



Canada Porcupine.

GENUS HYSTRIX.—LINN.

DENTAL FORMULA.

$$\text{Incisive } \frac{2}{2}; \quad \text{Canine } \frac{0-0}{0-0}; \quad \text{Molar } \frac{4-4}{4-4} = 20.$$

Superior incisors, on the anterior portion, smooth, cuneiform at their extremity; inferior incisors, strong and compressed.

Molars, compound, with flat crowns, variously modified by plates of enamel, between which are depressed intervals.

Head, strong; snout, thick and tumid; ears, short and round; tongue, bristled with spiny scales; fore-feet, four-toed; hind-feet, five-toed; all the toes armed with powerful nails.

Spines on the body, sometimes intermixed with hair; tail, moderately long, in some species of the genus, prehensile.

Herbivorous, feeding principally on grain, fruits, roots, and the bark of trees—dig holes in the earth, or nestle in the hollows of trees.

The generic name is derived from the Greek word, *ὕστριξ*, (*hustrix*,) a porcupine—*ὕς*, (*hus*,) a hog, and *θρίξ*, (*thrix*,) a bristle.

There are two species in North, and three in South America, one in Southern Europe, one in Africa, and one in India.

HYSTRIX DORSATA.—LINN.

CANADA PORCUPINE.

PLATE XXXVI.—MALE.

H. spinus brevibus, vellere sublatentibus; sine jubea; capite et collo setis longis vestitis; colore inter fulvum et nigrum variante.

CHARACTERS.

Spines, short, partially concealed by long hair; no mane; long bristles on the head and neck; colour, varying between light-brown and black.

SYNONYMES.

HYSTRIX PILOSUS AMERICANUS, Catesby, Cuv., App., p. 30, 1740.

THE PORCUPINE FROM HUDSON'S BAY, Edwards' Birds, p. 52.

HYSTRIX HUDSONIUS, Brisson, Règne Animal, p. 128.

HYSTRIX DORSATA, Linn., Syst., Edwards, xii., p. 57.

" " Erxleben, p. 345.

" " Schreber, Säugethiere, p. 605.

L'URSON, Buffon, vol. xii., p. 426.

CANADA PORCUPINE, Forst., Phil. Trans., vol. lxii., p. 374.

" " Penn., Quadrupeds, vol. ii., p. 126.

" " Arctic Zoology, vol. i., p. 109.

THE PORCUPINE, Hearne's Journal, p. 381.

ERETHIZON DORSATUM, F. Cuv., in Mém. du Mus., ix., t. 20.

PORC-ÉPIC VELU, Cuv., Règne Animal, i., p. 209.

HYSTRIX DORSATA, Sabine, Franklin's Journ., p. 664.

" " Harlan, Fauna, p. 109.

" " Godman, Nat. Hist., vol. ii., p. 160.

" PILOSUS, Rich., Fauna Boreali Americana, p. 214.

" HUDSONIUS, Dekay, Nat. Hist. New-York, p. 77.

DESCRIPTION.

The body of this species is thick, very broad, cylindrical, and to a high degree clumsy. The back is much arched in a curve from the nose to the buttocks, when it declines in an angle to the tail.

The whole upper surface of the body from the nose to the extremity of the tail is covered by long and rather coarse hair, intermixed with a dense mass of spines or quills. These are of a cylindrical shape, very sharp at the extremity and pointed at the roots. The animal is capable of erecting them at pleasure, and they are detached by the slightest touch; they are barbed with numerous small reversed points or prickles, which, when once inserted in the flesh, will by the mere movement of the limbs work themselves deeper into the body. There seems to be in certain parts of the body of this species a regular gradation from hair to spines; on the nose for instance, the hair is rather soft, a little higher up it is succeeded by bristles intermixed with small spines. These spines continue to lengthen on the hinder parts of the head, to increase in size on the shoulders, and are longer and more rigid on the buttocks and thighs. In specimens of old animals, the whole upper surface of the body is covered by a mass of quills, with thin tufts of long hairs, six inches in length, on the forehead, shoulders, and along the sides.

Head, rather small for the size of the animal, and very short; nose, truncated, broad, flattish above, and terminating abruptly. The eyes are

lateral and small; ears, small, rounded, covered by short fur, and concealed by the adjoining long hair; incisors, large and strong.

