

Two Great of Fifty-Eight

Theodore Roosevelt
Don Carlos de la Torre

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Illustrations by Hope Sawyer, Louis Agassiz Fuertes, and Frances McKittrick

This is the ninety-seventh of NATURE MAGAZINE's special Educational Inserts



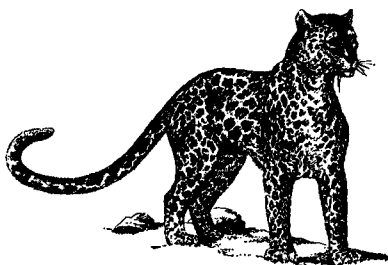
THE ninety-fifth of these special inserts dealt with the hundredth anniversary of the birth of Liberty Hyde Bailey, and with his work. Its reception was such that it seems appropriate to devote at least one more number this year to the "great of fifty-eight," Theodore Roosevelt, twenty-fifth President of the United States, and Don Carlos de la Torre y de la Huerta of Cuba, whose ancestral home was not far from San Juan Hill, where our beloved "Rough Rider" won some of his fame.

We devote the major portion of this insert to consideration of Mr. Roosevelt, but personal acquaintance with Don Carlos de la Torre and world interest in eastern Cuba made it almost mandatory that his anniversary be not overlooked. This article will appear in August, about midway between the May 15th birthday of De la Torre and the October 27th birthday of Theodore Roosevelt. On October 27, 1958, there will be nationwide recognition of the birth of Roosevelt. These pages may help make that event more significant.

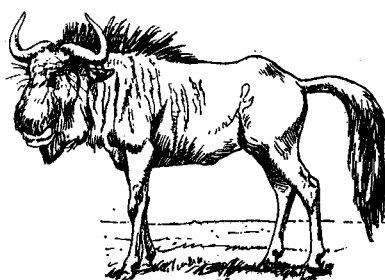
We are not here concerned with the political history of Theodore Roosevelt, since that should be readily available elsewhere. Our major concern is with T.R. and his relation to natural resources. The Theodore Roosevelt Centennial Commission, 28 East 20th Street, New York City, issued a leaflet, "Theodore Roosevelt and Conservation—1858-1958," which dealt with Roosevelt as a man of action, as a naturalist and with his interests in American forestry, wild-



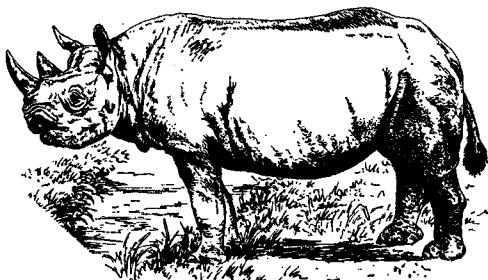
Zebra



Leopard



Wildebeest

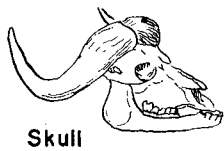


Black Rhinoceros

life, national parks and land and water management. This bulletin should still be available for those interested in these aspects of the man, and its content will not be repeated here. Most libraries will have an abundance of material that can enrich the interest and information most of our readers may have about Theodore Roosevelt.

Therefore it remains for us to present a somewhat different slant on Roosevelt and his contribution, a half-century ago, to the situations we now face, particularly as they concern wildlife. In the Bailey memorial insert, we presented material on eighteen plants that had challenged the interests of Liberty Hyde Bailey. Here we present information on eighteen animals that, for one reason or another, influenced Roosevelt, or whose fate was influenced by him. Nine of these mammals are American, or have had an important place in American life. The other nine are African. In each case, we have given the essential life history matter in a highly condensed form. We have followed this with matter taken from the writings of Mr. Roosevelt, in the thought that this might help us see these animals through his eyes, and

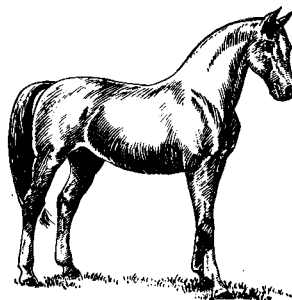
possibly, through these experiences, make it possible better to understand the man, his prejudices, his appreciations and admirations. Above all we should appreciate his ability to transmit his views to others through his writings. Two books proved to be particularly fruitful in supplying this material, and our readers may be interested in read-



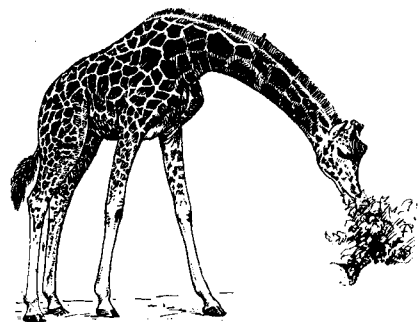
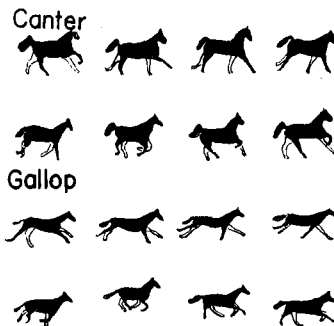
Skull



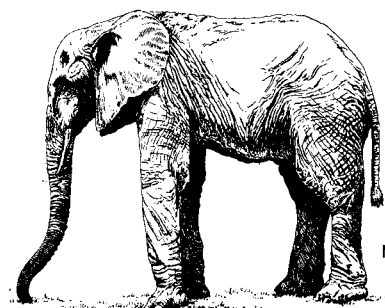
Cape Buffalo



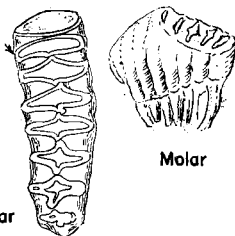
Saddle Horse



Giraffe

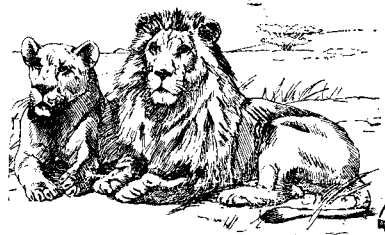


African Elephant



Molar

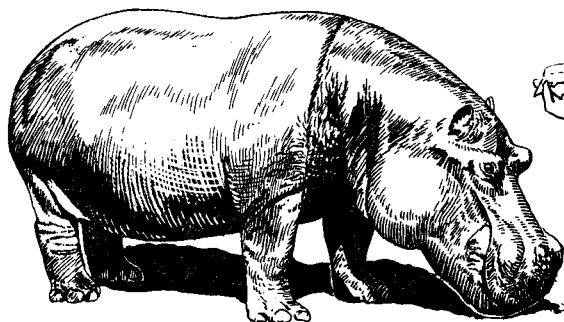
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African Lion



