

BACKGROUND

WHITE-TAILED DEER AND OUR PLANT COMMUNITIES

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The greater Washington region, like most of the eastern United States, has seen a dramatic increase in white-tailed deer populations over the past century. Whitetails eat a wide variety of plants and the growth in their populations is changing the vegetation in heavily-browsed areas. Whitetail browsing has become a serious pressure on some native plants—and on various animals that depend on those plants.

The white-tailed deer (*Odocoileus virginianus*) is the most abundant and widely distributed native ungulate (hoofed mammal) in the Americas. Its range extends from roughly the southern third of Canada, through most of the continental United States and Central America, and into parts of South America as far south as the Amazon River. This magnificent animal has supported people for thousands of years—supplying meat, clothing, and tools made from antler, bone, and sinew.

At the beginning of the 20th century, hunting and habitat destruction had reduced the US whitetail population to about 500,000 animals. Today, US whitetail numbers stand at an estimated 12 million, making them more abundant now than they were when Europeans and Africans first arrived in the New World.

The growth in whitetail populations is largely the result of game conservation programs. Growth has also been favored by the suppression of many whitetail predators, such as wolves, bears, cougars, and bobcats. Another important factor over the past half century has been suburban development. Eastern North American suburbs are often excellent deer habitat. In these areas, hunting is usually very limited, few if any natural deer predators remain, and there is an abundance of forage. The whitetail is an “edge species”—it prefers areas that contain both forest, where it can hide, and field, where food is more abundant. Suburban expansion has created huge swaths of edge habitat.

From the whitetail’s perspective, the suburban landscape is a supermarket. In addition to its native foods, the whitetail browses many ornamental plants, and even lawns. (Lawns and other artificial plantings are often fertilized, which makes them more nutritious to the deer.) Even though the whitetail is a generalist browser, it has definite preferences and where its favorite foods are available, it will browse them first. It eats both herbaceous (nonwoody) plants, as well as the young growth of shrubs and trees.

Heavy whitetail browsing can be an annoyance for homeowners—and a serious concern for park managers. In natural areas, heavy browsing usually first suppresses saplings and low growth of favored species, such as oaks, redbud, red maple, and white pine. Afterwards, the whitetail population moves on to less favored species.

In forests, this process may eventually force a decline in a range of native trees, shrubs, and herbaceous plants. Such a decline may in turn reduce the populations of other animals dependent upon these plants. It may also help spread invasive alien plants, since many invasive species are not on the whitetail menu and heavy browsing of other plants may open up more space for the invasives. With deer browsing, as with many other ecological forces, scale and intensity matter a great deal. Whitetail browsing can be “good”—in the sense that it helps preserve native biodiversity—at moderate intensity, and a threat to that diversity at greater intensities.

Managing whitetail populations in suburban areas is a very challenging task. Hunting, the standard means of control, can be

politically unpopular; in many areas, hunting is also too dangerous to permit. Even where hunting is feasible, whitetail reproduction is very efficient in good habitat, and a high proportion of mature females would have to be culled from a population, for several consecutive years, to achieve a long-term reduction in population size. Unfortunately, there is as yet no “deer contraceptive” that is practical for use on large wild herds.

Deer Watching

Whitetails are beautiful animals and rewarding to watch. The best times to see them are around dawn and dusk, when they are most likely to be active. If you make a habit of walking in parks at these times, you will almost certainly see them. Whitetails “spook” easily, so most encounters are brief. But deer are creatures of habit, so regular walks through whitetail haunts will likely yield many glimpses of them.

You can also find evidence of their browsing at any time, by checking the young growth of palatable species. Another sign of whitetail presence is abrasions along the bases of trees and shrubs. These abrasions are caused by the antler-rubbing of bucks (male deer), as a way of marking their territories. The rubbing is usually performed just before or during the rut, or mating season, in fall and early winter.

Whitetail Lore

The whitetail is the only deer native to eastern North America. A close relative, the mule deer (*Odocoileus hemionus*), is North America’s only other native deer; it lives in the west.

A full-grown whitetail buck (male deer) can weigh up to 330 pounds. Whitetail does (female deer) tend to be smaller than bucks.

The number of “points” on a buck’s antlers is not a reliable indicator of age, although older bucks always have multiple points. Whitetail bucks shed and regrow their antlers every year. Does do not have antlers.

Whitetails have been clocked at speeds of up to 36 miles per hour; they can jump an eight-foot fence.

Whitetails often visit roads because they are looking for salt, an essential nutrient that can be hard to find in the wild. Such visits, unfortunately, often end in collisions. Every year in our region, thousands of people are seriously injured in these accidents.

In captivity, a whitetail can live more than 20 years, but in the wild, few survive more than 10 years. Where hunting is regularly practiced, very few are likely to live longer than five years.

In the United States, most whitetails die from either hunting or starvation; they rarely die of old age.

In winter, whitetails do not hibernate; they must continue to forage in order to survive.