Note: There are a large number of *Agrilus* species found in Europe and the adults of many species are morphologically similar. Therefore, they should be identified by a specialist.

### Agrilus beetle pests

#### Birch bark borer

*(Agrilus anxius)*

**Introduction**

Bronze birch borer is a specialist wood-boring beetle pest of birch trees, native to North America. It mainly attacks trees weakened by drought, old age, defoliation, or soil compaction, although it can also attack healthy trees. It poses a threat to birch trees in Europe and is regulated in the UK and EU.

**Hosts**

All species of birch (*Betula* spp.) are susceptible, including species native to the UK.

**Biology/description**

The life cycle takes one or two years to complete. Each female can lay up to 75 eggs, singly or in clusters in bark crevices. The larvae feed on the inner bark and cambium (the first layer of tissue under the bark), forming sinuous larval galleries. This restricts or blocks the movement of water and nutrients through the plant, with serious consequences, including death for some hosts plants.

**Symptoms**

Adult beetles are small, slender, elongate, metallic copper-coloured, and 7-12 mm long. The beetles initially attack the upper crown, causing leaf yellowing in summer, and branch dieback. Rust-coloured sap oozing, and staining, can also appear on the outer bark, along with swellings and bumps where the tree has healed inside. Small ‘D’-shaped adult emergence holes (3-5 mm wide) may be observed in the bark.

See accompanying *Agrilus* beetles pest poster via the QR code at the top.

**More information and how to report**

[https://gd.eppo.int/taxon/AGRLAX](https://gd.eppo.int/taxon/AGRLAX)

**Two-lined chestnut borer**  
*(Agrilus bilineatus)*

**Introduction**

Two-lined chestnut borer is a specialist wood-boring beetle pest of sweet chestnut and oak trees, native to North America. It causes high mortality in already weakened and stressed trees in eastern North America. It has been found in Turkey since 2002.

**Hosts**

It infests American sweet chestnut (*Castanea dentata*), and numerous species of oak, including the UK’s native English or pedunculate oak (*Quercus robur*).

**Biology/description**

The life cycle takes one or two years to complete. Adult females lay eggs singly or in clusters of up to 10 eggs in bark crevices. The larvae feed on the inner bark and cambium (the first layer of tissue under the bark), forming sinuous larval galleries. This restricts or blocks the movement of water and nutrients through the plant, with serious consequences, including death for weakened and stressed host plants.

**Symptoms**

Adult beetles are small, slender, elongate, black, with a light, yellowish stripe on each wing cover, and 6-12 mm long. Winding ‘mines’ or galleries excavated by the larvae in the inner bark and outer sapwood of the main trunk and large branches are visible after peeling off the bark. Attacks usually begin in the upper tree canopy and extend downwards as the tree progressively weakens. Small ‘D’-shaped adult emergence holes may be observed in the bark. Epicormic shoots (foliage sprouting from the trunk and base) may develop.

See accompanying *Agrilus* beetles pest poster via the QR code at the top.

**More information and how to report**

https://gd.eppo.int/taxon/AGRLBL  
Two-spotted oak buprestid  
(*Agrilus biguttatus*)

**Introduction**

Two-spotted oak buprestid is a specialist wood-boring beetle native to the UK and Europe, that feeds mostly on oak (*Quercus* spp.). In sufficient numbers, feeding activity by its larvae can weaken trees, and there is also concern about its possible role in acute oak decline, a serious and often fatal condition of oak trees. It appears to be becoming more abundant in the UK.

**Hosts**

It primarily infests numerous species of oak, including the UK’s native English or pedunculate oak (*Quercus robur*). It has also been found on European beech (*Fagus sylvatica*) and European sweet chestnut (*Castanea sativa*). It prefers mature oak trees with trunks greater than 30cm in diameter, and which are weakened, damaged or stressed.

**Biology/description**

The life cycle takes two years to complete. Adult females lay eggs in bark crevices. The larvae feed on the inner bark and cambium (the first layer of tissue under the bark), forming sinuous larval galleries. This restricts or blocks the movement of water and nutrients through the plant, impairing the health of the host.

**Symptoms**

Adult beetles are small, slender, elongate, iridescent green/blue or bronzy/green, with two distinctive white spots on the wing-cases, and 10-13 mm long. Zig-zag ‘mines’ or galleries excavated by the larvae in the inner bark and outer sapwood of the main trunk are visible after peeling off the bark. Small ‘D’-shaped adult emergence holes may be observed in the bark.

See accompanying *Agrilus* beetles pest poster via the QR code at the top.

**More information and how to report**

https://gd.eppo.int/taxon/AGRLBG  
Introduction

*Agrilus convexicollis* has no common name but belongs to a large family of beetles called Jewel beetles. It is native to Europe and widespread on the continent but not present in the UK. It feeds on dead and dying ash trees.

Hosts

It primarily infests numerous species of ash, including the UK’s native European ash (*Fraxinus excelsior*).

Biology/description

The life cycle is poorly known but it is likely to be similar to the other *Agrilus* species reported on this poster.

Symptoms

Adult beetles are very small, slender, elongate, iridescent brown, and 3.5-5.0 mm long. Symptoms will be similar to the other *Agrilus* species: ‘mines’ or galleries in the inner bark and outer sapwood; small ‘D’-shaped adult emergence holes in the bark.

See accompanying *Agrilus* beetles pest poster via the QR code at the top.

More information and how to report

https://gd.eppo.int/taxon/AGRLCV
**Emerald ash borer**
(*Agrilus planipennis*)

**Introduction**

Emerald ash borer is a specialist wood-boring beetle pest of ash trees, native to East Asia. It was introduced to North America where it has killed tens of millions of ash trees. It has also been introduced to Russia and is spreading west and south from Moscow. It poses a serious threat to ash trees in Europe which have already been affected by Chalara ash dieback and is regulated in the UK and EU.

**Hosts**

It infests several North American, Asian, and European species of ash, including common ash (*Fraxinus excelsior*).

**Biology/description**

The life cycle takes one or two years to complete. Each female can lay up to 90 eggs, singly or in clusters in bark crevices. The larvae feed on the inner bark and cambium (the first layer of tissue under the bark), forming sinuous larval galleries. This restricts or blocks the movement of water and nutrients through the plant, with serious consequences, including death for some host plants.

**Symptoms**

Adult beetles are small, slender, elongate, metallic emerald green, and 7.5-13 mm long. It causes leaf yellowing and thinning in summer, and branch dieback. Longitudinal fissures between 5-10 mm long may form in the bark. Small ‘D’-shaped adult emergence holes (3 mm wide) may be observed in the bark. Epicormic shoots (foliage sprouting from the trunk and base) may develop.

See accompanying *Agrilus* beetles pest poster via the QR code at the top.

**More information and how to report**

https://gd.eppo.int/taxon/AGRLPL

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