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THE GLORIOUS

SPIKE



THE NORTH AMERICAN SPIKE BUCK IS AN AMAZING CREATURE, YET IT HAS BEEN MUCH-MALIGNED AND UNDERAPPRECIATED IN RECENT YEARS. MAYBE IT'S TIME WE STOP THIS AGE DISCRIMINATION.

We as a society have become more sensitive to biases and discrimination, yet no one seems to be concerned about the rampant age discrimination being perpetrated upon this country's white-tailed deer population. In 1969, a physician by the name of Robert Butler coined the term "ageism" to describe stereotyping and discriminating against individuals or groups on the basis of their age. Unfortunately, throughout his otherwise successful career he was not able to stamp out age discrimination by hunters as they passed up perfectly good bucks in their quest for older individuals:

Deer hunters were not always so discriminating. For most of our history of hunting deer, humans were interested in the meat and leather they provided. To the early hunter, the age of the deer was not important, except for the realization that younger deer tasted better. I suppose the shift in focus by some hunters from the hindquarters to the antlers is simply a by-product of our incredible success in conserving whitetails throughout all of their historical range. It is only because of the abundance of deer that some now have the luxury to let a young buck walk.

The Rise of Headophiles

Somewhere along this progression of successful conservation we might have lost our heads in the quest to mount theirs. As an average hunter and a proudly self-proclaimed meat hunter, I'm not sure this progressive trend constitutes progress. There is an undeniable increase in the number of hunters who should be registered as "headophiles." This perception is exaggerated by Internet forums and social media, but today a hunter's reputation seems to be more related to the content of a forum post than a meat pole.

Stores display shelves of glossy-paged hornography magazines with large-racked individuals on their covers that most hunters could only dream of laying their hands on. This all gives the average hunter a warped sense of reality and causes nothing but disappointment when they return home. The peer pressure to shoot a large buck can be tremendous in some circles, with friends talking about spikes as if they are not really bucks at all. My own agency sends a post-hunt questionnaire that asks if you harvested a spike or a buck! This all leads to hunters feeling like they need to make excuses when they shoot a spike. We hear things such as, "It was the last day," "I'm really busy at work," "It was close to the road," or simply, "I was hungry." I pity the kid who wants to shoot her first deer and is told by a parent to wait for a bigger one, as if that is important somehow for ethical or conservation reasons. Spikes and kids just go together. Spikes are perfectly legal in most places and a legitimate trophy to take home for steaks, roasts, jerky and sausage.

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Spikeology

Let's take a closer look at the animal that is all-too-often ignored. There is some confusion surrounding the term yearling and just exactly what young bucks grow and when they grow it. Farmers and ranchers commonly refer to the young of the year as yearlings. In the deer world, a yearling is an animal that has passed its first birthday but is not yet 2 years old. These are the animals we see at about 1½ years old during the hunting season.

At birth, male fawns have almost-imperceptible bumps on the frontal bone of their skulls. At about the age of 4 months, they experience a rise in testosterone which causes the growth of small platforms, called pedicles, on the skull. These pedicles appear as small fur-covered knobs during the fawn's first fall. At this point, the ends of the pedicles are not polished and therefore not shed; they remain dormant until the buck's second spring. These small fuzzy knobs earn these animals the unflattering nickname of nub bucks. At this point they are not considered antlers. In fact, many states define a legal buck as "hardened antlers above the hairline" to differentiate between bucks and antlerless animals. Rarely, the skin covering the nubs will break open exposing the boney pedicle, but these are not made of polished antler material and do not have an antler bur (coronet) at the base.

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It was once commonly believed that, "Once a spike, always a spike." But research indicates that this isn't necessarily true. Hunters are better informed these days but there is still a lot of misunderstanding about spike bucks.

base for the future development of antlers. When a buck fawn reaches the age of 9 to 10 months, antler growth is initiated from the pedicles and thus starts his first real set of antlers. Although testosterone is necessary for the development of pedicles, large amounts of this hormone are not needed to grow antlers. In fact, even moderate levels of testosterone actually slow the growth of antlers. Testosterone levels fluctuate throughout the year and are at a very low level during the spring when antler growth starts. A large combination of other hormones increases and decreases during various phases of the antler-growing period. This complicated orchestration of hormones is all part of the incredibly complex antler cycle. A sharp rise in testosterone as the rut approaches is what causes the velvet to dry and be rubbed off and a subsequent decrease after rut causes the antlers to be shed.