Skull



Hippopotamus

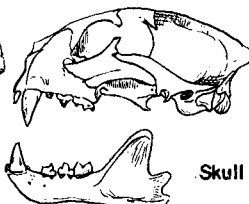


Skull



4" Front Foot Track

Cougar



Skull



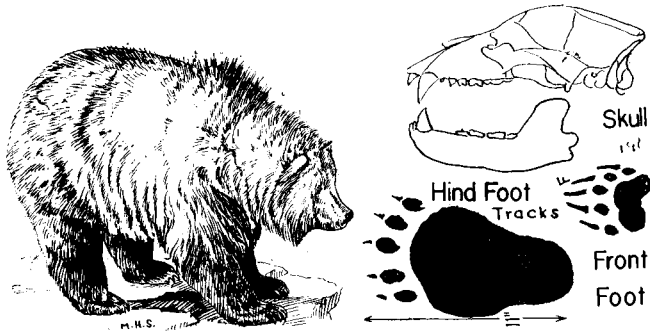
Scat

ing in them further. Material on African animals came largely from *African Game Trails*, published in 1910 by Charles Scribner's Sons of New York. *The Wilderness Hunter*, published by G. P. Putnam's Sons in 1893, yielded much of the material on American mammals as seen by Theodore Roosevelt.

One aspect of natural history on which Roosevelt had profound convictions was the subject of protective coloration. As a fourteen-year-old boy studying birds on the Nile he had noted that protectively colored birds were less wild than those that were conspicuously colored. When, much later, talking with ornithologist Frank Chapman about the subject he ignored or forgot an appointment with Senator Henry Cabot Lodge. Finally he excused himself, saying: "Excuse me for a moment while I settle the affairs of state; then I'll return to the infinitely more important subject of protective coloration." He recognized the merit of Abbot Thayer's work on the subject, but said that the "theory is pushed to fantastic extremes. . . . by those who seek to make the coloration of. . . zebras protective." Nevertheless he failed to notice a life-sized painted zebra in front of a hedge beside a bridle path that he and his family followed regularly. To get a better idea of his part in this story one should read pages 77-80 and 185 in Chapman's *Autobiography of a Bird Lover*, and Appendix E in Roosevelt's *African Game Trails*.

Theodore Roosevelt abhorred sham, particularly in natural history, and when, in 1903, his friend John Burroughs, through the pages of *The Atlantic Monthly*, wrote a tirade against sloppy Nature writing Roosevelt joined the pack in setting out to run down the Nature-faker wherever he might be found.

If we think of Theodore Roosevelt as often being a

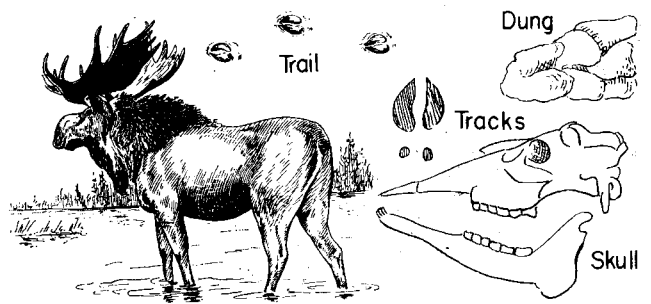


Grizzly Bear

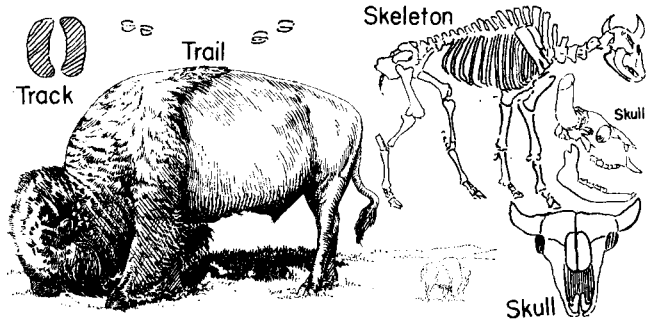
center of controversy in the affairs of his State and Nation, we can also find some who think of him as a great conservationist. Others have described him as a "killer," and almost a "game hog." It is doubtful if such charges are justified if we judge his acts in relation to the time and place of their happening and the thinking of those days. In *Son of the Wilderness, the Life of John Muir* by Linnie Marsh Wolfe we read, on page 292, that when Muir and Roosevelt began talking about the shooting of game Muir said: "Mr. Roosevelt, when are you going to get beyond the boyishness of killing things. . . . are you not getting far enough along to leave that off?" Roosevelt's reply is reported to be, "Muir, I guess you are right." Apparently, while Roosevelt went right on killing, he did it "for museum purposes, rather than for sport."

Theodore Roosevelt may have killed one of the last surviving free wild bison, but he more than made up for this in his sponsoring of wildlife sanctuaries and his part in building up our American herds of the animals.

