

## EASTERN HEMLOCK (*Tsuga canadensis*)

Eastern hemlocks have been known to live over 500 years and grow to heights over 150 feet. Because it is shade tolerant, its seedlings will germinate and grow even in the dense shade created by more mature trees. When one of the overstory trees dies and falls, the young hemlocks respond to the increased sunlight and begins to grow rapidly until it overshadows nearby competitors. When a hemlock thicket is finally formed, few other species of tree are able to survive in its shade.



Note the short needles and flexible branch tips of the hemlock. It's easy to identify a hemlock within a stand of evergreens; its nodding branches and graceful curves soften its profile, while balsam fir and spruce have a distinct, more cleanly defined triangular shape. The hemlock's compact needles distributed all along its branches distinguish it from the white pine's long needles, which are scattered in distinct bundles of five near branch ends.

The hemlocks of New Hampshire are now threatened by the hemlock woolly adelgid (*Adelges tsugae*), a sap-sucking insect accidentally introduced from East Asia into the United States in 1924. The picture shows the hemlock woolly adelgid infestation of a hemlock branch. The woolly adelgid has not yet been reported Grantham, but it has been reported in Charlestown to our southwest and Warner to our southeast.