*Our
Big
Game*

Dwight W. Huntington

STATE NORMAL SCHOOL
LOS ANGELES, CALIFORNIA

UNIVERSITY of CALIFORNIA
-T
LOS ANGELES
LIBRARY

Digitized by the Internet Archive
in 2008 with funding from
Microsoft Corporation

OUR BIG GAME

BULL MOOSE
ON THE UPPER TOBIQUE RIVER, NEW BRUNSWICK
From a photograph. Copyright, 1901, by F. C. Walcott.

OUR BIG GAME

A BOOK FOR SPORTSMEN AND
NATURE LOVERS

BY

²⁶⁷⁴⁵
DWIGHT W. HUNTINGTON

AUTHOR OF "OUR FEATHERED GAME"

*WITH SIXTEEN ILLUSTRATIONS FROM
PHOTOGRAPHS OF WILD ANIMALS*

CHARLES SCRIBNER'S SONS
NEW YORK :: :: :: :: 1904

26745

COPYRIGHT, 1904, BY
CHARLES SCRIBNER'S SONS

Published, September, 1904

THE NEW YORK
PUBLIC LIBRARY
ASTOR LENOX TILDEN FOUNDATION
1215 BROADWAY
NEW YORK

TROW DIRECTORY
PRINTING AND BOOKBINDING COMPANY
NEW YORK

42

CONTENTS

	PAGE
I. BIG GAME SHOOTING	3
II. GAME CLUBS, PARKS, AND PRESERVES	21

BOOK I

THE DEER FAMILY

III. THE DEER FAMILY	39
IV. THE WAPITI OR ELK	46
V. THE MOOSE	66
VI. THE MULE-DEER	95
VII. THE BLACK-TAIL DEER	111
VIII. THE VIRGINIA DEER	117
IX. THE WOODLAND CARIBOU	146
X. THE BARREN-GROUND CARIBOU	161

BOOK II

THE OX FAMILY

XI. THE OX FAMILY	167
XII. THE BISON	170
XIII. THE MUSK-OX	196
XIV. THE BIG-HORN OR MOUNTAIN SHEEP	206
XV. THE MOUNTAIN GOAT	217
XVI. THE ANTELOPE	228

BOOK III

THE BEAR FAMILY

	PAGE
XVII. THE BEAR FAMILY	253
XVIII. THE GRIZZLY BEAR	257
XIX. THE POLAR BEAR	278
XX. THE BLACK BEAR	282
XXII. THE BIG BROWN BEARS	294

BOOK IV

THE CAT FAMILY

XXII. THE CAT FAMILY	301
XXIII. THE COUGAR OR MOUNTAIN LION	303
XXIV. THE LYNX.	315
APPENDIX	325
INDEX	339

ILLUSTRATIONS

From Photographs

BULL MOOSE ON THE UPPER TOBIQUE RIVER, NEW BRUNSWICK	<i>Frontispiece</i>
	FACING PAGE
BUFFALO COWS AND CALVES	26
WAPITI OR ELK	46
MULE-DEER	96
A WHITE-TAIL (OR VIRGINIA) DEER	118
WOODLAND CARIBOU	148
BISON IN THE YELLOWSTONE NATIONAL PARK	172
MUSK-OX	198
BIG-HORN OR MOUNTAIN SHEEP	208
MOUNTAIN GOATS.	218
PRONG-HORNED ANTELOPE	230
A GRIZZLY BEAR	258
POLAR BEAR	280
BLACK BEARS.	290
COUGAR OR MOUNTAIN LION	304
A LYNX OR WILD-CAT	316

OUR BIG GAME

I

BIG GAME SHOOTING

2 6745

IT was the writer's good fortune to visit the haunts of the big game of North America and form a somewhat intimate acquaintance with most of the animals while they were marvellously abundant and surprisingly tame.

Only a little more than a score of years ago the gun was literally "the wolf's dinner-bell," and as the hunter moved away from his fallen quarry, having taken that part which he wished, the wolves responded to the call to dinner, and came in great numbers to devour what was left and fight over the bones.

The elk and deer were then seen peacefully grazing with the bison and the antelope on the open plains and prairies. I have ridden upon the mountain-lion on the fields of wild sage when shooting the sage-cock, or cock of the plains. I have come upon the grizzly bears but a short distance from our camps when shooting the blue grouse or deer.

I have seen the buffalo, in vast herds, covering the plain for many miles, when it was no difficult matter for a few horsemen to cut one out and run him into camp before killing him.

The bison is practically extinct as a wild animal

(there being only a small herd in the Yellowstone National Park), and the elk and deer have everywhere deserted the plains to live in secluded forests and mountain fastnesses. The antelope are no longer to be seen in many places where they were formerly abundant, and the naturalists predict that they soon will be exterminated. But there are to-day many localities where the large game animals (excepting the bison and antelope) may be found fairly abundant, and where the sportsman may count upon getting the limited number of animals ("with horns," as the statutes read), which it is now legal for one gun to take in a season. The killing of does and fawns has been prohibited everywhere, and the bag limit is usually not more than one or two of the larger animals in a season.

The number of sportsmen who shoot big game has increased rapidly within the past few years, but notwithstanding the fact that they now use smokeless powder in repeating rifles, and are thus able to see to fire rapidly in the damp woods, where the smoke from black powder often sadly interfered with a second shot, the large game animals are holding their own much better than they did a few years ago, and in some localities they show an increase.

It is gratifying to record the fact that the tremendous slaughter and waste have been stayed, and that there are, in many States of the Union, excellent game-laws which are now enforced. The zoologists, like the ornithologists, are inclined to be pessimistic when discussing the decrease of game. One date fixed for the extermination of the moose has already passed, but the moose in Maine and the deer in several New

England States are more abundant to-day than they were when the writer began to shoot.

The sportsmen of to-day think more of the pleasures of going out of doors, of picturesque camps beside trout-streams and forest lakes, than of the killing of large numbers of game animals. They are also interested in the natural history of the game, and have contributed much to our knowledge of the present distribution and habits of the animals. There is no camp to-day without its camera. There is, too, I am pleased to observe, a gratifying improvement in the character of the pictures which are brought out of the woods. Sportsmen have ceased to delight in being photographed as butchers in an abattoir surrounded by heaps of slaughtered animals.

The term big game includes all of the larger animals of the chase that are taken by sportsmen with the rifle. The flesh of all the North American big-game animals is edible (excepting the cougar or mountain-lion and the lynx or common wildcat). The two excepted felines afford considerable sport, and their killing is justifiable, since they destroy many domestic animals, as well as some of the animals which are regarded as true game.

The Boone and Crockett Club (a strong game protection club, with a large membership of distinguished sportsmen and writers) has provided in its constitution that "no one shall be eligible for regular membership who shall not have killed with the rifle, *in fair chase*, by still-hunting or otherwise, at least one individual each of three various kinds of American large game." In section iv. of the club's constitution the

big game animals are listed as follows: "Black or brown bear, grizzly bear, polar bear, buffalo (bison), mountain-sheep, woodland caribou, barren-ground caribou, cougar, musk-ox, white goat, elk (wapiti), prong-horn antelope, moose, Virginia deer, mule-deer, and Columbian black-tail deer."

The wolf (not coyote) was originally on the list, but was stricken out before the constitution was adopted. Wolves and foxes are fair game for the hounds, and furnish much sport when chased with a full pack, but they are not big game for the rifle.

So far as the true game animals (those which are good to eat when shot) are concerned, the list of the justly celebrated Boone and Crockett Club is complete and authoritative. It has occurred to the writer that if the cougar or mountain-lion is listed as a big-game animal the lynx or common wildcat might be added to the list, since it is always shot on sight by sportsmen with the rifle or dislodged and killed with dogs, and it is often pursued in the same manner as the cougar. For these reasons the lynx is included in my commentary.

All of the big-game animals are placed by the naturalists in the four families, the *Cervidæ* or deer family, the *Bovidæ* or ox family, the *Ursidæ* or bear family, and the *Felidæ* or cat family.

The first of these families is the most important to sportsmen and includes the moose, the elk, the two caribou, the mule-deer, the Columbian black-tail deer and the Virginia or white-tail deer—seven splendid game animals, all gifted with a keen sense of hearing, of sight and of smell; and all swift of foot, wild, wary—ready to match their wits against those of the sportsmen.

Included in the order *Bovidae* are the bison (usually miscalled buffalo), the musk-ox, the big-horn or mountain-sheep, the white goat and the prongbuck or antelope. Three of these animals (all save the bison and antelope, are fairly abundant, in certain localities, and the flesh of two of them, the mountain-sheep and the antelope, is highly prized by epicures. In the *Ursidae* or bear family we have only four bears (although at least twice that many bears are much written and talked about)—the grizzly bear, the polar bear, the black bear and the big brown bear. "Silver-tips," "cinnamons" and all the rest are referred by the naturalists to one or the other of the four varieties above mentioned.*

Here ends the list of the edible big-game animals, those which may be termed true game. The fourth order, *Felidae*, in North America includes only two cats—the cougar and the lynx; the jaguar being too rare to be listed.† There has been much controversy about the natural history of many of the big-game animals. Much has been written that is confusing and unreliable. The leading zoologists and the best sportsmen have differed as to the number of species. The former have fought over the proper classification and nomenclature, as the latter have over the methods of capture and the size of the bag. In a recent book a distinguished moose-hunter who was asked to write the monograph on the moose finds much that he wrote flatly contradicted, in copious notes at the bottom of

* The glacier bear is a new species known only by a single specimen. This is classified as a species of black bear.

† For the smaller cats see Appendix.

his pages, by the sportsman who edited the work. As late as 1885 Baillie-Grohman says:* "There is much myth interwoven with the natural history of the white goat, and but little that is authentic is known of it," and he adds: "Of twenty-three scientific authorities who have, so far as I have been able to follow the subject, written on this animal, none had ever seen one alive; but they, nevertheless, have bestowed thirteen generic names upon it, some making of it a sheep, others calling it a goat, while others again ranked it as a chamois." Since Baillie-Grohman wrote this, many naturalists and sportsmen have visited the white goat in his native mountains. I have an excellent photograph of him taken at short range,† and the editor of *Recreation* has a number of photographic groups showing these "mythical" wild animals at rest and in motion.

Our knowledge of the big-game animals has increased rapidly within the past few years and now may be said to be fairly accurate. Much of the best information about the natural history of the game, its present distribution and the methods of capture, is to be found in papers written for the magazines, such as the excellent monographs on the antelope by Grinnell in the *Century* and in *Outing*, the papers by Roosevelt on the cougar in *Scribner's Magazine*, and by Schwatka on Polar Shooting, and many other recent papers by sportsmen and writers of ability. The writer is under obligations to these sportsmen, and has digested much of this recent literature in the following pages with the view to making this volume as complete, accurate

* The *Century Magazine*, vol. vii., p. 193.

† See "In Brush, Sedge and Stubble."

and authoritative as possible. The remarkable stories used to illustrate the methods of the chase are true stories. It is gratifying to note that the attention of sportsmen is now given to the rules of "fair chase"; that many of the questionable methods of taking game have been abandoned by sportsmen who have been instrumental in the passage of laws prohibiting "fire hunting," "hounding" and "crusting," or the night shooting with shot-guns by the aid of torches or lamps, the driving of deer to runways or to the water, where the guide often held the animal by the tail while the sportsman (?) despatched it with a shot-gun, and the pursuit of moose on the crust of deep snows, when the animal, breaking through the crust at every step, was easily overtaken and slain with a club or knife.

The weapon for big game is the repeating-rifle. The shot-gun is the weapon for game birds. I am aware that the gun is still used in the South and some other places to shoot deer and the smaller bear, but the rifle should be the only weapon used for big game. The heavy gun loaded with buckshot will do the work at short range; there may possibly be some excuse for its use when the game is hunted on horse-back and shot running—but all of the animals are such large marks that anyone should be able to hit them with a rifle when within the range of the gun.

As to the kind of a rifle—there are many good ones. I have seen more of the Winchester than of the others. I have killed many of the big-game animals with the ordinary single-shot Springfield rifle and carbines, such as were used by the infantry and cavalry when I went to shoot in the West.

The earlier hunters in America, of the Boone and Crockett period, and even later, used a long, brass-mounted small-bore rifle and did excellent work with it. It answered very well for the small deer, the turkeys and even for the common black bear, which was never formidable, and was often shot from the trees. These rifles were, of course, all muzzle-loaders, and there was often no time to reload for a wounded bear; but the bears usually tried to escape even when wounded, and when they were cornered or brave enough to attack the hunter, they were usually despatched with the knife. For the elk, the moose, the bison, and especially for the ferocious grizzly bear, the pea-rifle was entirely too light, and the Western hunters soon demanded a heavier weapon. Some shot a ball weighing nearly if not quite an ounce. The modern repeating-rifles, of a few years ago, were for the most part forty-five or fifty calibre, and these were regarded as none too large for the formidable Western bear. There has been much discussion recently as to the comparative merits of large and small calibre rifles, and many sportsmen are now inclined to use the thirty calibre. One of the most accomplished sportsmen in America, who has written entertainingly on all branches of shooting, says "the best all-around rifle is now the thirty-calibre nitro, not because it will do all that is claimed for it, but because it makes so much flatter a line to everything within reasonable distance than any black-powder gun can do. The ball goes too much to pieces on some shots, and all that I have tried throw ten per cent. of the balls wild, five slightly wild and five badly so. But the swiftness of

the ball overbalances the other defects. An all-around rifle is almost impossible and some sacrifice must be made."

"Sacrifice for flat trajectory is not always a sacrifice of accuracy, but often one in favor of it. Between seventy-five and two hundred yards, the place where most shots on the open ground fall, no black-powder gun small enough to be carried with comfort can make up in accuracy what it loses in curve of trajectory as compared with the thirty-calibre nitro rifle. I refer to the high velocity shell, and not to the smokeless cartridges of the same strength as black powder. The soft-nosed bullet, driven with the high-power nitro, is the most killing form in which a ball of equal diameter can be made for all-round work. Those of copper or steel do not make a large enough hole for most shots on the softer parts of the body." *

For my part, I have always had a liking for a ball rather heavy than light, especially for the larger animals, such as the bison and grizzly. It has always seemed to me that the heavy ball was more sure to prove quickly fatal, that the shock was much greater and that there was more of the "knock-down and stay-down" power, as it has been termed, in the larger ball. Roosevelt, if I remember rightly, used the forty-five Winchester on grizzlies, and with this weapon dropped his first bear so dead that there was no chance for a charge.

Dr. George McAleer, in a paper on moose-shooting, says that "for many years the makers of rifles persisted in putting too much weight into them. Sportsmen cried

* Van Dyke.

out against this, but their contention was unheeded. After the lapse of time nitro powder was invented—a smokeless explosive that was hailed as a blessing by sportsmen. The small-calibre rifle made its appearance, and its lessened weight and smokeless ammunition soon made it a popular favorite even with those who distrusted its small-calibre and diminutive projectile. Some of the more enthusiastic of the brotherhood discarded the heavier weights and larger calibre for the more portable light-weight, small-bore and smokeless ammunition.

“The older manufacturers suddenly awoke from their lethargy and produced a large-calibre rifle of lighter weight and adapted for nitro (smokeless) powders, and now but little is left to choose between them on the score of weight or freedom from the smoke of the old saltpetre, brimstone and charcoal powder.

“For the small calibre, of which the .30-30 may be mentioned as a type, a greater initial velocity is claimed, and consequently a flatter trajectory and greater accuracy in long-distance shooting. Be this as it may, long-distance shooting is not a factor in moose-hunting, either by calling or still-hunting; and some old hunters of long experience and great success, who have given both large and small calibres abundant trial, have discarded the latter and will take them to the woods no more.

“Doubtless some sportsman who may have made a chance lucky shot through the heart or broken the spinal column of a noble buck or lordly moose, may be highly pleased with the execution of the small-calibre weapon with which he made the shot; but is he justi-

fied in allowing his enthusiasm to run away with his discretion and give the rifle undeserved and unlimited praise? For the nearby shooting of big game, and nearly every shot at big game in the woods is at close range, the initial velocity of the .45-70 leaves nothing to be desired; the trajectory is sufficiently flat and the impact of the heavier bullet is more deadly. A popular rifle with old and experienced woodsmen is made by the Winchester Repeating Arms Company substantially as follows: It is built for nitro powder .45-70 calibre, 22-inch round barrel, half-magazine, shot-gun stock, fitted with Lyman ivory bead front and combination rear sight, and weighs about seven pounds."

The reader will find further mention of the relative merits of large and small balls in the chapter on bears, where the effect of a number of actual shots with two rifles of different calibres at the bears is described.

In "Our Feathered Game," I referred to the fit of the gun. It is equally important that a rifle should fit the shooter and "come up" well, or handle well—as shooters say, since many of the shots are at running animals, and in bear-shooting, especially, it is important to be able to shoot well quickly. Here, as in shooting with the gun, much practice is required to make a good shot. At running game the shooter will do well to shoot with both eyes open. A careful fine-sighting of the rifle is best, when the game is at rest. It would seem almost impossible to miss such a large mark as an elk, moose, bear or deer, but the shooter must remember that the vital mark is very small; and it is desirable to hit the game in such a place that "the hunt ends instead of just beginning."

A first-rate man in the woods desires, above all things, to kill the game he hits, when he hits it. A wounded animal will often travel for miles, before it is recovered, and will sometimes escape. The chances that a wounded deer, elk or moose will get away, now that dogs are no longer used in their pursuit, are much greater than they were when every hunter had his hounds. If it were not for the fact that the privilege would be abused, I would strongly favor taking one or two dogs into the woods, to be used only to run down and locate the wounded deer. Of course, if dogs were allowed in the woods for one purpose, the temptation to use them for another would often prove too great to be resisted, and it seems necessary, therefore, that the laws prohibit all "hounding." On club-preserves the matter might well be regulated by club-rules, which the members would observe, and in States where the law requires the shooters to be accompanied by licensed guides, the guide might be authorized to use a hound for retrieving purposes only. The most disagreeable thing about shooting is the wounding of an animal which escapes to die. The sportsman and his guide should do nothing else until such an animal is brought to bag.

As already stated, the use of hounds on the deer is now prohibited in many States and should be everywhere (excepting for wounded animals, if that can be arranged), since the chasing of deer to the runways is very destructive and tends to drive the game out of the country. I am aware that many sportsmen favor this form of sport. Mr. Hornaday says: "The hunters are obliged to kill the deer on the run. . . .

'This requires good marksmanship, and is legitimate sport.'

Certain it is that this form of capture is not nearly so bad as driving the timid creatures to the water, where the sportsman (?) is waiting in a canoe, with a strong-armed guide, ready to follow the quarry, when it swims, and to murder it with a charge of buckshot at close range.

The shooting at night by the aid of a light, called a "jack" or "jack-lantern," is as bad as driving the deer to the water by day—even worse, I may say, since the murder is done at night. The "jack" has been put to a very proper use by Mr. George Shiras, of Pittsburg, and a number of other sportsmen, who use a camera. The deer attracted by the light stand very nicely to have their pictures taken, at short range. The flash-light also is used, of course, when the exposure is made, the "jack" being simply to hold the deer, until the artist is within range. Mr. Shiras cruising with a "jack-light" at night secured a remarkable series of flash-light pictures of deer in Michigan. This is an interesting, and the only legitimate, form of "jacking" deer. It furnishes all the excitement of the night-chase, without the murder at the end. The fact that Mr. Shiras was able to take a number of excellent portraits of the deer at very close range, indicates how easy it was to pot the animals with a jack-lantern and shot-gun before the law prohibited such killing.

The use of dogs on deer being prohibited, all that remains to be said about the use of these animals in connection with the rifle, relates to bear-hunting, cou-

gar-hunting, bobcat-hunting, and the hunting of the musk-ox. Dogs of all sorts are used to chase the bears and cougars. The Esquimaux furnish the dogs for the musk-ox chase. The reader will find a description of the methods of pursuit of all these animals with dogs in the chapters describing the various game.

The most important thing about the costume in big-game shooting is the foot-wear. Silence is absolutely necessary in stalking. There can be no noisy stalk. The moccason is the proper foot-wear for the stalker. I always preferred the Sioux moccason, with a light sole, but that prince of deer-stalkers, Van Dyke, says the thinner moccasins are best. The costume should harmonize with the surroundings and no white or bright colors should be worn. White suits have been tried on the snow. They are not desirable in the timber.

The greatest danger of missing big game, either running or standing, arises, I am satisfied, from over-shooting. I have repeatedly had the opportunity of seeing where my balls struck, when shooting at deer, antelope and buffalo, by reason of the animals having a butte or some rise in the ground back of them. Even at long range, I observed that my errors were in the direction of "high," rather than "low." When a deer is running before a background, which shows where the balls are striking, the aim may be corrected, as the magazine is emptied. I once shot at a large mule-deer (whose splendid head I wanted so badly as to be over-eager) and, as the buck bounded along, I fired too high several times, and then too low, my last shot sprinkling his fore-feet with dust and gravel. I really enjoy thinking

about that buck, and the way he pranced, now the disappointment about the antlers has been somewhat diminished by time. Had it not been for the background all of my balls would have gone far too high.

Van Dyke does not agree that it is correct to shoot the rifle with both eyes open. He says: "I tried thoroughly all the trick-shooting, hip-shooting, shooting with both eyes open, and shooting by sense of direction. I was right in the midst of plenty of game, and shooting at it every day. There is no profit in any of it, but vanity rather, and vexation of spirit. It is a valuable aid in quick shooting. But it makes you careless on the sights and, unless balanced by careful work, injures that perfect holding and extreme fineness of vision on the sights, on which, in the long run, success with the rifle mainly depends. I still do it, because it is fun to set the ground afire around a deer that you probably can't get anyhow. But from the day I got a repeater and learned how to keep a string of empty shells whizzing over my head, my shooting has become steadily worse."

Notwithstanding Mr. Van Dyke's advice, I shall continue to shoot at all running marks, as I do at birds on the wing, with both eyes open and take my chances of getting my share.

Mr. Van Dyke is clearly right in advising the rifleman to "always shoot arm's end and never take a rest." This was the advice he received, in his first hunting days, from one of the best shots, and he has followed it ever since and found it sound. "Nothing," he says, "damages confidence in offhand shooting so much as the habit of taking a rest. There are so many times when

you must shoot offhand because you cannot move without endangering your shot, that it is much safer to cultivate the habit by doing so always."

I have sometimes thought that the rifleman who would learn to shoot always with both eyes open, even at standing game, would bag the most animals. There can be no doubt that many men do shoot well with both eyes open. Certain it is, in the language of an old English line, "you'd better shut one eye than both." For my part I take more pleasure in making one running shot than in hitting a dozen or more marks at rest, and I have been inclined to experiment with the rifle in this direction. The shot I most enjoyed seeing was made by my friend Major Tillson from a horse going at full gallop at an antelope, going its best in an effort to escape him. One of my own shots which I recall with the most pleasure was at a small bison running his best; when the ball struck him he pitched head over heels down hill, as rabbits often do. My best shot at birds was from a running horse, when I killed a sage-grouse on the wing. Van Dyke, who has killed hundreds of fine deer, says his best shot was at a fleet jack-rabbit. At long range he landed his rifle-ball on its ribs.

Books have been written about learning to shoot, but the real place to learn is in the field. I have wasted a lot of balls, as a matter of practice, for big game on coyotes and jack-rabbits. I learned to shoot fairly well at the birds only by going where the partridges and ducks were sufficiently abundant to make a big bag possible notwithstanding lots of misses.

One good rule is, "don't be afraid to shoot—because

the shot seems difficult." Get a good rifle, a repeater, of course. Shoot much at marks—both stationary and moving, before going to the woods and when you see your first head of big game you will no doubt do as I did, and as many have done before, gaze at it for a fatal moment and forget about the rifle. You will be lucky if you do not often have the ague—the buck kind, called buck fever in the woods. The sure cure for this is killing a buck, but most likely you must be cured before you can get the buck. Experience here, as in all shooting, is most important. By all means do not get excited and shoot before you know what you are shooting at. Ever since the English king lost his life by a quarrel, shot from a cross-bow at a deer, the fatalities in the shooting-field have been on the increase. The fools who shoot at everything which they think may be a deer, unfortunately, seem to shoot well when the object is a man, and the result has been that each season we read of many hunters being killed in the Adirondacks, the Maine forests and elsewhere by accident. So careless have the shooters become that one State, at least, has taken notice of it, and in Maine it is now a felony to shoot a hunter carelessly, and the penalty is a \$1,000 fine and imprisonment * besides, if I remember the law correctly. Captain Lewis, one of the famous "Lewis and Clark" explorers, was carelessly shot by one of his men, who mistook him for an elk; but such accidents can always be avoided if the shooter does not shoot until he knows what he is shooting at. The conduct of Colonel Dodge, when he doubted the correctness of his orderly's vision when the latter

* The imprisonment may be for ten years.

pointed out a mule-deer, referred to in the chapter on that animal, is in pleasing contrast to the conduct of many city sportsmen to-day, who are willing to shoot at anything without waiting to determine if it is a deer or a man.

The plan of this volume is similar to that of "Our Feathered Game." We do not go to the museum to look over a pile of antlers, or a lot of skins in the search for a tenth caribou (all caribou, like coons, look alike to me), but to the forests and mountains, to pursue the animals the sportsmen know, stopping now and then to observe the lovely backgrounds, or make some note of the natural history of the animals, and to discuss the means of saving them from extermination.

The two volumes are intended as a complete review of shooting in America as it is to-day. As in the former volume, the greater space is given to those animals deserving of it.

II

GAME CLUBS, PARKS AND PRESERVES

ONLY a few years ago the word poacher was unused in America. Since there were no game parks or preserves there was no poaching. Every one who desired to shoot went where he pleased and shot birds and big game, often killing many times as much as could be used, and leaving wagon loads of fine grouse and ducks and thousands of splendid elk, bison, deer and other quadrupeds as food for the wolves. Paradoxical as it may seem, the big-game animals as well as the birds, which were threatened with extermination, are indebted to their destroyers for their preservation. A very few years ago there were no laws to restrain the indiscriminate slaughter which went on at all seasons, until it became evident to sportsmen that the day was not far off when there would be no game in the land. To the sportsmen the game is indebted for the many good laws in the statute books to-day, which provide for short open seasons, small bags, and the killing of male animals only, and which prohibit the destructive methods of pursuit referred to in the preceding chapter.

A few years ago there was no such thing as a sporting-estate, game-park or club in America. To-day many parks and game refuges have been established

both by the States and the Nation, and there are many clubs where big-game animals are kept in parks. There are, too, many large sporting estates owned by individuals. There should be one or more parks in every State in the Union owned and controlled by the State where the big-game animals would be safe at all times, and where they could be seen at home in their natural surroundings as tame as they were on the Western plains and mountains before the railways crossed them. There are many clubs and organizations concerned with the protection of big game, such as the Boone and Crockett Club and the League of American Sportsmen, which work for the preservation of the big-game animals, urge the passage of good laws and take a hand in their execution. The League of American Sportsmen has a very large membership and has done an immense amount of good work. The Boone and Crockett Club is composed of one hundred active members and has, besides, many associate members. This club has urged the taking of animals only in "fair chase," and has done much to create a sentiment among sportsmen opposed to the unfair and disgraceful methods of pursuit which I have referred to as now abandoned by sportsmen or prohibited by law.

The Boone and Crockett Club is composed of distinguished and influential men, who are thoroughly in earnest that the big game of North America shall not be exterminated. Largely through the influence of this club we have many National and State parks or refuges for the game, and we are soon to have more.

The Boone and Crockett Club, as set forth in its constitution, is organized to promote manly sport with the

rifle; to promote travel and exploration; to work for the preservation of the large game, and, so far as possible, to further legislation for that purpose and to assist in enforcing the existing laws.

My readers are no doubt aware that the National Government has set apart large tracts as forest reservations and has created a number of National parks. In these parks and reservations the big-game animals find a refuge from persecution, and many of them show a gratifying increase. When the great Yellowstone Park was first established shooting was permitted; after it was prohibited by law the shooting still went on and a lawless class gathered there, which was able to defy the superintendent and his assistants, and to destroy not only the animals but the vegetation of the park besides. The National Park now has a military superintendent and is guarded by regular soldiers. No guns are allowed in the park excepting under restrictions. No shooting is done. Most of the wild animals are increasing. Some of them, especially the bears, are becoming very tame, notwithstanding the fact that there are large hotels in the park and thousands of tourists visit it every year. Here is presented a far different picture from that of the Big Horn Mountain region not far away. When the writer first visited the Big Horn Mountains there was far more game there than in the park. Elk, mountain-sheep and deer made well-beaten trails through the forests, and the banks of the streams showed everywhere the tracks of the bears. Antelope and bison grazed together on the plains below, in great herds and bands. But the Big Horn Mountains are said to

be gameless to-day; "shot out," is the expressive phrase applied to them by hide and horn hunters. The necessity for game preservation is nowhere more apparent than in the Big Horns. In the nearby National Park there are moose, elk, deer, antelope, buffalo, mountain-sheep, grizzly and black bears.*

We have now five National parks and thirty-eight reservations. The Yellowstone is the largest of the parks and contained 3,444 square miles, an area equal to Rhode Island and Delaware. This was increased by the creation of the Yellowstone National Park timber reservation, and again by the Teton forest reserve, so that we now have a great park nearly twice as big as that originally created. The big game has profited much by the additions. As we shall observe later many game animals go up the mountains in the summer and return to the lower valleys and plains for the winter. So long as the winter quarters of the animals remained outside the park, the tame creatures which had spent the summer peacefully in the park walked out to meet an army of rifles, and it is not strange that they did not show a gratifying increase.

This National Park now has many valleys as well as mountain ranges which are watered by lakes and streams. It has the dark, dense swamps where the moose love to dwell, and the alternating park-like woods and natural lawns which the elk and mule-deer like the best. It has many thickets, ravines and forests, the unchanged homes of countless deer, and

* Far different is the picture in the vicinity of the park hotels from that near most of our seaside resorts. In the park grizzly bears are easily taken with a kodak; the last sanderling has been shot near many of the Eastern hotels.

high mountain peaks and rocky cliffs where the big-horn roams at will. Many bears find it easy to get a living in the garbage piles behind the hotels. The park is not so well suited, however, to the bison and the antelope, and Mr. Hornaday has well suggested that there should be another park on the plains for these animals in some place where they used to dwell. Other parks are the Yosemite, the General Grant, the Sequoia and the Mount Rainier. I can imagine no more beautiful place in the world than the Yosemite Valley with its rock walls thousands of feet high, its cascades falling over them with brilliant rainbows, its lakes and rivers and forests of great pines. The giant trees, the Sequoias, found nowhere else in the world, are included in the other California parks. The Rocky Mountain reserves, besides the Yellowstone and the Teton, which adjoin the National Yellowstone Park, are the Lewis and Clark reserve, named for the celebrated explorers of the Northwest, the Bitter Root, the Priest River and the Flathead. These contain more than twelve million acres. The Bitter Root reservation alone has four million acres and "is full of Nature's animals, elk, deer, wild sheep, bears, cats and innumerable 'smaller people.'"

There are great forest reserves in Oregon and Washington which include more than twelve and one-half million acres. Besides these National parks and reserves, there are a number of State parks, such as the Adirondack Reservation in New York, and the State reservations in California. Books have been written about these vast and wonderful parks and preserves, one of which, that of John Muir, is so

charming that I should like to quote it entire, which, of course, would make this chapter too long, since Mr. Muir has written a good-sized book. I have borrowed his description of the Columbia black-tail deer for my chapter on that animal, since it is the most satisfactory account of that comparatively rare animal which has been written for sportsmen, although Mr. Muir does not shoot them.

There are now many vast shooting estates in America where the big-game animals are preserved as they are in the older countries, such as the late Mr. Whitney's October Mountain in Massachusetts, and the Corbin Park, in New Hampshire, which is now owned by the Blue Mountain Club. The owner of the former park presented to the New York Zoological Park a score or more of bison from October Mountain, and a large band of elk. He also furnished some carloads of the latter animals to help restock the Adirondacks. The Blue Mountain preserve has not only bison and elk in abundance, but moose also, and many deer. At the Blooming Grove Club, in Pennsylvania, there is a large deer preserve containing several thousand acres under fence.

In the Adirondack region there are some splendid estates, such as Kamp Kill Kare, owned by the Hon. T. L. Woodruff, Mr. Vanderbilt's Camp Sagamore, Mr. Morgan's Camp Uncas, and many more, over fifty, I believe, where the deer roam the forests and in summer come down to the lakes and ponds to feed in safety upon the lilies. The growth of game preserving in the United States has been truly marvellous in the past few years. It is well that it should be so,

BUFFALO COWS AND CALVES

From a photograph taken in the Blue Mountain (New Hampshire) Game Preserve.

since without the preserves all the large wild animals were destined to go the way of the bison and the wild pigeon.

There have been many attempts to add to the animals in the game preserves those not indigenous to the neighborhood. There have been some importations of foreign beasts, such as the wild-boar, for example. But so long as we have the moose, the largest deer that lives or ever did live on the earth, the stately elk, and an abundance of deer, antelope, sheep, goats, and bears, including the largest and most savage of the last-named, there is no need to go abroad for our game. In discussing the birds, I called attention to the fact that States, as well as individuals, in their race after the new, were propagating foreign fowls—the pheasants—to the neglect of their own grouse and partridges, which are far better birds. So here, I say, we would do well to look, first, after our own and see that the preserves are well stocked with deer, elk, moose and bear before adding foreign animals which may not do well or may prove undesirable.

Our experiments thus far suggest a general rule, which should be observed by all game preservers who would meet with success—the preserve in any locality should be stocked with the animals which live or did live in a wild state in the neighborhood.

A good stock animal for preserves in all parts of the country is the common Virginia deer, or white-tail, for the reason that it has always lived, in suitable localities, in all the States of the Union. In the West the mule-deer and antelope may be added to a preserve, but these animals, especially the last-named,

have not proved desirable for Eastern parks or shooting-preserves.

Judge Caton, who for many years kept up a splendid deer park in Illinois, and carefully studied the animals of this family, came to the conclusion that he was too far East for the antelope. These same animals, however, are reported as doing well in the Yellowstone Park and in other places where they are indigenous.

The fact that an animal is not now present in a wild state in any locality is not to be considered in making a selection for a preserve. The bison and the elk have long been extinct in New York, but there is evidence that they formerly lived there. They have been found to do fairly well, even in the small spaces which can be given them in zoological parks. They, of course, do better in such vast parks as that of the Blue Mountain Club, or the late Mr. Whitney's October Mountain.

In the big game preserves there are lakes and streams where game-fish abound, and, in a former volume,* I have referred to the game-birds and their preservation and protection by clubs and individuals.

The big-game preserve should be a large one. It should be measured by miles, not acres; should contain mountain forests and valleys, well watered by streams, and open glades and pastures where the animals may live as they did before the days of preserves. When the preserve is a small one and under fence there is but little sport to be had. The mere thought that the animal has no chance to escape but must turn back from a wire fence, proves too much for a first-rate sportsman.

* "Our Feathered Game."

Where there are large shooting-estates which open into each other and extend over vast forests and mountains, the chase is very similar to what it was in the good old days when preserves were not needed.

I referred in the volume devoted to the birds, to the hostility of market gunners and natives generally to game preserves. At the Tolleston Club, near Chicago, there were several fights resulting in a loss of life. The fences of big game parks have been cut, and animals allowed to escape. It is, of course, necessary to have game-keepers and police the grounds. In many places the local shooters have thus been given employment or are engaged as guides, and these men, taken from the neighborhood, are the best game-keepers for evident reasons. They and their people, of course, become the friends of the preserve. At least one death in an Eastern State has been charged to hostility against the game preserve. The National, State and private parks, which are unfenced, do a lot of good for the surrounding country, where the game wanders out and may be shot during a short open season. The season has been said to be exceptionally short on Long Island since the deer scamper back into the preserves at the first fire from the army of outsiders on the opening day.

As to the care of the animals on the game-preserve—their feeding, etc., if the preserve is for shooting, the best care is none at all outside, of course, the protection of the animals from poachers and their natural enemies, the wolves. The preserve should be large enough for the animals to roam absolutely at will. There should be an abundance of natural food. Where

it is necessary to take up the animals in the winter and feed them they lose in interest as objects of pursuit. Bear, as well as deer, soon become tame, and first-rate men do not desire tame game. Since the growth of game preserving in America is now rapid, there are many men familiar with the care of game, and all preserves must of course have many game-keepers.

There are some fine game-preserves in Canada, which is the home of the moose, and Canada has besides a large Rocky Mountain park. There, as in the United States, the people are being educated to believe in the protection of game animals, and to realize that parks and preserves and the punishment of poachers are necessary for the salvation of the game. Game animals have survived for centuries in the densely populated countries of the old world. It is safe to say they will survive in America now that we have game clubs, parks and preserves.

And here I wish to urge upon the sportsmen who can afford it the establishment of more big game preserves, especially in the West. The Virginia deer and the moose are, I believe, safe from extermination, at least in the Eastern game parks, and under the good laws which are now enforced these animals will survive for many years in the open forests, which are, as I have observed, in many places benefited by the overflow from the game preserves.

There is immediate need for more protection in the West. Naturalists, sportsmen and the camera hunters are all agreed that the antelope, the elk, the mule-deer and the other Western animals are in danger of extermination.

Mr. Hornaday, in his new book,* predicts that it will not be long before many of these magnificent game animals are extinct. Mr. Wallahan, of Colorado, the celebrated photographer of live big game, says:

"Unless we have a close season on the mule-deer, five years will see the finish of these animals. I will give you some figures: In 1897 I was on the big trail here for nine days, and I counted within a few of a thousand deer. In 1901 I was on the same trail for eighteen days, and counted two hundred and twenty-eight deer. In 1902 I was out fourteen days, and counted fifty-two deer. More deer passed in a single twenty-four hours in 1892, '93, '94, '95 and '96 than passed during the whole month of October, 1902."†

Again Mr. Wallahan says: "Look at the antelope! But I don't know whether you can find any to look at; for I don't think there are fifty in Routt County, where ten years ago there were probably 50,000."† Mr. Hornaday predicts the total extinction of this animal at an early date, unless it is fully and permanently protected in a wild state on its native ranges for a long period, and says it cannot be perpetuated by breeding in captivity.*

A few large game preserves in Colorado and elsewhere in the West would prove the salvation of these animals, and with the kind of laws now enforced in New England, on Long Island and elsewhere, these animals, I believe, can be made to show an increase as the Virginia deer and moose have.

* "The American Natural History."

† "Outdoor Life."

The number of men who shoot for sport is increasing rapidly. It is estimated that ten thousand annually hunt in Maine. As wealth increases, there are more men who can afford to shoot, and shooting privileges become valuable. There are many large tracts in the West which now produce nothing but which would yield a large revenue if kept stocked with game. "Shoots," to use an English expression, will become more valuable as the game in the unpreserved tracts is exterminated. Shares in clubs where game-birds only are preserved have already risen in value. As a business proposition some large game preserves in the West would prove paying investments. Hotels in the South, such as those at Pinehurst and at Old Point Comfort, etc., are now preserving and propagating feathered game on immense tracts, and find that it pays. As I stated in "Our Feathered Game," it is estimated that in Scotland the Highland land owners receive \$2,200,000 annually for shooting privileges. These figures give the value of shootings when properly looked after, and "all this money is derived from land, which in the days of our grandfathers produced practically nothing." * Sportsmen in the West who organize large game preserves now can procure the land for very little. They can provide shooting for themselves, and at the same time save the game; in the end they will own a property which has increased in value from year to year. There are, I believe, many men who would contribute to maintain such shooting preserves, who would never fire a weapon more dangerous than a camera, but who would not object to

* *British Sportsman.*

shooting so long as the game showed an increase, as it surely would under proper regulations. Men who contribute to support zoological gardens and museums of natural history would, I believe, contribute to the game preserves if assured that they would save the animals from extinction.

The rules of the big-game clubs usually provide for a short open season and limit the killing of the game by each member to a small number of males per annum. At the Blooming Grove Park Club, in Pennsylvania, the killing is limited to bucks, and a club-rule provides that a member killing or wounding more than one buck in the breeding-park, in any one season, or a doe or fawn, shall pay into the treasury of the club \$100.

At this club other rules provide that deer may be killed only from and including the first day of October to and including December 31st.

This, however, does not apply to the breeding-park, where stalking or still-hunting bucks is allowed, to members only, from September 1st to November 30th inclusive. This rule provides that rifles only shall be used, and that no device of any nature shall be employed to drive or chase the deer.

This club has a number of lakes and streams which are well stocked with game-fish and has bird-shooting besides, including the imported pheasants which are propagated at a hatchery on the club grounds.

I have referred to the organization of the game-clubs in the earlier volume and the general rules governing members and invited guests, where guests are permitted, as they are at nearly all shooting-clubs, under

certain regulations. The clubs usually have fine club-houses and often cottages and camps besides. In California there are a number of immense game-preserves owned and controlled by clubs, where there are no buildings, the members preferring to camp out when they go to shoot on their preserve. One of these clubs, the Tamalpais Sporting Club, controls the shooting over 18,000 acres, and another, the Point Regis Sportsman's Club, composed of San Francisco sportsmen, has 22,000 acres of hill and lowland, which is patrolled by game-keepers.

The Country Club is said to have the largest shooting territory in California—76,000 acres of mountain, marsh, lake, and coast-line.

This club is an auxiliary of the Pacific-Union, the pioneer club of San Francisco. At the Country Club the members shoot deer, bears, "lions," and wild-cats. Here, as elsewhere, the club has good fishing and bird-shooting in addition to the big game—salmon and trout, wild-fowl, snipe, etc.

In Missouri there is a large country club which has little shooting near its fine club-house, but at an annex some miles away, the members have good shooting.

I have referred to these few clubs to give my readers some idea of their size and of how they are planned and conducted. I have been surprised at the number of these organizations which are concerned with the preservation of big game.

The number of private game-parks is also increasing rapidly, and at one of these parks the deer increased so rapidly that it was found necessary to release many of

them since there was not food for all.* Some of the private shooting-estates in the West are truly magnificent in their dimensions, being much larger than the Adirondack estates. Many of the Western club preserves contain a great variety of game.

In the writer's opinion, it will not be many years before all big-game shooting in America is done on game preserves, not necessarily small, fenced enclosures, but in large preserves also, where the animals range at will over mountain-ranges and through great forests, where the shooting is owned, controlled, and guarded by clubs or individuals.

* Mr. Corbin informs me that the deer increase too rapidly at Blue Mountain.

BOOK I

THE DEER FAMILY

26745

1. Cereus

2. Yucca

3. Ficus

4. Boragin

III

THE DEER FAMILY

NORTH AMERICA may be said to have fared badly when the antelope were distributed, and has only one, while Africa and Asia have a hundred or more. We find ample compensation for this shortage when we observe the Cervidæ or deer. If the two splendid caribou which are named as separate species in the Boone and Crockett club-list be considered as one we have at least six distinct species of deer, including the moose and the elk, the two largest and most magnificent deer in the world; the mule-deer, another splendid animal, justly celebrated as an object of the chase and noted for the delicacy and fine flavor of its flesh; the Columbia black-tail, an equally good deer; the familiar Virginia or white-tailed deer, somewhat smaller, and the caribou, or reindeer, which is similar to the reindeer of Europe. There are a number of geographical races which are mentioned by naturalists, the most notable of which are the varieties of the common Virginia deer, one of which, the dwarf specimen found in Arizona, is not much over two and one-half feet in height. These all have the same habits and are all common Virginia deer to the sportsman.

With the exception of the moose, which is positively ugly in appearance, all of the deer are remarkably

handsome and graceful animals. They all have horns which are prized as trophies of the chase, and the elk-antlers and those of the moose are the largest and finest taken anywhere in the world. The horns of the deer differ much in formation and structure from those of cattle. All deer are fleet of foot and are much more trim in outline, more alert and quicker in movement than cattle, but the deer are said by the naturalists to belong to the *Artiodactyla*, or even-toed ungulates, which means that their feet are planned like those of the ox.

All sportsmen and naturalists agree that the deer have keen noses, but there is much difference of opinion about their sight. There can be no doubt that the deer can smell their enemies at great distances, and when they are alarmed by their noses they do not wait to see or hear who is approaching, but instantly take to their heels and in a few moments are a mile away from the danger. Often the sportsman is entirely unaware that he has been in the vicinity of his quarry if the ground be dry and the deer leave no trail. The first thing to be considered by sportsmen in all deer-shooting is the direction of the wind. So keen is the deer's sense of smell that it is impossible to approach him down wind.

All deer have good ears which are at all times raised to catch any alarming sound. A slight noise, however, if the hunter remain motionless and the quarry do not smell him, will not always put the deer to flight.

Caton, in his work on the American antelope and deer, says that the deer does not see well. Many writers and sportsmen are of the opinion that the deer

does not see as well as the antelope. However this may be, he certainly sees well enough to get out of the way quickly when he has been much hunted, and I would not advise a sportsman anywhere to rely upon the deer's defect of vision. Grinnell is no doubt right in what he says about this matter in his paper, "The North American Cervidæ." "It is true," he says, "that deer will pass close by a man sitting in the woods without seeing him, provided only he remains perfectly motionless; but this does not necessarily imply any imperfection of vision. Other mammals and birds will do precisely the same thing. The deer would not walk up to a man standing or sitting in the middle of a meadow, where there were no surrounding objects. A man, if motionless in the woods when clothed in hunter's garb, very closely resembles a stump or stick."

I was once sitting upon a rock in quite an exposed place on top of a mountain in Wyoming when a mule-deer alarmed by my companion in the woods slowly came out into the open and walked within a few feet of me. He did not see me until I turned to shoot, when he went off at his best gait. The hawk is proverbial for his keenness of sight, but I heard of one actually alighting upon the head of a punter who was sitting in a marsh watching the ducks. The punter was wearing a canvas coat, of a marsh-grass color, and an old gray cap; and the hawk, approaching from behind, no doubt mistook him for a stump, dropped on his head, and there remained until the punter raised his hand and turned to see what had touched him. He told me he thought his companion had approached and struck him with his hand, until he saw the hawk

as it flew from his head, and shot it. The man who told me this was thoroughly reliable and it no doubt occurred just as he said it did. The sportsman will do well to remain absolutely motionless in the presence of a deer until he is ready to shoot.

The methods of pursuing deer have been changed much by legislation within the past few years. The open season has been shortened, the bag limited, and the sale of venison prohibited. This is most fortunate, since all of the deer were threatened with extermination.

The range of the deer is limited and the habits of the animals have changed much where they have been persecuted. All of these matters will be referred to in the chapters on the different species. Most of the States require a license to shoot. This varies in amount from ten to fifty dollars for non-residents. A nominal sum is usually charged for residents. In my opinion this inequality in the charge will eventually prove fatal to such laws, but in the meantime the sportsman who desires to avoid trouble will do well to take out the license required.*

Since laws are changed so often it would be useless to give a table of these rates. The Forest and Stream Company publishes a quarterly magazine, *Game-Laws in Brief*, which gives an accurate synopsis of all the game-laws in the United States and Canada, in addition to short stories of the chase.

All of the male deer have horns, which they shed annually, usually about March. In two species, the caribou, the females also have horns. The new horns are

* The license in Newfoundland is \$50.

fully grown and strong by the end of the summer, when the bucks are much given to testing them on each other and indulge in many pushing-matches, often fighting viciously. Sometimes the horns become locked, and the two deer, being fastened together, die from starvation. Many pairs of these locked antlers have been picked up in the woods.

The antlers of all deer have branches when the deer are fully grown, but the first antlers of a young two-year-old are spikes, as they are called, without branches. Hence sportsmen often speak of shooting a spike-buck.

Although the deer are not usually regarded as dangerous animals, they at times will attack persons and many instances are on record where elk, moose, and the smaller deer have shown fight when wounded and have charged their enemy. Mr. Caton tells us of an elk in his park which killed a trespasser. Mr. Hornaday gives us an account of another which killed a man in Montana, who entered the corral armed with a pitchfork to show a friend that the large male elk feared him.

Mr. Hornaday says that once, when unarmed and alone, he saved himself from an infuriated buck (fortunately a small one) by suddenly releasing one antler, seizing a foreleg low down, and pulling it up so high that the animal was powerless to lunge forward as he had been doing. In this way he held him at bay and at last worked him to a spot where he secured a stout cudgel, with which he belabored him so unmercifully that he was conquered for that day.

I once saw two small white-tail bucks break through

the fence in a city park and charge the by-standers, knocking down several persons before they were finally recaptured, and at the end of a sportsmen's show in Chicago, I observed that it took several strong men to handle the deer which were to be boxed and returned to the late Judge Caton's park.

The sportsman will do well to approach a wounded buck, even though it be stretched out on the ground, with great care, since the rapidity with which these wounded animals will sometimes spring to their feet and charge is most surprising. Mr. Hornaday advises striking the buck across the nose, for that is his tender spot. He can take any amount of punishment on the forehead, neck, and shoulders without its diminishing his energy in the least. The sportsman, of course, if his rifle is loaded, will give the wounded animal another ball.

The deer in parks and preserves where they are fed often become quite tame, but as the rutting season approaches, the gentle animals are often positively dangerous and no one should visit the park unarmed. Judge Caton once came very near seeing one of his children killed by a vicious deer.

The common white-tail deer, known as the Virginia deer, is the most abundant in North America and the most widely distributed.

The mule-deer is a Western deer and has a more limited range.

The moose and caribou are northern animals, being found north of the United States, excepting in small areas in a few Northern States.

The elk formerly had a wide range, but by persecu-

tion they have been driven back into small, comparatively inaccessible, areas.

The black-tail has the smallest range, being a Pacific Coast variety. These matters are referred to more at length in the chapters on the various species.

IV

THE WAPITI OR ELK

THE elk is the most magnificent game-animal found on the North American Continent. He is by far the best deer and in my opinion the best game-animal in the world. There was an objection to him a few years ago on account of his tameness, but he has overcome that. His great size, handsome form, and splendid, symmetrical antlers delight the eye of the sportsman, who loves to follow him in the vast forests and picturesque mountains where he dwells. He has often been called the king of the deer. His flesh is tender and delicious and wonderfully nutritious, much more so than beef.

Grinnell says the bull elk is about the size of a horse and measures about five feet high at the withers. The females are somewhat smaller. Full-grown bulls will weigh more than 600 pounds. Judge Caton, who raised many of these animals in his park in Illinois, had one which weighed 650 pounds when three years old, and which, he says, probably weighed 900 pounds when he was unfortunately killed. He stood over sixteen hands at the withers. Mr. Hornaday gives the weight of one which died in the New York Zoological Park as 706 pounds. The elk grows until he is eight or nine years old. He is not quite so large as the

WAPITI OR ELK

From a photograph. Copyright, 1903, by S. N. Leek.

largest moose, but is far handsomer. He has, in fact, all the grace and beauty of the common deer, while the moose is positively ugly, excepting possibly to those who see more beauty in the pug and bull-dog than in the thoroughbred setters and pointers. The horns of the elk are round, wide-branching, and symmetrical, like those of the deer. They are the most magnificent trophy of the chase. The color of the elk is yellowish brown. The head, neck, legs, and under parts are a rich burnt umber. The rump is yellowish white, bordered by dark brown. The dark brown hair on the neck is coarse and very long.

The elk has a valuable hide, which, as Grinnell says, "has a commercial value which makes it sought after by those butchers of the plains called 'skin-hunters.'" The Indians prized the teeth of the elk and used them as ornaments.

Like the common Virginia deer, the elk occupied a wide range throughout the United States from Canada and Labrador to northern Mexico. Like the bison, they could not stand civilization (that kind, at least, that killed every large animal on sight in order to try a gun or bait a trap for a bear), and retreated from the open country to secluded places in the woods and mountains, and soon disappeared entirely to the eastward of the Mississippi. It seems hard to realize to-day that these magnificent animals were to be seen in large bands from the Great Lakes to Kentucky and Tennessee, almost within the lifetime of old hunters.

Dr. C. Hart Merriam's map shows the range of the elk in 1900 to be the Rocky Mountain region, from Alberta, south through Montana and Idaho, to the

northern and western parts of Wyoming and the Rocky Mountain region of Colorado. There are areas in western Washington, Oregon, and California where the elk is shown to exist, and a small area on the line between Arizona and New Mexico. A small area is shown on the Manitoba—North Dakota line, and a small area in Minnesota. These areas are decreasing, excepting in the vicinity of the Yellowstone National Park and other reservations.

As late as 1880 I saw and shot elk, in the upper Missouri region, in the open country, some distance from the timber. Roosevelt says that in the early eighties but few remained between the Mississippi and the Rocky Mountains, and that they were being exterminated in this region as fast as the bison, and may be said to have ceased to be a plains animal in 1883.

The fact that the moose have held their own longer than the elk, in localities where they were found associated, would indicate that they are more difficult to approach and kill, and such I believe to be the case; but the experienced elk of to-day is difficult enough to test the skill of the most experienced sportsman, and if he be unattended by a guide, the chances are much against his bagging the game.