Back in the day, there was an old wives' tale that, "Once a spike, always a spike." Hunters are much better informed these days, but there is still some misunderstanding about old spikes running around in the woods. Some of this might stem from inexperienced biologists and hunters looking

in the mouth and seeing very worn premolars. However, in yearlings the first three premolars (top and bottom) are very worn "baby teeth" that will be replaced when they are 2 years old. Looking at these teeth makes people think the deer is very old.

According to Keith McCaffery, Wisconsin DNR deer researcher and manager for more than three decades, there are very few animals older than yearlings with spikes. He tallied spikes in a subset of Wisconsin data and found 29 of 1,588 deer aged 2½ years old (1.8 percent) were spikes in forested northern Wisconsin. In the farmland where deer have access to better nutrition, only 12 of 1,826 2½-year-old deer (.6 percent) were spikes. (Incidentally there was a single 3½-year-old that was recorded to have spikes.) Some of these older Wisconsin deer recorded to have unbranched antlers on each side might actually have had broken antlers rather than natural spikes.

Spike Inferiority

Spikes have the reputation of being genetically inferior. There is no more denigrating insult, but in this case there is a little truth to that. We know antler size is a product of age, nutri-

tion and genetics. Age is obvious; as we saw above, spike antlers are almost entirely a yearling characteristic. Nutrition is also intuitive; if the buck has a limited amount of nutrition, it doesn't have enough extra fuel to put into secondary characteristics such as antlers. Sometimes a late-born fawn doesn't have enough time to catch up to the others before winter and it can result in having only spike antlers the next year regardless of genetics.

Anywhere from 25 to 65 percent of whitetail yearlings are spikes. Some of this is related to nutrition, often exacerbated by extreme weather (drought or severe winters) and some the result of genetics. We have realized for a long time that antler size and shape are inherited, but there has been a lot of

confusing and contradictory advice given about how genetics relates to anything practical on the ground.

Starting in 1973, Texas researchers began a series of experiments on the effects of genetics and nutrition on antler and body size in whitetails on the Kerr Wildlife Management Area. In the first experiment, eight bucks that were spikes as yearlings and one buck that was a large 10-pointer at 3½ years old were bred to does and the antler development of 10 generations of offspring was recorded. Data collected from this captive population indicated a buck's future antler size could be predicted by looking at his first set of antlers. On the average, mature bucks that carried spike antlers when they were yearlings did not grow antlers as

big as those that were forked-antlered yearlings. Yearling spikes also went on to produce more spike-antlered offspring in their lifetime than bucks with forked antlers as yearlings.

The early studies from Kerr WMA set off the "spike wars." If spikes were prone to producing and passing on inferior antler genes then removing spikes might be a way to cleanse the gene pool. However, as more information became available, the idea of genetic improvement became more complex and managers were understandably confused. Dr. Harry Jacobson at Mississippi State University also had a captive deer herd and he showed that some spikes from his herd became tremendous bucks at maturity! The truth is, spikes produce



(above) According to one Texas study, mature bucks that carried spike antlers when they were yearlings did not grow antlers as big as those that were forked-antler yearlings. However, Dr. Harry Jacobson at Mississippi State University had a captive deer herd and he showed that some spikes from his herd became tremendous bucks at maturity.

(right) Spikes are perfectly legal in most places and are a legitimate trophy for any young whitetail hunter. They are also the very foundation of this country's successful system of wildlife conservation. No one should ever have to apologise for shooting a spike buck.



smaller-antlered offspring on average, but most of them will be bucks most people would be proud to take home and many would incur a taxidermy bill if harvested in the peak antler-growing period of 5 to 7 years old.

