

# Hemlock Woolly Adelgid

## How to Recognize the Hemlock Woolly Adelgid

Scientific name:  
*Adelges tsugae*



White woolly masses on twig at base of needle



- an aphid-like, invasive insect that threatens forest and ornamental hemlocks in Eastern North America.
- HWA are most easily recognized by the white “woolly” masses of wax, about half the size of a cotton swab, visible at the base of needles. They are most visible in winter.

## Identifying Hemlock Trees

Flat, evergreen needles ranging from 1/3 to 2/3 inch long



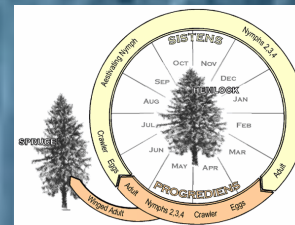
Two white parallel lines on underside of needles



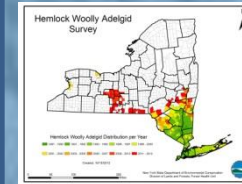
Hemlocks have a dense canopy, producing a cool, moist, shady environment that is important for the survival of many species.

## Hemlock Woolly Adelgid (HWA) Life Cycle

With 2 generations per year the progeny from one HWA at the beginning of the season can lead up to 40,000 total offspring for the year.



## Extent of Infestation and Treatment



Treatment with pesticides is effective, one treatment can last up to 7 years.

Biological control measures are also being investigated using predators from Eastern Asia and the Pacific Northwest.



*Scymnus camptodromus*  
Melody Keena, USFS

## Hemlock Woolly Adelgid Look-alike



Spittlebug

Elongate Hemlock Scale, another invasive insect is common in the Hudson Valley.

