



NYFOA

New York Forest Owners Association

SOUTHEASTERN ADIRONDACK

The Overstory

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ADIRONDACK STUMPAGE PRICE REPORT

New York State Department of
Environmental Conservation
www.dec.ny.gov/lands/5259.html

Have you spotted the spotted lanternfly?

By: Lauren Mercier, Capital Region PRISM

Imagine New York without any apples, grapes, or hops. No more local breweries or wineries, no more fall apple picking. This idea may seem farfetched, but may be more likely than you think. An invasive insect has breached the border of New York from Pennsylvania and is ready to wreak havoc on New



4th Instar and Adult SLF.

York's agriculture and horticulture economy. The spotted lanternfly (*Lycorma delicatula*), is a sap-sucking insect that feeds on over 70 different plant varieties. The preferential host for this bug is the invasive tree-of-heaven (*Ailanthus altissima*), which is found across New York State.

Spotted lanternfly (SLF) has six life stages: egg, four instars, and adult. Eggs hatch between May and June and begin feeding during the first instar stage. During this stage, spotted lantern fly is about ¼ inch in length and is black with white spots. The spotted lanternfly grows larger, but maintains its black and white coloration throughout the first three instar stages. From July to September, spotted lanternfly morphs into the fourth instar, or late nymph stage, where it develops distinct red markings. The spotted lanternfly then develops two pairs of wings, signifying adulthood. The inner wings are banded, starting with red with black spots closest to the abdomen, followed by white, and black tips. The outer wings are opaque with black spots and a distinct brick-like pattern toward the tips. The adults also have unique short orange antennae that sit below the eyes. Females lay eggs between September and November. The females can lay twice, each time laying up to 60 eggs. The eggs are covered with a grey, putty-like substance that allows them to survive the winter. A few weeks after being laid, the egg mass dries and cracks, resembling mud. The eggs can be laid on any hard, smooth surface, including cars, trailers, shipping crates, etc. which makes them great hitchhikers.

Preventing Salt Injury to Trees and Shrubs

Paul Hetzler, ISA Certified Arborist

Every winter it brings its requisite a-salt on roads and walkways. While a measure of it may be necessary for public safety in icy conditions, too much salt is worse than a lousy pun. It's evident that cars and concrete suffer from deicing materials, and we've heard how saline runoff from roads can enter waterways and hurt fish and other aquatic life.

But salt harms woody plants in ways that go far beyond burned evergreen needles. This damage to trees and shrubs can be subtle, and is sometimes attributed to other causes. It's obvious that when road-salt spray lands on evergreen foliage, it results in chlorotic and browned needles the following spring. Entire branches, as well as smaller trees, may be killed as a result of heavy and repeated exposure.

Deciduous trees respond differently. Salt-spray deposition causes twig dieback and bud mortality. Stunting and deformed growth are also possible. Because hardwood trees have to produce adventitious buds each spring due to their primary vegetative buds getting salted to death in the winter, growth patterns begin to resemble witches' brooms. Of course it stands to reason that their energy budget suffers, making them more vulnerable to pests and pathogens.

Less apparent, but worse in my opinion, is the insidious harm caused when salt infiltrates a tree's root zone. In urban areas, salt-laden snow is routinely plowed onto tree lawns, tree pits, and landscape islands. Concentrated brine may run off onto low-lying sites. Abundant salt in the soil will kill a tree. But moderate levels of salt make water unavailable to tree roots, producing a physiological drought, even in moist soils.

This latter injury may show up as brown, scorched-looking leaf margins in July, when deicing salt is the last thing on people's minds. It can also manifest as subtle, cumulative damage that weakens a tree year after year until eventually it succumbs to other adverse conditions, or opportunistic agents.

Salt actually damages soil structure, causing what's known as sodium compaction. In healthy soils, microbes help form aggregates or clumps which result in natural channels that allow roots to get oxygen. Sodium chloride, road salt, breaks the chemical bonds holding these clumps together, and the pore spaces collapse. This restricts roots' access to air, further stressing trees. High sodium levels also reduce a tree's ability to take up potassium, a key nutrient.

