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WHITE-TAILED DEER (*Odocoileus virginianus*)

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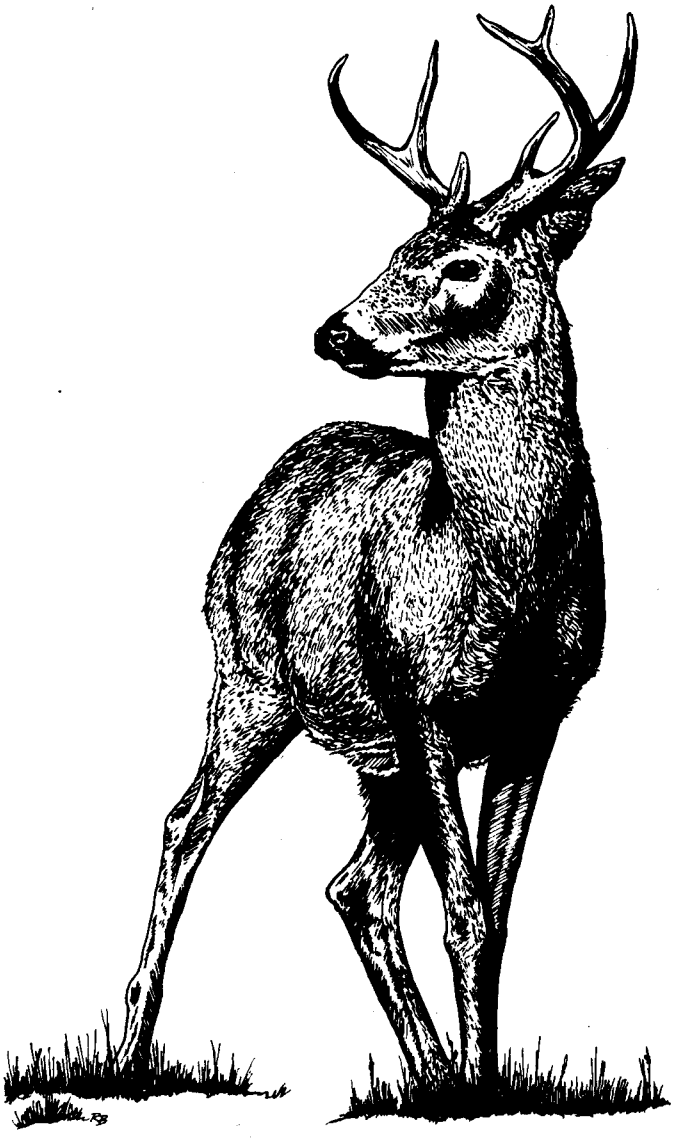
NEBRASKA WILDLIFE

Nebraska Game and Parks Commission

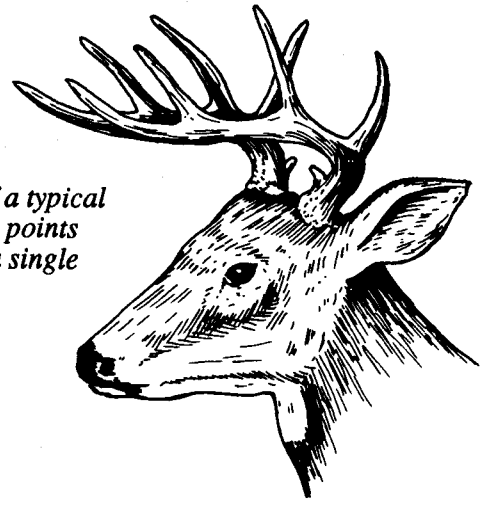
WHITE-TAILED DEER
(Odocoileus virginianus)



Description: The white-tailed deer is named for its most distinctive feature, the large white tail or "flag" that is often all you see as the animal bounds away through tall grass. The color of the deer's upper body and sides changes with the season, from a generally reddish-brown in summer to buff in winter. Its belly and the underside of its tail are completely white, and it has a white patch on the throat. The deer sheds its hair twice a year, its heavy winter coat giving way to a lighter one in spring which is replaced again in early fall. A fawn's coat is similar to the adult's but has several hundred white spots which gradually disappear when the deer is three to four months old.

