



On Skin by W. E. Burdette

American Elk - Wapiti Deer.

Drawn from Nature by J. D. Audubon, 1837, 1838

Engraved & Col'd by J. T. Bowen 1840

GENUS ELAPHUS. — GRIFFITH.

DENTAL FORMULA.

$$\text{Incisive } \frac{0}{8}; \text{ Canine } \frac{1-1}{0-0}; \text{ Molar } \frac{6-6}{6-6} = 34.$$

Horns, (existing only in the male,) round; very large; antlers terminating in a fork or in snags from a common centre, suborbital sinus; canine teeth in the male, in the upper jaw; a muzzle.

The generic name is derived from the Greek *Ελαφος*, a Stag, or Elk; the name was applied by PLINY, LINNÆUS, and other naturalists, to designate a particular species existing in Europe, *Cervus Elaphus*.

Three well-determined species may be arranged under this genus; one existing in Europe, one in Walhihi, (the Nepaul Stag,) and one in America.

ELAPHUS CANADENSIS. — RAY.

AMERICAN ELK.—WAPITE DEER.

PLATE LXII.—MALE AND FEMALE.

E. *Cervus Virginianus robustior cornibus amplissimis ramosis terebibus, frontalibus amplis; cauda brevissima. Color rufescens, hieme fuscens, uropygio flavicante stria nigra circumscripto.*

CHARACTERS.

Larger than the Virginian deer. Horns, large, not palmated, with brow antlers; a naked space round the lachrymal opening. Tail, short. Colour, yellowish-brown above, a black mark extending from the angle of the mouth along the sides of the lower jaw. A broad pale yellowish spot on the buttocks.

SYNONYMES.

- STAG, Pennant, Arctic Zool., vol. i., p. 27.
 WEWASKISS, Hearne, Journal, p. 360.
 RED DEER, Umfreville.
 Do. do. Ray, Synops. Quad., p. 84.
 C. STRONGYLOCEROS, Schreber, Säugethiere, vol. ii., p. 1074, pl. 247, F. q. G.
 ALCES AMERICANUS, Jefferson's Notes on Virginia, p. 77.
 THE ELK, Lewis and Clark, vol. ii., p. 167.
 C. WAPTITE, Barton, Med. and Phys. Journal, vol. i., p. 36.
 ELK, Smith, Med. Reports, vol. ii., p. 157, fig. Male, Female, and Young.
 CERVUS (ELAPHUS) CANADENSIS, (The Wapite,) Synopsis of the Species of Mammalia. Griffith's Cuvier, p. 776.
 C. CANADENSIS, Harlan, p. 236.
 Do. do. Godman, vol. ii., p. 294, fig. Male.
 CERVUS STRONGYLOCEROS, Richardson, (The Wapite.) p. 251.
 ELAPHUS CANADENSIS, Dekay, New-York Fauna, p. 118, plate 28, fig. 2.

DESCRIPTION

The Elk is of an elegant, stately and majestic form, and the whole animal is in admirable proportion. It bears so strong a resemblance to the red deer of Europe, that it was for a long time regarded as a mere variety of the same species. It is, however, much larger in size, and on closer examination differs from it in many particulars.

Head, of moderate size; muzzle, broad and long, rather small, not very prominent; ears, large; legs, rather stout, finely proportioned; hoofs, rather small.

From between the horns to the end of the frontal bone, beyond the nasal opening sixteen inches, length of horns following the curvature of the main branch four feet; with all the roots three and a quarter inches, by two and a quarter thick. There are six points on each horn, irregularly disposed, varying in length from nine to sixteen inches, excepting one which is two and a half inches only in length. At their points the horns curve backward and upward, and are about three feet five inches apart, at about half the distance from their roots to the extreme tip of the longest point or main branch. The horns at the insertion are three and three-quarter inches apart from the ring or crown at their roots.

In examining a number of elk horns we find a very remarkable variety, no two antlers being exactly alike on the same animal. We possess one pair which has a blunt prong extending downward on the right side of the face about nine inches, whilst the corresponding prong on the opposite side is turned upwards. The horns of this individual have five prongs on one

horn and seven on the other. The horns are longitudinally channelled, most of the prongs inclining forward and upward, especially those nearest the roots of the main horn. All the horns are large and round, with brow antlers. The weight of the horns on full grown animals, as we have ascertained by weighing about a dozen of large size, is from thirty to forty-five pounds.