While it was once thought that rain could wash most or all road salt from soils over the course of a growing season, it now appears that this is generally not the case. In soils exposed to deicing salt, salinity builds slowly over time.

You can estimate the level of salt at a given site using an electrical conductivity meter, which measures something called total dissolved solids (TDS). Meters are available in the \$50 to \$100 range. Naturally occurring minerals and fertilizer will add to the TDS reading, so it is not an exact reflection of deicing salt.



Examples of leaf and needle damage due to winter de-icing.

Continued on page 4

Can a Pacific Northwest silverfly save eastern hemlocks in New York State?

The Huyck Preserve in Rensselaerville, NY is leading the way in finding out

It's called biological control, and it means putting a natural predator near its prey as a way of managing a pest. Think lady bugs killing aphids, or deer mice eating gypsy moths. Now, an Upper Hudson Valley nature preserve is a testing ground for two species of silverflies that might help save native hemlock populations.

The Edmund Niles Huyck Preserve, a 2,000+ acre nature preserve, accredited land trust, and biological research station in Rensselaerville, NY is working closely with the New York Hemlock Initiative (NYSHI) at Cornell University to implement biological control of the hemlock woolly adelgid (HWA), a destructive pest of eastern hemlock trees that was introduced in Virginia in the early 1900s. Since that time, HWA has killed millions of hemlocks from northern Georgia to Nova Scotia.

The Huyck Preserve is a partner in the Capital Region PRISM (Partnership for Regional Invasive Species Management), a nonprofit quasi-governmental agency hosted by the Cornell Cooperative Extension of Saratoga County and funded through the NYS Department of Environmental Conservation via the Environmental Protection Fund. In 2018, the Huyck Preserve began work on its first invasive species management and monitoring plan, and Capital Region PRISM became a significant resource for protecting the lands and waters of the Preserve from the harmful effects of invasive species including forest pests like hemlock woolly adelgid. With support from Capital Region PRISM and advice from the NYSHI, the Huyck Preserve undertook its first chemical treatment of HWA in 2020. HWA has continued to spread across the nearly 350 acres of hemlocks at the Huyck Preserve, and last fall Capital Region PRISM and the NYSHI approached the Huyck Preserve with a proposal to release HWA biocontrol agents as a second tool in the fight to save the Preserve's important trees.



Nicholas Dietschler, Research Technician with the NYS Hemlock Initiative at Cornell University (R), and Nicole Campbell, Terrestrial Invasive Species Coordinator for the Capital Region Partnership for Regional Invasive Species Management (L), discuss plans to release silverflies at the Huyck Preserve in Rensselaerville in an effort to combat invasive hemlock woolly adelgid.



Leucopis piniperda was released in a hemlock stand infested with invasive hemlock woolly adelgid at the Huyck Preserve in Rensselaerville as part of a biological control study aimed at conserving hemlocks.

Place a small amount (100-120g or 40z.) of soil in a container and add water until it's just past saturation, then take a reading of the slurry. Values greater than 2000ppm (or millimhos/ square centimetre, depending on the instrument) spell trouble for plant life. To encourage the movement of salts through the soil profile, an arborist can use high-pressure air or water injection treatments to help break up compacted soil and provide drainage channels.

There are many low-salt recipes for addressing this problem. Homeowners can reduce salt damage by using only sand or other mineral abrasives, or by at least switching to a salt/sand mixture. Alternative deicing products like calcium magnesium acetate (CMA) are much less toxic to plants, though they cost more. Where practical, Tyvek (preferred) or burlap barriers around evergreens can deflect road-salt spray. Berms and other grade changes can divert snow-melt runoff from root zones.



