

You Ain't From Around Here! Moving Firewood is Still a Bad Idea!

By: Jennifer Gagnon, Virginia Tech

Two beetles, a disease complex, a moth, and a leafhopper climb onto some firewood...I'm certain there is a joke here somewhere. But actually, these critters, plus firewood, equal a problem that is no laughing matter!

Back in the Summer of 2007, in what seems like a previous lifetime, I wrote a "You Ain't from Around Here" column called: "[Don't Move Firewood](https://tinyurl.com/VFLUFirewood)"

(<https://tinyurl.com/VFLUFirewood>). Just about everything in my life has completely changed since then. But one thing that hasn't changed is that moving firewood is still a very bad idea! To help emphasize why moving firewood is a risky proposition (and in keeping with this edition's firewood theme), I'm revisiting some nonnative invasive species that are moved around via firewood.

The first nonnative invasive species I ever wrote about for the VFLU was the [gypsy moth](https://tinyurl.com/VFLUGypsyMoth) (<https://tinyurl.com/VFLUGypsyMoth>). The larval form of the gypsy moth (*Lymantria dispar*) feeds on leaves, preferably of oaks (although when populations are extremely high, they have been known to eat grass). Since 1970, the gypsy moth has defoliated over 75 million acres of forestland, resulting in \$22 million annually in damage and management costs! Generally, a single defoliation event will not kill a tree; however, two to three continuous years of defoliation, in conjunction with other stresses (e.g., drought) usually result in tree death. Gypsy moth populations are cyclical and may be affected by weather, abundance of natural predators, and extent of control operations. Although Slow the Spread Efforts have been successful, the gypsy moth quarantine was recently expanded deep into southwest Virginia.



The Fall 2008 VFLU featured an article on the [emerald ash borer \(EAB\)](https://tinyurl.com/VFLUEAB) (<https://tinyurl.com/VFLUEAB>). That summer, EAB (had been confirmed again in Fairfax County (*Agrilus planipennis*) there was a prior infestation in 2003 that was thought to be eradicated). The EAB is a small metallic green insect that lays eggs in the bark of ash trees. The larvae hatch and feed on phloem (the living tissue just under the bark). This eventually disrupts the transportation of sugars in the tree, leading to death.

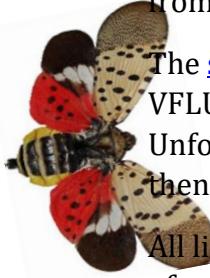


Since its initial detection in SE Michigan in 2002, and despite vigorous quarantine efforts, the EAB has continued to spread throughout the native range of ash. The infestation is so severe, as of January 14, 2021, all domestic quarantines prohibiting the movement of ash materials were deemed ineffective and lifted. The economic impact of the EAB is estimated to be over \$282 billion.

In the fall of 2010, the Virginia Forest Landowner Update (VFLU) featured an article on [thousand cankers disease of black walnut](https://tinyurl.com/VFLUThousandCankers) (<https://tinyurl.com/VFLUThousandCankers>), shortly after the first occurrence of the disease in the native range of black walnut (Tennessee).

Thousand cankers is a disease complex that attacks walnut trees. The fungus, *Geosmithia morbida*, is introduced into black walnuts by the walnut twig beetle, *Pityophthorus juglandis*, causing small cankers under the bark of the tree. The beetle introduces the fungus while it tunnels beneath the bark. As more beetles attack the tree, the number of cankers increases until they coalesce to girdle twigs and branches, restricting movement of nutrients and eventually killing the tree. Thousand cankers disease has become established in Virginia and has the potential to spread to uninfested areas by natural means or through the movement of infested articles.

A year after that article was published, the first occurrence of the disease was found in Chesterfield County, Virginia. As a result, areas of Virginia were put under quarantine (see figure 1). Fortunately, this disease has not spread aggressively and may be less of a concern than was originally feared. Hopefully it will stay that way because potential economic loses from this disease are in the billions.



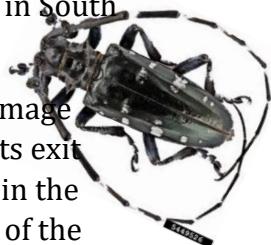
The [spotted lanternfly](#) (*Lycorma delicatula*) was featured in the spring 2016 edition of the VFLU (<https://tinyurl.com/VFLUSLF>), and at that time had yet to be found in Virginia. Unfortunately, not long after, in January of 2018, it was first identified in Winchester and then in Frederick County. Soon after, a quarantine was established for these areas.

