

Hemlock Woolly Adelgid Initiative

USDA Forest Service
Northeastern Area
State and Private Forestry



Protecting the hemlock resource in the East

Description: The hemlock woolly adelgid (HWA), a nonnative insect pest, is a major threat to the survival and sustainability of eastern and Carolina hemlocks, and to the wildlife species that depend upon them. HWA was first reported in the eastern United States near Richmond, VA, in 1951. It has spread to 17 states and is now found from southeastern Maine to northeastern Georgia and west to eastern Kentucky and Tennessee. Tree 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 hemlock's native range in the eastern United States and has the potential to spread across its entire range in the next few decades.

The HWA strategic plan is an integrated, multi-agency effort involving a variety of cooperators and non-governmental organizations, assisted and supported by the National Association of State Foresters and the National Plant Board. The goal is to develop and implement management tools that will slow the spread of HWA and minimize its negative effects.

Key Issues:

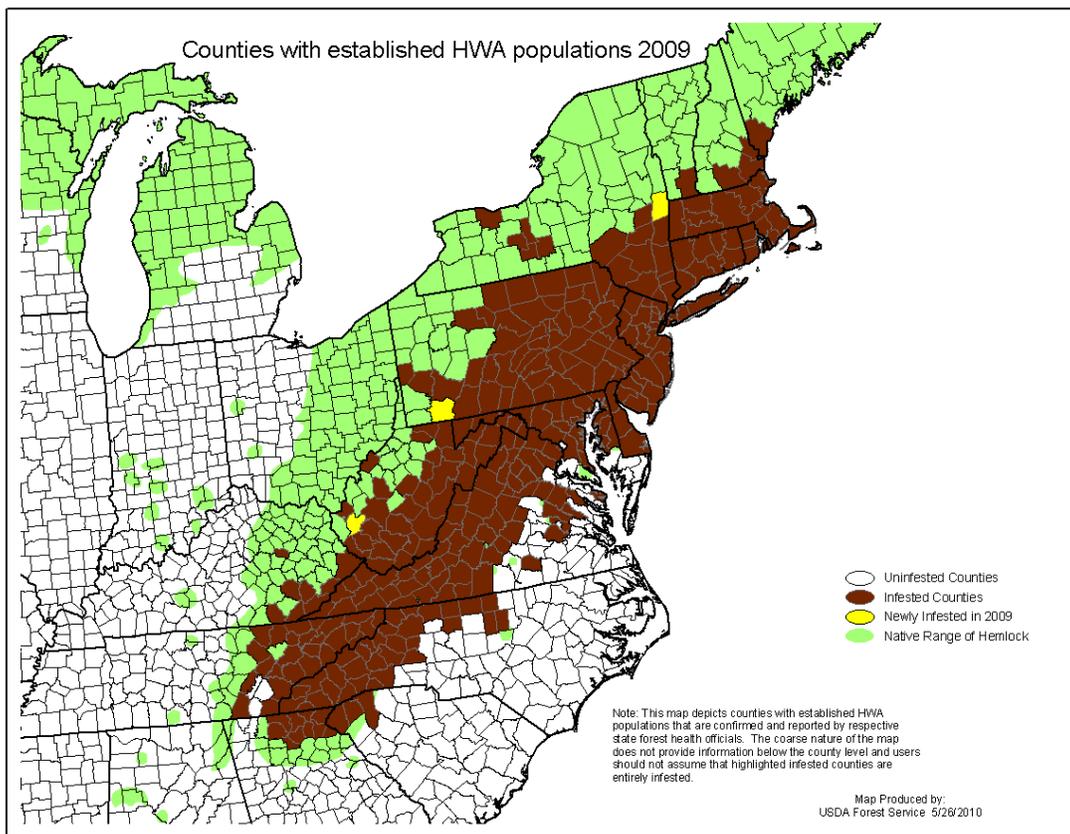
- Hemlock is irreplaceable for its value in contributing to biodiversity and old growth in the East. HWA threatens hemlock health and the future establishment of hemlock stands in infested areas.
- The economic impact on nurseries and other wood product businesses is already substantial in places, and could become more serious if HWA is not controlled.
- HWA is spreading rapidly in the southern Appalachians, killing Carolina hemlocks; its impacts are expected to intensify and spread.
- HWA control by soil and trunk injections of insecticides is effective for individual high value trees in accessible areas, but the treatment is not practical or affordable for use in forests.
- State foresters, state plant pest regulatory officials, and the Forest Service consider HWA a high priority forest health issue.
- Bio-control trials have been promising: natural enemies tested at release sites 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 10 locations in six states (ME, MD, PA, NJ, NH, and WV).
- Assisted State and Federal land managers in MD, PA, NJ, and WV with suppression and eradication.
- Developed a plan to preserve genetic material from Carolina and eastern hemlocks for use in research on natural resistance to HWA and other needs.
- Completed a second field trial to evaluate aerial application of a HWA-killing fungus, which will be studied further in 2011 for its potential as a landscape level treatment.

Budget History: FY 2011 budget is to be determined.

Hemlock Woolly Adelgid Initiative			
(Dollars, thousands)			
FY 2008	FY 2009	FY 2010	FY 2011
\$1,331	\$1,139	\$1,015	



By 2009 the HWA was considered to be established in all or parts of 17 states.
 Three new county records of HWA were confirmed in 2009: Pennsylvania (1); New York (1) and West Virginia (1).

Future Direction:

- Continue to implement the HWA management 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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