

# High Allegheny Hemlock Conservation Partnership Hemlock Woolly Adelgid (HWA) Boat Survey Protocol



## How to Survey:

- **From a distance**-In late spring and early summer new hemlock growth should be bright green on a healthy tree; HWA infested trees typically lack this new growth, have an overall grayish appearance and may have needle loss, branch die-back or a declining crown



- **Up close**-Look for the presence or absence of HWA at the base of the needles on the underside of the hemlock branches (see images below)

## Gear List:

- Something that floats
- Proper safety equipment for the vessel
- Map of the waterway/waterbody
- Hand lens
- GPS Unit; mobile device with *iMapInvasives* installed; or flagging tape

## HWA Identification: November-June

- White woolly masses present at the base of the needles



## HWA Identification: July-October

- HWA nymphs surrounded by a thin halo of white wool



**Reporting:** Use one of the following methods to report HWA survey results

**Submit to:** *iMapInvasives* mobile app or desktop version

**Email this form to:** [hwa@rtpi.org](mailto:hwa@rtpi.org)

**Mail this form to:** Roger Tory Peterson Institute 311 Curtis St. Jamestown NY 14701 or USDA Forest Service-Allegheny National Forest 4 Farm Colony Drive Warren, PA 16365

Attach photos  
here if mailing  
form

# Hemlock Woolly Adelgid Survey Site Form

Date of Survey:	Y	Y	Y	Y	M	M	D	D	Site Name(s): NY_# or PA_#
Surveyor(s):									
Coordinates:									
<input type="checkbox"/> UTM <input type="checkbox"/> Decimal Degrees <input type="checkbox"/> Degrees Minutes Seconds									
Site Address (approx. if coordinates not taken):									
Number		Street Name			City/Township			State	
Landmarks (stream name, hollow, roadway, etc.):									
Contact Name:					<input type="checkbox"/> HWA Present <input type="checkbox"/> HWA Absent				
Contact Phone:					Notes:				
Email:									
<b>SUSPECT TREE INFORMATION</b>									
Coordinates/location information of infected trees:									
Pictures Taken?: <input type="checkbox"/> Y <input type="checkbox"/> N					Signs & Symptoms Present:				
Notes:  Stand info (number of dead/declining trees, dbh, age, overall health, etc.)					<input type="checkbox"/> Woolly Masses <input type="checkbox"/> Crawlers <input type="checkbox"/> Twig Dieback <input type="checkbox"/> Thinning Crown				
					Infestation Rating: <input type="checkbox"/> Light <input type="checkbox"/> Moderate <input type="checkbox"/> Heavy				