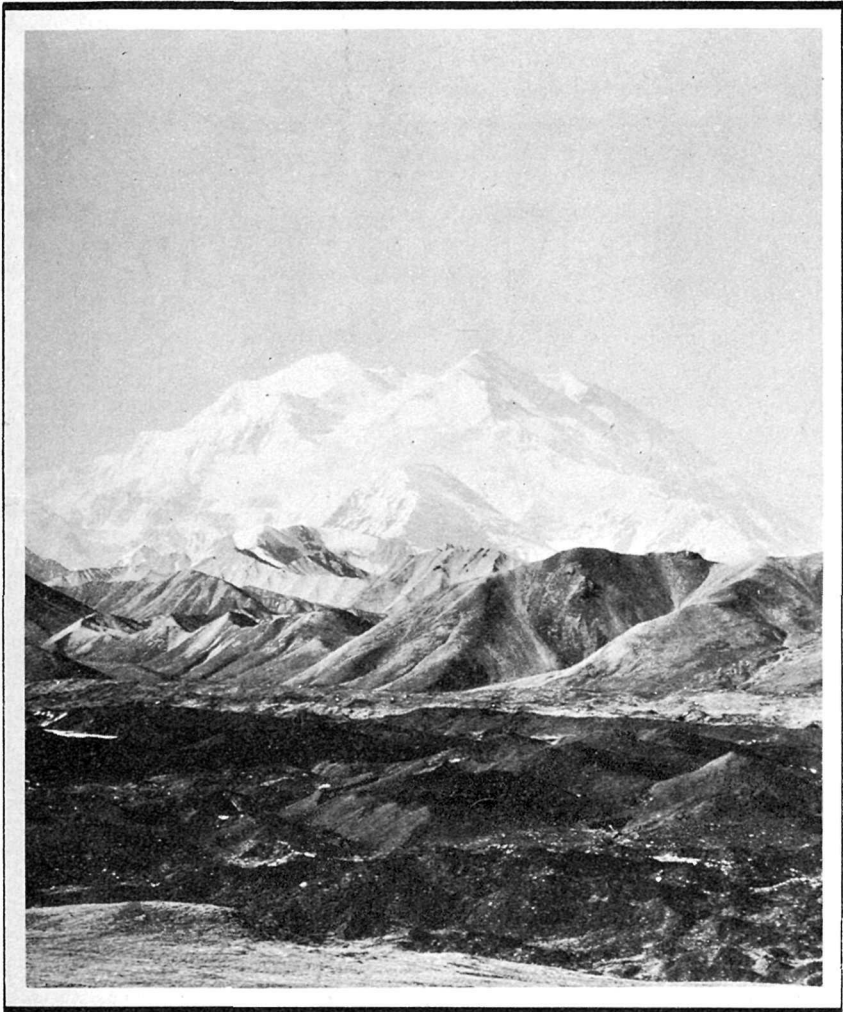


MOUNT MCKINLEY NATIONAL PARK

+ ALASKA +



UNITED STATES DEPARTMENT OF THE INTERIOR
NATIONAL PARK SERVICE

Mount McKinley

[ALASKA]

National Park

United States Department of the Interior

Harold L. Ickes, Secretary

NATIONAL PARK SERVICE

Arno B. Cammerer, Director



UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1936

Rules and Regulations

[BRIEFED]

THE PARK regulations are designed for the protection of the natural beauties and scenery as well as for the comfort and convenience of visitors. Complete regulations may be examined at the office of the superintendent of the park. The following synopsis is for the general guidance of visitors, who are requested to assist in the administration of the park by observing the rules.

The destruction, defacement, or disturbance of buildings, signs, equipment, or other property, or of trees, flowers, vegetation, or other natural conditions and curiosities is prohibited.

Camping with tents is permitted. When in the vicinity of designated camp sites these sites must be used. Only dead and down timber should be used for fuel. All refuse should be burned or buried.

Fires shall be lighted only when necessary, and when no longer needed shall be completely extinguished. They shall not be built in duff or a location where a conflagration may result. No lighted cigar, cigarette, or other burning material shall be dropped in any grass, twigs, leaves, or tree mold.

All hunting, killing, wounding, frightening, capturing or attempting to capture any wild bird or animal is prohibited. Firearms are prohibited in the park except with the permission of the superintendent.

Fishing in any manner other than with hook and line is prohibited. Fishing in particular waters may be suspended by the superintendent.

Cameras may be freely used in the park for general scenic purposes.

Gambling in any form or the operation of gambling devices, whether for merchandise or otherwise, is prohibited.

Private notices or advertisements shall not be posted or displayed in the park, excepting such as the superintendent deems necessary for the convenience and guidance of the public.

Dogs are not permitted in the park, except by special permission of the superintendent.

Mountain climbing shall be undertaken only with permission of the superintendent.

The penalty for violation of the rules and regulations is a fine of not more than \$500, or imprisonment not exceeding 6 months, or both, together with all costs of the proceedings.

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Events

OF HISTORICAL IMPORTANCE

- | | |
|------|--|
| 1902 | A. H. Brooks and D. L. Raeburn, of the United States Geological Survey, made a survey of this mountain range and were the first white men to set foot upon the slopes of Mount McKinley. |
| 1903 | May. A party under leadership of Judge James Wickersham made the first attempt to climb Mount McKinley, but was not successful. |
| 1910 | William Taylor and Pete Anderson made the first successful ascent of the north peak of Mount McKinley. |
| 1913 | First party under Archdeacon Hudson Stuck and Harry Karstens reached summit of the south peak of the mountain. |
| 1917 | Mount McKinley created a national park by act of Congress. |
| 1932 | The Lindley-Liek party climbed both the north and south peaks. They were the first expedition to accomplish this feat. |
| 1934 | First ascent made of both peaks of Mount Foraker by C. S. Houston, Dr. T. G. Brown, and G. C. Waterston. |

MOUNT MCKINLEY

National Park

• SEASON—JUNE 10 TO SEPTEMBER 15 •

MOUNT MCKINLEY NATIONAL PARK, situated in south-central Alaska, was created by act of Congress approved February 26, 1917, and on January 30, 1922, was enlarged to 2,645 square miles. On March 19, 1932, Congress approved an extension on the north and east sides, enlarging it to its present area of 3,030 square miles.

It is a vast wilderness, with ice-capped peaks, grinding glaciers, and sphagnum-covered foothills sweeping down to forests of spruce in the valleys. The late A. H. Brooks, Chief of the Alaska Division of the United States Geological Survey, said of this region:

Here lies a rugged highland area far greater in extent than all Switzerland, a virgin field for explorers and mountaineers. He who would master unattained summits, explore unknown rivers, or traverse untrodden glaciers in a region whose scenic beauties are hardly equaled, has not to seek them in South America or Central Asia, for generations will pass before the possibilities of the Alaskan Range are exhausted.