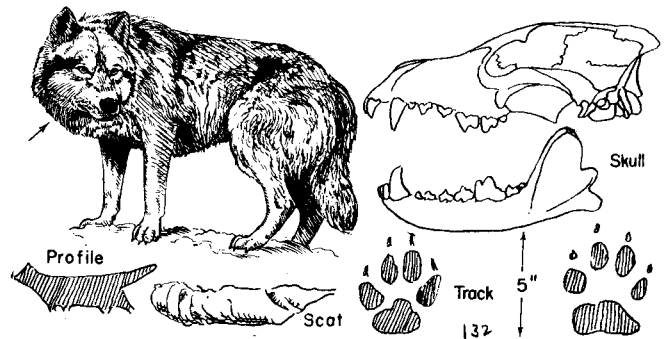
In 1903, President Roosevelt took a trip alone with John Muir into the Yosemite. It is well chronicled in Wolfe's biography, already mentioned. As Bade, in *Life and Letters of John Muir*, wrote: "For three glorious days Theodore Roosevelt and John Muir were off together in Yosemite woods and on Yosemite trails. Just how much was planned by them in those days together we probably never shall know for death has sealed the closed accounts of both. By a strange fatality, Muir's own letter accounts of what occurred on the trip were lost but Muir wrote to his wife: 'I never had a more interesting, hearty and manly companion.'" To his friend Merriam, Muir wrote: "Camping with the President was a memorable experience."