Fawns are born in late spring and summer and by early November a male fawn weighs about 85 pounds and a female about 80 pounds. Yearling bucks average 150 pounds, while does of the same age average about 20 percent less, or about 120 pounds. Some older bucks weigh 200 pounds or more when field dressed (about 250 pounds live weight) and the heaviest Nebraska whitetail on record was 287 pounds field dressed (about 355 pounds live weight).

A buck fawn has bumps on his skull where antlers will grow when he is older. Yearling bucks may have one to six points on each antler, and, based on over 2,000 deer checked in 1990, average a total of almost six points on both antlers. Studies show that 20 percent of the yearling bucks have four points on each antler; 19 percent have three points on each antler; while about six percent have only spikes instead of fully-developed antlers. Antler development is dependant on nutrition, and when nutrition is poor, 50 percent or more of the yearlings may have spikes.



The antlers of a typical whitetail have points arising from a single beam.

Large "typical" bucks can have seven or more points on a side, and the largest Nebraska "non-typical" whitetail, taken by a hunter near Shelton in 1962, had a total of 39 points one

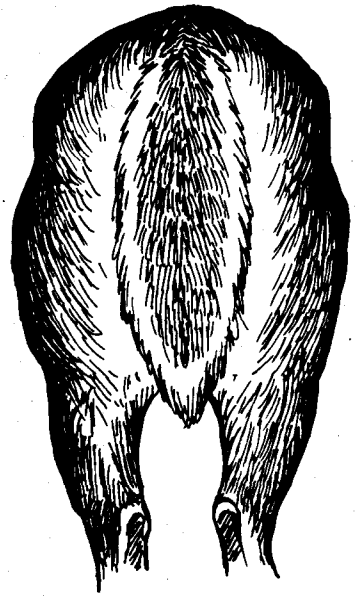
inch or more in length. The typical white-tailed buck's antler has a main beam that sweeps forward and each of the points rise from it. Most buck fawns develop "buttons" by the fall of their first year, which are generally not visible above the hairline. These are hardened antlers which are shed. Subsequent antlers are also shed each year. Antler growth begins normally in April to early May. The new antlers are tender and velvet covered, with the velvet shed in early September on almost all bucks. An occasional male, possible one-half of one percent, does not shed the velvet at all.

The time of antler shedding varies among individual deer and somewhat by area. Most bucks drop their racks in January and February, but rarely may carry them into early May. Contrary to some opinions, numbers of points are no indication of age, but are of some value in judging the animal's condition.

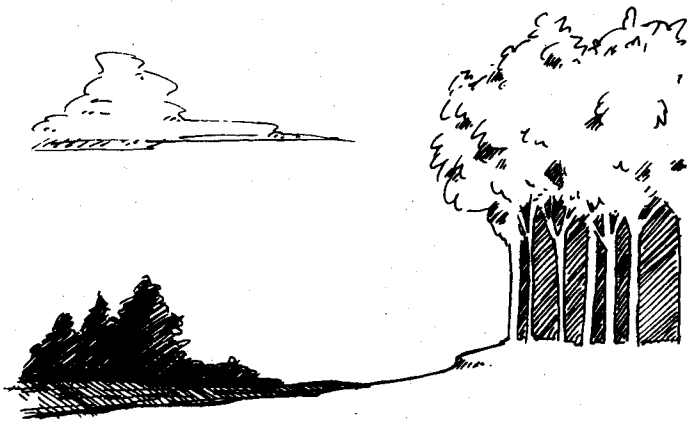
Distribution and abundance: The white-tailed deer is the most abundant and most widely distributed big game animal in North America. It is the most common species in the eastern half of Nebraska and is more abundant than mule deer even on some of the westernmost stream courses (see map).

Whitetails were probably eliminated from Nebraska by about 1900 due to lack of protection and the frontier ethic - I might as well kill it or someone else will. Return of the whitetails was due to change in attitudes and protection. The recovery has been natural, with only a few deer transplanted to southeast Nebraska in the late 1950s, though some were already present there at the time.

