

My battle with buckthorn

Lessons learned from slaying the Green Monster

By Dan Bohlin

The “Green Monster” buckthorn in my oak savanna is dead. Killing it took two applications of a very potent herbicide, Garlon 4 mixed with diesel fuel.

It looked like a very large apple tree when it was alive, with stems reaching 25 feet up into the oak canopy. I left its trunk standing as a reminder of a buckthorn problem that was 40 years in the making.

Common buckthorn (*Rhamnus cathartica*) is an exotic shrub native to Eurasia that threatens the health of many Midwestern woodlands. I’ve spent the last six years fighting it on my farm. To help you avoid the curse of the Green Monster, here are some of the things I’ve learned.

Late fall is an ideal time to patrol your woodland to identify this pernicious pest. Its dull green, elliptical or oval leaves remain on the plant well into fall after most native plants have undergone leaf-drop. Tie a strip of bright-colored flagging tape around a convenient branch of any buckthorn plants that you find so you can readily locate them for follow-up control.

Strategic. Flag female plants in particular. Why? Because only female plants produce the fruit that spreads more buckthorn. If you can’t get all the buckthorn with your initial control efforts, at least go after the female plants. The fruit becomes a pea-sized deep purple berry by late summer. Birds



Sure fire: Bohlin tackles buckthorn with a Weed Wrench.

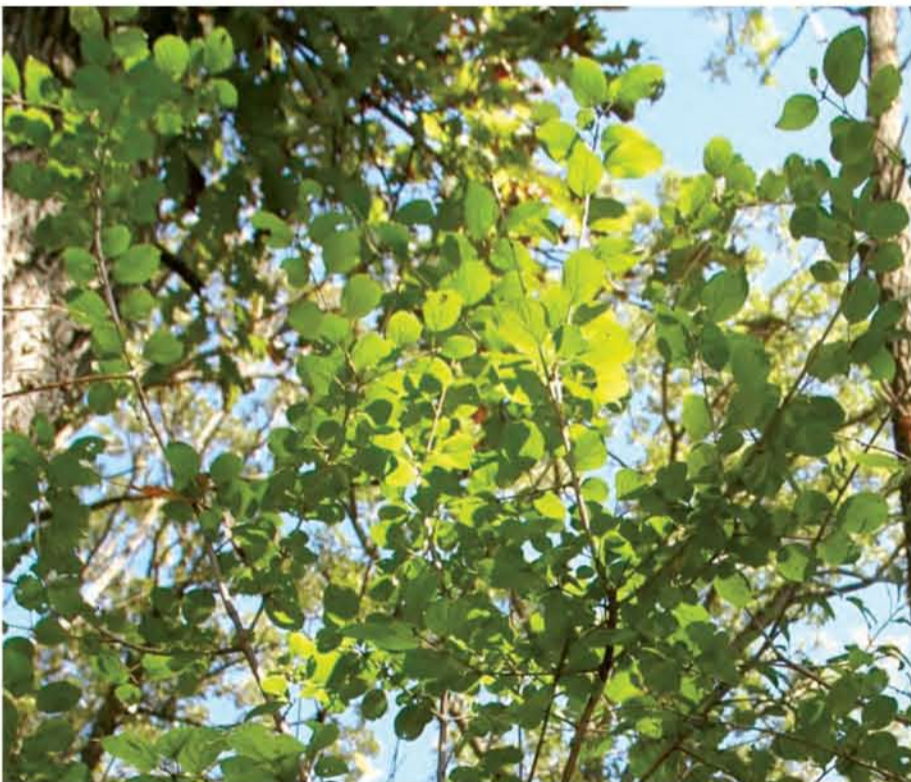
spread buckthorn over a wide area when they eat the berries and pass the seeds. Fertilized by the birds’ digestive systems, seeds readily germinate when they make contact on a wide variety of soil types. Seeds that don’t germinate remain viable in the soil for years.

Within a few years you might find thousands of young buckthorn seedlings around a mature tree. In the area around my Green Monster the proliferation of buckthorn wiped out most of the native vegetation that should have been in the sub-canopy of a healthy oak savanna.

Buckthorn’s root system, though shallow, can be persistent. Therefore, if you choose to cut a buckthorn plant, you need to thoroughly treat the cut stump or stumps around the entire circumference of the cut area with an effective herbicide such as Garlon 4. Failure to chemically treat the cut stump will only encourage vigorous resprouting. Instead of treating

cut stumps, applying a band of Garlon 4 mixed with diesel fuel completely around each stem can also be very effective. These “basal bark” applications tend to be more difficult when more than one stem comes from the root area. Achieving complete coverage takes more time, increasing the likelihood that some of the root system will survive.

You can apply Garlon 4 with an oil carrier almost any time of year against buckthorn. I like fall the best, when



Telltale leaves: Buckthorn’s pale green oval leaves stay on after most other leaves have fallen.

working conditions are better and the herbicide may move more readily to the roots.

Pulling. Root-system survival is not an issue if you pull the entire plant from the ground. That’s been one of my favorite ways to control the Green Monster’s progeny. You can hand-pull plants up to about a half inch in diameter, particularly when the soil is damp. Shake the soil from the roots and lay the plant so the roots are exposed to the air. The plant will soon die. I use a pulling tool like a Weed Wrench or Root Talon to loosen roots of larger plants if I can’t initially hand pull them. With plants several inches or more in diameter, I’ve used my Bobcat skid-steer with a tree-puller attachment to yank the offender out of the ground---a gratifying experience.

Even if you’ve removed larger plants, you need to keep monitoring the area because of the seed bank. I still contend with hundreds of knee-high plants in parts of my oak savanna years after the berry producers were taken out.

I’m top-killing these knee-high plants with annual prescribed burns fueled by the oak leaf litter. The burns should also reduce the viability of their root systems. In addition, the burns are bringing back native species such as wild geranium and bottlebrush grass.

If you find buckthorn in your woodland, take action

and don’t give up. Over the past six years I’ve slain the Green Monster and am gradually restoring the health of my oak savanna.

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Check out the Invasive Plants Association of Wisconsin’s website, www.ipaw.org, for more on the identification and control of buckthorn and other troublesome invasive plants.



Ground Zero: Bohlin left the stump of the Green Monster as a monument to buckthorn’s power of destruction.

After you have exhausted what there is in business, politics, conviviality, and so on, and have found that none of these finally satisfy, what remains? Nature remains. ~ Walt Whitman