The three hindermost teeth in the upper jaw are double; the remainder single. There are in the upper jaw of the male two very small canine teeth inclining forward almost on a line with the jaw. There is a short rudimentary mane on the fore-shoulder, and under the throat during the winter there are long black hairs.

There is a space on the outer side of the hind legs covered by a tuft, which is of an irregular oval shape, of about one and a half inch in length, the hairs which cover it being an inch long, lying flat and backwards, with shorter hairs extending down the leg several inches below the space.

The hairs on the body generally are very coarse, rather short; longest on the back of the ham, where the whitish patch and the black line on the latter unite.

The tail, which in summer is not bushy, is thinly clothed with hair running to a point. A young male has its horns which are in velvet, nearly perpendicular, running but slightly backwards to the length of fourteen inches, where they divide into three short prongs.

COLOUR.

Male.

Muzzle, nostrils, and hoofs, black; head, dark brown; neck, rather darker, being nearly black; on each side of the under jaw there is a longitudinal white patch, between which there is a large black stripe extending along the lines of the under jaw, dividing about four inches from the mouth, and continuing downward to the throat, where it unites again and is diffused in the general black colour of the throat and neck, leaving in its course a white space between the bone of the lower jaw, nearly as large as a man's hand.

There is no light-coloured ring, or space, around the eyes as in the European red deer, but in the present species the space around the socket of the eye is scarcely a shade lighter than the surrounding parts of the head.

Under surface of the ear, yellowish white, with a hue of dark brown on the margin; on the outer surface of the ear, there is a white patch about four inches in length and nearly two inches wide, covering about a third of the ear, and running from near the root of the ear upwards at the lower edge

In the younger males the head, face and back of the neck are not nearly as dark as in specimens of old animals; the under jaw and throat however as well as a space above the nostrils are black as in the latter. The upper and under surfaces of body and legs are light brownish gray, the legs being rather darker than the body.

On the rump there is a broad patch of light grayish white commencing nine inches above the root of the tail, spreading downward on each side to a point in the ham, ten inches below the tail. It is fourteen inches across opposite the root of the tail, (from one ham to the other,) and twenty-two inches in length from the back to the termination on the thigh or ham below the tail. This grayish white patch is bordered on the thighs by a strongly marked black space which also separates it all around, although less conspicuously from the general colour of the body. We have observed that in young specimens this pale mark on the rump is less conspicuous, and in one specimen is not even perceptible, and this peculiarity has most probably misled some of our authors in regard to the species.

In specimens of about two years old the light but scarcely perceptible markings on the rump gradually change to grayish brown between the hind legs. In a still younger specimen of a male about eighteen months old which has the horns three inches in height, (which are completely clothed with soft brownish hairs to their summits,) there is scarcely any black on the neck, and the white on the rump is not visible.

Female in summer colour.

We possess this animal in a state of confinement: she has like all the females of this species no horns. She bears a strong resemblance in form and colour to the male. Her neck is rather thinner and longer, and her legs and body more slender. Her eyes are mild, and she is in her disposition very gentle and docile. The hair in summer is like that of the male, uniform in colour from the roots to the surface.

Winter colour.

Both males and females in winter assume a very heavy coat of dark gray hair all over the body. These hairs are about two and a half inches to three long and are moderately coarse and strong.

When examined separately they have a wavy or crimped appearance. The white patch on the rump is strongly developed in contrast with the dark iron-gray colour of the winter coat. At this season the male has a remarkable growth of hairs on the throat as well as on the back of the neck, which increase considerably in length, so that the latter might easily be mistaken for the rudiment of a mane.

DIMENSIONS.

Adult male (killed on the Upper Missouri River).