Mr. W. A. Wadsworth, I am aware, holds to the contrary. "We have," he says, "heard so much of the sport of elk-hunting from all sorts of writers, from the President down, that it seems ungracious to find fault with it. But the elk is a very large animal, a naturally tame and stupid animal, and a gregarious animal. With the wind in my favor and by keeping absolutely still I have had a herd browse up so close that I could

have touched them with my hand; and during the rutting season the bulls will, if alone, come trotting up to even a very poor imitation of their 'whistle' or keep answering it if with the herd."

Mr. Wadsworth, referring to the recent introduction of the elk into the Adirondacks, says: "I hope the elk will be introduced into New York as a 'beast of ornament,' not as a 'beast of chase,'" and he adds that one live elk is worth more to any forest than a ton of his meat.

What Mr. Wadsworth says was true of the elk a few years ago, but, as I have already observed, the elk of to-day has overcome this objection and is a different animal—in fact, he is now one of the most difficult deer to stalk successfully. Mr. Corbin informs me that the elk are too tame to be interesting at the Blue Mountain preserve. I suggested the introduction of a few cougars, less feeding and more shooting.* An elk which is kept and fed in an enclosure becomes tame, and of course is not a game-animal. But on a large preserve, where enough shooting is done to keep the elk wild, they are a most desirable game-animal, and if the shooting is confined to the natural increase and the animals are looked after as other deer are on the foreign preserves, there is no reason why we should not have good elk-shooting for all time to come. The same writer tells us that there is a great local pretence that the elk are killed off by "Eastern dudes," "tourists," "Indians," etc., but the majority are taken late in the season by men who go into the mountains for "meat" for winter use, and by pot-

* A few wolves would give the elk some exercise. They should be used sparingly, however.

hunters wanting the hides or teeth—the former have little value, but the two small tusks called the ivories, found in the upper jaw, have, by a strange perversion and without the approval of its officers, become fashionable as a badge among some of the members of a well-known society.

So, he says, “many a noble beast has died in the snow leaving head, hide, and carcass to rot untouched, to furnish a foolish ornament to some fat and worthy clubman who never saw forest, mountain, or camp-fire, and is so ignorant of the lore of his own fraternity as not to know the difference between the great prehistoric Irish elk, from which it derives its name, and the American wapiti, which is technically no elk at all.”*

Van Dyke thinks the elk is now probably the hardest game animal to secure by any means of hunting, but I am of the opinion that the common white-tail is as difficult, if not more so. Van Dyke is no doubt right if he refers to the elk of the Pacific Coast forests, but there are places in the Rocky Mountains, especially near the park, where the chances of getting a good shot are better.

When the elk were abundant in the open country in California, the ranchmen used to take them with the lasso, but there as elsewhere the elk retreated before civilization to the almost inaccessible forests.

Elk feed upon grass and weeds and the leaves and tender branches of trees. They thrive well upon either diet. Caton says a considerable portion of his daily food he desires to be arboreal, yet, if deprived of it, he will keep in good condition on herbaceous food alone.

* New York State Forest, Fish and Game Report.

The sight of the elk is keen, but perhaps not so good as that of the antelope. He hears as well as a deer, and has a nose which warns him of danger a long way off. He walks rapidly or goes off, at a rapid swinging trot, travelling much faster than he appears to, and when he has a fair start it takes a good horse to overtake him on the open plain. No rider can hope to keep up with him as he goes smashing through the heavy brush and timber, easily stepping over fallen logs and tree-tops, and brushing aside branches which soon bring the horseman to a halt. He is said to lack bottom, when running, and that if pressed into a gallop, a horseman can easily overtake him. I once endeavored to ascertain if this was a fact. Having dismounted to shoot, and killed an elk in the open, I sprang into the saddle and rode hard after another, shouting at him, and trying to make him run. He kept well ahead of me, however, on the trot and went into the timber some distance ahead without a break. There I soon found it advisable to give up the chase. He gained so rapidly that I ceased to hear him smashing through the brush while I was compelled to go slowly.

The elk are gregarious and polygamous. They were sometimes seen in great bands containing a thousand or more animals. Mr. Leek, of Wyoming, showed me this spring a photograph, containing over a thousand elk, which he made last winter in the Jacksons Hole country south of the National Park. This is the only place, I believe, outside the park where such large bands are ever seen to-day.* Like the deer, the

* This shows the value to the surrounding country of game preserving.

elk sheds his horns annually. In the rutting season, which begins about September, the new horns have become hard and strong. The bulls are then much given to fighting, and may be heard sounding their loud challenge, which is a whistling noise easily recognized when once heard.

Mr. Wadsworth says: "The elk whistle varies very much, so that it doubtless has different meanings; but it is assuredly not a sign of fear or signal of danger, as is often stated. It is a defiance, and is promptly answered by any other bull that hears it. If he is with his herd he usually stays there waiting for the stranger; but if alone he is apt to start toward the sound to investigate, and he will come up pretty close before deciding what to do. I have seen them come within fifty feet of a pack train in answer to an imitation of it, and then, notwithstanding the noise and loud talking, follow along abreast for a mile or so, challenging at intervals and never over one hundred yards away."*

The stronger bull drives out the weaker, and having gathered his cows about him, he is prepared to fight any other bull that may put in an appearance. The cows retire to some lonely place to bring forth the young, which are usually born in May. There are one or two fawns handsomely spotted with white. Both the cows and fawns are said to hide at this season of the year in secluded places. The elk prefer mountains, where there are open glades and mountain meadows, watered by lakes and small streams, where they can procure grass and water and browse on the

* W. A. Wadsworth.

shrubs and trees. They were formerly more often found in such country than in deep, dark and almost impenetrable woods without the openings and picturesque lakes. They are fond of walking out on some high point where there is an extended view over mountain ranges and intervening valleys watered by streams and lakes. I can imagine no picture more charming than such a scene with this great antlered stag in the foreground.

My first expedition after elk was made years ago in the Uintah Mountains in northeastern Utah and southern Wyoming, where few white men had ever been. Our main camp was pitched on a small branch of the Green River. Here we had wagons and an escort of soldiers from Fort Bridge, and lived comfortably in wall tents while engaged in collecting fossils from the adjacent bad-lands for the Yale Museum. With a competent guide we made an early start, taking a small amount of provisions, some bedding, and a few cooking utensils on pack animals; and crossing the broad gray-green plain overgrown with the tufted shrubs of wild sage we followed a small stream to the point where it issued from the mountains between huge walls of rock and here made our first camp. Along the stream the beavers had made many dams, and the stream was called Beaver Creek after these industrious animals. Having made our camp, which consisted of spreading our blankets on the grass (we had no tents), we took enough large trout from the stream for supper and breakfast and the following morning pushed on into the mountains, following a well-worn game trail alongside the little stream. We

rode much of the time in the woods, but crossed many beautiful little glades carpeted with wild flowers so numerous as to make the ground look like a brilliant rug. The blue-grouse were abundant and tame, and in the afternoon I decided to shoot some of them for supper. A few moments after my first shot we came to the shore of a small mountain lake, and here saw the fresh tracks and droppings of a large band of elk, which had evidently been alarmed at my shot and had trotted away across a little meadow into the forest beyond. We immediately decided to camp beside the lake and go in pursuit of the elk.

Our guide was a thorough woodsman, an old trapper, who had seen Indian fighting and was a sure shot at game. He was as taciturn as the ideal Indian of romantic fiction and seldom spoke unless spoken to. He dismounted without excitement, pointed to the huge tracks in the soft ground and said "Elk." He suggested that one or two of us accompany him while the rest made the camp. With a friend I followed him to the edge of the woods, where he enjoined silence and pointed again to the trail, which indicated that the animals were somewhat separated, and, deployed as skirmishers, we stole softly into the woods. The guide held the left, I was in the centre, and my friend on the right. It was not very difficult walking at first, but the small timber was so thick that I could not see far ahead and soon lost sight of my companions.

I had never seen a live wild elk. I had visions of those I had seen in zoological gardens. My heart beat rapidly. Assuming the posture of the deer stalkers I had seen pictured in books leaning somewhat forward,

I moved slowly, as the guide directed, but soon begun stepping on sticks, and was aware that I was not doing the thing just right. Bang went a rifle off to my right, and, in a few moments, I heard another report to the left and somewhat in advance of me. Aware that the game was afoot, I ran hastily forward, seeking to join the guide, and as I ran, bang went his rifle again still ahead and to the left.

Soon I saw the guide and joined him. He was standing beside the prostrate form of a huge elk. Prostrate, I believe, is the word always used when elk are down. "Did you miss him the first time, Sam?" I inquired. "No. Shot 'nother one," he said. "Where is he?" said I. "Over there," said he, pointing. "Fell in deep hole—bad place get 'em out—so I shot this one."

He was soon at work with his knife, eviscerated the game, cut off the head and lower part of the legs, and then we returned to camp and, procuring a horse, brought out the carcass and hung it up in a tree. My friend in the meantime fired a few more shots and returned to camp with a headless blue-grouse. He had, he said, a fair shot at an elk standing broadside, but hit a tree in front of him and made a very large hole in the tree. He admitted having a mild case of "buck fever." It was a long time after this before I killed an elk. I could see, however, that it was an easy matter for Sam. The game was by no means wild, and ran but a short distance after his first shot.

Our camp for the night was made in the edge of the timber. For supper we had trout, blue-grouse and tenderloin steaks from the elk, and never have I more

enjoyed a meal. The fish, the birds, the elk meat were all delicious. After supper we sat about the camp fires, smoked our pipes and heard stories of the chase. The moon shone brightly for a time over a dark pine-clad mountain, and when it disappeared our guide gave us a few instructions as to what to do if the Indians jumped us, and we went to bed. The wolves attracted by our game sang to us from a distance in the woods and later came quite close. A lynx sang a solo from the mountain side. (*Lynx uinta*, he is now—since 1903; the poor thing had no name then.) The fire burned low, and at last, tired out, I fell asleep. In the morning we were up early and admired the charming view. The lovely, placid lake reflected the high mountains which surrounded it. A flock of wild fowl were swimming about, not far from shore. After a hasty breakfast we again went into the woods, but killed only a deer and saw no more of the elk. Our vacation was for three days and we were obliged to return to work.

I once had a splendid opportunity to observe a large band of elk under the leadership of a fine antlered stag. They were grazing in a mountain meadow. The stag had the finest pair of antlers I ever saw on a live animal. I was riding with Captain Baldwin of the Fifth Infantry (now General Baldwin) in the Wolf or Panther Mountains, Montana, and as we came to the edge of the hill or low mountain the elk were just below us, but too far away for a shot. Dismounting, we sat down where we could observe them, without their seeing us. They were moving slowly from left to right, stopping now and then, when the stag raised his splendid head and, no doubt, tested the air with his nose to

ascertain if danger was near. I looked at him through a powerful glass which brought him quite close and, admiring him, determined to have his horns. Ahead of him there was a rise in the ground which then sloped gently down to the timber on the mountain side. Taking a tree as a mark where I would be directly in front of the elk, I slipped away and made a long detour, and when I reached my tree I dismounted and proceeded to creep forward up the slope, exercising the utmost caution. The grass was long and heavy and I made no noise. The wind was right. The captain sat on the hill and observed my movements and the game. When half way up the slope a wolf sprang up from the grass in front of me and made off. I almost put my hand on him and he gave me quite a start; but I was on my feet in a moment and ran after him. The wolf quickly crossed the ridge, and, when I reached the top, the elk had taken the alarm and run into the woods. The captain enjoyed the performance more than I did. I have never forgiven that wolf.

The foregoing episodes illustrate two familiar methods of pursuing elk when they were abundant. The shooter rode comfortably along until he discovered elk signs, and then dismounting, followed the trail into the forest and easily bagged one and often several animals, or often got in front of the animals when they were grazing and let them approach within range. I once saw some elk standing, like antelope, on a slight elevation in an open plain. It was evident that they saw me, and I made a rush at them while they stood and gazed, and, jumping off my pony when

within range, easily killed a fine animal which must have weighed 700 pounds or more.

When the rutting season is on and the bulls are whistling their loud challenge on the mountains, they are less difficult to approach than at any other season. Roosevelt has given us an account* of shooting elk at this season at the Two-Ocean Pass in the Shoshone Mountains, Wyoming. He describes many fine days' sport and successful bags. His best bag was three elk, all fine bulls, in a half day's shooting. "We went up the steep, forest-clad mountain side, and before we had walked an hour, heard two elk whistling ahead of us. The woods were open and quite free from undergrowth, and we were able to advance noiselessly; there was no wind, for the weather was still, clear and cold. Both of the elk were evidently very much excited, answering each other continually; they had probably been master bulls, but had become so exhausted that their rivals had driven them from the herds, forcing them to remain in seclusion until they regained their lost strength. As we crept stealthily forward, the calling grew louder and louder, until we could hear the grunting sounds with which the challenge of the nearest ended. He was in a large wallow, which was also a lick. When we were still sixty yards off, he heard us, and rushed out, but wheeled and stood a moment to gaze, puzzled by my buck-skin suit. I fired into his throat, breaking his neck, and down he went in a heap. Rushing in and turning, I called to Woody: 'He's a twelve pointer, but the horns are small.' As I spoke, I heard the roar of the challenge of the other

* *The Century Magazine*, September, 1892.

bull not two hundred yards ahead, as if in defiant answer to my shot.

"Running quietly forward, I speedily caught a glimpse of his body. He was behind some fir-trees about seventy yards off, and I could not see which way he was standing, and so fired into the patch of flank which was visible, aiming high to break the back. My aim was true, and the huge beast crashed downhill through the evergreens, pulling himself on his forelegs for fifteen or twenty rods, his hind quarters trailing. Racing forward, I broke his neck. His antlers were the finest I ever got.

"These two bulls lay only a couple of hundred yards apart, on a broad game trail, which was as well beaten as a good bridle-path. We began to skin out the heads; and as we were finishing, we heard another bull challenging far up the mountain. He came nearer and nearer, and as soon as we had ended our work, we grasped our rifles and trotted toward him on the game trail. He was very noisy, uttering his loud, singing challenge every minute or two; the trail was so broad and firm, that we walked in perfect silence. After going only five or six hundred yards, we got very close indeed, and stole forward on tip-toe, listening to the roaring music. The sound came from a steep, narrow ravine to one side of the trail, and I walked toward it with my rifle at the ready. A slight puff gave the elk my wind, and he dashed out of the ravine like a deer; but he was only thirty yards off, and my bullet went into his shoulder as he passed behind a clump of young spruce. I plunged into the ravine, scrambled out of it, and raced after him. In a

minute I saw him standing with drooping head and two more shots finished him. He also bore fine antlers. It was a great piece of luck to get three such fine bulls at the cost of half a day's light work ; but we had fairly earned them, having worked hard for ten days, through rain, cold, hunger and fatigue, to no purpose. That evening my home-coming to camp, with three elk tongues and a brace of ruffed grouse hung at my belt, was most happy."

Since the account of the hunt was written, Two-Ocean Pass has been included in the National Forest Reserve. As the reader may well imagine, it is a good place for elk.

Elk shooting formerly was much like mule-deer shooting. It was little or no trouble to shoot an animal the size of a horse, and before the elk came to know what the sound of a gun meant, it was not difficult to get within range of them. They have been coursed with stag-hounds and greyhounds, when they were a plains animal, and this must have been fine sport indeed. I have followed these dogs on the great limitless plains, in pursuit of antelope and wolves, but have never used them on elk.

There is but one method of elk-shooting to-day—still-hunting, and the man who gets his elk has something to be proud of. Like the black-tail deer the elk are less numerous and far more wary than they were a few years ago, and the shooter must make a long journey with a pack-train into the woods, and then make a very careful stalk to procure the antlers of an elk. There are now some excellent guides in the West, and these will usually place the sportsman in sight of his

game, provided he has the endurance for a long trip into the mountains and sufficient knowledge to silently stalk a deer. In most of the States where there are any elk the bag limit is now one animal to a gun in a season. This is right. One is enough, now that the game has become scarce. After all, the journey into wild mountain fastnesses, with camps beside crystal lakes and tumbling mountain brooks, where enough wood-grouse of three varieties (the ruffed-grouse, black-grouse, and blue-grouse) may be shot in an afternoon to keep the camp in meat, and where every pool is full of trout of large size, is more important than the game. One can well afford to go several times to get an elk and be well repaid for his trip, until at last he will bring out the greatest trophy known to American sportsmen. A head to-day is worth more than it was when the writer began to shoot. It represents a great deal more to the sportsman who has taken it in "fair chase."

The sportsman who desires to shoot an elk must to-day travel as far west as the Rocky Mountain region unless he belongs to a club. Only five States, besides Pennsylvania, permit the shooting of these animals at any season, and Pennsylvania may be excluded since it has no elk. The law in Pennsylvania reminds us of a law in Ohio which protected the wild pigeons at all seasons long after the birds were extinct.

The States in which elk may be shot are, in the order of their desirability, Wyoming, Montana, Idaho, Washington, and South Dakota.

The first three States are much benefited by the great national preserve—the Yellowstone Park. Thou-

sands of the elk which are bred in the park wander out into the surrounding territory, and animals, no doubt, which are bred outside find a refuge in the park at times. If I am rightly informed there are not many elk left in South Dakota. A great part of the State is open prairie or plains country and bad-lands, where there is no cover, and where the cover is absent it is useless to look for elk to-day. The elk in Washington live in vast forests where, I am informed, it is difficult to find and approach them.

Outside the United States the elk may be shot in Manitoba and the Northwest Territories. There are not many elk left in Manitoba. They are fairly abundant in many places in the British Rocky Mountain regions.

In a recent paper in *Field and Stream*, "Where to Go for Elk," we are told that South Dakota demands a license of twenty-five dollars from non-residents, and one dollar from residents; Montana has a twenty-five-dollar non-resident license; Wyoming a fifty-dollar license; Manitoba a twenty-five-dollar license. Each of these States has a kill-limit:—Montana, two bucks; South Dakota, one elk; Wyoming, two elks; Manitoba, two bucks, but deer, moose, antelope, and caribou come under the same section, and the law reads, "or take more in all than two of such animals;" hence the man after elk had better leave deer alone in Manitoba. In the same paper, it is stated that "a licensed guide is required in all three of the States, but that is no hardship, certainly, for guides are essentials, and it is proper that the State should see that they are reliable, and will prevent infringements of the very

necessary laws." . . . "Many guides will undertake providing the entire outfit, outside of guns, ammunition, rods and tackle. We lately had a prospectus issued by one of the Montana outfitting guides, and it well illustrates what these men are prepared to do. He provides wagons, cots, chairs, saddle-horses, takes along a large mess-wagon, with a big cooking-range; and here is luxury indeed: 'The dining-table is made in sections so that it can be enlarged. This is covered with a table-cloth, the dishes and cups are all enamelled granite, and the silverware is of the Rogers make. Each sleeping-bag is equipped with three pairs of heavy woollen blankets, two comforters, a cotton blanket for a sheet, and a pillow. Parties are not required to make their beds, as I have help for that purpose. Hot and cold water is also served at each tent each morning or at any time when wanted.'

"This guide undertakes the getting of all supplies, and adds, 'I will carry anything my patrons suggest except fresh meat, and that only because plenty of fish, sage-hens, and game in season can be got at all times.'" Table-cloths, sheets, pillows, and silver. How lovely this sounds to those of us who have slept in the rain with one blanket or none at all!

In some of the States all the guides are game-wardens, and are required to file a report stating the number and kind of game-animals killed by their patrons, and the sportsman therefore goes to the woods accompanied by an officer to see that he does no wrong—possibly to arrest him on the spot. In this instance, however, the law seems to sanction the giving of money to an officer. Upon a number of my shooting-trips in the Rocky

Mountain region I was the guest of officers of the army who travelled even more comfortably than as above suggested. We had an ambulance to ride in, when tired of the saddle; escort-wagons for the trunks, and camp-chests which contained china and glass for the table. We had cots from the hospital and many handsome rugs for floor-coverings. We sipped champagne from the proper glasses at the bottom of the Black Canyon of the Big Horn, and had, besides the game and fish, many canned vegetables and fruits from the commissary, good soups, good coffee, and sometimes hot bread. I have tried roughing it with only a pair of blankets. I have tried wet grass without blankets on cold nights, and am free to say that for a permanent camp I prefer the army style, and am satisfied with it. Short trips into the mountains and a few stormy nights on the ground without shelter supply all the "roughing it" I require.

The elk, as I have observed, are splendid animals for the game-preserve, and will do very well in any of the States, provided they have enough to eat and are not shot off too close. Not long ago, shortly after four elk were liberated in the Adirondacks, three of them were found dead, having no doubt been shot for sport by some scoundrel who was afraid to claim them and left them on the ground where they fell. In a recent note in *Field and Stream* the editor says that "it is fortunate that the supply of elk in the Adirondacks has not to rely upon the single doe which escaped death, for on the previous Wednesday Paul Smith received a present from Wyoming of two car-loads of elk, to the number of forty-three, for liberation in his

"forty-thousand-acre preserve." Some time before his death Mr. W. C. Whitney notified Dr. F. E. Kendall, of Saranac Lake, that he was about shipping him a car-load of elk to be distributed as he saw fit.

Sportsmen will be gratified if both the elk and moose are restored to the magnificent North Woods, and are watching these experiments with interest.

V

THE MOOSE

AS we have already observed, the moose suffers by comparison with the wapiti or elk—only in beauty, however. He is even larger than the elk and will measure, sometimes, over six feet at the withers. A recent specimen from Alaska measured six feet, four and one-half inches. The moose is about the same beast as the Scandinavian elk. If our moose is an elk, the picture of a moose in my little girl's geography is correctly labelled "Elk"; but our elk must be something, so that it is really best to talk about going wapiti-shooting in the future, when we go in pursuit of the animals which were formerly elks. The natural history of these moose and elk has always had a charming, labyrinthine quality, equalled by that of no other animal save the white goat. As we shall see later, the natural history of the latter animal is simply delightful to those who love puzzles and variety. Mr. Madison Grant has pointed out some matters relating to the early natural history of the elk-moose or moose-elk, which indicate that the beast had a good start in a literary way.

"Its upper lip is extremely large, for which reason it is obliged to go backward when grazing; otherwise, by moving onward, the lip would get doubled

up."* Anyone familiar with the moose's lip will not blame Pliny much. Again: "It is not unlike the elk, but has no joints in the hind legs. Hence it never lies down, but reclines against a tree while it sleeps; it can only be taken by previously cutting into the tree, and thus laying a trap for it, as, otherwise, it would escape through its swiftness."†

Mr. Grant says the strange stiffness of joint and general ungainliness of the elk, however, were matters of such general observation as to apparently have become embodied in the German name *cland*, sufferer. Curiously enough, this name *cland* was taken by the Dutch to South Africa, and there applied to the largest and handsomest of the bovine antelopes, *Oreas canna*.‡ It is lucky that the Africans coming to America have not applied the names *oreas* or *cland* to our moose.

Mr. Grant tells us, in the same report, that the name *moose* is an Algonquin name, meaning a wood-eater, or browser, and is most appropriate, since the animal is pre-eminently a creature of the thick woods. The old-world term, elk, was applied by the English settlers, probably in Virginia, to the wapiti-deer, an animal very closely related to the red deer of Europe. In Canada one sometimes hears the moose spoken of as the elk, and even in the Rocky Mountain region one sometimes hears of the "flat-horned elk." We are fortunate in possessing a native name for this animal, and

* Pliny's Natural History, Book VIII, Chapter XIV.

† *Ibid.* Book VIII, Chapter XVI.

‡ The Moose, in the Seventh Report of the New York State Forest, Fish, and Game Commission.

it can only create confusion to call it by any other name than moose.*

Comparing the moose with the common deer, Grinnell says the very name Virginia deer is symbolical of elegance and beauty of motion, while, on the other hand, the moose is huge, ungainly, and in most of its movements awkward. With a head more hideous than that of a mule, a neck so short that it cannot reach the ground, legs of immense length, and huge horns shaped like coal-shovels, it is as far as possible from being graceful or attractive.

"But regard it with the hunter's eye, as, when startled, it dashes along with swinging trot, crashing through the forest and making the dead sticks snap and fly in its impetuous career, taking in its stride, without any apparent effort, the great, fallen logs that lie in its course, and in a moment disappearing, shadow-like, among the bare tree-trunks in the distance, and it will be acknowledged that if not a graceful, it is at least a grand, animal."

The color of the moose varies from a light brown to a dark Vandyke brown which appears almost black. The Alaskan moose are said to be the darkest. They are the largest and have the finest antlers. A magnificent moose-country is there now fairly accessible, and it is well that the Congress of the United States has passed a good game-law for that territory, which is referred to later.

The moose has tremendous palmate and wide-spreading horns. The bull, the first year, like the elk, has a

* The Moose, in the Seventh Report of the New York State Forest, Fish, and Game Commission. All is well, as Mr. Grant says, if we let this animal have the name moose and call the others the American elk or wapiti.

spike, and the palmation begins the third year, and for a number of years the horns are larger every year. Moose-antlers are measured from point to point; the value is said to depend upon the spread. The head owned by the artist, the late Albert Bierstadt, measured sixty-four and a quarter inches. Mr. Grant says the best head he remembers from the Ottawa district measured nearly six feet in extreme breadth. It is safe to assume that a little short of six feet is the extreme width of an eastern head.* The moose of the Rocky Mountains, from Wyoming to the Alaskan boundary, have relatively small antlers.† The great Alaskan moose has the largest and most massive antlers. Mr. Hornaday in his "Natural History"‡ gives us a picture of the antlers of an Alaskan moose, killed on the Kenai Peninsula by Dall De Weese, which have a spread of sixty-eight inches. The demand for moose-heads caused them to bring good prices, and the moose in Alaska suffered accordingly. Mr. Hornaday says:

"Until the enactment of the national law of 1902 for the preservation of wild-animal life in Alaska, the huge antlers of the moose of Alaska threatened to cause the annihilation of the species in the territory. 'Record heads' and 'record antlers' began to be sought for by those who were able to buy them at high prices, and very promptly moose-killing for heads and horns became an established industry. The unfortunate fact

* Mr. George Brown, of Boiestown, secured a record head in New Brunswick last fall. The spread is sixty-seven inches.—*Field and Stream*.

† Seventh Report of the New York State Forest, Fish, and Game Commission.

‡ The American Natural History.

that, in many portions of southwestern Alaska, moose were easily found and killed, bore heavily against them. The Kenai Peninsula partook of the character of a moose 'preserve,' in everything save preservation.

"In 1902, through the combined efforts of naturalists and sportsmen, Congress enacted a law for the protection of the wild animals of Alaska, very wisely charged the Secretary of Agriculture with its enforcement, and vested him with wide discretionary power. It was a great day for big game, and for all persons interested in the preservation of our grandest wild animals, when the fauna of Alaska came under the protection of Drs. C. Hart Merriam and T. S. Palmer, of the United States Biological Survey, who are specially charged with the enforcement of the Alaska game-law. The killing of moose for salable heads promptly decreased. Excepting by prospectors and natives in great need of food, no moose, white sheep, goat, caribou, or big brown bear may be killed in close season without a special license signed by the Secretary of Agriculture; nor can any skins, heads, or antlers of protected game be transported from Alaska without permits."*

The moose inhabits the northern forests, being chiefly found north of the United States. There are some moose in Maine—more now, under good game-laws, than there were a score of years ago—but not nearly so many as appear in railway-guides and hotel-prospectuses. There are moose in the Rocky Mountain forests of the northwestern United States, but they are nowhere very abundant. The moose was, not

* Hornaday, *The American Natural History*.

long ago, found in the Adirondacks, but they have become extinct there. There has been a recent movement to restore them and I hope it will succeed. Moose are found in the swamps of northern Minnesota. The best moose-grounds, both for the abundance of the game and its size, are in Alaska and some portions of British America. Mr. Grant gives us the following exhaustive account of the moose-range :

“The range of the moose in North America is of enormous extent, from Nova Scotia in the extreme east, throughout Canada and certain of the northern United States, to the limits of tree-growth in the west and north of Alaska. Throughout this vast extent of territory but two species are recognized, the common moose, *Alces americanus*, and the Alaskan moose, *Alces gigas*, of the Kenai Peninsula ; but it is probable that further exploration will bring to light another species near the head waters of the Liard River and the Cassiar Mountains of British Columbia, and still another farther north in the neighborhood of the Colville River.

“Taking up this range in detail, the Nova Scotia moose are to-day distinctly smaller than their kin in Ontario, but are very numerous when the settled character of the country is taken into consideration. I have seen very few good antlers come from this district, and in my opinion the race there is showing decided signs of deterioration. These remarks apply, but with less force, to New Brunswick and to Maine, where the moose, though larger than the Nova Scotia animal, are distinctly inferior to those of the region north of the Great Lakes. This is probably due to

killing off the big bulls, thus leaving the breeding to be done by the smaller and weaker bulls; and also to inbreeding.

"In Maine the moose originally abounded, but by the middle of the last century they were so reduced in numbers as to be almost a rare animal. Thanks to very efficient game-laws, backed by an intelligent public opinion, moose have greatly increased during the last few years in Maine and also in New Brunswick. Their habits have been modified, as we shall see later, but as far as the numbers of moose and deer are concerned, the protection of game in Maine has been a brilliant example to the rest of the country. During the same period, however, caribou have nearly vanished.

"Moose were found by the settlers in New Hampshire and Vermont, appearing occasionally, as migrants only, in the Berkshire Hills of Massachusetts. In the State of New York, the Catskills appear to have been their extreme southern limit in the East; but they disappeared from this district more than a century ago.

"In the Adirondacks, or the North Woods, as they were formerly called, moose abounded among the hard-wood ridges and lakes. This was the great hunting-country of the Six Nations. Here, too, many of the Canadian Indians came for their winter supply of moose-meat and hides. The rival tribes fought over these hunting-grounds, much in the same manner as the northern and southern Indians warred for the control of Kentucky.

"Going westward in the United States we find no moose until we reach the northern peninsula of Michi-

gan and northern Wisconsin, where moose were once numerous. They are still abundant in northern Minnesota, where the country is extremely well suited to their habits. Then there is a break, caused by the great plains, until we reach the Rocky Mountains. They are found along the mountains of western Montana and Idaho as far south as the northwest corner of Wyoming, in the neighborhood of the Yellowstone Park, the Tetons and the Wind River Mountains being their southern limit in this section.

“The moose of the Western mountains are relatively small animals, with simple antlers, as compared with the Ontario moose. Western moose have adapted themselves to mountain-living, in striking contrast to their brethren in the East, and are considered by the Western hunters to be typical rock-animals, in places nearly as much so as the big-horn.

“North of the Canadian boundary we may start with the curious fact that the great peninsula of Labrador, which seems to be in every way a suitable locality for moose, has always been devoid of them. There is no record of their ever appearing east of the Saguenay River, and this fact accounts for their absence from Newfoundland, which received its fauna from the north by way of Labrador, and not from the west by way of Cape Breton. Newfoundland is well adapted for a moose-range, and a number of individuals have been turned loose there without as yet any apparent results. Systematic and persistent effort, however, in this direction should be successful.

“South of the St. Lawrence River, the peninsula of Gaspé was once a favorite range, but they were nearly

killed off in the early '60's by hide-hunters. Farther west they are found in small numbers on both banks of the St. Lawrence, well back from the settlements, until on the north shore we reach Trois Rivières, west of which they become more numerous.

“The upper Ottawa and Lake Kippewa region has been a grand moose-country in recent years, so far as the size of the antlers is concerned, but the moose are now rapidly pushing farther north. Twenty-five years ago they first appeared, coming from the south, probably from the Muskoka Lake country, into which they may have migrated in turn from the Adirondacks. This northern movement has been going on steadily within the knowledge of the writer. Ten years ago the moose were practically all south and east of Lake Kippewa, now they are nearly all north of that lake, and extend nearly, if not quite, to the shores of James Bay. How far to the west of that they have spread we do not know; but it is probable that they are reoccupying the range lying between the shores of Lake Superior and James Bay, which was long abandoned. Northwest of Lake Superior, throughout Manitoba, and far to the north is a region heavily wooded and studded with lakes, constituting a practically untouched moose-country.

“No moose, of course, are found in the plain country of Assiniboia, Saskatchewan, and Alberta; but east, in Keewatin, and to the north, in Athabasca, northern British Columbia, and northwest into Alaska, we have an unbroken range, in which moose are scattered everywhere. They are increasing wherever their ancient foe, the Indian, is dying off, and where white

hunters do not pursue too persistently. In this entire region, from the Ottawa in the East to the Kenai Peninsula in the far West, moose are retiring toward the North before the advance of civilization, and are everywhere occupying the new country.

"The moose of Maine and the maritime provinces occupy a relatively small area, surrounded on all sides by settlements, which prevent the animals from leaving the country when civilization encroaches. In this district their habits have been greatly modified. They do not show the same fear of the sound of the rifle or the smell of fire, or even the scent of human footsteps, as in the wilder portions of the country. In consequence of this change of habit, it is difficult for a hunter, whose experience is limited to Maine or the maritime provinces, to appreciate how very shy and wary a moose can be."*

Although the moose is always found in woods he is not found in all the woods. He has a decided preference for dark, swampy, solitary, and almost inaccessible forests, where he has the best chance of escaping his intelligent enemy. In this he differs from the elk, which prefers higher and dryer ground. There is no country more difficult to hunt in than that inhabited by the moose. There is probably no animal more difficult to capture by "fair chase," and the immense trophy is prized accordingly by sportsmen.

The following record of the shipment of moose over the Bangor and Aroostook Railroad in Maine shows that the moose are fairly plentiful, and that many

*Madison Grant in Seventh Report of the New York State Forest, Fish, and Game Commission.

sportsmen are annually rewarded for their labor in pursuing this difficult quarry in Maine.

The number shipped during the months of October, November, and December is as follows:*

	Oct.	Nov.	Dec.	Total.
1894.....	24	8	13	45
1895.....	53	21	38	112
1896.....	79	19	35	133
1897.....	55	37	47	139
1898.....	71	77	54	202
1899.....	80	63	23	166
1900.....	83	63	64	210
1901.....	99	97	63	259
1902.....	68	110	66	244

The largest shipments were from these points: Masardis, 66; Patten, 26; Norcross, 22; Grenville, 14; and Ashland, 10. Many white-tail deer were shipped from the same places, Masardis furnishing no less than 559 in the years named.

It is very evident from the manner in which the moose is built that he was not intended for a grazing animal. His extremely long legs and short neck make it almost impossible for him to eat grass. When he desires to eat from the ground, he must spread out his forelegs in a wide, awkward fashion. Like the white-tail deer, with which he associates beside the marshy woodland lakes and streams, he is fond of lily-stems and marsh-plants, and wades into the water for these. When it was legal to shoot deer and moose in the summer, they were more easily taken from boats, which moved silently about on the water by day and on moonlight nights. The open season for moose in Maine now begins October 15th and ends December

* In the Maine Woods. Bangor and Aroostook Railroad, publishers.

1st.* In Canada the season is also a short fall season, from September 15th to January 1st in New Brunswick, Nova Scotia, and Manitoba—a little longer in some of the other provinces, and in Alaska moose may only be shot from September 1st to October 31st, and the bag-limit is two male moose over one year old. There has been a shortening of the season for all big game everywhere, and it is largely due to such legislation that we have any big game left.

Since the moose frequent dark, swampy valleys, where it is often impossible to approach them, there are many places where they remain absolutely safe, so long as they do not come out to the edges of the swamps, where the hunter has some chance for a shot. The nature of the ground prevents a successful stalk, and the moose has a wonderful nose and can hear the slightest noise. When alarmed, he goes off at a rapid trot, and usually travels for miles without a halt, and then is alert to ascertain if he is pursued. Old moose-hunters think nothing of following a moose for days, camping on his trail, but it requires an expert to follow the trail, and few city sportsmen care to keep at it for days at a time, sleeping far away from their camp, and enduring the hardships which attend such procedure.

The moose plunges into any lake or stream, and swims readily and for great distances. He has been kodaked, as well as shot, in the water many times. Monogamous, or nearly so, the moose differs much from the elk in this regard. During the rut the bulls

* The cow and calf-moose are protected at all times. The term "calf-moose" refers to young animals until they are one year old, and have at least two prongs or tines to their horns.

wander about through the woods and sound a challenge, which is different in sound from the loud, shrill whistle of the elk. It is best described as a roar, and once heard will be remembered. The bulls fight viciously at this season. The cows answer the call of the bulls, and the Indians and guides imitate the call of the female to bring the bulls within shooting distance. There is some difference of opinion, which will be referred to later, as to whether the bull is deceived by the Indian's horn, which is made of birch-bark. The young are easily tamed and playful, but, like all deer, they are not safe pets as they grow older. Judge Caton, who observed the deer much, and kept large numbers of them in his park in Illinois, says that the wild deer run away, usually, since they are afraid of man. Domesticated or partly domesticated animals, having lost their fear of man, are not afraid to attack him. An elk killed a trespasser crossing the judge's park. Grinnell saw a young moose in the Yellowstone country, which spent much of the time in the brush, but came when called, provided it was hungry.

The moose naturally feed much in the morning and evening, and the best time to look for them is therefore before nine or ten o'clock in the morning or late in the afternoon. They move some distance, circle about, and lie down in the middle of the day to sleep and ruminate. They are difficult to find and approach at such times. Where much persecuted they no doubt feed more by night.

The flesh of the moose is excellent, but coarser than and not so good as that of the other deer.

In the winter the moose gather in small bands, and

are said to "yard up." Having selected a place where food is plentiful, they remain in it, tramping down the deep snow. It was formerly the practice to seek them at such times on snow-shoes, and when a "yard" was discovered the whole band were often easily exterminated. The animals breaking through the crust on the snow were easily overtaken and clubbed to death, or killed with a knife. The pursuit of moose on deep, crusted snow is called "crusting," and is, of course, unsportsmanlike. The Boone and Crockett Club has declared against this method as not being within the term "fair chase," and it is now unlawful so to take them. In fact, the open season now ends before the time when "crusting" is possible.

The most familiar method of capture is by "calling," which has already been referred to. Many of the guides are expert at imitating the call of the moose, or at least are able to bring the bull within shot by making a noise which, it is supposed, the bull mistakes for the call of a cow. Under the rule of the Boone and Crockett Club this method, also, is not "fair chase," although, it is safe to say, more moose have been taken in this way than in any other.

Mr. A. J. Stone, a talented moose-hunter, says: "I wish to correct a general impression that the bull-moose can be called by the use of the birch-bark horn in the belief that he is approaching a female. No bull was half so stupid. Such a thing is entirely unreasonable. He is simply attracted by the unusual sound, and being extremely curious, endeavors to locate the meaning of this strange thing in his home. The pounding on a tree with a club by the Tahetan or

Kaska Indians in northwest British Columbia (among the best moose-hunters in America), or pounding the willows with a dry shoulder-blade of the animal by the Liard River Indians, will serve exactly the same purpose, or almost any other unusual noise would bring the bull within the sound just as readily. There is no animal in the world whose sense of hearing is more acute, and no hunter with any knowledge of the moose will call it stupid; yet hunters tell how their guide brought up a bull by imitating the call of a cow. How many of these hunters ever heard the call of a cow-moose, to give them authority to decide how perfectly the birch-bark horn in the hands of their guide imitated the cow's call?" *

Mr. Caspar Whitney, the editor of *Outing*, says that Mr. Stone's opinion on this subject differs from that of experienced hunters. "There is convincing evidence that the bull is deceived into believing the horn to be the call of the cow." And he adds: "The cow's call is quite familiar to those who have had much calling experience in the Maine woods."

No doctors at a bedside, no court of last resort, ever split more evenly than these sportsmen. Both furnish evidence to support their opinions; but I believe Mr. Whitney is right. The consensus of opinion seems to support him.

There can be no doubt that the question is full of difficulties quite equal to those which have disturbed the noted psychologists. We must first determine what is in Mr. Bull's mind—what he thinks.

The fact that moose respond to the pounding of the

* "The Deer Family."

willows with the shoulder-blade proves nothing. It is an old trick of deer-hunters to rap discarded antlers together, or even two stones, to indicate to any deer within sound that a fight is in progress and to invite him to look in, if he wants some of it or the favor which may belong to the winner. I think the buck thinks in that case that there is "something doing" in the glen. But what Mr. Bull Moose thinks (when he hears some of the amateurs, who imagine they can call), no one knows. My opinion is that when he hears an expert caller he thinks a cow is near and that when he hears an amateur he just wonders what that noise is. In the latter case I believe he more often goes the wrong way.

Mr. Grant, who is probably the best all-around moose-hunter in America, says on this subject, that "in Maine and New Brunswick, the animals answer the birch-horn, *under the impression that it is the call of the cow*. This calling is usually done in the evening by lake or marsh; but in Nova Scotia, daybreak on a barren is a favorite hour and place. Personally I have not much confidence in calling, and rely generally on trailing; but bulls certainly are killed in this manner, although it seems that the young bulls are much more apt to answer the call than the larger and more wary animals. In Nova Scotia it seems to be a well-authenticated fact that bear have been shot by moose-callers, the bear apparently sneaking up to seize the supposed cow. If this be true, it must be a very rare occurrence, and is certainly the only time I have ever heard that adult moose are attacked by bears."*

* Seventh Report of the New York State Forest, Fish, and Game Commission.

Dr. George McAleer, an experienced moose-hunter, says: "During the rutting period in the early part of the open season, the bulls are wild with passion and daily roam many miles, seeking the society of the cows, whose low bellowing, in the unbroken stillness of the woods and beside placid lakes, is heard a long distance at early dawn and in the evening twilight. The skilful guide so clearly imitates these seductive notes upon a horn made of birch-bark as to deceive the most wary bull, who is attracted within close range, only to receive the death-dealing bullet instead of the blandishments of the cow.

"This method of hunting moose is not now so popular as formerly. It is thought to savor too much of barn-yard slaughter, as unworthy of the manly sportsman, and as taking undue advantage of the blind instinct of the moose. Others consider it not above jacking deer, now so out of favor, and predict its early condemnation and discontinuance, as not sanctioned by the higher canons of sportsmanship."*

The following description of calling a moose will give the reader an excellent idea of this method of capture:

A party of sportsmen were in camp beside Cobocong Lake. "The infinite peace of the October evening, the solemnity and mystery of the looming forest of gloomy hemlock, and the beauty of the dim, spreading lake, hushed the words upon our lips and lifted our hearts to song within us.

"Suddenly a deep sound boomed through the sombre recesses of the woods—a long, plangent bellow. It died

* *Field and Stream*, October, 1903.

away, and a great hush brooded over the forest, but the roar still rang in our ears. We sprang to our feet. It was a bull-moose calling to his mate.

"Up rose a big crimson moon, glowing with rosy fire. The bellow rumbled again across the wilderness and we listened intently for the response of the cow, but no wailing answer shivered through the sleeping forest. Our hearts beat hot with the lust of the hunter. 'Boys,' said old John Markham, 'that bull is our meat.'

"Wetting out the fire, we stole through the pitchy gloom of the woods to Shallow Lake, a small pond about a quarter of a mile from our camp. Holmes and I carried our rifles, and Markham his birch-bark horn, a small megaphone made of a sheet of bark about sixteen inches square. At the small end it is an inch in diameter, at the larger end, six inches, and is tied around with spruce-roots.

"Slowly the lifting moon rolled above the tree-tops, changed to a dull gold, and sailed high among the clustered stars, paling to silver. The brilliant radiance varnished the still oval of the little pond, and brightly lit its spruce-palisaded shores. At the head of the pond a broad beach of yellow sand, bathed in moonlight, sloped gently to the water's edge. Behind this, in the indigo shadow of a mighty hemlock, we took position. As we did so, a gust of wind stirred the air, shivered the silver mirror of the pond, and mourned in the woods.

"Again the bull-moose in his passion bellowed wistfully and the deep, hoarse sound reverberated through the shadowy colonnades of the woods. We judged that the bull was not more than half a mile away, and Mark-

ham raised the horn to his lips and upon the waiting silence arose the call of the moose-cow. Soft and low at first, a tremulous, whimpering, sobbing wail, it swelled into a great wave of sound, vibrant with eager longing, then ebbing fainter, fainter, fainter, it died away.

"Intently we listened. The forest stirred with a vague unrest, and we seemed to hear soft murmurings and whisperings, and the sighing of a thousand sleepers. Far away a wolf bayed like a hound. . . . 'He's coming,' whispered old Markham, and we felt the heat of savage exultation. The bull grunted. Lifting the horn, Markham answered him with a short, coaxing bellow. The animal grunted again. Apparently without a touch of suspicion, he was approaching rapidly from the foot of the lake, following the narrow arc of sand-beach. Our fingers crooked on the triggers. Soon we heard the hollow thudding of his swinging hoofs on the hard sand. But within twenty-five yards, just out of sight from the place where we stood, he halted. Markham dropped upon his knees, laid down the horn and rapidly snatched up handfuls of the short grass. The sound was that of a cow grazing. It reached the sharp ears of the listening moose and reassured him. Into the moon-glare he rushed, a splendid beast to look upon. Against the moonlit beach his immense bulk and enormous head with its magnificent antlers loomed twice their natural size.

"We were filled with admiration, but the desire to kill burned within us. The steady rifle-nozzles jetted flame as we pressed the triggers. The great bul

stumbled forward and his huge body thudded on the sand."*

Mr. Grant says that in the Western mountains moose-calling is practically unknown, although a substitute is found by making any unusual noise, such as is produced by rapping a tree twice with an axe, in imitation of the double cough or short call of the bull, or by beating alders with a stick to imitate the antlers thrashing in the bushes. These contrivances sometimes attract the attention of a bull who is close at hand, and bring him out into the open. Calling in Maine, however, will always be a popular but unsportsmanlike means of hunting the moose; unsportsmanlike, because everything depends upon the guide and nothing on the hunter, the only skill required of the hunter being the ability to sit still on a very wet log or on very cold ground. Whatever shooting is done is at close range and in the dusk.

It is too much, however, to ask of the average sportsman, who escapes from his desk for a couple of weeks in the woods, to show the skill and endurance necessary even to follow the guide while the latter trails hour after hour through wet leaves or soft snow, to say nothing of camping on the tracks. In fact, few men do it, and it not infrequently happens that the actual killing is done by the guide. No true sportsman, of course, allows his guide to carry a rifle; but even then many moose have been killed by the sportsman's rifle in the guide's hands.

This matter of calling moose is important to sportsmen and high-priced guides, who are paid on account

* *Field and Stream.*

of their ability to call the bulls within easy range. It will not be long, however, before the matter is of no importance whatever, since leading sportsmen, as I have observed, now do not regard the calling of a moose to the gun as good sportsmanship. When a skilful guide calls a huge animal, much larger than a horse, within a few feet of the gun, it is no very difficult matter to hit it. The calling is also done at night, and most sportsmen are opposed to night shooting.

All sportsmen and writers agree that the moose is able to, and often does, slip away from the still-hunter silently like a rabbit, making little or no noise in going. Mr. Stone says if the moose recognizes that it has been observed it does not endeavor to conceal its movements; but that it can run through woods and all sorts of tangles without so much as snapping a twig. Hunters have been injured by charging moose, deer, and elk, but the animals usually try to get away, and are not dangerous. A wounded animal, when cornered, will fight, and a moose has been known to charge a hunter when not cornered, but he does not do so as often as is generally believed.

There has been some discussion as to whether a moose will repeatedly charge if he fails to strike his enemy at the first onrush. That he sometimes charges more than once is evidenced by the following story: Mr. Charles Jacobus, while on a canoe-trip in the forests of Lower Canada, with Dr. Stephen Griggs, of Brooklyn, was told by their guide, an experienced trapper and woodsman, of being charged by a moose which he had wounded.

The guide referred to was returning one day from a

visit to his line of traps, when, walking rapidly over a little rise of ground, he suddenly came upon an immense bull-moose lying down in the forest. A shot from his gun, which was loaded with heavy buck-shot, brought the moose stunned and wounded to the ground. Drawing his hunting-knife, the guide sprang forward to cut the animal's throat, "when, presto! like a dash of cold water, the prick of the cold steel apparently revived the moose, who jerked back his head, and in a moment, as if that immense corporeity had been filled with powerful springs of steel, regained his feet. Pete jumped suddenly backward, and Mr. Man and Mr. Moose were thus brought by this unique introduction face to face. A snort followed as a blast evidently betokening war, and without waiting for Pete to get ready for defence, the moose in his anger, doubtless goaded by pain, rushed to the spot where the guide had, more quickly than ever before, gained a perpendicular position. Reader, did you ever see a full-grown bull-moose? The bulls of Bashan, the war-horses of the Orient, the excited Amazons of fable, cannot surpass his really terrible look. But let him be infuriated, his bristly hair standing up in a frightened way along that immense spine, his most ungainly snout below, those mammoth horns above, those eyeballs of most spiteful fury, and making mighty lunges straight *for you!* How would you 'comport yourself,' as the French say?

"Pete himself had never taken moose in this way before. A few hunters have, but others have told the tale."

Pete sprang to one side as the moose charged him,

and cut the straps holding his bundle of furs as he ran for a tree with the moose close behind him.

Here the moose charged the guide again and again, but, as the story runs, "of course the side that the moose took would be minus Peter," and the moose was compelled to turn around to renew the affray.

Toward evening the guide made a run for another tree, where he secured a stout shoot. To the end of this he lashed his hunting-knife, and with this spear, after several thrusts, he reached the neck of the moose and killed it.*

The following episodes, from a capital story of moose-calling sent me by the writer, the late Mr. George Walton Green, shortly before his death, illustrate the delightful method of pursuing the moose by canoe in Maine, a trick of the resourceful guide in calling the game, and the strict observance of the Maine law, which permits the killing of only one bull-moose in a season. The story appeared in *Harper's Weekly*. Mr. Green says:

"We started out one night to call, shortly after supper, and paddled down Munsungan stream below the dam at the foot of the lake. Coming round a bend we heard an animal in the water a few rods away, ran down on it, and I opened the jack. Half-way up the bank I caught sight of what looked like a moose, but I could see no horns, and did not raise my gun. To my surprise I heard a whispered 'Shoot! Shoot!' from the stern of the canoe.

"In those early days I was instantly responsive to any suggestion from William, and I obeyed without

**Outing*, November, 1902.

hesitation. If he could see horns, well and good. There was a plunging dash of something big and black, whose outline I could only dimly discover through the thick smoke—for it was before I had begun to use nitro-powder—and the rush of the big body across the stream, and I could feel the canoe driven aft under William's powerful strokes as he shouted: 'Give him another!' Then the black mass seemed to rise out of the water, swing round, and come plunging straight at the jack at my elbow. The stream was only about five feet deep with a pebbly bottom, which gave the moose a firm foot-hold, and it came on, rearing, plunging, and striking with its forefeet like a fighting stallion. I could feel William straining his powerful muscles to snub and turn the canoe, while his warning shout came sharp and strenuous, 'Shoot! Shoot!'

"But the fog of mist and smoke was too thick to risk a random shot, and somehow I managed to hold my fire until the animal came into the light of the jack and almost into the boat. Even as it was, I had to fling the rifle into my elbow and pull the trigger as we rolled over, jumping back to get away from the jack, and kicking the canoe forward between me and the moose. There was a very pronounced mix-up of canoe, moose, William, and me. I scrambled ashore to climb a tree and get our bearings, but changed my mind and came back. Rifle, axe, and jack had gone to the bottom and the boat was upside down. But nobody was hurt and the moose had disappeared."

The next day Mr. Green returned with William, and they found the moose lying dead near the place where he had charged them.

Two years later, on Reed Pond, in the same Munsungan region, Mr. Green called a moose not intending to kill, since he had killed his bull several days before.

"Just after the third call," he says, "there came a curious, sougning sound apparently miles away, something like the puff of a locomotive heard far off through the woods on a clear, still night—a sort of 'o-o-o-f.'"

"William whispered: 'That's a bull.' Pretty soon the noise came again and yet again, and each time more distinctly. Then it seemed to grow fainter and louder by turns, but always coming from the same direction. Then the 'o-o-o-fs' ceased and presently we heard an oddly ludicrous sort of whine. 'He's got a cow with him calling him back,' says William. This was a new feature in my experience, and gave zest to the episode. Pretty soon it was time to call again, and the sonorous tones rolled out from William's mighty chest. This started the bull again, and his answers were prompt and vigorous. Nearer and nearer he came until he reached the edge of the lake.

"When there he paused as if to lend one ear to the jealous remonstrance of his consort, while he listened with the other for the inviting temptations of novelty. All at once—for another twenty minutes had passed, and William's custom is to call strictly on time, even when the bull is close at hand—the horn gave forth a different note from anything I had ever heard, a long-drawn coaxing whine that suggested the 'm-i-a-o-u-w' of an amorous tomcat projected through a megaphone. Again the bull moved toward us and stopped just within the circling cover of the woods. Then William filled his hat with water and slowly poured a stream

upon the limpid surface of the lake. The bull came on with a rush, pushed through the bushes, slid grunting down the bank, and stood knee-deep in the water, as William, 'still paddling,' shoved the canoe noiselessly up to him and I opened the jack. There was a full moon shining down over my right shoulder. This and the slight mist rising from the lake made the jack's light glow dimly, but I could see quite plainly enough to note that the animal was a three- or four-year-old, with fifteen prongs to a shapely set of horns, so there was no need whatever of getting up any closer, and when the bull lowered his head and sucked in a long drink (as I solemnly aver, though William says he simply drew in a deep breath to catch our scent), and then raised his great muzzle, inflated his nostrils with a long-drawn 'w-o-o-o-f,' and took a step toward us, I did not care to have him come any nearer. I could see all of him I wished to see from where I was.

