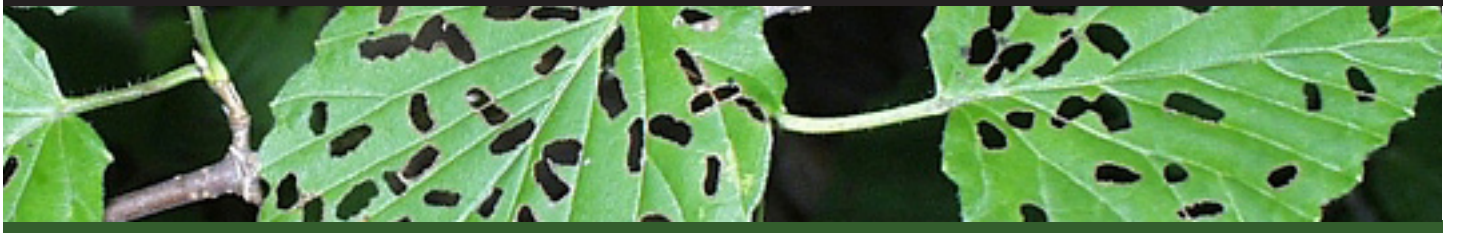
Invasive Species Early Detection

2010 RESOURCE BRIEF

National Park Service · Northeast Region
U.S. Department of the Interior

Eastern Rivers and Mountains Network
Inventory & Monitoring Program



Johnstown Flood National Memorial

SPECIES SPOTLIGHT: VIBURNUM LEAF BEETLE

The viburnum leaf beetle (*Pyrrhalta viburni*), is an invasive, non-native beetle that feeds on, defoliates, and can eventually kill viburnum shrubs (Fig. 1). The adults are approximately 1/4 inch long and generally brown in color. They can be found feeding on the leaves from June

Fig. 1 Photo by: Paul Weston

until the first killing frost. Early on, larvae (inset) are more difficult see (1 to 10 mm), but can be found feeding on both sides of the leaves from late April until June. From July to May, egg laying sites are visible on the undersides of young branches. Look for rows of small brownish-black bumps between the size of a pinhead and matchstick head. The first North American breeding populations of this European leaf beetle were discovered in 1978 in the Ottawa/Hull region of Canada. It is now found throughout New England, New York, Pennsylvania, New Jersey, Ohio and Michigan.

> **"The economic impact of the viburnum leaf beetle on the ornamental agriculture business is unknown, but the infestation verges on an ecological disaster"**
>
> **-- E. Richard Hoebeke, Cornell Univ.**

WHAT WE ARE DOING

In May 2008, the Eastern Rivers and Mountains Network (ERMN) vegetation monitoring crew began searching for priority invasive plants and pests during routine monitoring activities at ERMN parks. Knowledgeable monitoring crew members provide additional "eyes and ears" to detect incipient species occurrences while in the parks. Park natural resource managers, Exotic Plant Management Teams, and other National Park Service scientists also participate.

> **A host is "any organism in which another spends part or all of its life, and from which it derives nourishment or gets protection..."**
>
> **-- Eleanor Lawrence**

WHAT WE ARE FINDING

During invasive species early detection surveillance monitoring in 2010, one new invasive insect was documented at Johnstown Flood National Memorial (JOFL): viburnum leaf beetle (*Pyrrhalta viburni)*. The beetle was observed on northern arrowwood (*Viburnum recognitum*), a host species, and many plants exhibited feeding damage. This was the first confirmed sighting of this species in Cambria County, Pennsylvania. Word quickly spread through the local parks, including the new Flight 93 National Memorial (FLNI) in adjacent Somerset County, Pennsylvania, which is currently in the process of designing and constructing the permanent memorial. After much consultation, the landscape planting list was revised to exclude all viburnums and be replaced with other native plant species not affected by the viburnum leaf beetle. The quick response of all National Park Service personnel to the early detection of viburnum leaf beetle will potentially save a lot of time and money in replanting costs. For more information on viburnum leaf beetle, contact the Invasive Species Early Detection Coordinator (ISED).

Cornell University News Service. 2004. Voracious viburnum leaf beetles will emerge in July. News release. http://www.news.cornell.edu/releases/June04/viburnum.beetle.fac.html (Acessed 2/4/2011).
Cornell University. nd. Viburnum leaf beetle: citizen science. http://www.hort.cornell.edu/vlb/ (Accessed 2/7/2011).
Lawrence, E. 1995. Henderson's Dictionary of Biological Terms, 11th Edition. Longman Singapore Publishers (Pte) Ltd.
Fig. 1, inset, and Banner: Paul Weston, Cornell University, Bugwood.org

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