Legs, very short and rather stout; claws, tolerably long, compressed, moderately arched, and channelled beneath.

There are tufts of hair situated between the toes; palms, naked, and nearly oval, hard and tuberculous; on the fore-feet there are four short toes, the second, counting from the inside, longest, the third a little smaller, the first a size less, and the fourth smallest. On the hind-foot there are five toes, with claws corresponding to those on the fore-foot. The hairs are so thickly and broadly arranged along the sides of the soles that they give a great apparent breadth to the foot, enabling this clumsy animal to walk with greater ease in the snow. It is plantigrade, and like the bear, presses on the earth throughout the whole length of the soles. Tail, short and thick, covered above with spines, beneath with long rigid hairs; when walking or climbing, it is turned a little upwards. Four mammæ, all pectoral.

Whilst the whole upper surface of the body is covered with spines, the under surface is clothed with hair intermixed with fur of a softer kind. The hair on the throat and under the belly is rather soft; along the sides it is longer and coarser, and under the tail appears like strong bristles.

COLOUR.

Incisors, deep orange; whole upper surface, blackish-brown, interspersed with long hairs, many of them being eight inches in length; these hairs are for four-fifths of their length dark-brown, with the points from one to two inches white. There are also long white hairs interspersed under the fore-legs, on the chest, and along the sides of the tail.

The spines, or quills, which vary in length from one to four inches, are white from the roots to near their points, which are generally dark brown or black; frequently brown, and occasionally white. On some specimens the spines are so abundant and protrude so far beyond the hair that portions of the body, especially the hips, present a speckled appearance, owing to the preponderance of the long white quills tipped with black. The nails and the whole under surface are dark brown.

There is in this species a considerable difference both in size and colour of different specimens.

There are three specimens before us, that with slight variations answer to the above description and to the figure on our plate. Another, which we obtained at Fort Union on the Missouri, is of enormous size, measuring thirteen inches across the back; the long hairs on the shoulders, forehead, and sides of which, are light yellowish-brown, whilst another

specimen from the same locality, which appears to be that of a young animal, is dull white, with brown nose, ears and rump. In every specimen, however, the hairs on the hips, upper surface of tail, and under surface of body, are dark blackish-brown. In all these cases, it is the long, overhanging, light-coloured hairs, that give the general whitish appearance.

The difference between these specimens is so striking, that whilst those from Lower Canada may be described as black, the others from the far West may be designated as light-gray. Except in size and colour, there are no especial marks of difference.

DIMENSIONS.

Length of head and body	-	-	-	-	29 inches.
Tail, (vertebræ)	-	-	-	-	7 do.
Tail, to end of fur	-	-	-	-	8½ do.
Breadth of nose	-	-	-	-	1⅛ do.
From heel to longest nail	-	-	-	-	3½ do.

We possess one specimen a little larger than the above, and several that are considerably smaller.

HABITS.

The Canada Porcupine, of all North American quadrupeds, possesses the strangest peculiarities in its organization and habits. In its movements it is the most sluggish of all our species. Although the skunk is slow of foot, he would prove no contemptible competitor with it in a trial of speed. Under such circumstances the inquiry arises, what protection has this animal against the attacks of the wolverene, the lynx, the wolf, and the cougar? and how long will it be before it becomes totally exterminated? But a wise Creator has endowed it with powers by which it can bid defiance to the whole ferine race, the grizzly bear not excepted. If the skunk presents to its enemies a formidable battery, that stifles and burns at the same time, the Porcupine is clothed in an impervious coat of mail bristling with bayonets.

We kept a living animal of this kind in a cage in Charleston for six months, and on many occasions witnessed the manner in which it arranged its formidable spines, in order to prove invulnerable to the attacks of its enemies.

It was occasionally let out of its cage to enjoy the benefit of a promenade in the garden. It had become very gentle, and evinced no spiteful propensities; when we called to it, holding in our hand a tempting

sweet-potatoe or an apple, it would turn its head slowly towards us, and give us a mild and wistful look, and then with stately steps advance and take the fruit from our hand. It then assumed an upright position, and conveyed the potatoe or apple to its mouth with its paws. If it found the door of our study open, it would march in, and gently approach us, rubbing its sides against our legs, and looking up at us as if supplicating for additional delicacies. We frequently plagued it in order to try its temper, but it never evinced any spirit of resentment by raising its bristles at us; but no sooner did a dog make his appearance, than in a moment it was armed at all points in defence. It would bend its nose downward, erect its bristles, and by a threatening sideway movement of the tail, give evidence that it was ready for the attack.