	Feet.	Inches.
From nose to root of tail, - - - - -	7	8 $\frac{3}{4}$
Length of tail, - - - - -	0	1 $\frac{3}{4}$
“ of eye, - - - - -	0	1 $\frac{3}{4}$
From tip of nose to root of ear, - - - - -	1	8
Length of ear, - - - - -	0	9 $\frac{1}{4}$
Height to shoulders, - - - - -	4	10
Rump, - - - - -	5	2
Girth back of fore-legs, - - - - -	5	6 $\frac{1}{2}$

The females we measured were rather smaller than the above: one killed on the Yellow Stone River measured seven feet six and a half inches from nose to root of tail, and four feet seven inches from top of shoulder to the ground.

HABITS.

On our plate we have represented a pair of Elks in the foreground of a prairie scene, with a group of small figures in the distance; it gives but a faint idea of this animal in its wild and glorious prairie home: Observe the splendid buck, as he walks lightly, proudly, and gracefully along. It is the season of love: his head is raised above the willows bordering the large sand-bar on the shores of the Missouri, his spreading antlers have acquired their full growth, the velvet has been rubbed off, and they are hard and polished. His large amber-coloured eyes are brightened by the sun, his neck is arched, and every vein is distended. He looks around and snuffs the morning air with dilated nostrils: anon he stamps the earth with his fore-feet and utters a shrill cry somewhat like the noise made by the loon. When he discovers a group of females he raises his head, inclines it backwards, and giving another trumpet-like whistle, dashes off to meet them, making the willows and other small trees yield and crack as he rushes by. He soon reaches the group, but probably finds as large and brave a buck as himself gallanting the fair objects of his pursuit, and now his eyes glow with rage and jealousy, his teeth are fiercely champed together making a loud harsh noise, his hair stands erect, and with the points of his immense horns lowered like the lance of a doughty knight in times of yore, he leaps towards his rival and im-

mediately a desperate battle ensues. The furious combatants sway backwards and forwards, sideways or in circles, each struggling to get within the other's point, twisting their brawny necks, and writhing as they endeavour to throw their opponent off the ground. At length our valorous Elk triumphs and gores the other, so that he is worsted in the fight, and turns ingloriously and flies, leaving the field and the females in possession of the victor: for should there be any young Elks present during such a combat, they generally run off.

The victorious buck now ranges the tangled woods or leads the does to the sand-bars or the willow-covered points along the broad stream. After a certain period, however, he leaves them to other bucks, and towards the latter part of February his antlers drop off, his body is much emaciated, and he retires to some secluded spot, where he hopes no enemies will discover him, as he is no longer vigorous and bold, and would dread to encounter even a single wolf.

When we first settled (as it is termed) in the State of Kentucky, some of these animals were still to be met with; but at present we believe none are to be found within hundreds of miles of our then residence. During a journey we made through the lower part of the State, armed as usual with our double-barrelled gun, whilst passing through a heavy-timbered tract not far from Smithland at the mouth of the Cumberland River, we espied two Elks, a male and female, which started out of a thicket not more than forty or fifty yards from us. Our gun being loaded with balls, we fired successfully and brought down the buck. The tavern keeper at Smithland went after the animal with a wagon and brought him into the little village. The hunters in the neighbourhood said they had not seen or heard of Elks in that part of the State for several years, although some were to be found across the Ohio, in the state of Illinois.

At the time we are writing (1847) the Elk is not seen in any numbers until you ascend the Missouri River for a great distance. In that part of the country, where the points in the river are well covered with wood and under-brush, they are to be found at times in considerable numbers. These animals however do not confine themselves to the neighbourhood of the water-courses, but roam over the prairies in large herds. Unless disturbed or chased, they seldom leave a secluded retreat in a thickly-wooded dell, except to go to the river to drink, or sun themselves on the sand-bars. They are partial to the islands covered with willow, cotton wood, &c., and fringed with long grass, upon which they make a bed during the hot sultry hours of the day. They also form a bed occasionally in the top of a fallen tree.

During hot weather, when mosquitoes abound in the woods, they re-

tire to ponds or proceed to the rivers and immerse their bodies and heads, leaving merely enough of their noses above the water to allow them to breathe.

