

scattering herds in different parts of the west. Of these, however, the Smithsonian Institution has no record, and such as exist are probably half-breeds. The only pure buffaloes outside of the above are those of the Yellowstone Park, which two years ago numbered about 200 head, and which are now reduced to fifty. Mr. Langley has just received letters stating that ten of these animals have been killed within the past four months, and that the others are in danger. The chances are that they will last only a short time, and Congress has been notified that if something is not done at once this wonderful animal will disappear from the face of the earth. There are no other buffaloes on the earth but these. The small herds of the east cannot be made to perpetuate the buffalo without inbreeding, which will deteriorate the species, and its only salvation is the bringing of these from the Yellowstone Park to some point where they can be carefully watched and cared for.

It is Mr. Langley's idea that they should be brought to Washington, and put in the National Zoological Park here. The main purpose of purchasing this park was for the protection of such things as the buffalo and other American animals liable to become extinct. It contains plenty of ground for a good buffalo park, and if these buffaloes can be put in it they will serve as a nucleus for the raising of buffaloes, which can be supplied to the different zoological gardens of the United States and furnished to colonies of them over the country, by which the species can be perpetuated. Professor Goode, the head of the National Museum, says that we ought to have at least 100 buffaloes in order to maintain the species, and that there should be herds in different sections of the country, the animals of which might be interchanged to prevent the deterioration which the inbreeding of a single colony would produce.

One of the largest buffaloes ever known was shot by Mr. Hornaday. It is now preserved in the National Museum. It is five feet eight inches high at the shoulders, and is ten feet two inches long from nose to tail. Many buffaloes weigh over sixteen hundred pounds. The natural life of the animal is about twenty-five years. The cows usually breed once a year and begin breeding at the age of two years. The buffalo calf at birth is covered with red hair. This hair changes after a time to brown and then black. The hair on the head of a buffalo is very long. Many a woman, in fact, would be glad to have as long hair as that of one of the stuffed buffaloes in the National Museum, which measures, I am told, twenty-two inches. The buffalo cows weigh less than the bulls, a good fat one weighing from a thousand to twelve hundred pounds. They have small udders, but their milk is very rich. It requires, in fact, the milk of two cows to satisfy one buffalo calf. The best time to look at a buffalo is in the fall or winter. In the summer he is as ragged, ugly and dirty as any animal on earth. He sheds his hair every year, beginning about February. The hair comes off a little at a time. It often hangs in bunches to his black skin, and he will fight you if you touch it. He is troubled by the flies at this time, but he goes off to the nearest mudhole and rolls in it until he has plastered his body with mud. If the hole is not deep enough he will dig it

out with his horns and head, and will then get in and roll over until his entire skin is coated. He carries such coats of mud throughout the summer, and about the first of October he comes out with a fall suit of beautiful black hair, which thickens as winter approaches, and which affords him wonderful protection from the cold.

The value of buffaloes has been increasing more rapidly than anything in this country. Town lots in Chicago are nothing to them. About ten years ago they were a drug in the market. Thousands of them were killed for their tongues, but a good buffalo is now worth at least \$500 when dead. Its skin is worth from \$100 and upward, according to quality, and the head is worth from \$300 to \$500 for mounting and preservation as a relic of this great animal of the past. Such is the value of a dead buffalo. Live buffaloes for breeding are worth much more, and I am told that the government buffaloes are worth from \$1,000 to \$2,000 apiece. At this rate the fifty in the Yellowstone Park are worth from \$50,000 to \$100,000. They are worth \$25,000 to the hunters who can sneak in and kill them in the wilds of the Yellowstone Park. Suppose there were fifty \$500 deer in the Adirondack mountains; how long would it be before they would be killed by hunters, no matter what the laws might be? The Yellowstone Park is four times as large as the Adirondacks, and is fifty times as far from civilization. The country about it contains people who care nothing for the buffalo or other game, except for the money which they can get out of them. When you think that a half dozen such men could clean out this herd in one day, provided they could find it in one of the many wild valleys, and thereby make \$25,000 out of the job, you get some idea of the danger which exists.