"I don't know what made me glance over my right shoulder—perhaps it was to let William know that I appreciated his skill in putting me up so close; but I happened to catch sight of the moon and the jack-stick, and the jack-stick was slowly crossing the face of the moon—the canoe was noiselessly and imperceptibly gliding nearer and nearer to the bull. I whispered: 'Keep away! I don't want another moose to get aboard the boat!' and I could feel the canoe shake with William's silent, cruel laughter. This time I had to look *up*, for I vow the nose of the canoe was almost between his forelegs, and I could see the 'ruff' rise and stiffen on his hump. Mine did the same. At least

I felt that way. It was an awkward situation for at least two of the three of us—the bull and me. William did not share our embarrassment in the least. He enjoyed it. But I was between him and the bull, and fifteen feet nearer. I slowly raised my rifle, covered the bull's breast and whispered over my shoulder: 'If you don't quit, I'll shoot.' I said one or two other things, not exactly connected sentences, rather phrases to emphasize my meaning. It was plain enough and suggested the risk of a heavy fine and imprisonment for violating the game-laws. The canoe shook more than ever, but it began to move in the right direction, dropped back, and swung slowly round until the animal passed out of the disk of light, when I quietly raised my hand and closed the jack." *

Few sportsmen go in pursuit of moose without a guide. A guide may be said to be absolutely necessary to conduct the sportsman to the grounds, to locate the game, to discover and follow the trail or call the game, to recover wounded animals, and to assist in many ways on the journey and in camp. Few sportsmen can do all these things unattended. There are many guides, who are capable, deserving, and agreeable as companions, who can furnish references as to their past performances.

The sportsman who goes after elk or moose in the Rocky Mountains more often travels with a pack-outfit, and the guide knows how to put the packs on the animals so they will not come off. I was once travelling on a narrow game-trail which ran up the side of a high

* It would appear from this story that the moose is not absolutely monogamous. He is, however, nearly so.

mountain. In some places it passed beneath a wall of rock on one side and overlooked a precipice on the other. At times the trail was so narrow that, in riding, one foot almost touched the wall of rock and the other was at the edge of the precipice, where the tops of tall pines were a hundred, or often many hundred, feet below. While we were strung out in single file, some rattlesnakes alarmed the leading animal, ridden by a soldier, and there was a back-down all along the line. It was evident that at any moment one or more of the riders or pack-animals might be crowded off the trail. After a few moments of great suspense and peril for all of us, one of the pack-mules was crowded off and went spinning through the air to the tops of the tall pines, which grew on a steep incline far below. One of our men slipped off his horse, went forward quickly, and threw the snakes off the trail in time to prevent further damage, and we continued on our way to the top of the mountains. Some soldiers were sent down into the canyon (it was the Black Canyon of the Big Horn Mountains) to recover the pack. No one expected to again see the mule alive. But at night the soldiers reached our camp, bringing the mule with his pack—the animal being sadly the worse for his mishap and having much of his skin torn off. The branches of the pines, no doubt, broke his fall, and the pack protected his back.

When going after moose, especially in Maine, much of the travelling is done in canoes. The guides know how to handle them and can assist at the portage as well as in camp; and the sportsman in the hands of a good guide will go into the woods safely and comfort-

ably. He will be well taken care of while there, will not get lost, and will long remember many picturesque camps where he dined on the wood-grouse, trout, and the venison of the white-tailed deer, and if he be lucky, he will have a great, antlered head, taken with his own rifle in fair chase, to remind him of the good times in the forest.

VI

THE MULE-DEER

FROM the sportsman's point of view the mule-deer may be regarded as coming next to the moose and elk. In size he is much smaller, being little, if any, taller than the Virginia deer known as the white-tail, the common deer of the Eastern, as well as Western, States. Like the Virginia deer, the mule-deer vary in size, but the difference is not so great in the latter. Since scales are not handy in the woods but few sportsmen give the weight of deer. Colonel Dodge, who has had more experience with this deer than any other writer, says he often weighs 250 pounds and that he has heard of one that weighed 280 pounds.

The ears of the mule-deer render it unmistakable. They are twice the size of those of the common deer and, of course, suggested the name. It is often called black-tail deer from its tail, which is short and has a tuft of black hairs at the end. The name black-tail is, however, correctly applied to another deer, found only in the forests and mountain ranges of the Pacific Coast, which is nearer the common Virginia deer in size and weight, and which has a black tail in shape more like that of the common deer. The mule-deer is sometimes called burro-deer in the Southwest. The summer coat of this deer is red. At the end of summer it takes on

a winter coat and for a short time appears to be nearly black, but later its color is a dark gray. There is a patch of white on the rump and the head and body are effectively marked with black. Compared with the common deer, the mule-deer may be said to be more stockily built or heavier in body, but his legs are slender and graceful, and he is altogether a very handsome animal. The antlers of an old buck are large and symmetrical; the first antler on a young buck is usually a spike from six to nine inches long.

The mule-deer is not so graceful when running and not so fast as the Virginia deer. Caton says a good dog can overtake a mule-deer on open ground much more quickly than the white-tail. He jumps too high for speed. Van Dyke refers to the mule-deer's bouncing gait as being pretty but tiresome, and says: "All four hoofs strike the ground with one far-sounding thump." In the brush this deer goes smashing through bushes at a rapid gait and easily leaves the dog far behind.

Upon one occasion, when shooting mule-deer in the the Rosebud Valley, Montana, a large, fat, white bulldog, which belonged to our cook, followed me out of camp without my observing him, and declined to go back. As I rode quietly around the edge of a grove of small trees I came face to face with a very large buck, which instantly turned and went off, bounding over the ground with the bull-dog at his heels. They went over a ridge before I had time to shoot, and while I sat upon my pony, thinking of the ludicrous sight, the deer came bouncing back over the ridge and passed me within easy range. He was not going very

MULE DEER

From a photograph by S. N. Leek.

fast (the bull-dog was far behind) and was evidently aware that the dog could not catch him. I fired several shots at the buck, two of which were evidently high and the last too low, and he went on unharmed. The dog soon came back thoroughly tired out. Dogs have not been much used on mule-deer, but Van Dyke agrees with Caton that they can overtake them in the open, but not in cover. The first-named writer says that the hounds are not serviceable in driving this deer to the gun stationed on a run-way, since the mule-deer goes bouncing through the woods almost anywhere when alarmed, and takes a different course off the hill each time. The whole subject of the use of dogs is no longer important since the better sentiment of sportsmen is now against their use. There is, too, a legal prohibition of the use of dogs on deer in many States, and there should be one everywhere, since the hounding of deer has a tendency to run them out of the country, besides being very destructive, since deer are easily shot in the water. A sportsman is not eligible to membership in the Boone and Crockett Club who kills his deer with the assistance of hounds, since this method is held by the club not to come within the meaning of the term, "fair chase."

The Virginia deer, when running, carries its tail, which is long, white, and very noticeable, up. The mule-deer runs with its tail down. Judge Caton, however, speaks of a mule-deer in his park which ran with its tail elevated, and the hairs spread out like the Virginia deer.

The mule-deer is distinctly a Western deer. It was formerly abundant from the Missouri River region to

California, and from Canada to Mexico. It prefers, wherever found, a rough country—the hills, buttes, bad lands, and mountains. Where this deer and the white-tail are found associated, the latter will be seen in the valleys of streams and rivers, and the former higher up. Roosevelt says that although the mule-deer and white-tail are found often side by side, the two do not actually associate together, and their propinquity is due simply to the fact that, the river-bottoms being a favorite haunt of the white-tail, long tongues of the distribution area of this species are thrust into the domain of its bolder, less stealthy, and less crafty kinsman. The same writer is of the opinion that the mule-deer does not hold its own as well as the white-tail. Caton found it difficult to raise the mule-deer in his park in Illinois, and it is not so suitable for parks and preserves in the Mississippi Valley, or to the eastward, as the common variety.

Since it is easier to stalk and kill the mule-deer than the Virginia deer, by reason of its inhabiting rough, hilly country, and being often seen in the open, it has disappeared more rapidly in many localities, and everywhere has retreated before civilization, going into the mountains or deep forests. Roosevelt expressed the opinion, a few years ago, that the range of this deer had not decreased much, but that the number in the area had decreased sadly in places and almost everywhere. Of course, as this decrease proceeds to extermination, the area where this magnificent animal is found grows smaller. The only salvation of the mule-deer is to be found in National and State parks and preserves, where the overflow may be relied upon to supply the

surrounding territory. The reader will find some statistical matter relating to the present area and centre of abundance of this deer in the appendix.

The food of the mule-deer consists largely of the leaves and tender branches or shoots of shrubs or trees. He is more of a browser than a grazer. He is on the lookout always for something good for dessert. Like other deer, he visits gardens and vineyards, and Van Dyke says he is positively mischievous. "Most all deer eat turnips, beans, and occasionally nip grain, but the mule-deer will spoil from thirty to fifty of the largest bunches of grapes in a night, and later in the season will finish off the leaves and shoots, besides cleaning up the new wood on deciduous fruit-trees—apples, Japanese persimmons, pears, quinces—almost anything in reach he spoils with a single bite, and passes on to another as he does with a bunch of grapes. Bean-vines, melons, squashes, and many other things, he harvests often more completely than the settler would if he had a chance."

The mule-deer was evidently not a desirable neighbor for the early settlers in California. They are far less abundant in California at present than they were a few years ago, and do not so often visit the orchards, vineyards, and gardens.

The flesh of the mule-deer in the fall of the year is excellent. There is probably no better venison. Grinnell, if I remember rightly, regards this as the best. I have eaten the tenderloin of the elk, when it seemed to me to be equally good, but our hunters' appetites have much to do with our judgment on such matters, and for my part I have always taken more

interest in the chase than in the cooking. The mere thought of the odor of venison of any kind, mingled with the scent of wood-fires, is most distracting.

There has been much written about the pursuit of the mule-deer and his performances in the presence of danger that is conflicting. The reason for this is found, no doubt, when we consider the fact that all animals behave differently, when abundant and comparatively tame, than they do when much persecuted and extremely wild. It is to be remembered, too, that the same deer behave differently at different times and on different grounds.

Now that the hounds are no longer to be used on deer, either in coursing or in driving them to water or to the guns stationed on run-ways, but one method of pursuit—stalking or still-hunting—remains. It has been the writer's good fortune to spend weeks at a time among the mule-deer, when they were quite tame, or at least not very wild. Upon one of my shooting-trips we literally went after the deer with a blare of trumpets (or more accurately trumpet, since we had only one), and although we had very noisy camps, being accompanied by a company of mounted infantry, many mule-deer were seen quite near the camps, and put to flight at close range as we marched away. The second day out from Fort Keogh, Mont., Captain Baldwin asked me at our evening camp-fire if I preferred to have the bugle-calls stopped, especially the reveille, suggesting that it, no doubt, alarmed the deer, but the game was evidently so abundant that I had no hesitation in deciding in favor of the music, since I loved to hear the bugle-calls, and after

the morning-call had been sounded, I often found the mule-deer quite near the camp. This was in 1880, and the Northern Pacific Railway then ended at Bismarck, Dakota, so that we were several hundred miles west of the track, and in a land where Sitting Bull was still at large. Buffalo were abundant on the plains of the Yellowstone, and we killed some but a short distance from the garrison, as we set out on our hunt. White-tail deer and antelope were also plentiful, and easy to procure, and sage-cocks and sharp-tailed grouse were as plentiful in the grass and sage as the blue grouse were in the mountains. The streams were full of trout of large size, which responded obligingly to almost any lure. With a bit of flannel or a few grasshoppers it was an easy matter to take all the trout we could use in a very short time.

We always counted on finding the mule-deer in the hills, where there were groves of trees—pines, wild plum-trees, and others. He seemed to prefer these park-like places, part open and part grove. In the morning we came upon the deer when they were feeding, and later in the day, riding ahead of the command with an orderly, I often jumped them lying down in the grove, or at the edge of a thicket. Upon one occasion, my orderly, riding a few paces in the rear, shouted to me to look at the deer. I of course looked the wrong way, and meantime three splendid mule-deer, which had jumped on our right, passed back of me but ahead of the soldier, and made off for the brushy hill-side. I sent a ball after them when I finally discovered where they were, which had no other effect than to hurry them.

The proper method of pursuit is to ride to the place where the game is and there dismount and seek it afoot. Two hunters are the proper number, since company is always desirable, and, as Colonel Dodge well says, there is always a chance for accidents. The sportsmen should take turns in shooting. Nowadays the hunter in the West is usually attended by a guide who knows the country and is of great assistance in locating the game and placing the shooter in a position to bag it. The guides are of great assistance in securing the wounded, and as I said of duck-punters in "Our Feathered Game," they too often aid in taking the unwounded. Upon our hunt from Fort Keogh, we visited no less than three mountain ranges, camped on many rivers and streams—the Yellowstone, the Tongue, the Rosebud, the Big Horn, and the Little Big Horn, and many smaller brooks and branches. The country traversed is charmingly picturesque. Hills and dales are covered with grass and wild sage, fields of wild sunflowers and roses, of wild gooseberries and currants, are surrounded by groves and thickets, and magnificent forests cover the foot-hills and extend up the sides of the higher mountains to well-defined timber-lines, where the rocks are for a good part of the year covered with snow. For several weeks we saw no human beings excepting occasional bands of Crow Indians, and one small party of officers from Fort Custer, who were returning from a hunt in the Big Horn Mountains. The bleaching bones of horses and ponies were lying about in the grass where General Miles and his soldiers had recently encountered the Sioux. We followed for a time General Custer's last

trail, camped where he camped, and returning from the Big Horn Mountains, passed the field where he fell. At evening we heard many stories of affairs with the Indians, told by men who took part in them, and listened to many tales of wild adventure. There were, of course, no houses or fences. The country and the game remained the same as they had been before the advent of white men.

The mule-deer has now retreated from most of this open, park-like country and is to be found, in greatly diminished numbers, wild and wary, living in the wilder parts of the hills and mountains.

Roosevelt found the mule-deer plentiful in north-western Colorado (January, 1901). "This high country," he says, "is the summer home of the Colorado elk, which are now rapidly becoming extinct, and of the Colorado black-tail deer (mule-deer), which are still very plentiful, but which, unless better protected, will follow the elk in the next decade or so. In winter both elk and deer come down to the lower country, through a part of which I made my hunting trip. We did not come across any elk, but I have never, even in the old days, seen black-tail (mule-deer) more abundant than they were in this region. There was hardly a day when we did not see scores, and there were some days that we saw hundreds. The bucks had not lost their antlers, and were generally, but not always, found in small troops by themselves; the does, yearlings and fawns—now almost yearlings themselves—went in bands. They seemed tame, and we often passed close to them before they took alarm."* Here

* *Scribner's Magazine*, October, 1901.

is a place for a club preserve, or, better yet, a State park or refuge.

In stalking mule-deer it is important to see the game before he sees you. His nose is keen, he hears well, and sees better than some writers seem to think he does. Proceeding carefully on the higher ground, look carefully into open places below, and having discovered the game, look well to the wind and approach it so that you have the wind in your face. Do not hurry. Proceed with the utmost quiet and caution, taking care not to break a branch or twig. Take advantage of whatever cover there may be, and if the deer stops feeding, remain motionless until he starts to feed again. Remember always that it is motion that attracts the deer's attention and alarms him. If you be dressed properly, in clothes of dull yellowish or gray tones that harmonize well with the trunks of the trees and other surroundings, the deer will not be apt to see you if you remain absolutely still. Try always for a side-shot, aim just behind the shoulder and rather low, and if the shot does not drop him, keep firing so long as he is in sight. Deer will often run after being fatally wounded. In the mountains look well to the little glades and marshy places, and in shooting down at a deer remember that there is great danger of overshooting. Shoot low. I once discovered two mule-deer in a deep hollow or pocket in the mountains and saw my first ball strike the ground far too high. The deer did not seem to know from what direction the noise came, and pranced about but did not run away. I fired several shots all too high, but at length brought one

down. When two shooters are working together in the mountains it is well for them to move forward in line, stopping often to listen and look ahead.

I have hunted the mule-deer more often on horse-back, riding about the park-like country and taking the shot at the standing game, or more often when it was in full flight. This method did not produce many deer, even when they were abundant and comparatively tame. I know of no place to-day where it would yield any. The mule-deer of to-day must be stalked afoot and the stalker must be extremely skilful to get within range of him. The pursuit is now more like that of his difficult cousin—the white-tail.

The easiest and best way to get a shot is, as I have observed, by looking for the deer from ridges and trying to locate him and then going to him. When the ground is wet, he may leave a trail which an experienced guide or hunter can follow, but the approach on the trail is extremely difficult, and when the ground is dry and the trail bad, not even an Indian can hope for success. It is not a bad plan to sit down now and then where there is an extended view over many little openings in the forest valleys and study them one by one with a glass. I have no doubt it would do well to rap two stones, or better, two pieces of an antler, together in the rutting season, with the idea of attracting any buck within hearing that might be jealously looking for a rival and eager for a fight. The reader will find mention of this trick of the hunter in the chapter on the white-tail. Moccasins are of course the best footwear in deer-stalking.

The mule-deer is a difficult mark when running on

account of his bounding motion. The antelope and white-tail run more smoothly and easily, and the elk, as we have observed, go off at a long, swinging trot. Mule-deer should be shot with a heavy ball, since they require hard hitting to bring them down and will carry away more lead than the Virginia deer. Early morning is the best time to look for the mule-deer of to-day. Like many other animals, when much persecuted, they lie quiet by day and feed by night or in the early morning and at evening. They are never seen in large bands like the elk, only a small number are usually seen together. They seek higher ground when through feeding and lie down to rest and ruminate. Here the hunter who is fortunate enough to jump them must stir himself quickly for a snapshot. In former years they often jumped up and paused for a moment, presenting an easy mark, but the educated mule-deer of to-day omits the pause.

Lydecker was in error in stating that the mule-deer never dwells permanently in the forest. Roosevelt found them plentiful in the densely wooded mountains of Montana, where practically the whole country was covered by a dense forest, and where the opportunities for grazing were small indeed. The stomachs of the animals contained not grass, but blueberries and the leaves and delicate tips of bushes. The only way to procure them, he says, was to find a trail and lie in wait beside it early in the morning and late in the evening.

Mule-deer are in no sense migratory, but in mountainous countries they feed high in summer and move to lower and more sheltered localities in the winter season, almost, if not entirely, deserting localities where

they have been abundant. In the summer they go up to and above the timber-line on high mountains. Colonel Dodge says they will often move more than a hundred miles when leaving the high mountains to spread themselves over the country where they find a locality suited to their tastes.

We are indebted to Colonel Dodge for much information about the mule-deer. Few, if any, sportsmen, and no writers, have seen more of this animal. He tells of many big scores and has killed as many as thirty-one in a week. This was on ground near Fort Lyon. On August 16, 1875, he says: "I came within long shot of a herd of four—as fine bucks as I ever saw—and knocked down all of them. Three I bagged, but the fourth, though mortally wounded, hid in the thicket and was lost."

In the middle of the day, the Colonel says, a ridge or point surrounded by cedars is a favorite place for the deer's siesta. "This is my favorite stalk, and when the ground is soft enough to show tracks and the wind is right, I always consider such deer as my meat. A trail leading to such a thicket being found, it should be followed with the greatest caution if the wind will permit. When suddenly surprised, the black-tail (mule-deer) sometimes makes up his mind to remain concealed. He will crouch close to the ground, head down, and allow a man almost to step on him without moving." One day when the Colonel was passing in the open, close to a thicket, his orderly called to him in a low tone and pointed out something in the bush which he said was a deer. "I scouted the idea," he says. "We were too near, and I could see nothing

unusual, but he insisted that he had seen it move. I dismounted and walked quite near, where I could see through the brush a gray patch as large as my hand, apparently on or very near the ground. I was about to fire at it, when it flashed across my mind that there were many men, tie-cutters, at work about the mountain, and that this might be some sleeping or drunken man. I approached still nearer and called out in a loud voice, warning whoever was there, that I was about to fire. I did this two or three times, still advancing, until I was scarcely twelve feet from the object, when, giving a last loud warning, I fired and bagged a splendid black-tail (mule-deer)."

Van Dyke tells us, more recently, of a mule-deer that he saw enter a thicket, which hid and refused to leave, although he tramped all over the thicket after throwing many stones into it from the high ground. I have almost stepped on them when they were evidently hiding. Upon one occasion we were encamped in a narrow canyon with high walls. A trout-stream flowed at the base of one wall and our camp was pitched beside the stream on a little grassy meadow which extended to the other wall. Many huge rocks were lying about, which had fallen into the valley. One afternoon, with shot-gun and rod, I strolled up the canyon, intending to get a few blue-grouse and trout for supper. I had gone but a very short distance when, as I turned the corner of a rock, two large mule-deer jumped from the grass at my feet and went bounding away toward the camp. It occurred to me that if I let them have the contents of the gun they might run on through the camp, and it was evident, from the

extra jumps, that I made a fine double. My shots attracted the attention of our soldiers and had the desired effect of sending the deer through the camp, and as the men grabbed their rifles and opened fire the picture was worthy of the brush of a Detaille or De Neuville.

The soldiers were shooting the old-fashioned powder, and clouds of smoke overhung the camp, but the mule-deer bounded safely on, and the last I saw of them was when they turned an angle in the canyon bucking and jumping as if they enjoyed the fusillade. I am inclined to believe that the mule-deer are less likely to try to hide now than formerly. It would be well if the shooters who go to the woods to-day would use the caution displayed by Colonel Dodge when in doubt about what the object is before their rifles.

Sheep are one of the main causes for the decrease of black-tail in many localities. The deer have a strong antipathy to sheep, and Colonel Dodge says that when a herd is driven into any locality the deer leave with as much precipitation as if the sheep were hounds.

Next to man, the chief enemies of the mule-deer are the wolves and cougars.*

Colonel Dodge, who knew all of our game-animals, well regarded the mule-deer as the best, and said its pursuit possessed for him a fascination which he found in no other game. He says this deer must be stalked with more caution than the red deer, since his

* Deer are the customary prey of the cougar, bucks, does and fawns being killed indifferently.—Roosevelt, "With the Cougar Hounds," *Scribner's Magazine*.

senses are more delicate and he is more ready to take alarm. This was, no doubt, true, comparing him with the red deer, which had never heard a gun and which were to be found in the little valleys near the mule-deer's ground, but the mule-deer was never, in my opinion, as keen and able to take care of himself as the educated red deer of the Eastern States. The education of the mule-deer has progressed rapidly, however, and the stalking to-day is difficult enough to satisfy the most experienced still-hunter.

The rutting season of the mule-deer begins the end of September or in October; in some places even later. The young (usually two in number) are born late in the spring, and are beautiful little animals spotted with white like many of the other young deer. The bucks are pugnacious during the rutting season, and fights are common. They are more easily approached when thus engaged.

It was formerly the fashion to shoot mule-deer everywhere at any season of the year in order that the shooter might try a gun or to see if he could hit them. The laws now provide for a season which is of short duration, and the killing of does and fawns is absolutely prohibited. The sale of the game is also prohibited.

VII

THE BLACK-TAIL DEER

WITHOUT the aid of the naturalists, the black-tail deer would be a mule-deer to the sportsman, or the mule-deer a black-tail. The mule-deer is more often called the black-tail by the native sportsmen in many places in the West, and in some localities that is the only name by which the mule-deer is known. Colonel Dodge, in his account of hunting the big game on the plains, often refers to the mule-deer as the black-tail, and Roosevelt, who has had as much experience as any sportsman and writer with mule-deer, says it is known everywhere as black-tail, and has as good a historical claim to the title as its Pacific Coast kinsman, the coast or true black-tail.

The naturalists having settled the question of names to their satisfaction, it behooves sportsmen who desire to speak precisely to call the present species black-tail, and apply the term mule-deer only to the animal described in the preceding chapter.

The black-tail, or Columbian black-tail deer, as the naturalists call it, is more like the mule-deer than the common red deer. In size and weight it will average somewhat smaller than the mule-deer, and somewhat

larger than the Virginia deer.* Van Dyke describes the black-tail as a smaller and more graceful animal than the mule-deer, bearing much the same relation to it that a thoroughbred Jersey bears to a Durham. "This only," he adds, "when compared side by side in a park. In woods none but the expert can note the difference." Grinnell says that the true black-tail is intermediate in size between the mule and the common deer. Van Dyke says he never weighed one, but that the black-tail is smaller than the Virginia deer. Hornaday says this species inhabits the well-watered and densely shaded coniferous forests of the Pacific Coast, is smaller than the typical white-tailed deer, and very much smaller than the mule-deer. The outer surface of its tail is black all over, and constitutes the best distinguishing character of the species. The antlers are very variable. Occasionally those of old bucks exhibit the double-Y on each beam which is so characteristic of the mule-deer; but in most cases the double bifurcation is wanting, and the antlers look very much like those of the white-tailed deer. In its body colors it resembles the latter species. As we have observed, both the mule-deer and the Virginia deer vary much in size and weight, especially the latter. It is likely that the average white-tail and the black-tail do not differ very much in weight, but, the body of the latter being more stocky, like the mule-deer, it will probably be found to weigh more.

When I was in California there was no difference known to the sportsmen—black-tails were mule-deer,

* Including the Arizona white-tail deer. Many white-tails are probably larger than the black-tail.

and mule-deer were black-tails. The black-tail has large ears. Its tail is black above and white below.

The range of the black-tail is limited. It is distinctly a deer of the Pacific Coast, and is found only north of San Francisco. Grinnell met it as far north as latitude 51°. Northward this species "dwindles" into the Sitka deer, "in stature and antlers even smaller than the Florida white-tail." It is abundant in some parts of Alaska.

The few writers who have mentioned this deer agree that it is a woodland species, caring little for the open country. Many of the forests in which it dwells are so thick that it is difficult to stalk it without making a noise, and it is often pursued with hounds and driven to the water, or to run-ways, in the same way the Virginia deer was in the Adirondacks before such methods were forbidden by law.

The methods of hunting this deer are the same as those used by sportsmen to shoot the Virginia deer. "Along the sea-coast," Grinnell says, "especially to the northward, where they have been but little hunted, they come down frequently to the salt water, for the purpose of feeding upon a species of sea-weed, cast up by the waves, and the tracks made in their passage up and down the sides of the mountains are often worn a foot or two deep, showing a great amount of travel over them. The Indians of British Columbia kill great numbers of these deer along the water's edge, stealing up within shot in their light canoes, which they paddle noiselessly along, close to the shore. Still-hunting in the forest is practised with success in many localities. Deer are very abundant on the islands and among the

mountains of this coast, and as they are not often disturbed, they are very unsuspicious, and will frequently permit the hunter to approach very close without taking alarm. There are, however, great areas of territory where, owing to the thick and tangled character of the undergrowth, stalking is out of the question, because of the impossibility of noiseless progress through the thickets." This deer, the same writer says, is driven with hounds to arms of the sea, as well as to lakes and rivers, where the hunter has no difficulty in paddling or rowing up to the swimming quarry and despatching it.

The black-tail feeds on shrubs, leaves, and tender twigs. It feeds at night and early in the morning and rests at noon, lying down in some secluded place. The best time to find it is early in the morning. Judge Caton advises leaving the camp very early, so as to be on the ground at daybreak, and says to move about slowly and with the utmost quiet.

Anyone familiar with the dense chaparral of the California woods will appreciate the difficulties of stalking the deer. Caton says there is no more fatiguing sport. Mr. Muir has written the following story of some black-tails that he met in the Yosemite Park:

"One morning in a little garden-spot, hedged around with chaparral, I noticed a deer's head thrust through the bushes, his big, beautiful eyes gazing at me. I kept still and the deer ventured forward a step and then snorted and withdrew. In a few minutes he returned and came into the open garden, stepping with infinite grace, followed by two others. After showing themselves for a moment, they bounded over the hedge, with sharp, timid snorts, and vanished.

"But curiosity brought them back, and with them another, and all four came into my garden, and satisfied that I meant them no ill, began to feed, actually eating breakfast with me, like tame, gentle sheep around a shepherd—rare company, and the most graceful in movements and attitudes. I eagerly watched them while they fed on ceanothus and wild cherry, daintily cutting single leaves here and there from the side of the hedge, turning now and then to snip a few leaves of mint from the midst of the garden-flowers. Grass they did not eat at all. No wonder the contents of the deer's stomach are eaten by the Indians."

Mr. Muir again tells us of the movements of the deer:

"Toward the end of the Indian summer, when the young are strong, the deer begin to gather in little bands of from six to fifteen or twenty, and on the approach of the first snow-storm they set out on their march down the mountains to their winter quarters, lingering usually on warm hill-sides and spurs eight or ten miles below the summits as if loath to leave. About the end of November a heavy far-reaching storm drives them down in haste along the dividing ridges between the rivers, led by old, experienced bucks, whose knowledge of the topography is wonderful.

"Then, when deer are coming down, the Indians have a fall hunt—wait for them and waylay them. Great preparations are made. Men and women, young and old, set forth together. Camps are made on the deer highways.

“ But the Indians are passing away here as elsewhere, and camps on the mountains are fewer every year.” *

I visited Yosemite long before it was a public park, but even in those days there were notices posted on the trees near the hotel requesting visitors not to shoot the deer with a blue-ribbon on its neck.

**Our National Parks.*

VIII

THE VIRGINIA DEER

BY far the most common and widely distributed of our deer is the Virginia deer, often called the red deer. This deer is our most important big-game animal, best suited, as we have observed, to the game-preserve; it occupies in the big-game field the same important position that the Virginia partridge occupies among the game-birds.

There is no more reason for calling this animal, which is found from Canada to Mexico, and from the Atlantic to the Pacific, the Virginia deer than there is for naming our best known and most widely distributed partridge, "Bob-white," the Virginia partridge. There may be some appropriateness in these names as a tribute to the inhabitants of that commonwealth, who have from Washington's time been ardent sportsmen, differing much in that regard from the colonists of New England, but a local name is misleading when applied to a bird or beast of wide geographical distribution.

The Virginia deer is more abundant in some of the other States than in Virginia.

The name red deer refers to the summer coat, which is reddish gray. In the autumn when the deer assumes its winter coat the coat is often referred to as

blue, the gray being of a colder tone late in the season than earlier. This deer is often referred to as the white-tail, a name given it from its flag-like white tail, which it carries aloft like a flag of truce when running away from an enemy. The Virginia deer may be said to be our staple deer. It is often referred to as the common deer or the common red deer.

I have read somewhere recently that the deer will sink when in the red coat, and that it floats when "in the blue," and that for that reason the Adirondack guides (when it was overtaken with a canoe, in the summer time) held on to its tail, while the sportsman (?) shot it. I had always supposed they held on to the tail to steady the game or give it a motion uniform with the canoe, so that the sportsman (?) might the more readily hit it. The whole performance consisted of driving the timid little creature with hounds to a lake, where the shooter (I am inclined to drop the word sportsman), with his guide in a canoe, awaited its coming. It was no difficult matter to overtake it, swimming in the lake, and when the guide dropped his paddle and had a good hold on the tail, the gunner proceeded to shoot and shoot until at last he scored; the murder was done, and the gunner had a trophy to put on his wall. He then was fully equipped to talk about the hardships of the chase, the astuteness of the deer, the tremendous difficulties to be overcome in getting one, and the corresponding value of the head.

As I said recently in the *Century*,* there has been a revolution in American field-sports within the last few years. It is fortunate that this method of taking deer,

*Field Sports of To-day, the *Century Magazine*, October, 1903.

A WHITE-TAIL (OR VIRGINIA) DEER

and several others which will be referred to later, have gone under in the revolution.

The red deer is the most beautiful and graceful of all the deer. It is the fastest of the smaller deer, and would excel, I am inclined to believe, in a race with the large trotters—the moose and elk. Its gait, as I have said, is more even and smooth than that of the mule-deer and Columbia black-tail deer. It goes rapidly forward, jumping fifteen feet or more at each bound. The mule-deer are said to jump too high for speed or grace, but their bounding motion is very attractive to me.

The Virginia deer vary so much in size that there have been attempts to create a number of species. They are all one and the same deer to sportsmen, the habits of the game and the methods of pursuit being the same. They are all the same in appearance also, and have the same horns. The smallest variety is found in Arizona, where the sportsman may shoot a deer so small as to be called a dwarf, on the ground where he will find the greatest variety of partridges, pigeons, and doves to be found in the United States. The weight of the Virginia deer will average less than that of the mule-deer. The reader will find references to the weights of the game-animals in the Appendix.

The red deer has a handsome head of trim outline, surmounted by symmetrical antlers. His legs are slender but strong, and at a glance, it is evident that he is built for speed. He has the keen nose of the other deer. He hears well, and although many writers believe that he does not see as well as an antelope, he certainly sees well enough to get out of the way of a

sportsman who moves at all incautiously. Here again I may remind my younger readers that it is of the utmost importance in approaching deer, antelope, or any large game in fact, to see the game before it sees you. Remember also that it is not likely to see you in the woods when you remain absolutely still. It is motion that attracts the eye. You may lose sight of your companion dressed in clothes which harmonize well with surrounding objects, and find it impossible to see him. Let him take a step or two forward, and your eye at once reports him. Grinnell has well referred to this matter in his paper on the *Cervidæ*: "Like other wild creatures, the deer seems to recognize danger only in life, and life only in motion."*

When, therefore, the deer stops feeding or appears to be alert, remain absolutely motionless, and the chances are he will not see you. Move slowly when you move, pause often, and make absolutely no noise. If you thus approach within range and kill your deer, you have earned your horns and meat, and have every reason to be proud of the performance.

When the deer have been educated to the gun there is no more difficult task for sportsmen than stalking them. On some grounds this is impossible in dry weather. Within the past few years nearly all methods of taking deer have been prohibited excepting still-hunting, often called stalking, and waiting for the game on game-trails (without its being driven in by dogs).

In most of the States "hounding," or the use of dogs to run deer to the lake, or to the ambushed

*The *Century Magazine*, reprinted in "Sport, with Rod and Gun."

gunner on his run-way in the woods, has been prohibited. It is also unlawful now in most places (and should be everywhere) to shoot deer at night with the aid of torches or lamps.

This was an easy and somewhat picturesque form of sport. The sportsman, seated in a canoe with a blazing torch at the bow or more often a powerful lantern, called a "jack," on a stick or on his head, was paddled slowly about the margins of lakes and streams, until a deer was seen feeding in the water; the guide moved the canoe slowly forward until the shooter was within very short range, when he killed the timid but curious deer, which had stopped feeding in the lily-pond to gaze at the strange light, often with a load of buck-shot.

This was a common way of taking the deer in the Adirondacks, in Maine, in Michigan, and everywhere where there were deer and lakes and streams on which to float the canoe. It is no wonder that these beautiful animals, when driven by the loud-yelling hounds by day to the shot-guns ambushed on their run-ways or by their lakes, became night-feeders. It is no wonder that when summer night-shooting was added to the hounding by day the deer were nearly exterminated.

I have already referred to the fact that in the West, where the white-tail is found associated with the mule-deer, he will be seen in the thickets and timber along the streams. I have jumped these deer singly or in little bands in the tall grass of coulés or draws when riding through a country where the mule-deer were abundant. White-tails were abundant a few years

ago in the river-thickets in the hills and mountains of Dakota and Montana. I met two of them one morning in a little grove but a very short distance from our camp when I went to the stream soon after our bugler had sounded the reveille, which echoed in the hills. Like all other animals they were fairly tame, and easy to approach and kill until they learned the sound of the gun. It is fortunate that they learn quickly and are able to take care of themselves wherever the cover which they like is large enough to afford them a chance to escape.

Like other wild animals, deer are fond of salt, and resort to salt springs or licks, where they are often shot from ambush. Hunters used to place salt in the woods as a means of baiting the white-tail, but this practice is now illegal in New York and perhaps elsewhere.

Many years ago in Utah and Wyoming, I used to ride about in the little river-bottoms, looking over natural hedges of brush into meadows and grassy spots beside the beaver-ponds, trying for a shot at a white-tail standing or more often running.

The first morning I went out in this way, my horse walked without making any noise across a damp, grassy piece of ground to a point where I could look over some low brush into a meadow where there was a stream and beaver-pond. As I stood up in my stirrups to look over the brush a large stag, with fine antlers, stopped feeding, raised his head, and looked me in the eye but a gun-length away across the narrow bushes. I had a touch of that excitement or nervousness which is known to sportsmen as "buck-fever," and

before I was ready to shoot the stag snorted in alarm, turned tail, and ran rapidly and safely away, although I disregarded his flag of truce. Our guide, who left camp at the same time that I did, went on foot to a little hill and located several deer feeding. He selected one that was easy to approach and furnished the venison for our dinner. I have still-hunted the white-tail in the woods with this same guide and he was, I think, the most skilful man I ever saw on game. One day he approached a white-tail feeding in a large, open glade. He stopped frequently, and when he moved, moved so slowly, hardly a half-step at a time, that the deer remained entirely unaware of his presence. He did not try to approach very close, but at long range slowly raised his rifle and at the report the deer fell dead.

I have fired a second shot at a deer before it ran away, when they were not wild, and had never heard a gun, but the deer of to-day more often does not wait for the first.

I have referred to the camera-hunting of Mr. George Shiras, of Pittsburg, in Michigan. He secured a remarkable series of pictures of single bucks, does and fawns, and groups containing two deer or a deer and fawns. The pictures were made from a canoe at night with the aid of a flash-light and they are all excellent. The skies are of course black, but the deer and foregrounds are well lighted—from below, however, since the light was reflected up from the water instead of coming from the sky. One of these photographs contains a deer and a porcupine—the latter jumping in alarm from a log, while the deer stands with his ears

up, gazing at the strange light. Mr. Shiras told me he was entirely unaware that he had "bagged" the porcupine until he developed his negative. The negatives from which these pictures are made are all excellent and Mr. Shiras showed me some enlargements made from them which were quite sharp.

Roosevelt called our attention to the fact that where the mule-deer and the white-tail are associated, the former disappears first, since it is easier to shoot. The white-tail is less often seen in the open, and is more often found in low river-valleys far from the hills. The hunter who can take the advantage of locating his game from an eminence and then go to it under cover has the best chance of bagging it.

The white-tail is *the* deer for parks and preserves. Since it is found in every State in the Union, except four,* it will do well anywhere. It becomes half tame, unless the park be of vast extent, and when tame is, of course, uninteresting to a true sportsman.

The following is a clever description of deer-shooting, with turkey "on the side," on the preserve of the Oketee Club near Savannah, Ga. The Oketee and the Pineland Clubs (largely composed of New York and Philadelphia men) adjoin, and together they own and control a strip of land which, with the private holdings of Mr. Garnett, the president of both clubs, contains about 103,000 acres. The tract is thirty-five miles long by from two to seven miles wide. Besides

* Delaware, Oregon, Nevada, and California. Hornaday adds Arizona, but Arizona has the small variety known as the Arizona white-tail deer, as Florida has the Florida white-tail.

deer these clubs have wild turkeys, woodcock, partridges, doves, snipe, and wild-fowl.

Mr. W. G. Van Tassel Sutphen, who wrote the story of these clubs, says: "We have had two days among the birds, with an incidental battue in honor of the doves (and, by the way, a swiftly quartering dove is no bad wing-practice), and this morning are to try our luck with hound and horn. A telephone message to the Pineland Club the night before has brought us a couple of recruits, and the drivers are to meet us a mile below on the Parachicola road. There is some discussion over the respective merits of 'Three Bone' stand on Cyprus run and the 'Sisters' stand on Blue run, but as we are only five guns strong the decision is finally for one of the smaller stands. It is a glorious morning, with all the balmy softness of a perfect May day, the deep-blue sky over our heads and the brown sedge crackling musically beneath our horses' feet. Truly it is good to be alive and astride a horse's back on such a day as this.

"We amble along two and two, with Mr. Warren Lawton, who is officiating as master of the hounds, bringing up the rear and keeping a watchful eye upon his dogs. 'White Rouser' and 'Reb' are young and impetuous and inclined to range widely, but we are still in the open country, and they are too anxious to be in the chase to disregard the occasional admonition of the master's lustily winded horn. They are fine, deep-chested animals, these black-and-tan native hounds, and evidently built for both speed and bottom. Several attempts have been made to introduce English strains, but the imported dog has not shown himself

equal to the pace. Lately a cross between the native dog and the Virginia lemon-and-white hound has been tried with satisfactory results, and the evolution promises improvement in all-around points. At present, however, the pack is made up entirely of native dogs, and they are quite fast and stanch enough for all practical purposes.

"Of course the principal shooting is from stands, but it is the rarer sport to ride with the drive and run the chance of a snap-shot at the moment that the game is 'jumped.' There are three or four natives and negroes who are assisting the master, all mounted on nondescript specimens of horse or mule flesh, and possessed of an abnormal capacity for the emission of ear-splitting shrieks and whoops. The canebrake cover beyond is a favorite jumping-place, and a 'find' is almost certain. And listen! there is 'Black Rouser' giving tongue, and the other dogs, with an implicit confidence in their old leader's omniscience, hasten to swell the chorus. A flash of fawn-colored light as the deer breaks cover, and then with a whoop and a yell the crescent-shaped line of horsemen sweeps forward and the chase is on.

"It is fairly open riding through the cathedral-like aisles of the mighty pines, for there is almost no undergrowth. But there is plenty of fallen timber, relics of the famous storm of August, 1893, which devastated the sea-islands and swept like some giant scythe through these forest glades. However, these native horses are wonderfully surefooted, and with a loose rein and a home-seat in the deep McClellan tree, you may trust 'Tip' and 'Whiteface' for the rest, with, of

course, a mental reservation that may permit of providential interference in the case of a gopher-hole or hidden log. It is all in the game, and it is a poor spirit indeed that will not risk the candle.

“The chase is clear away, and that, too, without giving the ghost of an opportunity on the ² jump.’ But the stand is still ahead of the quarry, and by the exercise of a little imagination we may assume that we have elected to wait for fortune rather than to follow it.

“It is quiet here in the deep woods, quiet with the stillness of a New England Sunday morning. We are stationed some three hundred yards apart (out of gunshot—for rifles are not allowed) with the horses tethered safely in some hollow beyond. The sunlight flickers down through the pine-tops, changing the brown needles into masses of dull gold, while sharp against the heavenly blue stands out an enormous holly-bush, gorgeous in its Christmas raiment of green and scarlet. It is peace and good-will again on earth, and then—the gentleman from New Jersey grasps his gun nervously with both hands—can it be that this ‘cruel war’ is not yet over? Surely that was the old Confederate yell; and was it the Louisiana ‘Tigers’ or the ‘Black Horse Cavalry’? Steady! that is ‘Black Rouser’s’ voice, and our host expects every man to do his duty if we are to have venison-steak for supper. Motionless as graven images—for the least flutter will cause the deer to swerve—we stand waiting. The novice feels his heart thumping wildly, and there is a blue haze before his eyes. He almost wishes that the chance may not come to him, and an instant after bit-

terly anathematizes the other fellow's good luck as a shot rings out on the station above. Three blasts of the horn as the drive sweeps over the stand, and we hurry to the scene of the kill—a two-year-old buck, and we are hardly two miles from the house, and just one hour out!

"It is too good luck not to follow up, and after a few minutes' pause to bleed and hang the carcass, and let the dogs have a good sniff at the forbidden fruit, we are in the saddle again, bound for the 'Boggy' run, two miles away. The station here is near the Parachicola road, and it is to be understood that most of the stands are on the ancient causeways, built in *ante-bellum* days by slave labor, and running through the swamps to the river-landings.

"The run this time is longer, for the game may be either turkey or deer, and the hounds are as ready to flush and run the one as to 'jump' the other. Truly to-day the gods are propitious, for a flock of six or seven gobblers break out of the cane and come sailing majestically over our heads. Nobody is loaded with turkey-shot, but no matter; a brace of 'bucks' in the right place will do the business quite as well. There is a sharp crack from T.'s gun, and the great bird falls like a stone into the thickest part of a thorn-patch. But it is worth a few scratches to get him out—a veritable king of the woods, resplendent in his purplish-bronze plumage and a patriarchal beard. 'He'll weigh sixteen pounds when drawn,' says Warren Lawton, as he 'lifts' him meditatively; 'and now what did the Governor of North Carolina say to the Governor of South Carolina?' And we answer as one man."*

* *Harper's Weekly.*

That the white-tail shooting is still very good in Maine is shown by the following statement of the number of deer shipped over the Bangor and Aroostook Railroad in the years named : *

1894.....	white-tail deer	1,001
1895.....	“ “	1,581
1896.....	“ “	2,245
1897.....	“ “	2,940
1898.....	“ “	3,377
1899.....	“ “	3,756
1900.....	“ “	3,379
1901.....	“ “	3,882
1902.....	“ “	4,495

There are other railways which carry game in Maine and the above list includes only the game killed and shipped by sportsmen over the road named. Native hunters also killed many deer in the same region which were not shipped and do not appear in the figures given. If the proportion is the same as that reported in the Adirondacks no fewer than 17,980 deer were killed in Maine in 1902.

The report of the New York State Forest, Fish, and Game Commission shows the following shipments of deer from the Adirondacks :

	Carcasses	Saddles	Heads	Total
1900.....	1020	89	95	1204
1901.....	1062	103	121	1286

Reports received by the Commission from each locality indicate that for every deer shipped by express four more are killed which are eaten in camp, consumed by the residents, or hauled out on wagons to

* In the Maine Woods. Bangor and Aroostook Railroad, publishers.

the numerous towns and villages, situated near the outskirts of the forest.

In a report of the game-warden of Wisconsin it is stated that during 1902 non-residents paid \$9,925 in license fees, as against \$3,635 in 1900. The total amount received from resident hunting licenses is \$65,371.50. "The protection given to the game has resulted in more deer in Wisconsin than there has been for twenty-five years." The figures show a rapid increase in the number of big-game shooters, and at the same time an increase in the game.

The weights on the shipping bills of the express companies show that the Adirondack deer compare favorably in size with those of other hunting-grounds. The deer in 1901 were larger and in better condition than usual, which was due in some extent to the fact that 1901 was a beechnut year.

A buck shipped from Big Moose to Charles Philmore, Remsen, N. Y., weighed on the scales of the station-agent 267 pounds, dressed weight. By adding one-fourth, according to the usual well-attested rule we have $333\frac{3}{4}$ pounds as the live weight.*

Mr. Hornaday, in his "American Natural History," gives the rule for obtaining the live weight of deer from dressed weight more accurately than above stated.

"So many records of the dressed weight of deer are published," he says, "that it is desirable to offer a simple rule by which anyone can accurately calculate the weight of the animal when alive. Taking an antlered elk as a basis, we find that the dressed weight re-

* New York Forest, Fish, and Game Report. There are records in the report of other deer which weighed nearly as much.

presents .21388 of the live weight, or $\frac{556}{708}$ of the whole animal.

"The dressed weight being given in pounds, add to it five ciphers, divide by 78,612, and the result will be the live weight in pounds."

The white-tail deer is especially fond of lily-pads and stems and the vegetation of the swamps, and in the summer is often found near the small woodland lakes and streams. Here it spends much time in the water to escape the flies and other insects. It prefers the still waters where the lilies grow to the tumbling mountain trout-brooks. A country where there are many of these feeding-places is the best deer-country. The Virginia deer is a good swimmer and crosses large lakes without difficulty. The deer feeds also on grass and on shrubs, berries, and the leaves and tender shoots of trees. He is accused of visiting the gardens, and like the mule-deer in California, he can do a lot of damage in a night. New England farmers have insisted upon the right to shoot them out of season when they were raiding their gardens.

Judge Caton and Grinnell regard the Virginia deer as the best of all the deer as a game-animal. Colonel Dodge prefers the mule-deer, and as we have seen, regards him as more difficult to stalk. Roosevelt says: "To my mind the chase of the white-tail, as it must be carried on, offers less attraction than the chase of any other kind of our large game."

I agree with the last-named writer. In all the places where I have seen the white-tail recently, the sport was not especially interesting. There was more fun to be had in shooting ruffed grouse over dogs. In

a hilly country, where the white-tails are found in almost impassable swamps and well educated, they are safe from my gun, without the use of dogs. On such ground I have seen many hunters in the woods for days at a time, singly and in company, who even with the aid of dogs did not get a single shot at the crafty animals, which were known to be living on the ground they hunted over. Where deer are so scarce and so wary that the chance for a shot only comes once in several years, I beg to be allowed to go after the grouse. In Maine and Michigan, in the Adirondacks, and in the Western mountains, in West Virginia, Kentucky, Tennessee, Texas, and many other States, there are places where the journey by canoe or with pack-train is delightful, where the camps are picturesque and comfortable, and where, at the opening of the season, the chances of the hunter's getting the two or three white-tails which he is now permitted by the laws to shoot in a season are very good, and on some of the grounds named he may have a chance to kill a moose, mule-deer, or elk.

In most of the States, however, he must procure a license to shoot (\$50 in Wyoming and \$15 to \$25 elsewhere) and must obey strict rules as to the tagging and shipping of his game, if allowed to ship it at all. In many places he is required to take a guide who is also a game-warden. He must in most places be able to kill his game by still-hunting, but he may get a shot now and then from his canoe or from the saddle when on the march.

For Eastern sportsmen the woods of Maine and New Brunswick no doubt offer the best chance. The

guides in Maine are good, the travelling is largely done in a canoe, the camps are beside streams and lakes which contain trout and sometimes bass. The sportsman in the Maine woods may kill a moose. He may possibly have a chance to shoot a black bear. He certainly will find the ruffed grouse and the Canada grouse, more often called spruce partridge, and in New Brunswick he may add a caribou to the bag.

There are many excellent guides in Maine who know the good camping-places and where to look for the game. There are also excellent guides in the Adirondacks, and, as already indicated, there are many deer in these hills. The best shooting, no doubt, is on some of the game-preserves.

The North Woods, as the Adirondack region is often called, are wonderfully picturesque. There is nothing sublime about the mountains; in fact, they seem somewhat small to one who has climbed the Western peaks for the big-horn and white goat, but the thousands of little water-ways winding about through the forest-clad hills, the many lily-ponds and lakes—the latter sometimes dotted with small islands—make the journey by canoe an easy one to camping-places where the deer-stalker may take his trout for breakfast from his front door and shoot his grouse in the back-yard. Without the aid of dogs, and now that it is illegal to murder deer by “jacking” them at night, there is much less venison in the Adirondack camps than formerly, but an industrious sportsman who has learned the science of still-hunting has a chance to match his wits against the smartest deer of them all, and whether he wins or no, he is sure of an outing that will end

entirely too soon. While moving about in the woods on foot or in a canoe there is a chance of stumbling on a deer, for some reason less wild than the others, and of potting him without the exercise of much skill. Such chances are uncommon, however, to-day.

It pays when rambling in the Adirondack woods to push on up to the top of a mountain and take the view. From the higher peaks one may look over blue pine-clad ranges of hills and small mountains, which fade away into lighter blue at the horizon, and down into the valleys where the streams feed and empty many lakes. I have forgotten now how many lakes we saw from the top of Whiteface—there were very many and all were beautiful.

The sportsman from the central States will find many deer in Wisconsin and Michigan and Minnesota; the northern parts of Minnesota are perhaps the best grounds. Here again are the many small lakes and streams, and there are more large fish and more grouse than in the Eastern States. West Virginia, Kentucky, and Tennessee have some very good deer-grounds, and in the last two States they still use the hounds to chase the deer to the run-ways. There is a very large preserve in West Virginia where they have good shooting and good fishing. My invitation to shoot there was accompanied by the statement that I was sure to get some good fishing. I notice this is nearly always the case. They don't tell you with any great confidence that you will get a deer. The promise is always for fishing. They have, however, lots of deer in West Virginia, and I am inclined to think that the promise of good fishing indicates simply a knowl-

edge on the part of the person extending the invitation of the great difficulties which attend the capture of a white-tail deer to-day. I speak of the open woods and mountains and of vast unfenced preserves, where the deer are running wild. There is a difference, of course, in small fenced parks where the deer are fed by keepers. The latter kind of shooting the first-rate man does not care about. He prefers to try the wilder animals even though he fail. I have seen the shooting so good at deer, both large and small, in the Western mountains that I appreciate the difficulties of the chase of the white-tail in the Eastern woods. I care as much for the outing as the game, however, and am in no hurry to run away from the woods disappointed because I do not get a deer. I have, in fact, let many a good chance go while gazing at a lovely landscape with the rifle left carelessly out of reach.