Whilst ascending the Missouri river in the steamer Omega, we observed a fawn of this species one morning running along the shore under a high bank. It was covered with yellowish white spots, was as nimble and active as a kitten, and soon reached a place where it could ascend the bank, when it scampered off amid the tall grass. We had on board a servant of Mr. CHARDON named ALEXIS LABOMBARDE who was a most expert hunter. We soon saw another fawn, and ALEXIS went after it, the boat having stopped to wood. He climbed the bank and soon overtook the little animal, but having no rope or cord with him, was at a loss how to secure his captive. He took off his suspenders and with these and his pocket-handkerchief managed to fasten the fawn around the neck, but on attempting to drag it toward the boat the suspenders gave way and the fawn dropped into the stream, and swam a few yards lower down, where it again landed; one of our party witnessed from the steamboat the ineffectual efforts of LABOMBARDE and ran up to his assistance, but also without a rope or cord, and after much ado the animal again swam off and escaped.

The food of the Elk consists generally of the grass found in the woods, the wild pea-vines, the branches of willows, lichens, and the buds of roses, &c. During the winter they scrape the snow from the ground with their fore-feet, and eat the tender roots and bark of shrubs and small trees.

On our reaching Fort Pierre we were presented by Mr. PICOT with a most splendidly prepared skin of a superb male Elk, and a pair of horns. The latter measured four feet six and a half inches in length; breadth between the points twenty-seven and a half inches. The circumference of the skull or base ten inches, the knob twelve inches, between the knobs three inches. This animal, one of the largest ever seen by Mr. PICOT, was killed in the month of November, 1832.

HEARNE says that the Elk is the most stupid of all the deer kind; but our experience has led us widely to differ from that traveller, as we have always found these animals as wary and cunning as any of the deer tribe with which we are acquainted. We strongly suspect HEARNE had reference to another species, the American reindeer.

We chanced one day to land on a sand-bar covered with the broad deep tracks of apparently some dozen Elks: all the hunters we had in our boat prepared to join in the chase, and we among the rest, with our old trusty double-barrelled gun, sallied forth, and while passing through a large patch of willows, came suddenly upon a very large buck; the noble

animal was not more than a few steps from where we stood: our gun was levelled in an instant, and we pulled trigger, but the cap did not explode. The Elk was startled by the noise of the falling hammer, and wheeling round, throwing up the loose soil with his hoofs, galloped off among the willows towards the river, making a clear path through the small trees and grass. We ran to intercept him, but were too late, and on reaching the bank the Elk was already far out in the stream, swimming rapidly with its shoulders and part of its back above water. On the opposite shore there was a narrow beach, and the moment the Elk touched the bottom, it sprang forward and in a bound or two was out of sight behind the fringing margin of trees on the shore. This, we are sorry to say, was the only Elk we had an opportunity of firing at whilst on our last western expedition.

The pair from which the figures on our plate were taken we purchased at Philadelphia: they had been caught when young in the western part of Pennsylvania; the male was supposed to be four or five years old, and the female also was full grown. These Elks were transported from Philadelphia to our place near New-York, and we had a capacious and high enclosure made for them. The male retained much of its savage habits when at liberty, but the female was quite gentle. When she was first put in the pen, where the buck was already pacing round seeking for a weak point in the enclosure, he rushed towards her, and so terrified her that she made violent exertions to escape, and ran at full speed with her head up and her nostrils distended, round and round, until we had the large box in which she had been brought up from Philadelphia placed in the enclosure, when she entered it as a place of refuge, and with her head towards the opening stood on her defence, on which the male gave up the pursuit, and this box was afterwards resorted to whenever she wished to be undisturbed.

We had some difficulty in taking the bridle off from the head of the buck, as he kicked and pranced furiously whenever any one approached for that purpose, and we were forced to secure his head by means of a lasso over his horns, and drawing him by main force to a strong post, when one of our men cut the leather with a knife.

While these two Elks were kept by us they were fed on green oats, hay, Indian corn, and all such food as generally is given to the cow, excepting turnips, which they would not touch.

We found that the pair daily ate as much food as would have sufficed for two horses. They often whistled (as the hunters call this remarkable noise, which in calm weather can be heard nearly a mile); this shrill sound appears to be produced by an almost spasmodic effort, during which

the animal turns its head upwards and then backwards. While we were outlining the male, we often observed him to dilate the lachrymal spaces or openings adjoining the eyes, so that they were almost as wide as long. When we drew near he would incline his head sideways, curl back his upper lip, and show a portion of his tongue and fine teeth, which last he ground or grated together, turning his head the while from side to side, and eyeing us with a look of angry suspicion. His eyes enlarged and his whole figure partook of the excitement he felt.

