



## SELF-GUIDING TOUR OF TRAIL RIDGE ROAD

A trip over Trail Ridge Road is an exhilarating experience. In the next 40 miles, you will climb to 12,183 feet above sea level and encounter forms of life and climatic conditions found at the Arctic Circle. If you leave your car, remember to move slowly. The thin air may leave you dizzy.

Watch for the numbered arrowhead insignias along the roadside. They correspond to the text in this pamphlet. If you enter the park from the east (either the Fall River or Beaver Meadows entrances), start with the beginning text. If you enter from the west (Grand Lake Entrance), begin with section 12 and follow the guide backward.

### 1 DEER RIDGE JUNCTION—8,940 FT.

The junction ahead marks the eastern end of Trail Ridge Road. It is the premier summer route through the park, but the road is closed each winter by drifts that may be more than 35 feet deep. First opened in 1932, Trail Ridge Road is the highest continuous paved road in the United States.

In part, it follows a route once used by Ute and Arapaho Indians as well as earlier prehistoric people of unknown name. Their artifacts, including a variety of projectile points, record a human presence in the mountains as much as 11,000 years ago. Aboriginal fire rings are most common at treeline. Also near treeline are the inconspicuous remnants of several prehistoric, rock-walled game drives that enabled these people to harvest mule deer, bighorn sheep, elk and bison.

### 2 HIDDEN VALLEY—9,240 FT.

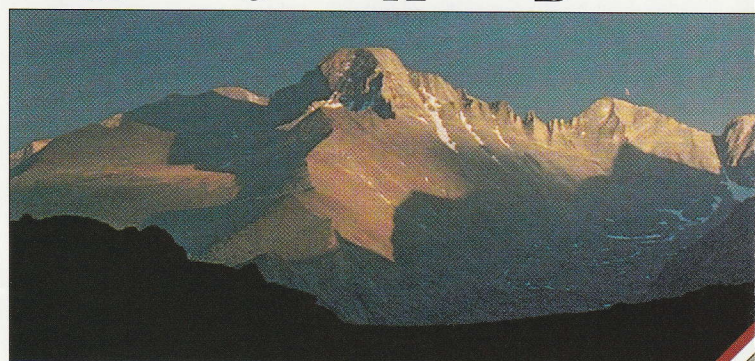
Nestled in the hillside just ahead is Hidden Valley, formerly a recreational center for downhill skiing. The snow often lies five feet deep here and the summers are cool. It's the perfect climate for subalpine forests of Engelmann spruce and subalpine fir. Vast forests of this type extend throughout the park between 9,000 and 11,000 feet.



*Horseshoe Park below Rainbow Curve.*



R O A D



### 3 MANY PARKS CURVE—9,620 FT.

Prominent in this fine panorama are several "parks," or mountain-enclosed meadows. The long, forested ridges separating these parks are moraines, great heaps of rock debris that glaciers pushed or deposited along their sides between 150,000 and 12,000 years ago. Even older glaciers existed here, but erosion has obliterated most evidence of their passing. To the west of your view — and generally behind nearby ridges — lie the headwalls where these glaciers originated and began their journey to the valley floors. Most extended less than five or six miles.

Where people gather, so do the common birds of the Rocky Mountains: the noisy, black-and-white Clark's nutcracker, the blue Steller's jay with its black crest, the quiet gray jay. Please do not feed them.

### 4 RAINBOW CURVE—10,829 FT.

Here, more than two miles above the sea, every exposed tree is blasted by wind, ice and grit into distinctive flag shapes; branches survive only on the downwind side of tree trunks. Higher still, trees survive only where the severely-pruned "shrubs"

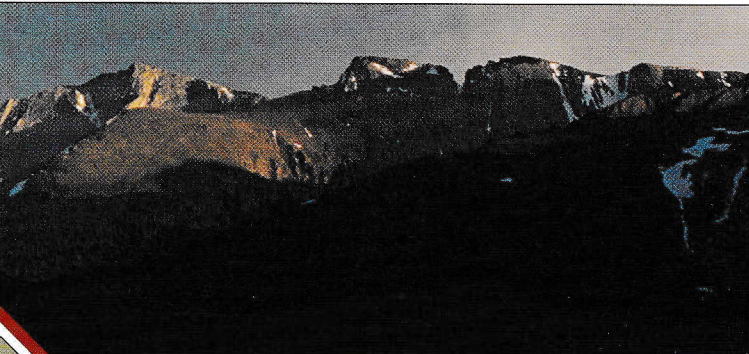


*Gray jay.*



# Ridge

## G U T I D E



are covered and protected by winter snowdrifts.

Directly below lies Hidden Valley, isolated by a ridge from Horseshoe Park. Melting Pinedale glaciers left moraines along each side of Horseshoe Park

between 30,000 and 12,000 years ago, and

Hidden Valley was thereby blocked off. Fall River now meanders through Horseshoe Park, where a glacier once ground its way eastward.

