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More Bugs! The Hemlock Woolly Adelgids are here!

The Oak Ridge Reservation's (ORR) first infestations of the hemlock woolly adelgid (HWA) have been detected this January according to Greg Byrd, Oak Ridge National Laboratory (ORNL) Forester. These invasive insects were introduced on the east coast in the 1950's and have been moving steadily westward at about 15 miles per year, borne by winds, birds, and people.

"We've been on the lookout for the past few years and the pests have finally appeared in an old research plot off Ramsey Drive and in a natural stand just west of Y-12," says Greg. There's not much one can do to prevent the spread of the insect, which attaches itself to the base of each needle. Only 1/32 of an inch long, the adelgid is difficult to detect until about October. Then it becomes much more prominent as it coats itself in a fluffy white wax resembling a cotton swab. Then they literally suck the life from the tree causing mortality within as little as three years.

Regionally, the ecological impacts will compare to the loss of the American chestnut. But whereas oaks were able to take the place of the chestnut, there is no other evergreen that can tolerate the niches occupied by hemlock. Aquatic and plant communities dependant on the cooling shelter of hemlock forests will disappear along with the trees.

Hemlocks are more abundant in mountain coves east and west of the Reservation, which is really at the margin of the trees' natural range. Most people residing here in the Valley areas will be more familiar with this tree in its ornamental settings. If you have hemlock on your property, here are some tips for maintaining healthier trees and minimizing HWA infestations:

- Do not disturb shallow roots;
- Keep hemlocks well watered during dry spells;
- Fertilize uninfested trees lightly with a balanced fertilizer, but do not fertilize infested trees as this tends to make the infestation worse;
- Do not place a bird feeder in hemlocks as birds can spread the adelgid;
- Clip and burn heavily infested branches;
- Remove large heavily infested trees that can act as reservoirs for uninfested trees;
- Do not change the slope of the land near hemlocks, and do not change water flow to or away from them; and
- When applying lime or weed killer to lawns, stay at least ten feet away from the outermost branches.

To learn more about how to manage the insect, consult the University of Tennessee Agricultural Extension Service's bulletin SP503-G. For more information about the ORR infestation, contact Greg Byrd, byrdgs@ornl.gov, or 865-574-7445.