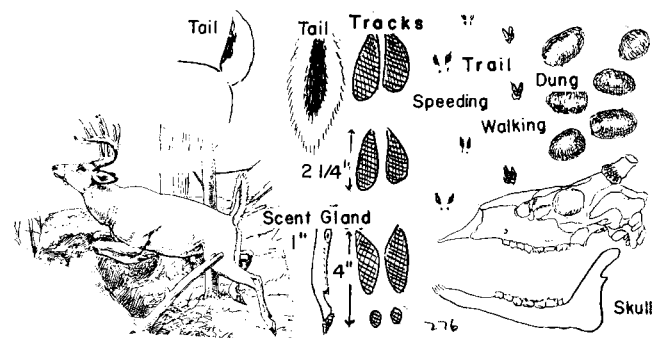
Moose



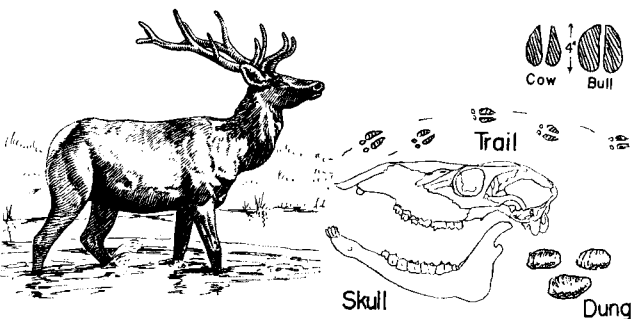
Bison



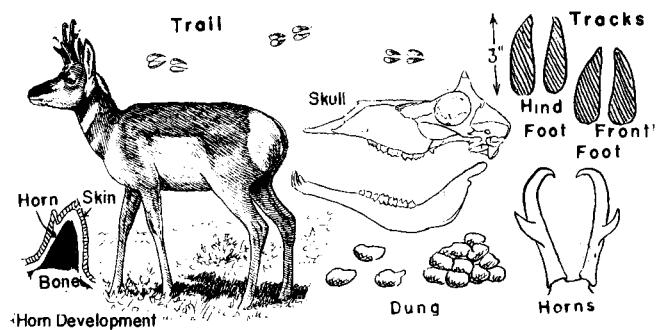
Gray Wolf



White-tailed Deer



Wapiti



Pronghorn Antelope

COMMON NAME SCIENTIFIC NAME	GRIZZLY BEAR <i>Ursus horridus</i>	GRAY WOLF <i>Canis lupus</i>	COUGAR, MOUNTAIN LION <i>Felis couguar</i>	SADDLE HORSE <i>Equus caballus</i>
WHERE FOUND	Except in parks and sanctuaries, this animal has practically vanished from the western half of the United States and the western third of Canada where it formerly was reasonably abundant in suitable cover. Next to the Kodiak, or Alaskan Brown Bear, it was our largest carnivore. There are some 75 recognized species in the genus.	Wolves have been favorite subjects of Ernest Thompson Seton, Baron Munchausen, Mother Goose, and, apparently, of Theodore Roosevelt. Our native gray wolves originally ranged over most of North America, but in the United States are now probably limited to the wilder parts of Michigan, Minnesota, Utah, and Wisconsin. Found in Canada from coast to coast.	Cougars are known to most of us through accounts of how they cry like a child or woman in trouble. The expression "yell like a painter" refers to the cougar call. They ranged originally through most of forested America, but now are probably few in North America east of the Rockies and north of the Gulf States. They are found south to Patagonia.	Saddle horses are to 64 inches high where the neck joins the back, and weigh from 950 to 1250 pounds. They are bay, brown, black or chestnut, and are possibly best known as mounts for officers of the law who work with crowds of people. They have spirit, pride, and show prompt obedience to orders. They have a variety of gaits that they can take on command.
DESCRIPTION	These bears have a length to 8½ feet, and a shoulder height to 4 feet. Grizzlies appear to be high-shouldered. They may weigh to 1150 pounds, but the subspecies of the Kodiak bear may weigh to 1500 pounds. Females average smaller than the males. Grizzlies, male and female, are a yellowish brown. A grizzly-scratched tree may show 5 claw marks.	Gray wolves may be more than 5 feet long with 16-inch tails, the females being the smaller. Males may weigh to 150 pounds, females to 80 pounds. They have slanting eyes, curved canine teeth, and dense under-fur. They are gray, sprinkled with black. Legs and underparts are yellowish-white, and they have hair between the toes.	A full-grown cougar may measure to 9 feet, including a 3-foot tail, may weigh to 200 pounds. They are short-haired, yellow-brown above and whitish beneath. They may range for 20 miles in a night, can safely jump up 15 feet or down sixty feet, can eat 8 pounds of flesh at a meal, and feed largely on larger plant eating animals like deer.	Army horses and cowboy horses with which we might associate Theodore Roosevelt are hardy, brave animals that can withstand long periods of work. They may lack the speed of thoroughbreds, the endurance of mules, the power of draft horses, or the small size of mine mules and donkeys, but they have intelligence and loyalty and work well with men.
REPRODUCTION	Grizzlies pair for the season, the 1-4 cubs being born after 180-236 days, each weighing about 1½ pounds and being about 8 inches long. They remain with the mother through the first summer, and may breed at 3 years of age. Young may be born to a mother bear every other year. Adults do not climb trees. Life expectancy is to 31 years.	Wolves probably mate for life, breed in January to March, bear 3-13 young 63 days later. Pups open eyes at 9 days, nurse for 6-8 weeks, run with the family for a year, and with mixed packs at some seasons of the year. They may live to 15 years, and serve as a definite check on animal multiplication, particularly of the grazing animals.	Cougars pair at almost any time of the year. Kittens, 1-5, are born 91 days after the mating, open eyes at 9 days, crawl at 7 weeks, suck meat at 9 weeks, eat meat and are weaned at 3 months, but stay with mother 1-2 years. Both parents assist in the rearing. Life expectancy is to 20 years. In Nature, serve in controlling multiplication of grazing animals.	Male horses, stallions, are bred with a mare, which some 11 to 12 months later bears a male colt or a female filly. Fillies are bred usually at 3 years of age, but may breed at 1 year. At 2 years of age, a young stallion may safely serve to 4 mares, and at height of breeding ability may serve 90 mares in a season. Life span is usually about 35 years.
EVALUATION OR DESCRIPTION BY THEODORE ROOSEVELT	T.R. wrote two rather long essays on grizzly bears, "Old Ephraim, the Grisly Bear" and "Hunting the Grisly." From these, we quote the following: "The king of the game beasts of temperate North America, because the most dangerous to the hunter, is the grisly bear. . ." There follows a somewhat confused dissertation on the kinds of bears, concluding with the idea that there are two "types"—the grisly and the black bear—and relying for nomenclature largely on the lore of the hunter rather than on that of the zoologist. Writing nearly 70 years ago, he says that the grizzly "has in most places become a cover-haunting animal, sly in his ways and clinging to the shelter of the deepest forests in the mountains. . ."	In Theodore Roosevelt's essay on "Wolves and Wolf Hounds," he lumps coyotes with the wolves, stating that these represent two "types." He says: "Of all animals, the wolf is the shyest and hardest to slay. It is almost or quite as hard to still hunt as the cougar and is far more difficult to kill with hounds, traps or poison. Wolves are cunning beasts and will often try to lull their prey into unsuspection by playing round and cutting capers. They are redoubted enemies of foxes. Sometimes, one wolf will try to put a fox out of a cover while another waits outside to snap it up. Though I have never known wolves to attack a man, yet in the wilder portions of the far Northwest I have heard them come around camp very close, growling. . . savagely. . ."	No animal of the chase is so difficult to kill by fair still-hunting as the cougar. Without hounds, its pursuit is so uncertain that from the still-hunter's standpoint it hardly deserves to rank as game at all, although, incidentally, it is a more skillful still-hunter than any human rival. It prefers to move abroad by night, or at dusk. It is a beast of stealth and rapine. "One time I lay perfectly quiet for about an hour—behind a breastworks of rotten logs, with a few evergreens in front—an excellent ambush. Suddenly without noise or warning of any kind a cougar stood on the trail before me. . . With its head lower than its shoulders, and its long tail twitching, it slouched down the path, treading as softly as a kitten. . ."	Theodore Roosevelt is commonly shown riding horseback, but he seems to have written little about it. It was said that, at the death of his aviator son, he showed little emotion until he found himself alone in the stall with his son's horse. Then he broke down temporarily. The whole family apparently enjoyed close association with horses for many years. In his autobiography, he says: "I was fond of horse-back riding but I took it slowly and with difficulty, exactly as with boxing. It was a long time before I became even a respectable rider, and I never go much higher. I mean by this that I never became a first-flight man in the hunting field, and never even approached the broncho-busting class in the West."