A large, ferocious, and exceedingly troublesome mastiff, belonging to the neighbourhood, had been in the habit of digging a hole under the fence, and entering our garden. Early one morning we saw him making a dash at some object in the corner of the fence, which proved to be our Porcupine, which had during the night made its escape from the cage. The dog seemed regardless of all its threats, and probably supposing it to be an animal not more formidable than a cat, sprang upon it with open mouth. The Porcupine seemed to swell up in an instant to nearly double its size, and as the dog pounced upon it, it dealt him such a side-wise lateral blow with its tail, as to cause the mastiff to relinquish his hold instantly, and set up a loud howl in an agony of pain. His mouth, tongue, and nose, were full of porcupine quills. He could not close his jaws, but hurried open-mouthed out of the premises. It proved to him a lesson for life, as nothing could ever afterwards induce him to revisit a place where he had met with such an unneighbourly reception. Although the servants immediately extracted the spines from the mouth of the dog, we observed that his head was terribly swelled for several weeks afterwards, and it was two months before he finally recovered.

CARTWRIGHT, (Journal, vol. ii., p. 59,) gives a description of the destructive habits of the Porcupine, which in many particulars is so much in accordance with our own observations, that we will present it to our readers.

"The Porcupine readily climbs trees; for which purpose he is furnished with very long claws; and in the winter, when he mounts into a tree, I believe he does not come down until he has eaten the bark from the top to the bottom. He generally makes his course through the wood in a straight direction, seldom missing a tree, unless such as are old. He loves young ones best, and devours so much, (only eating the inner part

of the kind,) that I have frequently known one Porcupine ruin nearly a hundred trees in a winter.

"A man who is acquainted with the nature of these animals will seldom miss finding them when the snow is on the ground. If he can but hit upon the rinding of that winter, by making a circuit around the barked trees he will soon come on his track, unless a very deep snow should have chanced to fall after his last ascent. Having discovered that, he will not be long ere he find the animal."

In reference to the manner in which the Porcupine defends itself with its quills, he makes the following observations: "It is a received opinion that a Porcupine can dart his quills at pleasure into a distant object, but I venture to affirm that this species cannot, (whatever any other may do,) for I have taken much pains to discover this fact. On the approach of danger he retreats into a hole, if possible, but where he cannot find one he seizes upon the best shelter that offers, sinks his nose between his fore-legs, and defends himself by a sharp stroke of his tail, or a sudden jerk of his back. As the quills are bearded at their points and not deeply rooted in the skin, they stick firmly into whatever they penetrate; great care should be taken to extract them immediately, otherwise by the muscular motion of the animal into which they are stuck, enforced by the beards of the quills, they soon work themselves quite through the part; but I never perceived the puncture to be attended with any worse symptoms than that of a chirurgical instrument."

We had on three occasions in the northern and western parts of New-York opportunities of witnessing the effects produced by the persevering efforts of this species in search after its simple food. In travelling through the forest from Niagara to Louisville a few years ago, we passed through two or three acres of ground where nearly all the young trees had on the previous winter been deprived of their bark, and were as perfectly killed as if a fire had passed through them. We were informed by our coachman, that in driving through this place during the winter he had on several occasions seen the Porcupine on one of these trees, and that he believed all the mischief had been done by a single animal. We perceived that it had stripped every slippery elm (*Ulmus fulva*) in the neighbourhood, left not a tree of the bass wood (*Tilia glabra*) alive, but had principally feasted on the hemlock, (*Abies Canadensis*.)

Mr. J. G. BELL, one of our companions in our recent journey to the West, met with some Porcupines that resorted to a ravine, in which about a hundred cotton-wood trees (*Populus angulatus*) were standing, that had been denuded of both the bark and leaves. They had remained in this locality until they had eaten not only the tender branches, but had

devoured the bark of some of the largest trees, by which they killed nearly every one. They then were forced in their own defence to remove to new quarters. We were informed that in a similar ravine to the one just spoken of, no less than thirteen Porcupines were killed in a single season by a young hunter.

