

FACT SHEET : WOOD BORING BEETLES



Informational publication series brought to you by the staff of Metropolitan Forestry Services, Inc.

These insects are beetles that feed under the bark of various trees and bore into wood. Borer infestations often go unnoticed until plants or parts of plants begin to die or show external signs of damage. Wood-boring insects often produce sawdust-like frass (*excrement*) which can be found outside of exit holes in the trees. These holes are normally round, oval or semicircular and often found in random patterns on the trees trunk.

Borers damage plants by tunneling through the inner bark layer (*cambium*) and sapwood that transports nutrients and water from the roots to the leaves. When the cambium layer is completely girdled the plant eventually dies above or beyond the damage site. Partial girdling reduces plant growth and vigor above the site of attack, stressing the tree and making it more susceptible to other problems. In many instances the galleries that these insects carve out of the wood compromises the trees structural integrity causing limbs and branches to fail.

There are several important groups of concern: the Metallic wood-boring beetles (or flat-headed borers) & Long-horned beetles (or round-headed borers). Within each of these two groups there are many species of beetles and many are host specific, or favor specific trees over others.

Metallic wood-boring beetles (or flat-headed borers): Often known as Jewel Beetles because of their shiny colorful shells, several of these beetles were once worn as ornaments in several areas of the world. Adult beetles are flattened, hard-bodied and boat or almond-shaped with short antennae. These beetles have distinctive metallic colors (green, blue, bronze, copper). Larvae are cream-colored and legless with widened, flattened body segments just behind the heads. Larvae tunnel beneath bark or into the sapwood leaving oval or flattened tunnels (galleries) in cross section.

Long-horned beetles (or round-headed borers): Adults are called long-horned beetles because their antennae are occasionally longer than their bodies. Larvae tunnel underneath bark and into the heartwood. The tunnels are oval to almost round in cross section because of the round shape of the larvae. Larvae of some species are legless, but most have three pairs of small legs on the first three segments behind the head capsule.

Treatment: Currently MFS has several methods to treat for borer infestation. **They are spot-treated on an individually needed and prescribed basis.** For the most part borers are not predominantly leaf feeding insects and

therefore are not effectively controlled by basic insect control treatments. When Borers are seen on trees we spot spray with appropriate products. When we look for longer term control, or preventative control, we use systemic injections which become absorbed into the tree's vascular tissue directly where the borers feed.



Left: Several examples of Metallic wood boring beetles.
Photo taken by Michael Garrett.