

Position statement

# Adapting to ash dieback

The Woodland Trust's view

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WOODLAND  
TRUST



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- Ash dieback, caused by the non-native invasive fungus *Hymenoscyphus fraxineus*, presents a major threat to the UK's treescape on a scale not seen since the Dutch elm disease epidemic of the 1970s.
  - Ash is the third most common native tree in the UK, occurring in both woodland and the wider landscape.
  - Ash dieback is now found throughout the UK. Eradication of the disease is not possible, therefore our challenge is to focus on retaining (in a cost-effective and safe way) the nature conservation value of ash and its associated habitats and species, as well as adapting to an environment where ash forms a much reduced component of our landscape.
  - The latest evidence suggests that at least 80% of the UK's ash will succumb to the disease, impacting both people and wildlife. The economic cost to society is projected to run into the billions and it is likely to take decades to recover to an as yet unknown state<sup>i</sup>.
  - Over 1000 native wildlife species use or rely on ash in some way, at least 45 of which depend entirely on it for their survival. Some species are expected to become locally rare or even extinct as a result of the loss of ash<sup>ii</sup>.
  - While some other native tree species may be able to provide suitable habitat for a proportion of the species associated with ash, generally, non-native tree species will not support ash-associated wildlife. We also know that ash provides unique ecological functions within woods and landscapes. No other single tree species can match the ecological traits and functions of ash<sup>iii</sup>; ash lies at the extreme end of a range for its leaf litter composition, fast nutrient cycling properties and its light penetrable canopy.
  - Ash trees growing in 'ideal' conditions – enough space and light, and in soil that is not too wet or too dry – appear to have greater tolerance to ash dieback in some situations.
- It is imperative that ash dieback-tolerant trees are identified and retained and that conditions are created to enable the seed from these trees to naturally regenerate. We recognise that some landowners will want to release the timber value of ash trees, but we would encourage the retention of as many ash trees as possible, as well as any natural regeneration of ash seedlings and saplings. This will provide high conservation benefits<sup>iv</sup>.
  - The loss of ash from woods may present an opportunity to 'restructure' woodland, allowing a range of other native tree species to benefit where natural regeneration is enabled. In addition, dead and decaying wood is an important habitat in itself, so the increase will provide benefits for many species.
  - We acknowledge that in some situations public safety issues will dictate the felling of potentially tolerant trees, but pre-emptive felling of ash trees should be avoided wherever possible.
  - Non-woodland trees, especially along roadsides and other publicly accessible places, are particularly vulnerable to removal for legitimate public safety reasons. Replacement of such felled trees with appropriate alternative species is the best way to ensure continuity of the provision of ecosystem services and ecological connectivity.
  - The potential scale of loss of ash in woods and in the wider landscape outweighs current woodland creation and tree planting rates, highlighting the urgent need for policies and incentives that encourage both tree planting and natural regeneration of trees of high ecological and conservation value.

## The Trust will:

- Use only UK sourced and grown (UKSG) trees, excluding ash, for both planting on our estate and when working with partners and other landowners. This is to ensure that the risk of introducing a new disease or pest is minimised.

Ash dieback at Pound Farm, Suffolk.



