

The Boogie-Woogie Aphid and Other Beech Pests

By Susan Camp

Peninsula Tree Steward Coordinator Carol King sent an email last week with two interesting photos of a species of aphid that attacks beech trees. The photos were taken by Connie Motley, a James City County Master Gardener, Peninsula Tree Steward, and Historic Rivers Master Naturalist, of the aphid infestation on a beech tree on her property.

The majestic American beech (*Fagus grandifolia*) is an iconic tree of eastern North American forests, a symbol of strength and fortitude, prized for the beauty of its summer crown of dark green leaves. Unfortunately, the beech tree faces a number of insect pests and fungal diseases that cause varying degrees of damage to leaves, branches, and bark. Other species of beech, including European beech (*Fagus sylvatica*), also are affected.

Whenever we hear the word “blight” attached to a tree problem, we fear the worst, but the Beech Blight Aphid (*Grylloprociphilus imbricator*) is the least serious of the three pests discussed today.

The light bluish-gray aphids are visible on beech branches by July, and by September or October, each colony will have increased to thousands of aphids. Each aphid secretes a fluffy white wax with long filaments that cover the posterior half of the insect’s abdomen. A heavy infestation can cause branches to appear snow-covered.

Like other aphid species, this wooly aphid feeds on the sap of trees and excretes copious amounts of honeydew that covers leaves and branches, providing nutrition for the sooty mold fungus *Scorias spongiosa*, which can develop into a dark, spongy, tar-like mass.

The Beech Blight Aphid is sometimes called “the Boogie-Woogie Aphid” for its dance-like maneuver of lifting its posterior and swaying when disturbed. Thousands of dancing aphids are reported to be a comical sight, but the movements may drive away predators.

There is no scientific consensus on the gravity of the damage caused by these aphids. Leaves may become distorted by the feeding pressure of large colonies of aphids, and heavy layers of honeydew can impair photosynthesis, leading to a tree’s decline.

Beech Leaf Disease (BLD) is a more serious disease, caused by a parasitic nematode (*Litylenchus crenatae* ssp. *mccannii*) that infects beech leaves, causing dark green bands to appear between the lateral leaf veins. As cellular damage continues, leaf texture becomes leathery and crinkled. Nematode numbers increase from spring through summer with the greatest number present from early to late fall. The nematodes may move into the leaf buds and feed on the developing tissue. In time, the tree will succumb to the nematode infestation.

Yard trees with BLD can be treated with thiabendazole injection and some other chemical products. A tree that has been infected for several years may succumb to BLD despite treatment.

Beech Bark Disease (BBD) occurs as a result of infestation by an exotic beech scale insect, *Cryptococcus fagisuga*, which creates fissures in beech bark. Two *Neonectria* fungi species, *N. galligena* and *N. faginata*, invade the fissures and destroy the inner bark, causing orange cankers to form. The cankers may secrete a reddish-brown fluid, and small red cankers may appear on the bark in the fall. Fungal infection can cause girdling, leading to the tree's demise.

Both BBD and BLD pose serious threats to the American and non-native beech populations in eastern North American forests. There is currently no treatment for either disease for forestland beech trees.

See UMass Extension Landscape, Nursery, and Urban Forestry Program publication "Beech Blight Aphid," Penn State Extension publication "Beech Leaf Disease," and NC State Extension publication "Beech Bark Disease" for more detailed information on three different beech tree problems with similar names.

In case you haven't heard about Tree Stewards, we are advanced Master Gardeners who receive classroom training and hands-on experience to help educate landowners about the selection, planting, and maintenance of the trees on their property. If you have a tree that isn't thriving, you can request a home visit by Gloucester Tree Stewards by calling the Gloucester Extension Office at (804) 693-2602.