A great, light-colored alluvial fan of rubble is conspicuous on the north side of Horseshoe Park. Flood waters deposited this debris in a matter of hours when a dam at Lawn Lake gave way during the early morning of July 15,

1982. The raging waters scoured a stream valley for five miles, then disgorged the boulders, gravel and sand onto the floor of Horseshoe Park in a rocky layer 44 feet deep.

### 5 FOREST CANYON OVERLOOK—11,716 FT.

A five-minute walk leads to a dizzying panorama of Forest Canyon and its tributary canyons, Hayden Gorge and Gorge Lakes. Here, the erosive force of glacial ice is unmistakable. Although the ice did not reach where you stand, it still lay more than 1,500

feet thick in a V-shaped stream valley. With the grinding force of a giant rasp, the ice scoured the valley into the distinctive U-shape of today. The debris, of course, now lies downstream between Moraine Park and the Mississippi Delta in the Gulf of Mexico.



*Pika*

Even today, the high country is reshaped by geologic forces. Water-saturated soil slides slowly downslope as lobes of earth, and rock patterns appear wherever repeated freezing and thawing churn the earth.

You will frequently hear squeaks and see fist-sized pikas hopping across the rocky slopes. These little relatives of rabbits busily gather and store plants in “hay piles” all summer to ensure a winter food supply.

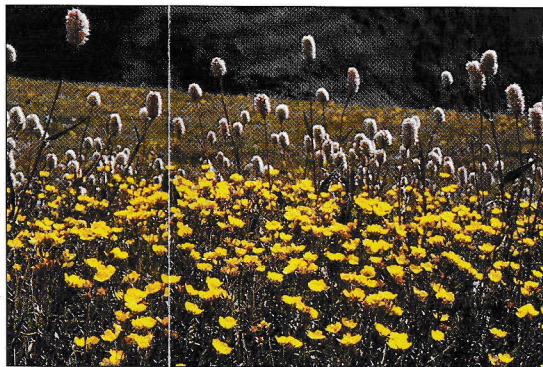
### 6 ROCK CUT—12,110 FT.

Here on the roof of the Rockies, the climate is rigorous. Severe weather can come at any time. Periods of drought may occur both summer and winter, and winter blizzards are frequent. Temperatures remain below freezing all winter, and they frequently drop below freezing in summer. The growing season is only six to 10 weeks each year. Wind speeds can exceed 150 miles per hour in either summer or winter and ultraviolet radiation is twice what it is at sea level. Sunlight is 50 percent more intense.

And yet, life has found a way. Most plants are perennials. Each season, they develop buds for the next year of growth. All tundra plants are small, low-growing and compact, enabling them to avoid the abrasive, desiccating winds. Many contain the pigment anthocyanin,

which converts sunlight into heat. Many plants also possess hairs or waxy surfaces, reducing water loss.

Despite the severe conditions, more than 100 species of flowering plants live in the stunningly rich and fascinating alpine tundra of Rocky Mountain National Park.



*American bistort rises above a field of alpine avens.*



## 6 ROCK CUT (continued)

Nearby, the Tundra World Nature Trail offers a journey across the alpine landscape. Allow 45 minutes for this adventure, and walk slowly. Be sure to stay on paved trails. At this elevation, plant life takes centuries to recover from disturbances.

## 7 LAVA CLIFFS—12,080 FT.

The dark cliff northwest of the parking area is composed of volcanic rock, but its name is misleading. Between 28 and 26 million years ago, volcanoes erupted repeatedly in the area of today's Never Summer Mountains, eight miles to the west. Deposits of volcanic debris repeatedly blanketed the land. One flow of hot, incandescent ash extended this far, cooling to form the "tuff" we see today. Much later, glacial ice carved into the hillside and exposed the tuff in cross section.

*Between Lava Cliffs and Gore Range Overlook, you will cross the highest point on Trail Ridge Road — 12,183 feet.*

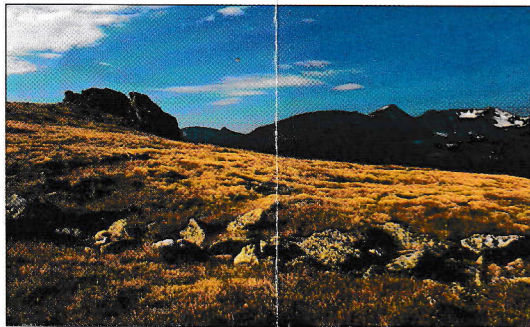


*Subalpine wildflower garden.*

## 8 FALL RIVER PASS—11,796 FT.

Fall River Pass marks the dividing point between the Fall River and Cache la Poudre River drainages. Although flowing in different directions, the rivers eventually join east of Greeley, Colorado, and flow into the Platte, Missouri and Mississippi drainages.

The great amphitheater below Alpine Visitor Center has been filled with glacial ice many times in the past, and with good reason. It is ideally situated to collect the enormous amounts of snow blown across the pass. Winds exceeding 200 miles per hour have been recorded on the highest park peaks.