In Florida there is a smaller variety of the Virginia deer. His habits, however, and the methods of pursuit are much the same. The open season is from November 1st to February 1st.* Much of the ground is swampy and difficult, but there are lovely lakes and streams in Florida which contain many fish. Quantities of wild-fowl winter there, and the best game-bird, bob-white, is plentiful in many upland fields.

In Georgia and the Carolinas some of the hotels now assure their guests in attractive advertisements that there is good deer-shooting. In Georgia and South Carolina the season opens September 1st; in North Carolina, October 1st. In Georgia and North Carolina it closes January 1st, and in South Carolina Feb-

* The bag-limit is five deer per annum.

ruary 1st.* In Mississippi the season is September 15th to March 1st, and in Louisiana November 1st to April 1st.

Louisiana and Arkansas have followed Missouri's lead in prohibiting non-residents from shooting in the State at any time. In Louisiana non-residents are classed with idlers, vagrants and pot-hunters. The law reads no idlers, vagrants, pot-hunters or non-residents shall catch, kill, pursue game, etc. A step further in this kind of legislation and we may have: "No pickpocket, sneak-thief, Louisianian, etc., shall attend any place of amusement within the State of— etc." Such selfish and inhospitable legislation is not creditable to any State, and I believe such laws when tested in a United States Court will fail, as they should. The open season is usually longer in the Southern States than in the Northern States. In Pennsylvania, for example, the season is only one month, November 1st to December 1st. (I refer to deer only. The open season for bull-frogs—act of 1903—is July 1st to November 1st.) In Michigan, a great deer-State, the season is still shorter, November 8th to December 1st. In Wisconsin the season is only twenty days, November 10th to November 30th. In a number of Northern and Western States, New Hampshire,† Massachusetts, Rhode Island, Connecticut, New Jersey, Illinois, Iowa, Oklahoma, and possibly some others, the deer are protected at all times or for a period of years.

* In some counties the season closes January 1st.

† Except in the Blue Mountain preserve and certain excepted counties and towns.

In Massachusetts and Rhode Island the laws contain exceptions in favor of the owner, who is permitted to kill "his own *tame* deer kept on his own grounds." This would seem to require that the game on the preserves be not wild. In Iowa the exception is in favor of the owner, who is permitted to kill deer on his own ground.

The above references to the laws will give the reader an idea of the tendency of the legislation in different parts of the country. When the deer are protected at all times or for a period of years, the legislation plainly indicates that the animals were threatened with extermination. It is fortunate that the deer soon recover under such laws, and a friend who is familiar with New England conditions informs me that the deer really are becoming a nuisance in some localities.

In the North generally all methods of capture, excepting still-hunting, have been prohibited. In the South it is the fashion to use hounds, and horses, horns, and darkies besides, as already observed. The weapon, too, is often the double gun loaded with buckshot, with which the sportsman sometimes makes a double. The reader will find a clever word-picture of the Mississippi bear-country in the chapter on the black bear. The deer in that State are found on the same ground with the bear. The riding about after the hounds on Southern plantations is often difficult; the timber is heavy and full of briars, vines, and many undergrowths, and often swampy, and the canebrakes are in places wellnigh impenetrable. It is a picturesque sight, however, to see a lot of well-mounted sportsmen out with hounds and horns and their ser-

vants, who manage the dogs and act as beaters to drive out the deer to the sportsmen who are on the lookout for them.

The following description of the hounds and horse, the country and the chase, will give the reader a very good idea of Southern methods :

“Old Bob had been waiting for us with coffee for half an hour, and as soon as we were refreshed he called the dogs. Nancy, a blue-colored bitch ; Music, the sweetest-voiced red hound that ever ‘tolled a bell’ ; and old Rattler, a big rawboned ranger, were the leaders, with six or eight puppies who were just beginning to learn the game. After we had gone a couple of miles horns began sounding. Now if there is anything on earth elusive to a greenhorn it is a deer-horn, which is really an old cow-horn open at both ends. In the first place, it simply can’t be blown by anyone but an old deer-hunter. I blew into both ends of one, but nothing more than a gurgle came out. Old Bob put that horn to his lips and there came forth the sweetest sound, it seemed to me, that ever mortal listened to, but with the peculiarity that if you turned your back to it you could not tell whether it was a rod or a block away. When the other horns sounded I had not the slightest idea where or how far away they were, but those old fellows called the names of the blower of every horn, and said they knew to within a hundred yards of where each was. Which I did not believe, but after found to be true.

“We trotted forward for a mile or more down an unused logging-trail, through the prettiest country imaginable. It was just where the foot-hills leave off

to meet 'Old Red,' the tall, glimmering green pines meeting the dusky gray of the moss-cypress; not a clearing within five miles, and just at that hour when the long golden scouts from the rising sun reach up to push away the dark. The trail grew close, and was ever winding about impenetrable thickets and blackened stumps of what had once been monarchs of the forest. Suddenly we came into an open stretch where the underbrush was much less dense, and, grouped around a big cypress, with at least twenty dogs, and a half dozen darkies on mules and other animals, was old Sam Johnson, Bob Brosseur, and Hugh Bufkin, three of the best-known deer-drivers in the parish. They had been waiting for some time and were impatient, so old Bob tolled off his boy to put me on a stand, while the four white men went ahead to the right to find their own particular place to stand."

The darkies and hounds were now sent to "what is known as the Berry Brake, a dense lagoon-like section of ground filled in with blackberry-bushes and a wild tangle of a million varieties of creepers, cypress, and tamarack."

The writer, Mr. Seaman, with his colored guide, went toward the river, and after they had gone a mile or so the latter instructed the former "to stop and get off and wait there, as it was a 'stand.'" When they heard the distant voices of the hounds the guide said: "They got him." Shortly afterward the negro began to get excited, and calling to Mr. Seaman to come on, they started at a rapid gait through blackberry-bushes and other briers, under low-hanging branches and vines, over fallen logs, and when they had gone some

distance, "the half-crazy negro deer-hunter galloping ahead," they came to an opening—"and out from a clump of bushes," the writer says, "not sixty yards from me, cantered the prettiest little prong-buck imaginable, coming straight toward me with his head turned back to listen to the dogs. I grabbed my gun, dropped to one knee, and took careful aim at the white spot on the front of his breast—Bang! Up into the air five feet high he bounced, and a white streak through the bushes to my right told me that I had missed a deer at thirty yards with eighteen buckshot."

For an hour Mr. Seaman waited, and then, he says: "Away off in the distance I heard the horns and the hounds again. Had the deer doubled? I didn't know much about those little red swamp-deer, but this might be the case. And if a deer had passed that way once, might he not do so again? I concluded to be prepared, and took up a stand on the top of a six-foot stump, where I could see for seventy-five or eighty yards in any direction. The sounds grew nearer, nearer, nearer—they were within a quarter of a mile, the music of the hounds ringing clear and mellow through the aisles of the forest. I clutched my gun tighter, the safety-catch up; they were heading straight for me, and from the sound I knew they were behind something. Then I asked myself if the dogs had doubled on their own trail? This idea nearly made me climb off my stump, when, skipping lightly through the bushes a hundred yards away, and headed straight for me, came my identical buck with a doe beside him. Oh, but it was a sight! They were

bounding lightly, not swiftly, just seeming to go fast enough to tantalize the hounds. I had crouched as low as circumstances would permit. Now or never. They were within thirty yards. I raised quickly.

"Bang! Straight to the right fore-quarter, and the hunt was over for the buck. As the doe wheeled swiftly, she threw her broadside to me—a quick turn and the left barrel brought her to the earth beside her mate. In a second the dogs were on us, and I had my troubles keeping them off. I beat them back as fast as I could, and fired again and again to call the others. Within ten minutes they came in."

Mr. Seaman's interesting story indicates that the deer circled and returned. This is a very common thing for white-tail to do. When pursued by dogs, they easily keep ahead of them, and, like rabbits, circle about, often running to the exact spot whence they started. This is well worth remembering by one who goes to enjoy this most picturesque form of sport in the South.

Games are classified as games requiring skill and games of chance. The game of whist is especially enjoyable, since in it skill and chance are blended. Chess is the game of pure skill unadulterated by any chance. It is too much like work for many folks. Stalking the white-tail is the sportsman's game of chess. It requires the same long time to learn the game, and an immense amount of practice to become a good player. It is a game played with long, thoughtful pauses, followed by careful moves, based on scientific reasons. The sportsman's opponent in the game played in the woods is always a good player.

In hunting the Virginia deer, whether it be in Maine, the Adirondacks, or in the Western or Southern mountains, the sportsman is usually accompanied by a guide whose duty it is to find the trail and follow it and endeavor to put the sportsman in position for a shot. Of course, all this was easy when the dogs were used to drive the deer to well-known run-ways. But to-day, where the deer are not numerous and are very wild, the shooting of a white-tail is next to impossible for a novice. It is a difficult matter for one highly skilled man to approach within range of a deer without its taking alarm. It is twice as difficult for two to do it in company. Comparatively few sportsmen are equipped to "go it alone." Those that are are the ones who thoroughly enjoy deer-stalking. The shooting of the animal is not so difficult as the getting within range. Some men, as we have suggested, not only need the aid of a guide for the latter service, but for the former also. With them, the man whose servant shoots a deer has shot a deer. *Qui facit per alium facit per se.* It is quite true that the act of the agent is the act of the principal, ever since laws were written in the Latin. Such hunting suits few sportsmen. I have the highest admiration for the men I know who can slip off rapidly through the woods without the slightest noise and, observing every sign, go straight to the wild quarry and drop it with a well-aimed shot.

I do not altogether like the game when the white-tail is the opponent, most likely because I do not play it very well. Where there are a lot of teal and mallards flying in a marsh, and a solitary crane, extremely wild, is reported to have been seen "last week" on the

prairies only four miles away, I will try the mallards and the teal.

There are lots of men who can sit by the table and appreciate every play in a championship game of billiards. There are few champion players.

Mr. Van Dyke is one of the most accomplished deerstalkers in America, because he has always preferred to follow the game without the guide.

"From the first days I read about hunting moose," he says, "I envied the Indian who found the game, and felt contempt for the white machine that merely did the mechanical part of pulling the trigger. Hunting was always more of a charm than shooting, and game that knew how to get away was always my first choice. To be surrounded by scores of invisible spirits aware of my presence while I was not keen enough to be aware of theirs, to feel that I only was at fault, and that the time would yet come when I could play in the game without being laughed at, was to me the loftiest form of pleasure in the pathless woods. The remark of the settler with whom I was stopping, 'There's no use huntin' now; the woods are too noisy,' was only a spur to my ambition. That I could not touch the dry leaves lightly enough to prevent a deer from hearing me and running so far away that I could not even see him or hear the thump of his feet, instead of being a reason for stopping, was only the strongest possible reason for keeping on. And after seeing much of the best shooting of America, I must say that the most charming of all days were those—eleven successive days—I hunted from morning till night, never out of sight of tracks made that very morning,

yet without catching the faintest glimpse of a deer until the evening of the eleventh day, and then it was so far away that I was at first in doubt about it. There are fools among the wildest animals, and the more one hunts deer the more apt one is to feel a painful suspicion that the greater part of success comes from stumbling over a fool. Nothing much worse can befall the tenderfoot at first, for he is apt to feel himself a born hunter and learn little more. But such was not my fortune, and I became so interested that that hunt lasted several months and was repeated every fall until I moved to California.

“Most beginners have much the same experience in still-hunting, and it arises mainly from the difficulty of comprehending—in practical form—the extreme acuteness of the senses of a deer and the constant watch the animal keeps on man, even in the wildest woods.”

The above describes a hunt years ago in Wisconsin, when the woods were full of white-tails, and Mr. Van Dyke says he has never since seen so many tracks, though he has been in many an almost untrodden wild.

Much has been written about the chase of the white-tail deer. The lesson cannot be learned from books. The best school is that held by the camp-fire in the woods. The best teacher is the guide or woodsman who lives in the same forest with the deer and who knows, if anyone does, how to circumvent them.*

June 4, 1904, I read the proof of this chapter at the South Side Sportsman's Club on Long Island. While fishing, a short distance above the club-house, I saw a

* It will be a matter of satisfaction to all sportsmen to know that the statistics show a steady increase in the number of deer in the State forests. No

number of white-tail deer which were more tame than I ever saw them in the West. One of them ran out of the water and stood within easy range of a shot-gun while we passed down the river in a boat. Upon expressing my surprise, our boatman said that he had recently counted seventy-eight deer in a field within a few hundred yards of the club-house. These deer are restrained by no fence. The club is less than fifty miles from New York City. What better evidence could we have of the benefits of game preserving?

better argument can be advanced in favor of the present system of protection, and it is believed that local interests are steadily becoming convinced that the laws as they exist are for the good of all concerned.

From the statistics furnished by the American and the National Express Companies, the following figures showing the shipments of deer have been compiled:

Year.	Carcasses.	Saddles.	Heads.
1903	1,961	145	188

The percentage of increase in the shipments, which last season was about 30 per cent., is seen this season to be more than 44 per cent. over that of the previous year. Following the apparently reasonable rule that for each deer shipped out, at least four others are killed in the woods, it can readily be seen how greatly the deer have increased under our present laws.—*Forest and Stream*. From advance sheets of the Eighth Report of the New York State Forest, Fish and Game Commission.

IX

THE WOODLAND CARIBOU

THE older naturalists describe two caribou. More recently there are more, no less than nine having received technical names, but for many reasons these may be considered as one and the same by sportsmen. The two principal varieties of caribou are the woodland caribou and the barren-ground caribou. These look much alike; one, however, is much larger than the other. Their horns are also similar, but the smaller animal has proportionately much the larger horns. The habits and methods of pursuit of both animals are similar. Mr. Charles C. Ward, to whom we are indebted for an excellent article, "Caribou Hunting," says it seems to be a moot question whether the barren-ground caribou found inhabiting the Arctic regions and shores of Hudson Bay is another species or only a variety of the woodland caribou. The barren-ground caribou is the smaller animal and seldom exceeds one hundred and fifty pounds in weight, while large specimens of the woodland caribou weigh nearly five hundred pounds. The caribou of Newfoundland is the large woodland deer.

I have referred to the Boone and Crockett Club's list of big game and their requirement for membership—

that the applicant shall have killed at least three big-game animals of different kinds.

The two caribou are listed separately by the club as the woodland caribou and the barren-ground caribou. There are, therefore, two caribou for sportsmen, and anyone who kills them both need only kill one other big-game animal to be eligible for membership in that justly famous organization and be invited to dine annually with Roosevelt, Grinnell, Rodgers, and ninety-seven other distinguished sportsmen, many of whom have written capital descriptions of the chase.

The woodland caribou is certainly a good geographical race. As its name would indicate, it inhabits the forest regions, its range extending from Maine westward through British America, and lying directly south of the range of the barren-ground caribou, which dwells on the great northern plains called the barren grounds which extend to the Arctic Sea.

The range of the caribou, like that of the other deer, has been restricted by persecution, and the caribou is now so nearly exterminated in Maine that the killing of these animals there is prohibited at all times. They are migratory, or at least have the habit of moving for greater distances than any of the other members of the deer family. The barren-ground caribou are more migratory than the woodland animals, of which species Grinnell says: "The migration seems to be little more than a mere restlessness, a desire to keep moving, or a natural change from a winter feeding-ground to a summer one, and back again; but in the barren-ground form, the journeys take place with so much regularity and are on such a large scale that

they have attracted the attention of all travellers who have had opportunities of observing them."

The woodland caribou is much larger than a deer and measures four feet at the withers. A typical specimen in the New York Zoological Park weighed 280 pounds. The head of the caribou is not so handsome as that of the elk or deer, but he is not so homely as a moose. The horns are large and heavy and resemble those of the moose more than those of the deer. They may be said to be intermediate between the two, being palmated, but not widely as in the case of moose. In outline the caribou is not so graceful as the deer. He is stockier, and the body is more like that of the mule-deer than the Virginia deer.

The color of the caribou is grayish brown on the body and legs. The belly and rump are yellowish white. The color is said to be much paler in winter; a woodland caribou will weigh as much as 500 pounds, possibly more.

The feet of the caribou are peculiar. Grinnell says: "The foot is broad and spreading, and the supplementary hooflets or dew-claws are large, the whole being admirably adapted for supporting the animal in its passage through marshes or over the snow. The thin, horny shell which forms the border of the hoof also serves it well when travelling on the ice. The representatives of the second and fourth digits contribute something to the support of the animal's weight, and are always more or less worn and abraded on their inferior surfaces. When the animal trots swiftly, these dew-claws strike against one another with a loud, clattering noise." Mr. Ward refers to this noise as the

WOODLAND CARIBOU

peculiar castanet sound caused by the split hoofs of the caribou striking together.

The caribou feeds largely upon reindeer-moss, lichens, shrubs, and grasses. The guides note well where they are feeding, and where the feed is best, and are usually able to conduct the sportsmen to the game, as, in all big-game shooting, guides are almost indispensable, not only to find the game, but to prevent the sportsman from getting lost in the woods and to attend to many other matters already referred to.

The caribou, when they have not been much hunted, are comparatively tame, and not hard to approach. Mr. Ward says when his haunts have been unmolested he will unconcernedly trot up within range of the rifle. He believes, however, that a great deal of this apparent fearlessness is due to defective vision. There are more places to-day, however, where the woodland caribou has been exterminated than there are where he is tame. In the inhospitable, uninhabited Arctic barrens where his near relation is found, there, no doubt, are places where comparatively tame caribou may be found. Maine found it necessary to pass a law protecting the caribou for a term of six years from October 15, 1899. They will be, no doubt, fairly abundant, and at the end of the close period, for a few years at least, it will not be difficult for the shooter to procure a caribou trophy in the northern portions of that State. The law will no doubt permit the killing of only one male by a gun in one season. Since the moose and the Virginia deer are found on many caribou-grounds, the chances for a splendid bag are good. Any sportsman should be satisfied with one of the larger animals

and the two or three deer usually allowed to each gun. The ruffed grouse and the spruce or Canada grouse are found in the woods and prove an acceptable addition to the camp-table. The Canada grouse is the most abundant, and is often too tame to afford much sport. There are fine trout in the streams and lakes. In the northern parts of the range the beautiful ptarmigan is also fairly abundant. This grouse flies well and affords considerable sport for the double gun, which should always be found in the camp of the caribou-hunter.

The rutting season is in the early autumn and begins about September 1st. The caribou then fight like the moose, elk, and deer. The does bring forth one and sometimes two fawns in May or June, which are spotted like the deer, the spots, however, being not so distinct and noticeable.

The females, as well as the males, have horns—those of the female being smaller and lighter than the many-tined, wider-palmated antlers of the buck.

The flesh of the caribou makes excellent venison and is much used by the northern Indians. In gait the caribou resembles the elk and moose more than the smaller deer. He travels with a long, swinging trot, and goes much faster than he appears to. He has good bottom and can travel great distances without a halt, so that it is almost useless to try and follow a band of wild caribou when once they have taken the alarm.

Like the antelope, the caribou sometimes exhibit curiosity. Mr. Ward, referring to this, says: "The indifference or curiosity with regard to the noise of fire-arms exhibited by the caribou often stands the hunter in good stead and affords him a chance for a second

shot, should his first prove ineffectual; for it is not uncommon for a herd to stand stock-still on hearing the report of a gun, even when one of their number has fallen a victim thereto. The pause is but for an instant, and the hunter must be quick to take advantage of it, or his chance will be gone before he is aware of it; for, recovering quickly from the shock or alarm, or whatever it may be, the herd will dash off at a rattling pace. A caribou, if not mortally wounded, will endeavor to keep up with the herd, and will travel a long way without giving out. If near the sea-coast, the wounded animal seeks it to die, and so is often found by the hunter. In such cases the skill of the Indian again comes into play, and he will follow the track of the wounded animal, readily picking it out from all the others and seldom failing to run it down. The Indians say that the caribou likes to feed on sea-weed, and goes to the coast in the spring and fall of the year for that purpose."

The caribou has the sense of smell wonderfully developed and relies largely upon its nose to escape its enemies. It is absolutely necessary to approach it against the wind, and the rule, so often referred to in the chapters on the other deer and the antelope, of seeing the game before being seen, should be observed. Since the caribou is a Northern animal, there is usually snow on the ground in the shooting season, and its trail, of course, is more easily followed in the snow. It is well to be equipped with snow-shoes and to know how to use them, since the snow is often too deep to travel without them. The rifle is the proper weapon. The ball and charge should be heavy rather than light,

since this deer, like the others, unless hit hard, may run a long distance and escape, and nothing is more distressing to a true sportsman than to lose a wounded animal.

Mr. Ward says "a competent authority" doubts the existence of the caribou west of the Red River of the North. Its distribution is much better known now.

Roosevelt killed a caribou in the Selkirk Mountains near an Alpine lake, and says the stomach was filled with blueberries and their leaves, and with a few small mushrooms also, and some mouthfuls of moss. He regards the caribou as better able to take care of itself than the moose, but rather easier to still-hunt. Here, as elsewhere, the question is dependent upon the comparative tameness of the animals. The caribou of the Selkirks were, no doubt, not very wild at the time when Roosevelt saw them. He intimates as much, saying that when not pursued they are fairly tame. Colonel Dodge, it will be remembered, regarded the Virginia deer as easy to stalk, even easier than the black-tail, as he called the mule-deer. It, no doubt, was not at all difficult to shoot the white-tails when Colonel Dodge lived at Western posts, far beyond the railways. I have seen the white-tail more recently in places far beyond a railway, where the shots were at close range and where the quarry often was inclined to pause and gaze at an intruder. But there is no more difficult animal to stalk than the white-tail of to-day on most parts of its range, and I doubt not the caribou is almost, if not quite, as difficult in places where he has been educated, and where only a few crafty and experienced animals have survived.

The Newfoundland caribou were until recently listed as woodland caribou, but they have now been classified as a new species "chiefly on account of their light color." Their habits being the same as those of other woodland caribou, and the methods of pursuit being also the same, the sportsmen disregard these technical differences just as they do the ornithological separation of the gray ruffed grouse from the plain every-day ruffed grouse. The caribou were formerly very abundant in Newfoundland, and they are by no means scarce to-day. There has been a tremendous slaughter of these animals every winter, and Mr. McGrath says "the mail steamer plying along that coast has frequently brought to St. Johns consignments of 500 carcasses of caribou; that venison sells for two and three cents a pound in the meat-markets of the city; that the charitable societies buy it to distribute among the poor; and that in the fishing-hamlets the people salt down the meat for use as a staple article of diet during the ensuing spring; the carcasses have been shipped to St. Pierre in schooners to be used by the French fishermen in baiting their periwinkle traps on the Grand Banks, and it is not uncommon for caribou-meat to be fed to the dogs." The same writer says that these caribou are "in appearance like an Alderney cow, with short legs and broad feet which enable them to traverse the snow and wet marshes rapidly and easily. They weigh from five hundred to seven hundred pounds, stand about four feet six inches high; and afford excellent sport to the still-hunter."

The caribou feed largely upon lichens and moss.

They find an abundance of moss in the woods in winter, and wander north in summer to seek a white moss which grows on the marshes. Early in the autumn the horns have lost the velvet and are strong. Mr. McGrath says that in the rutting season "they do not hesitate to rush upon the hunters if these are incautious enough to get within their sight." They also strike a bad blow with their feet.

The shooting-season for caribou is now much shorter than formerly. It was the fashion, in fact, a few years ago to shoot them at all seasons, but to-day in some States it is illegal to shoot them at all. Such is the law in Maine, New Hampshire, and Vermont, New York, in Michigan,* North Dakota, Nevada, and Idaho. The Southern States, of course, have no caribou. The season in Minnesota, the single Northern State east of the Rocky Mountains which permits the shooting of these animals, is from November 10th to November 30th. Glancing at the laws of the Pacific States, we find that the caribou is not mentioned in California and Oregon, and that the season in Washington is September 1st to November 1st.

It will be observed, therefore, that there is very little open caribou-ground in the United States. The caribou, however, like the moose, properly belongs to our neighbor across our northern boundary.

In Newfoundland the open season for caribou is from August 1st to October 1st and from October 20th to February 1st, the interval being for the mating season. In Nova Scotia† and New Brunswick the

* Michigan, to year 1911.

† Protected at all times to 1905.

season opens September 15th. In Manitoba the season is September 15th to December 1st; in Quebec* and British Columbia it is September 1st to February 1st, and in Northwestern Territories, November 1st to December 15th.

The usual license in the provinces named is \$25. In British Columbia the license is \$50, and in all the provinces, I believe, the open season for moose and caribou is the same, and the license permits the killing of all game. In Newfoundland the license has been made \$100 for non-residents; this permits the killing of not more than three stag caribou.

The license in Newfoundland being really prohibitive for most sportsmen, the best good woodland caribou-ground left for eastern sportsmen is in New Brunswick and parts of Quebec.

It is most unfortunate that Newfoundland has such a high license. It is certainly one of the best shooting-grounds for caribou visited by sportsmen from the United States, and has, in addition to the caribou, deer and grouse and fine fishing, including the lordly salmon.†

Mr. McGrath says that when the summer's cod-fishing is over, the Newfoundland coast-folk go to the uplands for a winter's supply of venison, which they salt down and barrel for the support of themselves and their families. He continues:

"From the harbors where they reside they go in

* Quebec is divided into two shooting zones with different laws. In one zone the season closes March 1st.

† The Newfoundland license has been reduced to \$50 since the above was written.

their boats to the rivers and fiords which strike into the interior. When navigation is no longer possible they debark and continue on foot to the deer-country. They carry barrels filled with salt, and sometimes go in large companies. When the rendezvous is reached, they camp. Then they ambush themselves along a promising 'lead,' or deer-track, armed with long, six-foot, muzzle-loading sealing-guns, which they charge with about 'eight fingers' of coarse gunpowder and 'slugs' of lead, fragments of iron or bits of rusty nails, whichever they may have. They fire point-blank into a herd of caribou as it passes, and being usually good shots, contrive to kill almost anything they aim at, or to wound it so badly with these dreadful missiles that it soon collapses. Then they skin and cut up the meat, for these men know a little of every trade, and pack it in the barrels with the salt as a preservative. When enough slaughter has been achieved, the barrels of meat are slung on carrying-sticks which rest on two men's shoulders and conveyed back to the boats, those not so laden bringing full stores of fresh venison for immediate use. This crusade is pursued generally in the remoter northern areas, where the difficulty of obtaining other supplies is greatest. Other parties of fishermen who cannot reach the uplands by boat go by train of late years, in preference to making long marches. They pay freight inward for their barrels of salt and outward for the packed venison. The trains drop them on the various marshes, and there they operate just as the others above described. They camp near the track-side, for their unhandy equipment cannot be carried far afield, and they shoot the

caribou on the open moors, in full view of the passing trains. Passengers across the country at this season can count hundreds of deer as the engine speeds along, and see the whole drama of this novel hunt unfolded before them. The fishermen ambush the unsuspecting creatures and shoot them, and then the paunching, skinning, and cutting up follows in quick order. The meat is then carried into the camps, where the salt is turned out into little gleaming hillocks, and the packing takes place, while great steaks are frizzling before the blazing fires near each birchen 'tilt,' or shelter, and horns and hides, with here and there a carcass, litter the foreground. The scene is one of animation and cannot be matched anywhere nowadays."*

After the caribou have run the gantlet of "this slaughter-zone," they move southward to the forests of the south coast. Here again the settlers shoot great numbers of them for the markets. Mr. McGrath says that these facts will serve to indicate to the alien sportsman what the possibilities of caribou-hunting are in this island. The Newfoundland law prohibits the use of dogs and the trapping of the animals. The sportsman is permitted to take home the antlers, heads, and skins of the deer he may shoot under his license, on making oath that they are not being exported as articles of commerce.

Dr. T. S. Davis, of Lancaster, Pa., says that during a twenty days' trip on the White Hills, inland from Hall's Bay, his party saw over nine hundred deer by actual count; and the marsh which was the scene of

* *Outing.*

their operations was not of very large extent. Mr. Davis secured the "largest and most perfect woodland caribou-head in America, basing this opinion on specimens carefully examined whenever an opportunity was offered, including those at the Sportsman's Exhibition recently held in Madison Square Garden, New York. The dimensions of these antlers are as follows: Length of horns, from hair to tip, 42 inches; spread from tip to tip, 32 inches; points, 47; circumference of entire rack, 11 feet six inches."

Some wealthy Americans have shooting-boxes in Newfoundland and have fine shooting every fall.

"One of the Standard Oil magnates, who owns a hunting-lodge in one of the remoter sections, has it located at the base of some high trees, in the upper branches of one of which he has constructed a shade or lookout. In this eyrie a guide is constantly stationed to watch for the passing of caribou, for the place commands one of the best leads in the region. When the guide sights a herd he presses an electric button, which actuates a bell in the lodge below and summons the owner to the lookout. There, with his glasses, he surveys the herd, and if it evidences the possession of a likely head, he descends and proceeds to stalk it. Otherwise, he returns to his pipe and book in the lodge while the guide watches for another promising specimen. Other wealthy Americans have practically pre-empted territory which hunters not so generously dowered cannot afford the expense of reaching, but in spite of this there is ample opportunity and excellent vantage-ground for all who are likely to visit us for some years to come."*

* P. T. McGrath, in *Outing*.

Competent observers maintain that if the present needless and unbridled butchery of the caribou is not speedily checked, the extermination of the animals is only a matter of a few years. Meanwhile, Mr. McGrath says that the American hunter is assured of a hearty welcome and satisfying sport.

That the woodland caribou are still fairly abundant in New Brunswick is attested by the story of "A New Brunswick Caribou-hunt," written by Mr. W. T. Chestnut, of Fredericton, N. B., and illustrated by photographs taken by the author which show, among other things, a splendid stag shot by a lady who stands beside it in the picture. The hunt took place last autumn, and the writer says that one day they saw thirty-two caribou before dinner, and later in the day enough more to make the total for the day sixty-four. The animals do not appear to have been very wild; the hunting was, of course, still-hunting, or stalking, and when the stag fell, the rest of the herd stood around waiting for their chief.

The shooting-party was in the woods seven days, and saw in that time no fewer than one hundred and fifty-eight caribou.*

The records which are continually coming out of the woods accompanied by photographs, which show not only the fallen quarry but often live animals also, are wonderfully clever. They give us not only portraits of the animals, but fine pictures of their surroundings, both the foreground detail and pleasing backgrounds, which indicate the character of the field and woods where the quarry lived and died. The camera has become an essential in the sportsman's outfit.

* *Field and Stream*, March, 1904.

Farther west, in the Canadian provinces, the woodland caribou are found, and when they have not been much persecuted they are comparatively easy to shoot. Mr. Tyrrell, of the Canadian Geological Survey, wrote of these animals in a letter to Mr. Hornaday, in which he says that the woodland caribou may be found in all the thickly wooded tracts of Alberta, Athabasca, and Saskatchewan, and that this deer is known to the Indians of that country as the Muskeg-Atik, or swamp-deer, in recognition of the fact that it lives in the swamps and coniferous forests, and not on the plains, or in the country studded with groves of poplar. Mr. Tyrrell does not believe the woodland caribou are numerous anywhere in the Canadian Northwest Territories.*

* Hornaday, *The American Natural History*, p. 135.

X

THE BARREN-GROUND CARIBOU

AS stated in the preceding chapter, the barren-ground caribou is much the smaller of the two North American animals. The naturalists now regard this reindeer as closely related, if not identical with that found in the Arctic regions of the Old World. Hornaday says, that in general terms it may be said that the average barren-ground caribou is a close understudy of the average reindeer of Siberia and Lapland and is also a smaller animal.

Comparatively few American sportsmen have shot the barren-ground caribou on account of the forbidding character of the ground and the hardships attendant upon the chase. Its habits are now well known, however, and there are places where many animals are killed annually by venturesome sportsmen.

Richardson long ago gave us an excellent description of the animal and its habits in his great work, "*Fauna Boreali Americana*."

The sportsman who goes to shoot the northern reindeer may expect to bag the musk-ox, and on parts of its range he will find the polar bear. Since the barren-ground caribou is usually found on wide, open plains, he is easily seen at a long distance, and the sport is therefore somewhat like that of antelope-

shooting. A powerful glass is desirable and the sportsman will do well to use it often, and carefully look over the ground in order to discover his game without alarming it and be able to plan his approach. Schwatka says when the temperature reaches the extremes of -60° to -70° Fahrenheit, the musk-oxen and reindeer herds can be located, at from six to seven miles' distance, by the cloud of moisture which hangs over them, formed by their condensing breath, and from favorable heights, at even fifteen to twenty miles. The color of the animal is said to harmonize well with the gray, barren plains. This animal, like the other deer, relies upon its nose, and can detect its enemy at a great distance, if the wind be in its favor. It is sometimes necessary to retire, after discovering the game, and make a long detour before attempting to approach it.

The migration of this animal is from north to south. In the summer it is found most abundantly far within the Arctic Circle near the shores of the Arctic Ocean. Here the young are brought forth, and in the fall the animals move southward, and spend the winter on the barrens and in the vicinity of the adjacent forests.

The caribou are seen in small bands, and often in great herds, numbering hundreds of animals where they are abundant. There are a number of varieties of this caribou, as we have observed. These are referred to in the Appendix.

Mr. Warburton Pike has given us an excellent story in Mr. Hornaday's "American Natural History," of the Barren Grounds, and the musk-oxen and caribou to be seen there. He says that the caribou in great bands,

commonly known as *La foule*, late in October move southward for the winter.

"Scattered bands of caribou were almost always in sight from the top of the ridge behind the camps, and increased in numbers till the morning of October 20th, when little Baptiste, who had gone for firewood, woke us before daylight with the cry, '*La foule! La foule!*' (The throng.) Even in the lodge we could hear the curious clatter made by a band of travelling caribou. *La foule* had really come, and during its passage of six days, I was able to realize what an extraordinary number of these animals still roam the Barren Grounds.

"From the ridge we had a splendid view of the migration. All the south side of Mackay Lake was alive with the moving beasts, while the ice seemed to be dotted all over with black islands, and still away on the north shore, with the aid of the glasses, we could see them coming like regiments on the march. In every direction we could hear the grunting noise that the caribou always makes when travelling.

"The snow was broken into broad roads, and I found it useless to try to estimate the number that passed within a few miles of our encampment. We were just in the western edge of their passage, and afterward we heard that a band of Dog-ribs, hunting some forty miles to the west, were at this very time in the last straits of starvation, only saving their lives by a hasty retreat to the woods. This is a common danger in the autumn, as the caribou, coming in from the Barren Grounds, join together in one vast herd, and do not scatter much till they reach the thick timber.

"The caribou, as is usually the case when they are in large numbers, were very tame, and on several occasions I found myself right in the middle of a band, with a splendid chance to pick out any that seemed in good condition. . . ."*

Mr. David T. Hanbury, in a new book, says the migrating caribou "arrive in bands of from about a dozen to as many as two hundred. Trotting quickly down to the edge of the river (the Arkilnik River), they take the water without a moment's hesitation. They swim with marvellous speed, almost appear to be trotting, and they keep up a peculiar grunting noise while in the water. The Huskies (Eskimo) wait till they are fairly in mid-stream, then shoot out in their kyaks and surround the band. The spearing then commences. The slaughter is sometimes great.

"The deer show no signs of diminution at present, nor will they so long as the population of the North remains as it is. They exist in hundreds of thousands, it is safe to say millions; and the few hundreds, perhaps thousands, killed by the Huskies are insignificant."

* Sport and Travel in the Northland of Canada, London, 1904.

BOOK II

THE OX FAMILY

XI

THE OX FAMILY

THE *Bovidae* or ox family of the naturalists contains many *genera* and species of the *ungulata* or hoofed quadrupeds. These animals are generally termed the hollow-horned ruminants (*Cavicornia*), the extreme forms being the oxen and the sheep. These are separated widely, but there are many intermediate forms, which are said to make the division into smaller groups a matter of great difficulty.

There are in North America only five of the hollow-horned ruminants which interest sportsmen, and until a very few years ago it was not settled that we had five. While the controversy between the naturalists went on, the most important species, the bison or buffalo, which was by far the most numerous, became practically extinct, and the white goat or mountain-goat, whose existence was disputed within the writer's memory, has become well known to sportsmen and naturalists. The five North American species of the order or family *Bovidae* are :

The Bison, or Buffalo.

The Musk-ox, or Musk-sheep.

The Big-horn, or Mountain-sheep.

The Mountain-goat, or White Goat.

The Prong-horned Antelope, or Prong-buck.

Two of these animals—the first and last named—were, only a few years ago, wonderfully abundant upon the great Western plains. The bison has, as we have observed, become extinct, there being only a small herd of the animals in the National Park, besides those in captivity referred to in the chapter on that animal. The musk-ox is a boreal animal, only known to a few sportsmen, its range being confined to the extreme northern parts of the continent, from the so-called barren grounds of Canada to the Arctic Ocean.

The big-horn and the mountain-goat live on the high mountain-tops of the Western mountains, and a few years ago these animals were regarded as identical by many hunters, although they do not look at all alike. The information concerning the white goat was so scant when I first visited the Rocky Mountains that I doubted its existence, as did many others who visited the same regions. At present, however, we know the natural history of these two animals well; and there are many sportsmen who have killed both. We are indebted to the adventurous sportsmen who climbed the peaks of the Western mountains in pursuit of these animals for much of our information concerning them.

The bison being practically extinct, and the antelope being so nearly exterminated in many places as to be no longer an object of pursuit (its pursuit being prohibited in nearly all of the States by law); the musk-ox being an Arctic animal, and the two remaining species being found now only on high mountain-peaks, it is apparent that the animals of the ox family found in North America are comparatively of little importance to sportsmen.

The flesh of two of the animals, the musk-ox and the white goat, is not very desirable, but the flesh of the big-horn is not surpassed by that of any of our big-game animals.

The goat which we have known for the shortest period of time seems to have held its own the best.

None of these animals are suited to the game-preserve unless the preserve be a large one and located on the ground where the animals are found. The bison, as we have observed, may possibly be excepted, since it seems to thrive in New England parks. The other animals, if they are to be preserved at all, must be protected where they are now found.

In all of the animals of the ox family, excepting the prong-horned antelope, the horns are persistent. The prong-horn, as we shall observe, has new horns every year, which are not, however, like the deer-horns in structure or shape.

XII

THE BISON

SO well established is the word buffalo that the American bison is seldom called by its right name. Although related to the Old-World buffalo, the naturalists have decided that our animal must remain a bison, and the sportsmen, who hereafter will only shoot this animal in the game-preserves, must go "bison"-hunting, if they would speak correctly. The difference between chasing these animals about in an enclosure surrounded by a wire fence and running them on the limitless plains of the West is sufficient, however, to warrant a change of name. The word bison was never used on the Western plains when the writer formed this animal's acquaintance, and we may be excused, therefore, if we get to "buffalo"-hunting before the end of the chapter. Irving furnishes the literary warrant for "buffalo," if one be needed, in "The Adventures of Captain Bonneville" and "The Crayon Miscellany." Within the memory of many sportsmen now living, the bison covered the great plains of North America in numbers which would be beyond the belief of those who did not see them, were it not for the cumulative evidence of many writers of unquestioned veracity, who have described the vast herds as they saw them and furnished statistics of the numbers slain and

the hides shipped. Lewis and Clarke, Captain Bonneville, Colonel Dodge, and others left full descriptions of the immense multitudes of these animals, and many living writers, not least among them William F. Cody, more familiarly known as "Buffalo Bill," have told us of the great herds they saw, and of the number slain by their own guns. An Indian is reported to have said "the country was one robe." When the railways were built across their range, the great herds of bison stopped and even overturned trains of cars. There is a record of one train being held up for three hours to allow a herd to pass in front of it. Colonel Dodge tells us that "trains were thrown from the tracks of the Atchison Pacific Railway by the bison twice in one week." Grinnell says they dashed into rivers and swam against the sides of steamboats. When the buffalo started in a certain direction it was next to impossible to divert them and dangerous to be caught in front of them unmounted. The animals behind crowded upon and pushed those in front, so that the leaders could not stop if they would, and often great numbers of the animals were drowned in streams and lost in quicksands.

All writers complain of the inadequacy of our language to describe the great herds. Captain Bonneville tells us that "as far as the eye could reach, the country seemed absolutely blackened by innumerable herds." No language, he said, could convey an idea of the vast living mass thus presented to his eye. At another time he speaks of plains "absolutely swarming with buffalo," and says, "it was a beautiful sight to see the runners, as they are called, advancing in column at a slow trot until within two hundred and fifty

yards of the herd, then dashing on at full speed, until lost in the immense multitude of buffaloes scouring the plains in every direction." The runners succeeded in driving numbers of the buffalo to an appointed camping-ground, "where they were killed hard by the camp, and the flesh transported thither without difficulty."

In 1869, when the first trans-continental railway was opened for business, the range of the bison was cut in two. The number of the animals was much reduced for a long distance on either side of the track. Soon there was a wide avenue between two vast herds (one to the north and one to the south), where few animals were to be seen, and near the railway they were exterminated. The southern herd, which extended from Kansas and Texas west to the Rocky Mountains, was not long afterward invaded by the Kansas Pacific and the Atchison Pacific Railways, and in a few years the bison ceased to exist in the South. The northern herd held out somewhat longer in the Dakotas and Montana and until the Northern Pacific Railway was built, when the same results followed as in the South. In 1880 the northern road was finished and open for business as far west as Bismarck, Dak., and the bison were still abundant from the Missouri River to the Rocky Mountains. The following year the railway reached the valley of the Yellowstone and the last great slaughter began. In 1883 only a few straggling bands were left, and soon thereafter the buffalo were practically extinct everywhere in the United States. It is no exaggeration to say that billions of animals were slain in less than a score of years. There has never been

BISON IN THE YELLOWSTONE NATIONAL PARK

From a photograph. Copyright, 1902, by the Detroit Photographic Co.

such a slaughter of wild animals anywhere in the world as that which took place between the years 1865 and 1883 on the plains of North America.

The United States Government has recently taken a census of the bison. In 1902 the Senate passed a resolution directing the Secretaries of the Interior and of Agriculture to transmit to the Senate any facts which they possessed with reference to the preservation of these animals, and information as to their increase or decrease. Thereupon the Secretary of the Interior addressed letters to the executives of all the States and Territories and to certain other persons supposed to have some knowledge of the status of the bison, and later, with his letter to the Senate, the secretary sent copies of the replies of the governors of the States and many other persons from whom he had sought information. As was to be expected, most of the governors of the States simply reported: "No buffalo within the State." Some reported one or very small numbers of animals held in captivity in zoological gardens or parks in the cities or with circuses or menageries at their winter quarters.

A summary of the reports indicates that there were in 1902 only 1,143 bison, including both those of full and mixed blood (the latter being animals resulting from a cross with domestic cattle, which are called catalocs). Only seventy-two bison were reported as running wild in the whole United States! Fifty were reported to be in Colorado,* and twenty-two in the Yellowstone National Park. It seemed almost incredible that there were less than one hundred wild buffa-

* These have all been killed.

loes in the land where I had for days at a time seen the vast herds grazing peacefully like cattle on the plains.

The total number of buffaloes in Canada was reported to be 600 (pure blood running wild), and sixty-nine held in captivity. The rest of the world was estimated to have 128 of our bison, all, of course, in captivity.

The figures given are believed to be very accurate. The superintendent of the National Park said there might possibly be thirty animals there, but they had been able to find and count only the number given above. The bison running wild in the United States were reported as rapidly diminishing in numbers, while those being domesticated or in captivity under proper climatic and other conditions appeared to be increasing in numbers. Most of the animals in captivity are owned by persons, firms, or corporations. Some are exported; some killed for their hides or heads, which are valuable.

Much other information of interest to sportsmen was collected by the Secretary of the Interior and appears in the numerous letters from the governors of the States and from those persons interested in breeding and preserving the animals. There is much that is surprising. There are, for example, a number of individuals and firms who own more bison than there are running wild in the entire country. There are many who own more than there are in the National Park. One shooting-club (the Blue Mountain Forest Game Club) has on its game-preserve in New Hampshire about ten times as many bison as were re-

ported to exist in the National Park!* The acting governor of Wyoming reported that there were no buffaloes in the State save in the National Park and such as stray away. During the winter months, he says, many of the park buffaloes leave the park and go principally into the contiguous country in the east and south, known as Jackson's Hole. "While under our State statute," he adds, "it is a felony to kill buffaloes, still the Indians from the Shoshone Reservation, which borders on Jackson's Hole, and some white hunters do kill them. The herd is being rapidly depleted not only from the depredations mentioned, but because of in-breeding and also their confinement, owing to the settlement of the country, to a section not adapted for a winter range."

The governor suggests the infusion of new blood, the removal of the bison during winter to a proper range where food and shelter abound, and finally domestication. The governor of Colorado (the only other State where there were any wild buffaloes) also speaks of the necessity of the infusion of new blood to save the small herds now remaining from extinction. Congress appropriated, in 1902, \$15,000 to establish a herd of buffaloes in the National Park. The reader will find a further reference to this and other matters of especial interest to game-clubs and individual own-

* These, Mr. Corbin informs me, are thriving, and the animals bred in the park show an increase in size over the plains animals. The Hon. John C. Dooly, of Salt Lake, has a beautiful herd of buffalo on Antelope Island. He writes me that his animals are all in fine condition, and adds: "Subsisting as they do on the natural grasses of this intermountain region, and enjoying the most excellent range, they are as symmetrical in appearance and have as beautiful coats as the buffalo that formerly roamed the plains."

ers of game-preserves in the chapter on game clubs, parks, and preserves, and in the Appendix at the end of the volume. We proceed to a description of the bison and a brief mention of the former limits of his distribution and then to the chase as it was when the writer visited these animals on the great plains of the West.

The buffalo is familiar to most readers who have seen the animal in the zoological parks and menageries. Although in size the bison is somewhat similar to domestic cattle, it is quite different in shape and in the color and character of its pelage. Strong and heavy in front, it is much lighter behind. The hump is high and noticeable. The head is large and appears much larger than it is, being covered with thick, shaggy hair, dark brown and sometimes almost black. The head is carried low, and the long beard and hair on the neck and forelegs reaches sometimes to the ground. The general color of the bison is yellowish or grayish brown, some animals being much darker than others. I have shot young bulls which were almost black, and old ones which were a very light or faded brown. The horns are thick, short, and curved. The tail is from eighteen to twenty inches long, and is covered with short hair like that of the hind parts, and at the end there is a tuft of black hair about six inches long, which serves as a brush to keep off the flies and other insects.* When a great bull lowers his shaggy head, elevates his tail, and glances savagely with his brilliant black eyes at his enemy, he is a most formidable

* The buffaloes are fond of rolling on the ground and dusting themselves, and great circular depressions, called "wallows," were made in many places on the plains, and are to be seen to-day, overgrown with grass.

and menacing beast. He is by no means, however, as dangerous as he looks, and is more given to turning and running away than he is to charging. I never regarded the buffalo as nearly so dangerous to approach, even on foot, as the half-wild cattle of the ranches. Colonel Dodge says: "The domestic cattle of Texas, miscalled tame, are fifty times more dangerous to footmen than the fiercest buffalo." The calves, which are born about April, are of a light reddish-yellow color. Their flesh makes good veal, and the liver was often cooked with bacon as the domestic calf-liver is.

The range of the buffalo formerly extended as far east as Virginia and New York and from Canada into Mexico. Within the memory of the present generation, however, they only existed west of the Mississippi. The extermination of the bison was largely brought about by the "skin-hunters," who made a business of following them for their skins, which had a commercial value. There were few sleighs during the period, 1865-85, that were not equipped with one or more buffalo-robcs.

There were also many shooters who pursued the animals simply for sport and killed them in great numbers, often not stopping to take the robe or even the tongue, and leaving many carcasses scattered on the plain. Many wounded animals were permitted to escape and were easily captured by the great bands of wolves which were always to be seen in the vicinity of the herd. Buffalo Bill had a contract with a railway to furnish a large number of the animals' heads, to be used as signs at the railway-stations and at ticket-offices throughout the country. The slaughter of the

bison was a disgraceful performance. No one would have believed it possible to kill so many animals in so short a space of time. Although a heavy animal in appearance, the bison is surprisingly quick, both in arising from the ground and in running away from its enemies. Captain Bonneville first mentioned this, saying: "Such is the quickness with which this animal springs upon his legs, that it is not easy to discover the muscular process by which it is effected. The horse rises first upon his forelegs; and the domestic cow upon her hinder limbs; but the buffalo bounds at once from a couchant to an erect position, with a celerity that baffles the eye. Though from his bulk and rolling gait he does not appear to run with much swiftness, yet it takes a stanch horse to overtake him when at full speed on level ground; and a buffalo cow is still fleeter in her motion." To the captain's accurate description of the gait and speed of this remarkable animal, he might have added the fact that the bison has great staying power and runs at full speed to great distances, so that unless the horse have a good start or be not too far away from the animals when they take the alarm, the chase will prove a long one, and the horse may give out before it is possible to fire a shot. Another remarkable thing which enables the bison to escape is his ability to run down the steepest and most precipitous places at full speed, going over the edges of high hills and racing or sliding down their steep sides, where no horseman would dare follow at a walk, and climbing up similar places with an agility equal to that of a goat. Grinnell says they were almost as active as the mountain-sheep.

Upon one occasion, when I was in full chase after a small herd (a section of a much larger herd which extended for miles), the animals headed for an almost perpendicular cliff, one hundred feet or more in height, which overhung a little river-valley. The surface of the cliff was loose, alkaline earth; no grass grew upon the steep incline; only a few shrubs of the wild sage clung to its sides. Over this cliff the buffaloes plunged headlong and went racing or sliding down to the valley below, kicking up a cloud of dust which almost concealed them from view. I drew rein at the brink, and seeking an easier place, attempted the descent on foot, driving my horse on ahead, since there was great danger of his falling. Sliding slowly down, grasping at every bush, I at length reached the bottom, but the buffaloes were miles away and still going at top speed. It was useless to follow them.

My first buffalo-hunt was somewhat inglorious (I refer to the second day of the hunt, when I killed my first buffalo). I had ample opportunity, however, to learn something of the chase and to study the habits of the animals at very close range. My vantage-ground was much closer, in fact, than I would have selected had the choice been left to me. A showy but unruly cavalry-horse, laboring under much the same excitement as that affecting his rider when we made the charge, was unwilling to keep to the outer edge of the herd and pushed on in among the scattered animals. Before long he dispensed with my services and left me in the grass while he fled onward, kicking viciously at the buffaloes and endeavoring to relieve himself of the saddle.

I was travelling on this occasion up the valley of the

lower Yellowstone. General Miles had sent me the horse, a large, handsome bay animal, on which to make the journey from Fort Buford to his post, Fort Keogh, some two hundred miles up the river. Although not a very bad rider, I knew shortly after we set out on our journey that my mount was likely to make trouble. He began to give exhibitions of spirit, prancing and cavorting about, rearing and kicking, and was hard on the bit, and often ran away with me. The third day out from Fort Buford (we were moving slowly with a company of recruits who marched on foot) I rode away from the valley with two friends (one of whom was a lieutenant in General Miles's regiment, the Fifth Infantry, and who knew the country) to seek the buffaloes, which were reported to be abundant on the plains a few miles north of the river. We soon discovered a large herd. The animals were distributed in bunches and were all headed in one direction and grazing. We approached under cover of a rise in the ground, and stopping behind a somewhat circular knoll or small hill, held a consultation as to the best means of getting nearer. The buffaloes were still a long way off, on an almost level plain. The lieutenant had killed so many that he cared nothing about the shooting and proposed making a long detour and stampeding the animals in our direction so that we could have a good start and be sure of overtaking them. To the right of the hill behind which we were concealed, there was a wide depression (which they call a coulee or draw in the West), and beyond this the plain rose and fell in wide, gentle, grass-covered ridges which extended as far as the eye could reach. The buffaloes were distant

nearly a mile from our position. They were moving slowly away from us, grazing as they went. Taking a shot-gun, which we had brought to shoot some sharp-tailed grouse for dinner, the lieutenant rode away, circling far out to the right in order to keep out of sight of the animals. We dismounted to wait until he arrived in front of the herd and started it in our direction.

It was a very long and exciting wait, but at last the lieutenant appeared beyond the herd. Galloping rapidly forward as he approached the animals, he fired two loads of bird-shot at them. They were now in full flight in our direction. We sprang to our saddles and awaited with beating hearts the opportunity to charge at close range. But before they had covered half the distance between us, there was a mighty sound of rushing hoofs in our rear and close at hand. Turning, we saw another large herd of bison (or most likely a part of the same herd) racing through the draw in our rear, along the sides of its slopes, and out on the plain beyond. It was a short-cut across the little knoll I have described to the nearest animals, the front of the herd. Putting spurs to our horses, we raced up the slope, over the top, and charged down upon the buffaloes. I had carelessly neglected to look to my cinch, and on the up-grade it loosened and my saddle slipped back. Leaning forward, I grasped the mane of the horse, which now, frantic with excitement, galloped, snorting and kicking, past the nearest animals on the slope, before I managed to steer him in the direction of the flight. It was very evident that if I tried to shoot or even released my hold on the mane, I would go over the horse's

head. His hind legs were much of the time in the air. He evidently was displeased at his surroundings and determined to get rid of both rider and saddle.

