

Deer Browse Survey



Why Bother?

Deer are majestic animals, but when they get too numerous in an area, they can eat so much that they prevent new plants from growing and replacing those that die. In the long term, this reduces the variety of plants and wildlife your land can support, prevents the forest from renewing itself with young trees, and encourages invasive plants to grow.

Even if your woods are green and you don't see deer everywhere, you can still have more deer than your woods can support. Deer impacts are subtle at first, and even in severe cases the effects aren't always obvious.

This slideshow will teach you how to spot deer impacts through a browse survey, a quick but reliable way to discover whether deer are harming your woods.

How to Do a Browse Survey

1. Walk your woodlot, not just on your trails but throughout your land. Try to visit every different type of woods you have, such as old fields, young hardwoods, or old conifers.
2. While on your walk, you'll look for deer "indicators." These are plants or land conditions that offer clues as to whether deer are impacting your woods. This slideshow will give you ideas of what to look for and whether they indicate low, medium, or heavy browse.
3. If your browse survey reveals that deer are a challenge your land faces, consider some of the other deer-related Activities here on MyWoodlot to bring your local deer population closer to what your woods can support.

Generally speaking, woods where deer aren't a problem will have complexity, with lots of different plants of various sizes including herbs, shrubs, and tree seedlings and saplings as well as larger trees.



Low

Where deer are a problem, the woods will be simpler, with little undergrowth and few small herbs, shrubs, or tree seedlings.



High

Just because your woods are green doesn't mean deer aren't an issue. Deer simplify the woods, leaving the plants they don't like to take over, like the hay-scented fern in this photo. Where you see ground cover dominated by a single type of plant, that indicates high deer impact. It may look pretty, but it provides little for wildlife, and it offers few chances for new plants and trees to grow.

High

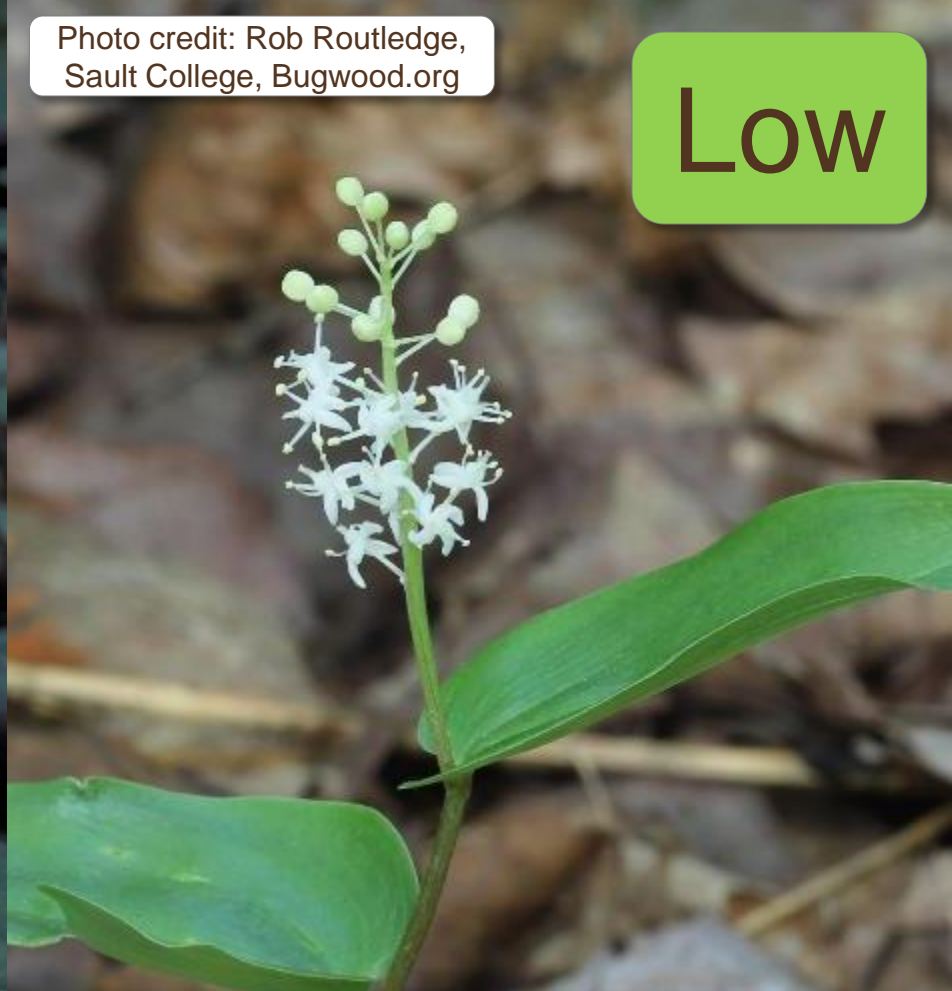
Photo credit: [Nicholas A. Tonelli/Flickr](#)

Beyond these general conditions, you can also look for specific indicators that suggest whether deer impact on your woods is low, medium, or heavy.