WAPITI, ELK <i>Cervus canadensis</i>	WHITE-TAILED DEER <i>Odocoileus virginianus</i>	MOOSE <i>Alces americana</i>	PRONGHORN ANTELOPE <i>Antilocapra americana</i>	BISON <i>Bison bison</i>
Next to the moose, the wapiti is the largest of the American deer. Of the five recognized subspecies, the Roosevelt, Western or Olympic wapiti or elk is probably the largest and darkest. Subspecies found on Vancouver Island, parts of w. Cal. and Oregon, and in Olympic Mountains in Wash. Species as a whole ranges mostly through strip from Ariz. and N.M. to e. Brit. Col.	"The whitetail deer is now, as it always has been, the most plentiful and most widely distributed of the American big game. It holds its own in the land better than any other species. The range of the whitetail is from the Atlantic to the Pacific, and from the Canadian to the Mexican borders and somewhat to the north and far south of these limits." Roosevelt.	Moose are known to most of us through seeing their heads on the walls of hunting lodges or through seeing their pictures. Commonly and appropriately the pictures show them standing in shallow water among the lily-pads, their favorite feeding ground at some seasons of the year. Moose now range from New Brunswick to British Columbia, and south to Maine.	Pronghorns may be seen from transcontinental trains as the animals speed over western desert lands flashing their white rumps and apparently vanishing as soon as they stop. Pronghorns range from northern Mexico to Canada just north of Montana, west of the central Dakotas and western Texas, and east of central California, s.w. Oregon and central Idaho.	The population of bison that lived on the North American continent from central Mexico to central Canada and east to the Appalachian highlands was reduced in the United States, in 1889, to 541 animals; and in 1900 there were probably only 250 of the darker northern wood bison. Thanks in part to Theodore Roosevelt, they have been saved for us to see today.
A wapiti may be 9 feet long, and may stand to 5½ feet at the shoulder. Bulls may weigh to 700 pounds, and cows to 500 pounds. The animals are mostly grayish-brown, with chestnut brown along the back and mane, and with a gray rump patch. The cows are usually lighter in color than the bulls. The bull's antlers may be 5 feet long, and are shed about March.	Whitetailed deer are to 7 feet long and stand 4 feet high at the shoulder. They weigh to 300 pounds, are red to chestnut or gray above and to white beneath. They can run at 40 m.p.h., jump to 8 feet high or 30 feet on the horizontal, and require about 1 square mile of territory per individual. In winter, they "yard" in herds to keep down the deep snow.	Moose are to 10 feet long including a 3-inch tail, and may weigh to 1800 pounds, with the cow about ¾ the weight of the bull. The cow lacks the broad "rocking-chair antlers" of the bull, the great mane, and the bell at the throat. Moose feed on hardwood browse during much of the year. They may live out their lives within a 10-mile radius, can travel to 22 m.p.h.	Pronghorns stand 3 feet at the shoulder and 4 feet to the top of the head. They are to over 4 feet long, with a 8-9 inch tail. Bucks weigh to 140 pounds, and does to 105 pounds. Both sexes bear divided horns that are to 20 inches long, hollow, and, like those of goats, borne over a bony core. Horns usually shed in October. They are tan and white, does lighter.	Bull bison were to 11 feet long including a 2-foot tail. They stood to 6 feet high at the shoulder, weighed more than 3000 pounds, were dark brown (lighter to the rear) with shaggy hair over the foreparts. Horns are found on both sexes, being short, sharp, up-curving and unbranched, borne over a bony core, and are not shed as are antlers.
Bulls fight for harem in November, "bugling" their challenges to rivals. In 210-262 days, 1-3 calves are born, each being spotted and weighing to 30 pounds. Calf stands quickly, follows cow in 3 days, grazes in 4 weeks, is weaned in October but follows cow until spring. Young cows breed at 3 years. Life expectancy is to 22 years.	Bucks fight in the fall to form a herd of 2-3 does and breed in November. 6½ to 9 months later, or 210 days after breeding, 1-4 fawns are born, each weighing from 3-4 pounds. Scentless young are hidden but are nursed every 4 hours, and by 4-5 weeks follow the mother. Fawns lose spots and are weaned by 4 months. Young does may breed at one year and follow mother.	Moose are less polygamous than most deer. In May, 242-246 days after mating, 1-3 dull reddish, unspotted calves are born. They run with the cow at 10 days, and stand about 3 feet high. Calves may remain with the cow for 2 years. At 2 years of age, the calves may breed. Cows are receptive for about 30 days, and bulls in rut for twice that time. Life expectancy, 20 years.	Pronghorns are polygamous, a buck maintaining a harem of does during early fall. In 8 months, or in June, 2-3 scentless kids are born that are able to walk, and in 10 days can outrun a dog. They become mature at 5 years, and aged at 15 years. Pronghorns can leap a 5-foot fence with ease, can travel 20 miles a day, and can run at 50 m.p.h.	Bison are probably monogamous, although they run in herds. Bulls fight in late summer breeding season, and one calf is born 9½ months after the breeding. Calf stands in 3-4 days, is protected by both parents, stays with cow to 3 years, then breeds and becomes independent. Cow may bear calf every year for 30 years.
The Roosevelt elk was named after President Theodore Roosevelt. He wrote: "Two bull elk were engaged in deadly combat while two others were looking on. The great beasts faced each other with lowered horns, the manes that covered their thick necks and the hair on their shoulders bristling and erect. Then they charge furiously" . . . "The bull's behavior in relation to the cow is that of a vicious and brutal coward. He bullies her continually, and at times of danger his one thought is for sneaking off to secure his own safety. For all his noble looks he is a very unamiable beast, who behaves with brutal ferocity to the weak and shows abject terror of the strong. According to his powers, he is guilty of rape, robbery and even murder."	Theodore Roosevelt. . . "Whitetail are comparatively easily killed with hounds and there are very many places where this is the only way they can be killed at all. Formerly in the Adirondacks this method of hunting was carried on under circumstances which rendered those who took part in it objects of deserved contempt. The sportsman stood in a boat while his guides put one or two hounds on the chosen forest side. After a . . . run the deer took to the water. . . . Once the unfortunate deer was in the water the guide rowed the boat after it. If it was yet early in the season, and the deer was still in the summer coat, it would sink when shot, and therefore the guide would usually take hold of its tail before the would-be Nimrod butchered it."	When Theodore Roosevelt ran for president on the "Bull Moose" ticket, William J. Long called the attention of the voters to a description by Roosevelt of a moose as an inconsistent animal that, once it got an idea, would dash off without considering the consequences, and with no consideration for others. T.R. says that "The moose is the giant of all deer; and many hunters deem it the noblest of American game. Beyond question, there are few trophies more prized than the huge shovel horns of this strange dweller in the cold northern forests." "It is astonishing how quietly a moose can steal through the woods if it wishes; and it has . . . a provoking habit of crouching with its head so turned that it can surely perceive any pursuer. . . ."	"Antelope were very plentiful (once over 40 million, now probably nearer 100,000) running like race horses across the level, or uttering their queer barking grunt as they stood at gaze, the white hairs on their rumps all on end, their neckbands of broken brown and white vivid in the sunlight. The kids were conspicuous (when they) scudded like jackrabbits." It may be significant that when Roosevelt wrote about pronghorns he could not resist writing about some associated life, such as the plains skylark (presumably Sprague's Pipit). He said, "The lilt of the little plains skylark is neither powerful nor very melodious; but it is sweet, pure, long-sustained, with a ring of courage befitting a song uttered in highest air."	Writing of the last bison he shot, Theodore Roosevelt says "Mixed with eager excitement of the hunters was a certain half melancholy feeling as I gazed on these bison, themselves part of the last remnant of a doomed and nearly vanished race. At last, when I had begun to grow very anxious lest the others should take alarm, the bull likewise appeared on the edge of the glade, and stood with outstretched head, scratching its throat against a young tree which shook violently." It is hard for some to understand how a man so impressed by the grandeur of the situation could kill one of what seemed to be the last of America's most famous game animals, but it is possible that vindication came with Roosevelt's record of saving the species from extermination.

