

THE CANADIAN PORCUPINE.

From time immemorial the belief has existed that the porcupine can project its quills through the air like arrows at an enemy, and beyond this the popular mind is yet more in error as regards the structure and habits of this aberrant and curious mammal. Let us therefore consider some of the more prominent points in its life history.

The female porcupine during the last of April or the first of May builds a rough nest in some hollow tree or rock fissure, and there brings forth usually two, sometimes three, young ones. The mother is exceedingly shy until the young are weaned, and but few observations have been made upon them during the period of suckling; probably like all rodents they mature very rapidly and are soon able to shift for themselves. This species is one of the slowest and most clumsy of quadrupeds; safe in its protective armor, it seldom makes much effort to escape when surprised on the ground, but placing its muzzle between its fore legs, erecting its spines, and whisking rapidly its short tail, waits on the defensive—and even the panther and formidable grizzly bear are obliged to retreat from this fine array of bayonets.

The spines vary much in size and shape, varying from the coarse brown hair with which they are mingled to strong three inch spikes one-eighth of an inch in diameter. Their bases are white and the points dark brown, the latter portion well provided with sharp, recurved barbs. Being but loosely rooted in the skin, when roughly touched the points penetrate, the barb holds fast, and the quill comes off attached to the offending body; doubtless from this arose the fable that the animal can shoot its quills. When the sharp spines once penetrate the skin of an animal, owing to the peculiar set of the barbs the muscular movements of the wounded part cause them to work their way inward, and a very serious wound is finally the result. Panthers, wolves, and wild-cats have frequently been found dead with hundreds of quills embedded in their fore feet and mouths, thus proving fatal. Dogs are also frequently killed and injured, and in consequence the porcupine is hated and always mercilessly killed by hunters whenever found. The food of the hedgehog—as the porcupine is almost universally called by woodsmen—consists of the inner bark, and at times the leaves of trees. When pressed by hunger it will devour the bark of almost any species, but the hemlock and spruce seem to constitute its favorite food. The young and succulent trees are usually the ones selected, and the animal seldom leaves one until it has been entirely stripped of its bark. But the porcupine seems to be almost omnivorous, for in captivity it will eat almost any vegetable substance. In the Adirondack wilderness—where this species abounds—they are frequent visitors at deserted camps, trying their powerful incisor teeth on all that comes in their way. It is exceedingly unsafe to leave one of the light cedar canoes there used anywhere in the woods unguarded for a day or two, for the hedgehog seems to have a decided liking for oil paint and varnish, and will cut down the entire side of a boat in a very few days; I have seen many boats so rendered useless. As may be imagined, they are not much beloved by the guides, among whom “the d—d hedgehogs” is a favorite topic on which to let off steam when a boat leaks.

As already suggested, the porcupine is a capital tree climber, its strong hand-like fore feet and long claws being perfectly adapted for the purpose. It uses these paws to hold food when eating, sitting on its haunches in the manner of a squirrel. It does not hibernate, but remains active during the winter, clearing the snow away from the tree branches and living entirely on their bark. At times it forms a den in a hollow tree near its feeding grounds, in which to pass the night. The porcupine quill work of the Indians—the quills being stained various colors—is too well known to need description; its flesh is also eaten by both whites and Indians, and is said to resemble pork. This species becomes very tame and gentle in confinement, readily learning to take food from the hand, and never elevating its quills when stroked or taken in the arms of those who are kind to it. The Canada porcupine (the *Erethizon dorsatus* of zoologists) scarce needs any description; a short, heavily built animal, thirty-eight inches in entire length, with a short tail, huge

yellow incisor rodent teeth, two above and two below, the skin provided with a thick mat of erectile spines, are sufficiently prominent characters to identify the animal at a single glance. The genus *Erethizon* presents many interesting details of structure; as is the case in the beaver, the molar teeth resemble



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ble in structure those of the horse, being formed of complex infoldings of dentine bounded with enamel and the valleys between filled with cementum—the best arrangement imaginable for grinding thoroughly its coarse and fibrous food. It is exceedingly interesting that the beaver, feeding on the same substances, should present the same tooth structure. The infraorbital foramen—in most mammals of very

of the left, but my own dissections would not put the limit at more than one-third larger.