Records are limited primarily to hunting seasons - two whitetails were taken near Halsey during the first season in 1945. The entire state was first open for firearm hunting in 1961, when 1,400 whitetails were taken. Harvest gradually increased and since 1987 has been nearly stable at about 28,000 taken annually. In recent years Nebraska's whitetail population each fall has been estimated at between 150,000 to 180,000 animals. Densities on a year-round basis range from less than five deer per 100 square miles in a few counties to 100 per square mile in a few local areas such as Gifford Point near Bellevue and DeSoto Refuge near Blair.



With the tail down, the whitetail's rump is nearly covered with brown.



Habitat and Home: Over most of Nebraska, the best deer habitat is along stream courses and their associated breaks. This prime deer habitat consists of deciduous trees, primarily cottonwood, ash, willow, elm and box elder. Oak and red cedar occur along some drainages, while basswood, walnut and hackberry are found only occasionally. Associated shrubby vegetation includes plum, sumac, chokecherry, buck brush (snowberry or coralberry) wild rose and several other species. River breaks are often characterized by deep gullies and ridges with generally sparse woody growth.

Throughout the state, but especially in the east, are thousands of miles of shelterbelts. A combination of hardwood trees, red cedar and shrubs is usually found in these plantings. They are often used by deer for cover, though perhaps only on a seasonal basis if they are located considerable distances from more extensive cover.

Woody cover provides the best whitetail habitat, though it is not essential for their survival. Grasslands are suitable where the topography provides concealment, especially when it is associated with marsh vegetation. Dense areas formerly used as crop producing lands, such as those under long-term retirement programs, have increased whitetail distribution in recent years.

Croplands are a reliable year-round food source, and provide a sea of cover from July through October or November. Deer may use croplands for extended periods, but they must retreat to permanent cover for protection from weather and predators after harvest is completed.

Habits: In some areas where cover is extensive and other requirements are met, a deer may live its entire life and die within one or a few square miles. With the linear habitat of stream courses movements may be extensive. Recoveries of 23 whitetails tagged in the Sandhills showed an average movement of 38 miles from the point of tagging, with two extremes of 125 and 137 miles.

Deer move most often and for the greatest distances during spring and fall. In late spring, does may travel in search of fawning sites, although adult females move less than other deer. Greater travels are made by yearlings, on their own for the first time. Travel increases in fall after the harvest, as deer leave croplands and begin mating activities.

Whitetails have developed keen senses to help them avoid predation. They depend on scent, particularly in thick cover, but also have excellent hearing and sight.

Because of their behavior and the habitat they prefer, whitetails are less vulnerable to hunting than are mule deer. Tagging studies in the Sandhills indicated that whitetail bucks were only one-third as likely to be bagged as mule deer in the same general area.

Foods: Agricultural crops constitute from 40 to more than 50 percent of the whitetail's year-round diet in some areas. In northeast Kansas, corn is the single most-used plant in all seasons except summer, with 29 percent overall use, while in Iowa corn comprised 40 percent of the deer's diet. Although whitetails are commonly observed in alfalfa fields, alfalfa is a relatively minor food source.

Native foods that make up part of the deer's diet include woody vegetation, particularly buckbrush and rose, with lesser amounts of dogwood, chokecherry, plum, red cedar, pine, and a host of other species. Forbs, particularly sunflowers, are important, while grasses and sedges are used only briefly in spring and fall. Although whitetails can obviously subsist entirely on native foods, they apparently have a preference for farm crops, which constitute the biggest management problem in agricultural states - balancing deer numbers so as to satisfy both hunter demand and landowner tolerance.

Reproduction: With good health and good nutrition, white-tailed deer are prolific breeders. Examination of over 600 does in Nebraska has shown about 60 percent breed as fawns (when they are about six months old) and virtually all of the older deer produce young. At least a portion of the buck fawns are capable of reproduction. Breeding commences in mid October and peaks in mid-to-late November for adults, and about one month later for fawns. A buck may mate with several does - up to 20 has been noted under pen conditions. Fawns are born after a gestation period of about 201 days, from early May through late September, with about 60 percent of the total born in June.

Does bred when less than a year of age normally produce a single fawn, with 10 percent of them bearing twins. Older does average almost two fawns - 67 percent have twins, 21 percent have single fawns and 12 percent have triplets. This means that about 140 fawns are born for every 100 does in the population.