COMMON NAME SCIENTIFIC NAME	AFRICAN LION <i>Felis leo</i>	LEOPARD <i>Felis pardus</i>	AFRICAN ELEPHANT <i>Lorodonta africanus</i>	BLACK RHINOCEROS (HOOKED NOSED) <i>Diceros bicornis</i>
WHERE FOUND	The African lion is one of the five most dangerous African game animals, according to Theodore Roosevelt. Originally, lions were found in Europe, Asia and Africa, but are now limited in the wild, free state to central and southern Africa where they are protected to save them from complete extinction. They will probably survive long in captivity.	Leopards may be found from the Black Sea to Siberia, and through most of Africa. Formerly they were found through Europe and Great Britain. They favor tree-covered country, and are as at home in trees as they are on the ground. They are more savage and probably more intelligent than either lions or tigers. They are in Roosevelt's dangerous African five.	African elephants are, or have been, found from central Africa south to the Cape of Good Hope. They are not found in the Sahara or north of it. African elephants do not readily submit to domestication, as does the Indian elephant. In elephants, the eyesight is poor, the hearing fair, but the sense of smell is well-developed.	Theodore Roosevelt considered the rhinoceros as one of the five most dangerous game animals of Africa. He killed 8 and his son 3 of the black or hooked-nosed rhinoceroses, and he killed 5 and his son 4 of the square-nosed rhinoceroses. The black rhinoceros ranged from Ethiopia to the Cape of Good Hope. Longer and lower than the other 2-horned African rhinoceros.
DESCRIPTION	An African lion may be to 11 feet long, and weigh to nearly 600 pounds. Coupled with great strength, sharp teeth and claws make the animal a most formidable antagonist for any animal, and commands the respect of man. Lions can run 100 feet at 60 m.p.h., can leap a 12-foot fence, or make a horizontal jump of 40 feet. Lions work in groups when hunting.	Male leopards may have bodies to 57 inches long and tails to 38 inches long. They may weigh to more than 200 pounds. Females are much the smaller, some adults totalling no more than 4½ feet. They are tawny yellow above and whitish beneath, with numerous dark to black spots, like that of a cat's footprint, all over the body. They can leap upward ten feet.	A bull African elephant may stand 13 feet high at the shoulder, have a length of to 12 feet, and weigh to 13,000 pounds. Tusks may be to 10 feet 2½ inches long, and weigh to 226½ pounds. There are nails on 3 toes on the hind feet, and on 4 toes of the front feet. The skin is black and may be to 1 inch thick.	African rhinoceroses are longer and more slender than the Indian species, and lack the double folds of skin on the shoulders and rump. Horns of black rhinoceroses are about 1 foot 4 inches long, or less than half the length of the horns of the white. Black rhinoceroses may be 12¼ feet long and stand 4¾ feet high at the shoulder. Weight is to 3 tons.
REPRODUCTION	Lionesses are rarely to 300 pounds in weight, and are a foot shorter than the males. Lions may pair for a year or more. The 4-6 young are spotted, and are born 108 days after the mating takes place. They nurse for 3 months, and young females die frequently at the teething time. Cubs blind for about 6 days, can climb trees until half-grown, may live to 30 years.	Some 3 months after the spring breeding time, 2-4 cubs or kittens are born. There are rarely as many as 5 young in a litter. The family remains together until the young are full-grown. The recognized life span is to 23 years. Adults may hunt together in pairs, but more commonly they work alone. They may stalk dogs, a favored prey, in broad daylight.	Cows usually mate first when 18-21 years old, while bulls do not mature sexually until 21 years old. The calf is born from 1½ to 2 years after the mating, and while a 61-year-old cow is reputed to have borne a calf, normally a cow produces only 4 or 5 young in a lifetime. The famous circus elephant Jumbo was an African elephant which, when 26, weighed 6½ tons.	Some 18 months after the mating, a calf weighing to 75 pounds is born. It may nurse nearly 2 years during which time the cow will not mate again. Calves might be born at 3½ year intervals. Life span, in captivity, is to 50 years. The "horn" is a closely compacted mass of hairs, and is believed by natives to have mystical and romantic powers.
EVALUATION OR DESCRIPTION BY THEODORE ROOSEVELT	On his African expedition, Theodore Roosevelt killed 9 lions and his son 8. Of the reputed monogamy of lions Roosevelt says; "It has been said that lions are monogamous and that they mate for life. If this were so they would almost always be found in pairs, a lion and a lioness. They are sometimes so found; but it is much more common to come across a lioness and her cubs, an old lion with several lionesses and their young (for they are often polygamous), a single lioness, or a couple of lions or lionesses, or a small troop, either all lions or all lionesses, or of mixed sexes. These facts are not compatible with the romantic theory in question." Evidently Mr. Roosevelt did not accept the monogamous idea.	Theodore Roosevelt killed no leopards on his African expedition, but his son killed three. Of one of these leopards which three times charged his foes, "I have never heard of any cougar which displayed anything like the spirit and ferocity of this leopard, or which in any way approached it as a dangerous foe." Elsewhere he writes of a leopard that charged twice although it was held by a steel trap by one toe. To many of us it is understandable why any animal should charge a user of steel traps. Repeatedly he compares leopards with our cougars, crediting the leopard with much more pluck and ferocity than that he gives to our cat. He indicates his belief that cats are more sensitive to pain than are bears.	On his African expedition, Theodore Roosevelt killed 8 elephants, his son 4. He listed the elephant as one of the five most dangerous African game animals. He says, "It is, not only to hunters, but to naturalists, and to all people who possess any curiosity about wild creatures and the wildlife of nature, the most interesting of all animals. Its huge bulk, its singular form, the value of its ivory, its great intelligence—in which it is only matched if at all, by the highest apes, and possibly by one or two of the highest carnivores—and its varied habits all combine to give it an interest such as attaches to no other living creature below the rank of man."	"I believe that both lion and buffalo are more dangerous than rhino, yet the first two rhinos I met both charged. . . . (while the first four lions and the first four buffaloes did not). . . . The elephant is one of the wisest and the rhinoceros one of the stupidest of big game mammals. The elephant learns by experience infinitely more readily than the rhinoceros. The elephant's sight is bad as is that of the rhinoceros (but has learned to take cover where the rhinoceros has not)." The elephant "is very gregarious, herds of several hundred being sometimes found and is of a restless, wandering temper. The rhinoceros is a lover of solitude; it is usually found alone, or a bull and cow, or a cow and calf may be in company. . . ."

