A2699

Maple petiole borer

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The maple petiole borer is an introduced species that has extended its range from the northeastern states to the Great Lakes area and the Midwest. It is commonly found in southern Wisconsin, although it generally occurs at low levels and is usually overlooked. Occasional outbreaks can appear, though, and leaf drop can be substantial. However, leaf drop rarely exceeds 25–30% of the leaves on a tree, even during peak years.

Symptoms and effects

The maple petiole borer [*Caulocampus acericaulis* (MacGillivray)] causes large numbers of leaves to drop to the ground in June, due to larval tunneling. The leaf stems (petioles) usually break off near the leaf blade and the breaking point is often darkened in color.

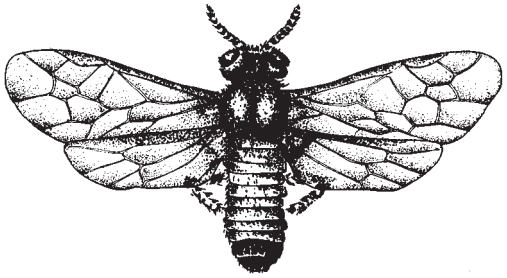
This disorder usually affects only sugar maples and often occurs very suddenly. However, only a few of the tree's leaves are actually involved, so this disorder has little effect on the health of the tree.

You can usually accurately identify an infestation of maple petiole borer in the field. The time of year that it occurs and the green coloration of the leaf blade distinguishes this disorder from drought, aphid or scale infestations, or other problems that cause some leaf drop. However, squirrels may occasionally cause leaf and twig defoliation in early or midsummer. Thus, to identify maple petiole borer damage, cut a petiole near the leaf blade and examine the interior carefully for larval tunneling.

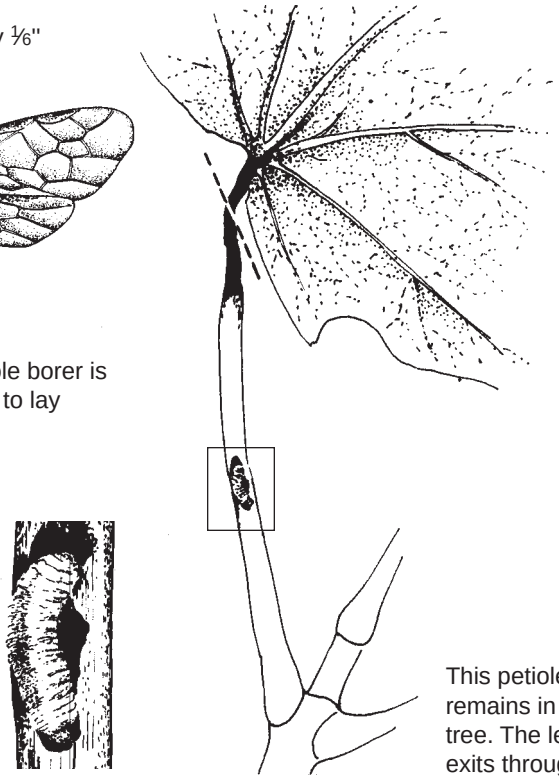
Life cycle

Adult petiole borers are sawflies that appear in May and deposit their eggs in the maple petiole near the leaf blade. After hatching, larvae tunnel into the petiole for 20–30 days. Because of this tunneling, the stem breaks off near the leaf blade and the leaf drops. Larvae remain in the portion of the petiole still on the tree for about 10 days more—larvae are about ⅓ inch long at this time. This portion then drops to the ground and the larvae move into the soil to pupate. They overwinter in the soil until the following spring.

Actual size approximately ⅙"



The adult female maple petiole borer is a sawfly and appears in May to lay



This petiole has been severed by the borer. The larva remains in the part of the petiole still attached to the tree. The leafless petiole later falls off and the larva exits through a hole in the side of the petiole.

Maple petiole borer larva.

Control

Chemical treatment is not recommended because attack by the maple petiole borer occurs infrequently and is unpredictable, and because this disorder does not significantly affect tree health and appearance. Also, damage occurs over a short period of time, and it probably is too late for effective chemical control by the time you notice the leaf drop.

However, you can reduce maple petiole borer populations the following year if you pick up and destroy infested leaf stems (especially the short sections without leaves) about 7–10 days after first leaf drop. Continue this stem cleanup throughout the leaf drop period. For such cultural controls to be effective, they must be practiced on all infested maples in the vicinity.

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