

Resolution Opposing Fairfax County Fall Cankerworm Spraying Program

Approved by the Friends of Little Hunting Creek November 18, 2014

{Amended December 4, 2014, to correct Dr. Asaro's affiliation, provide more complete citations to works referenced, and to update the position taken by the Xerces Society.}

Whereas, in late April and early May, 2014, Fairfax County sprayed about 2,200 acres from helicopters and the ground to kill Fall Cankerworm (*Alsophila pometaria*), a native species of moth that in its caterpillar stage in spring may defoliate native hardwood trees;

Whereas, Fairfax County's trees face multiple threats, including clearing for development and expansion of roads, exotic forest pests, invasive plant species, unmanaged deer populations, air and water pollution, and the warming and extreme weather of changing climate patterns;

Whereas, the U.S. Forest Service states that, "Successive defoliation can weaken trees and result in reduced growth, branch dieback and some tree mortality, especially if trees suffer from additional stresses such as drought, overstocked stands or poor site conditions";¹

Whereas, Forest Health Specialist Dr. Chris Asaro stated in a press release issued by the Virginia Department of Forestry in April 2014: "In ecological terms, cankerworms and other defoliators can have a beneficial effect on the forest by providing a food source for birds and other wildlife.... Most trees will re-foliate quickly and fully recover from defoliation";²

Whereas, the stated purpose of the cankerworm suppression program is "to minimize tree mortality", but the County does not monitor tree mortality, and so has no direct measure of either the need for or the effectiveness of its spraying program;

Whereas, according to the U.S. Forest Service, "outbreaks in forests and woodlands often do not require treatment because they tend to be short-lived and cause minimal damage to trees. Outbreaks often succumb to natural enemies within a few years, with peak defoliations occurring during the second year";¹

Whereas, repeated spraying of insecticide may cause insect populations to develop immunity or resistance, reducing the effectiveness of the insecticide and requiring more intensive applications to achieve the same effect;

Whereas, the treatment areas in 2014 included 170 acres immediately adjacent to Little Hunting Creek, in Wessynton and Riverside Estates communities, and another 92 acres within a few blocks of the creek, across Route 1 southwest of Janna Lee Avenue;

Whereas, the insecticide may drift up to 1.86 miles in aerial application, and may persist in the environment up to 2 years after spraying, so its effects may extend beyond treatment areas and time of spraying;

¹ William Ciesla and Christopher Asaro, "Fall Cankerworm," Forest Insect & Disease Leaflet 182. April 2013. Forest Service, US Department of Agriculture.

² "Cankerworms Expected to make Return Visit to Richmond Area", News Release, April 8, 2014. Virginia Department of Forestry. www.dof.virginia.gov/news/releases/2014/04-08-fall-cankerworm-2014.htm

Whereas, the insecticide used is a commercial application of *Bacillus thuringiensis* var. *kurstaki* (Btk), a naturally-occurring soil bacterium, widely believed to be safe to humans and other mammals and non-Lepidoptera insects (e.g., spiders, bees), but few studies have evaluated its effects on aquatic organisms in waterways, such as Little Hunting Creek;

Whereas, the native Fall Cankerworm is part of the larger local web of life and has co-evolved and is mutually dependent with the trees and plants, birds, insects, and other organisms native to the eastern deciduous forest ecosystem;

Whereas, caterpillars are an essential food source for migrating and breeding birds of Fairfax County, and bird predation provides a natural population control for Fall Cankerworms;

Whereas, Btk kills almost all butterfly and moth caterpillars (*Lepidoptera*) exposed to it, knocking out the food source for migrating birds and nestlings in areas affected by spraying;

Whereas, songbird populations have experienced population declines for decades, and eliminating an important food source at the peak of migration and breeding adds stress to the birds³;

Whereas, studies of chickadees and warblers confirm that after Btk spraying, birds forage longer for food, bring fewer caterpillars to the nest, and make fewer nesting attempts;⁴

Whereas, the County does not monitor impacts of the spraying on native butterfly and moth species or on birds, and so cannot say whether spraying contributes to declines in beneficial butterfly species and to observed steep declines in Neotropical migrants and other birds breeding and nesting in our area;

Whereas, other wildlife that rely on caterpillars as a food source (such as bats, beetles, and frogs) are also in trouble, and some (e.g. the red bat) are moth specialists;

Whereas, the role of any native species is misunderstood when it is regarded as a nuisance pest to be suppressed, and suppressing Fall Cankerworms may disrupt the local ecosystem in unforeseen ways and have unintended consequences for other native species;

Whereas, concerns about its impacts on wildlife have led the Audubon Society of Northern Virginia, Friends of Dyke Marsh, Friends of Huntley Meadows Park, Friends of Mason Neck State Park, Friends of Meadowood, Center for Biological Diversity, North American Butterfly Association, the Northern Virginia

³ Spraying in late April/early May likely impacts 65 breeding bird species and 39 migrating bird species (see www.audubonva.org/images/pdfs/FCWAppCBirds.pdf).

⁴ "Parent birds fed their nestlings fewer caterpillars in Bt treated areas (Gaddis & Corkran 1986 [chestnut-backed chickadees]), Rodenhouse & Holmes 1992 [black-throated blue warblers], Nagy & Smith 1997 [hooded warblers]) or increased their foraging times compared to birds nesting in untreated areas (Holmes 1998 [tennessee warblers])". Paul Severns, "Evidence for the negative effects of Bt ... on a non-target butterfly community in western Oregon, USA", *J Lepidopterists Soc*, 56(3) 2002, pp 166-170. [http://images.peabody.yale.edu/lepsoc/jls/2000s/2002/2002-56\(3\)166-Severns.pdf](http://images.peabody.yale.edu/lepsoc/jls/2000s/2002/2002-56(3)166-Severns.pdf)

Bird Club and the Xerces Society for Invertebrate Conservation⁵ to oppose the spraying program and ask the County to stop it;

Therefore the Friends of Little Hunting Creek resolve that

- The County should discontinue the Fall Cankerworm insecticide spraying program;
- The County should implement a program to monitor tree mortality, to provide feedback on sources and magnitudes of threats to urban trees and effectiveness of steps to reduce them;
- The County should convene a group of experts including foresters, ornithologists, and entomologists to assess and prioritize the major threats to the forests of Fairfax County, and to devise comprehensive approaches to address them and to protect and restore biodiversity;
- Fairfax County should acknowledge that forests are more than trees, and should redefine and broaden the mission of the Forest Pest Branch to cover *forest health*, focused on the health of the forest ecosystem, not just the trees, and should charge the agency with addressing a broader variety of threats and stressors to the forests of Fairfax County, including exotic invasive plants;
- The County should promote more benign methods for residents to control Fall Cankerworms, for example
 - installing chickadee boxes; these common little birds are prodigious consumers of caterpillars, eating 300-500 a day,
 - installing sticky bands on valued or vulnerable trees on their own properties, to capture the female moths before they lay their eggs;
- The County should enlist the help of groups such as the Friends of Little Hunting Creek and other Friends groups in distributing chickadee boxes and outreach to promote forest health.

⁵ The Xerces Society has withdrawn its statement of opposition to the spraying program. **They do not support the program**, but say they do not have the staff capacity to evaluate whether to oppose it. They have opposed similar projects in the past because agencies often say they are using good integrated pest management when they are not.