

WOOLLY WATCHERS: Spotting Forest Invaders



USDA Forest Service photo by Michael Montgomery.

Look closely at the needles on an eastern hemlock tree. Do you see fuzzy, white things - like tiny cotton balls - at the base of the needles? If you do, that tree has been attacked by an invasive insect called the hemlock woolly adelgid!

Hemlock Woolly Adelgid

The hemlock woolly adelgid is a tiny insect that drinks the sap out of eastern hemlock trees. Adelgids like to lay their eggs near the needles so that when the eggs hatch, the new insects can drink the sap there, too. Eastern hemlocks, like all trees, make sugars to feed their leaves, protect their buds, and grow. When the adelgids drink the sap, the trees don't have enough nutrients to take care of themselves. After about three years, eastern hemlock trees infested by hemlock woolly adelgids die.

Eastern hemlocks grow in the Appalachian Mountain range, especially along rivers and streams. The area next to a river or stream is called a riparian area. In the southern Appalachians, eastern hemlocks make up about half of all plant life growing in riparian areas!

The hemlock woolly adelgid damages many eastern hemlocks. When the trees die, the riparian areas, rivers, and streams can be damaged, too. Some scientists study the hemlock woolly adelgid and ways to keep them from damaging trees. Some people work to replant eastern hemlocks and restore riparian areas that have been damaged by the adelgid.



What does "invasive" mean? An invasive insect is an insect that (1) doesn't come from the area it now lives in and (2) hurts the other plants and animals in their new home.



Courtesy photo by Jason Van Driesche, Bugwood.org.



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TRY THIS: Be an Entomologist

An entomologist is a scientist who studies insects.

- Some entomologists discover new insects we didn't know about before.
- Some study how a particular insect lives and grows.
- Some entomologists study how insects affect their habitats.
- Some learn how to reduce insect damage to trees and plants.

There are lots of things to learn about insects!

Head outside to a safe place and try these activities. When you are observing the insects, make sure you don't touch them. Just use your eyes.



USDA Forest Service photo by Chris Fetting

Finding Insects

Find a nearby tree. Look for insects on your tree. Draw any that you find below. Label your drawing. If you don't know what kind of insect it is, describe with words what you see.

Insect Signs

Look closely at the ground and surrounding plants. Do you see any signs of insects, like holes in the ground, on leaves, or in tree trunks? What about egg cases or webs? Draw and label your findings. Can you discover what kind of insect left those clues?

FUN FACT:
Spiders make webs, but they aren't insects. They are arachnids!

Rate this job! Based on what you learned and what you did, circle or color the number of stars you give this job.



Do you think you would like this job? Why or why not?