Red Rock Canyon

You are invited to continue your exploration of Red Rock Canyon State Park

This self-guided trail is the result of a joint effort between the Red Rock Canyon Interpretive Association and Red Rock Canyon State Park Staff.

Thank You

Red Rock Canyon Interpretive Association

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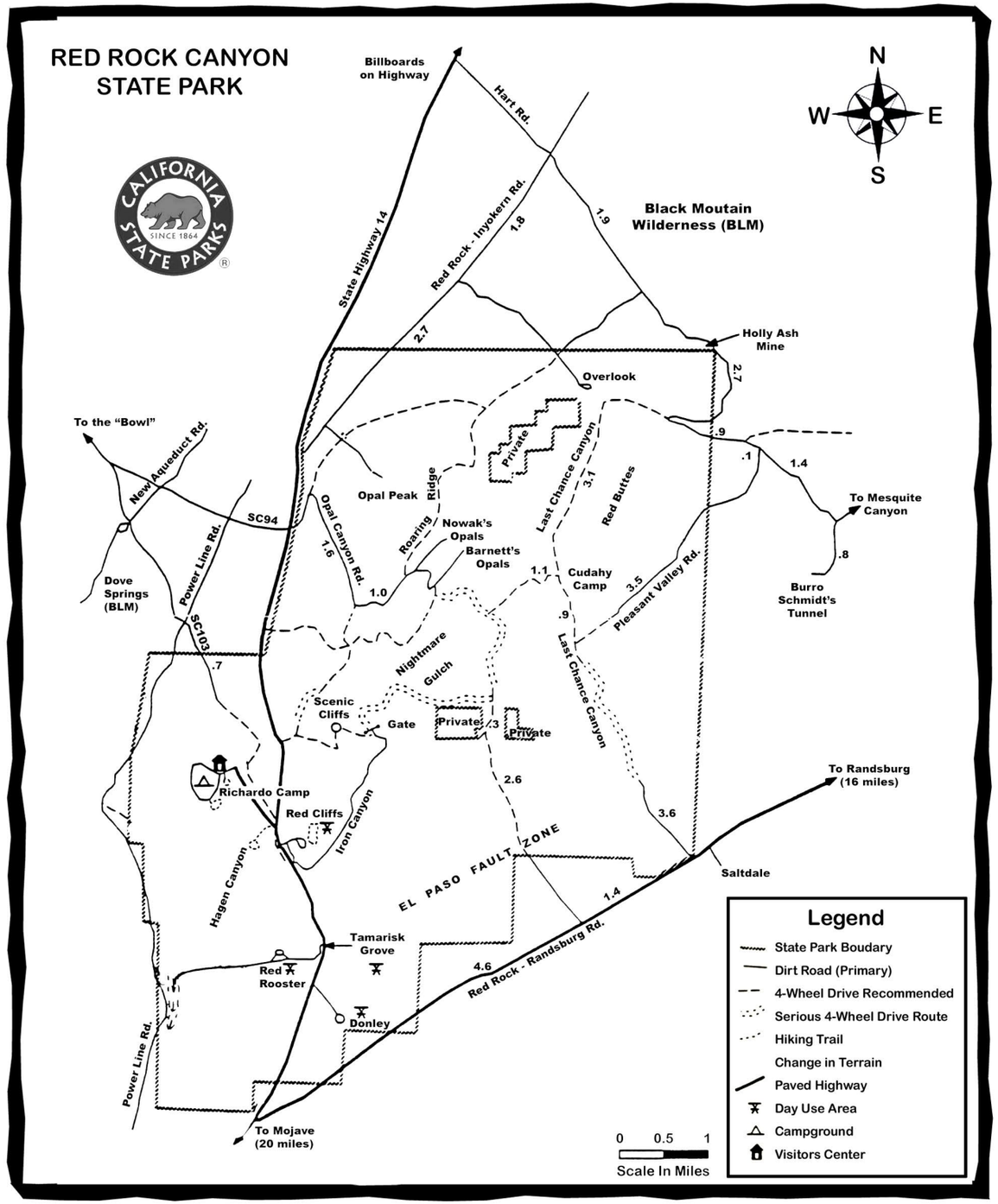
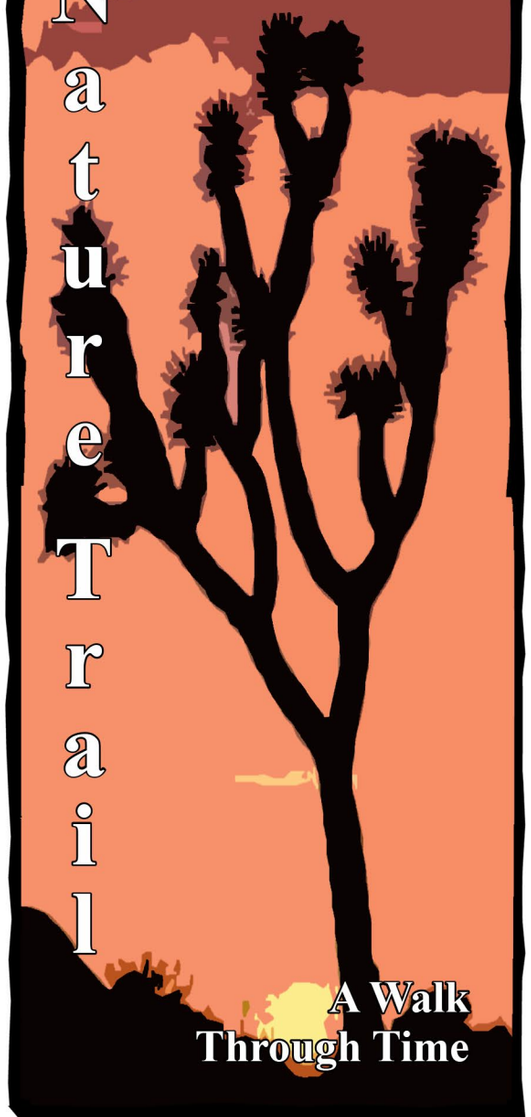


