



# WNY PRISM

Partnering to Protect Western New York  
from Invasive Species



Spring 2023 Newsletter

*The WNY PRISM mission is to proactively identify, evaluate and address invasive species priorities in western New York using a coordinated partnership of local professionals, organizations and private citizens to improve, restore and protect local aquatic and terrestrial resources.*



Photo Credit: iMapInvasives report #1294025, confirmed presence of spotted lanternfly in Buffalo.

## Spotted Lanternfly Spotted in the WNY PRISM Region

Melanie Donofrio, Invasive Species Management Assistant, checking traps at Sunshine Park and Tim Russert Park.

Spotted lanternfly (*Lycorma delicatula*), an invasive species that feeds on more than 70 plant species including trees and crops such as grapevine, apple trees and hops, has spread to the WNY PRISM region. First found in New York State on Staten Island in August 2020, the Department of Agriculture and Markets (AGM) confirmed the presence of spotted lanternfly in Buffalo last September. Based on a report made to AGM, they conducted surveys in and around the reported sighting and over 100 adults were found. Monitoring for and reporting this high priority invasive species is crucial to help prevent its spread.

Spotted lanternfly (SLF) adults emerge in July and have eye catching wings with forewings that are grayish with black spots, and hindwings that are red with black spots. Adult SLF begin laying eggs in September and their egg masses can be observed throughout the winter. Egg masses are yellowish-brown in color and covered with a gray, waxy coating prior to hatching, which occurs in late April to early May. The nymphs that emerge are black with white spots and turn red with white spots before becoming adults. Additional information on SLF identification can be found at [www.wnyprism.org/invasive\\_species/spotted-lanternfly](http://www.wnyprism.org/invasive_species/spotted-lanternfly).

Although SLF will feed on a wide range of plant species, the preferred host is another invasive species, tree-of-heaven (*Ailanthus altissima*), which is native to the same area in Asia as SLF. Adults are drawn towards this

## Spotted Lanternfly Spotted

species for feeding and egg-laying. Tree-of-heaven is a deciduous tree that looks a lot like staghorn sumac, except it can grow up to 100 feet tall. The leaves are pinnately compound and each leaf is 1-4 feet long with 10 to 40 leaflets. When the leaves or stems are broken, there is a pungent odor that some describe as burnt peanut butter. Prominent leaf scars are present on the stems and the bark resembles cantaloupe skin. Additional information on tree-of-heaven can be found at [www.wnyprism.org/invasive\\_species/tree-of-heaven](http://www.wnyprism.org/invasive_species/tree-of-heaven).

Searching for SLF adults or nymphs on tree-of-heaven is one way to monitor for this insect. There are also a variety of signs to look for that indicate the presence of SLF. Adults and nymphs feed by sucking sap from stems and leaves, which can cause the host plant to ooze or weep. Also, SLF excretes large amounts of fluid, known as honeydew, which can result in mold growth on the host plant and can build up at the base, attracting insects such as bees and ants. Although new egg masses can only be observed from around September through April or early May, old egg masses may persist on the plant and will appear brown and scaly.

WNY PRISM received ten SLF traps for the 2022 field season from AGM and reached out to land managers and community scientists to help place and monitor these traps. The best way to detect SLF is to set up traps on tree-of-heaven, but if that species is not available, traps can be set up on black walnuts or red maples. Trees need to have a diameter at breast height of at least 8-10 inches for the trap to fit properly. The traps are simple funnel traps that use metal screen wrapped around the trunk of the tree to guide SLF into a collection bag. Our dedicated volunteers and partners checked the traps at least 2-3 times per month and reported back to WNY PRISM with their findings. WNY PRISM will be receiving additional traps this year to increase our monitoring efforts in the region.

## Get Involved!

There are a number of actions that you can take to help stop the spread of spotted lanternfly (SLF)!

**Search** for tree-of-heaven and **report** your observations to iMapInvasives. **Inspect** tree-of-heaven and look for signs of SLF feeding, adult SLF and egg masses. **Volunteer** to set up and monitor a SLF trap and report your findings to WNY PRISM. If interested, please email us at [wnyprism@buffalostate.edu](mailto:wnyprism@buffalostate.edu).

If you find SLF in the WNY PRISM region, immediately report the species to AGM at [www.agriculture.ny.gov/reportSLF](http://www.agriculture.ny.gov/reportSLF). In addition, please follow these simple steps:

1. Take pictures of the insect or egg masses, and if possible, include something for size reference.
2. If possible, collect the insect in a bag and freeze, or in a jar with rubbing alcohol or hand sanitizer.
3. Note the location (street address, intersecting roads, GPS coordinates).

