

'English' Ivy is both invasive and harmful to trees

By Susan Yost, Ph.D.

Educator, Claude E. Phillips Herbarium, Delaware State University

On the day following Hurricane Irene last summer, I walked around Dover and saw only a few trees that had been blown over. One of these was a medium-sized Norway maple heavily draped in "English" ivy (*Hedera sp.*). Ever since, I've been attuned to noticing the numerous street and lawn trees that are being taken over by this vine.

"English" ivy is an evergreen, shade-tolerant vine with dark green, lobed, leaves. The vine spreads vegetatively, as well as by seeds dispersed by birds which eat the fruits. "English" ivy is considered to be an invasive plant in Delaware and elsewhere, because it forms a dense monoculture layer which crowds out other plants in natural areas, as well as in yards.

There has been confusion about the name "English" ivy. About 20 years ago, it was discovered that some invasive "Eng-

lish" ivy may be *Hedera hibernica* (Atlantic or Irish ivy), and not *Hedera helix* (the true English ivy).
Often grown as a ground cover, "English" ivy easily climbs up trees (and buildings), clinging tightly by stems with aerial rootlets. In winter, it's easy to see the trunks, limbs and branches of otherwise leafless trees delineated by a green coating of ivy leaves. A dense growth of "English" ivy may be detrimental to a tree. It adds a heavy mass of evergreen leaves to a tree's crown, which is then more likely to catch strong winds and snow, which may cause the tree to fall. It may also block some sunlight from reaching the leaves of a tree.

It's best to prevent "English" ivy from growing up tree trunks, and to remove it from trees it has already ascended. If you've ever attempted to remove "English" ivy from a tree, you'll know that this is difficult. The stems and aerial roots work their way into crevices in the tree bark, and are difficult to pull or pry out. The stems of young ivy vines tend to be brittle and break, so only small pieces can be pulled off at a time. The stems of older vines get thick and hard, and need to be sawed.

However, it's not necessary to remove the entire vine from the tree. If the ivy stems are cut near the base of the tree, then the upper parts will die, and eventually the leaves and stems will rot away. The ivy trunk may need to be pruned away from the tree in order to cut them, since it's important not to cut into the trunk of the tree, as this would damage the tree and allow disease to enter.

It may be tempting to use a chain saw to cut the ivy stems in a circle around the trunk, but this can easily "girdle" and kill the tree. Girdling is when the tree bark and the thin underlying layers of cambium and phloem are cut all around the circumference of the tree trunk. This will cause the

tree to die because sugars produced in the leaves can no longer be carried to the roots through the phloem.

Once you've done all the work of carefully cutting away the "English" ivy stems from a tree, you'll want to keep any new ivy from growing up the tree trunk. The best way is to remove all the "English" ivy in the area, or at least to mow around the tree trunk. An herbicide may be necessary.

It's best not to plant this invasive non-native vine in the first place. "English" ivy is banned for sale or import in Oregon; there's an organization in this state with the intriguing name of "The No-Ivy League".

Surprisingly, recognizing "English" ivy is sometimes tricky. Many people are familiar with the "normal" three- or five-lobed leaves of juvenile vines, which don't produce fruit, and are found growing on the ground and also climbing up trees.

However, in mature adult "English" ivy, See Garden — Page 42



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The heavy and undesirable growth of "English" ivy (*Hedera sp.*) is obvious on this large black walnut tree, which has just shed its leaves for the autumn. All of the leaves on the tree are "English" ivy.

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the leaves look quite different — they are not lobed. This mature "English" ivy usually occurs up in a tree in the sun, where it produces small yellow-green flowers and blackish-green fruits. Mature "English" ivy has rootless stems that don't climb, but rather are self-supporting and form bushy clumps on the tree.

"English" ivy is in the ginseng family (*Araliaceae*), and is native to Europe, where, apparently, it is not invasive. This is often the case with plants in their native habitats which are kept in ecological balance by their natural predators and diseases. There are approximately 11 to 14 other species of *Hedera*, native to Eurasia and northern Africa.

Other invasive non-native vines in

Delaware, in addition to "English" ivy, are Japanese honeysuckle (*Lonicera japonica*), Chinese wisteria (*Wisteria sinensis*), yam-leaved clematis (*Clematis terniflora*), porcelainberry (*Ampelopsis brevipedunculata*), and oriental bittersweet (*Celastrus orbiculatus*).

Two useful online references with information about invasive plants are the Delaware Invasive Species Council (DISC) <http://www.delawareinvasives.net/>, and the Flora of Delaware Online <http://www.wra.udel.edu/de-flora>. Avoid planting any invasive nonnative plants!

On the campus of Delaware State University, the Claude E. Phillips Herbarium is Delaware's center for research, education, and outreach about plant identifications, locations, and uses. Call 857-6452 (Dr. Susan Yost, Herbarium Educator) to arrange a tour of the herbarium, or for more information about this article.