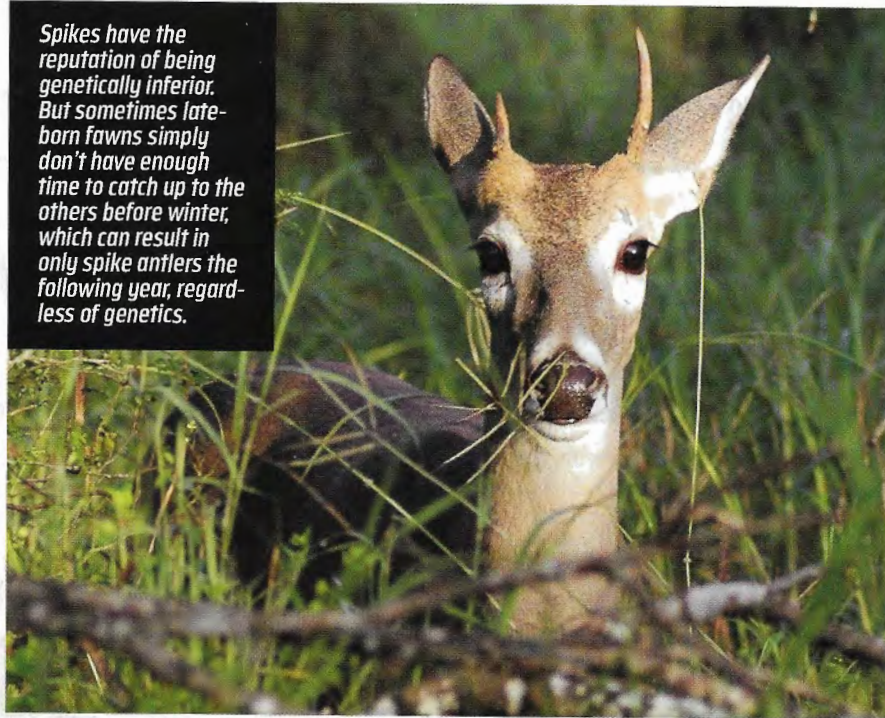
The real question is whether you can realistically change the gene pool of a wild population by removing those with inferior antler size or characteristics. This idea was intensively investigated on the famous King Ranch in South Texas. Researchers conducted a very intensive culling experiment to see if the antler genetics of a free-ranging population could be improved. Each year they removed any yearling with fewer than 6 points and any 2½-year-olds with fewer than 9 points on a 9,000 acre treatment area. After



eight years of this very intensive culling they compared this experimental area with a similar area with no culling nearby and found no difference in antler quality in each age class of deer. In other words, they compared deer of the same age on the same habitat and the culling produced no noticeable change in the genetics.

Yearling bucks are the most numerous age class in the population, having grown up from the huge fawn crop the year before and they are also the least experienced in evading hunters. This means that spikes and their cohorts are responsible for more enjoyment, more meat, more leather, more bone tools, and for generating more wildlife conservation funding than probably any other age class of any species of wildlife on the planet.

Spikes have the reputation of being genetically inferior. But sometimes late-born fawns simply don't have enough time to catch up to the others before winter, which can result in only spike antlers the following year, regardless of genetics.



Spikes are a great renewable resource. We use the term harvest to illustrate this to non-hunters. Since individuals die each year at a steady rate after they are born, we lose bucks out of each age class each year. If we are not harvesting spikes because they are too small and waiting until they are 5 years old, we are wasting that resource because most will die before reaching that age. Mother Nature kills most wild animals when they are young — it is the natural pattern of mortality in the wild. Throughout history, spikes have purchased more habitat, paid for more law enforcement, funded more wildlife research and provided more public recreation than any other representative of any wildlife species. It is the poster child of the North American Model of Wildlife Conservation and should grace the covers of all the hunting magazines.

Respect the Spike

Spikes are not on the covers of magazines. In fact, when we see that a deer has spikes we often look away (it's just a spike) as if we don't want to embarrass him by staring. We all had that awkward stage on our way to adulthood. We make up alternate names for spikes, such as an "11-pointer," because his antlers look like the No. 11. We call them "4x4s" because they are 4 inches high and 4 inches apart. This is all in good fun, but let's not forget who brought us to

this conservation ball.

We should show respect and take pride in the glorious spike. Keith McCaffery often brags that the antlers of most bucks he has shot will fit in a 3-pound coffee can. I wish more hunters spent time in the treestand thinking about filling a coffee can rather than a trophy room.

Even if spikes have a slight genetic disadvantage in the antler growth department, it is not anything you will notice through a rifle scope or peep sight. The very foundation of our successful system of wildlife conservation is constructed of spike antlers. Never let anyone disrespect a small buck you harvested and never, never apologize for a spike.

— Jim Heffelfinger is a certified wildlife biologist who has authored or co-authored more than 200 magazine articles, scientific papers and book chapters in national, international, and regional publications. He is an adjunct professor at the University of Arizona, Professional Member of the Boone and Crockett Club, and currently works as Wildlife Science Coordinator for the Arizona Game and Fish Department. For more information from Jim, or to order his book "Deer of the Southwest," visit WWW.DEERNUT.COM.

