

Hemlock Woolly Adelgid Initiative

Protecting hemlocks in the East

U.S. Department of Agriculture
Forest Service
Northeastern Area State and Private Forestry



Description: The hemlock woolly adelgid (HWA) is a nonnative insect pest that is a major threat to the survival and sustainability of eastern and Carolina hemlocks and to the wildlife species that depend on them. HWA was first reported in the Eastern United States near Richmond, VA, in 1951. It has since been found in 18 States from southeastern Maine to northeastern Georgia and west to eastern Kentucky and Tennessee. Hemlock decline and mortality are common in Virginia, North Carolina, Georgia, Tennessee, New Jersey, New York, Connecticut, and parts of Pennsylvania. HWA currently infests about one-half of the hemlock's native range in the Eastern United States (figure 1) and has the potential to spread across the entire range of hemlock in the next few decades.

The Hemlock Woolly Adelgid Initiative is an integrated, multiagency effort. It involves a variety of cooperators and nongovernmental organizations with help and support from the National Association of State Foresters and the National Plant Board. Its goal is to develop and use management tools that will slow the spread of HWA and minimize its negative effects.

Key Issues:

- Hemlock is an irreplaceable contributor to biodiversity and old growth in the East. HWA threatens hemlock health and the future establishment of hemlock in infested areas.
- The economic impact on nurseries and other wood product businesses is already substantial in places and could become more serious if HWA is not controlled.
- HWA is spreading rapidly in the southern Appalachians, killing both eastern and Carolina hemlocks; its impacts are expected to intensify and spread.
- HWA control using soil and trunk injections of insecticides is effective for individual high-value trees in accessible areas, but this treatment is not practical or affordable for large areas in remote forests.
- State foresters, State plant pest regulatory officials, and the U.S. Forest Service consider HWA a high-priority forest health issue.
- Biocontrol trials have been promising: natural enemies that were released have successfully survived the winter, reproduced, and dispersed. It will be several years, however, before populations of these natural enemies grow large enough to have a significant impact on HWA.

Accomplishments

- Released HWA predators in 19 locations in 6 States: Maine, Maryland, Massachusetts, New Jersey, New Hampshire, and West Virginia.
- Collected more than 8,000 predatory *Laricobius nigrinus* beetles from established release sites and redistributed them to other HWA-infested areas in the East.
- Continued producing *L. nigrinus* beetles for release.
- Completed collecting eastern hemlock cones in Massachusetts and Maine to preserve genetic material from this species.
- Carried out a multistate effort focused on hemlock health in northern New England—Vermont, New Hampshire, and Maine—to coordinate survey and monitoring efforts, release biocontrol organisms, treat trees with chemicals, evaluate impacts, and inform the public.
- Provided technical and financial assistance to Federal, State, and Tribal land managers in Massachusetts, Michigan, New Jersey, Pennsylvania, and West Virginia to eradicate or suppress HWA infestations.
- Carried out surveys for HWA spread along the leading edge of the area known to be infested.

Budget History: The FY 2012 budget is not determined yet.

Hemlock Woolly Adelgid Initiative (Dollars, thousands)			
FY 2009	FY 2010	FY 2011	FY 2012
\$1,139	\$1,015	\$1,532	Not Available

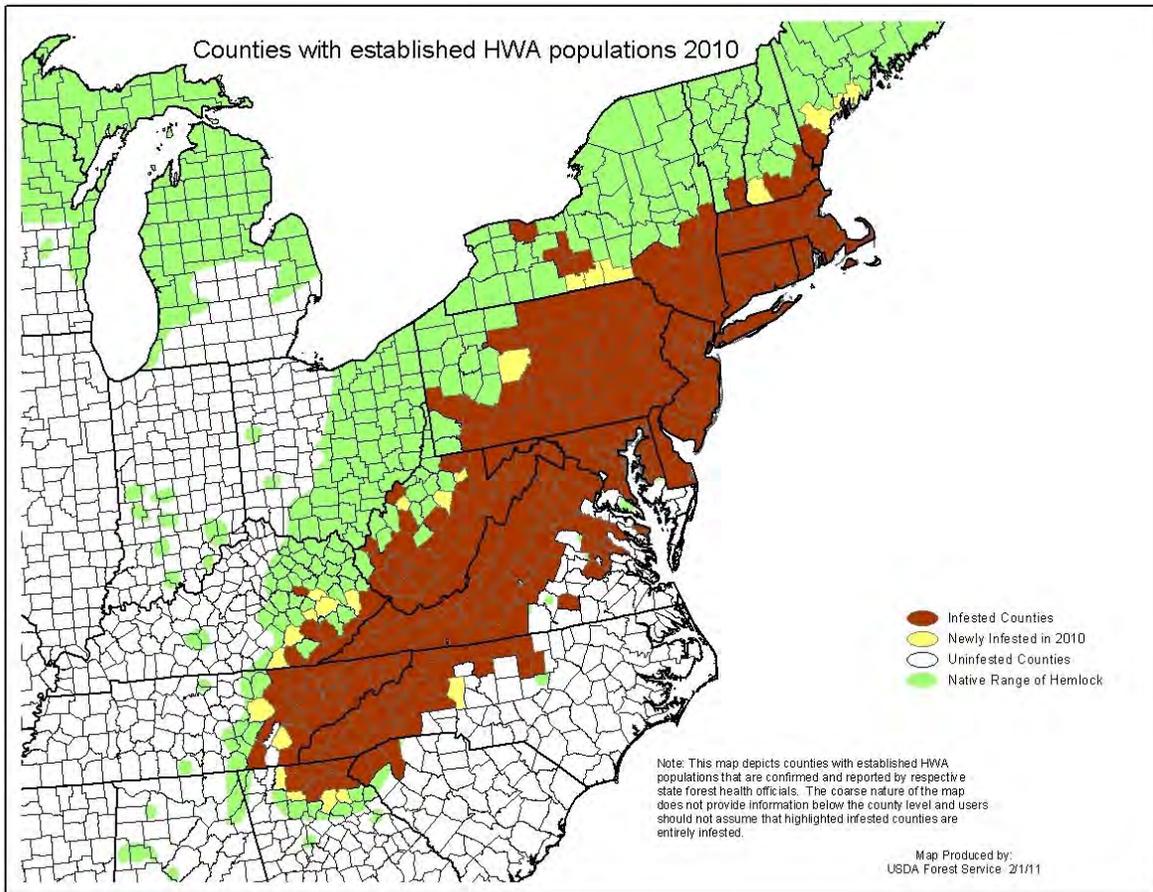


Figure 1. Counties with established HWA infestations (as of 2010) and the native range of hemlock.

Future Direction:

- Continue to carry out the HWA Initiative.
- Continue to establish and evaluate HWA natural enemies throughout the range of HWA.
- Finalize a new HWA Initiative 5-year strategic plan.
- Continue to evaluate landscape-level treatments to manage HWA infestations.

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