

# the Hemlock Tribune

New York State Hemlock Initiative Newsletter  
Fall 2017



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## Hemlock Initiative News

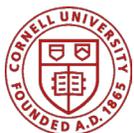
The **New York State Hemlock Initiative** (NYSHI) has been growing by leaps and bounds in the past few years. NYSHI's mission is threefold: to help coordinate state-wide efforts of land owners, state and federal agencies, government officials, and concerned citizens to conserve New York State's hemlock trees; to engage the public through education and outreach; and to research and implement biological control strategies for the hemlock woolly adelgid (HWA), an invasive forest insect. Today, the NYSHI is fully staffed and making itself at home in a new biocontrol research facility on Cornell University's Ithaca campus.



^ HWA-infested branch, photo by NYSHI's Mark Whitmore

This fall we are in the process of renovating our new biocontrol lab, which will officially open in November. We've been hard at work in the field studying HWA response to different climate factors and we have also kicked off our HWA phenology citizen science volunteer program focused on understanding the life cycle of HWA throughout New York. This program will allow us to time biocontrol insect releases more effectively. For more information on how you can get involved and help us keep the legacy alive, you can visit our website at [www.nyshemlockinitiative.info](http://www.nyshemlockinitiative.info) or like our Facebook page [@NYSHemlockInitiative](https://www.facebook.com/NYSHemlockInitiative).

Our research would not be possible without our funders and local, state, and federal collaborators:



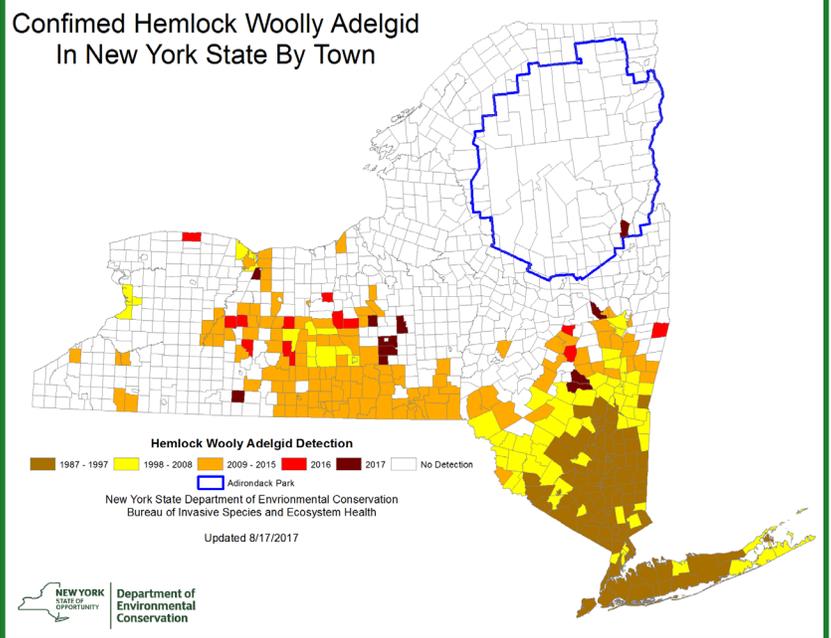
Department of  
Environmental  
Conservation



# Adirondack Adelgids

The hemlock woolly adelgid isn't rare in New York, but there are several areas it hasn't settled. On July 25, 2017 the DEC announced that HWA made it to a new location: the Adirondacks. It's not like you can blame these pests; there are few among us who wouldn't enjoy a vacation to those pristine peaks, but this isn't the typical friendly hiker. New York State is home to the largest hemlock population in the United States, most of which are in the Adirondacks where they make up sizeable piece of the ecological pie. The result of losing most of those hemlocks would be devastating for the health and scenic beauty of Adirondack forests, making this sighting particularly significant.

Immediately upon hearing the news, the DEC and NYSHI were surveying the scene, and the DEC will soon be treating the infested trees with insecticide to prevent further spread. The affected area, on Prospect Mountain near Lake George in Warren County, will continue to be monitored. Hikers, campers, and boaters have been urged to keep a keen eye out for HWA and report any additional sightings.



**Report HWA Findings** in one of the following ways:

> **Call** the DEC Forest Pest Information Line at **1-866-640-0652**.

> **Use NYiMapInvasives** either on your desktop computer or smart-phone. You can download the mobile app at [nyimainvasives.org/mobile](http://nyimainvasives.org/mobile).

> **Email** the NYS Hemlock Initiative at [nyshemlockinitiative@cornell.edu](mailto:nyshemlockinitiative@cornell.edu), making sure to include photos and GPS coordinates or directions.

**HWA Tip:** While it is never good news to hear that HWA has continued to infest new areas, it is important to note that **early detection** is the best way to combat that spread. When trees are treated early on, it can mean the difference between a minor sighting and a widespread infestation. Take a look at the DEC's map of the current extent of HWA above to see where this pest is on the move.

## Contact Us:

You can keep up with the happenings at NYS Hemlock Initiative or become a citizen science volunteer with us! Reach us by email, on the web, or on Facebook.