Photo credit: Ryan Hagerty, USFWS



Photo credit: Rob Routledge,
Sault College, Bugwood.org



Low

Deer have favorite foods just like we do, and they'll eat those favorites before they eat other plants. Spring wildflowers like white trillium (left) and wild lily-of-the-valley (right) are often the first plants to disappear from the woods when deer get too numerous. Visit your woods in the spring. Do you see wildflowers? Are they blooming? If not, it suggests at least a low deer impact.



Medium

Sugar maple seedlings are another good early indicator of deer browse issues, because sugar maple is common and also preferred deer food. If at least some of your maple seedlings are able to grow tall enough to escape the deer, then deer likely aren't an issue for you. If you have no sugar maple seedlings, or if the ones you have can't get above 6 feet tall, deer are an issue on your land.



High

When it comes to trees, few are as useful deer indicators as American beech. Beech is a common tree, and deer don't like eating it. If you see browsing on young beech sprouts, you can be sure that other plants and trees have been browsed even more heavily, indicating a deer problem.



High

Hay-scented fern isn't a desirable deer food, so it often blankets the forest floor in cases where there are too many deer. In this example of high deer pressure, you can see the abundant growth inside a deer fence (left), while hay-scented fern dominates the rest of the woods (right).

A photograph of a forest scene. In the foreground, a low, rustic stone wall made of grey and brown rocks runs across the frame. Behind the wall, a dense thicket of Japanese barberry with vibrant red and orange autumn foliage covers a sloping hillside. Tall, slender trees with bare branches stand in the background, creating a misty or overcast atmosphere. A small, square, blue and white marker is visible on the trunk of a tree on the right side of the image.

High

Deer generally prefer to eat native plants, so in cases of high deer pressure, non-native invasive plants like this tangle of Japanese barberry often take over. Reducing deer populations can go far in helping native plants outcompete invasives.

A photograph showing a dense thicket of multiflora roses with prominent red stems. The plants are growing in a field of dry, yellowish-brown grass. The roses are in various stages of bloom, with some showing small yellow flowers. The background is a mix of dry grass and more vegetation.

High

Invasive plants can also indicate high deer browse when they're getting munched on too, like this browsed multiflora rose. If deer are eating the invasives, it usually means most of the native plants have already been eaten.

If you aren't confident of your plant ID skills, there are other deer indicators you can look for. These indicators don't require you to be able to tell species apart. At most, you'll need to tell between hardwoods (trees with broad leaves) and conifers (trees with needles).

If you recently harvested timber or cut your own firewood, hardwood stump sprouts are a great way to gauge your land's deer pressure. Do they get taller from year to year? If so, deer probably aren't an issue for you. If they stay the same or get shorter, deer are a problem.



Medium

Photo credit: Norbert Frank, University of West Hungary, Bugwood.org

When deer pressure starts to get worse, shrubs and tree seedlings take on a bushier appearance, called a “witch’s broom” as shown here. This broom shape indicates deer are browsing enough to prevent new sprouts from getting taller.

