

All About Antlers

One unique characteristic of the deer family is their antlers. While horns remain permanently affixed to the skull, antlers are shed every year. The exception to this rule is the American pronghorn antelope; they shed their horn sheaths once each year (the pronghorn's bony horn cores are not shed).

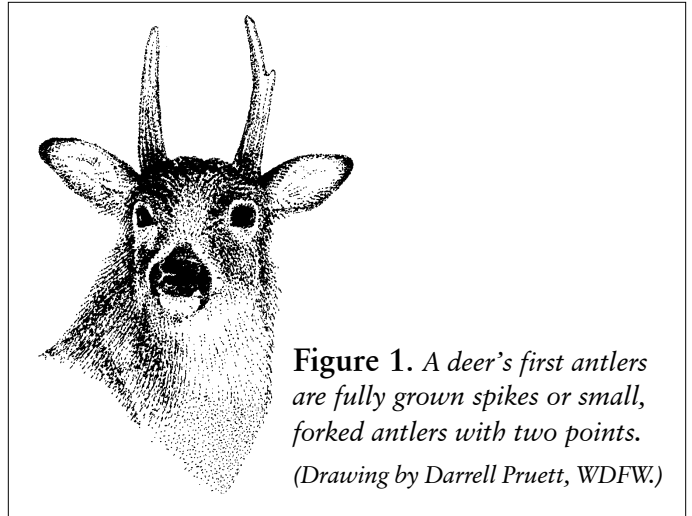


Figure 1. *A deer's first antlers are fully grown spikes or small, forked antlers with two points.*
(Drawing by Darrell Pruett, WDFW.)

Washington state species that grow antlers each year include deer, elk, moose, and mountain caribou.

Antlers form beneath a covering of living skin. This skin, often called velvet, is complete with hair, a very sensitive nerve network, and blood vessels. When antler growth is complete the velvet dries, shreds, and peels off, leaving the hard, mineralized antler ready for the breeding season.

Male fawns develop buttons (small bumps on top of the head) at six to eight months of age. These buttons are the rudimentary beginnings of the young buck's first antler set. Just before the fawn's first birthday, these velvet-covered buttons begin to elongate, growing from bony extensions of the skull known as pedicels. By September these first antlers are fully grown spikes, or small, forked antlers with two points (Fig. 1).

Each year, the antlers tend to grow in mass and diameter. Older bucks tend to have more antler points than younger bucks, but the number of points is not a reliable indicator of actual age. Antler size and conformation also respond to nutrition, and thus serve to advertise the physical condition of the buck. Rich feeding in captivity has produced five-point antlers on yearlings, while a meager food supply can limit even dominant bucks to forks. Bucks generally attain adult-size antlers when they are four to five years of age, but the size and weight of the antlers may continue to increase each year until age ten.

Antlers serve to establish dominance hierarchies among bucks. Big antlers, like bright feathers on male songbirds, are an example of fitness evolved through sexual selection. Because large antlers mean a buck has either survived many years, has superior genetics, or uses high-quality areas, bucks with large antlers make good sires for a doe's fawn. Does tend to select dominant bucks with large antlers for their mates, and this selection enhances the success of bucks with large antlers even more.

Bucks carry their antlers through the fall, dropping them between late December and early March. Hormonal changes cause a weakening of the bone at the tip of the pedicel, where the antler-growing center is located, and the pedicel/antler connection eventually becomes so weak that the antler separates and falls from the pedicel.

Most antlers that have been on the ground for more than a few weeks will show considerable signs of gnawing by smaller animals, and after a year most of the antler points will have been considerably shortened by these mineral craving critters. Dropped antlers are chewed by mice, rats, squirrels, hares, and porcupines, helping them to sharpen their front teeth while supplying them with calcium, phosphorus, and other minerals.

It is legal to collect naturally shed antlers of deer, elk and moose.

Adapted from “Living with Wildlife in the Pacific Northwest” (see <http://wdfw.wa.gov/wlm/living.htm>)

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