

Can wasps help save Britain's conker trees?

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Damaged leaf, showing white leaf mines. Image by Rich Andrews

Wasps, regarded by many as a pest, could be the salvation of Britain's imperilled conker trees currently under threat by an 'alien' species of moth that is rapidly spreading damage across the country's horse chestnut trees.

Academics from the Universities of Hull and Bristol, who have teamed up with thousands of schoolchildren across the country as part of a national Conker Tree Science project, are now asking for the public's help to see how successful [wasps](#) are at attacking the moths.

The 'horse chestnut leaf miner', an 'alien' (non-native) moth, has caterpillars which live inside the leaves, forming distinctive patches of damage called 'leaf mines'. Up to 700 leaf mines have been recorded on a single leaf and the damage caused by large numbers of larvae can be striking. Severely damaged leaves shrivel and turn brown by mid

summer and fall early, well before the autumn, giving the impression that the tree is dead.

Although the moths do not kill the trees directly it appears that they weaken the trees, which then produce smaller conkers and may become more susceptible to lethal diseases.

The team have discovered that tiny parasitic wasps, related to the familiar large, striped wasps, act as natural pest controllers against the moths. No one knows how successful these wasps are at keeping moth numbers down so Dr Darren Evans and Dr Michael Pocock are inviting members of the public to take part in a national [web-based experiment](#) to look at the rate of attack as well as monitoring the rate of spread of this ‘alien’ insect.

Dr Darren Evans from the University of Hull explains: “We are essentially asking schoolchildren and members of the public to be our ‘lab assistants’. Parasitic wasps are vital pest controllers not only against these ‘alien’ [moths](#) attacking conker trees, but also for garden and farm [insect pests](#).”

“Any [alien species](#) is a major threat to biodiversity because all organisms live in relation to each other and once an imbalance occurs, the whole system could begin to unravel. The ‘horse chestnut leaf miner’ is just one example of how destructive an alien species can be.”

Dr Michael Pocock from the University of Bristol, added: “We need more help to fully understand how important these wasps are, and so we are asking any member of the public to get involved - all you need is a conker tree with the ‘alien’ leaf-mining moth. Pick a leaf this week, put it in a plastic bag and see what insects come out in two weeks time. It’s an easy, but important way to add to scientific knowledge.”

Provided by University of Bristol

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