

## SLELO PRISM Partners Share These Goals:

### PREVENTION

Prevent the introduction of invasive species into the SLELO PRISM region.

### EARLY DETECTION & RAPID RESPONSE

Detect new and recent invaders and rapidly respond to eliminate all individuals within a specific area.

### COOPERATION

Share resources, expertise, personnel, equipment and information.

### INFORMATION MANAGEMENT

Collect, utilize, and share information regarding surveys, infestations, control methods, monitoring and research.

### CONTROL

Control invasive species infestations by using best management practices, methods and techniques to include:

*ERADICATION* - Eliminate all individuals and the seed bank from an area.

*CONTAINMENT* - Reduce the spread of established infestations.

*SUPPRESSION* - Reduce the density but not necessarily the total infested area.

### RESTORATION

Develop and implement effective restoration methods for areas that have been degraded by invasive species and where suppression or control has taken place.

### EDUCATION / OUTREACH

Increase public awareness and understanding of invasive species issues through volunteer monitoring, citizen science and community outreach.

## FOR MORE INFORMATION CONTACT:

St. Lawrence Eastern Lake Ontario  
Partnership for Regional Invasive  
Species Management

### SLELO PRISM

C/O The Nature Conservancy

(315) 387-3600 x 7725

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

### Get Involved

Report Invasive Species Observations at  
[www.imapinvasives.org](http://www.imapinvasives.org)

Join our invasive species **Volunteer  
Surveillance Network (VSN)**.

For details, contact

[megan.pistolese@tnc.org](mailto:megan.pistolese@tnc.org)

Join our **listserv** and get notifications for  
upcoming trainings and workshops.

To join follow these steps:

.Email [cce-slelo-l-request@cornell.edu](mailto:cce-slelo-l-request@cornell.edu)

.Type “join” in subject space

.Send a blank email body

Cover Photo: CT Agg. Experiment Station, bugwood.org Tree dieback: Will Blozan, <http://www.ethanzuckerman.com/> . Woolly Masses: Left Photo, ag.umass.edu. Right Photo: Alyssa Reid, OPRHP . Spittle bug: University of Arizona Cooperative Extension. Elongate hemlock scale: Vermont Invasives on Flickr. Underside and top of hemlock needles: Rob Routledge, bugwood.org. Hemlock cones: Lyndon Photography, bugwood.org. Hemlock bark: Keith Kanoti, bugwood.org.

SLELO PRISM

St. Lawrence Eastern Lake Ontario Partnership for Regional Invasive Species Management



**SLELO PRISM**  
“Teaming up to stop  
the spread of  
invasive species”

**SLELO PRISM**



# What is Hemlock Woolly Adelgid?

Hemlock woolly adelgid (HWA), (*Adelges tusgae*), is a small, aphid-like insect native to Asia that is threatening hemlock trees (*Tsuga spp*). HWA feeds on host tree's food storage cells, disrupting nutrient flows eventually leading to mortality of the host tree.

## Signs of HWA Infestation:

**Needle discoloration, canopy dieback. Lack of bright green foliage in spring (new growth).**



**Presence of white woolly masses on branches (Most visible from late Nov. - March)**



## HWA Infestation Look-a-Likes:

### **Elongate hemlock scale**

- White waxy secretions build up on leaves
- Needles turn yellow and fall off.
- **Please notify SLELO PRISM and /or DEC if found.**



### **Spider eggs**

- Egg sacs enclosed in a web



### **Pine Sap**

- Sticky residue buildup



## Hemlock Tree Identification:



- Needles are flat ranging from 1/3 – 2/3 inches long

- Underside of needles have two white parallel lines



- Cones are small, 1/2 inches long



- Bark is gray-brown with white ridges & furrows