All life stages of the spotted lanternfly feed on the phloem and consume massive amounts of sap. They also excrete substantial amounts of sugary liquid, which harbors mold. Affected trees will have weeping wounds, resulting in accretions of honeydew around their bases. The bases of the trees and the surrounding soil turn black from sooty mold fungal growth. This invites not only disease, but also bees, wasps, hornets, and ants. In the native range of the spotted lanternfly, these impacts do not normally kill host plants; absence of natural predators outside their native range, however, can lead to over-infestation and cause disease and death in plants.

And while the food of choice for these insects is tree-of-heaven, unfortunately they feed on many other species as well. Affected species include apples, plums, cherries, grapes, peaches, nectarines, apricots, almonds, pines, oaks, walnuts, poplars, willows, maples, and sycamores. As such, these insects could have a significant negative impact both in the forestry and viticulture industries in Virginia.

And last, but not least, is the [Asian long-horned beetle \(ALB\)](#) (*Anoplophora glabripennis*) featured in the Spring 2019 edition of the VFLU (<https://tinyurl.com/VFLUALB>). As of this writing, the ALB has not yet been identified in Virginia, but it has since been found in South Carolina.

Ultimately, ALB kills the trees it infests. Mortality is a result of multiple types of damage from all life stages of the insect. The most notable damage is caused when the adults exit the tree in the spring leaving very large (0.5" diameter), perfectly round exit holes in the wood and bark. These holes are visible all year and can be found on the main stem of the



tree, branches, and exposed roots. These holes can produce excessive sap, attracting secondary insects and diseases to the tree.

ALB enjoys a wide variety of Virginia's native hardwood species. In fact, it feeds on species of ash, birch, elm, sycamore, maple, buckeye, mountain ash, poplar, and willow. All these species can support the full life cycle of ALB - from egg to adult – resulting in much damage.

Because all of these critters discussed above can be spread by moving firewood, a rule of thumb is to not move wood more than 50 miles from its source.

But, if you can't haul firewood from your home to your campsite, how can you still enjoy a cozy campfire? Many campgrounds will sell firewood for use on site or allow gathering of firewood (but at popular campsites, this may be hard to come by). Or you can buy certified heat-treated firewood. If you purchase/gather firewood at your destination, burn it all (or give leftovers to your neighboring campers). Don't bring unused firewood back home with you.

Visit the sites below for more detailed information on the insects and disease discussed in this article and on NOT moving firewood.

- [Asian longhorned beetle](https://www.aphis.usda.gov/aphis/resources/pests-diseases/asian-longhorned-beetle) https://www.aphis.usda.gov/aphis/resources/pests-diseases/asian-longhorned-beetle
- [Don't Move Firewood](https://www.dontmovefirewood.org/) https://www.dontmovefirewood.org/
- [Emerald ash borer information](http://www.emeraldashborer.info) http://www.emeraldashborer.info
- [Firewood Scout](https://firewoodscout.org/faq/) https://firewoodscout.org/faq/
- [Gypsy moth quarantine](http://www.vdacs.virginia.gov/plant-industry-services-gypsy-moth.shtml) http://www.vdacs.virginia.gov/plant-industry-services-gypsy-moth.shtml
- [Gypsy moth slow the spread](https://www.gmsts.org/about.html) https://www.gmsts.org/about.html
- [Spotted lanternfly.com](https://spottedlanternfly.com) https://spottedlanternfly.com/
- [Spotted lanternfly quarantine](https://tinyurl.com/SLFQuarantine) https://tinyurl.com/SLFQuarantine
- [Virginia's firewood regulations](https://www.dontmovefirewood.org/map/virginia/)
https://www.dontmovefirewood.org/map/virginia/
- [Thousand cankers](https://thousandcankers.com/) https://thousandcankers.com/

Enjoy your summer outdoor adventures safely. Or recklessly if you prefer. Please just don't move firewood!

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- Emerald ash borer: PA Department of Conservation and Natural Resources Forestry
- Spotted lanternfly: Unknown Author, licensed under [CC BY-SA](#)

- Asian long-horned beetle: Steven Valley, Oregon Department of Agriculture