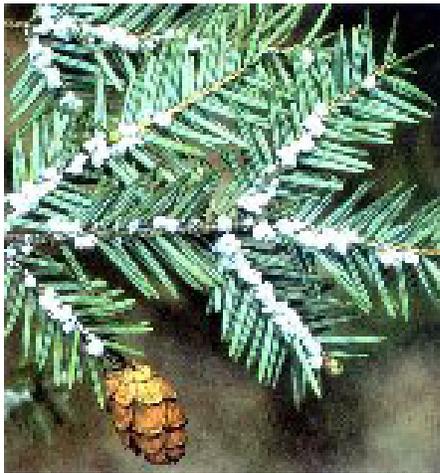


adelgids at needle bases



predatory lady beetle

USDA Forest Service



adelgids at needle bases



predatory lady beetle

USDA Forest Service

hemlock woolly adelgid
***Adelges tsugae* Annand**

A native of Asia, hemlock woolly adelgid was first found in North America in the Pacific northwest in 1924 and later in Virginia in the early 1950s. It is a serious pest of eastern and Carolina hemlock.

The adelgids appear as white cottony sacs at needle bases; these sacs resemble the tips of cotton swabs. The sacs are present throughout the year, but are most prominent in early spring. The adults and nymphs are small, soft-bodied, and feed by inserting narrow stylets into twigs. The adults overwinter on hemlock trees as wingless females. They lay eggs during warm weather in late winter and early spring that hatch in April. Young nymphs (crawlers) move to needle bases and begin to feed. When mature, females produce a white, waxy covering. Second-generation females lay eggs in this cottony mass during June. Nymphs hatch in July and mature by winter. Crawlers may be dispersed by wind, birds, and mammals.

By sucking sap from the young twigs, the insect retards or prevents tree growth causing needles to discolor from deep green to grayish green, and to drop prematurely. The loss of new shoots and needles seriously impairs tree health. Defoliation and tree death can occur within several years.

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