## Upcoming Events

### 2023 Spring Partner Meeting

April 27; 9:30 am - 12 pm

[Event Registration](#)

### WNY ReLeaf Workshop

May 8; 9 am - 3 pm

[Event Registration](#)

### Walk and Talk at Pfeiffer Nature Center

June 3; 10 am - 12 pm

[Event Registration](#)

### Invasive Plant Species ID & iMapInvasives Training

June 5; 9 am - 11 am

[Event Registration](#)

### Terrestrial & Aquatic Management Workshops

June 7; 10 am - 3 pm

Registration: [Terrestrial](#)/ [Aquatic](#)

For more information on these or other events, visit our [website](#).

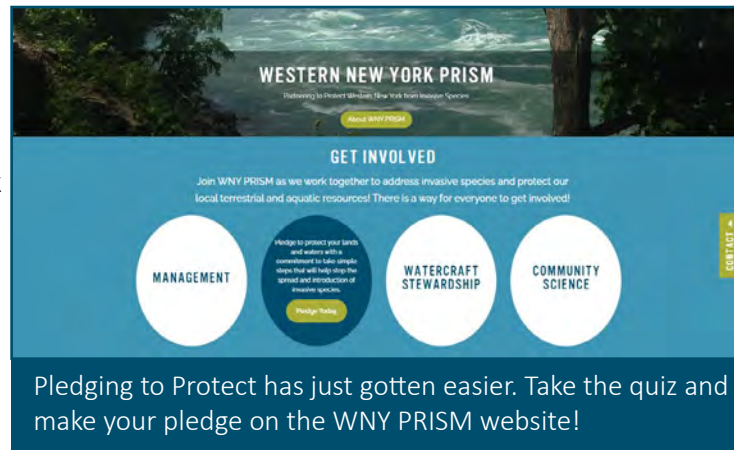
SLF feeds on 70+ plant species; even crops like grapevine, apples and hops!



NASA may be planning a launch to the moon next year, but WNY PRISM is just as excited to launch our new website this spring!

Our new website incorporates WNY PRISM's new logo and color scheme and features more photos to highlight the work we accomplish with the support of our amazing partners and community members. But, the new look is just the start!

- The improved design will help you more easily find the information you need.
- We have new and improved program pages that provide more information on WNY PRISM priorities, collaboration opportunities and other ways to get involved!
- Not sure which Pledge to Protect is right for you? Our website features a quiz to help you choose! And you don't need to wait for an event to sign the banner because you can sign up right on our website.
- We will be incorporating interactive iMapInvasives maps into all of our invasive species profiles, so you can readily access the current distribution of each species.
- There's more to come, so stay tuned as our website continues to evolve!



## Invasive Species Profile: Callery Pear

Callery pear (*Pyrus calleryana*) also known as Bradford pear, is a deciduous, ornamental tree that was planted widely across the eastern United States. It spreads easily, through roots and fruit, and forms dense monocultures. The fruit are brown with white speckles and look like small pears. They are readily eaten and dispersed by birds.

Callery pear grows in partial shade and full sun, loving roadsides, forest edges, fields and right of ways. It has branches that grow in steep, upright angles, giving the tree an overall raindrop shape. The leaves are arranged alternately, are about three inches wide, mostly rounded and have a finely toothed leaf margin. The five-petaled flowers are white with purple anthers. They grow in clusters and exude a pungent odor.



Individual cluster of flowers and mature trees in full bloom. Callery pear flowers in early spring and can grow up to 60 feet in height.

Similar looking species include the common pear (*Pyrus communis*), which is the agricultural pear that we are most familiar with; as well as crabapples, American plum and serviceberries, all of which are smaller trees and shrubs that have more of a round growth habit and yellow anthers.

There are various ways to manage Callery pear. Small plants can be hand-pulled, but you must ensure all roots are removed so the plant doesn't resprout from

any remaining root pieces. Mowing can help reduce cover, but herbicide must be applied on the cut plant or they'll resprout. Plants can also be treated with herbicide using foliar, cut stump, basal bark or hack and squirt methods. Since the seed bank can be persistent, treatment locations and adjacent areas should be monitored and managed for multiple years.

# Partner Spotlight: Chautauqua Watershed Conservancy

Written by: Twan Leenders, Director of Conservation

*The Chautauqua Watershed Conservancy has as its mission to preserve and enhance the water quality, scenic beauty, and ecological health of the lakes, streams, wetlands and watersheds of the Chautauqua, NY, region.*

The Chautauqua Watershed Conservancy (CWC) currently protects 32 preserves across Chautauqua County, and several more are added this year still.

All our preserves are open to the public, but not all have an established trail system.

One of our more recent acquisitions, Cassadaga Lakes Nature Park, is centrally located in Chautauqua County near the Village of Cassadaga. We are currently in the process of installing infrastructure (e.g., marked trails, an elevated board walk to protect a vernal wetland, and a wildlife viewing/photography blind on Mud Lake) to activate this beautiful preserve and to provide an exciting and educational experience for visitors.