The process of rubbing off the velvet from the horns was soon accomplished by this animal; he began the moment he had been taken out of his box, to rub against the small dog-wood and other trees that stood within the enclosure. At a later period of the year we have observed the Elk rubbing his antlers against small trees, and acting as if engaged in fight; whether this manœuvre be performed for the purpose of loosening the horns, towards the period when they annually drop off, we, in parliamentary language, are not prepared to say.

Elks at times congregate from the number of fifty to several hundreds, and in these cases the whole herd follow the movements of their leader, which is generally the largest and the strongest male of the party. They all stop when he stops, and at times they will all turn about with as much order and with far greater celerity than a troop of horse, of which, when thus seen in array, they forcibly remind us.

From accident or otherwise great differences exist in the formation of the antlers of the Elk, although the horns of all the American *Cervii* are so specifically distinct as to enable the close observer to tell almost at a glance to what species any shown to him belonged. The ease with which these animals pass, encumbered with their ponderous and wide-spreading antlers, through the heavy-timbered lands of the West, is truly marvellous; and we can hardly help wondering that they are not oftener caught and entangled by their horns. Instances there doubtless are of their perishing from getting fastened between vines, or thick growing trees, but such cases are rare.

The male Elk drops his horns in February or March. The one we had dropped one on the ninth of March, and as the other horn held on for a day or two longer, the animal in this situation had quite an awkward appearance. After the horns fall, the head looks sore, and sometimes the places from which they have been detached are tinged with blood. As soon as the huge antlers drop off, the Elks lose their fierce and pugnacious character, and the females are no longer afraid of them; while on the other hand, the males show them no farther attentions whatever.

The young, sometimes one, but usually two in number, are brought forth in the latter end of May or June. It is stated by GODMAN, we know not on what authority, that when twins are produced they are generally male and female.

A friend of ours related to us some time ago the following anecdote. A gentleman in the interior of Pennsylvania who kept a pair of Elks in a large woodland pasture, was in the habit of taking pieces of bread or a few handfuls of corn with him when he walked in the enclosure, to feed these animals, calling them up for the amusement of his friends. Having occasion to pass through his park one day, and not having provided himself with bread or corn for his pets, he was followed by the buck, who expected his usual gratification : the gentleman, irritated by the pertinacity with which he was accompanied, turned round, and picking up a small stick, hit the animal a smart blow, upon which, to his astonishment and alarm, the buck, lowering his head, rushed at him and made a furious pass with his horns : luckily the gentleman stumbled as he attempted to fly, and fell over the prostrate trunk of a tree, near which lay another log, and being able to throw his body between the two trunks, the Elk was unable to injure him, although it butted at him repeatedly and kept him prisoner for more than an hour. Not relishing this proceeding, the gentleman, as soon as he escaped, gave orders to have the unruly animal destroyed.

The teeth of the Elk are much prized by the Indians to ornament their dresses ; a "queen's robe" presented to us is decorated with the teeth of fifty-six Elks. This splendid garment, which is made of antelope skins, was valued at no less than thirty horses !

The droppings of the Elk resemble those of other deer, but are much larger.

The Elk, like other deer, lie down during the middle of the day, and feed principally at early morning, and late in the evening. They drink a good deal of water.

This species can be easily domesticated, as we have observed it in menageries and in parks both of Europe and America. The males, like those of the Virginian deer, as they advance in age, by their pugnacious habits are apt to become troublesome and dangerous. The Elk lives to a great age, one having been kept in the possession of the elder PEALE of Philadelphia for thirteen years ; we observed one in the Park of a nobleman in Austria that had been received from America twenty-five years before.

GEOGRAPHICAL DISTRIBUTION.