During the present week I have had chats with Mr. Langley, the secretary of the Smithsonian Institution; Professor Goode, the head of the National Museum; Dr. Baker, the scientist in charge of the Zoological Park, and others, as to this matter. The Smithsonian Institution has no interest in the matter outside of a scientific one. It has, however, a great amount of information concerning the buffalo, much of which was collected by Mr. W. T. Hornaday. All of this information has been placed at my disposal, and through it I am able to give some of the details of one of the most disgraceful deeds of American history.

Few people are now aware of the former wonderful extent of the buffalo. No animal has ever existed in such large numbers nor covered so much territory. Buffaloes formerly roamed over the country as far east as Washington city, and there are records of herds of thousands being seen in Pennsylvania not long before the revolution. An hundred years ago they came in great droves to drink at the Blue Lick springs of Kentucky. Daniel Boone speaks of them and it is now only a few years since they existed by the millions on the great plains of the west. In 1871, now only twenty-five years ago, Colonel R. I. Dodge rode for fifty miles through a herd of buffaloes which he estimated as being twenty-five miles wide. This was along the Arkansas river.

At one point he was able to get upon a hill, and he says he could see this vast

herd of buffaloes stretching out from six to ten miles in every direction. The herd was moving and it took it five days to pass a given point. Professor Hornaday says that at the lowest estimate there were 4,000,000 buffaloes in this one herd, and this, as I have said, was only twenty-five years ago. In 1868 a traveler along the Kansas Pacific railroad states that the train at one time passed through one hundred and twenty miles of solid buffalo. The plains were blackened with them and more than once the cars were stopped by them. The best authority of the National Museum as to the early buffalo is George Catlin, who spent the greater part of his life in the west studying the Indian, and who made many pictures of the buffalo as they existed before the great destruction began. He tells of herds of millions and says that their roaring sounded like thunder, and tells how the Indians killed them by the hundreds of thousands for the skins, for which they received only a pint of whisky apiece.

You would not think that such immense herds could be wiped out. The buffalo, however, are very dull beasts in many ways. They are a mixture of stupidity and intelligence which is hard to understand. These mighty herds were made up of companies, or clumps, of buffaloes of from twenty to one hundred each, each clump being led and taken care of by one strong bull. In going for water one of the old cows of the clump would start ahead and nose along the track of a dry stream until it found a water hole, the others of that company following in single file. The herd would then drink and lie down to rest before eating. This would seem to mean a high degree of intelligence. But such evidence is not shown in their attempting to escape from man. A hunter might lie with a repeating rifle near such a herd and pick off one after the other without apparently frightening or scaring the rest. If they run it was usually against the wind, and they were cowards except when brought to bay. At first the skins brought but little and the temptation to kill was not so great. Still, thousands were killed for the pure fun of killing them. The southern herd, which contained about four million, existed as late as 1870, up to which time only about half a million buffaloes a year were killed from it. As soon as the railroads came in, hunters came by the score and, with breech-loading rifles, killed the animals by thousands. Captain Jack Bridges killed by contract 1,142 buffaloes of this herd in six weeks. Buffalo Bill earned his title by the number of buffalo he killed in a short time, and Mr. Hornaday tells of one hunter who told him that he had killed sixty-three buffaloes in less than an hour. In some places the buffaloes were driven over precipices, breaking their necks by the fall and being skinned afterward.

With some of these hunter murderers the ordinary process of skinning was not fast enough, and they invented a way of skinning the buffalo by means of horses. They would cut the skin at the neck and down the belly and around the legs at the knees. A stout iron bar, like a hitching post, was then driven through the skull about eighteen inches into the earth. Then a rope was tied to the thick skin of the neck. The other end of the rope was hitched to