The principal scenic feature of the park is mighty Mount McKinley, the highest peak on the North American Continent. This majestic mountain rears its snow-covered head high into the clouds, reaching an altitude of 20,300 feet above sea level, and rises 17,000 feet above timberline. No other mountain, even in the far-famed Himalayas, rises so far above its own base. On its north and west sides McKinley rises abruptly from a plateau only 2,500 to 3,000 feet high. For two-thirds of the way down from its summit it is enveloped in snow throughout the year. Denali, "home of the sun", was the name given to this impressive snow-clad mountain by the early Indians. President Harding, in describing the impressive peak during his trip to Alaska, said, "above its towering head there is never-ending sunshine in the summer, and in the long winter its unchanging garb of white reflects a sheen of glory no darkness can wholly dim."



The Silver Trail.

Courtesy Bragaw's Studio.

Mount McKinley National Park—Alaska

Near Mount McKinley are Mount Foraker, with an elevation of 17,000 feet; Mount Hunter, 14,960 feet; and Mount Russell, rising 11,600 feet above sea level.

ASCENTS OF MOUNT MCKINLEY

Mount McKinley is crowned by two peaks. The south pinnacle is 20,300 feet in altitude and the north peak is only 300 feet lower. The first attempts to conquer the mountain were made in 1903, one party being under the leadership of Judge James Wickersham, and the other headed by Dr. Frederick A. Cook. Neither was successful, and in 1906 Cook made a second attempt which he claimed was crowned by success. In 1910, however, four "sourdoughs" who were not satisfied with his story undertook the climb, and two of them, Taylor and Anderson, reached the north peak. In 1912 a party under Dr. Herschel Parker and Belmore Brown succeeded in getting within a few hundred feet of the summit of the south peak. The findings of these two expeditions completely disproved Dr. Cook's assertions.

On June 7, 1913, Archdeacon Hudson Stuck, Harry Karstens (later superintendent of the park), and two companions reached the summit of the south peak. They were the first men ever to achieve this goal. Nearly 19



Resting by a frozen waterfall.

years later, on May 7, 1932, a party composed of Alfred D. Lindley, Minneapolis attorney; Harry J. Lick, superintendent of McKinley Park; Erling Strom, ski expert from Lake Placid, N. Y.; and Grant Pearson, a park ranger, accomplished the same feat. On May 9 they also climbed the



A telephoto view of Toklat Glacier.

Mount McKinley National Park—Alaska

north peak and achieved the distinction of becoming the first expedition to ascend both peaks of the great mountain.

ASCENT OF MOUNT FORAKER

The first ascent of both peaks of Mount Foraker was made by a climbing party consisting of Charles S. Houston, Harvard student and head of the expedition; Dr. T. Graham Brown, university professor at Physiology Institute, Cardiff, England; and G. Chychale Waterston, of London, England, who is now teaching at North Andover, Mass.

The north peak was reached on August 6, 1934, and the south peak on August 10.

GLACIERS

All of the largest northward-flowing glaciers of the Alaska Range rise on the slopes of Mount McKinley and Mount Foraker. Of these the largest are the Herron, having its source in the névé fields of Mount Foraker; the Peters, which encircles the northwest end of Mount McKinley; and the Muldrow, whose front is about 15 miles northeast of Mount McKinley and whose source is in the unsurveyed heart of the range. The fronts of all these glaciers for a distance of one-fourth to one-half a mile are deeply buried in rock debris.

Along the crest line there are many smaller glaciers, including some of the hanging type. Both slopes of Mount McKinley and Mount Foraker are ice covered.

The greatest glaciers of the Alaska Range are on its southern slope, which is exposed to the moisture-laden winds of the Pacific. The largest of the Pacific slope glaciers, however, lie in the basin of the Yentna and Chulitna Rivers. These have their source high up in the loftiest parts of the range and extend south far beyond the boundaries of the park.

The glaciers all appear to be retreating rapidly, but so far little direct proof has been obtained of the rate of recession. According to a rough estimate of geologists studying the area, the average annual recession of the Muldrow Glacier may be about one-tenth of a mile.

On the inland front but little morainic material is left along the old tracks of the glaciers, and it appears that most of the frontal debris is removed by the streams as fast as it is laid down. Such a process would be accelerated in this northern latitude by the freshets which accompany the spring break-up. The glaciers as a rule are not badly crevassed and many of them afford, beyond the frontal lobes, excellent routes of travel.

Most of the valleys and lowlands of the region were, during the Pleistocene period, filled with glacial ice. This ice also overrode some of the lower



Sable Pass.

foothills, while in the high regions were the extensive névé fields which fed the ice streams.

MAMMALS AND BIRDS

As a park attraction, the animal life of Mount McKinley National Park is surpassed only by Denali itself. Up to January 1, 1927, 86 kinds of birds and 26 kinds of mammals have been definitely identified within park boundaries. About 75 out of the total number of birds recorded are known to nest within the park. Nearly all of these breeding species may be found during the summer along the regular routes of travel.

Among the larger mammals, the mountain sheep and the caribou are the most numerous. Among the smaller, ground or "parka" squirrels and varying hares or "snowshoe rabbits" are most in evidence. The golden eagle is the most conspicuous large bird in the park, while the willow ptarmigan and the short-billed gull are the most likely to be seen of the medium-sized birds. The eastern robin, Alaska jay, Gambel white-crowned sparrow, western tree sparrow, and the common redpoll are the smaller birds most

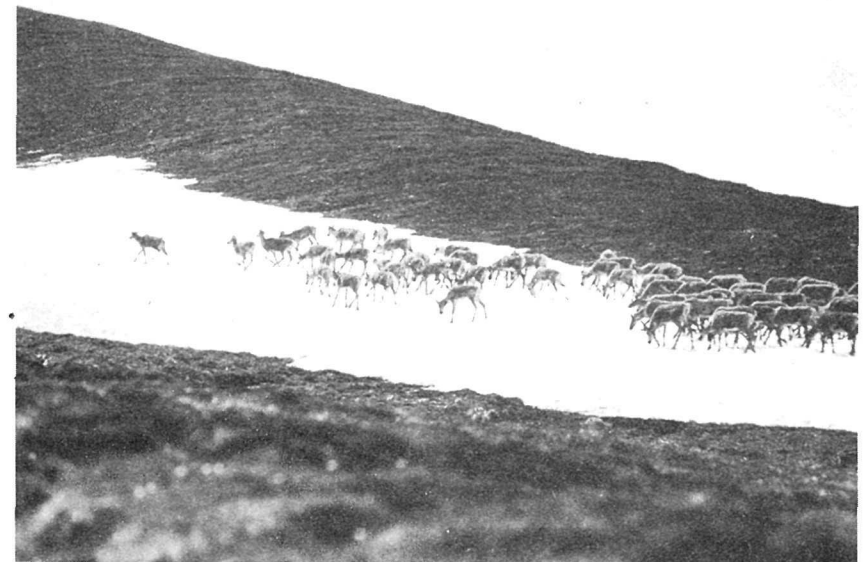
often seen. It is probable that many other species of birds not yet listed migrate through the region each fall and spring.

Because of limited space, only a few outstanding species are listed here. Some of these, such as the willow ptarmigan and the caribou, are not found in any other national park; while the surf bird's eggs have been found in Mount McKinley National Park and nowhere else in the entire world.

