



## Viburnum Leaf Beetle

An invasive species, the viburnum leaf beetle has the potential to become a serious problem in nurseries and landscapes in Pennsylvania.

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### *Pyrrhalta viburni* (Paykull)

A leaf beetle called the "viburnum leaf beetle" is a pest that has the potential to become a serious problem in nurseries and landscapes in Pennsylvania. Adults and larvae feed on plants belonging to the genus *Viburnum*, sometimes causing their death. This species is native to Europe, but it has been detected in Canada and

more recently, in western and central New York and Maine. The viburnum leaf beetle was first detected in Erie County in 2001 in northwestern Pennsylvania. During 2008 it was found in Bradford, Centre, Clinton, Crawford, Elk, Forest, Jefferson, Luzerne, Lycoming, McKean, Mercer, Monroe, Montour, Pike, Potter, Sullivan, Susquehanna, Tioga, Venango, Warren, and Wayne Counties. Recently, this species was also identified from Indiana and Butler counties in Pennsylvania. This species is closely related to the elm leaf beetle.

## Description

Adults are 4.5 - 6.5 mm long, yellowish brown to light brown. Eggs are 0.4 mm wide, rounded, and dark yellow to brown. Mature larvae are larger than the adults

(about 6 - 9 mm long), shiny, greenish-yellow and covered with dark dots.

## Life History

This pest overwinters as eggs on host twigs. They remain on twigs until May, when they hatch. By early to mid-June, larvae drop to the ground, pupate, and remain in the soil for about ten days. Adults usually emerge during mid- to late July, and may be observed until the first frost. It takes eight to ten weeks for this species to complete development from egg to adult. Females deposit several eggs on the tips of the branches from late summer to fall. They chew holes in the bark to deposit eggs and then cover them with excrement and fragments of chewed bark and wood. Initially, there is a sharp contrast between the excrement and the pieces of wood. A female may lay up to 500 eggs. There is only one generation per year.

## Damage

This pest feeds on viburnum and seems to prefer viburnums with little hair (pubescence) on the foliage that includes *Viburnum opulus*, European cranberrybush viburnum, *V. dentatum*, arrowwood viburnum, and *V. trilobum*, American cranberrybush viburnum. This pest will also feed on *V. lantana*, wayferringtree viburnum, *V. rafinesquianum*, Rafinisque viburnum, *V. acerifolium*, mapleleaf viburnum, *V. lentago*, nannyberry viburnum, and *V. sargentii*, Sargent viburnum. Thus, many of the viburnums affected are species native to the United States.

Both larvae and adults feed on foliage between the midrib and larger veins. Feeding usually takes place on the lower leaf surface. Larvae can skeletonize young leaves by June. This is the first sign of an infestation. Emerging adults continue feeding on viburnum. Plants that have been defoliated for two or three consecutive years may die.

## Management

In late winter or early spring, carefully examine young twigs for egg sites that seem to swell and lose their covers as the air temperature increases. Prune out and destroy infested twigs before egg hatch. Monitor the lower leaf surface for the presence of larvae in late spring.

Apply registered insecticides according to label directions in the spring to manage larvae while they feed. It's best to apply these materials when larvae are small. When targeting adults, they may fly away or drop to the ground when disturbed by your effort to effectively treat infested plants.

Planting less susceptible viburnums such as *V. carlesii*, Koreanspice viburnum, *V. x burkwoodii*, Burkwood viburnum, *V. x juddii*, Judd viburnum, *V. x carlcephalum*, carlcephalum viburnum, *V. rhytidophyllum*, leatherleaf viburnum, *V. x rhytidophylloides*, lantanaphyllum viburnum, *V. plicatum*, Japanese snowball, *V. setigerum*, tea viburnum, and *V. sieboldii*, Siebold viburnum, would be one effective plant health care strategy targeting this pest.

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