The whole muscular system is exceedingly well developed, and the skin is well supplied with powerful special muscles to erect the spines.

The Canada porcupine is essentially a northern animal, seldom being found as far south as Virginia. A western variety is said to be found as far south as Mexico, but only, I believe, on high plateaus of temperate climate. It has been found as far north as latitude 67°. In the North Woods of New York State, as already stated, I have found it abundant; a few yet remain in the wildest portions of Pennsylvania; but this is one of the many animals doomed to rapid extinction, and every year it becomes rarer.

RALPH W. SEISS.

Horse Hair.

It appears that the great bulk of the horse hair used in the United States is imported from the Argentine Republic and Uruguay. The hair sells in Buenos Ayres and Monte Video at from 26 to 32 cents per pound, and is packed in bales weighing about 1,000 pounds, and costing from \$250 to \$300 each. The total amount imported in 1882 was 4,082,000 pounds, of which 3,417,000 pounds came from South America, 196,000 pounds from Mexico, and 469,000 pounds from Russia. In the previous year the importation was 3,643,972 pounds, and in 1880 nearly 4,000,000 pounds; but in 1879 it was not quite 2,000,000 pounds. Assuming an average price of 28 cents per pound, the amount imported last year into the United States would reach a total value of about \$1,150,000. The bulk of this horse hair is manufactured by four or five concerns, one of which is in Boston, one in New York, one in Philadelphia, and one in Baltimore.

YOUNG MARMOSETS.

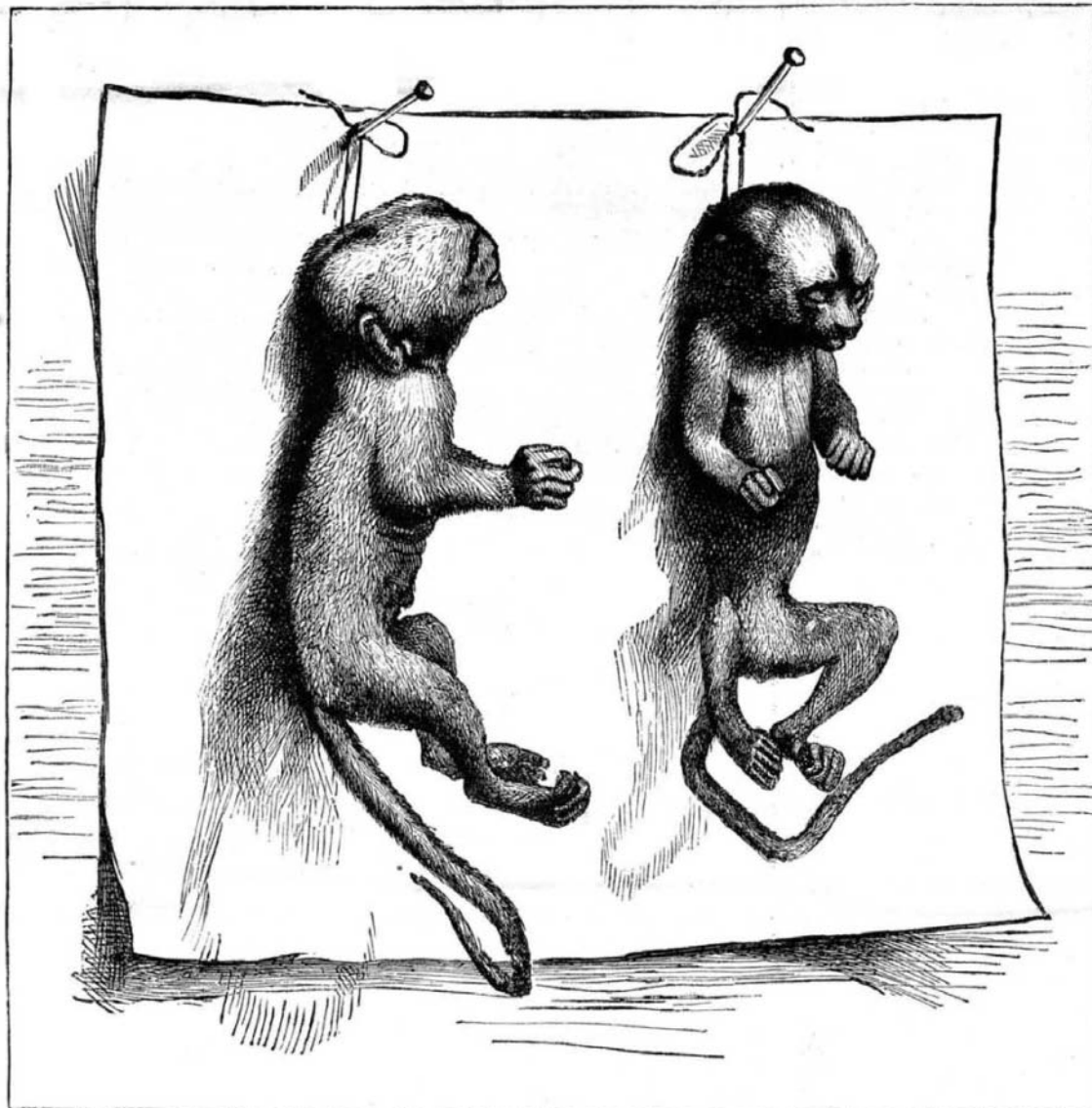
In the accompanying engraving we present to our readers, through the kindness of the London *Graphic*, an illustration of the marmosets (*Leopoldo jacchus*) recently born in England. These are claimed to be the first of their kind that have ever been bred in Europe, although this is disputed by some, owing to records of births of these curious monkeys some twenty or thirty years ago. It is questioned, however, whether the monkeys referred to were really marmosets.