**Email:**  
[nyshemlockinitiative@cornell.edu](mailto:nyshemlockinitiative@cornell.edu)

**Website:**  
[www.nyshemlockinitiative.info](http://www.nyshemlockinitiative.info)

**Facebook:**  
[www.facebook.com/nyshemlockinitiative](http://www.facebook.com/nyshemlockinitiative)

# Grant Makes HWA Programs Possible for Canandaigua Lake Watershed Association

This year, the **Canandaigua Lake Watershed Association** received a \$3,400 grant from the **Finger Lakes PRISM** to support their hemlock conservation program and enable them to reach landowners in their watershed. We spoke with **CLWA's Steve Lewandowski and Lindsay McMillan** for the inside scoop on what this grant means for the fight against HWA around Canandaigua Lake.

## *What has this grant enabled you to do that you may not have been able to do before?*

CLWA was quick to perceive that HWA represented a threat not only to biodiversity but also water quality and to express this to our watershed property owners. As in all watersheds, thousands of individual private property owners must be involved in the effort against HWA. The PRISM grant allowed us to build on existing property information to develop a contact list of property owners, contact them, and respond to their concerns.

## *Why is monitoring for HWA so important in the Canandaigua Lake watershed?*

Monitoring can lead to effective management practices. Without monitoring and controls, the micro-habitats in the gullies and streams entering the lake will be changed, leading to a reduction in populations of shade-specialized species such as brook trout, some mosses and ferns, and other vascular plants.

## *What will be the main focus of your HWA program going forward?*

CLWA plans to remain active with education through workshops and outreach events, and will continue to monitor the progress of HWA in the watershed. We are also working with property owners to establish hedges that can serve as insectaries to further support the NYS Hemlock Initiative's biocontrol development.

## *If someone wanted to get involved with CLWA's HWA program, how would they go about it?*

CLWA publishes a regular quarterly newsletter, which means HWA has been mentioned at least 12 times in the past three years. But we invite volunteers to participate in the watercraft stewards program, aquatic macrophyte surveys, secchi disk testing in-lake, educational programs, C-SLAP, and other monitoring efforts. We have also placed informative newspaper articles and op-eds in the local newspapers. All of these programs include invitations to participate. **Interested individuals can contact CLWA for more information by calling (585) 394-5030.**

To learn more about the **Canandaigua Lake Watershed Association** please visit their website at [www.canandaigualakeassoc.org](http://www.canandaigualakeassoc.org).

For more information on the **Finger Lakes Partnership for Regional Invasive Species Management (PRISM)** and their grant program, visit the FL-PRISM website at [www.fingerlakesinvasives.org](http://www.fingerlakesinvasives.org).



< HWA in Letchworth State Park, Castile, NY

< Photo by Charlotte Malmberg, NYSHI

## *HWA Around the Northeast*

Hemlock woolly adelgid isn't exclusive to New York State. In fact, there are several locations in the Northeast region that have news of recent infestations. Two of these places, Michigan and Nova Scotia, have reported significant new infestations in 2017.

### *Michigan*

**2015:** Several infestations first discovered on eastern shore of Lake Michigan.

**2017:** HWA is now reported in six counties from Oceana in the north to Allegan in the south. Outbreak attributed to movement of infested nursery stock.

### *Nova Scotia*

**2013:** Initial Canadian infestations discovered in Toronto and Niagara Gorge in Ontario, thought to have been controlled soon after discovery.

**2017:** HWA discovered by Canadian officials in southern Nova Scotia. Infestations found to be widespread over four counties.

# Hemlock Woolly Adelgid 2017-2018 Winter Outlook

## *Aestivation Break*

Usually around mid-October, HWA sistens wake up following their summer resting period, or aestivation. During winter time they grow and produce the all-too-familiar “wool” that you can spot on infested trees.

## *Winter Mortality*

HWA grows throughout the winter months. Cold periods can result in a drop in HWA populations. Not only do low temperatures kill HWA, milder periods followed by abrupt cold snaps can cause high winter mortality, which helps control the HWA population.

## *Upcoming Winter Outlook*

Unfortunately, this year we expect high populations of HWA throughout New York following last year’s mild winter conditions. While we anticipate higher populations of HWA this year, we’ll continue to hope for a season full of cold snaps that will keep those pesky adelgids on their toes.



< HWA sistens feeding at the base of hemlock needles, just after aestivation break.

< Photo by Nick Dietschler, NYSHI



< HWA after the winter growth season, covered in waxy wool.

< Photo by NYSHI

# Biocontrol Update

## Meet Our Biocontrol Bugs

### ***Laricobius nigrinus*:**

- > One of the most abundant natural predators of HWA in Pacific Northwest
- > Synchronized life cycle with HWA, most active during winter and spring months



^ Photo: Mark Whitmore, NYSHI

### ***Leucopis argenticollis* and *L. piniperda***

- > One of HWA's most abundant predators; silverflies that eat both sisten and progredien generations of HWA
- > Add to impact of *Laricobius* by feeding on different life cycles of HWA



^ Photo: Nathan Havill, USFS

Part of our work at the New York State Hemlock Initiative is researching biocontrol management options for controlling HWA populations. This fall we will have the official opening of our biocontrol research lab at Cornell University where we will be researching methods for rearing predators for release at infested sites around New York.

## *Biocontrol Highlights*

- > **Spring 2017:** Released nearly 2,000 *Leucopis* spp. silverflies at 10 sites in New York State, with successful establishment at all sites
- > **October 2017:** Trip to Pacific Northwest to collect *Laricobius nigrinus* beetles for lab colony, hopefully with some leftover for wild release
- > **November 2017:** Official opening of biocontrol research facility at Cornell University