Medium

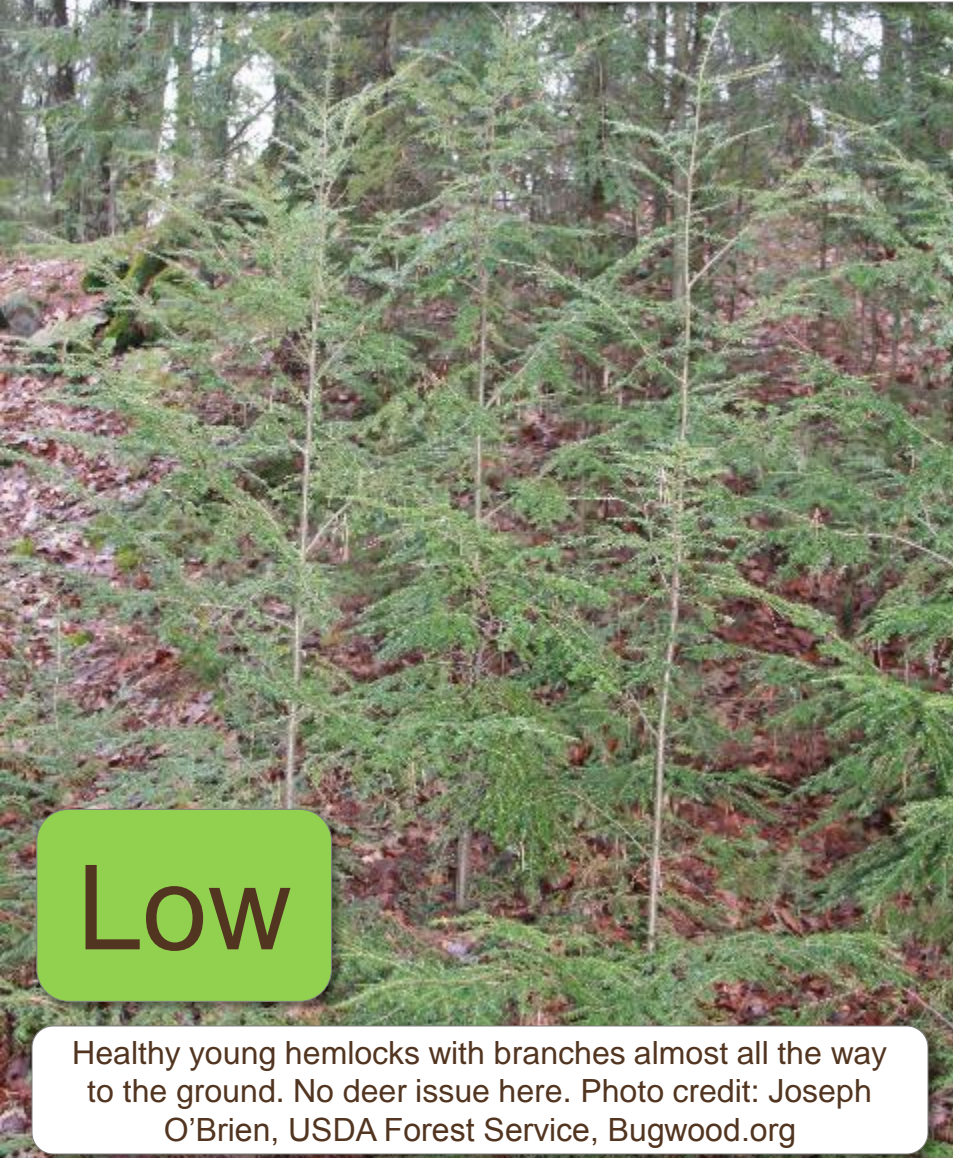


Medium



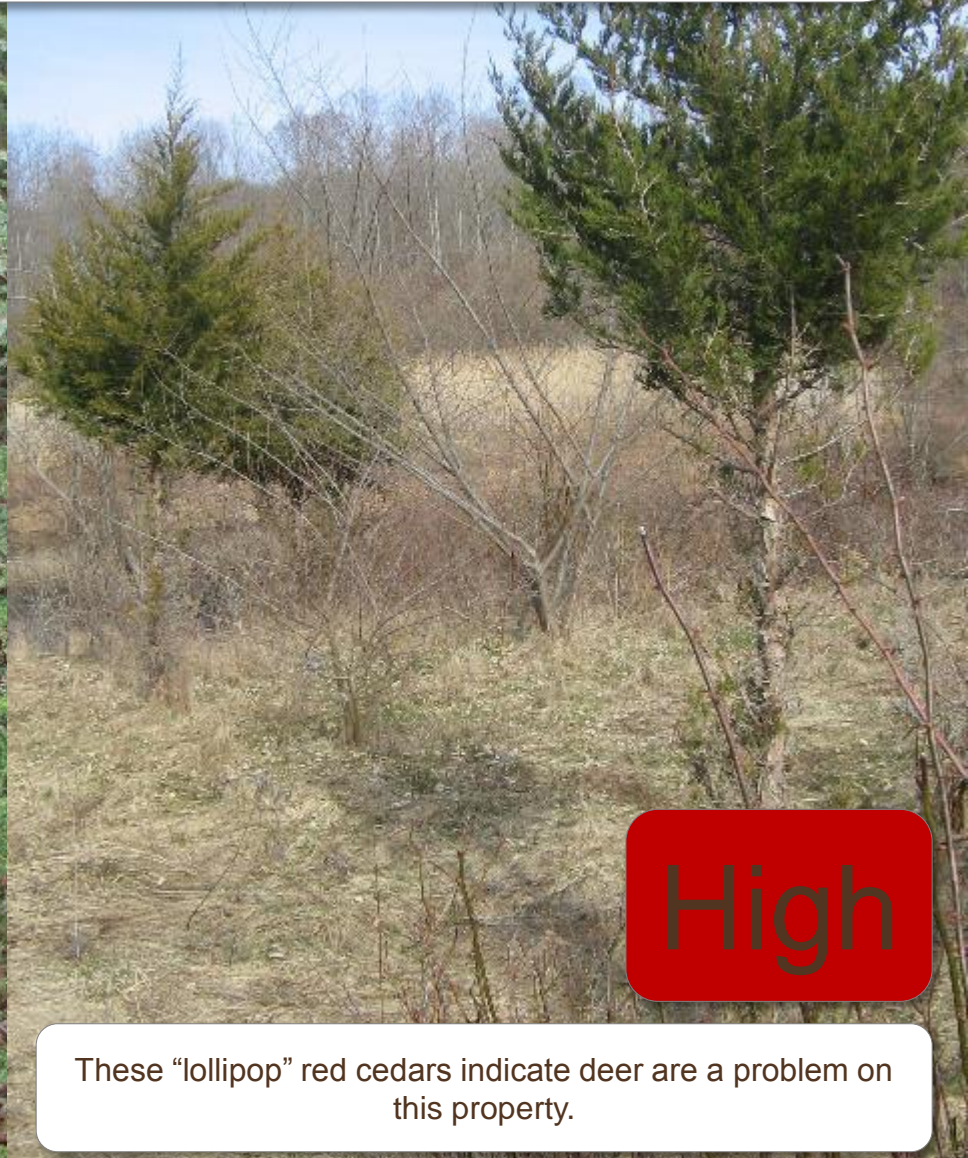
Another indicator of worsening deer pressure is seeing browse on conifer seedlings like this pine. Deer prefer hardwoods over conifers, so if they're browsing conifers, it usually means other, better food sources are already gone.