The saddle continued to slip, and finally turned. Casting my rifle in one direction, I went headlong into the grass in the other. Although I received a severe jolt, I was not hurt, and picking up the rifle, I opened fire on the buffaloes, which were passing at close range. My first few shots were wild. I saw the balls send up the dust as they struck the rising ground far beyond the game. Aiming more carefully and lower, I at length saw one of the animals fall. Another shot tipped the back of a huge bull not over forty yards away and brought the dust from his hide. With remarkable celerity he wheeled about and locked horns with another bull behind him, thinking, no doubt, that the latter had punched him with his horn. A furious fight ensued while other bulls and cows and calves went galloping past. I still had half a beltful of ammunition, and being somewhat cooler after killing the first animal, I fired two well-directed shots in quick succession, and the two fighting bulls fell dead with their heads together. A few more shots brought down another bison and wounded several more which went limping away, and when the last animals had passed I turned to see what was going on in other parts of the field. My friend, the doctor, had dismounted and was firing rapidly, but without much effect, at the tail-end of the procession as it passed him some distance away.

The lieutenant had arrived on the scene some time before, had passed me, ascertained that I was uninjured,

and had galloped away to recover my horse. He was now returning, leading the captured animal. I remounted, having tightened the cinch, and rode over to join the doctor. A wounded bull stood some distance away, and after the doctor had fired several ineffective shots at him I suggested that he mount his horse and that we charge the bull in proper style, giving the doctor the shot. The lieutenant and I rode just behind, acting as an escort ready to despatch the bull, provided the doctor should fall off. This he was most likely to do, since he did not ride well and carried a long and very heavy rifle. As we moved forward, the bull took to his heels, not going very fast, however, on account of the wound in his leg. When we were quite close to him, the doctor raised his rifle as if to shoot, but found it difficult to aim the heavy piece, and resting it across his saddle, he drew a revolver. He had, however, now fallen a little behind, and as he replaced the revolver, preparatory to making a fresh spurt, the weapon was accidentally discharged and the ball struck the doctor in the hip and passed downward through his leg. All thought of the game was at once abandoned. We rode to the doctor's side and asked if he was hurt, while we put out the sparks in his coat and trousers. The doctor, with perfect composure, handed me his rifle, and it was evident that the wild excitement of the sportsman had given way to the cool, deliberate demeanor of the skilled physician. The wound was evidently a bad one. The blood flowed over his shoe, stained the tapadera, and dripped upon the ground. After a hasty examination the doctor issued his first bulletin—the wound was only a bad flesh-

wound—no bones were broken; no artery severed—and at his suggestion we rode slowly away toward the Yellowstone. We did not succeed in rejoining our command until the next day, and, of course, had a bad night out. The following day we sent the doctor in a boat* to the hospital at Fort Buford, and moved on toward Fort Keogh.

Before leaving the field where I killed my first buffalo, I cut off the tails of a number of the animals (including the two bulls which fell while fighting). The officers and scouts were much amused at my trophies, when I displayed them. The cook was disgusted because I did not know enough to keep my score with tongues. The buffalo-tongue is considered a great delicacy, and it was often cut out and saved when the rest of the animal was left for the wolves.

While the buffaloes were most abundant upon the great plains, there were many small herds, containing a few hundred or perhaps a few thousand animals, which ranged up into the little river-valleys in the foot-hills and even into the mountains. One morning when I was riding in the hills just west of the Rosebud River and looking for deer, I heard firing in the valley, and looking down, saw a good herd of buffaloes in full flight headed up the slope and directly toward me. I had dismounted and was drinking from a canteen. Seizing my rifle, I stepped back a few paces behind a small butte or point of the hill on which we were and awaited the oncoming herd. With a great noise of

* A small steamboat which, fortunately, came down the river, bearing the Secretary of the Interior, Carl Schurz, who had been visiting some of the Indian Agencies. The secretary kindly offered to take our wounded to the hospital.

hoofs and in a cloud of dust, the buffaloes soon began to pass but a few feet away, and moving close to my pony,* which was held by an orderly, I picked out a handsome bull, almost black in color, and fired at his shoulder, aiming with both eyes open as I would at a rabbit or flying bird. At the shot the huge animal pitched forward and fell headlong. The shot was fatal. The bull was dead when its head struck the ground. Upon examination I found my ball (which was fired from a Springfield rifle such as the soldiers used) had passed entirely through the bison, breaking his shoulder-blade. The ball, much mushroomed, was held by the hide on the far side, which it pressed outward so as to be quite noticeable. I cut the ball out, and taking the tongue, we rode on. I regretted much that I could not stop and secure the robe, which was the finest I ever saw in color and texture. We desired, however, to be near the command and must keep moving. Our photographer, who had been shooting at the herd in the valley, killed five animals in a short run and ceased firing when they rushed up the steep incline, to ride away and overtake the soldiers, not even stopping for a tongue.

Shortly after I killed the bull, my orderly asked me to kill a calf. A large number of yellow calves of various sizes were passing with their mothers, and I proceeded to shoot at them; they were not easy marks as they bounded along and the range was constantly increasing, since the herd crowded away from us as I fired. After trying a number of shots I handed the

* I found the Indian ponies the best animals on which to run buffaloes. They seemed to enjoy it.

rifle to the soldier and said I would like to see him kill a calf, but he also missed them repeatedly, and at last gave it up. We of course could have mounted our ponies and easily have killed a calf from the saddle, but game was so abundant we cared little about it, and had our shooting-match from the ground.

Somewhat later in the day, while we were still riding in the hills overlooking the Rosebud, I discovered a small herd of buffaloes in a little valley or pocket in the hills. Among them there was an immense bull, much larger than any of the others and by far the largest buffalo I ever saw alive or dead. Since I felt sure we could not be far from our camp, I decided to kill the great animal with a view to procuring the head and robe. Dismounting, I fired. My aim was a trifle high, as is often the case when one is shooting down, and I saw where the ball struck the ground. My second shot was better, but not a good one. The dust flew from the bison's head. As he started off a third shot brought the dust too high on his side, but my fourth shot brought him down. Walking down the grade, I approached the huge beast with the loaded rifle at the ready, although I was quite sure he would not move again. When, however, I was within a few yards, the bull sprang to his feet and charged. I planted a ball squarely in his front and turned and ran. I was shooting the single-shot Springfield rifle. There was not time to load again. The orderly, galloping forward with the ponies, shouted: "He's down again," and I stopped to look about. The huge beast was unable to get up a second time, and soon expired.

At this time I had killed altogether less than a dozen

buffaloes. There was some excitement in riding close up to them on the open plain. I rather enjoyed killing this monster bull, and the good shot at the smaller one as he ran past earlier in the day. But we could not possibly use the meat, not even all the tongues, and the animals were usually killed while on the march and at such times and places that it was impossible to secure the robes. The sport soon became entirely uninteresting and the killing inexcusable. I gave it up, and often carried a double gun to shoot at the grouse and the wild fowl as we jumped them in the grass or from the streams.

Some weeks later, on the lower Yellowstone, I again shot a few buffaloes, more for the entertainment of some ladies with whom I was travelling in an ambulance than because I cared to kill the animals.

By far the easiest way to kill buffaloes was to stalk them when the ground was suitable. When they were feeding on both sides of a little stream with high banks, where there was little or no water, it was an easy matter to get between the sections of the herd by following the dry bed of the stream. Alarming the animals on one side, the others would follow them as they made off, taking the same course, and presenting the easiest kinds of shots as they passed.

I once shot a buffalo at close range on an open plain, which bounded into the air as the ball struck him, and, falling on his head, buried one horn deep in the ground. He was dead when I reached him.

Most persons who have shot buffaloes when they were abundant will agree with me that the chase was exciting enough for a short time, but that one soon tired of

it. It was attended with little difficulty and practically no danger from the quarry at least. The hard riding, like any hard riding, has always an element of danger.* The horse or pony may put his foot in a prairie-dog burrow or other hole. There is the danger of suddenly coming upon some unseen depression or other bad ground, especially when the ground is covered with the tufted shrubs of wild sage.

One day, when we had great difficulty in bringing down our wagons from the Wolf Mountains into the valley of the Tongue River, I decided, while the wagons were coming down, to go in pursuit of a herd which we observed grazing in the valley below. No one cared to accompany me, and I set out alone. I was riding an Indian pony, which seemed thoroughly to enjoy chasing buffaloes. He was one of the best mounts I ever had for this sport. Moving slowly across the plain, which was overgrown with sage-bushes, I kept my eye on the bison, ready to put spurs to the pony as soon as they took the alarm. There was no cover under which I could approach, and I expected the chase to be a long one, since the buffaloes in the neighborhood were used to the guns and exceedingly wild. While I was more than a half-mile away the bison started and went off at a rapid gait. Putting

* That experienced buffalo hunter, Colonel Dodge, says: "I have never known of a man hurt by a buffalo, but have known of six injured by falling horses."

Captain Bonneville tells of an Indian boy killed by a buffalo bull.

Charles Reynolds, the chief of scouts at Fort Smith, told Mr. Grinnell that a wounded cow killed his brother, and there are other records of a chase ending fatally. Such occurrences are, however, extremely uncommon.

the spurs to the pony, I galloped after them. Keeping my eyes far ahead on the game, I let the pony look out for any inequalities or holes in the ground, but before long I saw a wide chasm immediately in front of me. There was no time in which to decide if I should draw rein or attempt the leap. The pony had already decided he could make it, and in a moment we were in the air. The space was far too wide, however, and the pony only reached the far bank with his nose. I went on over his ears and landed safely in the sage-bushes on the loose alkaline earth. The pony dropped out of sight to the bed of a dry creek some eight or ten feet below. As his neck and front struck the bank a cloud of white alkaline dust arose, and those who witnessed the mishap from the camp said there seemed to have been an explosion, a cloud of smoke being in the air, while horse and rider disappeared as if by magic. The shrubs of sage were sufficient to conceal me until I sat up. A number of horsemen galloped out to see what had happened. A soldier dropped into the creek and helped me down one side and up the other, and while he rode away down the creek to find a place where he could get the pony out, I mounted his animal and returned to the camp. I might, of course, easily have broken an arm or even my neck, but was entirely uninjured excepting some scratches from the sage.

There was no more danger in running buffaloes than in fox-hunting; in fact, there was not as much. Serious accidents resulting from a fall were unusual.

It was not a difficult matter for expert horsemen and cattlemen to cut out a few buffaloes from a herd and

drive them to camp before killing them. Colonel Dodge tells of some Mexicans who had a goodly lot of skins in their camp, and who told him all their buffaloes were driven in before they were killed, since it "saved a heap of trouble packing the meat to camp." Grinnell tells of a long run with a companion when they deferred the killing until they reached a trail where their wagon would pass. I had heard of a buffalo being run into a small Western post and chased about the parade ground, and one day when we were travelling down the valley of the Yellowstone I determined to try and take a bison into camp. I had an escort of five soldiers and arranged to place three of them on the right just outside the cotton-woods, which grew along the stream, and two behind as drivers, while I (better mounted than the others) undertook to make good the left and keep our buffalo from getting to the hills. We were to camp at a spring by a little banner-shaped tree, which could be seen for a good distance. I knew the place well, having camped there a few weeks before. It was not long before we found a fine old bull, separated somewhat from the herd, and soon had him going full tilt down the valley. I had ordered the loads withdrawn from the rifles, since I was determined the game should not be killed under any circumstances until it had been driven into or through the camp. The men were instructed, in case of a charge by the bull, to retreat, holding their relative positions, so that the bull would be surrounded at all times, excepting in the direction we desired him to go. At the outset the buffalo ran off at full speed, heading down the valley, and we galloped along at short distances from him, the

men holding well the positions assigned them. We had gone but a mile or two when the bull decided to make for the hills. Putting spurs to my horse, I intercepted him, and waving my hat in his face turned him back, and we then pushed him hard, since I thought he would be easier to handle if thoroughly tired out. After a straightaway race of a few miles he stopped, and turning about lowered his head, erected his tail, and with dilating nostrils and flashing eyes faced his pursuers. He pawed and stamped the ground, and was evidently getting ready for a charge. We all rode slowly forward, closing in about him in a horseshoe formation leaving only one avenue of escape, hoping he would move on again, but, with lowered head, he came charging back, and the wisdom of my orders to the men to keep their positions and not shoot was evident.

The maddened bull drove us for some distance and then stopped. Again he stamped the ground, shook and lowered his head, and tried to make us afraid; but we gathered slowly about him until I was near enough to talk to all my men. I directed them to give the animal a rest, and we sat upon our horses and chatted about his appearance and laughed at the witticisms of one of the men, who made some remarks to the bull about his conduct, etc. The beast was tired and hot and ugly. His tongue hung from his mouth. He seemed too tired to run farther and determined to fight. A number of times he put us all to flight by a charge; but we held him securely between us, and his only avenue of escape was in the direction of the "lone-tree" camp. At length he turned and walked slowly and sullenly down the valley. When rested

sufficiently he again tried running, but did not go very fast and stopped occasionally to turn about and warn us not to approach too near. When we saw the top of the little banner-like tree far away over a rise in the plain, I knew that it would soon be time to push the buffalo at full speed in order to carry him in style over the ridge and through the camp. I could see the top of one of our ambulances near the tree and knew the camp was there. There were, in addition to a number of officers, several ladies in the camp, who were returning to "the States" for the winter, and I looked forward with much pleasure to driving the bull through the camp at full speed. When a short mile away we gave the animal a rest, and when he started to walk we kept well away from him in order that he might go slowly and be rested for the final charge, which I ordered to take place as soon as the bull started up the gentle slope of the hill beyond which the camp was situated. We moved at a fast walk, then at a trot, and as the bull started up the grade we spurred our horses into a gallop, and with loud shouts and waving of hats we encouraged him to do his best as he started to run.

A few hundred yards more and he would be going down grade in the camp. Before the bull reached the top of the ridge, however, two soldiers, who had been given permission to go hunting, appeared, coming over the ridge at a gallop, directly in front of our game. The bull turned to the right and headed for the river. I shouted to the soldiers not to shoot my buffalo, but one of them was already galloping alongside of him, and at the report of his rifle the great beast fell on its

side and expired. I have never been more provoked or disheartened in my life. Tears came to my eyes. Riding into camp I at once reported the misconduct of the soldier, but when I urged an immediate court-martial, and that the trooper be sent off to jail for the rest of his life, the captain only laughed at me and said he was glad his man acted as he did, since all the mules would certainly have been stampeded had the bull made his appearance in camp, and he might have done some damage to his guests, who were sitting about before the tents. This was my last buffalo chase and the old bull was the last wild buffalo I ever saw. I have always regretted his untimely death.

To the Indians the buffalo was "a staff of life." They subsisted largely on the flesh and made houses, robes and clothing out of the skins. I have seen the Indians crossing a river with their women and children in "bull boats," as they are called, made from the buffalo hide. Grinnell says a green hide was used also as a kettle and to make shields that would turn an arrow. The bones were used for implements and sled-runners.

It was a picturesque sight to see the Indians chase the buffalo. I never saw this but once and then at some distance. The Indians did not belong to our party and we did not make our presence known. In fact we stole away silently "like the Arabs." It was a fine sight to see the wild Sioux riding hard after the great throng of animals. They left a cloud of yellow dust, which overhung the plain for miles.

The weapons used in running buffaloes were the rifle, the carbine and large revolvers. The carbine and re-

volver were much easier to handle on a running horse, and hence the better weapons for the run. In still-hunting a heavy repeating rifle was desirable, since some of the shots presented were at long range. Colonel Dodge says: "A bull eighteen months old has been bagged in my presence with a single charge of No. 4 shot. There is a record also of an old hunter bagging seven antelope and a fine dog with one discharge of a huge weapon which he called a shot-gun." Such shots were, however, quite unusual.

The Blue Mountain Forest Association was formed and incorporated by the late Austin Corbin with the idea of keeping his great game preserve in New Hampshire in his family—"a difficult thing to do in this country, where law and sentiment both are opposed to any form of entailment." The association is composed of members of Mr. Corbin's family only. The Blue Mountain Forest Game Club has certain shooting rights for a term of years.

The fine herd of buffaloes, already referred to, is the largest herd in captivity. These animals are the property of the association and are not shot for sport. The association has recently exchanged some bulls with the Canadian Rocky Mountain Park. Our national government would do well to make similar exchanges to prevent too close in-breeding. The small national herd might well be largely increased by purchase from the association.

Mr. Edgell, to whom I am indebted for the pictures of the bison, told me recently that the animals were thriving on the Corbin preserve and showed a satisfactory increase. He and one of the keepers were

recently charged by a cow (which had a young calf) in a way that would have proved disastrous had it not been for a convenient tree. Mr. Austin Corbin, Jr., was recently charged by a female elk and killed it with his revolver in self-defense.

XIII

THE MUSK-OX

THE musk-ox is often called musk-sheep, since it is in some ways more like a sheep than an ox, and is said by the naturalists to be intermediate between these two animals. It is the least known to sportsmen of all North American game animals and few have seen one alive. There is not a single live specimen owned by any of our zoological societies. The New York Zoological Park has had two musk-oxen, both of which died. There are few live specimens in captivity in the world. We are chiefly indebted to the Arctic explorers for our knowledge of the appearance and habits of this animal. A few intrepid sportsmen have visited the Barren Grounds especially to shoot this animal, and two of them, Mr. Warburton Pike and Mr. Casper Whitney, have written fully of this sport. The Arctic explorer, Mr. Frederick Schwatka, also described a musk-ox hunt in the *Century*.

Mr. Hanbury in his new book * says: "The musk-oxen are often absurdly tame. One remained close to us while we were pitching the tent in the evening. As he did not appear disposed to move off I took my camera and approached within about thirty yards

* Sport and Travel in the Northland of Canada, London, 1904.

when I snap-shot him. He remained feeding on the willows, so I went still nearer. He showed no signs of fear, but I did, for I carried no arms. I ascended a small knoll below which he was feeding, and thus got within a few yards of him, and snap-shot him again. I then wished for another shot in a different position, so I threw a piece of rock at him which only produced an angry shake of the head. I threw several other missiles, but he only stood angrily shaking his head, pawing the ground and making a low guttural grunt. I took one more photo, and then retreated, leaving him to finish his evening meal in peace. He remained near our camp all night."

There are two excellent reasons why sportsmen do not care to pursue the musk-ox. First, this animal does not offer much sport, being quite easy to shoot when once it is found, and second, the great journey which must be undertaken into a land which is well-named the Barren Grounds. Besides being easy to shoot, the animal is comparatively worthless when shot. Its flesh is coarse-grained and has a strong flavor, which suggested the names musk-sheep or musk-ox. Whitney describes it as tough and by no means pleasing to the taste, and says that in the rutting season it is uneatable.

Mr. Hornaday, *per contra*, says: "Although this animal is called musk-ox, it has neither the odor nor taste of musk, and its flesh is excellent food. General Greely, Commander Peary and other explorers have feasted on its flesh."

Mr. Hanbury says: "The flesh, in spite of *the strong smell of musk*, is excellent eating, but it is generally

pretty hard and requires much cooking. When the animal is in prime condition and rolling in fat the meat is as tender as English beef. But he is not often found in this condition.”* The difference of opinion is no doubt due to the season of the year when the animals are taken and the state of the Arctic appetite. The eider ducks, which we do not regard as edible, have been pronounced “excellent” by a sportsman in the Arctics.†

Neither the head nor the robe make a very good trophy; they would not be considered desirable were it not for their being uncommon, the musk-ox being the “most inaccessible animal in the whole wide world.” Both sexes have horns. The horns are heavy at the base and curve downward, being recurved toward the ends. The hair is very long and coarse, hanging down nearly to the ground in some specimens. The color is dark brown. The height at the shoulder is a little over four feet. A full-grown animal will weigh as much as 350 pounds. The average weight will probably not exceed 300 pounds.‡

Musk-oxen or sheep are never seen in large herds. Sometimes only a very few animals are seen together. Herds have been observed which contained forty and perhaps more animals. Whitney says the average herd will contain from ten to twenty animals, there being one or two bulls to each herd. The range of the musk-ox is believed to have been formerly circumpolar, but the animals are found to-day only in Arctic North

* Sport and Travel in the Northland of Canada, London, 1904.

† Our Feathered Game, p. 202

‡ The heaviest weighed by Greeley was 432 pounds.

MUSK-OX

America, from about 62° north and west to the Mackenzie River.

The Barren Grounds are described as vast treeless wastes; in summer, swampy for the most part, with many low ridges of broken rock; in winter, snow-covered, but not so deep as to prevent the snow-shoes from catching in many places on the rocks. In winter the thermometer often remains 50 to 60 degrees below zero and a spirit thermometer must be carried if the sportsman desires to know how cold it is. The mercury freezes and is of course useless. There is absolutely no fuel to be had, and a large part of the sportsman's baggage is wood, to be used to make a little fire for cooking his meals. This is transported on sleds drawn by the dogs, which are used to chase the musk-oxen and hold them until the sportsman arrives within range. The camps are cheerless in the extreme. The hardships to be endured are far greater than those which the sportsman undergoes anywhere else in the world. Mr. Whitney made his trip to the Barren Grounds in the winter and described the trip and its hardships at that season in a series of articles which were published in *Harper's Magazine* and which afterward were printed in the book "On Snow-shoes to the Barren Grounds."

In summer the journey is made by canoe, but to secure the game the sportsman must leave the streams and make excursions into the vast marshes, where the mosquitoes and other insects are so numerous and so hungry as to endanger life.

By far the best and safest way to get the musk-ox is either to organize a polar expedition or accompany

such an expedition to the far northern waters, there to live on the ship, making excursions into the haunts of the ox with Eskimos and a sled train, drawn by the Eskimo dogs, which Mr. Whitney thinks are more desirable than the animals he was able to procure when he went in overland from the south. The Eskimos are absolutely necessary as guides to find the game, keep the sportsman from getting lost, and handle the dog trains and the dogs when turned loose for the chase. Although they command good wages and are supposed to accompany the sportsman to aid him in getting a shot at the ox, they are so fond of the chase and so extremely excitable in the presence of game that as soon as the dogs are loosened from the sleds they rush off with them in pursuit of the animals at a gait which usually leaves the sportsman far behind. Such conduct, or, rather, the sportsman's reflections upon it (as he runs along a few miles in the rear, hoping to keep in sight of his servants), should prove to be warming. Mr. Whitney says he perspired freely from the running, but the reader can well imagine there must be some unusually exciting thoughts about the hired hands running far ahead and determined to kill the bulls and the cows without stopping to ask their employer (who goes stumbling along over the rocky ridges, but thinly covered with snow, and falling often) if he would like to see the performance.

Frederick Schwatka advises the holding on to the dog-harness so that the excited animals can drag the sportsman along up and down the ridges at a furious pace, which no Indian could expect to excel, but Whitney says such travelling, on the rocky ridges

where he found the musk-ox, would prove disastrous in the extreme. A powerful field-glass is desirable in hunting the musk-oxen. The distances are tremendous and the animals few and hard to find. Often the Indians return from the hunt without having seen an ox. All shooters who go into the Barren Grounds rely largely upon the caribou for subsistence. Mr. Warburton Pike made a special preliminary trip for these animals, storing his meat in places where he could find it when he afterward went in to shoot the musk-ox.

Schwatka tells us, as I have observed, that the oxen and the caribou can be discovered by a vapor which arises from their bodies and which is visible on a clear day for miles. This can be seen when the animals are scarcely visible, and would most likely pass unnoticed. The Indians are said to be able to tell what the game is (whether caribou or oxen) when they discover the vapor in the air. This is, of course, most remarkable if true.

When the game is discovered an attempt is made to approach it as closely as possible, before it takes the alarm. The dogs are then released from the sleds and race away after the fleeing animals. Musk-oxen travel rapidly and have great endurance, and the chase is often a long one before the animals are brought to bay.

The rifle should be a repeater, carrying a heavy ball. More than one shot is often required to despatch one of these animals, and when once a herd has been overhauled it is usual to kill a number of animals to provide meat for the dogs and Indians. Mr. Whitney carried the .45-90 half-magazine Winchester, an excellent weapon for all big-game shooting.

The animals, when overtaken by the dogs, stop and stand in a circle with their heads out. They look more formidable and ferocious than they are. In fact, but little or no danger is to be feared from the charge even of a wounded animal. Mr. Whitney is of the opinion that they never charge and are quite inoffensive and harmless. With good dogs, he says, every herd met could be easily wiped out.

Frederick Schwatka tells us that the Indians of the Hudson Bay country make winter trips into the musk-ox country from the sea-coast, where they live the greater part of the year. But the musk cattle of the Arctic, he says, "are so sparsely distributed that they form only a small part of the game necessary to furnish these northern nomads with their yearly supplies, and they place very little reliance upon them. The annual musk-ox hunt, however, is looked forward to with much interest, and is long in advance the burden of their conversation, while housed in their little snow huts. It is in the sport and excitement of the chase that they find the greatest reward, and not in the meat secured, nor in the half-worthless robes that are thus obtained. These robes are of almost no value to them unless they be near some trading-station or whale-ships wintering in the ice. To us, however, their huge carcasses were, as food for our three teams of dogs, of great importance compared with that of the reindeer or any other game that we would be likely to fall in with."

Whitney says he never saw a musk-ox charge a dog—much less a man—and doubts if they would do so if pulled by the ear. Schwatka says when the flying

herd has been brought to bay in their circle of defence by the dogs, the Eskimo hunters approach within five or six feet and make sure of every shot that is fired, as a wounded animal is somewhat dangerous and extremely liable to stampede the herd.

The danger that the herd will be stampeded is greater (I am satisfied, after reading many accounts of the assaults made upon these animals by Indian and white hunters) than the danger of their charging their pursuers. There can be no doubt, however, that they do charge the dogs and sometimes kill them. We need go no further than Schwatka's account of the chase, however, to learn that there is no danger in approaching these animals quite closely. He speaks of the "rapid blazing of magazine-guns right in their faces—so close often as to burn their long shaggy hair."

Mr. A. Hyatt Verrill, in an entertaining story, has described a musk-ox hunt from a whaling schooner, which was locked fast in the ice in the northern part of Hudson's Bay. With a party consisting of six squaws and three men he made a hunting trip into the Barren Grounds in pursuit of musk-oxen. They had three large sleds and about thirty dogs. The weather was extremely cold, the spirits being far below zero, and they camped in the little hollows to escape the raging blizzard. He describes the Iwilies, his attendants, as agreeable, jovial people who make the best of everything, and says they are very fond of chasing the musk-ox. Shortly after setting out they met the Barren Grounds caribou and bagged four of these animals. The next few days they bagged only two wolves and three or four foxes. The ptarmigan were, of course,

the only game-birds. One day they secured a large bear which the dogs chased and brought to bay.

As they neared the ground where they expected to find the musk-oxen, they moved forward, carefully approaching the ridges until they found a trail. The dogs were then unleashed, and soon their yelping and howling indicated that the game was in sight. Before long the dogs overtook and held the herd until the hunters approached quite closely, when the animals stampeded, and as they rushed over a near-by ridge the writer fired at the bull and shortly afterward found him lying dead just over the ridge. He describes the shaggy wild creatures as turning and facing the dogs when brought to bay, and using their horns on any dog which ventured too close.

There does not appear to have been any exhibition of ferocity or any charging of the hunters by the oxen. On the contrary, the timid creatures seemed most eager to escape. While engaged with the dogs they did not seem to notice the hunters until they approached quite close; as soon as they were observed, however, the game broke away from the dogs and ran rapidly over the rocky snow-clad ridges.

These accounts give us a fair impression of the musk-ox as a game animal and of the methods of its pursuit. The trip with the Eskimos and dogs has much that is picturesque and interesting, which is offset, however, by much hardship and the danger of travelling in a country where there is but little game, where the thermometer registers 60 and 70 degrees below, and where the wind usually is an icy gale from the Arctic Sea.

For my part, I am quite satisfied to hunt the musk-

oxen on a winter's evening before a library fire in the pages of Mr. Whitney's capital book and in the good accounts of the Arctic explorers.

The sportsman who thinks he needs a musk-ox head and robe of his own killing would do well to move into the Barren Grounds with a good force of Eskimos who know the way and who can conduct him safely back to his base of supplies on the coast. The trip is far more venturesome than that undertaken into Labrador recently by Mr. Leonidas Hubbard, who died from exposure and starvation. However, if some Arctic explorer or whaler extended an invitation to go to the land where the Eskimo chase the musk-ox, many of us, no doubt, would be quite ready to accept and take our chances of returning safely to the ship.

XIV

THE BIG-HORN

THE big-horn, or mountain-sheep, is one of the best of the North American big-game animals. He has a splendid head with large curved horns, which suggested the name, his flesh is excellent, and his pursuit is so difficult as to make him a prize worth having. When I first went to shoot in the Far West the big-horn were not uncommon in the Bad Lands, and I heard of their being seen on the level prairies when passing from one range of hills, or buttes, to another; but this animal, like the elk and deer, has retreated before the advance of civilization, and is to-day found only high up in the mountains, usually above the timber-line in summer, and descending lower into the timber to escape the severe storms of winter.

So long as they remain in their mountain fastnesses the sheep are comparatively safe, since the settlers and miners in the valleys do not care to undertake the long, arduous journey up the mountains, with only a slim chance of securing a sheep in many days' hard climbing; but in the winter, when the animals are driven lower by the snows, many fall to the rifles waiting for them in the hands of the miners and ranchmen.

There are several varieties of wild sheep distributed in the mountains throughout the world. Our big-horn

is one of the best of them, and is said to resemble the argali of Asia.

Mr. Stone regards the mountain-sheep of America as the handsomest of our wild animals. They are, he says, the most perfect combination of strength, hardihood, endurance, agility, beauty and grace. They are most delicate in their tastes. Their home is most picturesque and their food the daintiest. They are timid in the presence of their enemies, but courageous in battling with the many forbidding elements to which their lives in the high mountains are exposed. They range through the greatest depth of latitude of any family of the ruminants on the continent and are instinctively wild. No wild animals are further removed from domestication; they find the most congenial home in the pure air of the wildest mountain countries, and so far all efforts to transplant and domesticate them have been failures.

As animals for the game-preserve they would, therefore, certainly prove to be a failure, unless, of course, the preserve be created to include some of their native mountains in the West. Here again I invite the attention of Western sportsmen to their opportunity to establish parks where the grounds are of little or no value and where they may preserve for their shooting one of the best, if not the best, American game animal, and, at the same time, have the satisfaction of saving it from destruction.*

The time to establish a game-preserve is while the

*A New York club has saved the deer on Long Island and now has hundreds of these animals in an unfenced preserve within fifty miles of the city. See note to chapter on the Virginia deer.

animals are fairly abundant. It would be an expensive matter to restock a preserve with these wild and wary sheep. The animals could be made to show a satisfactory increase by keeping down their enemies, the wolves, the cougars and the eagles, which destroy many of the lambs, and by prohibiting the shooting by a club rule for a period of years and limiting it thereafter to the increase of the year. The time is not far distant when the game in the mountains will be worth far more than the land.

Mr. Stone points out that the territory occupied by the largest of our wild sheep is the best suited to the development of these animals, since they do not experience the long winters known to their relatives farther north, nor do their pastures become dry and parched like those ranged by their relatives in California and Mexico.

It was not until 1884 that a new variety of big-horn was discovered; the white sheep, *ovis dalli*, was named in honor of Professor Dall. This sheep is white throughout the year. It is not so large as the common big-horn; the horns are not so heavy and are lighter in color. The range of this sheep is from Alaska south through the Rocky Mountain regions to the Liard River: and this sheep is said to have "the most northerly range of any sheep in the world" and "the most extensive of any in North America."

The black big-horn was discovered by Mr. Stone, from whom it was named by Dr. Allen, who described it in 1897 as the *ovis stonei*. Mr. Stone regards his sheep as the handsomest of the American wild sheep; they are the darkest, shading from a grayish brown to

BIG HORN OR MOUNTAIN SHEEP

From a photograph owned by G. O. Shields.

almost black. This sub-Arctic sheep is found "throughout the mountains from the headwaters of the Peace and Frazer rivers as far as the source of the Pelley River." Both the white and black big-horns range above the timber line.

Other mountain sheep, since discovered, are: One very similar in pattern to Mr. Stone's sheep, which has been named after Mr. E. W. Nelson of the Death Valley expedition; one named *ovis fannini* by Mr. Hornaday, which is said to have amber-like horns; and one named *mexicanus* by Dr. Merriam, from its habitat. The Mexican sheep is said to be lighter in color than the common every-day big-horn, which we have known so long, and to have ears nearly double in size. Its range is not fully determined.

From the sportsman's point of view these are all mountain-sheep, or big-horns. They are all splendid game animals. They all make fine mutton. The females of all our wild sheep wear horns, which, Mr. Stone says, are very much alike. "They are quite flat, slightly annulated, grow upward and backward and outward to a height rarely exceeding eight inches."

Mr. Stone, who, I believe, has seen more wild big-horn than any sportsman, gives us the following pictures of their haunts and habits:

"The habits of the sheep are very regular and very interesting. I have spent days up in the mountains watching them feed and rest and travel. In winter all ages mingle in large bands of various numbers, according as they are plentiful in any given locality. They will paw the snow from the grass where it is only a

few inches deep, but they usually keep to high tablelands where the winds keep the snow blown off. The character of their coat is such as to give them great protection against cold and storm, and it is rare that the northern herds seek any more protection from the elements than what they find among the cliffs of rock. The *canadensis* are more accustomed to being in timber and often seek the higher belts of timber during storm, and sometimes come down to the very bottom of the canyons.

"The *dalli*, the *stonci*, and the *fannini* simply defy the elements throughout the long Arctic and sub-Arctic winters. Like most animals, they do not feed much during severe storms, and will huddle closely, the little fellows crouching alongside the older ones for warmth and protection, while many of the adult males and stronger animals grow restless, and prowl about, walk the highest ridges, and nibble indifferently at the single spears of grass found peeping through the snow here and there. When the storm breaks they will at once set out to some feeding-ground of which they have a most perfect knowledge. They know their own home, and always know where to look for food, even when it would seem that every foot of their country was buried deep in snow. It not infrequently happens, however, that during storms they remain in some small rocky cave and the winds drift the snow across their only avenue of escape so deeply that they find their way out with difficulty. The old males are always the first to break their way out, and their superior strength is often put to a severe test, but the road made by them is of great advantage to the weaker and younger ani-

mals. During the winter season the older males always lead the way from one feeding-ground to another. . . .

“. . . When the sun grows warm in the spring the old rams leave the general herd and steal into the highest mountains, gradually working their way, as the snow leaves the higher elevations, into the very highest meadows. These are generally small, but numerous, and almost always shut in by rugged peaks, making them very secluded and rendering them almost entirely free from every kind of enemy, even a very large per cent. of the most ambitious big-game hunters. In these high pastures, surrounded with patches of eternal snow and ice that are piled so deep in many places that the short summers cannot destroy them, they live a quiet, peaceful life, and exchange their old coats for new ones. They have their entire new coat by the middle of July, and it is then they begin to take on flesh rapidly. By the last of September they are very fat; in fact, I have seen them in August so fat that they seemed burdened under the great weight of flesh.”

The shooting is thus cleverly described by the same writer:

“I was once with two companions, one a white man and the other an Indian, high up in the Che-on-nee Mountains, N. W. B. C., hunting *ovis stonci*. We reached a very high point about 11 A.M. from where several high ridges extended in several directions. I decided we would take up positions overlooking these ridges and watch for game, and accordingly my party located themselves for the purpose, no two being over one hundred yards apart. We had kept our places

about an hour, and besides being chilled by the high mountain winds, though the sun was really shining warm, I was growing tired of the inactivity. I never had very much patience in waiting for animals to come to me (the great feature of an Indian's hunting), and I was just thinking of abandoning my position when I heard a low whistle, and looking around, saw the Indian beckoning. When I reached him he pointed to a patch of snow almost a mile away, and, taking my glasses, I could see two sheep, one standing and the other lying down on the snow. It was then in the month of August and the Indian remarked: 'Sun warm; big ram heap fat; 'fraid his glease will melt.'

"The two animals soon left the snow and worked their way up the ridge to within a quarter of a mile of us, and again lay down on a patch of snow, where they remained, lying down most of the time for more than three hours. I secured the pair just before sundown, and they were so fat that I concluded the Indian was right; they must have feared the sun would melt their fat."

I have quoted the above paragraphs from Mr. Stone's long and excellent paper, "The Mountain Sheep of America," * since it contains the latest and best information on these animals as they are seen in British America and Alaska.

The habits of the different kinds of big-horn are the same, and the methods of pursuit do not differ in any mountains. It is a long climb, a high climb; often a long wait, and at last, if fortune smiles, there is presented a good chance for a shot, and, if the aim be true, a splendid trophy for the wall.

* *Outing*.

Mr. Stone gives us many other stories of the chase, in which he describes the difficult places where the animals are often found. Once he saw three rams resting on a ledge not more than a foot in width on the face of a perpendicular cliff fully five hundred feet below the top. He ordered his Indians to throw stones at them, knowing they would find some way to reach the top. The first two to appear were missed at long range, but, running forward, Mr. Stone bagged the third animal with the second shot fired at it, at one hundred and fifty yards. But the ram rolled over the face of the cliff down to a little bench some hundreds of feet below, where Mr. Stone and his Indians were compelled to leave it, finding it impossible to get down where the animals came up. They had ropes and worked hard for the ram, since they were badly in need of food, and "that ram represented the only food in sight."

The big-horn has smooth, short hair, more like that of the deer or antelope than of domestic sheep. The color of the *ovis canadensis*, the largest big-horn, is grayish brown. The hair of other species differs much in color, as we have observed. The big-horn is a stout, muscular animal, about three and one-half feet in height at the withers. The legs are trim, well formed, and altogether it has a decidedly graceful appearance when seen standing or bounding along over the rocky heights. It is wonderfully sure-footed and travels at full speed up and down narrow and precipitous ledges where no man would dare follow it, bounds lightly across deep chasms or rushing mountain-streams, and is in every way as well equipped to take good care of itself as any wild game animal in the land.

Like other wild sheep, the big-horn are gregarious. They are like the goats, usually seen in small flocks; often the animals of but one family are together. The big-horn has the agility of the antelope, but little of its curiosity. It has none of the stupidity of its neighbor, the white goat.

Owen Wister says that in many, if not all the places where the wild goats and sheep are found near together, they will not be found on the same hill or mountain. He repeatedly found them living on adjacent hills and mountains, and heard others speak of them as being usually found on separate hills, but could not account for this separation. The food seemed to be equally good on both grounds and all other conditions seemed to be the same, but the goats seemed to claim one ground and the sheep another.

The range of the big-horn is much wider than that of the goats. It is found on the Western mountains, from Alaska and British America to Mexico and southern California; from Colorado and Wyoming to the coast ranges, going down near to the sea-line in the higher latitudes. It was fairly abundant in all the Western mountain States a few years ago, but is not now found anywhere in such large numbers, excepting parts of the British possessions and Alaska, and certain little-frequented spots in our own States. The mountain-sheep does not like a mountain with a town at its base any more than the antelope likes the plains near the cattle and sheep ranches. In many places where he was fairly abundant a few years ago he is not seen to-day. I have referred elsewhere to the fact that the Big Horn Mountains have been "shot out."

Even when the big-horn were most plentiful, the sportsman who desired to shoot them was obliged to climb high and make an arduous journey similar to that made by those who went after the white goats. It required two or three days at least from most of our camps in the mountain valleys to make the trip to the haunts of the sheep, and, since elk and blacktail or mule-deer were abundant and very easy to get, but few of our company went after the big-horn. It was absolutely necessary to travel light, with a few pack animals, and these often proved a nuisance.

The game trails we travelled were often rough and strewn with rocks and fallen trees, which an elk, deer or sheep could bound over easily; but not so our mules with their heavy packs on their backs. These often became entangled in the branches and there were many long delays before the march was resumed.

I saw some magnificent heads, procured, unfortunately, by other rifles, and thoroughly enjoyed the scenery and the mutton, which was, as it always is represented, excellent.

The big-horn is gifted with fine eyesight. He hears well and has a wonderful nose. The walking in many places is most difficult. Loose, broken stones are littered everywhere about, and the slight rattle of any one of them will put a distant big-horn to flight, and when he flies he goes most often at a wonderful pace, along up over some dizzy height or down into some deep ravine or canyon and up the other side, and is soon so far away that it would take another day to follow him. For those who like anything arduous or most difficult, I can recommend the chase of the big-

horn. The chances are all in favor of the game, and the sportsman who at last secures a fine head, with massive, curved horns, has a trophy as valuable, yes, more so, I think, than any to be taken in America.

There is no danger from the animal, as there is sometimes when the grizzly bear is the quarry, but I am inclined to regard the ram's head as representing more than the robe of a great bear.

The journey into the mountains and the camps beside the lakes and streams is delightful. The hard work begins when the higher levels are reached, and one disappointment follows another as the wary animals see, hear or smell their pursuer and go bounding away.

Many stories are told of the animals bounding off of high precipices and alighting on their horns, and the broken horns were said to attest the fact that they did jump so as to alight head down. The rams, however, are great fighters, and the battered horns are the result of fierce encounters during the rutting season. The animals do go bounding down steep and high places, where no man can follow them, but they use their feet as they go and alight on their feet at the bottom of the incline.

XV

THE MOUNTAIN-GOAT

BAILLIEE-GROHMAN refers to the white goat of the Western mountain peaks as the rarest game animal on the North American continent. The statement was correct a little over a score of years ago, when it was made. As we have observed, however, this animal was then regarded as a myth by many sportsmen, and only very few had ever seen one even at long range. Our knowledge of the mountain-goat is quite different to-day. The animal is known to be fairly abundant on a number of mountain ranges from Idaho into British America, and in addition to killing many of them, the sportsmen have made many excellent photographs of the animals, which have been published in the magazines. Mr. Shields has recently given us in *Recreation* a full-page photograph which he made in Canada, showing one of the trails made by these animals, which is worn so deep as to indicate the passage of a great number of goats. Accompanying the picture is another of one of the goat-licks in the Canadian Rockies, to which Mr. Shields says there are many trails leading from the surrounding mountains, which average a foot to two feet in width, and which are in places worn a foot deep in the hard earth.

The Rocky Mountain goat in outline has the form of a pigmy American bison; except in the length and color of its pelage it is clad after the style of the musk-ox.* The average male is thirty-seven inches high and weighs 200 pounds or more.

The Rocky Mountain goat is often called the white goat. It is nowhere abundant in the main chain of the Rocky Mountains, if, indeed, it exists in these mountains at all. Owen Wister tells us we may expect to find white goats as far south as the Saw Tooth Mountains, Idaho, and among the peaks northward from Lake Chelan, the Okanogan and Methow rivers, all three in Washington, and also on many mountains near the coast in British Columbia, and adds if "you climb high and hard enough you are almost sure to find him."

The reason why this animal remained so long unknown to naturalists as well as sportsmen appears when we observe the limited range occupied by the white goat and the great altitudes where he is usually found. So long as elk and deer were abundant in the valleys, the early hunters, who shot for the meat, had no difficulty in getting an abundance lower, and had no occasion to look for it on the dizzy heights far above the timberline. The pioneers were not given to mountain-climbing for sport or to take the view, and in crossing a range always looked for the lowest pass, so that it is not strange that for a long time the white goat was overlooked.

Captain Bonneville mentions the pursuit of two white bears by some of his men. I have always thought

* Hornaday.

MOUNTAIN GOATS

From a photograph owned by G. O. Shields.

these bears were mountain-goats, since there are no white bears in the United States. The "bears" unfortunately got away.

The best places to find the white goats are in the mountains reached by the Great Northern, the Northern and Canadian Pacific Railways. The surveying parties reported them from many places in the Cascade Mountains last year. Of course, the animals are less wild and shy at some distance from the railway, but the majority of sportsmen of my acquaintance who have met them do not agree with the naturalists as to the timidity of the white goat, so often spoken of. It is best to approach these animals from above, since they are said to be on the look-out for danger from below. Owen Wister (who, by the way, did not believe until 1889 there was such a thing as this goat) has had much experience with these animals and says they are far less wary than the mountain-sheep. Their watch, he says, is concentrated upon the approaches from below. All the hunter has to do is to get above him, to make at once for the summit of the ridge which he proposes to hunt, and the unsuspecting creatures will never give him a thought.

"Upon my word for it," he continues, "it is inexcusable to kill him, except for a specimen in a collection, he is so handsome, so harmless, so *stupid*, and in his remoter haunts, where the nature of man is still a closed book to him, he 'thinketh no evil'; he will stand looking at the hunter with a sedate interest in his large deep-brown eyes."

In the vicinity of the goat-licks it is not even necessary to do any hard climbing to get a goat. If a man

is too lazy to climb, Mr. Shields says, he can simply sit down anywhere within rifle-range of the cut bank an hour before sunset, or at daybreak, and pot his goats when they come in to get their supper or breakfast of salt mud.*

The cupidity of these poor brutes, Mr. Shields adds, "has proved the destruction of most of them." The time has evidently been when thousands of goats used the lick he describes, where but a few, perhaps one hundred, use it now. All about there, on the river banks, are remains of old Indian camps, and in each of these is a veritable bone-yard. The Indians have evidently made a practice of going there every summer, for perhaps a hundred years past, killing goats and drying the meat for winter use; yet the poor brutes crave the salt so eagerly that they keep on going back every summer to get more.

In "Our Feathered Game" I referred to the name fool-hen, given the blue grouse of the Rocky Mountains on account of its stupidity. Roosevelt says: "Verily the white goat is the 'fool-hen' among beasts of the chase." He describes shooting a buck at a distance of thirty yards, and says the old she-goat, which ran past, "went off a hundred yards and then deliberately stopped and turned round to gaze at us for a couple of minutes."

As a game animal the white goat is no more desirable than the musk-ox. His flesh has a similar musk flavor, and only the kids are edible. Sportsmen now-

* On the coast of British Columbia, the white goat sometimes descends so near to tidewater that more than one specimen has been shot from a canoe.—*Hornaday*.

adays, however, are not given to shooting the young of game animals and the laws protect them at all times in many States. Neither the head nor the robe makes an especially desirable trophy. Both the musk-ox and the white goat might well be stricken from the list of big game and left to be taken by those who now do their hunting with the camera. The mountains where the white goats are found are far more picturesque and interesting than the Barren Grounds inhabited by the musk-oxen. There is a pleasure in the wild scramble to lofty peaks where the views are sublime. Although I have never killed a goat, I have climbed his mountains to the tops and have seen range after range of bare rocks and snow-clad peaks, which extended as far as the eye could reach, to melt into blue lines at the horizon. I have camped many times beside the crystal Alpine lakes and trout streams which abound in the wild goats' country. There is usually ample opportunity to get a deer or elk in the woods, on the mountain-sides and in the valleys, and there are a number of varieties of the woodland grouse which may be shot often within a few yards of the camp. In many places the mountain-sheep, a far better game animal than the goat, will be found quite near, although not associated with the goat, and the flesh of the former is one of the best known to North American sportsmen.

The sportsman who desires the head of a goat should select a guide, who knows the mountains where the goats live, and travel with a pack train to a good camping-place beside a lake or mountain-brook, well up near the timber-line, or possibly above it. Having selected a mountain or high range, where the goats are

known to dwell, the sportsman sets out at daybreak, or even earlier, and moves to the top of the mountain or ridge. With his glass he looks about until he discovers a flock of the goats feeding below him. The game is not hard to see when on the rocks, but of course is more difficult to locate when standing on the snow. When alarmed, the animals run off up hill or along the ridge, and the sportsman can often intercept them.

A careful stalk will usually bring him within range without the animals taking alarm; they sometimes stand for several shots before running away, and when they start will often run directly toward the shooter if he be above them and fairly well concealed.

On some of the mountains the goats spend much of their time in the timber. Here they make the well-worn trails, such as Mr. Shields photographed for his magazine. Roosevelt says he has killed goats by lying in wait beside the well-trodden trail they make in the timber. "The hard work," he adds, "is to get up to the grounds. Once the animals are spied, there is but little call for the craft of the still-hunter in approaching them. Of all American game the white goat is the least wary and most stupid."

It seems strange, notwithstanding the cumulative evidence of the sportsmen who know best the habits of game animals and are interested in learning if they are easy or difficult to approach, shy or confiding, to read in natural histories that the white goat is "shy."

In some of the natural histories the mountain-goat is described as being seldom disturbed or seen by

hunters, and as being "excessively shy."* As a matter of fact, however, the sportsmen do not speak of it as a very shy animal, and many of them have reported it as quite tame and easy to approach.

All animals, however, grow wilder when they are much hunted, and perhaps it would not be worth while to change the language of the natural histories, since the white goats may decide to live up to it in a very short period of time; that is, of course, if there are any goats left.

The most recent and reliable information on this point we have from the editor, Mr. Shields, in his article in *Recreation*, entitled "Where the White Goats Get Their Salt."

"We were seriously in need of fresh meat," says the editor, "when we arrived at our camp near the lick, and Wright went up there to get a young goat. There was nothing doing at the lick at that time, so he followed the trail up the river, crossed the drift on the same logs the goats used, picked up the trail on the opposite side and followed it up a mountain two or three miles away. There the animals habitually scattered out and roamed in search of the food they needed to carry on their business. Wright climbed to an altitude of about 1,200 feet above the river, when he landed on a sharp ridge, and looking up, saw a band of twenty-two goats, old, young and middle-aged, big, little and

* Mr. Hornaday, *per contra*, is right in referring to it as "phenomenally stupid." Several times goats have approached the camp-fires of explorers, and on one occasion an individual whose "partner" had been shot deliberately sat down dog-like thirty yards away and watched the hunter skin and cook a portion of his mate. In Idaho two miners killed a large mountain-goat with an axe.—*The American Natural History*.

middle-sized. He slipped up to them, picked out a goat that would make a few square meals for us, killed him and brought him to camp. Wright said he could have loaded the pack-train in five minutes if he had been disposed to use his opportunity. At the first shot some of the goats trotted away, but most of them stayed about, or walked toward him and tried to find out if the thing was still loaded. He was within forty feet of some of the big old billies, but had meat enough for present purposes, so did not disturb them. Unfortunately he did not take his camera with him that day."

The writers differ somewhat as to the chances of this animal's escaping extinction. There are two things much in its favor—the undesirable quality of its flesh and hide, and the hard work required to reach its haunts. It is impossible to ride all the way to much of the best goat-ground, and after one is obliged to leave his horse the climbing is often difficult and in places dangerous.

The head and horns are not nearly so handsome or desirable as those of the mountain-sheep, or big-horn. The reader will observe the great difference when looking at the pictures of the animals.

There are many "fool-hens" which are foolish no longer, having learned to know what the sound of the shotgun means, and the white goats will no doubt soon learn to keep out of a man's way when they see him coming with a rifle. After they have been shot at from above a few times, those which survive will, no doubt, learn to expect danger from above as well as from below, and if they become as wild as the antelope and keep always on the look-out for an enemy, run at the

first alarm to the most inaccessible crags, and stop sitting up like "begging dogs" to be shot at, they may, no doubt, remain to ornament the mountain-tops for many years to come. No sportsman, head-hunter or meat-shooter would be likely to go after the white goat in mountains where the big-horn were equally abundant. Both meat-shooters and head-hunters care more for the elk and deer than for the goat. In the mountains inhabited by the white goat there are still some moose, and the sportsman going in or coming out may meet a bear, and can count on getting one in many localities provided he is willing to give a few days to their pursuit and has the dogs.

Roosevelt says this goat is the only game beast of North America which has not decreased in numbers since the arrival of the white man. The reasons given for their holding their own are: that the Indians, who hunted the goat for robes, now get blankets; the early trappers kept to the valleys, and the toil is too great and the flesh too worthless. The same writer regards the chase as laborious rather than exciting, and as less attractive than the pursuit of other game.

The naturalists, as we have observed, had much difficulty in naming and classifying this remarkable animal. Lewis and Clark brought in a skin, or part of one, which had been used by the Indians as a coat or robe, and from this the naturalists began to describe and name the beast. He has been a goat, a sheep, a chamois, an antelope. Nearly all of the time, I believe, he has had four legs and been a ruminant quadruped. I forget if he is just now an antelope or a goat, but can promise the reader that any new thing he may

be up to the time of publication will be found mentioned in the Appendix.

For sportsmen the animal always has been a large, white, goat-like creature, with small, slim, short, curved black horns, like those of the chamois. He has a pelage somewhat like that of the cashmere-goat, the hair being long and fleecy. Owen Wister says the hair hangs long, like that of a Spitz-dog or an Angora cat. The animal, although it has had "thirteen generic names," * I believe, thus far, has not been either a Spitz-dog or an Angora. I would respectfully suggest these names to the naturalists as likely ones when it is thought best to make another change. *Spitzdogoid-Angoracati* would be a lovely name for a change. This would work no serious harm, since the mountain-goat never has been properly named after either Lewis or Clark, and, besides, they only brought in a part of a goat which had been used as a coat.