CARIBOU

Though many thousand caribou graze within McKinley Park, their roving disposition makes their whereabouts at any given time uncertain, and this feature imparts real zest to the quest of those who would seek them out. They travel singly, in pairs, or in small bands, while a herd of hundreds may be in one valley on a certain day and have vanished the next. Then, too, the search may lead anywhere from the low-lying barrens to the high steep ridges of the Alaska and Secondary Ranges.

Related to these North American caribou are the domesticated reindeer of "Santa Claus" fame, which are merely an Old World race which is



Stone's Caribou.

Dixon photo.

smaller and darker than the caribou, with much shorter legs. These two are the only members of the deer family in which both sexes have horns. Large brow tines, or "shovels", extend well forward over the nose, adding measurably to the grotesque appearance of the huge antlers. Fair-sized caribou bulls stand about 4 feet at the shoulders and weigh about 300 pounds. Their color may be anywhere from sandy to golden brown, varying greatly with the individual. Both the neck and the hind quarters are lighter toned, giving the effect of a dark band across the middle.

Owing to their poor eyesight and almost stupid curiosity, caribou are easy to approach, even in an automobile, providing the wind does not carry the human scent to their keen nostrils. On sensing danger they will run together, or else stand a moment, gazing, with tails held erect; this constitutes a silent but effective alarm signal. One more moment and the band rushes wildly off, each animal with a comical leap and a stiff-legged gallop that becomes a run after a few rods. Usually the does with fawns are the most alert.

When the park season opens the young caribou frequently may be seen in company with their mothers. There is usually one fawn, resembling a Jersey calf in appearance. By the end of the season, in early fall, the young are ready to join the annual run which takes the main caribou herds far outside the park. There are certain localized bands, such as those which remain around the east margin of the park in the Savage River district. The headwaters of this stream include some of the best places to see fine caribou during the summer months. Here they graze regularly on all manner of green herbage or rest by the hour on the snow banks to avoid the pestiferous flies.

Almost everywhere in the park the presence of caribou is indicated by the well-defined trails through the tundra or by certain battered willows which the animals have used for rubbing the velvet off their horns. Caribou also visit the licks, where their large, rounded, cowlike tracks give plain evidence of their visitations. When seen at a distance they are easily distinguishable from their associates, the mountain sheep, in that they are dark-colored rather than whitish.

ALASKA MOOSE

The Alaska moose is the largest animal found in Mount McKinley Park. It is, roughly, the size of a horse, large males weighing as much as a thousand pounds. It has the distinction of being the largest member of the deer family. In addition to this, the moose reaches its maximum size in Alaska. The males are distinguished by bearing broadly palmated antlers, which grow to tremendous size, some having a spread of over 63 inches. Both

sexes carry a "bell" or "dewlap" on the throat; this peculiar appendage is merely a loose, pendant fold of skin, which hangs down several inches at the middle of the throat. The moose is an ungainly creature, with a muscular, overhanging muzzle, which, together with the high shoulders (which may have a height as great as 7 feet 8 inches from the ground) and the sloping hind quarters, gives the animal a very grotesque appearance.

In color the Alaskan moose ranges from pale russet brown to almost black, becoming lighter on the belly and underparts. When seen at a distance, the moose appears to be a dark-colored animal—darker, in fact, than the caribou. The young moose when first born are buffy brown in color, without spots. The single moose is the usual offspring; sometimes twins are born.

During the warm summer months the cow moose with their young calves are most likely to be encountered along the willow thickets high up in the mountain passes. During the wintertime moose are found in the heavier-timbered areas along the lower streams in the park.

TOKLAT GRIZZLY BEAR

To watch a Toklat grizzly bear in his native habitat in Mount McKinley Park is to enjoy one of the rarest treats which the park affords. Formerly



Toklat grizzly bear.

Dixon photo.

grizzly bears were not uncommon along the higher open ridges above timberline at the head of the Toklat River. But because of their destruction by prospectors, who claim that they destroy the caches (stored food supplies of miners and other men who live in the region), these bears have become greatly reduced in numbers. They were found to be relatively rare in 1926, when the region was surveyed by a biologist. The most conspicuous evidence of the presence of grizzly bears is to be found in the numerous small, craterlike holes which dot the ridges along the headwaters of the Savage, the Sanctuary, and the Toklat Rivers. These miniature craters are merely holes left where grizzly bears have dug out ground squirrels, which form their chief food supply.

As an illustration of a personal encounter with a grizzly bear at close range, we call attention to the experience of one of the park rangers, who discovered what he took to be a red fox asleep on a grassy knoll on one of the ridges near Savage River. Wishing to see how near he could get to the fox, the man got down on his hands and knees and crawled up as quietly as he could, so as to surprise the fox. When he reached the crest of the ridge and was within a few yards of the fox, the man was suddenly dumfounded by having the fox turn out to be a grizzly bear, which reared up on his hind legs and then rushed directly at the man, who had presence of mind enough to stand perfectly still. When the bear came within about 35 feet of the man, he stopped, sniffed the air, and, catching the human scent, turned tail and ran as fast as he could back up the hill in the opposite direction. The ranger stated that he did not know which was the more surprised, he or the bear, but he did know that he was going to be more careful what kind of a fox he attempted to sneak up on in the future.

TUNDRA BROWN BEAR

The tundra brown bear belongs to a group which includes the largest carnivorous animals in North America. Its range extends from Norton Sound southerly across the lower Yukon, Kuskokwim, and Nushagak Rivers to Bristol Bay. There is good evidence furnished by bears which have been killed by local hunters in the extreme western portion of the park that this species ranges eastward along the north side of the main Alaska Range to the headwaters of the Kuskokwim, near the base of Mount McKinley. These bears may be recognized by their brownish color and large size. They inhabit the open, treeless tundra and therefore may be seen at great distances. Being restricted to the more distant and less frequented portions of the park, these enormous bears are rarely seen by people who visit the park in the summertime.

On July 21, 1926, Joseph Dixon watched a large brown bear and her two cubs as they dug industriously for ground squirrels on an open hillside high above timberline. At this date the two cubs were about 18 inches high and exceedingly playful. They spent a great deal of time in rolling down the open, grassy hillside in an effort to see which one could roll the farther down the hill. Reaching the bottom, they would turn around and race back to see which one could reach the mother first. The old mother bear had no time for such pranks but spent her time digging out ground squirrels for herself and cubs.

It is doubtful if there are more than 50 large brown bears in the entire park, and every effort should be made to preserve them there, because the species is fast disappearing elsewhere throughout its range.

