



# ALERT!

# VIBURNUM LEAF BEETLE

*Pyrrhalta viburni*



APHIS/PPQ  
CCE  
NYS - DEC,  
DOT, DPW,  
DOH, DEP  
PRISM

invasive species

**Viburnum Leaf Beetle**, was first discovered in North America in 1947 in the Niagara Peninsula of Ontario, Canada and first established in New York State in northern Cayuga County in 1996. The first positive specimen in NY was caught at Fair Haven Beach State Park in July on a native arrowwood planting found to be heavily damaged by larval feeding. Many of these shrubs were totally defoliated and only wisps of leaves remained on the branches. The native range of **VLB** includes most of Europe and Asia. In North America, this exotic leaf beetle is known to inhabit Ontario, the Canadian Maritime Provinces and portions of Maine and New York State.



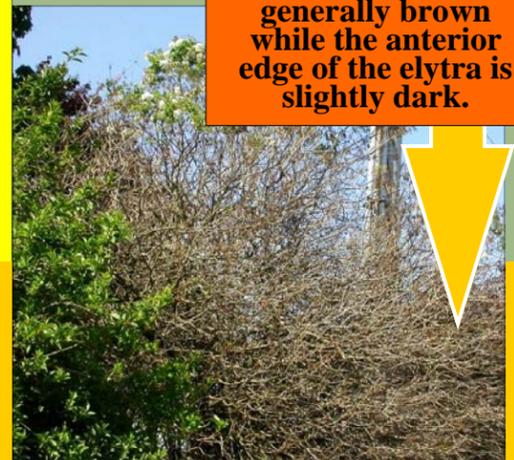
ADULT

## IDENTIFICATION

The beetle is extremely difficult to see, resembling a small dark-brown blotch, about the size of the head of a large kitchen matchstick. Both the larvae and the adult **VLB** are equally destructive to ornamental plants.



The adult **VLB** is approximately 4.5 to 6.5mm in length. The head, thorax and elytra are generally brown while the anterior edge of the elytra is slightly dark.



## DAMAGE & MANAGEMENT

**VLB** causes severe defoliation of the popular European high bush cranberry viburnum, as well as arrowwood viburnum, American high bush cranberry viburnum and maple leaf viburnum. NYS Horticulture Inspectors will survey for damage of terminal twigs with characteristic egg "caps" arranged in straight rows, skeletonized leaves in the spring and heavily chewed leaves in the summer are the typical of **VLB** infestation.

Since there is no lure or trap, detection of **VLB** depends upon the participation of the Department of Environmental Conservation (DEC) foresters, horticultural service inspectors and Cornell Cooperative Extension master gardeners. NY CAPS (Cooperative Agricultural Pest Survey) will continue to map the spread and infestation of **VLB** in New York. Pruning and destroying infested twigs after egg laying has ceased in the fall is the most effective means of control. Another practical method is that a number of pesticides may be effective in controlling this pest. Consult pesticide labels before use.

## VIBURNUM LEAF BEETLE - LIFE CYCLE

Design by: New York State Department of Agriculture & Markets

ADULT FEMALES lay eggs from late June to October or until the first killing frost. During a female's life span, she lays up to 500 eggs on viburnum twigs and small branches by excavating deep, rounded pinhead sized egg cavities in a straight row on the under surface of the terminal twigs.



After filling the egg cavity with five to eight eggs, the female closes the opening with a lid or "cap" made of excrement and chewed bark held together by a mucous secretion that hardens upon exposure. The cap not only protects the egg from predation, but also absorbs water to maintain the humidity.



**VLB** overwinters as EGGS, and requires a chilling period of approximately five months. Eggs hatch around May when leaf buds open.

**LARVAE** pass through three developmental stages attaining a length of 10 to 11mm (2/5") at maturity. Larval development is fast in the temperature range 63-72°F and levels off at 81°F.

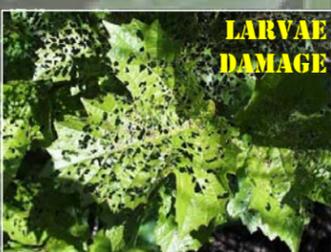


1ST INSTAR

The development period from egg hatch to adult emergence lasts eight to ten weeks.



2ND INSTAR



LARVAE DAMAGE

The matured **LARVAE** enter the soil to pupate from early to mid-June and emerge as adults in July. The pupal stage lasts for about 10 days.



3RD & 4TH INSTAR

The federal-state Cooperative Agricultural Pest Survey (CAPS) program is focused on the early detection of exotic invasive agricultural pests. State inspectors and cooperators target invasive insects, diseases and weeds considered to have a high probability for introduction and establishment in the State and the U.S. exotic invasives have the potential to seriously impede our ability to move plants and plant products domestically and abroad in addition to posing a significant risk to the environment.

New York State  
Department of  
Agriculture & Markets  
Division of Plant Industry  
10B Airline Drive  
Albany, New York 12235  
call 1-800-554-4501, Ext. 72087



Check out New York CAPS  
'NEW' website at  
[www.nyscaps.com](http://www.nyscaps.com)

*VLB* completes only one generation a year.



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The adult VLB is approximate 4.5 to 6.5mm in length. The head, thorax and elytra are generally brown while the anterior edge of the elytra is slightly dark.

The dorsal surface is covered with dense golden-grey hair. Resembles the elm leaf beetle except for minor differences in size and color.

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