We have every reason to believe, that the Elk once was found on nearly every portion of the temperate latitudes of North America. It has never advanced as far north as the moose deer, but it ranges much farther to the south. The earliest explorers of America nearly all speak of the existence of the stag, which they supposed was identical with the stag or red deer of Europe. It differs from the Virginian deer, which continues to range in the vicinity of settlements and is not driven from its favourite haunts by the cry of the hounds or the crack of the rifle. On the contrary the Elk, like the buffalo, takes up its line of march, crosses broad rivers and flies to the yet unexplored forests, as soon as it catches the scent and hears the report of the gun of the white man. At present there is only a narrow range on the Alleghany mountains where the Elk still exists, in small and decreasing numbers, east of the Missouri, and these remnants probably of large herds would undoubtedly migrate elsewhere were they not restricted to their present wild mountainous and hardly accessible range, by the extensive settlements on the west and south.

Mr. PEALE of Philadelphia mentioned to us some fifteen years ago, that the only region in the Atlantic States where he could procure specimens of the Elk was the highest and most sterile mountains in the northwest of Pennsylvania, where he had on several occasions gone to hunt them.

Dr. DEKAY (New-York Fauna, p. 119) mentions, on the authority of BEACH and VAUGHAN, two hunters in whose statements confidence could be placed, that as late as 1826, Elks were seen and killed on the north branch of the Saranac. On a visit to Western Virginia in 1847, we heard of the existence of a small herd of Elk that had been known for many years to range along the high and sterile mountains about forty miles to the west of the Red Sulphur Springs. The herd was composed of eight males, whose number was ascertained by their tracks in the snow. One of these had been killed by a hunter, and the number was reduced to seven. Our informant, a friend in whom the highest confidence could be placed, supposed, as all the individuals in the herd had horns, the race would soon disappear from the mountains. As, however, the males at certain seasons keep in separate groups, we have no doubt there was a similar or larger herd of females in the same range; but the number is doubtless annually lessening, and in all probability it will not be many years before the Elk will be entirely extirpated, to beyond several hundred miles west of the Mississippi.

This animal, according to RICHARDSON, does not extend its range farther to the north than the 56th or 57th parallel of latitude, nor is it found to the eastward of a line drawn from the south end of Lake Winnepeg to the Saskatchewan in the 103d degree of longitude, and from thence till it strikes the Elk river in the 111th degree. It is found on the western prairies, and ranges along the eastern sides of the mountains in Texas and New Mexico. It is also found in Oregon and California. Its most southern geographical range still remains undetermined.

GENERAL REMARKS.

The family of Elks was by all our old authors placed in the same genus with the true deer, (*Cervus*), to which they are very closely allied in their character and habits. As that genus however has been greatly enlarged in consequence of the discovery of new species, the deer have been conveniently divided into several sub-genera, of which our species is the largest and most interesting among the true Elks (*Elaphus*).

The American Elk, Wappite, or Stag, was for a long period considered identical with the European red deer, (*C. Elaphus*), and was, we believe, first treated as a distinct species by RAY. It was subsequently noticed by JEFFERSON and described and figured in the Medical Repository. The difference between these two species is so great that they may be distinguished at a glance. Our Elk is fully a foot higher at the shoulders than the European red stag. The common stag or red deer is of a uniform blackish brown, whilst the Elk has all its upper parts and lower jaw yellowish brown. It has also a black mark on the angle of the mouth which is wanting in the other. In the European species the circle around the eye is white, in the American it is brown. There are other marks of difference which it is unnecessary to point out, as the species are now regarded by all naturalists as distinct.

Our esteemed friend Dr. RICHARDSON has applied to this species the name of *Cervus strongyloceros* of SCHREBER, because the figure of PERRAULT (Mem. sur les an. vol. 2, p. 45) did not exhibit the pale mark on the rump, and he thought it not improbable that PERRAULT's figure was that of the black-tailed deer (*Cervus macrotis*). We do not believe that the latter species ever reaches the latitude where PERRAULT's specimen was procured; but as we have already stated in this article, younger specimens of our Elk exhibit only faint traces of this pale mark on the rump, and in some they are entirely wanting. We have scarcely a doubt that RAY's description was intended to apply to our American Elk, and we have therefore adopted his specific name.



Audubon, John James and Bachman, John. 1851. "Elaphus canadensis, American Elk, Wapiti Deer [Pl. LXII, male and female]." *The quadrupeds of North America* 2, 83–94. <https://doi.org/10.5962/p.322404>.

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