On a visit to the western portion of the county of Saratoga, New-York, in the winter of 1813, a farmer residing in the vicinity carried us in his sleigh to show us a Porcupine which he had frequently seen during the winter, assuring us that he could find it on the very tree where he had observed it the previous day. We were disappointed, finding that it had deserted the tree; we however traced it in the snow by a well beaten path, which it seemed to have used daily, to a beech tree not far distant, which we cut down, and at the distance of twenty feet from the root we found the object of our search in a hollow part. It growled at us, and was particularly spiteful towards a small dog that was with us. Our friend killed it by a blow on the nose, the only vulnerable part as he informed us. It seemed to have been confined to a space of about two acres of ground through the winter. It had fed principally on hemlock bark, and had destroyed upwards of a hundred trees. The observations made on this occasion incline us to doubt the correctness of the statement that the Canada Porcupine does not leave a tree until it has eaten off all the bark, and that it remains for a week or more on the same tree; we were on the contrary led to suppose that the individual we have just spoken of, retired nightly to its comfortable domicile and warm bed in the hollow beach, in which we discovered it.

The Porcupine we kept in Charleston did not appear very choice in regard to its food. It ate almost any kind of vegetable we presented to it. We gave it cabbages, turnips, potatoes, apples, and even bread, and it usually cut to pieces every thing we placed in the cage that it could not consume. We had a tolerably large sweet bay tree (*Laurus nobilis*) in the garden; the instant that we opened the door of the cage the Porcupine would make its way to this tree, and not only feed greedily on its bark, but on its leaves also. When it had once fixed itself on a tree it was exceedingly difficult to induce it to come down, and our efforts to force it from the tree were the only provocatives by which it could be made to growl at us. We occasionally heard it during the night, uttering a shrill note, that might be called a low querulous shriek.

As the spring advanced, we ascertained that the constitution of our poor Porcupine was not intended for a warm climate; when the hot weather came on, it suffered so much that we wished it back again in its Canadian wilds. It would lie panting in its cage the whole day, seemed

restless and miserable, lost its appetite and refused food. We one evening placed it on its favourite bay tree ; it immediately commenced gnawing the bark, which we supposed a favourable symptom, but it fell off during the night, and was dead before morning.

Whilst on the Upper Missouri river in the year 1843, as our companion, Mr. J. G. BELL, was cautiously making his way through a close thicket of willows and brush-wood in search of a fine buck elk, that he with one of our men had seen enter into this cover when they were at least a mile distant, he could not avoid cracking now and then a dry stick or fallen branch. He could not see more than ten paces in any direction, from the denseness of the thicket, and, as he unfortunately trod upon a thicker branch than usual which broke with a crash, the elk brushed furiously out of the thicket, and was gone in a moment, making the twigs and branches rattle as he dashed them aside with (shall we say) "telegraphic" rapidity. Mr. BELL stood motionless for a minute, when as he was about to retreat into the open prairie, and join his companion after this unsuccessful termination of the elk hunt, his eyes were fixed by an uncouth mass on the ground almost at his feet ; it was a Porcupine ; it remained perfectly still, and when he approached did not attempt to retreat. Our friend was rather perplexed to know how to treat an enemy that would neither "fight nor fly," and seizing a large stick, he commenced operations by giving the Porcupine (which must have been by this time displeased at least, if not "fretful,") a severe blow with it on the nose. The animal immediately concealed the injured organ, and his whole head also, under his belly ; rolling himself up into a ball, with the exception of his tail, which he occasionally jerked about and flirited upwards over his back. He now remained still again, and Mr. BELL drew a good sized knife, with which he tried to kill him by striking at his side so as to avoid the points of the quills as much as he could. This fresh attack caused the Porcupine to make violent efforts to escape : he seized hold of the branches or roots within reach of his fore-feet, and pulled forwards with great force ; Mr. BELL then placed his gun before him, which stopped him ; then finding he could not lay hold of him nor capture him in any other way, he drew his ramrod, which had a large screw at the end for wiping out his gun, and commenced screwing it into the Porcupine's back. This induced the poor animal again to make violent efforts to escape, but by the aid of the screw and repeated thrusts with the knife, he soon killed the creature.