But to return to the beast the sportsman knows. It has an awkward gait and is often seen sitting up on its haunches like the "begging dog." It is an excellent climber and can readily escape its enemies, chief of which are the wolves. It fights well with its sharp black horns.

In winter the goats are usually driven lower in the mountains by the heavy snows. They are then found browsing in the timber and make the well-defined trails, beside which patches of their hair will be observed in the bushes. The goats are usually seen in small companies or flocks, frequently containing but a single family.

* Baillee-Grohman, in *The Century*.

Some writers say we may find a few of these curious animals in isolated colonies in the high mountains in Wyoming, Colorado and New Mexico. Owen Wister, however, gives the range as extending from Alaska to Montana and Idaho, but only in "spots" in the two States named. Goats are also found, he says, in the northern Cascades in Washington, but not in the Olympic range nor in the southern Cascades in Oregon.

XVI

THE ANTELOPE

SPORTSMEN who wish to see a great variety of antelopes must go to Africa. America has only one—the prong-horned antelope, often called prong-buck.

Our antelope is a trim and graceful animal and surprisingly fast. It is the fleetest game-animal in the land. A few years ago it was wonderfully abundant on the great Western plains, but it is nowhere plentiful to-day, and the naturalists predict its extermination.

Lewis and Clark furnished the first information concerning this animal one hundred years ago. The first technical descriptions were written from the specimen brought by those early explorers of the West.

Popularly the antelope is often regarded as a deer. He has similar slender, graceful legs, and is somewhat similar in color, but he is effectively marked with white on the neck, under-parts, and buttocks, and with dark brown on the muzzle, forehead, and back of the neck. His height is about three feet at the withers. His slender head supports a pair of black, curved, and pronged horns from six to twelve inches long. The form is more like that of the mule-deer than the Virginia. The snag or prong which suggested the names

prong-buck and prong-horned antelope, and the ebony-like color of the horns, are characteristic of the animal. His horns differ from those of the deer in construction, as well as in shape and color. They are more like the horns of cattle. Hence the antelope is placed by the naturalists in the family *Bovidae* or ox family.

All of the deer shed their horns annually. None of the ox family do, except our antelope, which differs in this regard from all the other antelopes in the world. Audubon says the hunters first discovered that the antelopes shed their horns, but we managed to prove the contrary; but in this case Judge Caton says the hunters were right and the naturalists wrong. The structure of the deer's horns is bony, that of the antelope's is a dermal outgrowth. The deer, it is said, "loses a bony outgrowth—a portion of the skeleton—while the antelope parts with a dermal outgrowth."* The antelope differs from the deer in many other ways, but the sportsman, I am aware, is more interested in the head and horns of the antelope, as he sees them on the plains or later on his wall, than he is in the fact that the horns are a dermal outgrowth. We proceed, therefore, at once to the plains, to ascertain where the quarry may be found and how best to procure it, referring the reader to Mr. Grinnell's capital monograph for other matter relating to the natural history and anatomy of this most remarkable animal.†

* Grinnell, in *The Century*.

† Many sportsmen as well as naturalists insist that the antelope should not be shot at any season, since there is great danger of its extermination. To this I say Amen.

My acquaintance with the beautiful, bright-eyed, dark-hoofed, prong-horned antelope began many years ago, when only one railway extended across his plains, and only a few years after that road was opened for business.

It was then a common sight to see from the car-windows the Indian villages, with skin-covered tepees, and many of the Indians themselves, in bright blankets, riding about on their ponies. Many Indians rode on the tops of the freight-cars and sometimes on the platforms of passenger trains. The antelopes were seen shortly after leaving Omaha, on the Nebraska prairies, and as the train passed into Wyoming the antelopes were almost constantly in sight, grazing in bands or racing away with an airy grace most charming to behold.

When near the train, or in motion, the antelopes were easily seen, but when standing still at a distance they were not so noticeable, since their yellowish-red coats harmonized well with the gray-brown tone of the plains. At one of the small stations an Indian joined me on the rear platform of the Pullman car, where I had taken my seat the better to observe the view while I smoked a cigar. The Indian knew but a few English words, among them, however, were "cigars" and "antelope." Upon his saying the former word, I supplied his want, and he often said "antelope" and pointed out animals at a distance which I certainly would not have seen without his calling my attention to them.

The conductor came to the door and said "Tickets," and when I handed him mine he at once handed it

PRONG-HORNED ANTELOPE

back. The Indian looked at the conductor and then at me, and produced from his pocket a well-worn letter, which the conductor glanced at and then gave it to me to read. It was from a barber at a military garrison, and stated that, in the writer's opinion, the bearer was a good Indian, that he claimed to be named Anantoi and to be the son of the Shoshone chief, Washaki. In a postscript the barber added a line advising the reader that the bearer might be as bad as they made them, for all he knew. The Indian evidently prized his testimonial, and probably thought the barber the big medicine-man of his garrison. He had, no doubt, seen him lather and shave the faces of those in authority.

The antelopes often gave us a race, tearing along not far from the train, and putting forth their best efforts when the engineer whistled and increased his speed. On a spurt they could easily outrun us, but the iron horse had, of course, more bottom, and we finally won. Upon one occasion a prong-buck, which had run a good race, dropped back even with the rear platform of the car, and was so near that we could almost touch him. After we passed him, he decided to cross the track, and cleared it at a bound as if afraid of the rails.

Captain Bonneville has given us the following account of the methods used by Indians to capture the antelope :

"In a short space of time the antelopes started from their hiding-places and came bounding from all points into the valley. The riders, now gradually contracting their circle, brought them nearer and nearer to the spot where the senior chief, surrounded by the elders,

male and female, was seated in supervision of the chase. The antelopes, nearly exhausted with fatigue and fright, and bewildered by perpetual whooping, made no effort to break through the ring of hunters, but ran around in small circles, until man, woman, and child beat them down with bludgeons. Such is the nature of that species of antelope-hunting technically called a surround."

Mr. Croker says a four-foot fence is ample to confine antelopes. Judge Caton says the prong-buck cannot, or rather, I should say, does not, know how to leap over high obstructions like animals which inhabit wooded countries.

Judge Caton also states that the prong-buck may be restrained by a fence which would be sufficient to confine our domestic sheep. They can make great horizontal jumps, however, and Judge Caton saw one make a long jump across the track of the Union Pacific Railway. "If the antelope on the plains desires to cross the railroad track, when alarmed by the cars, as is sometimes the case, he will strain every muscle to outrun the train and cross ahead of it, as if he suspected a purpose to cut him off from crossing, and thus many an exciting race has been witnessed between muscle and steam. The same disposition is manifested by the bison, or buffalo, as we call him, and if either is beaten in the race he will turn away to the plains in apparent disgust, but will never cross the track immediately behind the train."*

* This does not agree with the performance of an antelope which I have already described as jumping the track at the rear of our train. The incident illustrates the danger of stating a rule of conduct to be absolute. Later observation often produces exceptions. The antelopes, no doubt, *usually* run away from trains.

The range of the antelope was almost as extended as that of the bison, or buffalo, on the great plains west of the Mississippi Valley, extending to the Rocky Mountains; but the bison, as we have observed, extended into many of the Eastern States, while the antelope was never found east of the Mississippi. Grinnell says the antelope was formerly found all over the plains and among the mountains of the West, wherever the country was adapted to it, from latitude 53° N., south into Mexico, and from about the meridian of 95° west longitude to the Pacific Ocean. All through the great region indicated it was once abundant, and was equally at home on the flat prairies of the Platte River bottom, the broken Bad Lands of Dakota and Montana, or among the rugged foot-hills, sage-brush plateaus, and bald mountain-slopes of the main range.

Being distinctly an inhabitant of the open plains, the antelope can be seen at a great distance, especially when standing against the sky, as he is sure to be whenever he sees an enemy. Although an extremely timid animal, he has one fatal defect of character—his curiosity. In the early days of his acquaintance with sportsmen this often brought him within range of the gun.

With the settling of the valleys and the coming of the cattlemen to the plains there was a great increase in the number of hunters, and it is not to be wondered at that the bands of antelopes were sadly diminished and that in many places they have entirely disappeared. The antelopes held their own very well on the plains so long as there were buffaloes, since the buffaloes were much easier to kill and the robes were valuable. They were usually seen grazing in the vicinity of and among

the buffaloes, and I have often seen a band of antelopes take the alarm first and by their headlong flight set a great herd of buffaloes in motion before I was ready to charge them.

At the railway eating-stations on the plains the waiters said "antelope chops," "antelope steak," etc., in announcing their list of edibles, and, next to the buffalo, the antelope was the most familiar meat. The flesh is excellent, and resembles mutton rather than venison.

As I have said, the antelopes were very plentiful along the line of the Union and Central Pacific Railway in all suitable places for some years after the railway was open for business. As late as 1880, when the Northern Pacific was being built into the upper Missouri and Yellowstone country, I saw the antelopes equally abundant on the wide, undulating grass-plains, on alkaline plains overgrown with the *Artemisia*, or wild-sage, in the little valleys and mountain-meadows, and even rambling through the Bad Lands, those peculiar buttes to which the earlier French-Canadian voyageurs gave the name "*terres mauvaises*."

So long as the Sioux and Cheyennes were a menace to hunters as well as cattlemen, sheepmen, and farmers, the antelopes were safe and showed no decrease, but as soon as the Indians were subjugated and removed from the country to the reservations and agencies and the Northern Pacific Railway crossed the continent, the last great herd of buffaloes disappeared, as we have seen, and soon there were few antelopes, and in large areas none.

Upon revisiting the plains, where I had seen both

buffaloes and antelopes extremely abundant, I found the trails of the former indistinct scars on the plains, overgrown with grass, and even a small herd of antelopes in many places was an unusual sight.

The range of the antelope to-day is very limited. The animals have retreated to small areas, far away from civilization. They are extinct in great States where a few years ago they were most abundant. They were formerly as plentiful in California as anywhere in the country. They were fairly abundant on the prairies of Oregon, but there are few left in those States, and those that remain are protected by law.* The rifles of the miners, ranchmen, and settlers, and the destruction of the food by great flocks of sheep, soon proved too much for the antelopes of California, as well as those of the great plains.

Judge Caton says the antelope appears to endure the presence of civilization in the eastern and southern districts of the range better than the northern and western; although a quarter of a century ago they were more abundant in the open country on the Pacific coast than in any other locality.

The antelope was always a wild and timid animal, but its curiosity so often overcame its fear that it really seemed quite tame at times. Any peculiar and strange object, especially white objects, or objects striking in color, proved irresistibly attractive. There are many records of the antelope coming up within easy range of the white tent of the hunter. Our camp, on one occasion, was in a mountain meadow beside a spring, and late in the afternoon, just as we sat down to din-

* In California at all times.

ner, a pair of antelopes came to the head of a little depression or "draw" which sloped gently down to the spring before our tents. They paused a short distance out of range and gazed at us with the greatest of curiosity, at times approaching a little nearer and again retreating and standing still or impatiently stamping their feet as if deliberating if it would be best to run up close and settle all doubt as to what the strange objects before them were. A soldier of our escort came to the table and asked his captain's permission to go in pursuit of the game, and, his request being granted, he slipped quietly away to the right, going behind a slight rise in the ground.

For some time we could see him moving very cautiously and then he disappeared, and I expected every moment to hear the crack of his rifle and see one of our graceful visitors fall dead. I really was inclined to give the gentle creatures a sign that danger was approaching. The predatory instinct is not nearly so strong when game is abundant, fairly tame, and easy to shoot as it is when it is wild and difficult to approach. The thought of leaving the dinner-table to shoot at these antelopes did not occur to me, and, as I have indicated, I wished that they might escape. Observing them closely, I soon knew they were aware that an enemy was coming. They stood absolutely still and gazed in the direction of our soldier. A moment more and they were sure there was something wrong, and, turning, bounded away with lightning-like rapidity. When the soldier's head appeared they were out of sight.

Upon another occasion I was riding with an officer of the army and two ladies in an ambulance drawn by

four white mules. As we travelled rapidly over the plain, just outside the timber, on the north bank of the Yellowstone River, two antelopes came galloping toward us, stopping occasionally, and then galloping alongside, at some distance, but gradually coming near. General Baldwin told our driver to drive slowly, while he took down a light Winchester, removed the case and loaded it. As we moved slowly, the antelopes came closer and closer, and finally, with a graceful run, came within a few feet of us, gazing with their large, expressive eyes at our mules and again at us. At a shot from the captain one of the animals fell badly wounded and the other scampered off unharmed by the numerous balls sent after it from the repeating rifle. A second shot despatched the wounded animal, which was bleating loudly, much to the distress of the ladies as well as myself. Our driver got down and threw our game in the boot and we drove on down the valley, shortly afterward engaging in the buffalo-run, which I have already described.

The traveller who journeys in the valley of the lower Yellowstone to-day may hardly expect to see a living animal on this same ground.

Our antelope-shooting upon this trip consisted for the most part of shots now and then when on the march or when out after buffaloes or other game. When we went out especially to shoot antelopes we found them difficult to approach. Although they were often overcome by curiosity, and, as I have said, came quite close to examine strange objects, they seemed always aware that we meant them harm when we tried to stalk them, and having once seen us, were wild and wary.

One morning I met a small band as I was riding out from our camp, which came forward fearlessly until within range, when I slipped to the ground and shot one before they had decided that I was dangerous.

The best and by far the showiest rifle-shot I ever saw was made by my friend, Major Tillson, from a running horse, at an antelope running at his best gait. We were riding somewhat in advance of the command one day, and met three antelopes which were coming toward us and stopped within long range to inspect us. Slipping off our horses, we fired, and one antelope fell, while the others, with the speed of the wind, went off for the hills, quartering to the right and a little toward us. We mounted our horses to ride to our fallen quarry. The antelope was only wounded, however, and sprang to its feet and ran off, taking the direction taken by the others, since antelopes, like sheep, always follow a lead. The major, putting spurs to his horse, raced off to the right toward the point which he knew the antelope would pass. The swift animal fairly flew over the ground, and as it passed well ahead of my friend he dropped his reins and fired. The antelope, pitching over and over like a rabbit, fell dead at the shot, and the galloping horse immediately brought its rider up to it.

Upon several occasions I had shots at antelopes in the hills, or bad lands, where they could not see me, and patiently stood for more than one shot; on one occasion, while I indulged in some very bad shooting. They, of course, heard the noise, but did not know from what direction it came. I was firing down from the

top of a butte, or rather from the top of a little ridge which connected two buttes. I could see where my shots struck each time. I was overshooting, and after giving me three or four chances the antelopes scampered away, and turning the angle of a butte were soon out of sight.

I have seen the wild-sage bushes, where they grew in great fields, tall enough to conceal an antelope or give the sportsman a fine opportunity to stalk the game, but the sage-bushes are more often low, and the antelopes prefer the wide, undulating plains, where they can see great distances. The white markings on the antelopes are easily seen when the animals are near, and attract the eye often at long range when they are moving about feeding.

One who has not seen and travelled the great plains can hardly realize their immensity. Beginning far to the north in the British possessions, they extend southward in vast undulating waves like a mighty ocean. In some places there are level stretches for hundreds of miles like the sea in a calm. Again there are great swells like waves, or the ground is broken, as if huge waves had been arrested as they tumbled, and ragged, precipitous banks, buttes, or bad lands appear with surfaces much wrinkled by erosion, and in some places handsomely decorated with conglomerate layers or layers of different colors, which run for miles and miles in and out of ranges of hills which are so bewildering in number as to be dangerous to the traveller who ventures among them. There was a time when the antelopes were to be seen everywhere on these plains, from the British possessions to Texas and west to California

and Oregon, lending animation to the scene. As we have observed, they are seldom seen on the plains to-day.

A familiar method of taking antelopes was "flagging" them, as it was called. A handkerchief or other object was placed on a stick and quietly moved about on the summit of a ridge, the gunner, of course, being concealed in the grass or behind some elevation. The curious creatures could not resist approaching within range to see what the strange object was, and many were slain in this way. The hunters learned to "flag" antelopes from the Indians, who brought them within range by exhibiting a piece of tanned skin, colored red or white.

Grinnell says: "A tent or wagon would so puzzle a near-by antelope that it would walk up close to the strange object to discover what it was. On a number of occasions I have killed antelopes from the camp, and again while stopping in the middle of the day to cook a little food have had them come to the hill-top, look for a time, and then gallop toward me, until finally I killed one within forty yards of the fire over which the coffee-pot was boiling." Grinnell once walked up to within one hundred yards of two buck antelopes and shot one, but says he believed the antelopes, which were looking directly at the sun, had no idea what sort of an animal it was that was approaching, and were ignorant as to whether it was man, cow, or elk.

The antelopes were sometimes taken with hounds, and this coursing over the limitless, fenceless plains was magnificent sport indeed. Sportsmen to-day, however, have only one method of pursuit—stalking or still-hunting, the most difficult of all methods of

taking game, but the one recognized as most sportsmanlike. The use of dogs has almost everywhere been prohibited by law.

Stalking was, I have observed, difficult, even where the antelopes were abundant and fairly tame. If they did not come to the hunter, by reason of their curiosity overcoming their fear, and he set out to follow them, it was next to impossible to get within range, provided they discovered the hunter before, or at the same time, he saw them. They seemed to realize the danger, and ran off at once to the top of a ridge, where they surveyed their enemy for a time, and then ran with marvellous speed to another ridge or hill, always keeping the hunter in sight, moving when he moved and remaining always far out of range. All hunters are agreed that the best thing to be done in such cases is to at once admit defeat, give up the game, remount and ride away to other ground to seek other animals and endeavor to get sight of them before being discovered. A good glass here is of great assistance. The sportsman rides slowly about on the ridges, stopping now and then to examine the country, and going up all grades with great care, so that he may peep over and survey intervening valleys and depressions and examine the ridges beyond without being himself observed.

When the game is discovered the approach is carefully planned, so as to take advantage of the wind and any cover there may be. The antelopes see well, hear well, and, like the deer, they have the most remarkable sense of smell, and it is idle to attempt to get near them going down wind. If, from the nature of

the ground, it is impossible to approach the game under cover, nothing remains but to wait until the game moves, taking care not to alarm it. If it is feeding toward higher ground or cover of any kind, such as a patch of sage-bushes, a ravine or draw, or, better yet, the bed of some water-course, many of which are dry, excepting in rainy seasons, the sportsman makes a long detour and gets in a position where the game, if it holds its course as it walks along feeding, will come within range of his rifle. It is exciting sport with a glass to watch a prong-buck or band of antelopes approaching, but it requires much patience. If the game moves too slow or stops out of range, the experiment of flagging it may be tried, but the antelope of to-day is a different beast from the antelope of a few years ago. He has gained experience with the years, which has become, no doubt, a matter of heredity. He takes the alarm easily, and flagging will, I am satisfied, more often fail than be successful. When the game is discovered near good cover, such as a ridge or depression, the approach is a simple matter. The utmost care must be taken not to make any noise, not to be seen, and, most important of all, not to be smelt. Go slowly. As a rule there is no hurry. The grazing animals will usually remain about where they have been discovered long enough to enable the hunter to get within range.

The riding on the vast plains in the autumn is delightful. The camps, however, are not so picturesque as the deer, elk, or moose camps, being often by a little spring or water-hole far from the timber. At the edge of the range, however, the camp may be made in the forest

beside a trout-brook, but the antelopes will be found, always, well out from the woods.* If the hunters drive these animals toward the woods, it is said they will turn about and endeavor to escape by rushing past their pursuers rather than enter the woods.

The approach to an animal is best made when it is feeding. When it stops feeding it is best, as we have observed in deer-stalking, for the hunter to remain absolutely still until the feeding begins again, when he may move slowly forward. Antelopes do not readily see an object at rest if it be in tone with the surroundings.

The canvas or corduroy clothes of the hunter harmonize well with the grass, and so long as he is absolutely motionless, there is little danger of his giving alarm. The same thing is true of birds as well as large game. In "Our Feathered Game" I referred to the wild ducks coming to a pond and sitting on the water quite close to me, when I was but partially concealed. So long as I remained motionless the ducks swam about seeking food, and tipped and preened and were completely at their ease, but so soon as I made the slightest motion with one hand, they all sprang into the air and flew away in great alarm.

The wolves and cougars are enemies of the antelope and the eagle often gets the kids and has been known to kill a full-grown animal.†

* *Contra*—See statement of Roosevelt, *infra*, p. 249. I have never seen the antelopes in the woods. They have been so much persecuted in the open, however, that I am not surprised to learn that sometimes they have taken to the woods.

† *Recreation* published the story of an eye-witness to the killing of a full-grown antelope by an eagle.

The prong-bucks fight until the stronger drives the weaker away and sometimes pursues him for a distance. Mr. Seton, at a recent dinner of the Camp-fire Club, told an interesting story of an encounter which he and a friend witnessed. The vanquished animal ran directly toward them and stopped near enough for them to take him with the lariat had they so desired. An eagle was flying on behind, but did not come within range. The victorious buck stopped some distance away.

The coursing of antelopes with a good pack of greyhounds and stag-hounds on the open plains was the best sport offered to the officers stationed at the military garrisons of the Far West. I had a fine run one day on the plains not far from Denver. I had been up to visit and shoot ducks with an old college friend, a ranchman, who lived north of Denver. Passing through Denver upon my return, I met a college classmate who was afterward Governor of Colorado. I had not seen him for years, and he insisted upon my remaining over for an antelope-hunt which he had planned for the next day. He secured a good horse for me, and very early in the morning a number of ladies and gentlemen assembled, and with a fine pack, including many handsome greyhounds and stag-hounds, we rode out on the plains. At about ten o'clock we discovered a small band of antelopes feeding in a little valley a long way off. The dogs were taken from the wagons, and their handlers manœuvred so as to approach the quarry within a half-mile under cover of a rise in the plain. We rode slowly behind. It was an exciting moment as we sat upon our horses until the dogs were lined up.

When they were released they went off, well together, with wonderful speed down the slight grade, and we rode after them at a gallop. The antelopes took the alarm when the dogs started, and it was a long chase before the dogs got near them. As they curved to the right or left the dogs took the short cut across, and in this way gained sometimes, but only to fall behind again when the quarry went straight away. After we had gone several miles the antelopes made a curve to the right, and two smart old dogs left the pack, cut across the intervening space, and soon were well up with the game. We put spurs to the horses and urged them to move faster as we saw one of the dogs make a spring at an antelope's throat. He missed, however, and fell to the ground. The other was but a few feet behind and did his best to get into a position where he could seize an antelope, but the beasts were running for their lives, and for another mile or more the dogs did not seem to gain a foot. A wolf jumped in the grass, crossed ahead of me with a part of our pack at his heels, and as they passed quite near and the antelopes were by this time very far away, I followed the wolf, hoping to see the dogs overtake him. It had begun to snow heavily (it was the last week in November), and with the blinding snow in my face I pushed on until the chase led through a prairie-dog village, a most dangerous ground for hard riding, and I drew rein among the squeaking dogs as a little owl flapped almost into my saddle. The dogs and wolf were out of sight, and as I looked back I discovered that I was entirely alone. It was impossible to see any distance. The plain and sky were blended

into a gray mass but a few yards away in all directions.

Having turned my horse to look about, I lost my direction and had no idea from what point I had travelled or where to go. It was getting very cold. The situation was alarming. I knew I could not remain out on the plains and must try and rejoin my friends. But where were they? I started to ride slowly forward and listened to hear any sound. The silence was appalling. A dog slipped past ahead of me and I tried to follow him, but in a few moments he was lost in the snow. Another dog came to my side, but immediately started to leave me. I spoke to him sharply and he fortunately stopped, and when he started on again I followed him, speaking to him repeatedly. How much smarter that beast is than I, I thought, and held on to him for my deliverance. So long as I could keep him in sight I felt that I was safe. I knew he would rejoin the others, or at least go home. He was a stranger, however, and I feared that he would desert me at any moment. A few bounds would take him out of sight. At length, after a long ride, I saw the blurred forms of two horsemen, and as the dog bounded forward I followed him and was greeted by my friend, who had been much alarmed for my safety. They had given up the chase when it began to snow, but my friend had seen me take after the wolf and had been trying to find me in the storm. He fortunately was familiar with the country, and we returned safely to Denver.

Although the antelopes are the fleetest game animals in North America and are fast enough sometimes to

escape the best dogs, my Colorado friend told me it was unusual for them to return without an antelope when they went coursing, and Grinnell says General Stanley's dog Gibbon in 1873, caught, unaided, twenty-one antelopes. The antelope is short-winded and cannot long maintain its speed.

The side-shot at an antelope, as at other game, is the best. Grinnell, who knows an antelope inside as well as out, says: "Aim at the little curl of hair just back of the elbow, as in most herbivores the heart in the antelope is low and usually the creature drops to a well-directed ball; at the same time I have seen an antelope run four hundred yards with its heart torn to pieces."

The antelope will sometimes not observe a sportsman who steps out of a wagon, and while the animal is engaged in watching the moving vehicle it may the more easily be approached—behind good cover, of course. If two horsemen are together, one may slip off while the other proceeds leading his horse, but the antelope of to-day is a remarkably smart animal and such manœuvres are more likely to fail than to succeed.

Judge Caton kept antelopes in domestication in his park in Illinois, but they did not thrive and they have not done very well anywhere, I believe, in zoological gardens or parks east of the Mississippi at least.* The opinion of Judge Caton is that the antelope will never do well away from its native grounds. It may be that

* Mr. E. C. Mallory, of Buffalo Centre, Iowa, tried raising antelopes in captivity, and a short time ago had "a very fine bunch." In a letter to the writer he says the "antelope business was not very successful. They seemed at the age of eighteen months to lose their health." They died so rapidly that Mr. Mallory says the "wind seemed to get away with them."

it requires a larger area than it has been given in most parks, or that the ground was too damp and not high enough when the experiment of domesticating it has been tried to the eastward of the Mississippi.

In the late summer, autumn, and winter antelopes are seen in bands. In the spring the does separate from the bucks, the young bucks and young does, and in secluded places bring forth their young, two kids at a birth. These are not spotted like the young of the deer. When wolves attack the kids the mother will fight to protect them, striking powerful blows with her feet. A single wolf cannot hope to succeed, but a pack often proves too much for the mother as well as the young, and a few wolves hunting together and running an old buck will tire him out and finally despatch him. Their method of hunting on the open plain is ingenious. Some chase the animal about while others rest; these get in front of him when he makes a wide circle and relieve those tired out by pursuit, until finally the quarry, thoroughly tired out and distressed, can go no farther, when his savage enemies seize and devour him.

A band of antelopes is usually attached to a particular neighborhood and may be found from day to day within an area of a few miles. The hunters, having found a band, know where to look for it again, and having failed to approach it for any reason, they correct the error upon a second visit. The animals can, of course, be seen at a great distance with a powerful glass, and when once located, as we have observed, they may be stalked provided they have not discovered the hunter.

The rutting season is September and the early part

of October. The bucks at this season may often be seen fighting, but they do not often injure each other much in the fight, the weaker taking to his heels when he is vanquished.

It is with feelings of regret and sorrow that I think of the great plains, as I have observed them more recently, almost everywhere deserted so far as wild-animal life is concerned. The range of the antelope, which, as we have seen, was a few years ago estimated not by hundreds but by thousands of miles, is to-day restricted to comparatively small areas, where the animals are not nearly so plentiful as they were when I first visited them. They would have been truly exterminated had it not been for the passage of laws protecting them at all times in some States and limiting the shooting to short seasons and small bags of male animals only in others.

The antelopes are only to be seen to-day in parts of the following States: Texas, Kansas, New Mexico, Colorado, Wyoming, Montana, Utah, Nevada, Idaho, California and Oregon.*

In some places the antelopes have taken to the hills, and, Roosevelt says, even resort to the timber in their endeavor to escape. It is to be hoped that they will be saved from extermination in the Yellowstone Park and other national and private preserves in the West, where the ground is more suited to them than that of the Yellowstone Park.

* The antelope is protected at all times in Montana, Utah and California. In Texas, New Mexico and Colorado it is protected for a period of years.

BOOK III
THE BEAR FAMILY

XVII

THE BEAR FAMILY

THE bear family, the *Ursidæ* of the naturalists, contains about fifteen species—the naturalists do not agree upon the number, and sportsmen here, contrary to the general rule, count rather more than the naturalists, since the same bear is known by different names in different localities. It is now well settled that we have four bears in North America, or at least one-fourth of all the bears of the world.

Our bears include the most ferocious and formidable bear in the world, the grizzly bear; the largest bear in the world, the big brown bear; the polar or white Arctic bear, and the common black bear, often called brown bear.

The bears, as their fur coats indicate, are northern animals and are said to be Polar rather than Equatorial in their distribution. Two of the bears named above are only found in the far North; the range of the grizzly and black bears extends as far south as Mexico.

The bears are the only North American game-animals, excepting the cougar and wildcat, which are ferocious. The deer, however, as we have seen, when wounded are often ugly customers. The ferocity of our bears has been exaggerated greatly. They are seldom the aggressors, but fight furiously when cornered or in defence of their young.

The bears are not as fierce and formidable as the tiger, the lion, and the jaguar, found in tropical or semi-tropical countries, the grizzly bear excepted. Our cougar or mountain lion, which is found from New York State to northern South America, is said to be more fierce and dangerous and destructive to cattle in the South than in the North. It is there also more abundant.

Although regarded as ferocious and dangerous, all the bears are inclined to run away and escape, and seldom attack a man unless wounded or suddenly cornered. The only bear which is really very dangerous when in such situations is the grizzly bear. Instances where the smaller black bears have killed or injured a person are comparatively uncommon. I know a man who, going to the assistance of his dog, attacked and killed a large black bear with his pen-knife. The black bears have killed many dogs, as we shall observe in the chapter on these animals.

All bears will fight to defend their young from man or other enemies, and then exhibit much courage. Their method of fighting is peculiar and consists in rising up on their hind legs and striking with their powerful claws. The statement, often made, that they embrace or hug their enemy is disputed.

The bears are classed by the naturalists as carnivorous animals, but they eat such a great variety of food that they may be said to be nearly omnivorous, excepting the polar bear, which cannot procure a great variety in the frozen North-land where it lives. The grizzly and the common black bear are very fond of vegetables, roots, insects, honey, and fish.

In the northern and colder portions of their range the grizzly and black bears become dormant in the winter and are said to "hibernate." Retiring to some cave, depression, or hollow tree, the bears sleep without taking food for long periods, and are at such seasons safe from harm. If they remained out after the ground became covered with snow, they could be followed easily by their tracks, which are large and noticeable. After an early snow, the hunters often find the tracks of bears which have not yet "holed" for the winter, and easily follow them.

Bears are said to be plantigrade animals; that is, animals which walk with the whole sole of the foot on the ground. Their tracks are easily discovered along the margins of streams and on soft ground; and as they pass through the woods they leave other unmistakable signs of their presence by scratching the trees and overturning logs and stumps in their search for insects. Their tracks on the ground resemble somewhat those made by the hand, and are easily recognized when once they have been seen.

The bears are affectionate and playful. The deer, as we have observed, do not exhibit much affection. Many of the deer are polygamous, and the male moose is said to often destroy its own young. The bears, however, seem fond of each other and of their young, and are often seen playing with their cubs. Many pretty stories of the bear's affection for its mate or young, shown even after death, are to be found in the bear biographies.

By far the greater number of bears killed are killed by woodsmen and trappers, most of the animals being

caught in a trap or deadfall of some kind before they are despatched. The sportsmen who have killed a bear are comparatively few in number, and the game has usually been killed unexpectedly when the shooter was in the woods after other game. Bear-hunting is more common in the South and West than in the northern and eastern parts of the country. But few bears remain in the mountains and forests of the Northern and Eastern States. Those that are found in New England, New York, and Pennsylvania are the common black bears, and in most places they have been much pursued and have become so wise and cunning as to be seldom seen.

The traps used for taking bears are the steel traps and deadfalls. I have recently seen it stated that many are taken in a trap made of a keg with nails driven through from the outside at an angle, the points downward or toward the bottom of the keg. This is usually baited with honey or molasses, and the bear who puts his head in is caught by the nails when he attempts to withdraw it. Sportsmen, however, are not interested in traps except to destroy them. A bear killed after it is trapped is not recognized by the Boone and Crockett Club as being killed in "fair chase," but, as Mr. George Cahoon says: "To the bear the trap is more fatal than the rifle."

XVIII

THE GRIZZLY BEAR

IN North America there are only two game-animals whose pursuit may be said to be attended with much danger—the grizzly bear and the Arctic or polar bear. The huge grizzly bear, technically *Ursus horribilis*, is undoubtedly entitled to rank first in ferocity among the bears of the world. Ever since Lewis and Clark discovered him he has been known as an extremely dangerous beast, and countless stories have been written of encounters which resulted disastrously for the hunter. Roosevelt, however, has pointed out the fact that he was far more dangerous in the days when small-bore, muzzle-loading rifles, carrying a light ball, were used than he is to-day. If the first shot at close range did not stop the bear, there was no time to reload the old-fashioned rifle if the wounded bear charged; and the hunter had to resort to his knife in a hand-to-hand fight, and the great beast was often able to finish him with one blow of his large and powerful claws. There are many records of wounded bears killing persons. There are records of a single blow proving fatal.

In a valuable paper, "Grizzly Bear Lore," Mr. Henry G. Tinsley says:

"In the old days of the Spanish occupation of Cali-

fornia, a common amusement on fête-days was a fight between a grizzly bear and a bull. Old-time residents, who witnessed the barbarous contests, say that the grizzly came off victor. Some bears have despatched five and six bulls in an afternoon. The maddened bear would always rise upon his hind legs as the attacking, bellowing bull, with head lowered, came prancing toward the grizzly. The bear would await the attack, then at a favorable moment, quick as a flash it would deal the bull a staggering blow between the eyes. This blow was sometimes so powerful that the bull dropped dead with a crushed skull. Anyhow, the blow from the bear's paw was always so heavy that the bull was groggy for a few minutes and stumbled on its forelegs. Meanwhile the grizzly would cling to the bull, striking its razor-like claws deep into the bovine flesh, while it bit and chewed the bull to death. At some of these Spanish contests bears have broken bulls' legs as if they were pine sticks.

“‘The best illustration I ever knew of a grizzly's powerful forearms and quickness of motion occurred at a bear-and-bull fight in San Gabriel, Cal., in the early forties,’ said Señor Don Aguilar recently. ‘In the excitement of the mortal fight between the beasts, a man accidentally fell over the railing to the floor of the pen below. In a second the big hulking bear dived from the bull straight at the man, striking one paw at his head. The man was literally and instantly scalped, and in a second more the grizzly had torn the man into a horrible mass.’”

However bad the bear of some years ago may have been, I am satisfied from what I have seen of the

A GRIZZLY BEAR

From a stereograph. Copyright, 1964, by Underwood and Underwood.

grizzly, and from what I have learned from others, that this animal to-day has a wholesome fear of man, having learned that he is more than an equal match when armed with a heavy magazine-rifle, and unwounded bears will certainly try to escape, slipping quietly away as soon as they see, hear, or smell the enemy.

I was once riding with an orderly on a natural terrace just above the valley of a little stream which issues from the Big Horn Mountains. From our elevated position on the plain we could look down into the valley some twenty-five or thirty feet below. We had ridden out from camp expecting to shoot a deer, and moved slowly along the plain a little distance back or away from the terrace where the plain dropped into the valley. From time to time we rode near, and peeped over into the river-bottom, which was partly overgrown with berry-bushes in little clearings, and in other places heavily timbered. I was riding on the inside, or nearer the valley, in order to take the shot. We had not gone over a mile from our camp when, upon approaching the terrace, I saw immediately below me one of the largest grizzly bears I ever beheld.

He was sitting up in a patch of wild gooseberry bushes, eating the fruit. He growled as soon as he saw us like a dog with a bone, and my pony fairly stood up with fright, and as he wheeled about, desiring to run, he jumped sidewise against the soldier's pony, and one of my feet went through the loop of the lariat hanging at his pommel. The other pony was also much terrified and turned about in his endeavor to escape from the

bear, and my leg was pulled and twisted in such a way that I feared it would break. I had started to raise my rifle, but shooting was now out of the question and my only thought was to extricate my leg, and I urged the orderly to hold his pony alongside while I attempted to untwist the lariat. We whirled around several times on the edge of the terrace and at one time came near going down into the valley. The bear sat up for some moments but did not offer to charge us, and before I could shoot he had dropped on all fours and moved slowly away through the bushes, and was soon out of sight in the woods. When at length I had freed my foot, I cantered forward some distance along the edge of the terrace and then descended into the woods and moved cautiously forward to meet the bear. The soldier strongly advised against our proceeding into the woods. It was wet, muddy, and slippery underfoot, and vines hung from the trees overhead. I was riding without a saddle, since I expected to go only a short distance from camp. It was evident that if the bear charged there was great danger of my being dismounted or of the pony slipping and falling, and when it occurred to me that it would be impossible to shoot from the back of the terrified animal, I decided to give the bear up, for that day at least, and try for him again when I at least had some stirrups to assist me in keeping my seat. We had pushed through the woods nearly to the point where the bear entered them, and I was satisfied, when I thought the matter over later, that although he did not appear much afraid of us and was not inclined to give up his berries, he evidently must have heard us coming and sought safety in flight.

Upon several other occasions when fishing I passed very close to bears and often found their tracks numerous in the soft earth when I was out with a gun after grouse. One day when the bear-tracks were very numerous I decided that I would try and cut a bear's throat at short range with a load of bird-shot. I was a good many years younger than I now am and believe I should have attempted the performance had I met a bear that day (having once killed a fox with very fine shot by shooting him in the neck at close range, and having read of the buffalo being killed with a load of No. 4), but I have no doubt it is just as well that I did not meet a bear after having decided to experiment with a shotgun. The shotgun, however, is a formidable weapon at very close range, and I believe two heavy charges of shot would come near to stopping any bear provided the shots were fired at just the right time. It would require an immense amount of coolness, however. There is no animal which has a greater tenacity of life than the grizzly bear, and he often keeps coming even after he is mortally wounded. It was often provoking, however, to see bears or other large game when out with a rod or after birds with a gun, and I often returned to camp to exchange weapons.

Roosevelt, who visited the Big Horn Mountains a few years after I was there, had very good luck with the bears. In the account of his trip which he wrote for *The Century* he describes killing a number of grizzlies, the first one of which was killed instantly with a single shot from a .45-75 Winchester. Although they came suddenly upon the bear, he did not offer to charge, but simply reared up on his haunches and then dropped

down again on all fours, "the shaggy hair seeming to bristle" as he turned toward the sportsmen. In the same article we are told (something that I did not know before) that the name of this bear has reference to its character and not to its color, and should therefore be spelled "grisly"—in the sense of horrible as we speak of a "grisly spectre"—and not grizzly.

"In killing dangerous game," the same writer well says, "steadiness is more needed than good shooting. No game is dangerous unless a man is close up, for nowadays hardly any wild beast will charge from a distance of a hundred yards, but will rather try to run off; and if a man is close, it is easy enough for him to shoot straight if he does not lose his head. A bear's brain is about the size of a pint bottle, and anyone can hit a pint bottle off-hand at thirty or forty feet. I have had two shots at bears at close quarters, and each time I fired into the brain, the bullet in one case striking fairly between the eyes and in the other going in between the eye and ear. A novice at this kind of sport will find it best and safest to keep in mind the old Norse viking's advice in reference to a long sword: 'If you go in close enough, your sword will be long enough.' If a poor shot goes in close enough, he will find that he shoots straight enough."

Upon one occasion, in the Big Horn Mountains, a friend of mine, an army officer, fired at a grizzly at close range and only wounded it. With a savage roar the beast turned about, and, seeing his orderly standing at a short distance, charged him at full tilt. As he passed my friend (who was, by the way, one of the coolest and best shots I ever saw in any field), he fired

a second shot at such close range that the powder from his rifle burned the hair on the bear's side. The second shot proved fatal, and the bear fell over dead, much to the gratification of the orderly, who was terribly frightened.

A heavy repeating-rifle is the weapon for bears. It is of the utmost importance that the rifle be clean and in good working order, so that the second or any succeeding cartridge will not stick and prevent the shooter from firing. I have seen the best rifles refuse to work at an exciting moment, either from the cartridge being a little large or the rifle being gummed with oil and dirt. A heavy half-magazine rifle is the best; and it is not a bad plan to put all the cartridges through once or twice to see that they run well before going into the woods for a day with the bears. It is almost a certainty that a wounded grizzly bear will fight. He will often charge, and I can imagine no more dangerous position in the field than that of a sportsman in front of one of these huge animals with a rifle which refuses to work properly.

Sportsmen long ago became aware that the peairifles used to shoot squirrels and the small deer were not suitable for elk, moose, and grizzly bears, and a much heavier ball and charge of powder came into general use in the West. The lighter rifle is, of course, easier to handle, and one can do much better shooting with it than with a weapon too heavy to handle nicely; but the shock from a heavy ball seemed necessary to stop the ferocious grizzly. There has been much discussion recently as to the comparative merits of small and large bore rifles, and the relative stopping power

or "knock down and stay down" power of the large balls and the small balls thrown with high velocity. Mr. James H. Kidder well says that sportsmen are at times apt to draw rather hasty conclusions, both for and against the small bore. If we go on a trip of one month, which means our whole year's vacation, and get just one chance at a grizzly and knock him over with a .30-40, are we not inclined to return home feeling that the gun is all right? Again, if we do not knock him down *to stay down*, are we not inclined to think that the gun is all wrong?

Mr. Kidder says he formerly used the .50-100-450 rifle with excellent results, and with this he killed grizzlies. From the first he appreciated its great killing power, and, for this reason, had great confidence in it. In an out-of-the-way place, he says, he could not get the .50-calibre cartridges, and was forced to buy a .30-40 Winchester, and with this rifle the improvement in his shooting was most marked; so much was this the case that when he made a seven months' shooting-trip in western Alaska, he determined to use the .30-40 even upon the large bears of the Kadiak Islands and the Alaskan Peninsula. His friend, Mr. Robert P. Blake, who made the journey with Mr. Kidder, used a .45-70 with 405 grain, soft-nosed bullets; his native hunter always carried Mr. Kidder's old rifle, the .50-100-450, with which he had killed his first grizzlies, as above stated, so that there was a fair chance to see the effect of the shots from these different weapons on bears.

Mr. Kidder, with the .30-40, killed his first Kadiak bear with three shots. The first bullet passed through

the lungs and heart. The bear kept going, and the second shot entered close beside the first and also passed through the lungs and heart. The third shot broke the bear's back and it dropped, having gone twenty-five yards through deep snow after the first shot went home. The last bullet "frightfully shattered the vertebræ," he says, although its hole of exit was very little larger than the aperture made by its entrance. A second bear went fifty yards, after a ball had passed through the shoulder and lower portion of the heart, and two more balls were needed to "finish him off," one breaking his back.

Mr. Kidder shot another bear (the ball entering behind the shoulder and passing through the lungs), which started off, after being hit, when his native fired, hitting her behind the shoulder with the .50-calibre, when she dropped like a stone. Upon still another bear Mr. Kidder had an opportunity to compare the stopping power of his .30-40 with his friend's .45-70. He says: "A large female bear, with two yearling cubs, was stalked. My friend shot the female back of the shoulder with the .45-70. This knocked her over, and, although she regained her feet, she went less than twenty-five yards before she succumbed. At the same time I shot one of the cubs with the .30-40. The bullet was beautifully placed behind the shoulder, and knocked him over. He picked himself up and was going rapidly away when I knocked him over again. There is no doubt but that the .45-70 upon the larger bear had more of a shock than did the .30-40 bullet upon the yearling, although they were hit in almost identical spots."

Mr. Kidder and his friend, on this trip, bagged fourteen bears, and says of the nine which he shot not one was killed with a single bullet, although all but one were shot through the lungs, and two through the heart as well. "In several cases when I placed a bullet well in a bear, and he continued going away hard, a shot from the .50-calibre would seem to knock all the life out of him, although the bullet might not be so well placed as the first shot from the smaller rifle. The knock-down force of the .45-70, as used by my friend on these bears, was, we both considered, far ahead of the .30-40, while the .50-calibre, with its 450 grains of lead, was noticeably more powerful than the .45-70." In conclusion, Mr. Kidder says he regards the .30-40 an ideal gun for hill-shooting, and that he does not believe a more accurate and excellent rifle for all but very heavy game is made, and that he continued to use it even in following up wounded bears in thick alders. He says, however: "This rifle did require proportionately more bullets to accomplish the same results than the .45-70 used by my friend."

Most of the big-game animals that I have killed, or seen killed, were shot with the large-calibre Winchester or the ordinary Springfield rifle used by the United States infantry a few years ago. Those of my readers who have read "Our Feathered Game" are aware that the writer has a decided liking for all of the game-birds. When bird-shooting in the West with officers of the army, we often came upon large game, and passed the guns to our orderlies in exchange for their Springfields, and with these clumsy weapons, which pulled hard on the trigger, I have killed many big-

game animals with the first ball. Army friends have thus stopped grizzlies with this weapon, and I recall at least five buffaloes which were dead when they struck the ground or died instantly thereafter, having been struck by my first bullet. The buffalo-bull which we were taking into camp, as described in the chapter on that animal, was killed with one shot from one of these Springfield rifles. Here, as elsewhere, the man behind the gun has much to do with the results; for my part, however, I would much prefer to face a charging grizzly with a double shotgun than with a very small-gauge rifle.

Mr. T. S. Van Dyke, who has had as much experience in still-hunting deer as any sportsman in America, says in an article on "Handling the Rifle on Game" that "the old dispute between big-bores and small-bores is meaningless now, because the most killing guns are the high-velocity nitro-guns, which are all small-bore compared with the black-powder guns. The best all-around rifle is now the .30-calibre nitro, not because it will do all that is claimed for it, but because it makes so much flatter a line to everything within reasonable distance than any black-powder gun can do." This article by Mr. Van Dyke appeared in the same magazine* which published the article by Mr. Kidder, who based what he had to say upon experiments made with rifles of different calibre on fourteen bears. Mr. Kidder evidently does not regard the "dispute between big-bores and small-bores" as "meaningless" when bears are the game.

Use smokeless powder, of course, on all game. It is

* *Outing*.

of the utmost importance in bear-shooting to see well for the second and other shots.

A rifle made to fit, or "come up" well, as shooters say, and which balances nicely, is far better than one a little long or short in the stock or too straight or too crooked. It is well to practise much at moving marks, such as a wooden disk or wheel, shooting rapidly at it as it is bowled along over the ground. A field-shot cannot use his gun or rifle too often at moving objects. The first quick sight is the best. The danger is of over- rather than under-shooting.

Mr. Van Dyke made a solid wheel two feet in diameter, arranged in a frame on a hill-side, so that he could start it with a string, and practised some two years on this, and so improved his shooting at running game. He says, however, that all the fine shots of his acquaintance agree, when pinned down to it, that there is always more luck than skill in shooting at moving game at any considerable distance. He says the shot which he considers his best was at a jack-rabbit, inspired by a greyhound, crossing over two hundred yards ahead and gaining on the dog at every jump. He raised the peep-sight for forty yards, aimed nearly thirty feet ahead, and hit him square in the middle.

The grizzly bear does not climb, and many a hunter has saved his life by going up a tree before an enraged bear reached him.

In "Astoria," Irving tells us of a trooper who, while making his way among the thickets, with his traps on his shoulder and his rifle in his hand, heard a crushing sound, and turning, beheld a huge grizzly bear advancing upon him with a terrific growl. "The sturdy

Kentuckian," he says, "was not to be intimidated by man or monster. Levelling his rifle, he pulled the trigger. The bear was wounded, but not mortally: instead, however, of rushing upon his assailant, as is generally the case with this kind of bear, he retreated into the bushes." The trapper followed him for some distance, but the bear effected his escape.

In "A Tour on the Prairies" the same writer furnishes another account of one of their hunters named Beattie, who wounded a bear with a rifle-shot. "The bear took to the brook, which was swollen and rapid. Beattie dashed in after him and assailed him in the rear with his hunting-knife. At every blow the bear turned furiously upon him with a terrific display of white teeth." This bear also escaped, "scrambling off among the thickets."

Another hunter, one of the rangers who accompanied Irving on his tour, one day shot a deer and heard it fall in the bushes of a ravine. Stealing forward, he looked down into the ravine, "and beheld a huge bear dragging the carcass of the deer along the dry channel of a brook, and growling and snarling at four or five officious wolves, who seemed to have dropped in to take supper with him. The ranger fired at the bear, but missed him. Bruin maintained his ground and his prize, and seemed disposed to make battle." Night was coming on, and the young hunter withdrew.

Irving sums up the information he obtained from the hunters and trappers of the West, saying:

"This powerful and ferocious animal is a favorite theme of hunter's story, both among red and white

men; and his enormous claws are worn round the neck of an Indian brave as a trophy more honorable than a human scalp. . . . Other bears are formidable when wounded and provoked, but seldom make battle when allowed to escape. The grizzly bear alone, of all the animals of our Western wilds, is prone to unprovoked hostility. His prodigious size and strength make him a formidable opponent; and his great tenacity of life often baffles the skill of the hunter, notwithstanding repeated shots of the rifle and wounds of the hunting-knife."

John Muir, who recently met a grizzly in California, says he did not shoot (was in fact unarmed), and that the bear slowly retreated, without offering to attack him.

Grizzly bears are gregarious, and in former years many were sometimes seen together. Mr. Tinsley says when the animals were many and the hunters few, bands of fifty and more grizzlies were frequently found. The sportsman of to-day, however, who wishes a rug, is lucky to find one bear as a reward for several weeks' hard work.

Mr. Elmer Frank, with a friend named Clark, had an engagement with grizzly bears which was most remarkable, not alone on account of the number of the enemy actively in the affair, but for many other reasons. So remarkable, indeed, did Mr. Frank's account appear to the editor, when he sent it to a magazine,* that he decided to verify it before publishing it, and I may say here, that two persons who visited the field, saw the five bears which were slain in the encoun-

* *Outing*.

ter, and talked with the wounded Mr. Frank and his friend Mr. Clark just after the battle, said they had no doubt that the story was not exaggerated.

Mr. Frank and his friend were shooting in Wyoming, and having killed their allowance of other game, were looking for bears. Near a small lake they discovered fresh tracks and followed them into a little canyon, on one side of which the wall was a perpendicular cliff, several hundred feet high, and on the other there was an almost perpendicular embankment of willows. At the point where the encounter took place, the canyon broadened, on one side of the creek, into a sage-brush flat, about two hundred yards in width.

As the two hunters rode into the valley, they saw one large grizzly, which stood up on his haunches, and immediately saw other bears until, Mr. Frank says, the brush "seemed alive" with them. When his horse, which was a spirited animal, had first scented the bears he began to get "troublesome," but he forced him up the creek toward the willows until they came in sight of the game. Clark's horse was a gentle animal, and he easily dismounted and fired, dropping one of the bears in his tracks; but when Mr. Frank dismounted, he had trouble with his horse while trying to get his Winchester from the saddle-sling. The horse reared, plunged, and kicked, and at length gave a mighty leap, escaped, and ran off with the gun. Clark's horse followed. There was a great commotion in the brush. Another bear got on a rock, and Clark shouted: "The wood is full of them. Great God—look at 'em."

"I told him to keep his head and blaze away, which he did, wounding this fellow, who dropped off his perch and began to bawl and kick up a great row generally. Immediately three other bears stood on their hind legs, and the wounded one regaining his feet, they came for us with growls of rage. This was too much for me, armed only with a knife. I told Clark I was going to quit and rustle my gun, which I proceeded to do. Clark emptied his magazine and ran also."

The horses had caught their reins in the sage-bushes and were easily captured. The two friends loaded their rifles and leading the horses by the lariats, which they fastened to the bridles, they returned "to redeem themselves from the stigma of so hasty and undignified a flight."

The bears were now in the willows, where it was necessary to walk in a crouching position and at times to crawl. Mr. Frank found one of the bears and fired as it charged him. In another moment he dodged the bear's paw and embraced it to keep it from striking him, shouting lustily to his friend, who came into the willows and fired as soon as he could safely do so. The shot struck the bear in the back, and, when Clark fired a second time, it charged him. Striking at him, the bear "hit his gun and sent it spinning in the air." Clark, "true to the hunter's tradition," played 'possum in an admirable manner and lay perfectly still, while Mr. Frank sat up and prepared to shoot. "My gun," he says, "was full of sand; it refused to work. I threw down the lever, and was working the sand out of it as rapidly as possible, but the magazine refused to give up its cartridges. It was an awful moment of sus-

pense." At this point another bear leaped on Frank, and, standing over him, tore at the willows, being evidently wounded. The bear over Clark now left him and charged Frank, the wounded bear retiring, and as the new enemy came on, Frank says, he managed to get a cartridge in the rifle, poked it against the bear and pulled the trigger. This bear fell dead, with his head on Frank's breast, "knocking the wind out of him."

A little later in the engagement the two friends having secured a position on a ledge were charged by the three remaining bears, and killed two of them. Clark was now wild with delight, and swore there was only one left. Moving into the willows, they found the last bear and killed it without difficulty. Clark was entirely uninjured, but Frank was badly bitten in the thigh and through one hand.