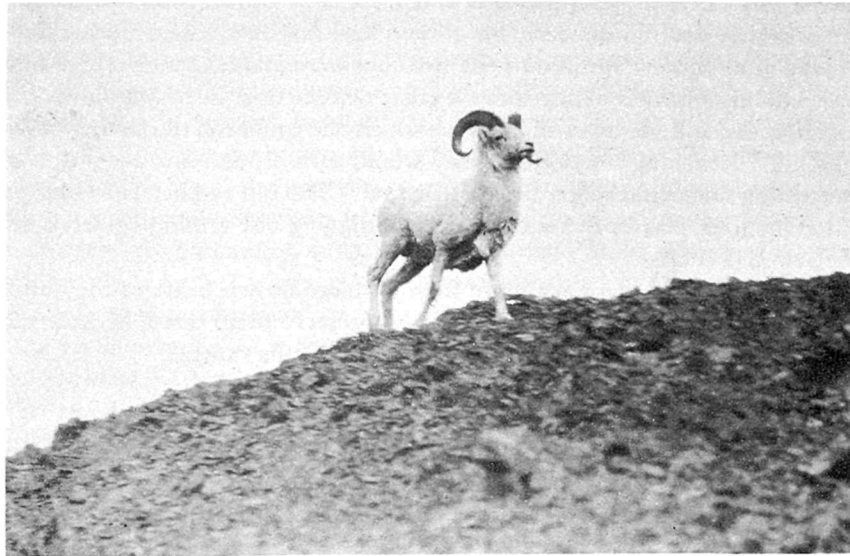
ALASKA MOUNTAIN SHEEP

The white Alaska mountain sheep are among the handsomest game animals of the Mount McKinley region and the most fascinating to pursue and observe. Perhaps no other locality presents such abundant opportunity for



Mountain sheep—about 3,000 live in the park.

their study in large numbers at close range. Two important distinguishing characteristics of this species are the white color and relatively slender, spreading horns. In contrast, the mountain sheep of the United States has



A Dall sheep.

Dixon photo.

a sandy-brown color, while the horns are heavy and closely curled. A good-size ram of the Alaska sheep will stand about 39 inches at the shoulders and weigh approximately 200 pounds.

Whereas the caribou have a roving disposition, the sheep stay close to the high, rough ground above timberline, where they are safely within the park boundaries the entire year. They do, however, have somewhat separated winter and summer pastures.

The single young is born during early May in sheltered nooks under protecting cliffs. Frequently twins occur. Though soon able to follow their mothers about, the lambs spend the first few weeks of their lives close to easy concealment in the rocks, against the appearance of golden eagles, wolves, wolverines, or other enemies. By June they dare to venture out on the grassy slopes where they may be seen scampering about in little bands of 4 to 10 under the watchful eye of some old ewe. Playing follow-the-leader over the rocks and steep places, they gain practice in the agility and sure-footedness so necessary to their existence. A lamb can easily negotiate a vertical jump of 6 feet.

In the latter part of June there is a general migration across to the main Alaska Range. Among the best places to see large bands of sheep during the tourist season are the headwaters of the Savage River and above the pass at Double Mountain. Here they mingle freely with the caribou, the two ruminants grazing together and using the same trails.

WOLF

The wolf is generally a traveler. Some seasons there will be quite a number of them in the park, at others very few. In summer they travel alone or in pairs, but in winter they usually gather in bands ranging from 6 to 12. During one November a prospector coming from the central part of the park, ran into a band of 12 at Savage River. They were about 150 yards away on the river ice looking at him. Having no gun, he decided to bluff them and ran toward them. They watched him coming for a while, then took off for the hills. Their food largely consists of rabbits and smaller mammals, but when these are scarce the larger game suffers accordingly.

WOLVERINE

Wolverine are not very plentiful but are occasionally seen. They travel and hunt alone. One wolverine can make his presence felt over a fairly large territory. They live mostly on small game but occasionally on large game. They are very destructive to caches and can carry off unbelievable weights. The wolverine is very wary and a vicious fighter. It is found in all sections of the park.

COYOTE

These animals are new to this section of Alaska. They made their first appearance in the park a few years ago. Each year they have increased and are becoming more of a menace than the wolf.

ALASKA RED FOX

The Alaska red foxes are the largest of their kind, nor are they excelled anywhere in quality of fur. They are abundant in McKinley Park because



Alaska red fox.

they are protected from hunting, along with the snowshoe rabbits and ptarmigan which form their chief diet. Being even brighter red than their relatives in the United States, they are quite easy to see against the dark tundra background. When the animal is running, the long bushy tail with its characteristic white tip is held straight out. Cross foxes and the highly prized silvers are merely individuals of varying color likely to be found in a litter of red fox pups.

HOARY MARMOT

Hoary marmots are often called whistlers from their habit of announcing any enemy's presence with a loud "traffic cop" whistle. They are the



Northern hoary marmot.

Dixon photo.

Alaskan representatives of the common ground hogs or woodchucks of the United States. They are chunky animals, with strong claws for digging, bushy tails and coarse hair of grizzly brown color. In McKinley Park marmots are closely associated with bare rock prominences and dislodged boulders, where they dig their burrows as extensions of the natural holes and crevices. Here they hibernate during the long winter months, and give birth to three or four young in early spring. All summer long they bask on the rocks and fatten up on the succulent herbage, with few worries except as incited occasionally by bears, wolves, and eagles.

LYNX

In former years the park area was a veritable paradise for lynx, being very numerous, but in recent years very few have been observed. Like the

wolverine, they also live principally on smaller animals but they have been seen killing a 2-year-old ram. A good-size lynx will weigh from 30 to 40 pounds. Cases are known where they have attacked man, but this is very rare. They are found in all sections of the park.

BEAVER

There are still some beaver in the eastern end of the park near the northern boundary. Reports have it that they are still numerous in the western end, where the country is more suitable.

MARTEN AND MINK

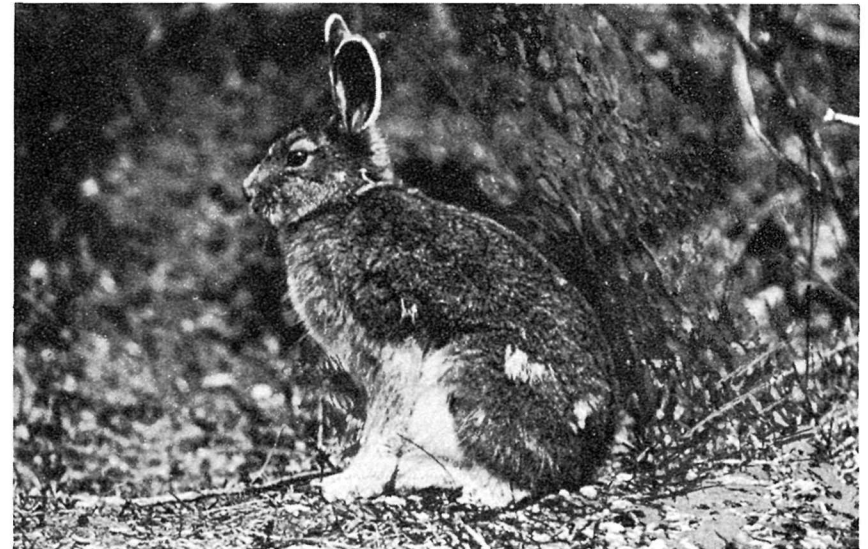
Marten and mink are found in the timbered country along the northern section of the park, being quite plentiful in some sections. Trapping along the northern boundary has kept most of our fur-bearing animals from increasing as we should like to see them.