Trees along the roadside showing salt damage

Another option is to plant salt-tolerant tree species such as honeylocust, ginkgo, catalpa or red oak in place of sensitive species like sugar maple, linden, and spruce. You can get a complete list of salt-tolerant trees at: <http://www.hort.cornell.edu/uhi/outreach/recurbtree/pdfs/~recurbtrees.pdf>

More information on ways to reduce the winter "a-salt" on trees and shrubs can be found on the Muskoka Watershed Council's website at: <https://www.muskokawatershed.org/blog/salt-damage/>

Paul Hetzler has been an ISA-Certified Arborist since 1996. And is a member of ISA-Ontario, the Canadian Institute of Forestry, and the Society of American Foresters. His book "Shady Characters; Plant Vampires, Caterpillar Soup, Leprechaun Trees and other Hilarities of the Natural Word" is available on amazon.ca.

Coming Events....

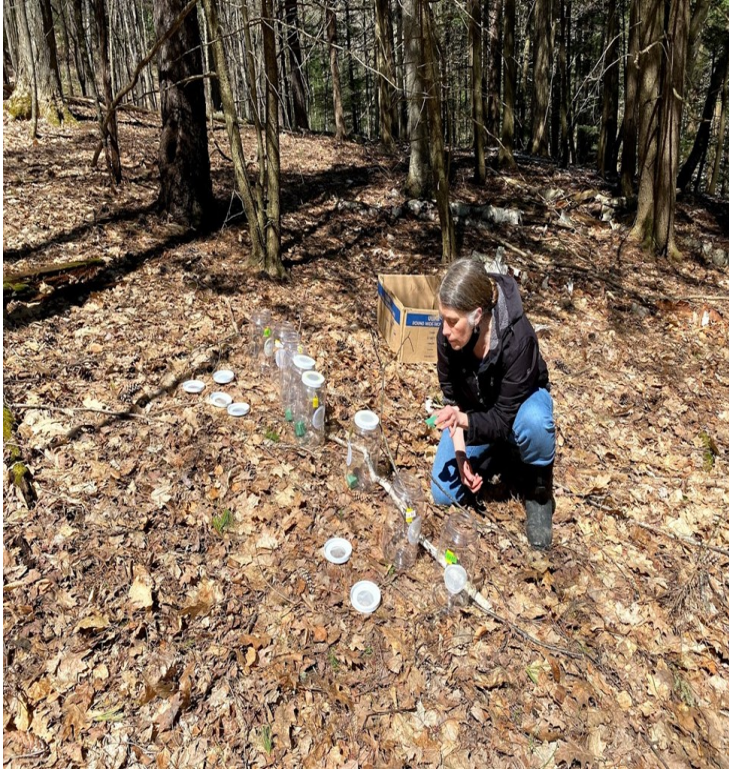
Washington County Fair August 23rd - 29th

We will need members to staff our booth. If you are interested in working the fair please contact Jane Jenks at (518) 532-7595
Workers get free admission!

Annual Picnic

Saturday, September 25th
Host: Lou and Jean Inzinna
61 Charles-Olds Road, Athol, NY 12810

Arrival: 9:30 – 10:00 Morning refreshments available
Woodswalk: begins around 10am
Lunch: Please bring a dish to share (Hamburgs, Hotdogs, paper goods and beverages will be provided by chapter)
Further details can be found on the NYFOA/SAC webpage in early September - RSVP to Kurt Edwards— (518-661-5685) or: edwardsk922@gmail.com by 9/17



Huyck Preserve Executive Director Anne Rhoads, Ph.D. releases silverflies in a hemlock stand infested by invasive hemlock woolly adelgid.



Huyck Preserve Stewardship Coordinator Garrett Chisholm releases *Leucopis piniperda* in a hemlock stand infested with invasive hemlock woolly adelgid at the Huyck Preserve in Rensselaerville.

This spring, the NYSHI released two species of silverflies, *Leucopis argenticollis* and *Leucopis piniperda*. These tiny flies are native to the Pacific Northwest of the United States and are specialist predators of HWA. In other words, they only feed on HWA and are at very low risk of causing ecological problems. The silverflies feed on HWA eggs as larvae and are some of their most numerous predators on the western hemlocks of the Pacific Northwest.