This is the largest bag of bears I ever heard of. The account which I have outlined is interesting and exciting throughout. Mr. Frank says in conclusion: "The fact that Clark did not receive a scratch should be explained, if susceptible of an explanation. Old hunters say that a badly wounded grizzly will seize and hold on to the first object within reach and expend its remaining strength in a desperate endeavor to rend it to atoms. I have seen this fact verified in at least a half-dozen instances. The bear grabbed a mouthful of willows and was crunching them while over Clark, who was playing 'possum. This might also explain why the second bear did not make mince-meat of me. Both of them died with their mouths full of brush."

Certain it is that both Mr. Frank and his friend had a most miraculous escape. It is a well-established fact

that grizzly bears do not eat human flesh, so that the ruse of playing 'possum should work. The bear's interest in his enemy ceases with his death.

Mr. Muir tells of a bear-hunter, who acted as guide for a geological survey party and who had killed forty-seven grizzlies, and said he wished to kill one hundred. This old hunter had learned so much while with the survey that his admiring fellow-mountaineers, he said, gave him credit for knowing not only the botanical names of all the trees and bushes but also the botanical names of the bears. He was accompanied on his bear-hunts by "a small wise dog," which could trail and worry a bear and often engage its attention long enough for him to take careful aim, and many of his bears fell dead at the first shot.

There is a great difference in bears. Some are much more courageous, vicious, and formidable than others. Although wounded, grizzlies often charge the hunter, and it is important for him to be ready to fire a second or more shots; they seldom show fight unless wounded and there are many recorded instances, besides those above given, where even wounded bears tried to make their escape. A well-directed heavy ball from a modern rifle often kills the bear instantly. The best shots are at the brain or heart.

Grizzly bears are far less abundant than they were a score of years ago. When in Montana I saw many robes offered for sale at two or three dollars each, and some fine ones with the claws on were sold for only a little more. There are comparatively few places where a sportsman can be sure of getting a grizzly on a short hunt to-day. I thoroughly believe in the use of dogs

in hunting all bears. Without the aid of these animals the chances are much against the sportsman's seeing a bear, even where they are known to be fairly plentiful. The "small wise dogs" are the right kind. Large courageous hounds which are willing to attack a bear are soon killed by the enraged beast and he can dispose of a good pack in very short order. The small dogs, many of them of unknown pedigree, which have learned to nip at the bear's heels and quickly skip out of his way when he turns upon them, are the only dogs which can successfully be used to hunt grizzly bears. The little dogs cannot always hold a big grizzly when he has once made up his mind to escape.

A good guide who has had experience with the grizzlies is quite necessary. The trip into the haunts of this bear is a long one. High mountains are to be climbed, vast forests traversed, and without the aid of a guide the sportsman from "the States," as they say in the West, could not expect to find a grizzly and would stand an excellent chance of not bagging him if he did. He would, most likely, soon get lost in the tremendous forests. The best guide is the one who owns dogs which have had experience with the game.

The grizzly bear weighs from five hundred pounds to a thousand pounds, and some have been killed weighing several hundred pounds more. The California grizzlies, and those found in the Northwest, are said to be the largest. Its pelt is brown with a gray cast which is described as grizzly, although, as we have observed, the bear is not supposed to have been named from its color. The grizzlies vary much in color and in size and appearance. Fat bears seem to have shorter

legs than lean ones. In the days of Lewis and Clark and Bonneville the grizzly was common on the plains as well as in the mountains, but he is now found only in wooded hills and mountains and is abundant only at a distance from civilization. They are probably more plentiful in British America and Alaska than elsewhere. The powerful limbs of the grizzly indicate great strength. He has been known to kill elk and buffalo as well as horses and domestic cattle. Like the brown bear the grizzly eats a great variety of food. He is fond of the flesh of all animals, especially pigs, and eats fish when he can procure them. Although classed as a carnivorous animal its food consists largely of mast, nuts, roots, fruit, berries, honey, and insects.

The flesh of this bear is edible but he is not hunted on that account, but rather for the excitement incident to the chase and the fine trophy—his pelt and claws.

The grizzly is more agile than one would suppose when looking at him at rest, or pacing about in a cage. He goes into action with remarkable speed. He is said to prefer pigs, sheep, and cattle to game, since he can capture the former with less effort.

The cougar, or mountain lion, is the only wild animal said to encounter successfully the grizzly bear. This seems doubtful, although often stated. Traps for bears are often baited with elk or deer, and such bait, without the trap, is often left in the woods by sportsmen who visit it from time to time, in the hope of getting a shot. Tinsley says: "The grizzly bears were so numerous in California that as late as 1862, when Leland Stanford was Governor of California, a bounty of ten dollars was given by the State for each grizzly-bear

scalp, and several hunters each got more than a hundred scalps in one year. A party of five professional hunters spent a whole year in hunting for grizzlies only in Oregon in 1848, and they brought into Sutter's Fort, at Sacramento, 700 pelts."

Although the grizzly appears clumsy, and has the shuffling gait common to all bears, it has been known to overtake and kill the bison. It has killed and carried away a two-year-old cow. Captain Dan Fuller, of Portland, Ore., says: "I have known young grizzly bears to carry carcasses of heifers for more than fifteen miles as fast as most men can run. Once I saw an old grizzly carrying a dead pig weighing 150 pounds in its forepaws and mouth as easily as a boy would carry a cat. I saw a she-grizzly carrying a yearling cow home to her cubs." Kit Carson used to say that the grizzlies he and his comrades encountered in the West during the thirties were the most awful things ever known on four feet, beside which modern grizzlies are gentle and refined. It was an old saying in the West that "A man's a fool to go arter b'ar alone."

The grizzly attacks and kills for vengeance and, as I have observed, it does not eat human flesh. The bears that devoured the youths who made improper remarks concerning the bald pate of the patriarchal Elisha, were certainly not of the grizzly variety.*

* Grizzly-Bear Lore, H. G. Tinsley.

XIX

THE POLAR-BEAR

FEW sportsmen have killed a polar-bear. As the name indicates, this bear is an Arctic animal, and our information concerning its habits and pursuit is chiefly derived from Arctic explorers, from trappers, and whalers.

The great polar-bear is easily distinguished from all other bears by its color, which is silvery white; it differs in form also from other bears, and has a very long neck, which is useful in hunting the seals and fish which this bear eats and which constitute a large part of its food; it has also fur on its feet to prevent its slipping on the ice; the facial angle is almost a straight line; its claws are black.

The polar-bear can move rapidly on land or on ice, and swims very fast and dives to catch the passing salmon. It is said to swim toward the seals on the ice like a submarine boat, occasionally putting up the tip of its nose for air. If the seal takes to the water or retreats on land it is easily captured by its amphibious enemy. The white-bear is said to be an affectionate beast, and many pretty stories have been written about mother-bears and their cubs.

One of the earliest accounts of the polar-bear gives us a good idea of its aquatic nature. In Jacques Car-

tier's voyage to Newfoundland, 1534, in his account of the island of birds, situated off the coast of Newfoundland, is the following: "And albeit the sayd island be fourteen leagues from the mainland, notwithstanding beares come swimming thither to eat the sayd birds, and our men found one of these as great as any cow and as white as any swan, who in their presence leapt into the sea, and upon Whitsunmunday (following our voyage to the land) we met her by the way swimming toward land as swiftly as we could saile. So soon as we saw her we pursued her with our boats and by maine strength tooke her, whose flesh was as good to be eaten as the flesh of a calf two years old."

The polar-bear is, when full grown, from eight to nine feet in length; nine feet is said to be large for a polar, but some have been taken which measured more than ten. In addition to the flesh of seals and fish, this bear eats quantities of marine grasses. It sits near the water on the ice and "makes a current toward it with its paws in the water and then reaches for an object floating on it." I have often observed polar-bears thus engaged, as no doubt my readers have, in zoological gardens. Like the grizzly, the polar-bear was considered by the earlier visitors to the Arctic regions as a most ferocious and formidable beast. He has, however, learned much about the repeating-rifle, and his knowledge has, no doubt, become a matter of instinctive heredity, so that the present generation of polars is reported not to be so fierce and dangerous as its ancestors were said to be. The change in the disposition of this bear is said to be very noticeable. It is possible, however, that the earlier accounts were some-

what exaggerated, and that the fatalities resulted from the bears being slightly wounded by small-calibre rifles which could not be quickly reloaded.

Mr. Tinsley says on this point: "When the stations for the Hudson Bay Company were established, the diaries of the men there often referred to the fright of attacks by polar-bears. Many a navigator in the Arctic seas has been clawed and chewed to death by polar-bears. But for nearly a century the polar-bear has not been regarded as so very fierce, and nowadays it is looked upon as a cowardly beast. Association with armed men has modified the polar-bear's disposition."*

The following story illustrates the chase: "A party from the *Isabella*, including a number of Esquimaux and myself, were walking on the ice a short distance from the ship, when, rounding a hummock, we unexpectedly discovered a short distance from us a large bear quietly feeding. We would have returned to the ship without disturbing it, as we were armed with only one rifle and a few spears carried by the natives, had not one of the several dogs that were with us announced their presence by a loud bark. The bear, as soon as it saw the intruders, began to advance slowly toward us, but was met by the dogs, who attacked the animal vigorously, but with little effect. He shook them off, and after injuring three of them so badly that they had to be killed, he continued to advance. We discharged the rifle and then fled to the ship, where we armed ourselves and came out to look after the bear, which had disappeared behind one of the numerous hummocks by which we

* Grizzly-Bear Lore.

POLAR BEAR

were surrounded. We had searched for some time, when, as one of the Esquimaux passed the corner of a hummock, he came face to face with the infuriated animal. He gave a fearful cry just as the brute struck him with one of his immense paws. The rest of us heard the cry and rapidly surrounded the brute, which stood perfectly still over the body of the Esquimau. We fired sixteen shots, twelve of which entered his body, before he received his death-wound. The native was insensible when we picked him up and badly torn about the shoulders by the beast's claws, but was not seriously hurt. We took the body of the bear on a sledge to the ship. It weighed 1,575 pounds and was ten feet and one inch from nose to tail and eight feet and four inches around the thickest part of its body."*

This was an exceptionally large polar-bear, and the weight given exceeds that of any grizzly that I ever heard of. The opportunity of weighing grizzly bears seldom occurs, however, since they are shot in the mountain forests, where there are no scales at hand, and where it is often impossible to bring out the bear. It is no difficult matter with the aid of a lot of Esquimaux with a sled to convey the polar to a ship and put it on the scales.

* Standard Natural History, Volume V.

XX

THE BLACK BEAR

IN the days of Boone and Crockett the black or, as they are often called, the brown bears were plentiful. Some hunters of that period killed hundreds of these animals. The hunters, when out after other game, often came across the bears, and it was not a difficult matter either to find or to kill them. They are, as a rule, not very formidable even when wounded. Many black bears were treed and then shot in the same way one would shoot squirrels. There are many recorded exceptions to the rule just stated, and in the old days when the bear was stung with the small rifle-ball, from the muzzle-loader then used, but not disabled, it was often necessary to despatch him with a knife. I have referred to the killing of a black bear with a penknife. I heard Mr. Wright, who did this, describe the killing at a hunters'-night meeting of the Hackensack Golf Club, and Mr. Shields, the editor of *Recreation*, who was present and introduced the storyteller, said every word of the story was absolutely true.

The following story proves that a black bear can be killed with bird-shot. I give the story at length since it is too good to be curtailed, and far too good to remain buried in a State Fish and Game Report,

where I found it. Mr. George Chahoon, the hero of the tale, says:

"On September 9, 1899, Mrs. Chahoon and I went for a little drive, hoping to get a couple of partridges ere returning. We left our home in Ausable Forks in a single carriage, taking with us our little bird-dog 'Bounce,' and a twelve-gauge shotgun.

"While going through a swamp near the middle kilns, on the road to Saranac Lake, Mrs. Chahoon driving, and I holding the gun, cocked and ready for a quick shot at a bird, about thirty yards in front of us four bears came into the road, looked at us for an instant, and then ran on ahead. Bounce, the dog, gave chase, and was close to the bears as they turned to enter the woods on the opposite side of the road. This was fun for Bounce, and we sat laughing at his audacity, when soon we saw a procession of dog and bears coming toward us, the dog leading and the larger, older bear in close pursuit, and clearly shortening the distance between them as they neared us. Don, our horse, not liking this style of a hunt, started to go home backward; but fortunately did not succeed in overturning us, only so placed the carriage as to give the dog and bears a narrow passage as they ran by. The dog had about six feet of lead, and as they passed I fired both barrels of No. 8 bird-shot into the first bear at a range of about ten feet. She showed no evidence of having been hit, and kept on her course for some twenty yards, when she turned into the woods, the other three bears taking to the woods when opposite our carriage. The dog quickly turned and followed them, and when about thirty yards from the road he stopped and began

to bark furiously. I jumped from the carriage and started to go to the dog, and when nearly to him Mrs. Chahoon called excitedly for me to come to her. On getting back I found that another very large bear had come into the road and stood on his hind legs in front of the horse, while the horse rose on his hind legs and looked at Bruin. As soon as our horse was quiet enough to be hitched, Mrs. Chahoon and I went to the dog, which was still barking at the bear where it had fallen.

"We tried to drag it to the road; but two hundred pounds was more than our hands alone could manage. While thus engaged, Mr. Edmund Roberts came along with the stage, and with his help the dead captive was put into his wagon and carried back to our home, where its hide now makes a fine rug on our floor. The ground where the bear was shot showed no blood or other evidence of the animal having been hit. Both charges struck near the shoulder and were driven downward, and part of them went entirely through the body. The shot was not bunched, but had separated so as to form a pattern resembling the top of a large pepper-box.

"There was nothing to indicate a struggle, and doubtless she fell perfectly dead where she lay when we reached her. In all, she must have run fifty or sixty yards with her heart riddled with shot."

The black bear is much smaller than his great grizzled cousin, and weighs from 200 or less to 400 pounds. His coat is black or brown, as his name would indicate, and the hair is glossy and soft.

The range of this bear is North America—from Maine to Alaska and South to Mexico.

Black bears were formerly plentiful in nearly all the North American woods within the area named, and, before they were much persecuted, they were comparatively tame. They did much damage about the clearings of the early settlers, being fond of vegetables and fruits, as well as pork and mutton, and a continuous warfare has been made on them, some of the States offering rewards or bounties for their scalps. It is not strange, therefore, that the little black bear has become wild and shy and nocturnal in his habits, and since he has good eyes, ears, and nose, he is seldom seen to-day, even by the professional hunters who spend much time in the woods. His presence is often well known from his visits to fold, sty, coop, orchard, or garden; his tracks are often seen in the soft earth; but the sly little rascal manages to keep entirely out of the way, and it is quite unusual nowadays for one of these bears to come to a violent death, excepting in places where he is sufficiently abundant to make it worth while to set traps for him or to keep up a pack of bear-hounds.

The flesh of this bear is much esteemed by some hunters. It resembles pork more than the flesh of any other animal, and is often very fat. John Muir quotes a hunter, from whom he was seeking information, as saying: "B'ar-meat is the best meat in the mountains, their skins make the best beds, and their grease the best butter. Biscuit shortened with b'ar-grease goes as far as beans; a man will walk all day on a couple of them biscuit."

The sportsmen, however, who occasionally kill a black bear when in the woods care more for the pelt

than the flesh, which is not to be compared with venison or the mutton of the mountain sheep.

The naturalists have classed the bears, as we have observed, as flesh-eaters (*Carnivora*), but the brown bear is literally omnivorous. One writer in *Recreation* says, "he will eat anything from a honey-bee to a well-greased saw-mill. His natural food is mast, roots, berries, fruits, vegetables, insects, eggs and fish as well as flesh. Like the deer these bears go to the lakes and swamps in the summer-time, and then are said to mix in their diet mollusks, reptiles, salamanders and fish. In the autumn this bear consumes acorns and mast. They often visit the orchards by night and are said to prefer the sweet apples, and hence the trap is often placed under the sweet-apple-tree.

A black bear unmolested will always try to escape. They may possibly follow and attack a person who meets them unexpectedly and starts to run away. Advice not to run, at any rate, is given in the books, and there is really no occasion for running. One writer says he met a bear at short range which stood looking at him, but that he "hallooed" at him and the bear turned, walking slowly and once in a while looking behind him; then he went off at a run.

The knowledge of what the bears are doing in any locality is valuable to a sportsman when he goes to seek them. When out "after his rations the bear is a great traveller, but travels on system." The guides who know the woods have of course some knowledge of where the bears are feeding, and can read the many signs which Bruin leaves in the woods. He tears old stumps to pieces, overturns logs and stones in his

search for food, and leaves many other signs beside his tracks which the woodsman sees at a glance, and which the sportsman would, no doubt, pass unnoticed, unless, of course, he had learned the art of bear hunting. Without dogs there is but little chance of seeing a bear in most of the woods to-day, or of following it if seen slipping away. The cover is often heavy, and the little black rascal can travel fast, sliding down into deep ravines and climbing mountain sides in a way most surprising, for the animal seems to be clumsy and to have a shuffling gait.

Many amusing stories are told of the bears and the bees. The bears are excessively fond of honey and receive many stings from the bees when robbing the hives or bee-trees in the woods. I read a magazine story (I have forgotten where) of a farmer who was much damaged by a bear's visits to his premises, and who fixed up a bait consisting of whiskey and honey. The bear becoming very drunk was found roaming about the neighborhood in the morning, and easily despatched. Since writing these lines I find the following story told of a gentleman who killed a bear in New Hampshire: "He saw a bear up a tree, and all around him the air was gray and alive with bees. Bruin had effected an entrance to their stores and was helping himself. He had both legs and one arm around the tree, and with the other hand was dipping out the dripping comb and stuffing it into his mouth. But he seemed covered with bees, which in their way were taking vengeance on his ears, over his eyes, on his face and nose, and occasionally a louder but mumbling note of distress and a momentary thrusting out of the

tongue told plainly that he was 'getting it' in the mouth, thus despite his fortitude compelling Bruin to give tongue to his tormentors.

"But Bruin kept at the feast until he was nearly stuffed with the sweets. He was utterly unconscious of the hunter's presence, who now fired, and the gorged animal fell mortally wounded." *

There is a popular impression that the bear embraces and hugs his enemy, thus crushing him to death. His method of fighting, however, when forced into an encounter is to strike with his claws and bite.

The bear has from two to five cubs, the former number being common, the latter quite exceptional. The cubs are very small at birth—not over six inches long. They make amusing pets when young, but they grow rough as they grow older. I was much amused in observing one owned by a friend. When it grew old enough to strike a hard blow he decided to part with it. After it had handled him roughly several times he presented it to me. I declined the gift, how-

* Standard Natural History, Vol. V. Bruin, as we have observed, is easily intoxicated, and very human in his drunken antics. One writer says: "I have seen him killed by negroes while lying helpless upon his back catching at the clouds; but such slaughter is unsportsmanlike, and no true hunter would resort to it."

In the year 1894, the last year in which the State paid a bounty on bears, 359 were killed in the Adirondacks, on which bounty was claimed.

Mr. Chahoon says: "It is the general opinion of people who live in the Adirondacks that when a bear kills a sheep he eats all he can, and returns in a night or two for another good meal on the remains. I have known of three instances where steel traps and strychnine have been cunningly prepared for his expected return, but he did not come back in either case." The bear is, however, extremely sly and cautious. It is more than likely they returned, but suspected something wrong, and smelling the trap or bait, retired. They have often acted in this way.

ever, and I believe the cub finally went to a zoological garden.

Although the black bears are still fairly plentiful in parts of Maine and New Brunswick, in the Adirondacks, the Alleghanies, and other wooded and mountain regions, it is quite unusual for a sportsman to kill one by stalking; in fact, as already stated, these bears are seldom seen. In the Adirondacks it is proposed to protect the black bear as a game animal, instead of offering a bounty for his scalp. This movement is in the right direction.* There is a certain amount of healthy sport to be had in hunting the black bear, and as a game-animal he is worth more than the damage he does, at least in the places where bears are no longer abundant.

A bear is shot now and then in the forests of Michigan, Wisconsin, Minnesota, and other Western States, but here, as elsewhere, far more are taken with traps. Few sportsmen make a practice of hunting the black bear in the Northern States. Bear-shooting, however, in the South has long been a favorite sport. Many packs of bear-dogs are owned in the Southern States. These usually contain dogs of various sizes and kinds; rough-haired terriers, hounds, and "curs of low degree" are often found in one pack. As stated in the chapter on the grizzly bears, the hounds are not expected to attack and kill the bear, but to find and follow him, nipping at his heels and bringing him to bay, or treeing him until the hunters arrive and despatch him. The hunters usually are mounted and the riding is often

* So many protests from those injured by bears have been received that *Forest and Stream* says they should not be protected.

rough, the trail leading through dense canebrakes and across swamps and bayous, where the trees are festooned with many vines. The cover is so dense that the noise of even a large pack can be heard only a short distance, and the dogs are frequently lost for a time. Shotguns are often used in the South instead of the rifle, and they are, no doubt, very serviceable weapons, but seem out of place in the big-game field.

Many dogs are often killed by the bear, but there is comparatively little danger to the hunter, and fatal accidents are uncommon. General Wade Hampton is said to have killed more black bears than any other sportsman. One of his bears weighed 410 pounds.

President Roosevelt not long ago was invited to a bear hunt in Mississippi, and Mr. Denison, one of the special correspondents accompanying the President's party, wrote a long and amusing account of the hunt. Although the President returned without having burned a grain of powder, "He got three bears, they will tell you in Sharkey County," the reporter says, "so that at the outset it is necessary to appreciate fully that the Mississippi bear hunt proper is a communal and not an individual sport, and that the man for whom the hunt is organized is credited with all the killing done by his company and the pack. It was something of a blow to the sense of Southern hospitality—which is no stronger anywhere than in Sharkey County—to find that the President had a vigorous desire to kill a bear himself. It was even more of a blow to find, after this prejudice of the distinguished guest had been discovered, and a bear had been captured, at least half alive, to await his

BLACK BEARS

From a stereograph. Copyright, 1904, by Underwood and Underwood.

pleasure, that he refused with something very like scorn to put the finishing bullet into it."

Mr. Denison thus describes the ground where the hunt took place: "Leaving the plantations, the road wound through four miles of open forest, carpeted with a brier tangle, knee high, which made travel anywhere out of the trodden trail almost impossible. Here all the trunks were much darker in color, for fifteen feet from the ground, than they were above, showing the effect of the annual flood, which about Smedes is referred to only as the 'Yazoo back water.' Explaining the marks on the trees, Jim, the guide, waxed eloquent in describing the prowess of a Mr. Hamilton, who used to hunt bears through these woods in boats in the back-water season.

"Then came Coon Bayou, a four-mile-long mud gully, where the flood water caught and lay stagnant through all the summer and fall, attracting bear and deer and raccoons. A deer went trotting back into the bushes as we slid down the slimy incline into the bed of the bayou. A flock of mallards rose with a roar of wings and a flash of white, fifty feet beyond. Scrambling up the other side, we were in the real delta swamp. Briers and creepers were knit together between tree trunks and saplings, so that it seemed as though a sickle or a scythe must have been necessary for one who would leave the trail. There were banks of brier tangle twenty and thirty feet high, and from fifty feet to an eighth of a mile in length, looming up in the forests on either side. Time and again there were places where the trail had been cut with axes, like a tunnel, through the jungle."

The pack is described as being "without monotony," and containing pure-blooded fox-hounds, plain "yaller dogs" of the conglomerate and unlimited variety that hangs about every negro cabin, and one lone "fice-dog." The latter is described as being more like the Yorkshire terrier in conformation than any other breed.

The bear, after being chased about in the cane for a good part of a day, was at last overtaken when "Holt Collier spurred his horse almost over him," and thus addressed him: "Gwan, you fool bear! Gwan up a tree or I'll kick you up one." Again the black face was turned to Mr. Parker, who was riding behind, and Collier complained. "Mr. Parker, sah, can't you please, sah, come forward an' tell dis yer bear in polite language dat he'll have some regard for our feelin's, and dat he is desired to get up a tree whilst we all goes and gets de Colonel?" The "Colonel" had been stationed in the break at a point where it was thought the bear would pass and had there taken lunch.

The bear proceeded until he fell in a water-hole, and when the dogs attacked him, he grasped with a fore paw a yellow cur that was Holt Collier's especial pet.

Thereupon that worthy again addressed the bear: "Leggo mah dog, bear! Leggo mah dog!" and, so saying, he swung the stock of his gun through an arc that landed at the base of the bear's skull and twisted the steel frame of the stock. The dog was dead and "the bear, too, seemed to lack further interest in the proceedings; but he was not dead, and Holt tied a rope about him and dragged him up to the edge of the pool and tied him to a tree." Then Holt sent a negro boy

post haste to the camp to tell the "Colonel": "We done got de bear at bay an' are awaitin' for him."

Mr. Denison's account is a long one and capital throughout. I have given these few quotations from it since they furnish an excellent description of the ground and the methods of the black bear chase as it is practised in the South. We have, too, a fine description of the pack and a reference to a naval form of warfare on bears "in the back-water season," which was entirely new to me. The story has an evident historic interest.*

There is, no doubt, much fun to be had in black bear hunting with horses, hounds and horns, and darkies in the Southern swamps. The difficulty, of course, is, for one not used to it, to keep up with the hunters. It is safe to say, however, that had the President had his own way he would have followed the hounds and would have enjoyed, no doubt, Holt Collier's conversations with Bruin; it would not have been necessary to send a messenger to announce that the bear was "at bay."

* *Outing.*

XXI

THE BIG BROWN BEARS

IN Alaska on the mainland and on some of the islands there are many large brown bears which have been recently described as new varieties. These differ in size, the one known as the Kadiak being the largest. This bear is named from the island where it is found. It is so large that it has been mistaken for, and wrongly called, a grizzly. In the Badminton Library, Mr. Phillipps-Wolley so refers to it. Mr. James H. Kidder has killed a number of the Alaskan brown bears, and has written entertainingly about them in a series of papers,* in which he has given us much information as to where and when to go, and how to pursue these animals.

These bears, although large, are evidently not nearly so ferocious and formidable as the grizzlies. In a series of some fourteen or fifteen bears, the killing of which is entertainingly described by Mr. Kidder, only one charged the hunters, and that first tried to run away. The others are repeatedly referred to as making for the woods (they were for the most part discovered feeding on open marshes), after being severely wounded, and while the subsequent shots were fired at them.

* Hunting the Big Game of Western Alaska, *Outing*, December, 1902, and following numbers.

Mr. Kidder gives the following account of the bear which charged his friend Mr. Blake, which would indicate that the charge of the Kadiak is not at all like that of the grizzly, which wounded and charging would certainly not stop so long as he was able to keep moving toward his enemy. Mr. Blake had carelessly left his coat containing his ammunition when wading a stream during the stalk, and at the time of the charge both he and his native attendant had fired their last shots. Had the bear been a grizzly there certainly would have been a fatal ending to the chase. The bear, when the stalk began, was feeding in a meadow. Mr. Kidder says: "I saw them [his friend and native hunter] disappear among the trees and then turned my glasses on the bear. At the first shot he sprang back in surprise, while Blake's bullet went high. The bear now located the shot and began a quick retreat to the woods, when one of my friend's bullets struck him, rolling him over. He instantly regained his feet and continued making for cover, walking slowly and looking back over his shoulder all the while. Blake now fired another shot, and again the bear was apparently badly hit. He moved at such a slow pace that I thought he had surely received a mortal wound.

"Entirely against orders, Ivan now shot three times in quick succession, hitting the bear with one shot in the hind leg, his other shots being misses. Blake now rushed after the bear, with his hunter following some fifty yards behind, and approached to within ten steps, when he fired his last cartridge, evidently hitting the bear hard, which fell upon its head, but once more regaining its feet, continued toward the woods. At this

point Ivan fired his last cartridge, but missed. The bear continued for several steps, while the two hunters stood with empty rifles watching. Suddenly, quick as a flash, it swung round upon its hind legs and gave one spring after Blake, who, not understanding his Aleut's shouts not to run, started across the marsh with the bear in close pursuit. At every step the bear was gaining and Ivan, appreciating that unless the bear's attention was attracted my friend would soon be pulled down, began waving his arms and shouting at the top of his voice, in order to attract the bear's attention from Blake. The latter saw that his hunter was standing firm, and taking in the situation, suddenly stopped. The bear charged to within a few feet of the two hunters; but when he saw their determined stand, stopped and, swinging his head from side to side, watched them for some seconds, apparently undecided whether to charge home or leave them. Then he turned and looking back over his shoulder, made slowly for the woods."

If Holt Collier had been present at this point to follow the bear and say: "Gwan, you fool bear! Gwan up a tree!" etc., there is no telling what the big brown's attitude would have been; but from a study of all the accounts of the other bears killed by Mr. Kidder and his friend, it is quite evident that the Alaskan brown bear performs in the field more like the little black bear than *ursus horribilis*. Mr. Kidder used a dog in hunting the Alaskan bears, but found one dog hardly sufficient to hold the larger bears when they moved off unwounded. A pack would no doubt work as well on these bears as on the smaller ones found in

Maine, Mississippi and many of the other States. The performance of Mr. Kidder's dog was very creditable. He nipped at the heels of the fleeing animals and sometimes attracted their attention long enough to afford the hunters some good shots.

The Alaskan bears eat berries and various kinds of salmon when these fish are running in the streams. On these they fatten and then hibernate like other bears. The natives are very fond of bear meat, but Mr. Kidder says the flesh of the Kadiak has rather a bitter taste and was too tough to be appetizing. The meat of the bears killed on the Alaska peninsula, however, was excellent and without the strong, gamey flavor.

The pelts of the great Alaska brown bears vary in color; their great size makes them much prized as trophies.

Mr. Kidder mentions besides the grizzly and black bear a bear known as the glacial, or blue bear, as also inhabiting Alaska. The last he estimates, from pelts he has seen, to be rather smaller than the black bear.

BOOK IV
THE CAT FAMILY

XXII

THE CAT FAMILY

AS we observed in the introductory chapter on big game in general, the cats are hardly to be considered true game, since they are not good to eat. Throughout the world, however, the greater animals which are included in this family have long furnished sport with the rifle, and the puma or North American cougar, familiarly known as the mountain lion, is listed by the Boone and Crockett Club as "big" game.

In other lands there are many animals belonging to this family; some of them have magnificent size and strength, are ferocious in the extreme, and their pursuit is attended with much excitement and danger. We have only to recall the great African lion, "the king of beasts," the tiger of India, and the jaguar of South America, to realize that our own cats are of little importance when compared with those of Asia and Africa and South America. True, we have a few jaguars in the Southwest, but their occurrence is so seldom that they may be regarded as not a game animal for North Americans.

Sportsmen who seek the highest excitement and desire a sport which is attended with much danger will hardly be satisfied with the American animals of the feline group. They know that they must go to other

continents to find cat hunting at its best, and many do go to Africa and to India. The trophies procured are, of course, the handsome pelts with the heads mounted on them; and a pelt of the African lion, the beautifully striped tiger from Asia, the spotted leopard or the jaguar makes a very handsome rug, and when its owner has taken it with his own rifle he has something to be proud of. When he looks upon it on his floor it no doubt brings back many pleasant memories of picturesque places where the excitement was great indeed.

Our own cougar and lynx suffer by comparison in every way. They are not so handsome or difficult to obtain. Their pursuit is attended with no great danger.

The jaguar, a common variety of the cat family, is a South American beast, but its range, as already suggested, extends northward through Mexico into some of our Southern States. It is by far the largest, most formidable and ferocious American cat, and has been called the tiger of the new world. It is marked something like a leopard, but, as we have observed, it is seldom taken in the United States.

We proceed to describe the cougar and the wild-cat, their habits and the methods of taking them, giving them the small space they deserve.

XXIII

THE COUGAR OR MOUNTAIN LION

OUR puma or cougar is everywhere called the mountain lion, and is the only member of the cat family listed as big game by the Boone and Crockett Club.

This animal takes its popular name from its resemblance to the female African lion; its technical name, *Felis concolor*, indicates, of course, that it is a cat of one color. The color is tawny, but much lighter and almost white underneath; the tip of the tail is black. Mr. Frank Mossman killed one of these great cats (June, 1893), in Mason County, Washington, which, he says, was ten and a half feet in length and which weighed 200 pounds.* The average weight of this animal is said to be not over seventy-five or eighty pounds. The average length to the tip of the tail is a little less than seven feet, the tail being usually about thirty inches.

The mountain lion is a flesh-eater, and is evidently built to prey upon other animals. It kills elk, deer, and antelopes as well as domestic animals, and, as we

* The largest cougar killed by Roosevelt on his cougar hunt in Colorado measured eight feet and weighed 227 pounds. He is of the opinion that no cougar ever measures nine feet. If Mr. Mossman's tape and scales were right, he certainly killed a big cat. Eleven of the fourteen cougars killed by the Roosevelt party weighed over 100 pounds each

have observed, it has been said to be a match for the great grizzly bear. This, however, Roosevelt says is an error. The cougar was formerly common in many parts of the United States, inhabiting the forests, more especially those of the hills and mountains. It is a cowardly animal and does not remain long in settled neighborhoods; but few are found to-day east of the Rocky Mountain region. I read recently of one being seen in the Adirondacks, but the animal may be regarded as extinct in most of the Eastern States. It is sometimes called catamount, panther or painter, and by other less familiar names, such as tiger or red tiger. The cry of the cougar can be heard for miles. It is best described as a loud wailing scream. When once heard it will be remembered, and will never be mistaken. No other animal can imitate it. There are usually two kittens, sometimes three; these remain with the mother until grown, when she teaches them to hunt the game and to rob the settlers.

Although upon several occasions I spent weeks in a good lion country, I seldom saw any of the lions. I had no dogs and, of course, had no thought of going out after them, since dogs are absolutely necessary to find and tree these animals or bring them to bay. Upon one occasion when out on a large plain at the base of the Rosebud Mountains, Montana, while riding about on an Indian pony and shooting sage-grouse from the saddle, I started an immense cougar which was, no doubt, after the same game. The pony took alarm at the great cat as it slipped from behind a sage-bush a few feet ahead and, while I tried to steady him for a shot, the cougar ran off some fifty yards and dis-

COUGAR OR MOUNTAIN LION

appeared over the wall of a stream, which had water in it only in wet seasons. Putting the spurs to the pony, I urged him to the top of the bank, and, dismounting, ran forward hoping to bag my lion with birdshot, trusting to a revolver if he showed fight, but I was only in time to see the animal go at a great pace around a distant bend, running in the bed of the stream, which was as dry as a floor. The bank was perpendicular or nearly so. Remounting, I galloped forward, keeping along the high bank of the stream, but when I reached the bend I saw another one a long distance ahead, which the cat had already turned, and I soon came to a branch, which I could neither leap over nor descend with my pony.

It was nearly sundown.

I was a long way from camp and reluctantly gave the lion up. I should have had no hesitation in giving the cowardly beast my double load of number 6 shot, and had I been able to shoot when I first saw him, I doubt not I could have stopped him. There is a record of one of these large cats being shot with birdshot, but the animal escaped into the brush and was not immediately followed. The sportsman, a Mr. Donnelly, of Washington, while out after grouse, came upon several cougars in the road. One remained until he approached near enough to see what it was, and he fired two loads of birdshot into her. She sprang off the road and escaped, as I have stated. Mr. Frank Mossman took the trail of these cougars the next morning, and killed two of them, and says the other one could not be found. The same writer has contributed a number of excellent cougar tales to *Out-door Life*

recently, one of which I quote at some length. It describes the animal taking a colt, an animal which cougars like especially, which was running in a road (in Mason County, Washington) with its mother.

"Two years ago," says the writer, "a lady was driving a mare that had a five months' old colt following her. She was driving on what is known as the Olympia road, one mile east of Anderson's ranch. On both sides of the road there is heavy timber and underbrush. Going through this timber the mare became frightened and almost got away from the lady, whose name is Mrs. Andrus. When she got the mare quieted down a little she missed the colt, and, getting out of the buggy and tying the mare, she went back to see where the colt had gone. As she turned a bend in the road she saw a big lion trotting along a log, carrying the colt as a cat would a rat. His tail was straight in the air and swelled like that of an angry house cat. The lady promptly fainted away. At midnight her husband arrived at my home and excitedly told me of his wife's adventure. It was just daybreak when we arrived at the seat of war. I found where the struggle had taken place in the road, and pushed my dogs, old Don, Snowbird, and Bugle & Co., in on the colt-killer's trail. Immediately there was music in the air. When found the colt-lover did not run, but simply climbed a tree and sat on a limb. His length was seven and one-half feet, and he weighed 170 pounds."

Mr. Mossman tells of a lion attacking children on their way to school, but the beast was put to flight by a brave boy with a club. He says on one occasion the sheriff of Mason County and Colonel Richardson, an

attorney, were held up on the road by a large lion, who stood in the road and refused to move on, the team refusing to go farther. The sheriff secured a club and some stones, and throwing these at the beast, he moved off of the road.

Mr. P. S. Bonebrake has recently described a cougar hunt in the Coast Range.* Having camped on the Encino, he says, they were pleased to hear, from some sheep-herders, that two nights before a pair of lions, accompanied by two kittens, had jumped the low brush enclosure within which the sheep were bedded, and had killed four sheep before they were driven away, which was accomplished by waving lanterns and firing an old musket, assisted by the barking of dogs. Upon receiving the information, the sportsmen resolved to try their dogs in a long canyon west of the slope where the sheep were bedded, and retired for the night. The following morning they were met by an excited herder, who informed them that the lions had entered the corral in the night and killed sixteen sheep. The dogs took the trail in the canyon, and before long caught and held a large "Tom" on the top of a huge boulder. Mr. Bonebrake says:

"After considerable debate as to how to get him down ('Tenderfoot' the night before being skeptical of the hounds' fighting abilities and anxious to see a fight), I decided to scare him out. I fired two shots from my .30 short-barrelled Marlin in his immediate rear with no effect. I unhitched the third a trifle closer, and, as the fragments of splintered rock hit him, he bounded clear of the dogs and paused for the briefest space, as if un-

* *Western Field.*

decided where to go. That stop was fatal, for Jim grabbed a healthy mouthful near where his tail starts out, and when the lion turned back to slap him, J. B. got him by the back of the scalp, and the rest of the dogs distributed themselves in any vacant spot in the order of their arrival.

"Pandemonium reigned! Growls, spits, howls, yelps, rocks rolling, brush cracking, and the excited yells of the men combined, made a conglomeration of sound that must be heard to be appreciated. 'Tenderfoot' stood aghast at the trouble he had turned loose, and begged to be allowed to shoot the lion before he killed all the dogs, but he was cautioned to stand quiet and see the fight of his life, which he sure did!

"With Jude and J. B. working at his throat, the lion came to the conclusion that life wasn't worth living. It might be a hard winter, anyhow, and so he gave up the ghost after as game a fight as it was ever my good fortune to see. He was old and mangy, and we concluded his hide was not worth taking, so cut off the tip of his tail only."

Shortly after the lion was killed, the dogs found and treed the lioness and her two kittens. "Pussy" was in a small sycamore, and a .30 behind the ear killed her. The dogs had already dragged one of the kittens out of a bush and killed it. The other was "roped" from a tree and taken into camp alive. As a rule, when the lion is treed, the hunters approach and shoot him. If wounded, he will fight the dogs and often kills some of them. There is really no danger to the hunters, since the lion always tries to escape.

President Roosevelt, a few years ago, went to Colo-

rado especially to hunt cougars, and described the hunt in two papers published in *Scribner's Magazine*,* from one of which I quote the following, which will further illustrate the chase:

"Owing to the character of the ground we could give the hounds no assistance, but they finally puzzled out the trail for themselves. We were now given a good illustration of the impossibility of jumping a cougar without dogs, even when in a general way its haunt is known. We rode along the hillside, and quartered it to and fro, on the last occasion coming down a spur where we passed within two or three rods of the brush in which the cougar was actually lying; but she never moved and it was impossible to see her. When we finally reached the bottom, the dogs had disentangled the trail; and they passed behind us at a good rate, going up almost where we had come down. Even as we looked we saw the cougar rise from her lair, only fifty yards or so ahead of them, her red hide showing bright in the sun. It was a very pretty run to watch while it lasted. She left them behind at first, but after a quarter of a mile they put her up a pinyon. Approaching cautiously—for the climbing was hard work and I did not wish to frighten her out of the tree if it could be avoided, lest she might make such a run as that of the preceding evening—I was able to shoot her through the heart. She died in the branches, and I climbed the tree to throw her down."

Roosevelt says: "The only skill needed in such shooting is in killing the cougar outright so as to save the dogs. Six times on the hunt I shot the cougar

* "With the Cougar Hounds," *Scribner's*, October-November, 1901.

through the heart. Twice the animal died in the branches. In the other four cases it sprang out of the tree, head and tail erect, eyes blazing, and the mouth open in a grin of savage hate and anger; but it was practically dead when it touched the ground."

The cougar lives largely upon deer and destroys many of these animals. Although the fact is not mentioned in cougar biographies, I have no doubt the beast catches and devours many grouse. Roosevelt says: "It is also the dreaded enemy of sheep, pigs, calves, and especially colts, and when pressed by hunger a big male cougar will kill a full-grown horse or cow, moose or wapiti. It is the special enemy of mountain sheep. In 1886, while hunting white goats north of Clark's fork of the Columbia, in a region where cougar were common, I found them preying as freely on the goats as on the deer. It rarely catches antelopes, but is quick to seize rabbits and other small beasts, and even porcupines." *

The cougar, when pressed by the dogs, usually takes to a tree, but often gives them a long chase first. He sometimes escapes into a hole, and the dogs there fight him at a great disadvantage. It is well to have some good strong fighting dogs to do the killing after the hounds have trailed and treed the game.

From Colorado to Oregon and Washington is probably the best cougar ground. They seem to attain a good size in Washington, and are probably as abundant in certain parts of that State as anywhere.

Mr. G. A. Welder has written a clever account of how the cougar springs from a tree on a passing deer: "As

* With the Cougar Hounds, *Scribner's Magazine*.

only a huge cat can leap, the lion flashes upon its prey and crushes it to the ground."

"After eating his fill," this writer observes, "which is no small part of his kill, he covers what is left with leaves and sticks, or partly buries it; and woe to any lesser beast of prey that is found meddling with his *cache* when he returns."

Roosevelt says that where a cougar kills a deer in the open it invariably drags it under some tree or shelter before beginning to eat. All the carcasses we came across had been thus dragged, the trail showing distinctly in the snow. Goff, however, asserted that in occasional instances he had known a cougar to carry a deer so that only its legs trailed on the ground.

Mr. Welder says he once knew a cougar to chase a man, who would doubtless have had a narrow escape had not the beast in its spring jumped into a barbed wire fence. Barbed fences being a rarity in the cougar country, this one, no doubt, proved a tough proposition to the would-be man-eater. If the cougar is not successful in his first attempt, he will seldom renew the attack. If he springs for a deer and misses the mark, he will rarely, if ever, give chase. Roosevelt says all the cougars we came across were living exclusively upon deer, and their stomachs were filled with nothing else; much hair being mixed with the meat. In each case the deer was caught by stalking, and not by lying in wait, and the cougar never went up a tree except to get rid of the dogs.

Upon one of Mr. Welder's shooting trips, in Montana, he bagged a lion with a .22-calibre rifle. "It was the first day of the pheasant season," he says, "and, as

I had bought an all-around dog, I was anxious to try him. We had not gone from camp more than twenty minutes when his bark announced that he had put up some birds. We hurried up to him, only to find that the birds were very wild, and that the dog, with all his barking, was unable to hold them until we could get a shot.

"We tramped on for ten minutes more and heard his bark again, but it took a different and rather savage key this time, being as much growl as bark. Not being used to the dog, we remarked about it and quickened our gait. From the barking of the dog, we judged that he was on the move, and Rockwood remarked that whatever the quarry was, it was moving. We had heard that there were bear around the lake, and concluded that the dog had jumped one. I had been looking for bear on occasional hunts for several years, but on those occasions I had always had my .30-30 with me. Rockwood had also been hungry for bear; but neither of us was exactly loaded for bear on this occasion. Rockwood had a 12-gauge shotgun and I had a 22-calibre repeater with 'short' cartridges. But it was a chance not to be missed, and I said, 'Come on, I am going to try him anyhow.' Rockwood needed no encouragement, and we followed the barking of the dog as fast as legs could carry us, Rockwood in the meantime trying to replace his birdshot cartridges with others loaded with buckshot.

"After a short run I caught a glimpse of something red running in front of the dog (about the color of a summer deer), and concluded that it was a lion; and knew that if the dog could keep up his gait he would soon have him treed.

"In less than a minute the loud, steady barking of the dog told that his part of the work was done, and accordingly I hastened to the spot with the intention of doing my part, if possible. Old Spot was looking up a large fir-tree and barking, as much as to say, 'He went up that one.' I looked the tree over very carefully for as much as three minutes, and said to myself, 'If there is a lion up that tree, it is somewhat undersized.' Then I began to look into the trees near by. Very soon I discovered in a large fir-tree, about sixty feet up, crouched among the branches, a large female lion.

"I yelled to Rockwood to come on with his shotgun. But for some reason he could neither get the shells into nor out of his gun, so I must either do the work with the little .22 or let the lion go, which latter was out of the question. I had been looking for lion at other times, now my chance had come. I figured that, if the first shot did not kill, the dog would help me out in case of a close call. I took careful aim, and the bullet struck just over the eye, ranging backward, tearing a hole in the skull an inch long, and taking effect in the brain. The rifle had hardly cracked when the biggest piece of meat I ever saw in mid-air came tumbling down. The dog had her in an instant, but there was no need, for she was as harmless as a cougar could be."*

It is quite evident from all the cougar tales that the beast is cowardly and tries to escape by sneaking away from the hunter, or running from the dogs. Such was my opinion of him when I met him. The hunter Goff told Roosevelt of a cougar which stalked a young girl,

* G. A. Welder, Kalispell, Montana, in *Field and Stream*.

but was shot before making the final rush. Roosevelt relates two cases of negroes being killed by cougars.

The cougar was the aggressor in the story quoted above where the animal is said to have struck a barbed fence, but, as Mr. Hornaday says: "The cougar is less to be dreaded than a savage dog." The most important thing for the sportsman to remember is that he cannot expect to get these cats without dogs. Of course, one might stumble on one now and then, as I did, but it would be useless to go out and try for them without the dogs. On this point Roosevelt says: "No animal, not even the wolf, is so rarely seen or so difficult to get without dogs. On the other hand, no other wild beast of its size and power, is so easy to kill by the aid of dogs. Without dogs it is usually a mere chance that one is killed."

Mr. Goff, the owner of the pack which Roosevelt followed, who lives in the cougar country and has killed some 300 cougars, has killed only two without the dogs. Goff never but once was charged by a cougar, and on that occasion it was promptly killed by a bullet. The cougar will, however, often kill or maim some of the hounds if they are permitted to fight him.

XXIV

THE LYNX

IN North America there are two wild-cats, which are commonly called bob-cats on account of their short tails. These are the lynxes of the naturalists—the Canada lynx (*L. canadensis*), and the red lynx (*L. rufa*). The naturalists have, in fact, several lynxes besides the two named—the spotted lynx (*L. maculata*), and others, including a new one from the Uintah Mountains, which I, no doubt, heard sing twenty years ago in a chorus with some wolves and owls. From the sportsman's point of view they are all plain, every-day wild-cats, too small to come within the Boone and Crockett list of big game.

The Canada lynx is said to be much like the European lynx, but somewhat smaller. Its length is about 37 inches, from the nose to the tip of the tail; the European lynx will measure 40 inches without the tail. The red lynx is found throughout the United States in suitable localities. The reddish hair suggested the name of this animal. The handsomely spotted skin of the third variety, of course, suggested the name, *maculata*. Mivart is of the opinion that the Old World lynx and the North American varieties, Canada, red, and spotted, "should be ranged under one species (*Felis borealis*), since, after a careful examination of the rich

series of skins at the British Museum, he can detect no constant difference, and, moreover, the skulls closely resemble each other."* Under the plan of this volume, however, reference to such discussions belongs properly in the Appendix, which is designed to free the text from all technical matter in order that there may be more room for the description of the animal the sportsman knows, its habits, the methods of pursuit, and for the short stories illustrative of the chase. The reader will find in the Appendix descriptions of the three wild-cats the naturalist knows and mention of an assorted lot of lesser cats, which are distributed over small wooded areas chiefly in the Southwest and in Mexico.

The bob-cat, like his larger cousin, the cougar, is a predatory flesh-eater. He prowls about the forests after birds, rabbits, squirrels and other small animals and is, in turn, chased by coyotes and wolves, just as the domestic descendants of the latter chase common house cats on sight. The long practice which wolves have had in chasing and treeing wild-cats has, no doubt, given rise to the passionate love for cat chasing which is noticeable in all dogs, great and small, and which is of the utmost advantage to the sportsman who would hunt cougars or bob-cats.

In shape and general appearance the wild-cat is very much like a "great big" domestic cat, varying in color from the grayer Northern species through the reddish kind to the most Southern spotted variety, there being all sorts of intermediate cats, showing shades of transition between the three principal kinds.

Anyone who has observed the common house cat

* The Standard Natural History.

A LYNX, OR WILD-CAT.

stealthily moving on a mouse, or sneaking through the grass, or moving out on the limb of a tree in the orchard, with crouching form, frequently remaining motionless, then putting down its velvet feet slowly and noiselessly, until at last it springs upon a bird—anyone, I say, who has observed these performances will have a very good idea of how the wild-cat manoeuvres in the woods. It is extremely strong and agile, and has been seen to spring into the air and strike down a flying bird. It is a natural-born hunter, and is especially fond of rabbits; and so is the house cat. I knew one that was harbored at a hotel in the Kentucky highlands, which used to slip out into the garden after birds; and one day I saw it bring in a rabbit almost as big as itself, and sneak under the porch to serve it to its kittens. Wild-cats, like tame cats, despise dogs. They will always “spit” at a dog on sight—that is, after they have found a safe refuge on a limb.

There is a whole lot of fun to be had in chasing bobcats. The dogs enjoy it fully as much as the sportsmen, although they are the ones that receive the damage from the fighting. The sport is something like coon hunting, and I am free to confess that I thoroughly enjoy that. Anyone who likes coon hunting *a fortiori* will enjoy cat hunting. The “scrapping” between the dogs and cats is much finer. An old coon makes an excellent fight, as everyone knows who has tried coon hunting, but the wild-cat is a fiercer and more skilled fighter, and accordingly furnishes more sport. As in coon hunting, more than half the fun is in giving the dogs a chance to fight and kill the game.

The bob-cat is, however, often shot out of the trees, as the cougar is. Cat hunting may be said to be a sort of intermediate species of sport half-way between coon hunting and cougar hunting. It approaches the latter, however, more nearly than the former.

A pack is often made up of terriers, hounds, and even curs of low degree. The dogs easily follow the trail, giving expression to their delight as the scent grows warmer, and shouting "he's treed" in different, louder notes when the cat has been compelled to go aloft. Mr. A. C. Laut has beautifully described the wild-cat in the tree. "Had the trapper Koot," he says, "glanced up to the topmost spreading bough of a pine just above the snare, he might have detected lying in a dapple of sun and shade, something with large owl eyes, something whose pencilled ear-tufts caught the first crisp of the man's moccasins over the snow-crust. Then the ear-tufts were laid flat back against a furry form, hardly differing from the dapple of sun and shade. The big owl eyes closed to a tiny blinking slit that let out never a ray of tell-tale light. The big round body, mottled gray and white like the snowy tree, widened, stretched, flattened, till it was almost a part of the tossing pine bough. Only when the man and dog below the tree had passed far beyond did the pencilled ears blink forward and the owl eyes open, and the big body bunch out like a cat with elevated haunches ready to spring."

The cat when treed is easily shot, but many thorough-going cat hunters prefer to dislodge him in order not to disappoint the dogs, which are always eager for a fight. A hunter sometimes climbs the tree and

drives the cat out, and good dogs easily take care of him when he reaches the ground. The cat often does some damage to the dogs, and sometimes escapes them and climbs another tree.

As in cougar hunting, dogs are absolutely necessary, since the wild-cat is shy and is never seen by the sportsman without dogs. Roosevelt, when "with the cougar hounds" in Colorado, killed a number of these cats, and Mr. Stewart, who accompanied him, "took" many of them with his camera.

"When the bob-cats were in the tree tops," he says, "we could get up very close. They looked like large malevolent pussies. I once heard one of them squawl defiance when the dogs tried to get it out of a hole. Ordinarily they confine themselves to a low growling. Stewart and Goff went up the trees with their cameras whenever we got a bob-cat in a favorable position and endeavored to take its photograph. Sometimes they were very successful. Although they were frequently within six feet of a cat, and occasionally even poked it in order to make it change its position, I never saw one make a motion to jump on them. Two or three times on our approach the cat jumped from the tree almost into the midst of the pack, but it was so quick that it got off before they could seize it. They invariably put it up another tree before it had gone any distance."