- Work with partners and volunteer Citizen Scientists involved in Observatree<sup>v</sup> to explore how best to support the search for tolerant ash trees.
- Support appropriate research programmes to ensure that the evidence that informs our and others' decisions is accurate and up to date.
- Manage our estate to retain tolerant ash trees where possible, while addressing our obligations to public and contractor safety.
- Promote natural regeneration of woods wherever this is feasible, to give nature space and time to recover from ash dieback through strengthening local adaptations and resistance of a wide range of native tree and shrub species<sup>vi</sup>.
- Encourage ash losses to be replaced with other suitable tree and shrub species, depending on a site's landscape context and specific objectives. Achieving a mix of suitable species is important to compensate for the loss of ash and the ecological and conservation benefits it provides to a range of flora and fauna. Suitable species to encourage or plant could include, for example: oak, rowan, beech, sycamore, hazel, birch, alder, aspen, hawthorn, field maple and lime.
- Speak out to prevent pre-emptive loss of ash trees from the landscape, but also be clear why in some cases we would not oppose felling where public safety is paramount.
- Work to influence national government departments, agencies and local authorities to ensure that:
  - Biosecurity legislation, policies and funding are substantially improved, to help prevent future pests and diseases entering the UK
  - Public bodies such as Highways England and the Environment Agency specify for plants grown within a biosecurity assurance scheme
  - Legislation and policy change results in a resilient tree landscape which can respond to, and recover from, introduced pests and diseases while continuing to provide high quality natural and semi-natural habitats for people and wildlife
  - There is an obligation to replace trees that might be removed because they are diseased, and that there is a financial incentive to do so. This is currently not the case under existing felling licence regulations.
  - Ensure that land managers and those responsible for trees across our countryside (including urban, field and hedgerow trees) are guided, supported and sufficiently regulated to ensure that conservation, health & safety and access objectives are balanced and follow best practice.

## Acknowledgements

<sup>i</sup> Hill, Louise, et al. "The £15 billion cost of ash dieback in Britain." *Current Biology* (2019). In Press

<sup>ii</sup> Mitchell, R. J., et al. "Ash dieback in the UK: a review of the ecological and conservation implications and potential management options." *Biological Conservation* 175 (2014): 95-109.

<sup>iii</sup> Mitchell, Ruth, Broome, Alice, and Harmer, Ralph. "The Ecological and Conservation Implications of Ash Dieback (Chalara) and Methods to Mitigate Impacts." *Managing the Impact of Animal and Plant Diseases on Biodiversity* (2016): 27.

## Background

Ash dieback (aka *Chalara*) is a fungal disease caused by the fungus *Hymenoscyphus fraxineus*. It kills ash trees by blocking the water transport systems in the tree, leading to leaf loss, lesions in the wood and dieback of the crown of the tree. It is expected to affect the vast majority of the ash trees across Britain and therefore it will have devastating impacts on the landscape and ecological diversity of woodland in the UK, as well as a loss of connectivity as hedges and individual trees outside woods are lost.

A genetic tolerance to disease was identified in early research but the intricacies of disease tolerance seem to be more complicated than initially thought, with site factors and inoculum levels being just as important as genetic traits. In addition, infected trees are more vulnerable to secondary pests and diseases such as *Armillaria* species (honey fungus). Sadly, a genetic tolerance to ash dieback doesn't help the tree fight off other organisms.

Ash dieback has had the greatest landscape impact so far in south east England. However, we are still at the beginning of the epidemic so the true impact will take many years to become apparent and we must take care not to miss the subtle changes that are being brought about by this disease. The impacts are also likely to vary across the country because the disease is affected by local environmental conditions.

## Managing ash for conservation

When faced with the impact of ash dieback, a landowner could be forgiven for thinking that the best way to manage the problem is to remove all of the ash trees as soon as possible. However, during an epidemic there will be a proportion of trees that will survive, and it is these trees that go on to build a tolerant future ash population. In addition, more trees will survive once the initial disease phase has moved through and the inoculum levels drop off, eventually leading to a balance between the fungus and host. Therefore, leaving as many symptomatic and asymptomatic ash trees as possible in the landscape will lead to greater future resilience to this disease. In addition, both standing and recumbent dead and decaying wood provides a very important conservation function in a wood and is extremely important for many species.

This position statement and the technical advice note are under constant review in order to adapt to new scientific evidence as it comes to light.

<sup>iv</sup> Skovsgaard, Jens Peter, et al. "Silvicultural strategies for Fraxinus excelsior in response to dieback caused by Hymenoscyphus fraxineus." *Forestry: An International Journal of Forest Research* 90.4 (2017): 455-472.  
<sup>v</sup> <https://www.observatree.org.uk/>

<sup>vi</sup> Whittet, R., Cavers, S., Ennos, R. and Cottrell J. (2019). Genetic considerations for provenance choice of native trees under climate change in England. *Forestry Commission Research Report*, Forestry Commission, Edinburgh. i-viii + 1-44 pp