

Tree Health Assessment Survey Form

Location (town/land name):	Date:	Time Spent Surveying:																				
Site (trail name, etc.):	Access Point (Parking/Trailhead/Road):																					
Ownership/Contact:	GPS parking/access:																					
Stand GPS:	Stand GPS:																					
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To begin your survey:

- **Go to location with good hemlock resources.** The form has space to describe 4 hemlock stands in a given location.
- **Take a GPS point** at the best approximate center of survey area, mark survey area on a map, or give detailed description of survey site so that it may be revisited.
- **Use three tree health observation metrics:** (1) Average HWA density on sample twig, (2) hemlock canopy health, and (3) presence of low branches on trees

When surveying:

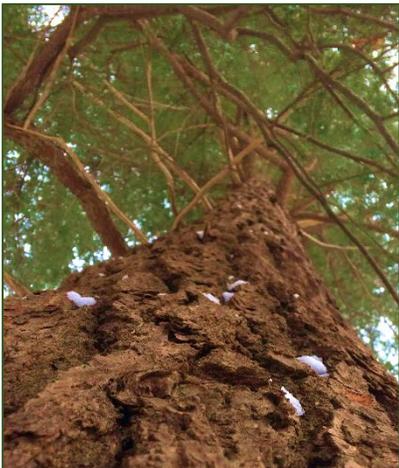
- **Assess multiple twigs on multiple trees in a stand** to create a composite score for the sample area.
- **Be sure to include the following information in the Comments section:**
 - (1) Length of time surveying each stand
 - (2) Short description of site (steepness, wet/dry conditions, near water, etc.)
 - (3) Other present hemlock pests or other information regarding site health

Send completed survey forms to nyshemlockinitiative@cornell.edu

Survey Metrics:

- **Average HWA Density** – Assessment of investment severity within a stand. To record, count number of ovisacs present on several sample twigs of several trees and give an average estimate for the site. Assessed on 0-5 scale where 0 indicates no HWA present and 5 indicates 20+ ovisacs present on a twig (very heavy infestation).
- **Hemlock Canopy Health** – Assessment describing canopy density and live crown ratio of a stand canopy. Assessed on a 1-5 scale where 1 describes a tree with almost no live foliage and nearly open canopy and 5 describes a healthy tree with abundant, dark green, healthy foliage and a full canopy.
- **Presence of Low Branches** – Assessment of live hemlock branches within arm’s reach within stand. This is assessed on a more qualitative scale with the only options being (1) yes, (2) no, and (3) some.

Guide to Assessing Hemlock Canopy Health:



5 – <20% canopy loss (80% of light blocked), healthy, deep green, dense foliage



4 – 20-40% canopy loss, foliage beginning to thin, still very green



3 – 40-60% canopy loss, foliage thinning, sickly-looking lower branches



2 – 60-80% canopy loss, foliage thin, foliage beginning to appear grey, sickly



1 – 80+% canopy loss, very sparse foliage, only tufts and/or branch tips remain