ZEBRA <i>Equus chapmani</i>	HIPPOPOTAMUS <i>Hippopotamus amphibius</i>	GIRAFFE <i>Giraffe camelopardalis</i>	AFRICAN BUFFALO <i>Bos caffer</i>	WILDEBEEST, GNU <i>Connochaetes taurinus</i>
Horse-like or ass-like with large head and small feet. Burchell's zebra is 4½ feet high at shoulders, the quagga 4 feet. Burchell's have white legs, with head and body with brown stripes over sorrel. Other zebras may be white with black stripes. They are African animals, some species of which have been completely exterminated.	On his African expedition, Theodore Roosevelt killed 7 hippopotamuses; his son, 1. They were not considered by him to be among the five most dangerous game animals of the continent. Formerly, hippopotamuses ranged from Egypt to the Cape of Good Hope, and north to Zululand. Now they are restricted to the river areas south of 17° north latitude.	Theodore Roosevelt killed 7 giraffes on his African expedition for use in museum groups. His son killed two. Giraffes formerly were to be found throughout most of Africa, but are now limited to the central and southern parts. They may live in areas that are waterless during much of the year. They feed largely on woody plants and graze only slightly.	Adjudged by Theodore Roosevelt to be one of the five most dangerous of the African game animals. Originally found from Cape Colony to British East Africa, where they were found in brushy or open country, or in the heavy tall vegetation of some swamps. They move with surprising quietness through tall vegetation. Possibly most dangerous of all wild animals.	Theodore Roosevelt shot 5 wildebeests on his African expedition; his son, 2. Among the species recognized are the white-tailed gnu and the brindled or blue gnu, with the former living in the upland plateaus of South Africa and the latter farther north to the Equator. The mane, tail and hind quarters are like those of a horse; the head and shoulders like bison's or cow's.
A zebra stallion, according to T. Roosevelt, may weigh to 650 pounds. They are commonly found associated with herds of hartebeest and like them are preyed on heavily by lions. They can travel at 40 m.p.h., and according to T. Roosevelt seem to have no fixed time for resting, feeding or going to water. They are powerless when attacked by a lion.	Length 17 feet from snout to tail tip, and about the same distance around the middle. Males are the larger, and may weigh to 4 tons on the hoof, but of course much less when buoyed by the water. They can float or sink at will in the water, and can stay under water for ½ hour. The mouth may be to 2 feet wide, and may bear tusks to nearly 10 inches in circumference.	Height to 19 feet. The top of the head may bear 2-4 short, blunt hornlike structures. Males have a stiff mane on back of the long neck. Feet are large, heavy, with divided hooves. Color is yellowish-white, with squarish dark spots on body, neck and upper parts of the legs. The 8-inch tongue is prehensile, increasing the feeding height by that length.	Nose to tail base, 7 feet, with 3 foot tail. Bulls may stand to 5 feet high at shoulder and some say they weigh to 2 tons. The head is shorter, the ears longer and the horns heavier than in the Indian buffalo or carabao. The horns may meet at their enlarged bases and curve inward towards the tips from basically horizontal spread. Each horn may be more than 3 feet long.	Height is 4 feet at the shoulder and length, exclusive of tail, to 7 feet. Both sexes bear horns. The weight is about 500 pounds, and there are dark stripes across the withers. The hair is particularly long under the throat, on the chest and as far back as the fore-legs. The animals are usually found in herds of considerable size, and are often too inquisitive for their own safety.
Apparently mating may take place at any time of the year, since young of varying ages are found in the herds. Young are born 11-12 months after the breeding takes place, and are able to run with the adults in a relatively short time. The life expectancy in Nature is probably short, but in captivity zebras may live at least 25 years.	Bulls may live as solitary animals or in a herd. One young is born 234-243 days after the mating. The calf weighs to 60 pounds, is to 3 feet long, and to 1 foot high. It can walk 5 minutes after it is born. It begins to eat solid food on its own at 18 months, and a female may begin to bear young at 7½ years of age. Life expectancy is to 49 years.	Giraffes are usually found in herds of to 15 animals, with one bull heading the herd. Calves are born some 15 months after the March-April breeding season, and the young may stand on their wobbly legs 20 minutes after they are born. They nurse until 9 months old. Many giraffes refuse to eat in captivity, and these of course die. Have lived 28 years in captivity.	Mating takes place in January, and young are born about 11 months later. Young calves may have considerable hair that is reddish instead of black, with the color changing at about the end of the third year. Nose is usually black, and skin darkens with age and hair becomes more sparse. Normal life expectancy is more than 16 years. In fair fight, can kill a lion.	Mating takes place in early summer, and about 8½ months later 1 or rarely 2 young are born. When the calves are born the cows and bulls form separate herds. Life expectancy, in captivity, is about 16 years. In the wild, they are a favored food of lions and other large predators. They have good sight and sense of smell.
Roosevelt says of zebras; "Zebras are very beautiful creatures, and it is an unending pleasure to watch them. I never molested them save to procure specimens for the museums, or food for the porters, who like the rather rank flesh. They are covered with ticks—yet they may all be in high condition." Roosevelt and Abbott Thayer differed widely in interpreting the value of the zebra's stripes and protective coloration. Roosevelt insisted there was no protective value in the stripes, in spite of the fact that he and his family drove by life-sized models placed unconcealed along the bridge path they followed, and he failed to notice the animals. Roosevelt wrote that the theory of protective coloration was "pushed to fantastic extremes..."	"In wild regions hippos rest on sandy bars, and even come ashore to feed, by day; but wherever there are inhabitants they land to feed only at night. Where they are numerous they sometimes attack small boats and kill the people in them, and they do great damage to the plantations of the natives. In spite of their short legs, they go at a good gait on shore, but the water is their real home and they always sink into it when alarmed. They dive and float wonderfully, rising to the surface or sinking to the bottom at will, and they gallop at speed along the bottoms of lakes and rivers, with their bodies wholly submerged, but... they are not fast swimmers for any length of time..."	Roosevelt. . . "The giraffe is one of the most conspicuous objects in nature, and never makes the slightest effort to hide; nearby its mottled hide is very noticeable, but as a matter of fact, under ordinary circumstances any possible foe trusting to eyesight would discover the giraffe so far away that its coloring would seem uniform, that is, would be because of the distance be indistinguishable from a general tint which really might have a slight protective value. In other words while it is possible that the giraffe's beautifully waved coloring may under certain circumstances, and in an infinitesimally small number of cases, put it at a slight disadvantage in the struggle for life. . . it has no effect whatever, one way or the other. . ."	"I was the first to catch a glimpse of the line of bulky forms, picked out with white where the sun glinted on the horns. It was ten o'clock, a hot windless morning on the equator, with the sun shining from a cloudless sky; yet these buffalo were feeding in the open, miles from water or dense cover. They were greedily cropping the few tufts of coarse herbage that grew among the sparse thorn-bushes, which were here not more than two feet high. In many places, buffalo are purely nocturnal feeders, and do not come out into the hot, bare plains in the scorching glare of daylight. . . I once found the carcass of a big bull which had been killed and eaten by lions, and nearby lay a dead lioness with a great rip in her side." T. Roosevelt.	Theodore Roosevelt says that wildebeests are as "savage as they are suspicious; when wounded they do not hesitate to charge a man who comes too close, although of course neither they nor any other antelopes can be called dangerous when in a wild state, any more than moose or other deer can be called dangerous; when tame however, wildebeest are very dangerous, indeed, more so than an ordinary domestic bull. The wild, queer looking creatures prance and rollick and cut strange capers when a herd first makes up its mind to flee from a strangers approach; and even a solitary bull will sometimes plunge and buck as it starts to gallop off; while a couple of bulls, when the herd is frightened, may relieve their feelings by a moment's. . . battle. . ."