Aerial view of beautiful wetland habitat at Cassadaga Lakes Nature Park. Photo Credit: Twan Leenders, Chautauqua Watershed Conservancy.

Ongoing surveys by our own conservation staff and by additional partners, including WNY PRISM, are increasingly providing important data on at-risk species, sensitive vegetative communities, and important microhabitats, as well as information on densities and types of invasive species present in the preserve and its immediate surroundings. *Phragmites* encroaching from neighboring properties, as well as large stands of Asian honeysuckle will require large-scale management efforts, whereas eradication strategies for other species that are still manageable by hand-pulling or other targeted removal (e.g., glossy buckthorn, Japanese barberry, and the creeping smartweed, *Persicaria longiseta*) are currently being developed.

This spring will see the placement of a series of educational signs at the preserve, explaining the value of native plants and the challenges posed by non-native invasives. This outreach effort will accompany the installation of two butterfly/pollinator gardens on an abandoned parking area as well as the restoration of the shoreline of Mud Lake, where historic foot traffic and decades of

boat launching has damaged the existing riparian vegetation. Targeted removal of glossy buckthorn is an integral part of this restoration effort.

As information keeps accumulating, Cassadaga Lakes Nature Park is on track to become one of the sites with the highest bird diversity in the county. It protects rare plants and active vernal pool habitat, but also suffers from a long history of imperfect land uses. We look forward to continuing stewardship efforts with our partners as we balance restoration

opportunities with the long-term stewardship and protection of the preserve's natural highlights. And hopefully many visitors will enjoy the process and, over time, the results of these collaborative efforts.

To learn more about our work, to plan a visit to one of our preserves, or to find out how you can help support our mission, please visit



[www.chautauquawatershed.org](http://www.chautauquawatershed.org).

Join WNY PRISM and CWC for a Walk and Talk at Cassadaga Lakes Nature Park on August 5; 10 am - 12 pm! [Register here.](#)

## Contact Us!

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## Factors that Drive Hemlock Woolly Adelgid Biocontrol Release

The eastern hemlock (*Tsuga canadensis*) is a native conifer species that plays an important role in regulating water temperature, filtering agricultural runoff and providing a beautiful, full canopy. Hemlock woolly adelgid (*Adelges tsugae*, HWA) is an aphid-like invasive pest that threatens native hemlocks. HWA injures woody tissue which prevents water from reaching the ends of hemlock trees, stopping new growth and leading to needle death and heavy foliage loss. Biological control, or biocontrol, can provide a long-term solution to invasive HWA. Biocontrol is when a natural enemy is used, such as an insect or parasite, to control a target pest species. Multiple biocontrol options for HWA are currently available through the NYS Hemlock Initiative. There is *Laricobius nigrinus*, a beetle which feeds on developing HWA throughout fall and winter, and two *Leucotaraxis* silver flies which prey on HWA eggs throughout the spring egg-laying season.

Many factors go into determining an ideal biocontrol release site, since there are limited quantities available from the NYS Hemlock Initiative for release each year. Sites should have a high enough HWA density that the biocontrol can feed and establish, but the tree damage should not be too great that the hemlocks will still likely die. The biocontrol decreases HWA populations but will not bring hemlocks back to life. The biocontrol should be released in public sites since data collection over time is essential to determine biocontrol establishment. Private property may change hands and permission to access the area for sampling could be lost. HWA mortality data can drive biocontrol releases since HWA presence is required for biocontrol establishment, and HWA survival can vary from year to year.

In April 2023, Josh Konovitz, Erie County Forester, collected HWA samples from a couple of Erie County Parks in the region. Brittany Herson, WNY PRISM's Terrestrial Program Manager, analyzed the samples using a dissecting microscope to distinguish dead and alive HWA in the samples. The goal was to assess around 30 HWA per twig and when fewer were present all HWA were checked. This data was sent to the NYS Hemlock Initiative and can provide information necessary for selecting biocontrol release sites.



Josh Konovitz collecting HWA specimens for mortality analysis. Hemlock branches with HWA infestation were analyzed to count dead and alive HWA.

### WNY PRISM Steering Committee Members

Cornell Cooperative Extension - Erie County | Great Lakes Center - SUNY Buffalo State University  
New York Sea Grant | NYS Department of Environmental Conservation - Great Lakes Program  
NYS Department of Transportation | NYS Office of Parks, Recreation and Historic Preservation  
Royal Fern Nursery | U.S. Army Corps of Engineers - Buffalo District  
U.S. Department of Agriculture Natural Resources Conservation Service  
U.S. Fish and Wildlife Service - Lower Great Lakes Fish and Wildlife Conservation Office