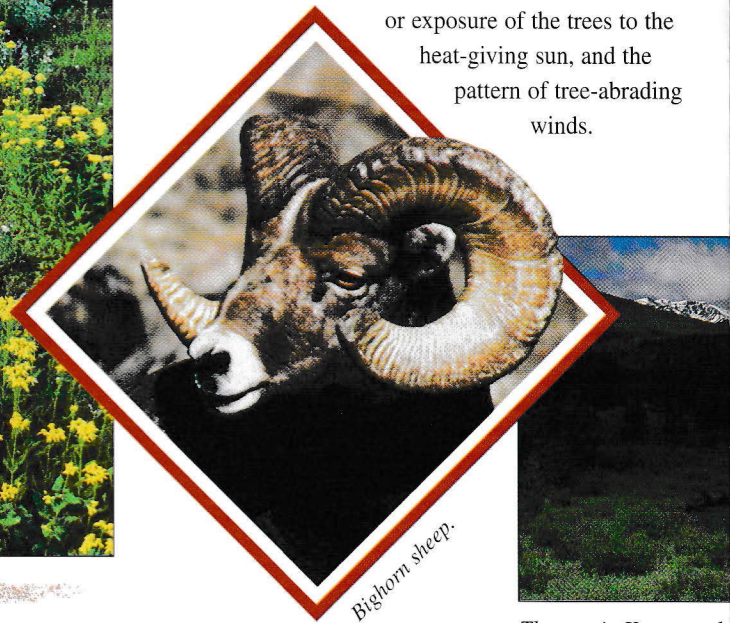
*The Trail Ridge tundra in early autumn.*

## 9 MEDICINE BOW CURVE—11,640 FT.

Far to the northwest, the Medicine Bow Mountains extend into Wyoming. The Cache la Poudre River lies far below, dwarfed by the great, sinuous glacial valley in which it lies.

Here, the vast subalpine forest of Engelmann spruce and subalpine fir displays two limits: one above, where it is too cold, and one below, where the soil is too wet on the valley floor. The irregularity of the

upper treeline is caused by tree-protecting snowdrifts, snow and rock avalanches, shade or exposure of the trees to the heat-giving sun, and the pattern of tree-abrading winds.



*Bighorn sheep.*

*The scenic Kawuneechee*

## 10 MILNER PASS—10,758 FT.

Trail Ridge Road crosses the Continental Divide at this point where the waters enter either the Atlantic or Pacific drainages. Here, the chance fall of a drop of water – by a matter of feet – will determine its future course. The Rockies divide these two great watersheds, but the Continental Divide may be a mountaintop, a ridge or a pass.

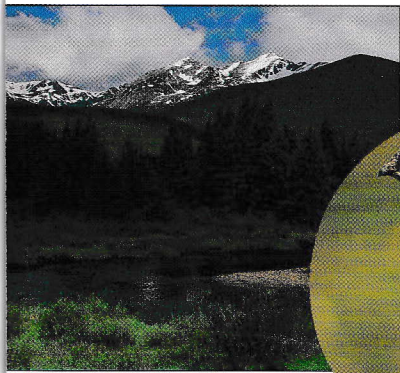


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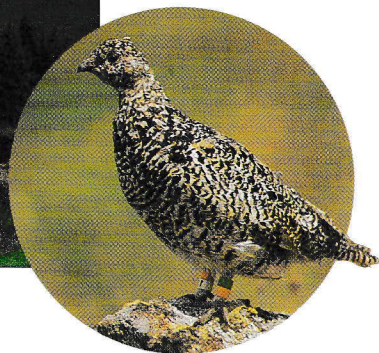
**FARVIEW CURVE—10,120 FT.**

The same Colorado River that flows through the Kawuneeche Valley below you later carves the Grand Canyon in Arizona. Note the many beaver ponds on the valley floor. The river originates five miles to the north at La Poudre Pass and flows 1,400 miles through five states before it empties into the Gulf of California. The great glaciers that shaped this valley once extended more than 20 miles to the south. In Arapaho, Kawuneeche means the valley of coyote.

To the west, etched along the mountainside, is the mark of the Grand Ditch. This ditch was built between 1890 and 1932 to intercept meltwater running off the Never Summer Mountains and transfer it by gravity across the Continental Divide. The water flows down the Cache la Poudre River to supply farms and communities in the Fort Collins area. Even at its beginning, the Colorado River has lost some of its wildness.



Kawuneeche Valley



Ptarmigan

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**NEVER SUMMER RANCH—8,884 FT.**

John Holzwarth Sr. first staked a homestead claim across this valley in 1917 with the intent of developing a cattle ranch. Guests began to visit the ranch when the Fall River Road opened through the park in 1920. The homestead was quickly dubbed Holzwarth Trout Lodge.

Now incorporated within the park and preserved as an historic site, the homestead depicts the rustic, unpretentious dude ranching of the 1920s. A half-mile trail leads to the site. Allow one hour for the visit.

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Trail Rides

R O A D G U I D E

ROCKY MOUNTAIN NATIONAL PARK