



## Hemlock Woolly Adelgid



**Cotton-like egg sacks of hemlock woolly adelgid (HWA) on the underside of a hemlock branch.**

Native to Asia, the hemlock woolly adelgid (HWA) is a small, aphid-like insect that threatens the health and sustainability of eastern and Carolina hemlocks throughout their native ranges in the Eastern United States. The adelgid was first detected in eastern North America, near Richmond, Virginia in 1951. It has since established in portions of 18 states from Maine to Georgia and now infests the majority of the mid-Atlantic and southern range of hemlock species. Unlike forest pests that attack stressed or weakened trees, HWA benefits most by infesting healthy trees with lush, green needle growth. Drought, poor site conditions, and other stressors may accelerate the rate and extent of hemlock mortality, but unhealthy trees are less favorable for HWA survival. Once infested with HWA, hemlock mortality typically occurs within 4-10 years; however, in warmer southern regions such as ours, mortality can occur in as few as 3-6 years.



HWA feeding at the base of hemlock needles.

## Life History

Hemlock woolly adelgids produce two generations per year, laying up to 300 eggs in winter and 20 to 75 in spring. To protect themselves and their eggs, they create a covering of wool-like wax filaments, (called ovisacs) that look like tiny little cotton balls. Though HWA themselves are miniscule (less than 1/16 inch long) and hard to see, these cottony ovisacs can be readily observed on the underside of hemlock branches from late fall to early summer. Unlike many insects that become dormant in winter, HWA enters a period of dormancy during the hot summer months, emerging to feed once cooler temperatures prevail (around October) and continuing to feed throughout the winter. The adelgids feed at the base of hemlock needles, depriving the trees of starch reserves critical to their growth and long-term survival.

## Control of Hemlock Woolly Adelgid

Chemical, biological and other controls are available to help reduce HWA infestations and protect individual trees. Scan the QR code below to go to our website and discover how we are controlling HWA on park lands and what you can do to help prevent the spread of this exotic insect pest.

**For more information  
call 423-569-9778**