LAND OTTER

Though they are very rare, a few tracks have been seen in the past few years.

MACKENZIE SNOWSHOE RABBIT

Snowshoe rabbits are to be seen most years in the spruce woods and around willow thickets. However, after one or more extra good rabbit years



Snowshoe rabbit in summer.

some mysterious malady takes such toll as to make them scarce for a time. In winter the bottoms of the feet in this species of rabbit are covered with thick pads of hair which facilitate progress over the snow, much in the manner of snowshoes. Snowshoe rabbits are often called varying hares, from the fact that they change from brown in summer to white in winter. They are about half-way in size and appearance between the cottontail and common jack rabbits of the Western States. The young, numbering 2 to 7, are born in early spring in nests hidden in the dense brush. Snowshoe rabbits are quite gregarious by nature, and it is not uncommon to see them gathered in numbers toward evening along the park roads.

ALASKA CONY

These rock dwellers, sometimes called little chief hares, or pikas, are the strangest of the small mammals of the park. Though akin to the rabbits, they closely resemble guinea pigs, with their short legs, chunky bodies, big rounded ears, and near absence of tail. Were it not for the insistently shrill little bark, which is in itself ventriloquistic and hence protective, conies would quite escape detection. Their color is the same as the rocks on which they perch, and their bright eyes and sharp ears are keen to sense any danger. During late fall they industriously gather piles of plant material in sunny, sheltered nooks, there to cure for a winter's supply of hay.

GROUND SQUIRREL

Among the smaller animals the ground squirrels are most in evidence. This is because of their habits and their abundance around the several camps. Alaskans call them "parka" squirrels from the fact that the natives prize their skins for making parka coats. Parka squirrels are in general similar to other ground squirrels, though their chunkiness and short tails coupled with their reddish brown backs and tawny sides, give them a characteristic appearance. They always remain within easy reach of their underground burrows, and these are provided with at least two exits in order to frustrate the attempts of bears or other enemies to dig them out. Here they raise their families of about five young, born in dry nests of willow fluff, shredded wood, or other soft material.

Ground squirrels are quick to make friends and they soon proceed to exploit this relationship. Around the tent of the transportation company at the head of Savage River they prove a menace to everything edible, and to human peace and quiet as well. This squirrel gives a noisy bark, like the chatter made by drawing the finger sharply along the teeth of a comb. It is common to see a squirrel sitting or standing erect near the entrance to its

burrow, barking insistently, each time with a vigorous accompanying flip of the tail.

SHORT-BILLED GULL

Visitors to the McKinley district frequently express surprise at the number of "sea gulls" that breed there, over 300 miles inland, far removed from the salt water of the seacoast. The common gull of the McKinley region is the short-billed, although a few of the larger herring gulls are also present. The latter species may easily be recognized by its great size. The short-billed gull is of medium size, having a length, from tip of tail to end of bill, of 17 or 18 inches. These birds are pure white below, while the mantle is pearl gray. The bill is clear yellow, without any decided spot or ring. The feet are also yellow, tinged with olive.

In walking along the stony gravel bars near Savage River Camp the visitor is likely to be startled by having one or sometimes a pair of these gulls swoop down on him, almost striking his hat. Such attacks come without warning and are merely the gulls' method of driving a caribou, fox, or such other native intruder away from their nest, for this nest is usually placed entirely in the open out on a rocky river bar. The two or three brown eggs resemble water-worn rocks in color and form, and are laid in a nest which is often similar in appearance to one of the numerous small accumulations of driftwood.

ALASKA WILLOW PTARMIGAN

The Alaska willow ptarmigan is one of the noteworthy birds of Mount McKinley Park. Since willow ptarmigan do not occur in any of our other national parks, they should especially be sought for by visitors here. These birds may be found readily, if looked for, in willow thickets along Savage River.

The willow ptarmigan is an Arctic grouse which turns white in winter and brown in summer. In size it is about equal to the ruffed grouse of the eastern United States. By the time visitors begin to arrive in the park, in early June, the male ptarmigan have started to acquire their brown summer dress. At this time, which is the mating season, the brown-backed cock birds with white wings and underparts and orange red combs over their eyes may often be seen beside the road leading into the park. When flushed the males fly up with rapid strokes of their white wings and with hoarse cackles of alarm. This characteristic "crowing" of the cock ptarmigan often awakens the visitor at midnight or in the early morning hours.

The female ptarmigan is smaller and more secretive than the male. Her feathers are neutral-colored, so that when she is sitting on her eggs the black

and buffy barred feathers of her brown back blend effectively with the brown moss and dead leaves which surround the nest. The nest is placed on the ground, but it is usually well concealed by the overtopping low brush. From 6 to 16 large reddish-brown eggs heavily marked with black fill, even



Willow ptarmigan.

overflow, the nest. The female hatches the eggs, but the male usually hides near the nest so as to be ready to sally forth and drive off any thieving short-billed gull or other enemy. Park visitors who make the trip by horseback or by auto up the Savage River to see the caribou are almost sure to flush one or more coveys of ptarmigan from the willow thickets that line the stream. In the air they may be recognized by their white wings and rapid quail-like flight. Rock ptarmigan, white-tailed ptarmigan, and spruce grouse abound within the park area.

SURF BIRD

The surf bird is the most distinguished as well as the most elusive avian citizen of Mount McKinley National Park. For nearly 150 years, since the species was first given its scientific name, its nest and eggs remained unknown. The surf bird winters in South America as far south as the Strait of Magellan. It breeds among the mountain tops of central Alaska. Twice each year, in migration, it traverses the Pacific coast of North and South America.

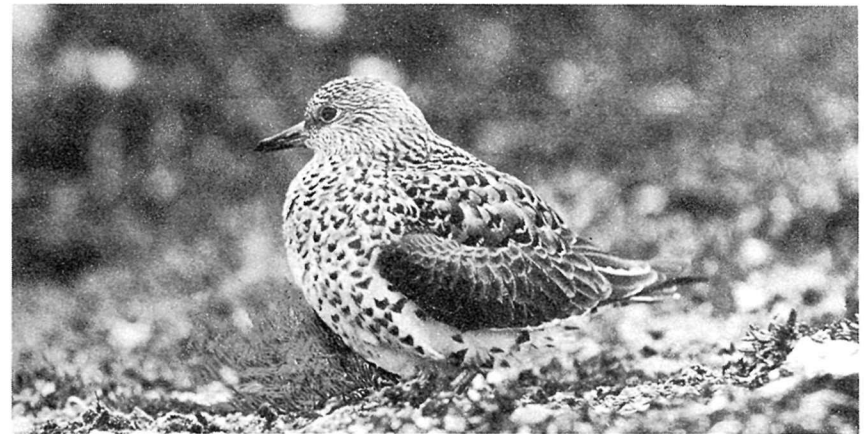
Joseph Dixon, formerly of the Museum of Vertebrate Zoology of the University of California, and now associated with the National Park Service as field naturalist, was a member of five expeditions to Alaska. During each of these trips the unknown nest and eggs of the surf bird were diligently sought, but continued search produced only negative results. On May

28, 1926, the first and only nest of this rare bird known to science was discovered and recorded by Mr. Dixon and George Wright (*The Condor*, vol. XXIX, pp. 3-16, January 1927). The natives of Alaska had a legend that the surf bird lays its eggs "on the bare mountains in the interior." This proved to be correct, since the nest found was located up on a barren rocky ridge, 1,000 feet above timberline above Savage River Canyon.

