoliation

Ash Dieback Disease causes foliage to die (defoliation). The proportion of trees affected, and the density of defoliation can indicate both spread and resilience to the disease.

The chart indicates that defoliation has overall increased over time in the number of trees affected and its severity. There is a decline in smallest defoliation categories and a rise in the higher defoliation categories.

This can be explained by increasing infection and severity of infection.

Mortality

Since the survey began six trees have been removed from the survey, of these two have been confirmed to have died.

Survey conclusion

The survey would indicate a steady decline in the health of the sample and by extension the city's ash population.

Tree Officer observations would support Ash Dieback as the principal cause, although definitive identification of the disease requires specialist mycological expertise.

Our response

The Tree Team is working with Anglia Ruskin University to map the spread of all ash in the city with a view to developing an Ash Action Plan.

Our approach follows Forest Commission guideline to not fell once Ash Dieback is expected but to leave in situ and monitor in line with current survey protocol. The expected increase of standing and fallen deadwood in the City has the potential to support specialist biodiversity, including invertebrates, fungi and birds, and therefore will be retained where safe and practical to do so.

The Tree Team is experimenting with planting new elm cultivar that are Dutch Elm Disease resilient as a potential replacement for ash where a large, long-lived specimen is required.

The Tree Team is encouraging species diversity to reinforce urban forest resilience to the adverse impacts of existing and new pests and disease.

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