The whitetail's reproductive rate is quite high when compared to the mule deer's, which is about 94 fawns per 100 does per year. Only about seven percent of mule deer does breed as fawns. A year later, 94 percent of whitetails and only 68 percent of mule deer become pregnant as yearlings. About 79 percent of pregnant whitetail does carry twins or triplets, while only 52 percent of pregnant mule deer does have multiple births.

At birth, a female fawn weighs about 5 1/2 pounds, and a male about 7 1/2 pounds. A fawn is capable of walking shortly after birth, but its movement is limited during the first few days. When the fawn is two or three weeks old, it begins eating vegetation in addition to nursing. A fawn is normally weaned when it is about four months old, but is capable of surviving without milk at three months or less. About 30 percent of the fawns do not survive until fall.

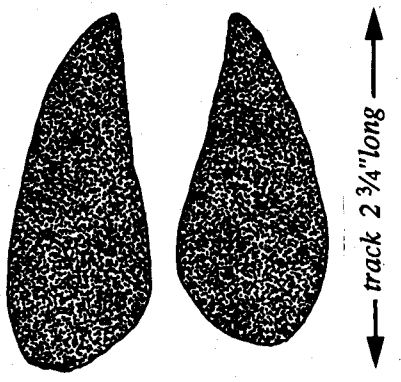
Importance: As is indicated by its distribution and abundance, the white-tailed deer is the most important big game animal in North America. Annual harvest exceeds 300,000 in several states and in Nebraska has been about 28,000 since 1987. A more important measure is the amount of recreation provided, and in Nebraska hunters spend about 400,000 days hunting for deer each year, and about 300,000 for whitetails alone.

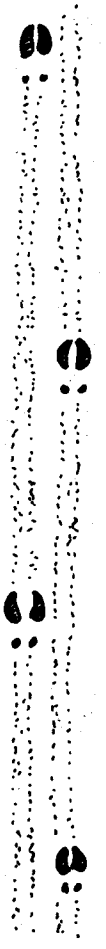
The monetary impact is also substantial. Deer hunters spent about $1.5 million for permits alone in 1990, and about $1.2 million of this was attributable to whitetails. The total amount spent on whitetail hunting and associated activities in Nebraska is probably near $7 to $8 million annually. The enjoyment provided by looking for and watching deer and the time spent in photographing them is of inestimable value.

On the negative side are the nearly 3,000 deer/car collisions which occur annually. Landowner losses of growing or stored agricultural crops can be substantial, although protective measures such as haystack location, fencing and deer repellents often reduce these to tolerable levels. However, the most effective control is through harvest by hunters.

Hunting: To be successful the hunter must know the deer's habits and be able to recognize sign that signals a buck is in the area. One sure sign that a buck is in the vicinity is a rub " a branch or sapling that has been stripped of its bark by a buck knocking the velvet from its antlers. Later in the fall, as the rut approaches, fresh sign of this antlerwork may appear on larger, harder trees, as restless bucks shape up their fighting skills.

An even better sign that a buck is around is an active scrape. This is where a buck has pawed the leaves and grass away, exposing a patch of bare earth from one to three feet in diameter. He generously applies his scent and tracks in the scrape, which serves as a signal to does that he is in the area and available, and warns other bucks that this is his territory and they'd better stay out, or risk a fight.





A buck fully caught up in the fever of the rut may have several scrapes which he checks frequently, or he may post just one and stay nearby. Whichever is the case, the scrape that is being renewed and maintained is a sure sign that a buck will be along sooner or later, and that it merits careful consideration on the part of the hunter.

Of all the sign a hunter is likely to come across, deer tracks are the most obvious and are also the most misused and misunderstood by the novice hunter. A lot of greenhorn deer hunters are likely to latch onto the first set of tracks they find and spend the rest of the day following them, almost invariably without seeing the deer.

Tracks are a valuable sign to a hunter, chiefly as an indication of the frequency and the deer's direction of travel. They

might also give an indication of the size of the deer using an area. Generally, they provide a lot of the same information as do droppings.

Some hunters claim they can distinguish tracks of bucks from those of does, but other experienced hunters discount this. Generally, the tracks of bucks and does look identical, although a hunter tracking a deer might surmise he's on the trail of a buck if it is traveling alone and sticking to more secluded or secretive haunts.

