

INVASION ALERT!

Oriental Bittersweet



Groton has been invaded by a foreign plant: oriental bittersweet (*Celastrus orbiculatus*). This vine grows fast in sunny areas, wraps itself around trees, and strangles them. In areas where bittersweet has taken hold, it kills our native trees and keeps new seedlings from growing.

The purpose of this flyer is to show you what it is, how to identify it, and what you can do about it.



Bittersweet strangling trees in the Cox/Walker conservation land.

Description

Bittersweet is *deciduous*, meaning it sheds its leaves in winter. It is a woody plant, but it doesn't grow like a normal tree. Its wood is soft and pliable, and not stiff enough to stand straight up on its own. Instead, it wraps itself around existing trees for support. Using a tree for support allows it to grow much more quickly than the tree and put more energy into making leaves. Its leaves will out-compete the tree for sunlight. This, together with choking the tree around its trunk, and the sheer weight of the bittersweet the tree has to hold up, eventually kills the tree.



Bittersweet in Wharton Plantation



Bittersweet grows quickly when it gets a lot of light, and its seeds are spread by birds. As long as there are some existing plants within bird-flight distance, which is most of Groton, it will quickly move into areas where the forest canopy has been opened up.

Since logging opens the canopy and lets more light reach the forest floor, bittersweet is often found in areas that were recently logged. A good example is Wharton Plantation east of Old Dunstable Road across from Rocky Hill Road.

This vine also grows at the edges of forests, particularly south-facing ones where there is good light. This is common along the edges of roads.

Bittersweet on the north side of Route 40 near Baddacook Pond

Identification



Bittersweet has tear-drop shaped leaves, about 3 inches long when fully grown (upper left). The leaves are *serrated*, meaning they have jagged edges.



In spring and summer, new shoots looking for something to climb up have a characteristic bent-over tendril-like appearance (middle left). In fall and winter, bright red berries with yellow husks are abundant.



The most obvious feature of this plant from a few feet away is how it climbs up whatever support it can find (upper right). When there is little to climb up on, it creates a tangled mess (lower left).

From further back, a bittersweet infestation looks like a leafy net engulfing trees, or any handy support, like this telephone pole by the Country Club parking lot (lower right).



What You Can Do

Bittersweet wood is soft and can be cut with hand clippers up to about one inch in diameter. Large clippers or a bow saw can cut through larger trunks with relative ease compared to most other wood. Depending on what you encounter, there are one of two things to do:

- Individual tendrils should be pulled up. While the wood is soft, it is also flexible and fairly strong along its length. Once it takes hold, bittersweet propagates quickly via roots. When pulling up tendrils, you can often keep pulling and follow the root for ten feet or more. Pull up as much of the root as you can.
- Thicker vines should be cut, preferably close to the ground. Again, simple hand clippers can dispatch vines up to an inch or so in diameter.

The key to combatting bittersweet is to deal with it when it is still young. If you pull up the first few tendrils, the plant is usually killed.

Pulling or cutting once won't kill a mature plant. The live roots that remain in the ground will send up new shoots. Repeated cutting every few weeks will deny the plant food from its leaves, and will eventually kill it. If the infestation is in an open field, regular mowing after the initial cutting and pulling is effective.

However, the most effective way of dealing with a mature plant is to use herbicide after initial pulling and cutting. Herbicide use is beyond the scope of this brochure since it requires expertise, training, and in some cases a legal license. Again, cutting will have a noticeable effect, so go ahead and cut and pull, but don't expect it to solve the problem on its own.

The Invasive Species Committee may be able to provide some guidance, possibly help, and would like to know about large infestations in town. To contact the committee, send email to:

invasive@grotonma.gov

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