The surf bird is a shore bird about the size of, but chunkier than, our well-known killdeer plover. It may be recognized in the field in summer as a plump gray bird with a white bar across the wing and a white patch at the base of the tail. These markings show conspicuously when the bird takes wing. When viewed close at hand the triangular black spots on the white lower breast and the rich cinnamon-rufous marks on the back are distinctive characteristics.

During the major portion of the year the surf bird lives on small salt-water animals which it secures from the wave-washed outlying rocks on the Pacific coast. During the summer it abandons the seacoast and travels far inland, where it runs about on the high rocky ridges and lives on insects, chiefly flies and beetles.

It is useless to look for surf birds outside of good mountain-sheep country. Because of the small number of these birds, a considerable amount of search-



The elusive surf bird.

ing is required to locate them on their breeding grounds. However, for those who are keenly interested in bird life, to catch a glimpse of the elusive surf bird, or, better yet, to find its nest, will mark the achievement of the rarest ornithological experience that the park has to offer.

TREES AND PLANTS

The black spruce, with its somber foliage and clusters of tawny cones, is the commonest evergreen tree in the park.

The graceful paper birch is found in the lower valleys. The cottonwoods and the quaking aspen are near the streams. The willows are abundant, ranging from small trees in favorable localities through the shrublike forms, until they dwindle to matlike growths on the mountain slopes. To escape the rigors of the climate, these latter hide their tortuous woody stems underground, thrusting only the catkins of their flowers and a few conspicuously net-veined leaves to the surface during the brief summer. The erect dark-red catkins of *Salix reticulata* are common near Savage River.

SHRUBS

The thickets which clothe the valleys and the lower slopes of the mountains are composed of many varieties of shrubs, principally the dwarf birch, or "Buckbrush", a dull green in summer but flaming scarlet and orange at the touch of frost. The shrubby cinquefoil shows bright-yellow buttercuplike flowers. The blueberry yields berries that are an important source of food to Indian and white man alike. The woolly Labrador-tea has rusty underleaf surfaces and clusters of snow-white flowers, as has *Spirea stevenii*. The bearberry grows in dense thickets and shows glandular dotted leaves and crimson berries. The only prickly shrub in the park is the lovely wild rose. This is especially abundant near the park entrance.

HERBACEOUS PLANTS

Among the spruces near Savage River grow blue lupine and several louseworts, the red-whorled *Pedicularis sudetica* and the pinkish *P. hiaus*. In the sunny openings of wood and thicket occur a number of members of the sunflower family. Among these are the orange clusters of the groundsel and the nodding solitary flowers of *Arnica obtusifolia*. Many little lilac asters come up in sandy places, and starry chickweeds are common everywhere.

Scattered through the thicketed growth are the delicately tinted pink and blue heads of valerian and the drooping sky-blue bells of *Mertensia strigosa*, variously known as "chimes" and "languid ladies." Three gentians are commonly found, the large-flowered white gentian with inky markings, the four-parted gentian with small lilac to pink flowers, and the dwarf dark-bluish-green *Gentiana romanovii*. The white gentian is occasionally found near Savage River but is much more common around Mount Eielson. As the summer advances, the large-flowered blue larkspur and the monkshood thrust their showy flower clusters above the thicket growth.

In the shade of the spruce woods, the broad white bracts of the low bunchberry glimmer, while in the fall they show bunches of scarlet berries. The delicate pink bells of the twin flower cover the old mossy logs, and the crowberry, with its tiny awl-shaped leaves and shiny black berries, twines through the moss and the lichens. Diminutive pyrolas of various species in white and in pink space their waxlike bells along their stalks.

Near the park entrance and at most lower altitudes the fireweed covers all otherwise unoccupied space with its sheet of bright-pink flowers. Only occasionally does one find the tall fumitory with its finely divided leaves and lyre-shaped and yellow-tipped pink flowers.

Along the banks at the head of Savage River are many anemones, easily recognized by the whorl of leaflike bracts below the blossom. The two commonest white ones are *Anemone narcissiflora uniflora* and *Anemone parviflora*. There is a yellow one also, *Anemone richardsoni*.

In the sandy river bed the large-flowered water willow herb flames bright cerise, and the lemon-yellow arctic poppy grows in scattered clumps. A number of leguminous plants populate the sandy bars, a purple hedysarum being the most conspicuous.

Farther up the valley a knotweed with large rose-pink spikes is abundant and contrast with the fragrant deep-blue forget-me-not—the Territorial flower. The moss campion grows in cushions of curiously mosslike leaves, thickly starred with bright pink blossoms. As each clump consists of a single many-branched plant with a deep tap root, it is useless to attempt to transplant it.

The saxifrage family has many Arctic representatives, several species of the "grass" of Parnassus, all with small white-petaled, green-veined flowers; the *Boykinia tricuspidata*, which grows in large clumps with leaves in a basal rosette and a stalk 6 inches high bearing small white flowers, and the marsh saxifrage, whose yellow petals are crimson flecked.

A succulent plant some 10 inches high bears a cluster of dark red flowers (*Alaskana rhodiola*); the staminate and pistillate flowers are on different plants. Beds of the beautiful little shooting stars occur in damp spaces, and on the drier slopes there grow great carpets of the wood dryads, with white flowers somewhat resembling strawberry blossoms. There is also a yellow variety (*Dryas drummondii*). When the petals fall they are succeeded by a tuft of silvery seed plumes and are often found covering acres of the sandy gravel bars as well as the mountain slopes. The foliage is the favorite food of the mountain sheep during the winter season.

FISHING

The grayling, a very hardy species of the trout family, is found in park waters. They are sporty fish and of an average weight of 1 to 2 pounds. Large schools of these fish may be seen swimming in the waters of Savage River, at the north entrance to Savage Canyon. The angler may also try his luck in Riley Creek, about a half mile from the railroad station, where grayling abound. There are also trout in the park streams which are classified locally as Dolly Varden. Their weight is in the neighborhood of 1 pound.

At Wonder Lake, about 35 miles due north of Mount McKinley, there is a variety of trout.

Practically all the park streams have their sources in the snow-capped mountain ranges. None of them is more than 4 feet in depth; consequently during the winter they are frozen almost solid, with only a small trickle of water flowing underneath the ice above the gravel bed. The grayling manages to pass the winter by returning to deeper rivers outside the park and coming back when the ice has disappeared, about the middle of April.

CLIMATE

The climate of Mount McKinley National Park differs on the two sides of the Alaska Range. On the inland side of the mountains there are short, comparatively warm, summers and long, cold winters, with low precipitation. The area draining into the Pacific enjoys a more equable climate, the summers being longer and cooler and the winters warmer than in the interior, with much greater precipitation.