Following a set of tracks in hopes of getting a shot at the deer making the tracks is an iffy game, and is a tactic mastered by only a few specialists. Most hunters follow a trail too slowly or make too much noise to be successful. And, a lot of hunters cannot distinguish a really fresh track, and thus may take up on a trail half a day old or more.

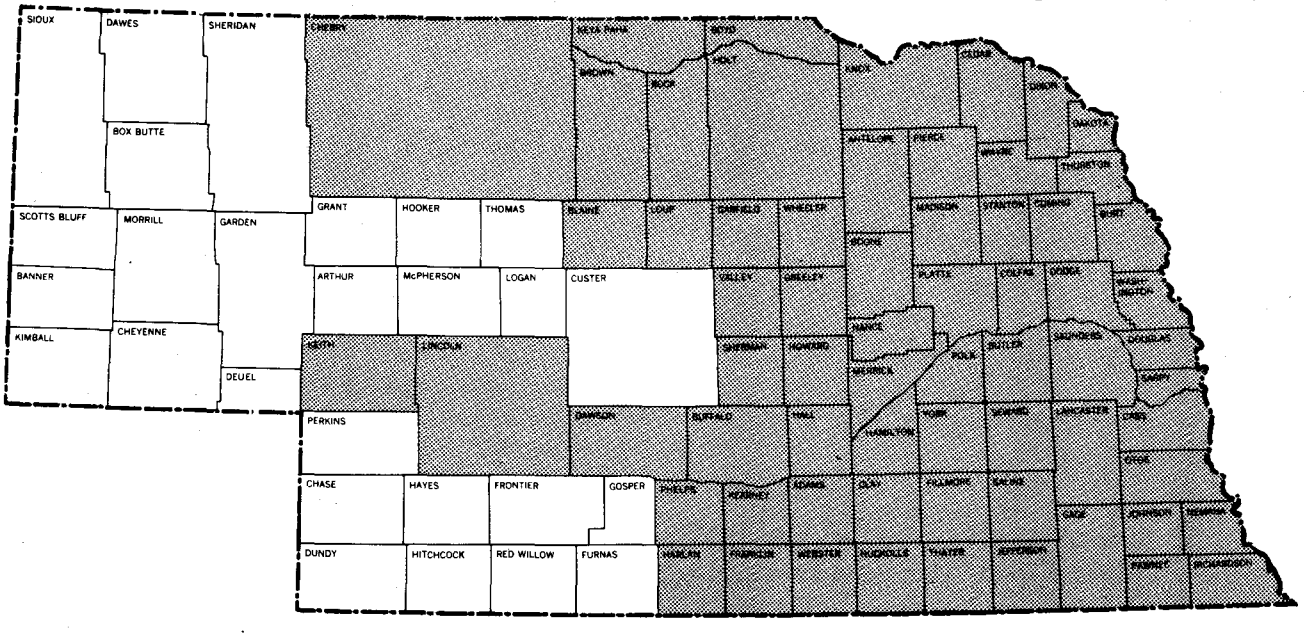
Most hunters following deer tracks pay way too much attention to the impressions themselves and almost forget to look for the deer standing in the tracks. Experienced trackers look for the most distant visible sign, giving it just a glance while keeping their eyes on cover ahead, while being ready for a shot. They also look behind, because deer often double back on their trail to see if they are being pursued.

About the only time most hunters will need to track a deer is after they have taken a shot at one. If the deer doesn't go down, the hunter should check where the deer was standing when the shot was fired, looking for blood, hair, or other signs of a hit. If none is apparent, he should take up the track for a few hundred yards, looking for blood on the ground, bushes and trees the deer may have brushed against, or for signs of staggering, limping or other evidence of a hit.

The deer should be field dressed as quickly as possilbe so that the meat cools rapidly. This insures flavorful, high quality meat for the table.

Whitetails lope gracefully. Usually their large white tails are up and wag from side to side.

Whitetails are more numerous than mule deer on a county-wide basis. Mule deer are more abundant in most of the area of some of the counties noted, particularly Cherry and Lincoln.



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