

# SMARTIES

## SURVEILLANCE AND MANAGEMENT OF MULTIPLE RISKS TO TREESCAPES: INTEGRATING EPIDEMIOLOGY AND STAKEHOLDER BEHAVIOUR

SMARTIES is a collaborative research project seeking to understand how the behaviours of managers of forests and other treescapes influence and are influenced by the invasion and spread of tree pests and diseases. We are focussing on two threats which impact on ash trees, one of the most common and valued tree species in the UK. **Ash dieback** has caused damage and loss to a high proportion of ash trees since its arrival in the UK in 2012. The second focus pest, **emerald ash borer**, is not currently known to be present in the UK but has spread significantly westwards from Moscow and has recently been discovered in Ukraine. The beetle can travel via different pathways such as the transportation of firewood, in the plant trade, and potentially on vehicles. In the US, where emerald ash borer is an introduced species, it has caused the loss of hundreds of millions of trees. It is believed that if it arrives in the UK, it will pose a significant threat to our remaining ash trees due to their weakened state from ash dieback (potentially including those that are resistant). By focussing on areas where ash dieback has had a high impact in the UK (Kent and Suffolk), we can explore the possible impacts and responses to the potential arrival of emerald ash borer.

The research is composed of three work packages:

**Work package 1:** Development of an epidemiological model on the current range of ash dieback, the future potential spread of emerald ash borer and the interaction between the two.

**Work package 2:** Development of a model of behaviours and acceptability of surveillance and different management options as a response to ash dieback and emerald ash borer.

**Work package 3:** Linking the two models. Ultimately, **the project aims to unpack what leads to successful surveillance and management of multiple tree health threats.**

Survey, interviews, workshops and social media

**WE ARE SEEKING LAND MANAGERS AND BUSINESSES** to participate in this research. We are looking to gather evidence relating to the importance of ash, experiences of ash dieback, knowledge and awareness of emerald ash borer and what role people can play in prevention, surveillance and management of tree pests and diseases. For more information please contact [Berglind Karlsdóttir](#)



Website: [AshTreescapes](#) | Twitter: [@AshTreescapes](#) | Lead researcher: [Alice Milne](#)