Marmosets are very small in size and closely resemble the squirrel in shape and agility. The adult is about 8 inches in length, with a tail several inches longer than the body and quite bushy. The hair over the eyes also becomes quite long as the animal matures, and obscures the ears completely from view in front. They are natives of the southeastern portion of Brazil. In disposition they are rather timid, and are sensitive to the cold, their coats being fine and fleecy.

They cannot boast of a very high order of intelligence, and are principally attractive as pets for their playfulness and their gentle and insinuating ways. It is to be greatly regretted that the little fellows represented in our engraving should have succumbed so soon to the tribulations of this material existence, and that scientists should have been deprived of the pleasure of watching the different stages of their development.

Trimming the Elephant's Feet.

The whole of a day was spent recently at Bridgeport, Conn., by five men in trimming the feet of two elephants. The operation is performed, the *New Haven Register* says, once on the road, once in the fall, and again in the spring. The sole of an elephant's foot is covered with a thick, horny substance, which, as it grows thicker, tends to contract and crack, often laming the animal. At the time of trimming the elephant stands on



YOUNG MARMOSETS.—LIFE SIZE.

three legs and places the foot to be operated upon across a large tub. Two men hold the leg down, and one stands at the animal's head to prevent him from turning. Then with a two-foot drawing knife one man shaves off great pieces of bone from the sole of the foot. The elephant holds the foot high of his own accord, seeming to understand what the men are doing, and after the operation he flourishes his trunk, trumpets, and expresses sincere thanks.

small size and transmitting only the infraorbital nerve and blood-vessels—is of enormous size, and through it passes the great muscle which closes the lower jaw—the masseter; by this arrangement great leverage and strength is given to the inferior jaw.

A porcupine found in Java shows the curious anomaly of a tongue provided with tough, horny plates, but this is not the case with the American representative of the genus. The right lung of the *Erethizon* is stated to be twice the size