This year's release is part of a long-term study coordinated by the three organizations, and future monitoring will determine the success of establishment of silverfly and control of HWA. Only time will tell if the release of a small number of silverflies (compared to the vast infestation of HWA at the Preserve) is successful. Will the silverflies thrive in this environment? Will they suppress the HWA population enough that hemlock trees will survive? This spring's release is one of the first in the Capital Region. Although systemic insecticide treatment is currently the most effective method in managing HWA, long-term, landscape-scale conservation of hemlocks will likely depend on biological control. Eastern hemlock is New York's third most common tree species and is a foundation species in our forests. Hemlock trees are important for maintaining healthy wildlife habitat and fresh water resources, and their loss would drastically change our landscape.

The Tenacity of Trees....



Source: <https://www.positivenewsus.org/the-tenacity-of-trees.html>

The spotted lanternfly feeds from the moment they hatch until death. Specialized mouths help them feed from any part of the plant and take sap directly from the phloem. In addition to the damage caused by feeding, adults secrete honey dew which attracts other pests and pathogens that can further harm the host plant. Although there is no evidence of spotted lanternfly killing its hosts, large infestations can cause significant losses to yield of important crops and ecologically significant plants in New York State. If this species is not detected early, it could result in multi-billion-dollar losses to the agriculture business in New York. One of the best tools for stopping the spread of spotted lanternfly is reporting. Reports can be sent directly to the NYS Department of Agriculture and Markets, your local Partnership for Regional Invasive Species Management, or input on iMapInvasives. Once a sighting is reported, natural resource professionals can confirm the identification and plan for eradication. Another helpful way to stop the spread of spotted lanternfly is to scrape off any egg masses you may see on trees or other hard surfaces. The eggs can be killed by placing them in a bag or container of alcohol or detergent, burning, or smashing. Quarantines, sticky traps, and vehicle inspections have all been deployed to monitor the spread from Pennsylvania and New Jersey into New York. This coming spring, be on the lookout for eggs and nymphs and report any suspected sightings.

Reporting Tools and Important

Links:

- For reporting and additional information, please visit the NYS Department of Agriculture and Markets SLF page: <https://agriculture.ny.gov/spottedlanternfly>
- For tips on reporting and in-depth trainings, visit: www.nyimainvasives.org/slf
- For additional information on SLF, visit: <https://nysipm.cornell.edu/environment/invasive-species-exotic-pests/spotted-lanternfly/spotted-lanternfly-ipm/>



Right:

SLF covered egg mass from Ithaca, NY.

Throughout the winter, the egg masses dry down and become very difficult to see, especially if laid on a tree like this one.

Left:

Tree of Heaven, SLF's preferred host. Look for tree with cantaloupe-like bark and large compound leaves. When crushed, the leaves smell of rotten peanut butter. There is also a distinct node at the base of each leaf, as pointed out by the red arrow in the



5524251

SLF Adult with open wings. Adults can fly on average between 3-4 miles from where they hatched as nymphs. [This Photo](#) by Unknown

The Woods Wildlife Warbler Workshop

On June 12th NYFOA/SAC partnered with NY Tree Farm and Audubon NY to present a workshop on the topic of integrating bird conservation into forest management and planning. Led by instructor Zach Boerman, Audubon NY forester, participants in this outdoor workshop learned how to:

- Improve habitat for priority forest birds and a variety of other wildlife species
- Take care of their woodlands
- Work with other forest management goals
- Enhance the value and enjoyment of woodlands for many generations to come



Workshop photos - provided by Bob Manning

Above: Selective Cut

Upper right: Shelterwood Cut

Lower right: Clearcut



Are you interested in hosting a woodswalk?

Do you have a suggestion for a chapter event?

If so please contact Kurt Edwards, event coordinator,

at 411 Beech Street, Mayfield, NY 12117, or at edwardsk922@gmail.com



New York Forest Owners Association

SOUTHEASTERN

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