

Asian longhorn beetle

The Asian longhorn beetle, a native to China and southeast Asia, is an invasive pest of trees in Britain. The larvae of the beetle feed on the wood of a wide range of broadleaved trees, which causes damage and will ultimately kill affected trees. The beetle has caused extensive damage to trees where it has been accidentally introduced in recent years – for example in the USA and Italy. Until recently the only evidence of the beetle in Britain was within imported wood packaging intercepted by Plant Health inspectors. However, a breeding population was found in Kent in 2012 – most likely introduced via wooden crates containing imported stone. The beetle is subject to regulation and movement controls are in place; it is important that all suspected sightings are reported.



The threat to trees in Britain

The Asian longhorn beetle can travel hidden in imports of untreated wood and wood packaging material. If undetected at the point of import, the beetle could easily be transported to any destination in Britain. If it is able to colonise nearby trees and woodlands and establish itself it will cause extensive damage to both urban and forest trees. It is known to be able to survive British conditions as a breeding population – the first to be confirmed in Britain – was found in March 2012 near Maidstone in Kent. It is thought that most of England and Wales and some warmer coastal areas of southwest Scotland are suitable for beetle establishment.

Asian longhorn beetles prefer broadleaved trees such as maple (including sycamore), elm, willow, horse chestnut, birch and poplar. However, alder, ash, beech, plane, prunus species (including cherry), apple and pear are also potential hosts.

Pest status and controls

The Asian longhorn beetle is regulated under the European Plant Health Directive and the Plant Health (Forestry) Order 2005. The introduction and spread of the pest is banned in Great Britain and the EU, and the movement of plants, logs and wood from infested areas is subject to statutory controls.

What to look out for

Adult Asian longhorn beetles are large (roughly 20–40 mm long), shiny, with black and white markings. The beetles have very long, distinctive antennae (up to twice their body length) that have black and white or light blue bands (❶).

Adult beetles usually emerge from host trees between May and August. Obvious signs of activity are circular 'exit' holes, around 10 mm in diameter, which are found in the main trunk (❷) or branches. There will often be shredded wood or sawdust associated with the exit holes (this may be piled on branches below or on the ground at the base of the tree).

The distinctive adult Asian longhorn beetle (*Anoplophora glabripennis*).



Adult beetles remain on or near their emergence tree and engage in maturation feeding on leaves, petioles, and tender bark. Signs of late-stage feeding are broken and dead branches, dead tops or completely dead trees. Adult beetles, which can live for up to 30 days, develop through their full life cycle in either one or two years – depending on location and climate.

Eggs

Females lay around 30 eggs in cuts chewed into the bark, often where branches join the trunk. This can cause sap bleeding. Eggs hatch after 7–17 days in June/July (during a one-year cycle) or in September/October (during a two-year cycle).

Larvae

Newly hatched larvae begin feeding under the bark. As they grow they bore down into the wood where they continue to feed until they are fully grown (3). Damage to the wood increases as the larvae grow; galleries within the heartwood may be up to 10 mm in diameter and several cm long.

Pupae

The larvae moult to a pupal stage when they are fully mature. This usually takes place in spring within a well-defined chamber packed at one end with distinctive wood 'shavings' (4).

Larvae are up to 50 mm long and may be present at any time of year.



Courtesy of Bugwood.org

Round 'exit' holes of around 10 mm are found in trunks and branches.



A beetle pupa in a chamber with its distinctive pile of shredded wood.



Courtesy of Bugwood.org

How you can help

There is a legal obligation (under the Plant Health (Forestry) Order 2005) to report the beetle or suspicious signs of the beetle.

- If you find a beetle or evidence of beetle activity, you should report it to one of the contacts below.
- If you are an importer, you should thoroughly inspect wood and wood packaging coming from China or southeast Asia.
- You can also visit www.forestry.gov.uk/biosecurity for advice on good biosecurity working practices.

Who to contact

Please report sightings or evidence of beetle activity to:

- **Forestry Commission Plant Health Service**
T: 0131 314 6214; E: plant.health@forestry.gsi.gov.uk
- **Fera Plant Health and Seeds Inspectorate**
T: 01904 462000; E: planthealth.info@fera.gsi.gov.uk

For more information

For more information on Asian longhorn beetle and other tree pests and diseases, visit:

- www.forestry.gov.uk/asianlonghornbeetle
- www.forestry.gov.uk/pestsanddiseases
- www.forestry.gov.uk/forestresearch
- www.defra.gov.uk/fera/plants/planthealth