

Bronze birch borer



Thérèse Arcand
Pupa in its cell



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Winding tunnel on the wood surface

Taxonomy

Latin name: *Agrilus anxius* Gory

English name: Bronze birch borer

French name: Agrile du bouleau

Order: Coleoptera

Family: Buprestidae

Description

Main host(s)

Gray birch, white birch, yellow birch

Damage, symptoms and biology

The presence of bronze birch borers is characterized by the following signs: a thinning crown, discoloration of the foliage and premature leaf drop, branch dieback in the crown, winding galleries between the bark and the wood, usually filled with packed, digested sawdust-like borings, raised welts on the bark of branches and trunk of the tree, sap flows on the trunk near larval tunnel entry holes and D-shaped adult emergence holes on the branches and trunk.

Damage generally begins near the upper part of the crown on branches measuring

approximately 20 mm in diameter. The branches dry out just above the affected site and die the year after the initial evidence of attack is detected. From one year to the next, the damage progresses towards the trunk, resulting in tree mortality.

In the northern part of its range, the life cycle of the insect generally spans two years, including two winter periods, while in the south, the life cycle lasts only one year. The adults emerge in early June and are visible until early August. They live for three weeks and feed on birch foliage. They deposit their eggs in bark crevices, preferring unshaded parts of the trees.

Newly hatched larvae bore through the bark into the cambium and excavate zigzag galleries, which disrupt the flow of sap. Immature larvae spend their first winter in a gallery constructed deep into the wood and, the following spring, resume their development closer to the surface. Mature larvae construct pupal cells in the wood just beneath the bark in which they overwinter and pupate in the fall or following spring.

Life Cycle (East of the Rockies)

Stage	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
Egg												
Larva												
Pupa												
Adult												

Comments

Native to North America, the bronze birch borer is a major pest of all species of birch. It occurs throughout the range of birch in Canada and in all U.S. states between Maine and Idaho. The insect generally attacks weakened or injured trees, with a preference for very exposed trees. It therefore prefers trees in urban areas, sparse stands or harvest areas.

Control measures exist to protect ornamental trees from bronze birch borer attack. In urban environments, preventive measures include keeping the trees healthy and vigorous by spraying them during dry spells and fertilizing them as required; avoiding transplant shock; not planting trees in already infested areas; and growing varieties or species less vulnerable to insect attack and more adapted to our climate.

It is also recommended that dead or dying branches be cut out and incinerated and even that dead trees be destroyed before the emergence of the adults in the spring to limit the spread of the insect.