Don Carlos de la Torre y de la Huerta

Cuban Naturalist, Educator and Citizen

A Centennial Appreciation

ONE of the most memorable afternoons of my life was spent at the home of Don Carlos de la Torre in suburban Havana. I saw him and talked with him a number of other times, but the afternoon at his home gave me a true picture of the kindly hospitality one could expect from a man with Don Carlos' background of culture and genetic origin.

Don Carlos was born on May 15, 1858 in Matanzas City in Cuba. His father, Bernabe de la Torre y Fernandez, was a native of Santiago de Cuba; his mother was Rosa de la Huerta y Roque of Matanzas. His maternal grandfather was a Matanzas lawyer. His paternal grandfather was the director of the Colegio La Empresa and the founder of the Matanzas schools Los Normales and San Carlos.

Early, our subject ran into political problems since his secondary school was closed for political reasons. On graduation from Los Normales, Don Carlos entered the Instituto de la Habana, but he interrupted his studies there to assist in the establishment of a museum at Los Normales. However, in 1874 he received his bachelor's degree with honors at the Instituto de la Habana. He had served as assistant in chemistry and in taxidermy.

He entered the Real Universidad de la Habana in the fall of 1874, intending to prepare himself in medicine and pharmacy. Here he fell under the influence of Professor Felipe Poey, who really inspired Don Carlos to his best efforts. Due to illness in 1877 he returned to Matanzas, where he taught in two schools and continued his serious studies in natural history.

On his return to the university he registered in thirteen natural history courses, and later received the degree of Licenciado en Ciencias Naturales. Then he went to the University of Madrid in Spain, where he received the degree of Doctor en Ciencias Naturales. His thesis dealt with the distribution of mollusks in Cuba.

After a year of teaching in Puerto Rico, he returned to the Real Universidad de la Habana as Professor of Comparative Anatomy in 1885. Banished from Cuba because of his political views during the Spanish-American War, he visited European museums, except those in Spain. After the war, he returned to the University of Havana as head of the work in comparative anatomy, with responsibilities, also, in paleontology, geology and petrography. He was a leader in the affairs of the university, as is attested by the fact that, in 1921-22,

he was Dean of the School of Science and Letters and President of the university from 1921-23. In 1936, he became emeritus professor, thus being released for research on the mollusks.

Don Carlos did not allow his academic responsibilities and interests to cause him to shirk his duties as a citizen. How rapidly he advanced in this field is attested by the fact that he was elected Mayor of Havana in January, 1902, and served in that capacity through May of that year, at which time he was chosen to represent Havana in the first constitutional assembly for the establishment of a Cuban Republic. He was chosen president of this Assembly.

Don Carlos represented Cuba internationally in scientific fields to an imposing degree, and brought back to his native land the benefits of these experiences. Whenever he was banished from home for political reasons, he made the most of his freedom to study in the scientific institutions of the world.

In reading the history of Theodore Roosevelt and of Don Carlos de la Torre, it disturbed me slightly to find that while the redoubtable Teddy was charging up San Juan hill, in an attempt to take Santiago, De la Torre was studying collections in the natural history museums of Europe to further his understanding of Cuban natural history. Santiago was the home town of the father of Don Carlos. However, Don Carlos had made his political convictions obvious throughout his life, and, in 1896, his prejudice in favor of Cuban independence led to banishment from his university and his country. On a number of occasions, subsequent to his homeland's deliverance from Spanish rule, he became politically involved, and apparently his views were similar to those held by the average American. I understand that at one time, when it was most unpopular, he was a part of a secret group in Cuba that stood for the representative type of government that Americans recognize as best.

De la Torre was a great teacher and a profound stimulator of interest in natural history in his native land. I have visited Cuban museums where his work has been recognized. I have worked in laboratories and in the field with his students, and with the students of his students, and have marvelled at the influence of the man. I was impressed by the loyalty and respect for him held by all of his professional associates. To a degree, these things may be the measure of a man's success.