The average snowfall in winter varies from 30 to 45 inches during the whole of the season, while in the summer the total precipitation never amounts to more than 15 inches. Temperatures range from 60° to 80° in the summer, and in the winter, although at times the thermometer runs down to 45° and 50° below zero, it usually averages about 5° to 10° below.

The sunshine during the summer months is gorgeous and lasts for more than 18 hours a day. On June 21, the longest day in the year, the sun is visible at midnight from the top of mountains approximately 4,000 feet in height, and photographs may be taken at that time. In Fairbanks this occasion is usually celebrated by a midnight sun festival, of which a baseball game is one of the many athletic events. The mere fact of the unusual hour of play creates a novelty which draws many visitors. The rays of the sun, as they shine over this part of Alaska, make a picture of riotous color which it would be difficult for any artist to reproduce. It is a wonderful sight to behold this sheen of glory covering the entire sky, trans-

forming the snowy peaks of the mountains into domes of fire, from which one can almost feel the heat emanating.

Winter in this park has a charm all its own, which appeals to the hardy adventurer. It is first announced by the flaming riot of color made by the frost-touched alder, cottonwood, willow, and quaking aspen. In contrast to these are the great masses of dark green spruce and the sphagnum mosses above timberline. Access to practically all portions of the park can be had by dog team during the long Arctic winter, when an indescribable hush hovers over everything.

ROADS AND TRAILS

There are now 74 miles of graveled automobile roads within the park. This stretch of highway, beginning at McKinley Park Station, has an altitude of 1,732 feet above sea level. It is located on a small plateau, surrounded on the north, east, and west sides by mountains in close proximity, and on the south side by the more distant Alaska Range. Park headquarters is located at Mile 2 on the highway, elevation 2,092 feet. At Mile 12 is the Savage River Camp of the Mount McKinley Tourist & Transportation Co.

At Mile 66, or Camp Denali, a fine saddle-horse trail continues into the park to the regions about the base of Mount McKinley. From Mount Eielson the trail crosses Muldrow Glacier to the head of Clearwater Creek. Another trail from Mount Eielson follows down the McKinley River, in the north central part of the park about 20 miles north of Mount McKinley. From here may be obtained excellent views of McKinley's massive bulk from base to peak. Wonder Lake may be reached from this point, and a few miles farther in the same direction is the Kantishna district. In this section may be seen modern hydraulic mining or the old prospector sluicing out gold in the "97" method; also the driving of tunnels into gold quartz leads which these prospectors hope to develop into dividend-paying mines.

From Savage River camp an interesting saddle-horse trip can be made over the divide and on to the Sanctuary River, at Mile 22. From here the trail leads past Double Mountain, across the Teklanika River, and on to Igloo Creek, at Mile 33.

Through Sable Pass the trail leads over the East Fork of the Toklat River, and then through Polychrome Pass, over the Main Toklat River, on through Highway Pass and Thorofare Pass to the lower rim of Muldrow Glacier. Along the way one passes the north side of Mount Eielson, which has been the scene of much prospecting for silver, lead, copper, and other metalliferous formations.

Mount McKinley National Park—Alaska

Near the Savage River Camp a trail has been constructed down the Savage River Canyon, beginning at the Savage River bridge and continuing down the canyon between steep mountains rising abruptly from the bed of the river. Grayling are plentiful in the lower end of the canyon.

ADMINISTRATION

Mount McKinley National Park is administered by the National Park Service of the Department of the Interior. The officer in immediate charge is Harry J. Liek, superintendent, with headquarters about 2 miles southwest of McKinley Park Station. All complaints and suggestions regarding service in the park should be addressed to him. The post-office address is McKinley Park, Alaska.

The official park season is from June 10 to September 15. During this time the public utilities are operated.

HOW TO REACH THE PARK

The entrance to Mount McKinley National Park is at McKinley Park Station, a point on the Alaska Railroad, 348 miles from Seward, the seaport terminus, and 123 miles from Fairbanks, the metropolis of interior Alaska. Five trains a week arrive from these cities.

A gasoline motor car, commodious as a Pullman coach, operates between McKinley Park Station and other points along the Alaska Railroad. This car has a seating capacity of 40 passengers and also hauls a trailer with the same capacity.

Steamers of the Alaska Steamship, Pacific Steamship, Canadian Pacific, and Canadian National Railways Cos. sail weekly for Alaska. These steamers ply between Seattle and Cordova and Seward, and also between Seattle and Nome, with the exception of the Canadian boats, which go only as far as Skagway. Information relative to travel on these boats may be procured from the offices of these steamship companies in Seattle, Wash.

The park may be reached by any of the following routes, along which many outstanding scenic attractions may be seen:

FROM CORDOVA

On arrival at Cordova the visitor may take the Copper River & Northwestern Railroad trains to Chitina, then travel over the Richardson Highway by automobile to Fairbanks. From this point to McKinley Park Station the trip is made on the Alaska Railroad. The Richardson Highway passes through a country of live glaciers, magnificent mountains, and swift-flowing rivers, affording views of Mount Drum, Mount Sanford,

Mount Wrangell, Summit Lake, Isabella Pass, and Rainbow Mountain, as well as a panoramic view of the Alaska Range across the Big Delta River. During this trip, over a distance of 315 miles, the traveler may obtain good meals at the primitive road houses, built log-cabin fashion, that are interesting reminders of pioneer days in Alaska.

FROM SEWARD

The trip to the park from Seward is made over the Alaska Railroad. This route takes the traveler past beautiful Lake Kenai, Moose Pass, Spencer Glacier, and Turnagain Arm, which boasts the second highest tide in the world. It also offers the unique experience of crossing the continental divide at its lowest point in North America, where it reaches 2,337 feet elevation. The first view of Mount McKinley is had from Talkeetna, but the majestic peak is sighted from various other points along the railroad.

It is interesting to note that Seward was named for former Secretary of State William G. Seward, whose patriotic foresight and commercial ability were responsible for the purchase of Alaska from Russia in 1867.

FROM NOME

Travelers making the trip to Nome continue on to St. Michael and there make connections with the Alaska Railroad steamboats. These boats travel up the Yukon River, past crude native villages and primitive fish wheels, to Nenana. From here a ride of 63 miles by railroad takes one to the park.

The Alaska Road Commission has constructed a road from Fairbanks, on the Alaska Railroad about 150 miles north of the park, to Circle City, on the Yukon River, which is known as the "Steese Highway." This makes possible an interesting inside circle trip in connection with Dominion passage to Skagway. From here the traveler will be able to go down the Yukon River to Circle City, and motor from this point to Fairbanks, from where McKinley Park Station may be reached over the Alaska Railroad. After visiting the park the seaport of Seward may be reached over the Alaska Railroad, and the return to the States or Canada made over the inside route.

