

Hemlock and HWA Hunters

Hemlock Woolly Adelgid (HWA) Survey Protocol

Survey Protocol for Hemlock Woolly Adelgid:

- Look at multiple branches/twigs on all sides of a hemlock tree
- Look for hemlocks in poor health: with weakened or declining crown; defoliation; pale, greyish foliage, lack of new buds
- Look on ground for infested hemlock branches that have fallen from the canopy

HWA Identification: November—April

- HWA actively growing and developing
- White, waxy wool masses on hemlock twigs at base of needles on new growth
- Best seen looking at underside of twig



HWA Identification: May—October

- HWA in period of dormancy called aestivation
- Black nymphs surrounded by white halo of wool
- Easiest to see using magnification (hand lens or magnifying glass)



Other Clues of Potential HWA Infestation (These do not guarantee an infestation is present, further surveying needed)



Weakened tree crown, loss of needles in canopy; absence of new green shoots in June



Pale, greyish cast to foliage, easily spotted when boating/from a distance



Woodpecker damage from infestation of hemlock borer (native pest)



Elongate Hemlock Scale infestation (INVASIVE-REPORT IF SEEN)

Reporting Protocol: Use one of the following methods to report a known HWA infestation

Use NYiMapInvasives mobile app:

- Download NYiMapInvasives app on your smartphone (App Store or Google Play); create username/password online at www.nyimainvasives.org
- Report **HWA** (for infestation presence) or **X-HWA** (for infestation absence)
- Visit www.nyimainvasives.org for training dates and resources
- Data uploaded into statewide invasive species map

Call DEC's Forest Pest Information Line:

(1-866-640-0652)

Email location details/photo/GPS coordinates to NYS Hemlock Initiative:

nyhemlockinitiative@cornell.edu

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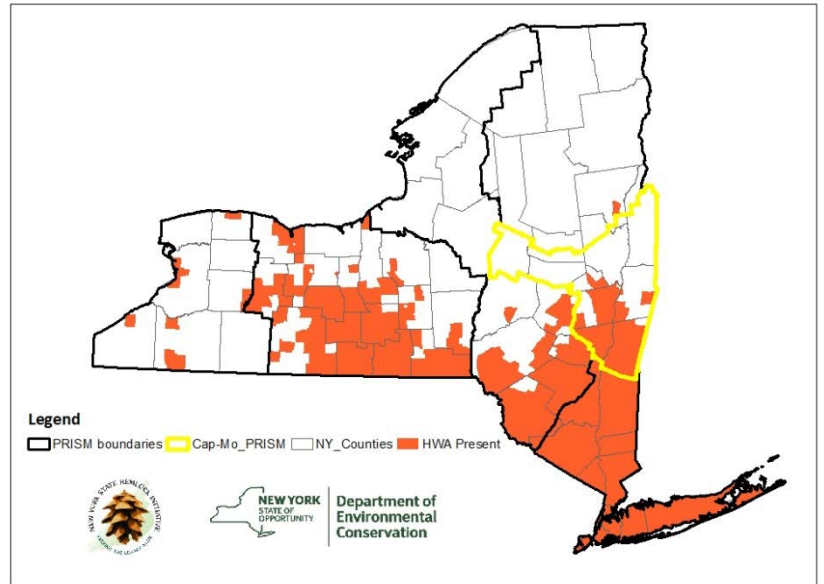
HWA Survey Protocol: Capital-Mohawk (Cap-Mo) PRISM

PRISM stands for **Partnerships for Regional Invasive Species Management**. New York has eight PRISM regions, each made up of conservation organizations concerned with invasive species detection and management at the local, regional, and state level. Additionally, each PRISM has specific goals regarding hemlock conservation and HWA management in its region.

Cap-Mo PRISM HWA Outlook:

HWA has spread partway through the Cap-Mo PRISM region. In the southern portion of the PRISM, HWA is well-established, but the northern portion is largely uninfested and is the last line of defense between the heavily-infested Lower Hudson-Catskill region and the Adirondacks, where the majority of New York's hemlock resources are located. For this reason, detection and treatment of infestations in the northern Capital-Mohawk are critical.

HWA management and volunteer efforts differ between the northern and southern areas of the PRISM. Learn more below:



Get Involved: Northern Cap-Mo PRISM

- **Report any HWA finding in your area.**
- **Survey for hemlock stands** and report locations to help develop an HWA management plan for the region.

Additionally, for both regions:

- **Report any findings of pine bark adelgid (PBA)** in the area (characterized by white, woolly fluff similar to HWA wool on the trunk, branches, or twigs of white pine trees). Findings help us improve our biocontrol research program.

Get Involved: Southern Cap-Mo PRISM

- **Report any HWA findings in your area.**
- **Assess the health of infested hemlock trees in your area.** Tree health data is used by NYS Hemlock Initiative to determine locations of potential biocontrol release sites.
- **Consider treatment options** on your property if you have infested hemlocks. Management information is available on the NYSHI website (see address below).
- **Consider getting involved with our hemlock hedge program.** If you have an infested hemlock hedge and are interested in hosting a colony of HWA predator insects, please let us know.
- **Become a NYSHI HWA Phenology volunteer** and track HWA's major life stages throughout the year.

Resources for HWA Management in Cap-Mo PRISM

Cap-Mo PRISM website:

www.capitalmohawkinvasives.org

Cap-Mo PRISM Facebook page:

www.facebook.com/CapMoPRISM

New York State Hemlock Initiative website:

www.nyshemlockinitiative.info

NYS Hemlock Initiative Facebook page:

www.facebook.com/NYSHemlockInitiative

For questions about HWA management in your area, or for more information on getting involved with our Citizen Scientist volunteer programs please email us at nyshemlockinitiative@cornell.edu