Young conifers are also useful browse indicators because they have branches close to the ground. If your young conifers have branches close to the ground, that indicates low deer pressure. But if they look like lollipops and lack branches below 6 feet, deer are a problem for you.



Low

Healthy young hemlocks with branches almost all the way to the ground. No deer issue here. Photo credit: Joseph O'Brien, USDA Forest Service, Bugwood.org



High

These "lollipop" red cedars indicate deer are a problem on this property.

Sometimes you don't have to look at individual plants to see deer impacts. Places deer can't reach, like the tops of boulders, are also good indicators. If plants grow in these places but not nearby where deer can reach (as in this photo), that indicates high deer browse.



High

Photo credit: [CurtIs Abert/Flickr](#)



High

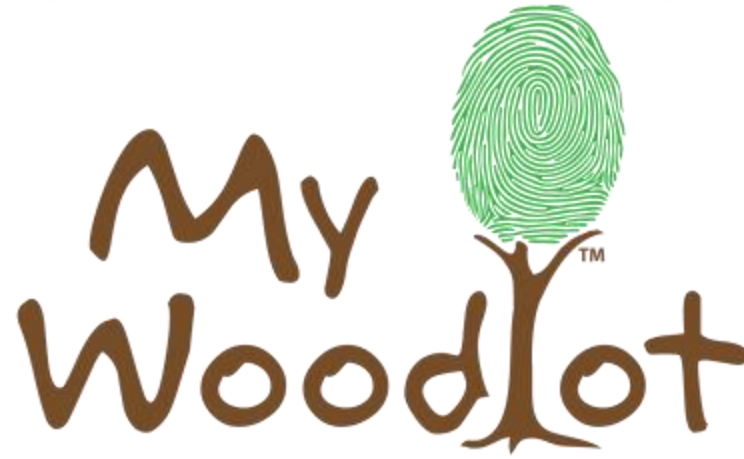
In cases of extreme deer impact, there will be a clear horizontal “browse line” in the woods at the highest point deer can reach. If you see this line in your woods, you have a severe deer problem.

More than woods can indicate a deer problem. If you have a field that you don't mow or hay, and that field has stayed a field for more than a decade, it suggests deer are an issue on your land. They're eating the shrubs and tree seedlings that would naturally transition that field into woods.

High

What Next?

1. If after your browse survey you conclude your land isn't impacted by deer, congratulations! That's a good sign that your woods will be able to regrow after disturbances like storms, insect infestations, and timber harvests.
2. If you have low or medium deer browse, consider doing an annual pellet count survey for a couple years to figure out if your local deer herd is getting bigger or smaller. If it's growing, you'll likely have problems in the future.
3. If you have high deer browse, your woods are being harmed. Plant and wildlife numbers are lower and less diverse than they would be with fewer deer, and your woods will have trouble recovering after a disturbance. Consider trying some of the other Activities listed under this MyWoodlot Goal that suggest ways to reduce deer pressure on your land.



Is an educational website created to help forest landowners become active stewards of their forestland. MyWoodlot is brought to you by the Watershed Agricultural Council in partnership with



Visit mywoodlot.com and get started today