Desert View Nature Trail



A Walk Through Time

A Walk Through Time...

Red Rock Canyon State Park has been clearly marked by the passage of time. You are about to begin a half-mile self-guided tour which will tell you the story of the high desert environment you see about you, and which will suggest clues about its past. In this land of little rain, a remarkable natural heritage is preserved. Enjoy your discoveries!

1 As you look over this valley, you clearly see a **Desert**. But over 10,000 years ago, as the Sierra glaciers were melting, huge lakes dotted what is now the Mojave Desert. Fossils have been found which indicate that saber-toothed cats, camels, horses, and rhinoceroses lived here in early times. Today it is a very different place.

2 Life in the desert is harsh. Special adaptations are essential for survival. This **Joshua Tree**, a giant member of the yucca family, grows quite slowly, as little as one inch in height each year. The tree you see may be 200 years old.

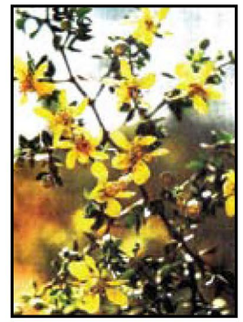
3 All life requires water, a rare commodity in the desert. The **Cholla Cactus** you see here has leaves modified as spines, and photosynthesis occurs in its green stem. The shallow root system catches rain as it falls, and water is retained inside the succulent stem to be used later.

4 Even the desert has visible **Seasons**. The sandy spaces between desert shrubs in Spring host tiny green plants which bloom, set seed, and die before the summer heat. Time and amount of rainfall, along with freezing and

evaporation throughout the winter determine the intensity of the year's wildflower show.

5 With little water available, **scars** on the landscape heal very slowly. This road has been closed for several decades, but few plants have returned. The bare soil is exposed to further erosion by wind and rainstorms, leaving tiny seeds and young plants vulnerable to destruction. Desert plants are hardy, yet very sensitive to human impacts.

6 One of the most widespread shrubs on California's deserts, the **Creosote** is actually among the oldest living things on our planet. The ring of plants before you originated from a single bush. The Creosote grows by adding new stems and roots to its outside edge. Gradually, the inner stems die, and the growing outer edge forms a ring. This Creosote Ring has likely been growing for 1,500 years.



7 **Desert Animals** must adapt to this land of extremes as well. You may see tracks in this sandy wash where animals traveled to a burrow or to the shade of a bush for the afternoon. Watch for the

antelope ground squirrel which uses its white tail to reflect heat from its back. Or a jackrabbit releasing heat through its ears as it rests in the shade. Or a lizard soaking up early morning sun on a rock. In the evening, you may spot a coyote, a bobcat, or a great horned owl on the prowl for wary prey.

8 The history preserved in the landscape unfolds more clues; the dark ridges before you and in the distance are reminders of **Volcanoes** which erupted to the North and South of the present Park. Sometimes, the molten rock flowed for miles across the land. At other times, violent explosions threw material into the air which fell in a rain of ash and rock.

9 Look closely at the **Cliffs** behind the campground. These steep bluffs are composed mostly of sands and gravels carried by an ancient stream and deposited on its journey to a distant lake. Each textured "stripe" in a cliff is a different deposit of sediment which was stacked atop previous layers. These soft strata tell the history of streams which no longer flow.

10 Each stream deposit and volcanic event blanketed the previous ones. Only the most recent was visible until a major **Geological Fault** began to slowly tilt the layers of rock and raise them skyward. As all of Red Rock Canyon was lifted as a unit, water in the forms of rain, snow, and flash floods, carved the cliffs we see today.

11 As water and sometimes wind carved the cliffs, not all the layers eroded at the same rate. The hardest layers form a cover, or a "**Caprock**," over softer layers. As caprock is finally cut down by water, it breaks loose, the soft layers beneath erode into many intriguing shapes. The colors are caused by various minerals, including oxides of iron, which cause the red shades.

12 **The Future**...Red Rock Canyon continues to be shaped by nature's forces. We are still learning of the Canyon's past and present but cannot predict the future. The manner in which we treat the land will affect the desert plant and wildlife community. Human pressures on the desert will make carefully preserved natural areas all the more important and valuable.