ACCOMMODATIONS AND EXPENSES

Visitors live in tent camps operated by the Mount McKinley Tourist & Transportation Co. under the supervision of the Department of the Interior. Savage Camp is the base unit, and there are field camps at the head of Savage River, at Toklat River, and at Mount Eielson. Guests are made as comfortable as possible in a country so far from the sources of supply. The costs average about \$7.50 a day for two persons occupying a

tent; single tents cost approximately a dollar more. If the guest remains a week, the expenses average \$5.50 a day. Children from 5 to 12 years old are charged half rates, and unless using an individual bed, there is no charge for children under 5. Dances and other social gatherings are held in the community room at Savage Camp.

Practically all McKinley visitors come to the park by rail. The round-trip bus fare from the station to Savage River Camp is \$7.50. Motor trips from this camp to the head of Savage River, Polychrome Pass through Sable Pass, and other points of scenic interest range in cost from \$7.50 to \$42.50. Pack trips for a close-up view of Mount McKinley, to fish for trout and grayling, or to explore the glaciers and scenic beauty of the park may be arranged at the camp at prices varying from approximately \$17.50 a day up, according to the number of persons in the party. Horses, food, bedding, tents, and all other necessary equipment are furnished by the company. Saddle horses for short trips may be hired for \$2 an hour or \$5 a day. Special guide service costs \$10 a day.

Because of the ruggedness of the country and the absence of motor roads, airplanes are widely used in Alaska. A remarkable scenic flight from Savage Camp to Mount Eielson, Muldrow Glacier, and the base of Mount McKinley over Sable, Polychrome, Highway, and Thorofare Passes may be made at a cost of \$35.

All the foregoing service is available from June 10 to September 15. The rates charged are based on the cost of furnishing such service and are approved by the Government. This booklet is issued once a year and the rates may have changed slightly since issuance, but the latest rates approved by the Secretary of the Interior are on file with the superintendent.



Ranger on winter-patrol duty.

Although the service is under the supervision of the Secretary of the Interior, the employees of the Tourist & Transportation Co. are not Federal employees. If you have suggestions regarding the service, they should be discussed with the park superintendent.

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Mount McKinley from Sable Pass.

Do You Know Your National Parks?

- Acadia, Maine.**—Combination of mountain and seacoast scenery. Established 1919; 21.81 square miles.
- Bryce Canyon, Utah.**—Canyons filled with exquisitely colored pinnacles. Established 1928; 55.06 square miles.
- Carlsbad Caverns, New Mexico.**—Beautifully decorated limestone caverns believed largest yet discovered. Established 1930; 15.56 square miles.
- Crater Lake, Oregon.**—Astonishingly beautiful lake in crater of extinct volcano. Established 1902; 250.52 square miles.
- General Grant, California.**—Celebrated General Grant Tree and grove of Big Trees. Established 1890; 3.96 square miles.
- Glacier, Montana.**—Unsurpassed alpine scenery; 250 lakes; 60 glaciers. Established 1910; 1,533.88 square miles.
- Grand Canyon, Arizona.**—World's greatest example of erosion. Established 1919; 1,009.08 square miles.
- Grand Teton, Wyoming.**—Most spectacular portion of Teton Mountains. Established 1929; 150 square miles.
- Great Smoky Mountains: N. C.-Tenn.**—Massive mountain uplift covered with magnificent forests. Established for protection 1930; 615.76 square miles.
- Hawaii: Islands of Hawaii and Maui.**—Volcanic areas of great interest, including Kilauea, famous for frequent spectacular outbursts. Established 1916; 245 square miles.
- Hot Springs, Arkansas.**—Forty-seven hot springs reserved by Federal Government in 1832 to prevent exploitation of waters. Made national park in 1921; 1.58 square miles.
- Lassen Volcanic, California.**—Only recently active volcano in continental United States. Established 1916; 163.32 square miles.
- Mesa Verde, Colorado.**—Most notable cliff dwellings in United States. Established 1906; 80.21 square miles.
- Mount McKinley, Alaska.**—Highest mountain in North America. Established 1917; 3,030.46 square miles.
- Mount Rainier, Washington.**—Largest accessible single-peak glacier system. Third highest mountain in United States outside Alaska. Established 1899; 377.78 square miles.
- Platt, Oklahoma.**—Sulphur and other springs. Established 1902; 1.33 square miles.
- Rocky Mountain, Colorado.**—Peaks from 11,000 to 14,255 feet in heart of Rockies. Established 1915; 405.33 square miles.
- Sequoia, California.**—General Sherman, largest and possibly oldest tree in the world; outstanding groves of Sequoia gigantea. Established 1890; 604 square miles.
- Shenandoah, Virginia.**—Outstanding scenic area in Virginia section of Blue Ridge. Established 1935; 275.67 square miles.
- Wind Cave, South Dakota.**—Beautiful cavern of peculiar formations. No stalactites or stalagmites. Established 1903; 18.47 square miles.
- Yellowstone: Wyoming, Montana, Idaho.**—World's greatest geyser area, and an outstanding game preserve. Established 1872; 3,471.51 square miles.
- Yosemite, California.**—Valley of world-famous beauty; spectacular waterfalls; magnificent High Sierra country. Established 1890; 1,176.16 square miles.
- Zion, Utah.**—Beautiful Zion Canyon 1,500 to 2,500 feet deep. Spectacular coloring. Established 1919; 148.26 square miles.

Government Publications

Glimpses of Our National Parks. An illustrated booklet of 92 pages containing descriptions of the principal national parks. Address National Park Service, Washington, D. C. Free.

Recreational Map. Shows both Federal and State reservations with recreational opportunities throughout the United States. Brief descriptions of principal ones. Address as above. Free.

National Parks Portfolio. By Robert Sterling Yard. Cloth bound and illustrated with more than 300 beautiful photographs of the national parks. Superintendent of Documents, Washington, D. C. Price, \$1.50, cash or money order.

Fauna of the National Parks. Series No. 1. By G. M. Wright, J. S. Dixon, and B. H. Thompson. Survey of wildlife conditions in the national parks. 157 pp., illustrated. Superintendent of Documents, Washington, D. C. Price, 20 cents.

Fauna of the National Parks. Series No. 2. By G. M. Wright and B. H. Thompson. Wildlife management in the national parks. 142 pp., illustrated. Superintendent of Documents, Washington, D. C. Price, 20 cents.

Booklets about the national parks listed below may be obtained free of charge by writing to the Director, National Park Service, Washington, D. C.:

Acadia National Park, Maine.
Carlsbad Caverns National Park, N. Mex.
Crater Lake National Park, Oreg.
General Grant National Park, Calif.
Glacier National Park, Mont.
Grand Canyon National Park, Ariz.
Grand Teton National Park, Wyo.
Great Smoky Mountains National Park, N. C.-Tenn.
Hawaii National Park, Hawaii.
Hot Springs National Park, Ark.
Lassen National Park, Calif.
Mesa Verde National Park, Colo.
Mount Rainier National Park, Wash.
Platt National Park, Okla.
Rocky Mountain National Park, Colo.
Sequoia National Park, Calif.
Wind Cave National Park, S. Dak.
Yellowstone National Park, Wyo.-Mont.-Idaho.
Yosemite National Park, Calif.
Zion and Bryce Canyon National Parks, Utah.

