

Invading Insects Move Closer

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Photo from USDA Forest Service

They're tiny; they live on the undersides of hemlock needles; they cover themselves with white cottony material during much of the year, and they kill trees. They are hemlock woolly adelgids.

Please help us by watching out for this forest pest on your trees!

The hemlock woolly adelgid (HWA) is a small, aphid-like insect native to Japan and China. First detected in the US on the west coast in the 1920's, it appeared in Virginia in the 1950s. Lacking natural predators, the HWA continues to spread, and is now established in 16 states. It has devastated native hemlock forests in states south of New Hampshire, especially: Virginia, New Jersey, Connecticut, Pennsylvania and parts of New York.

In 2000, HWAs were found in Portsmouth. Since then they have been found in 29 New Hampshire communities, most recently in Madbury, Newmarket, Nottingham and Farmington.

HWA is moved by wind, birds, and animals. It can also be spread by humans transporting infested hemlock trees. According to Jen Weimer, Forest Health Specialist with the NH Division of Forests and Lands, "Surveys show that trees at risk for hemlock woolly adelgid include those along roads or other openings such as fields and ponds. These trees have the greatest chance of appealing to birds that may be carrying the HWA."

Early detection has been crucial to catching infestations while they are small and controlling them. Weimer reports, "The majority of the sites where the adelgid has been found are now being treated by some means, including using biological controls and chemical insecticide treatments."

Hemlock is the third most common tree species in the state. It is often used as a landscaping tree because it forms a dense crown, and has lower branches often extending all the way to the ground – thus providing a nice living screen in the home landscape. In the forest, hemlock provides valuable wildlife habitat. Its dense branches intercept snow, providing shelter for wildlife from deep snow and cold winds.

Hemlock woolly adelgids attach themselves to the stems at the base of needles, pierce the plant tissues and feed on plant cell contents. The damage first appears as needle discoloration (from a deep green to grayish green to yellowing), followed by premature needle drop and defoliation. Dieback usually progresses from the bottom of the tree upwards. Needles on heavily infested branches desiccate, turn a grayish-green color and drop from the tree, usually within months. The adelgids also kill buds, so infested branches produce little new growth.

The insects themselves are very small, and go through various life stages from egg, to black colored “crawlers” to brownish reddish adults.

The most visible sign of HWAs is the white cottony material they produce. Look for this on the underside of young twigs. This “cotton” or “wool” is most visible in the spring when the cottony mass is protecting egg clusters. Found at the base of the needles, the egg masses resemble the tip of a small cotton swab.

For more information about the HWA, and information about keeping your hemlock trees healthy please call UNH Cooperative Extension at 447-3834 or visit <http://extension.unh.edu/news/new72204.htm>.

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