The two largest cats killed by Roosevelt weighed, respectively, thirty-one and thirty-nine pounds.

Since the dogs are of the utmost importance in cat hunting it is important to know the kind of dogs and something of their training, and what good dogs are

expected to do. Roosevelt more than once refers to the fact that in cat hunting the success of the hunter depends upon his hounds. "As hounds that are not perfectly trained are worse than useless," he says, "this means that success depends absolutely upon the man who trains and hunts the hounds."

We all know how exasperating it is when bird shooting to have an ill-trained dog—one that races away, for example, after every hare, and, having put an end to the shooting for a long time, at length returns thoroughly tired out and often with his eyes full of dirt from digging at a burrow. Nothing is more trying than to see such a dog throw himself, panting, on the grass and refuse to get up and continue his work with the birds, from sheer exhaustion.

A hound not properly trained for one kind of game will follow almost anything. I have seen young dogs leave an antelope to try and catch a jack-rabbit which popped up in front of them when in full chase. The reader will recall the fact that part of the pack left their quarry and went off after a wolf when I was chasing antelopes with Governor McIntyre, of Colorado. When the dogs are after the cougar or the bobcat they will most likely strike the trail of the deer and wolves, and may jump these animals in the grass. If well trained for cats they do not notice the other animals any more than well-trained setters and pointers notice the "cotton-tails," which continually run away before their noses. Mr. Goff's hounds which Roosevelt followed were, with the exception of one new dog and a puppy, so well trained that "not one of the pack would look at a deer even when they

were all as keen as mustard, were not on a trail, and when the deer got up but fifty yards or so from them." They were never permitted to follow elk, deer, antelope, rabbit, or wolves unless the latter were wounded.

Bob-cats are abundant in parts of Colorado and in many other Rocky Mountain States, as well as in the Canadian provinces. Thousands of skins have been brought into the ports at Hudson Bay and elsewhere, and many are annually taken with traps.

Besides taking to the trees when pursued the bob-cats enter holes in the ground, and Roosevelt says they lost over half the bob-cats they started by their getting into caves, deep holes or washouts.

Roosevelt describes the chase of a bob-cat which took to a hole in the ground, as follows:

"The next day we were again in luck. After about two hours' ride we came upon an old trail. It led among low hills, covered with pinyon and cedar, and broken by gullies or washouts, in whose sharp sides of clay the water had made holes and caves. Soon the hounds left it to follow a bob-cat, and we had a lively gallop through the timber, dodging the sharp snags of the dead branches as best we might. The cat got into a hole in a side washout; Baldy went in after it, and the rest of us, men and dogs, clustered about to look in. After a considerable time he put the cat out of the other end of the hole, nearly a hundred yards off, close to the main washout. The first we knew of it we saw it coming straight toward us, its tail held erect like that of a white-tail deer. Before either we or the dogs quite grasped the situation it bolted into another hole

almost at our feet, and this time Baldy could not find it, or else could not get at it."

Both bob-cats and cougars are decreasing. As animals for a game preserve, it may be said, they would not do at all in small deer parks or pheasant "shoots," but on large shooting estates, I am satisfied, they would do no harm, or might even prove to be a benefit. Had there been cougars in the Pennsylvania parks, where the deer became too numerous for the food supply, they might have been kept down by these cats, which, no doubt, would have given the deer considerable exercise and the owners of the preserves would have had good cougar hunting. There is such a thing as both birds and beasts becoming too numerous for their health on the game preserve. A few cougars and bob-cats would help regulate this matter. There seems here as elsewhere in the fields and woods to be a requirement for that "balance of nature" which is so much talked about nowadays.*

* A New York sportsman who owns an insular game preserve near the Georgia coast, recently informed me that he had fine cat-hunting—following the hounds on horseback and shooting the cats from the trees. They destroy many of his partridges.

APPENDIX

APPENDIX

THE following descriptive notes will enable the reader to identify any of the North American big game animals. The species and sub-species are listed, with their technical names, and a brief reference to the points wherein the sub-species or varieties differ from the species.

The various sub-species of deer, bear, sheep, and other animals are comparatively unimportant to sportsmen. The big-game hunter will, however, often notice that one animal differs from another which he supposed the same, and the same animal often bears different names in different localities; these differences are referred to in the following pages.

I am indebted to the writers of valuable papers, which have appeared in the *Century*, the *Scribner's*, and the *Harper's Magazines*, as well as those who have written for the sportsmen's journals. I am under obligations to Roosevelt, Grinnell, Hornaday, Dodge, Caton, Whitney, Madison Grant, Stone, Kidder, and many others (whose works are cited in the text) for information, which has made it possible to describe all the big game animals, and their methods of capture, within the limits of one volume. Mr. Shields, the editor of *Recreation*, kindly permitted the use of the pictures of the mountain goats and the big horns. I am indebted, also, to Mr. Austin Corbin and to Mr. George S. Edgell

for the photographs of the bison which were made at the Blue Mountain game-preserve in New Hampshire.

Mr. Hornaday's new "American Natural History" contains much interesting matter concerning the habits and present distribution of all the North American game animals, with many capital pictures, and should find a place beside the works of the other writers in every sportsman's library.

BOOK I

THE DEER FAMILY—CERVIDÆ

There are six well-defined types of North American deer in the *Cervidæ*, or deer family; seven, if we consider the woodland caribou and the barren-ground caribou as distinct forms. According to Mr. Hornaday, a full count reveals no less than twenty-four recognized species and sub-species. The list, of course, includes many animals that are so much alike as to be one and the same from the sportsman's point of view. The deer of the sportsmen are the moose, the elk, the mule-deer, the Columbia black-tailed deer, the Virginia deer, and the two caribou.

All deer belong to the order *Ungulata*, or hoofed animals. They are divided into two classes—the deer with round horns and the deer with flat horns.

1. The Moose.—*Alces Americanus*.

The largest deer in the world; from six to seven feet high at the shoulder; legs quite four feet long. Hair purplish gray, coarse, and from three to six inches long. Head large, with broad, square-ended, overhanging nose. Adult male has large flattened or palmated antlers. Neck short; so short as to interfere with this animal's feeding from the ground. He is evidently a browser.

Range.—The moose is found from Maine to the Pacific coast and Alaska; chiefly north of the United States. It frequents dense woodlands and swamps. In the West, the moose is found in the Yellowstone National Park and a few favored localities in northern Minnesota, northwestern Wyoming, and Idaho.

Note.—In great forest game-parks, or preserves, where the ground and climate are suitable (such as Blue Mountain Park, New Hampshire), the moose will thrive and increase.

Favorite shooting-grounds are Alaska, Canada, and Maine. "Except in Alaska, the majority of moose killed by hunters are shot from ambush beside ponds or from canoes. Frequently moose, that are surprised when wading and feeding in shallow water, make the mistake of rushing into deep water to escape by swimming, when they are easily overtaken, and either killed, captured, or photographed."—HORNADAY.

(a) *The Alaskan Moose (Alces gigas).*

A large moose similar to the preceding, with larger antlers.

Range.—Alaska. This moose is much like the preceding, No. 1, the common moose of sportsmen. Mr. Hornaday says: "Its place in the annals of natural history is at least very questionable."

2. *The Elk or Wapiti.—Cervus Canadensis.*

Second in size to the moose, this deer is often described as being as tall as a horse. Color yellowish brown; head, neck, and under parts dark brown; rump yellowish white. In shape the elk is more like the common or Virginia deer than the moose. The elk is a handsome, graceful animal. The males have large round-horned antlers. A large stag will weigh from 700 to 750 pounds.

Range.—The range of the elk was formerly three-fourths of the United States. It has been exterminated from nineteen-twentieths of its range. Abundant in the Yellowstone National Park and vicinity. Elk are found in smaller numbers in Washington, Oregon, Colorado, western Montana, and Idaho, a small area in Manitoba, and in central California.

Note.—Elk do well in captivity and are to be seen in most of the zoological gardens. They thrive in game-parks and preserves from New England to California.

3. *The Mule-Deer.—Odocoileus hemionus.*

This deer is often called the black-tail deer. It is somewhat larger than the common Virginia deer, and is heavier or more stocky in body. The fall and winter color is gray. In summer the coat is more brown. It is a large, handsome deer, with large antlers, which branch like two Y's on each antler. This deer is easily distinguished by its antlers and by the large, long ears, which suggested the name. It is somewhat like a small elk. Weight, about 250 pounds. A large specimen has weighed 280 pounds.

Range.—From the Dakotas to Oregon, British possessions to Mexico. "The few, widely scattered survivors of this species are found in Chihuahua and Sonora, Mexico; western Colorado and Wyoming, southeastern Idaho, central Montana, and eastern British Columbia."—HORNADAY.

Note.—This deer is fond of the open, park-like country. It prefers hills and mountains partly wooded, with intervening meadows. It is, therefore, more easily seen and shot, and is more easily exterminated than the Virginia or white-tailed deer. Mr. Hornaday predicts its extinction in the United States in about ten years, "for everywhere, save in the Yellowstone Park, it is being destroyed very much faster than it breeds."

This is a splendid deer for game-parks and preserves, from the Dakotas west. It is difficult to acclimatize outside its own home, but this has been accomplished at the Whitney "October Mountain" game-preserve in Massachusetts.

4. Columbia Black-tailed Deer.—*Odocoileus Columbianus*.

An animal much smaller than the mule-deer. Tail black, which suggested the name. Antlers variable; sometimes resemble those of mule-deer; at others resemble antlers of white-tail deer. The color is more like that of the Virginia deer than the mule-deer. Weight about the same as average white-tail, or Virginia deer, No. 5.

Range.—From central California north to British possessions, inhabiting the Pacific coast forests and mountains.

Note.—This deer "does not live when brought to the Atlantic coast. The New York Zoological Society tried fifteen specimens, and has given up the attempt to transplant them." It does not necessarily follow that they would not do well in large game-parks.

(a) Sitka Deer (*Odocoileus Sitkensis*).

The Alaskan form of the preceding; much smaller; formerly abundant, but "being slaughtered in great numbers."

5. Virginia Deer, Common Deer, White-tail.—*Odocoileus Virginianus*.

Also called red-deer, from its summer coat, which is reddish. The coat turns gray in the autumn. The deer is then said to be "in the blue." This is the most familiar and common deer in North America. The long, bushy tail is very white underneath, and quite noticeable when the deer is running. The antlers are round. At a short distance from the head they "drop forward with the beam almost horizontal. The antlers of nearly all other deer point backward as they rise."—HORNADAY.

The size and weight vary much. One hundred and fifty pounds is a good average. A large specimen weighed 333 $\frac{3}{4}$ pounds.

Range.—United States, from the Atlantic to the Pacific and from the British possessions to Mexico. This deer is found in every State in the Union except Delaware, Oregon, Nevada, and California. Abundant in Maine, Vermont, the Adirondacks, New York, Michigan and Minnesota and parts of British provinces and Mexico.

Note.—This is the best all-around big-game animal in North America. Its place among the big-game animals is similar to that of the partridge, bob-white, among the birds. "One fine old white-tailed buck," says Hornaday, "killed by fair and square trailing and stalking, is equal to two mule-deer or three elk."

This is the best deer for the game-preserve. It thrives wherever protected. Under good laws, well executed, it is showing an increase in New England and in the Adirondacks, and is increasing on Long Island with "surprising rapidity." The open season on Long Island is only four days per annum.

(a) *Florida White-tailed Deer*.

This is a smaller variety of Virginia deer. It is also distinguished by its smaller antlers and scanty pelage.

(b) *Arizona White-tailed Deer*.

A much smaller or dwarf variety of the Virginia deer. Its range extends from southern Arizona southeastward into Mexico to latitude 25°.

Both (a and b) are said to be nothing more than diminutive races of the more robust northern type, with very small antlers and the short scanty pelage which is necessary to the comfort of deer in the tropics.—HORNADAY.

6. **The Woodland Caribou.**—*Rangifer caribou*.

This animal is much like the familiar reindeer of Europe. Its color is gray or "bluish brown." It is easily distinguished by its antlers, which are palmated, but not so widely as those of the moose. Both sexes have antlers. Those of the female are smaller. None of our deer, excepting the moose and caribou, have palmated antlers. The moose antlers are so large, heavy and widely palmated as not to be compared with those of the caribou. The body of the caribou is also much smaller than that of the moose. The largest caribou measures not over fifty-five inches at the shoulder.

Range.—Maine and northern parts of the Rocky Mountain States; British possessions, south of the barren grounds, where it is replaced by the barren-ground caribou.

(a) *Newfoundland Caribou* (*Rangifer terraenovae*).

Until recently the same animal as the preceding. Now ranked as an independent species, chiefly on account of lighter color.

(b) *Black-faced Caribou*, *Mountain Caribou* (*Rangifer montanus*).

A darker caribou, September coat almost black.

(c) *Osborne Caribou* (*Rangifer osborni*).

A large dark-colored caribou of northern British Columbia.

(d) *The Kenai Caribou* (*Rangifer stoneri*).

Kenai Peninsula, Alaska, named in 1901. Almost extinct in 1903.

Note.—Woodland caribou prefer wooded districts, especially barrens and swamps. They are found often associated with the moose, and inhabit similar grounds. They do not like open plains or the country "studded with groves of poplar." Barren-ground caribou are, on the other hand, plains animals, and emigrate north and south across the great northern barren districts of North America.

7. The Barren-Ground Caribou.—*Rangifer arcticus*.

This caribou is somewhat similar to No. 6 in appearance, but is smaller. It is regarded by some naturalists as merely a geographical race, the barren-ground caribou being the more northern. The head is not so trim in outline or so handsome as that of the Virginia deer, being "blunt and rather heavy, but less coarse than that of the moose" —(Grinnell). The horns are remarkably large and heavy for the size of the animal. Both sexes have horns. Those of the female are smaller.

Range.—Arctic regions south to the wooded districts of British America; Greenland to Alaska.

(a) *Greenland Caribou*.

(b) *Grant's Caribou*.

(c) *Peary's Caribou*.

These caribou are all similar to the common barren-ground caribou. They are as much alike as the many ruffed grouse of the ornithologists, and are of no importance to sportsmen. Some naturalists doubt the merit of this classification.

BOOK II

THE OX FAMILY.—BOVIDÆ

The *Bovidæ*, or ox family, is another family of the order *Ungulata*, or hoofed animals. The game animals of North America in this family are five in number, from the sportsman's point of view—*Bos americanus*, the bison; *Ovibos moschatus*, the musk-ox; *Ovis canadensis*, the big-horn; *Oreamnos montanus*, the mountain goat, and *Antilocapra americana*, the prong-horn antelope.

8. The Bison.—*Bos americanus*.

The American bison is a large ox-like animal, brown in color, and easily distinguished by the high hump and shaggy head and neck. It has simple, unbranched horns. The bison is usually miscalled buffalo; but the true buffalo has no hump. The largest bison measures five feet eight inches at the shoulder. Estimated weight, 2,100 pounds.

Range.—Formerly from the British possessions to Mexico and from Virginia and New York, west to the Rocky Mountains; most abundant on the great plains. The bison is now practically extinct. There is a small herd in the Yellowstone National Park.

Note.—There are many bison in captivity in zoological gardens and game-preserves. The bison is easy to raise in captivity, and does well even in the small enclosures in the public gardens. The largest herd is in the game-preserve, Blue Mountain Park, New Hampshire—this contains over one hundred animals and is increasing steadily. The largest herd on public exhibition is that of the New York Zoological Park, which in 1903 contained thirty-four head of pure-breed animals representing all ages. These were presented by the late William C. Whitney, from his game-preserve in Massachusetts, October Mountain.

9. The Musk Ox.—*Ovibos moschatus*.

This animal is smaller than the preceding. It is a simple horned animal, and is easily distinguished by its very long hair. Hornaday's description is: "An oblong mass of very long, wavy brown hair, $4\frac{1}{2}$ feet high by $6\frac{1}{2}$ feet long, supported upon very short post-like legs, that are half hidden by the sweeping pelage of the body. The three-inch tail is so very small and short that it is quite invisible. . . . The top of the head is crowned by a pair of horns enormously flattened at the base and meeting each other in the centre line of the forehead."

Range.—From 64° to the Arctic regions.

10. The Big-Horn Mountain Sheep.—*Ovis canadensis*.

General color gray-brown, with a large whitish patch on the hind quarters, around the tail. This animal is easily recognized by the large curving horns, which are different from those of any other wild animal. The largest horns are said to measure $18\frac{1}{2}$ inches in circumference and $52\frac{1}{2}$ inches in length. "All horns of 14 inches in basal circumference may be considered large" (Hornaday).

Range.—Western mountains, Alaska to Mexico; formerly badlands of Missouri region.

(a) *Nelson's Mountain Sheep* (*Ovis nelsoni*).

A smaller big-horn, short-haired, and of a pale, salmon-gray color.

Range.—Southern California and the peninsula of Lower California.

(b) *Mexican Mountain Sheep* (*Ovis mexicanus*).

Much like (a); found in Chihuahua, Mexico.

(c) *The White Mountain Sheep*; *Dall's Sheep* (*Ovis dalli*).

A pure white northern big-horn, with yellowish amber-like horns. Smaller than big-horn; horns smaller and more slender. Widely distributed in Alaska and Yukon country.

(d) *Black Mountain Sheep*; *Stone's Sheep* (*Ovis stonoi*).

Upper parts and sides dark brown; abdomen white; same size as white sheep. Found in northern British Columbia.

(e) *Fannin's Mountain Sheep* (*Ovis fannini*).

A new species, about the size of the white sheep. This sheep has a white head and bluish gray body. Found on the Klondike River, Yukon territory.

11. The Rocky Mountain Goat; White Goat.—*Oreamnos montanus*.

In form and general outline this animal is like a "pigmy American bison"; white, as the name indicates. The horns are small, short, and plain. It weighs about as much as a Virginia deer. The shoulder height of an average-sized male is 37 inches. Females average one-third smaller.

Range.—Western mountains, Idaho and Montana; northward to Alaska.

(a) *Kennedy's Mountain Goat*.

This is a new species, said to have more slender horns.

12. Prong-horned Antelope; Prong-buck.—*Antilocapra americana*.

Somewhat smaller than the common deer; color yellowish brown, marked with white; lower parts white; neck white with brown collar. Easily distinguished by the black-pronged horns.

Range.—Formerly abundant in the open country from the great plains to California. Now found in small bands in a few localities in Montana, Wyoming, Colorado, Kansas, Texas, New Mexico, Nevada, Idaho, Utah, Oregon, and California. In all of these States, save four, its destruction has been absolutely prohibited or prohibited for long periods.

Being an open-country animal the antelope is easily seen, and, as I said in a paper on "Field Sports of To-day" (*The Century*, October, 1903), "everyone took a shot at an antelope to see if he could hit it." The result has been that the antelope has been exterminated in many places.

Mr. Hornaday urges sportsmen to stop shooting it everywhere. In my opinion, its preservation depends upon the establishment of great Western game-preserves, where the shooting should be interesting and valuable, and should be limited to the increase of the year.

BOOK III

THE BEAR FAMILY.—*URSIDÆ*

The bear family is placed in the order *Carnivora*—the flesh-eaters. The bears are all plantigrade, or flat-footed animals, and are armed with long, non-retractile claws. Most of the bears are unable to climb trees, but the black bear is a good climber. The bears eat a great variety of food, insects, fruits, berries, and mast, as well as flesh. They are fond of fish, and especially fond of honey, and may be said to be omnivorous, or nearly so.

North America is rich in bears. We have the largest bear in the world—the big brown bear of Alaska; the fiercest and most formidable—grizzly; the great polar-bear and the black bear.

13. The Grizzly Bear.—*Ursus horribilis*.

A large brown bear having a grizzly appearance from the ends of the hair being tipped with gray; high at the shoulders; long curved claws. There are various shades of color in different localities. Gray bears are called silver-tips. A specimen has weighed 1,153 pounds. The average weight is much less—500 to 600 pounds.

Range.—Western States ; Mexico to Alaska ; formerly in plains country, as well as in mountains.

The grizzly bears are now found only in remote places in the mountains, and are uncommon everywhere. In many localities they are extinct.

Note.—Grizzlies thrive in parks and preserves, as is evidenced by the bears in the Yellowstone National Park. They become tame when unmolested and seem harmless.

Other varieties are :

- (a) *The Sonora Grizzly Bear (Ursus horribilis horriacus)*.
Southwestern New Mexico.
- (b) *The Alaskan Grizzly Bear (Ursus horribilis alascensis)*.
Norton Sound, Alaska.
- (c) *The Barren-Ground Grizzly (Ursus richardsoni)*.
Great Slave Lake and barren grounds.
These are all the same from the sportsman's point of view.

14. Polar-Bear.—*Thalarctos maritimus*.

A large white bear, easily distinguished by its color and long neck. A tall animal, often seven feet or more in length ; weight, 800 pounds or more for a very large specimen.

Range.—The polar-bear inhabits the Arctic regions and is found all around the pole.

15. Black Bear.—*Ursus americanus*.

This is the smallest and best known American bear. Usually the color is black in the Eastern States, but it is often brown in the West. The nose is a "dirty white" or light brown. Brown specimens are often called cinnamon bears and brown bears. Cubs, both brown and black, have been observed with the same mother. The black bear is highest in the middle of the back, not at the shoulder, and has a well-rounded appearance.

Range.—From the Atlantic to the Pacific ; from Florida and Mexico to Alaska. "During the past twenty years it has been seen or killed in forty States of the United States ; in Mexico, Alaska and eleven of the British provinces."—HORNADAY.

Other varieties are :

- (a) *Labrador Bear (Ursus americanus sornborgeri)*.

Range.—Labrador.

- (b) *Louisiana Bear (Ursus luteolus)*.

Range.—Louisiana and Texas.

- (c) *Everglade Bear (Ursus floridanus)*.

Range.—Florida.

- (d) *Glacier Bear (Ursus emmonsii)*.

Range.—St. Elias, Alps, Yakutat Bay, Alaska.

- (e) *Queen Charlotte Bear (Ursus carlottæ)*.

Range.—Queen Charlotte Islands, British Columbia. The list reminds us of the long list of ptarmigans of the ornithologists. The above, however, are all plain, every-day black bear to the sportsman.

16. The Big Brown Bear, Kadiak Bear.—*Ursus middendorffi*.

A large bear, in color light brown. This bear (unlike the black bear which is often miscalled brown bear) is highest at the shoulder. It has a large, massive, wide head, short, thick claws, and a shaggy pelage. In size and shape it resembles the grizzly bear. In courage it seems more like the smaller black bear. This bear is the largest carnivorous animal in the world.

Range.—Kadiak Island, Alaska.

- (a) *Yakutat Bear (Ursus dalli)*.

Range.—Yakutat Bay, Alaska.

- (b) *Peninsula Bear (Ursus dalli gyas)*.

Range.—Pavlof Bay, Alaska.

- (c) *Merriam's Bear (Ursus merriami)*.

Range.—Portage Bay, Alaska.

- (d) *Kidder's Bear (Ursus kidderi)*.

Range.—Chinitna Bay, Alaska.

- (e) *Sitka Bear (Ursus sitkensis)*.

Range.—Alaska coast, near Sitka.

Note.—The Alaskan brown bears would seem from the above list to be maritime bears, since all are listed as from Alaskan bays, excepting two—the Kadiak bear, which hails from an island, and the Sitka bear, which is registered as from the coast. The bears, no doubt, inhabit the regions round about the bays named. Hornaday says: "The big brown bears range from Sitka around to

the extremity of the Alaskan Peninsula, Kadiak Island, and inland for unknown distances." He is of the opinion that some of the above species may be consolidated. They may all be consolidated into one "big brown bear" for the sportsman.

BOOK IV

THE CAT FAMILY—FELIDÆ

The cats belong to the order *Carnivora*—the flesh-eaters. North America is not well supplied with wild-cats from the sportsman's point of view. The powerful and ferocious lions, tigers, and leopards are absent.

The two typical North American cats are the puma, more often called cougar, and the lynx—the former being the mountain lion and the latter the wild-cat of the sportsmen. The jaguar has been taken in the Southwest, this side of the Rio Grande, but not in sufficient numbers to be listed as a big-game animal by the Boone and Crockett Club.

17. The Cougar, Puma, Mountain Lion.—*Felis concolor*.

This is a large cat of a uniform tawny color, which is lighter underneath. It is usually called mountain lion from its resemblance to the lioness of Africa. This animal has a long, slim body and a long tail. The average weight is given as about eighty pounds, but many mountain lions have been killed which weighed nearly two hundred pounds. A large specimen weighed 225 pounds and measured eight feet from nose to tip of tail.

Range.—Formerly from the Atlantic to the Pacific; north to Alaska, south to Mexico and South America. Probably extinct or nearly so in the Eastern United States, except Florida. One was recently reported in the Adirondacks.

Note.—The cougar is not very dangerous; usually tries to escape by climbing trees. "Of all the large cats of the world it is the best climber."

18. The Canada Lynx.—*L. Canadensis*.

An animal similar to a domestic cat in appearance, but very much larger. The general color is gray or reddish gray. One variety is spotted. Tail very short; often called bob-cat; about eighteen inches high; weight of full grown specimen 22 pounds.

Range.—Canada to Mexico.

Note.—The lynxes are not courageous; always seek to escape, usually to trees or holes in the ground.

(a) *The Red Lynx* (*L. rufa*).

Similar in size and shape to No. 18, but reddish in color.

(b) *The Spotted Lynx* (*L. maculata*).

Similar in size and shape to No. 18, but gray and spotted as the name indicates.

Other smaller wild-cats are the ocelot, length, 26 to 33 inches, Mexico; the Margay, length, 24 to 27 inches, Mexico; the Jaguaronde, a very small cat, shaped like a puma, Mexico; the Eyra, about the size of the common house cat, Texas, near the Rio Grande.

INDEX

INDEX

- ADIRONDACK RESERVATION, 25
 Adirondacks, shipment of deer from, 129; scenery, 133, 134
 Aguilar, Señor Don, 258
 Alaskan brown bears, 294, 335 [note]; food, 297; flesh, 297; pelts, 297
 Alaskan grizzly bear, *Ursus horribilis alascensis*, 334
 Alaskan moose, *alces gigas*, 69, 71, 327; range, 327
 Allen, Dr., 208
 Ammunition, 9, 10-13
 Andrus, Mrs., 306
 Antelope, *antilopatra americana*, extinction of, 31, 168; horns, 169, 229; description, 228, 333; former abundance on the plains, 230, 234; racing with railway trains, 231, 232; Indian methods of capture, 231; jumping, 232; range, 233, 333; curiosity, 233, 235-237, 240; decrease, 233-235; hunting, 235-239, 247; "flagging," 240, 242; stalking, 240-243; enemies, 243, 248; coursing with greyhounds and staghounds, 244-247; domestication, 247, 248; habits, *etc.*, 248, 249; protection of, 249, 333
 Antelope Island [note], 175
 Arizona white-tail deer, 124, 329
Artiodactyla, 40
 Atchison Pacific Railway, trains thrown from track by buffalo, 171
 Audubon, *quoted*, 229
 BAILLIE-GROHMAN, *quoted*, on the white goat, 8, 217, 226
 Baldwin, General, 56, 100, 237
 Barren-ground caribou *Rangifer arcticus*, 146; range, 147, 152, 153, 330; color, 148; food, 149, 153, 154; tameness, 149; rutting season, 150; horns, 150; flesh, 150; curiosity, 150; shooting, 150, 151; sense of smell, 151; weapons and ammunition, 151; shooting season, 154, 155; licenses, 155; relation to the reindeer, 161; difficulties of shooting, 161, 162; migration, 162, 164; bands, 162, 163; abundance, 163, 164; description, 330
 Barren-ground grizzly, *Ursus richardsoni*, 334
 Barren Grounds, 199
 Bear family, *Ursidae*, 6, 7, 333; species, 253; range, 253, 256; ferocity, 253, 254; food, 254; "hibernating," 255; tracks, 255; affection for young, 255; traps, 255, 256.
 Bees attacking black bear, 287, 288
 Bierstadt, Albert, 69
 Big brown bear, *Ursus middendorffi*, 253; varieties, 294, 297, 335; hunting, 294-297; food, 297; flesh, 297; pelts, 297; description, 335; range, 335
 Big game, decrease in slaughter of, 4; varieties, 6, 7
 Big game shooting, 3; decrease in slaughter, 4; weapons and ammunition, 9, 10-13; use of dogs, 14, 15, 16; costume, 16; shooting, 16-18; carelessness, 19; preserves, 28-30, 31
 Big-horn, *Ovis canadensis*, 167, 206, 210, 213; range, 168, 214, 332; flesh, 169; horns, 169, 209, 216; description, 207, 213, 215, 332; species,

- 208, 209; habits, 209-211, 214; shooting, 211-213; difficulties of shooting, 215, 216
- Big Horn Mountains, necessity for game preservation, 23, 24; grizzly shooting, 259, 261, 262
- Bison, *Bos americanus*, 167; extinction of, 168, 172, 175, 177, 178; origin and name, 170; vast herds, 170-172; census of, 173, 174; extermination owing to railroads, 172; preservation, 174, 175, 331; range, 177, 331; description, 176, 177, 331; swiftness, 178, 179; hunting, 179-193; weapons and ammunition, 193, 194; dependence of Indians on, 193, "wallows" [note], 176
- Bitter Root reserve, 25
- Black bear, *Ursus americanus*, 253; food, 254; "hibernating," 255; methods of hunting, 282, 289; anecdote of killing with bird-shot, 283, 284; description, 284, 334; range, 284, 334; habits, 285, 286; flesh, 285; food, 286; fondness of honey, 287, 288; easily intoxicated, 287, 288; cubs, 288; protection of, 289; shooting in the South, 289-293; bear-dogs, 289; varieties, 333, 334
- Black big-horn, *Ovis stonei*, 208; range, 209
- Black-faced caribou, *Rangifer montanus*, 330
- Black mountain sheep; Stone's sheep, *Ovis stonei*, 209, 210, 332
- Black-tailed deer, *Odocoileus Columbianus*, 45, 95; confused with mule-deer, 111; description and characteristics, 111-113, 328; range, 113, 328; hunting, 113, 114; food, 114; in Yosemite Park, 114-116
- Blake, Mr. Robert P., 264, 295, 296
- Blooming Grove Park, 33
- Blue bear, 297
- Blue Mountain Forest Association, 194
- Blue Mountain Forest Game Club, buffalo preserve, 174, 194
- Blue Mountain preserve, 26, 28; increase of deer, 35
- Bob-cat, *see* lynx
- Bonebrake, Mr. P. S., describes cougar hunt, 307, 308
- Bonneville, Captain, *quoted*, 171, 178, 188, 218, 231
- Boone and Crockett Club, qualification for membership, 5, 6, 97; preservation of game, 22; moose, 79
- Brown, Mr. George [note], 69
- Brown bear, *see* black bear
- Buffalo, *see* bison
- Bull-and-bear fights, 257, 258
- Burro-deer, *see* mule-deer
- CAHOON, MR. GEORGE, 256; encounter with black bear, 283, 284, *quoted* on black bear, 288, [note]
- Cahoon, Mrs. George, 283, 284
- California parks and reserves, 25
- Canada, buffaloes in, 174
- Canada lynx, *L. canadensis*, 315, *see* lynx
- Canadian Rocky Mountain Park, 194
- Caribou, 39, 44; two species, 146; range, 147, 152, 153, 160; size, *etc.*, 148; color, 148; feet, 148; food, 149, 153, 154; tameness, 149; rutting season, 150; horns, 150; flesh, 150; curiosity, 150; shooting, 150, 151; sense of smell, 151; weapons and ammunition, 151; slaughter in Newfoundland, 153, 155-157, 158; shooting season, 154, 155; licenses, 155; shooting-boxes, 158; abundance in New Brunswick, 159; *see* woodland caribou and barren-ground caribou
- Carson, Kit, 277
- Cartier, Jacques, *quoted*, 278, 279
- Cat family, *Felidae*, 6, 7, 336; not true game, 301; varieties in various countries, 301, 302, 336
- Catamount, *see* cougar
- Caton, Judge, 28, 40, 33, 44, 46, 50, *quoted*, on moose, 79; mule-deer, 96, 97, 98; black-tailed deer, 114;

- Virginia deer, 131; antelope, 229, 232, 235, 247
 Chestnut, Mr. W. T., *quoted*, 159
 Clark, Mr., 270
 Cody, William F., "Buffalo Bill," 171, 177
 Collier, Holt, 292
 Colorado, buffalo in, 173, 175
 Colorado black-tailed deer, *see* mule-deer
 Columbia black-tail, *see* black-tailed deer
 Common deer, or common red deer, *see* Virginia deer
 Corbin, Mr. [*note*], 35, 49 [*note*], 175; his herd of buffalo, 194
 Corbin, Mr. Austin, Jr., 195
 Corbin Park, 26, 194
 Cougar, *Felis concolor*, 5, 6, 254, 336; color, 303; weight and size; 303; prey, 304, 310; range, 304, 310; cry, 304; young, 304; cowardness, 304, 305, 306, 307, 313, 336; hunting with dogs, 307-310, 311-313, 314; killing deer, 310; decrease, 322; use of in game preserves, 322; range, 336
 Country Club, 34
 Croker, Mr., 232
 Custer, General, 102
- DALL, PROFESSOR, 208
 Davis, Dr. T. S., *quoted*, 157
 Deer family, *Cervidae*, 6; "jacking," 15; natural history, 39-43; species, 326
 Denison, Mr., *quoted*, 290-293
 De Weese, Dall, 69
 Dodge, Colonel, 19; *quoted* on mule-deer, 95, 107, 109, 111; Virginia deer, 131; buffalo, 171, 177, 188, 190, 194
 Dogs, necessity of, for retrieving, 14; hunting with, 15, 16; bear hunting, 289, 297; cougar, 307-314; lynx, 317-322
 Dooly, Hon. John C., his herd of buffalo [*note*], 175
- EAGLES, killing antelope, 243
 Edgell, Mr., 194
 Eland, 67
 Elk, *Cervus canadensis*, 44; description of, 46, 47, 327; range, 47, 48, 327; tameness, 48, 49; food, 50; habits, *etc.*, 51-53; hunting, 53-61; where elk may be shot, 61, 62; licenses, 62; guides, 62, 63; in captivity, 327
 Eskimos, musk-ox hunting, 200, 203
 European lynx, 315
 Everglade bear, *Ursus floridanus*, 335
 Eyra, 337
- FANNIN'S mountain sheep, *Ovis fannini*, 209, 210, 232
Field and Stream, *quoted* on moose calling, 82
 "Flat-horned elk," 67
 Flathead reserve, 25
 Florida white-tail deer, 124, 329
 Frank, Mr. Elmer, experience hunting grizzly bears, 270-273
 Fuller, Captain Dan, *quoted*, 277
- GAME LAWS, 42
 Game-wardens, 63
 Garnett, Mr., 124
 General Grant Park, 25
 Glacier bear, *Ursus emmonsii* [*note*], 7; 297, 335
 Goff, Mr., 311, 313, 314, 319
 Grant, Mr. Madison, *quoted* on the moose, 66, 67, 69, 71-75, 81, 85
 Grant's caribou, 330
 Green, Mr. G. W., *quoted* on moose hunting, 88-92
 Greenland caribou, 330
 Griggs, Dr. Stephen, 86
 Grinnell, G. B., 8, *quoted*, 41, on elk, 46, 47; moose, 69, 79; black-tailed deer, 112, 113; Virginia deer, 131; caribou, 147, 148, 330; buffalo, 178, 193; antelope, 229, 240, 247
 Grizzly bear, *Ursus horribilis*, 253; ferocity, 254, 277; food, 254; "hibernating," 255; fights with bulls, 257,

- 258; fear of man, 259; hunting, 259
et seq.; weapons and ammunition, 263-268; bands, 270; decrease of, 274; use of dogs in hunting, 274, 275; guides, 275; weight, 275; color, 275; strength, 276; food, 276; flesh, 276; speed, 276; traps, 276; former abundance, 276, 277; description, 333; range, 334; in captivity, 333; species, 333
- Guides, 62, 63, 85, 92
- HAMPTON, GENERAL WADE, 290
- Hanbury, Mr. David T., *quoted*, 164; on musk-ox, 196, 198; white goat, 220, 223
- Hollow-horned ruminants, *Cavicornia*, 167
- Hornaday, Mr., *quoted*, 14, 25, 31, 43; on elk, 46, 328; moose, 69, 70, 327; black-tailed deer, 112; weight of deer, 130, 131; musk-ox, 197; *Ovis fannini*, 209; cougar, 314; Virginia deer, 329; black bear, 334; white-goat [*note*], 220, 223
- Hounds, hunting antelope with, 240, 244 247
- Hubbard, Mr. Leonidas, death of, 205
- INDIANS, dependence on buffalo, 193; musk-ox hunting, 201, 202; killing of mountain-goats, 220; antelope hunting, 231
- Irving, Washington, 170; *quoted* on grizzly bear, 268-270
- Iwilics, 203
- "JACKING," 15
- Jacksons Hole country, abundance of elk, 51; buffalo, 175
- Jacobus, Mr. Charles, 86
- Jaguar, 7, 301, 302
- Jaguaronde, 337
- KADIAK BEAR, 264, 294, 335; hunting, 295-297; flesh, 297
- Kenai caribou, *Rangifer stonei*, 330
- Kenai Peninsula, 70
- Kendall, Dr. E. F., 65
- Kennedy's mountain goat, 332
- Kidder, Mr. James H., *quoted* on rifles, 264-266, 267; Alaskan brown bears, 294-297
- Kidder's bear, *Ursus kidderi*, 335
- LABRADOR BEAR, *Ursus americanus sonborgeri*, 334
- Laut, A. C., *quoted*, 318
- Lawton, Mr. Warren, 125
- League of American Sportsmen, 22
- Leek, Mr., 51
- Lewis, Captain, 19
- Lewis and Clark reserve, 25
- Licenses, 42; for elk shooting, 62; caribou, 155
- Louisiana bear, *Ursus luteolus*, 335
- Lydecker, 106
- Lynx, *L. canadensis*, 5, 6; species, 315, 316; prey, 316; appearance, 316, 336; resemblance to common cat, 316, 317; dislike of dogs, 317; hunting with dogs, 317-322; range, 321, 336; means of escape, 321, decrease, 322; in game preserves, 322
- MCALDER, DR. GEORGE, *quoted* on moose "calling," 82
- McGrath, Mr., *quoted*, 153, 154, 155-157
- McIntyre, Governor, 320
- Maine, shipment of moose from, 76; of deer, 129
- Mallory, Mr. E. C., 247 [*note*]
- Margay, 337
- Merriam, Dr. C. Hart, 47, 209
- Merriam's bear, *Ursus merriami*, 335
- Mexican mountain sheep, *Ovis mexicanus*, 209, 332
- Mississippi, bear hunting in, 290-293
- Missouri, shooting club in, 34
- Miles, General, 102, 180
- Mivart, *quoted*, 315
- Moose, *Alces americanus*, 39, 44; size, 66, 74; description, 66, 67, 326;

- origin and meaning of name, 67; compared with deer, 68; color, 68; horns, 68-70; slaughter of, 69, 70; preservation, 70, 327; range, 70-76, 326; shipment from Maine, 76; habits, 76-79; open season, 76, 77; "yards," 79; "calling," 79-86; dangerous when wounded, 86-88; hunting with jack, 88-92; guides, 92; hunting in Rocky Mountains, 92, 93; in Maine, 93, 94; shooting-grounds, 327.
- Mossman, Mr. Frank, *quoted* on cougars, 303, 305, 306
- Mount Rainier Park, 25
- Mountain caribou, *Rangifer montanus*, 330
- Mountain-goat, *Oreamus montanus*, 167; range, 217, 218, 219, 227, 332; description, 218, 226, 332; hunting, 219-224; salt-licks, 219, 220; flesh, 220; habits, 222, 226; extinction by Indians, 220; increase, 225
- Mountain-lion, *see* cougar
- Muir, John, 25, 26, *quoted* on black-tailed deer, 114-116; grizzly bear, 270, 274; black bear, 285
- Mule-deer, *Odocoileus hemionus*, 39; extinction of, 31, 328; range, 44, 97-99, 103, 106, 328; size, *etc.*, 95, 96; use of dogs in hunting, 96, 97; food, 99; flesh, 99; pursuit of, 100-106, 107-109; antipathy to sheep, 109; enemies, 109; rutting season, 110; protection of, 110, 328; description of, 327
- Musk-sheep, *see* musk-ox
- Musk-ox, *Ovis moschatus*, 167; range, 168, 198, 199, 331; flesh, 169, 197, 198; tameness, 196, 197; difficulties of hunting, 197, 199; description, 198, 331; herds, 198; hunting, 199-205; weapons and ammunition, 201
- NELSON, MR. E. W., 209
- Nelson's mountain sheep, *Ovis nelsoni*, 332
- New Brunswick, abundance of caribou, 159
- New York State Forest, Fish, and Game Commission, report on shipment of deer, 129, 145
- New York Zoological Park, 26; musk-ox, 196
- Newfoundland caribou, *Rangifer terrena*, 153, 330; slaughter, 153, 155-157, 159; shooting-boxes, 158
- North Woods, 133
- Nova Scotia moose, 71
- OCELOT, 337
- Oketee Club, 124
- Oreos canna*, 67
- Osborne caribou, *Rangifer osborni*, 330
- Ox family, *Bovidae*, 6, 7, 167; species, 167, 331; extinction of, 168; preservation of, 169; horns, 169
- PACIFIC-UNION CLUB, 34
- Painter, *see* cougar
- Palmer, Dr. T. S., 70
- Panther, *see* cougar
- Parker, Mr., 292
- Peary's caribou, 330
- Peninsula bear, *Ursus dalli gyas*, 335
- Philmore, Charles, 130
- Pike, Mr. Warburton, *quoted*, 162-164, 201
- Pineland Club, 124
- Plains, immensity of, 239
- Pliny, 67
- Point Regis Sportsman's Club, 34
- Polar-bear, *Thalarchos maritimus*, 253; description, 278, 334; aquatic nature, 278, 279; size, 279; food, 279; ferocity, 279-281; hunting, 280, 281; weight, 281; range, 334
- Preserves, 21-35; necessity for, 31, 32
- Priest River reserve, 25
- Prong-buck, 167, *see* antelope
- Prong-horned antelope, 167, *see* antelope
- Puma, *see* cougar

- QUEBEC, shooting laws [*note*], 155
 Queen Charlotte bear, *Ursus carlotte*, 335

 RED DEER, *see* Virginia deer
 Red lynx, *L. rufa*, 315, 337
 Red tiger, *see* cougar
 Reserves, 24, 25
 Reynolds, Charles, 188 [*note*]
 Rifles, 9, 10-13, 263-268
 Roberts, Mr. Edmund, 284
 Rockwood, Mr., 312, 313
 Rocky Mountain goat, *see* mountain goat
 Rocky Mountain reserves, 25
 Roosevelt, Theodore, 8, 48; *quoted on* elk-shooting, 58-60; mule-deer, 98, 103, 106, 109, 111, 124; Virginia deer, 131; caribou, 152; mountain-goat, 220, 225; antelope, 249; grizzly bear, 257, 261, 262; bear hunting in Mississippi, 290-293; cougar, 304, 311, 314; cougar hunting with dogs, 308-310; bob-cats, 319, 320, 321, 322

 SCHURZ, CARL [*note*], 184
 Schwatka, Frederick, 8; *quoted on* musk-ox, 200, 201, 202, 203
 Scotland, value of shooting privileges, 32
 Seaman, Mr., 139
 Sequoia Park, 25
 Seton, Mr. E. T., 244
 Shields, Mr., *quoted on* mountain-goat, 217, 220, 223; black bear, 282
 Shiras, Mr. George, 15, 123, 124
 Shooting, 16-18; carelessness, 19
 Shooting-boxes in Newfoundland, 158
 Shooting clubs, 34
 Shooting estates, 26
 Sitka bear, *Ursus sitkensis*, 335
 Sitka deer, *Odocoileus sitkensis*, 328
 Sitting Bull, 101
 Smith, Paul, 64
 Sonora grizzly, *Ursus horribilis horriæus*, 334
 South Side Sportsman's Club, 144

 Spotted lynx, *L. maculata*, 315, 337
 Standard Natural History, *quoted*, 280, 281, 288 [*note*]
 Stewart, Mr., 319
 Stone, Mr. A. J., *quoted on* moose "calling," 79, 80; moose hunting, 86; big-horn, 207, 208, 209-213; discovers black big-horn, 208
 Swamp-deer, or Muskeg-Atik, 160

 TAMALPAIS SPORTING CLUB, 34
 Teton reserve, 25
 Tiger, *see* cougar
 Tillson, Major, 18, 238
 Tinsley, Mr. Henry G., *quoted on* grizzly bear, 257, 258, 276, 277; polar-bear, 280
 Tolleston Club, 29
 Turkey shooting in Georgia, 128
 Tyrrell, Mr., *quoted*, 160

 UTAH MOUNTAINS LYNX, 315
Ungulata, or hoofed quadrupeds, 167

 VAN DYKE, Mr. T. S., *quoted on* shooting, 17, 268; elk, 50; mule-deer, 96, 97, 99; black-tailed deer, 112; deer-stalking, 143; rifles, 267
 Van Sutphen, Mr. W. G., *quoted*, 125, 128
 Verrill, Mr. A. Hyatt, *quoted*, 203, 204
 Virginia deer, *Odocoileus virginianus*, 39, 43; various names, 117; change of color, 117, 118; description of, 119, 328; stalking, 120, 142-144; use of jacks and salt prohibited, 121, 122; in Dakota and Montana, 122; hunting, 122, 123; in Georgia, 124-128; in Maine, 132, 133; with a camera, 123; range, 124, 329; shipments from Maine and Adirondacks, 129; licenses, 130, 132; weight, 130; food, 131; as a game-animal, 131, 132; localities for shooting, 132-138; open seasons, 135, 136; methods of hunting in the North and South, 137-141; increase in State forests, 144; on Long Island, 145, 329

- WADSWORTH, MR. W. A., *quoted* on elk, 48, 49, 52
Wallahan, Mr., *quoted* on mule-deer, 31
Wapiti, *see* elk
Ward, Mr. Charles C., *quoted* on caribou, 146, 149, 150
Weapons, 9, 10-13
Welder, Mr. G. A., *quoted*, 310-313
White Arctic bear, *see* polar-bear
White big-horn, *Ovis dalli*, 208, 219; range, 209
White-goat, *see* mountain-goat
White mountain sheep; Dall's sheep, *Ovis dalli*, 208, 210, 332
White-tailed deer, *see* Virginia deer
Whitney, Mr. Caspar, *quoted* on moose "calling," 80; musk-ox, 197, 199, 200, 202
Whitney, W. C., 26, 65
Wildcat, *see* lynx
Winchester Repeating Arms Co., 13
Wisconsin, increase of deer in, 130
Wister, Owen, *quoted*, 214, 218, 219, 227
Wolves attacking antelope, 248
Woodland caribou, *Rangifer caribou*, 146; range, 147, 152, 153, 160, 329; description, 148, 329; feet, 148; food, 149, 153, 154; tameness, 149; rutting season, 150; horns, 150; flesh, 150; curiosity, 150; shooting, 151; sense of smell, 151; weapons and ammunition, 151; shooting season, 154, 155; licenses, 155
Woodruff, Hon. T. L., 26
Wright, Mr., 223, 224, 282
YOKUTAT BEAR, *Ursus dalli*, 335
Yellowstone Park, 23, 24; buffalo in, 173
Yosemite Park, 25; black-tailed deer in, 114-116

OUR FEATHERED GAME

A HANDBOOK OF THE
NORTH AMERICAN GAME BIRDS

BY
DWIGHT W. HUNTINGTON

With eight full-page shooting scenes in color and one hundred and thirty-five bird portraits. 8vo, \$2.00 net (postage, 15 cents)

MR. WM. T. HORNADAY, *Director of the New York Zoological Park*, writes as follows :

“Any man with sporting blood in his veins will be delighted with this book, which describes, pictures, and gossips about 125 species of birds, yet is small enough to be carried comfortably in any hunter’s grip-sack.”

“His book is pre-eminently a sane sportsmen’s book, and is deserving the perusal of every hunter, not only for its sound advice, but for its interesting description of days afield and by the shore.”—*Boston Transcript*.

“The sportsman’s point of view is never lost sight of, neither is the naturalist’s.”—*New York Sun*.

“The chapters are short and to the point, untechnical, and contain, besides the story of the usual behavior of the fowl in question, its geographical distribution and seasons, frequent anecdotes from the author’s own experiences, and restrictions with which State legislatures have surrounded the quarries in game laws.”—*New York Tribune*.

The Naturalist FRANK A. BATES says :

“I must congratulate author and publisher for the pictures of the birds. I could identify the species readily, which is more than I can say of most of the even more pretentious books. They are excellent. Of course the hunting scenes scattered through the work were good. The signature vouches for their accuracy.”

OUR FEATHERED GAME

A HANDBOOK FOR SPORTSMEN

By DWIGHT W. HUNTINGTON

“We regard it as the most up-to-date volume on our game birds.”—*Shooting and Fishing*.

“His book is excellently classified and arranged, the various families and species of game birds being grouped together under their several heads, and their habits, haunts, and customs clearly described. The book is written in an easy, pleasant style, not technical nor didactic, but in a most readable manner, and shows thorough knowledge of the subject. The author has evidently pursued a sportsman's career in all parts of the country, and relates from personal observation many interesting facts concerning bird game, and also gives much practical advice that will be of good service to other sportsmen.”

—*Philadelphia Telegraph*.

“From the standpoint of a general reader it is interesting, and from that of a sportsman doubly so, in fact is invaluable. . . . On his descriptions the author makes himself well understood in simple language, while the eight full-page shooting scenes in color materially stir the blood of the follower of the dog and gun.”—*Providence News*.

“Mr. Dwight W. Huntington has been the first to put the birds of the whole country under their specific headings into one volume. . . . ‘Our Feathered Game’ appears to contain a clear summing up of all information that will be valuable to a sportsman.”—*Washington Post*.

CHARLES SCRIBNER'S SONS
PUBLISHERS

153-157 FIFTH AVENUE

NEW YORK

The American Natural History

By
W. T. HORNADAY

Director of the New York Zoological Park

343 illustrations, 472 pages. \$3.50 net (carriage extra)

“Not only a book packed with information which can be depended on, but one of absorbing interest. . . . The best thing in its field that has been published in this country.”

—*Nashville American.*

“Mr. Hornaday is a practical man and he has written a practical book. . . . The descriptions are clear and avoid over-technicality, while they are accompanied by readable accounts of animal traits and incidents of wild life. It is refreshing to have a book that is thoroughly dependable as regards fact and scientific in spirit, yet written with liveliness and freshness of manner.”—*The Outlook.*

“The author has succeeded remarkably well from the popular as well as from the professional point of view. The result is a book which a farm-boy may study without a teacher and get a proper idea of the animals about him; and a book which a teacher may truthfully follow in the class-room and not mislead the pupils he is endeavoring to instruct.”—ERNEST INGERSOLL.

“Here are the beasts of the field, the birds of the air, the fishes of the deep, described in clear, simple language, with no ambiguity, and pictured in many cases by photographs from life, in others by drawings of well-known animal painters. We suspect that Mr. Hornaday's book will be the popular natural history for a long time to come.”—*New York Sun.*

The American Natural History

By W. T. HORNADAY

"It is safe to predict for this lavishly illustrated work wide and enduring popularity; there is so human a note in it, it is so markedly well designed to attract and hold the attention of older as well as younger readers."—*New York Evening Mail*.

"The manner of treatment throughout is not merely interesting, it is exceedingly witty and uniformly readable. . . . It would seem that every effort had been made by the author to secure accuracy and modernity of treatment, and his book is altogether one to be prized on every account."—*The Dial*.

"It is a work of dignity and importance, of large size, profusely illustrated and written with intent to appeal to the average reader who is interested in animals."—*Brooklyn Eagle*.

"It is a veritable treasure house of animal, bird, and fish lore, and must become a standard work with educators and students as well as with the general public."—*Rochester Democrat*.

"A most satisfactory book from every point of view."
—*The Review of Reviews*.

"It is just such a book of reference as should be in every library, and its possession would be a great boon to wide-awake boys and girls."—*The Congregationalist*.

"Professor Hornaday's style is nothing if not gracious and enlivening. He is the reverse of pedantic, and he apparently has striven to make the work as readable to the popular mind as it is exact to the scientific."—*Boston Transcript*.

CHARLES SCRIBNER'S SONS
PUBLISHERS

153-157 FIFTH AVENUE

NEW YORK

now - Dec 1

open - Robert

closed -

But - December,

open - Cony

Back - Oct. (Fall)

This book is DUE on the last date stamped below

DEC 29 1953

MAR 4 - 1958

MAY 13 1960
AUG 2 1961

UC SOUTHERN REGIONAL LIBRARY FACILITY

AA 000 509 844 7

SK41
H920

AL SCHOOL
ALFORNIA

UNIVERSITY of CALIFORNIA

LOS ANGELES
LIBRARY