### **Our 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.

### **INNOVATION**

Explore technologies to enhance invasive species prevention and management initiatives.

## **SLELO PRISM**

Hosted by The Nature Conservancy
(315) 387-3600
269 Ouderkirk Rd.
Pulaski NY, 13612
sleloinvasives.org
swallowwortcollaborative.org

PRISM Manager: Rob Williams (x7725)

Outreach Coordinator: Megan Pistolese (x7724) Aquatic Coordinator: Brittney Rogers (x7730) Terrestrial Coordinator: Robert Smith (x7723)



Learn to recognize and report invasive species in our region.

For details visit:

sleloinvasives.org/learn/vsn

## Stay informed, follow these steps

to join our e-mail list:

- 1. Email megan.pistolese@tnc.org
- 2. Type "join e-mail list" in subject space.
- 3. Hit send and receive seasonal e-newsletters and event updates.



### **SLELO PRISM**

You Tube

Scan QR Code For More Resources



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 Flicker. Underside and top of hemlock needles: Rob Routledge, bugwood.org. Hemlock cones: Lyndon Photography, bugwood.org. Hemlock bark: Keith Kanoti, bugwood.org.



# Hemlock Woolly Adelgid (Adelges tusgae)



## **SLELO PRISM**

"Teaming up to stop the spread of invasive species"

# 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.

Visit scan the QR code on the back to download a detailed guide to HWA infestation signs and hemlock tree ID.

## **HWA Infestation Signs:**



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

Presence
of white woolly
masses at
needle base on
hemlock tree
branches
(Most visible
from fallspring)





## Look-a-Likes For HWA

# 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.



INVASIVE

## 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, ½ inches long





➤ Bark is graybrown with white ridges & furrows