He was now anxious to rejoin his companion, but did not like to relinquish his game ; he therefore, not thinking it advisable to stop and skin it on the spot, managed to tie it by the fore-legs, and then dragged it on

the ground after him until he arrived at the spot where the hunter was impatiently waiting for him. Here he skinned the Porcupine, and turned the skin entirely inside out, so that the quills were all within, and then no longer fearing to handle the skin, it was secured to the saddle of his horse, and the carcass thrown away.

A Porcupine that was confined for some time in the garret of a building in Broadway, New-York, in which PEALE'S Museum was formerly kept, made its escape by gnawing a hole in a corner of the garret, and, (as was supposed,) got on to the roof, from whence it tumbled into the street, either by a direct fall from this elevation, or by pitching on to some roof in the rear of the main building, and thence into Murray-street. It was brought the next day to the museum for sale, as a great curiosity. The man who brought it, of course not knowing from whence it came, said that early in the morning, he (being a watchman) was attracted by a crowd in the Park, and on approaching discovered a strange animal which no one could catch; he got a basket, however, and captured the beast, which he very naturally carried off to the *watch-house*, thinking of course no place of greater security for any vagrant existed in the neighbourhood.

On an explanation before the keeper of the museum, instead of the police justices, and on payment of half a dollar, the Porcupine was again restored to his friends. He was now, however, watched more closely, and bits of sheet tin were frequently nailed in different parts of the room on which he had a predilection for trying his large teeth.

We have mentioned in our article on the Canada lynx, that one of those animals was taken in the woods in a dying state, owing to its mouth being filled with Porcupine quills. We have heard of many dogs, some wolves, and at least one panther, that were found dead, in consequence of inflammation produced by seizing on the Porcupine.

Its nest is found in hollow trees or in caves under rocks. It produces its young in April or May, generally two at a litter; we have however heard that three, and on one occasion four, had been found in a nest.

The Indians residing in the North, make considerable use of the quills of the Porcupine; moccasins, shot-pouches, baskets made of birch bark, &c., are ingeniously ornamented with them, for which purpose they are dyed of various bright colours.

The flesh of this species is sometimes eaten, and is said to have the taste of flabby pork.

The following information respecting the Porcupine was received by us from our kind friend WILLIAM CASE, Esq., of Cleveland, Ohio. "This

animal was several years since (before my shooting days) very abundant in this region, the Connecticut Western Reserve ; and no more than ten years ago one person killed seven or eight in the course of an afternoon's hunt for squirrels, within three or four miles of this city, while now probably one could not be found in a month. They are rapidly becoming extinct ; the chief reason is probably the extreme hatred all hunters bear them on account of the injuries their quills inflict on their dogs. They do not hibernate, neither do I think they are particularly confined to their hollow trees during the coldest days in winter. Their movements from tree to tree in search of food (browse and bark) are rather slow and awkward : their track in the snow very much resembles that of a child (with the aid of imagination).

"They most delight in browsing and barking young and thrifty Elms, and are generally plenty in Elm or Bass-wood Swail."

GEOGRAPHICAL DISTRIBUTION.

This species, according to RICHARDSON, has been met with as far north as the Mackenzie river, in latitude 67°. It is found across the continent from Labrador to the Rocky Mountains, and is tolerably abundant in the woody portions of the western part of Missouri. To us this has been rather a rare species in the Atlantic districts ; we having seldom met with it in the Northern and Eastern States. It is found, however, in the northern and western parts of New-York, and is said to be increasing in some of the western counties of that State. Dr. LEONARD, of Lansingburgh, recently obtained specimens from the mountains of Vermont. It exists sparingly in the mountains of the northern portion of Pennsylvania, and in a few localities in Ohio ; we obtained it on the Upper Missouri. LEWIS and CLARKE have not enumerated it as one of the species inhabiting the west of the Rocky Mountains.

It does not exist in the southern parts of New-York or Pennsylvania. DEKAY (Nat. Hist. of New-York, p. 79) states, that it is found in the northern parts of Virginia and Kentucky. We however sought for it without success in the mountains of Virginia, and could never hear of its existence in Kentucky.



Audubon, John James and Bachman, John. 1851. "Hystrix Dorsata, Canada Porcupine [Pl. XXXVI, male]." *The quadrupeds of North America* 1, 277–286.
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