

*Cactus Forest
Drive*



Price 10 Cents

Rincon Mountain Unit

**SAGUARO NATIONAL MONUMENT
ARIZONA**

SAGUARO NATIONAL MONUMENT RINCON MOUNTAIN UNIT

Cactus Forest Drive

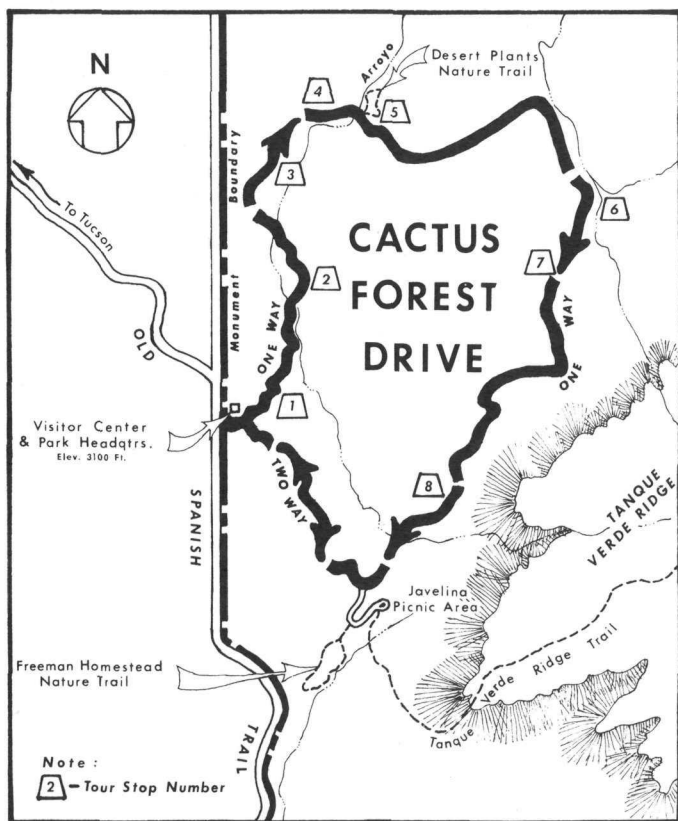
On this nine-mile 14 (km) scenic drive you will learn about the saguaro cactus and other interesting facts regarding the Sonoran Desert. Numbered paragraphs in this guide correspond to numbered points along the route. We suggest that a member of your party read aloud the indicated sections from the booklet as you proceed. You will probably have questions upon completion of the drive. The Park Ranger on duty at the information desk will be glad to assist you in finding the answers. Allow a minimum of 45 minutes to complete the drive. Please leave the Monument undisturbed.

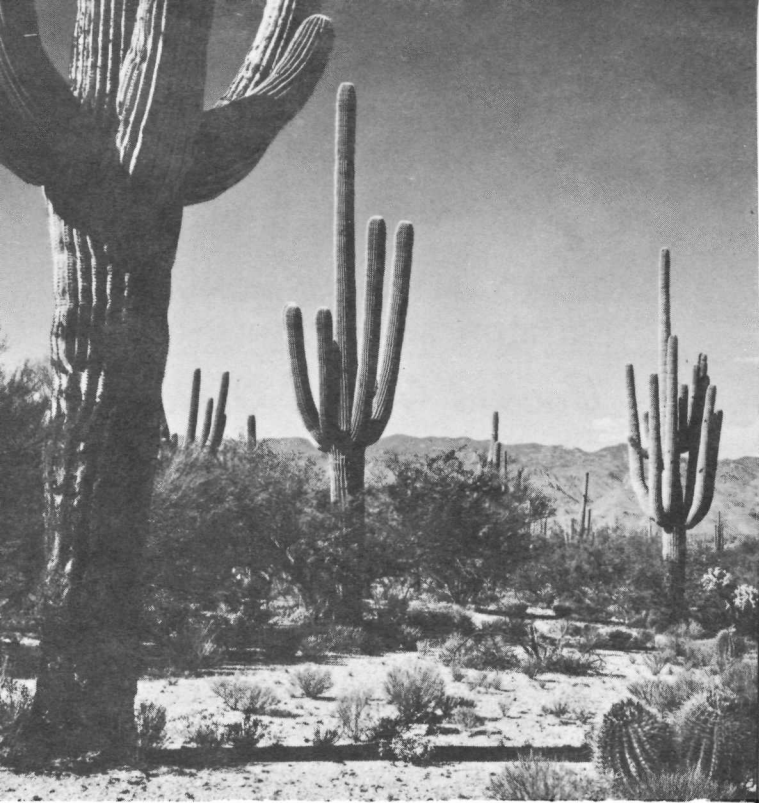
CAUTION

Be alert for slow-moving vehicles, bicyclists, pedestrians, and wildlife, including reptiles. The speed limit on this narrow, winding road is 25 miles (40 km) per hour; however, the slower you drive, the more you will see. Please use the pullouts provided if other drivers wish to pass you.

1 VANISHING SAGUAROS

The large saguaros in this cactus forest are subject to increasing kinds of hazards as they become older and larger.





Patriarchs of the Desert

Primary causes of death include freezing, windthrow, lightning and old age.

A fallen and decaying saguaro harbors many animals, such as insects, scorpions, lizards, snakes and rodents. Decomposition of the fleshy tissues is caused primarily by bacteria.

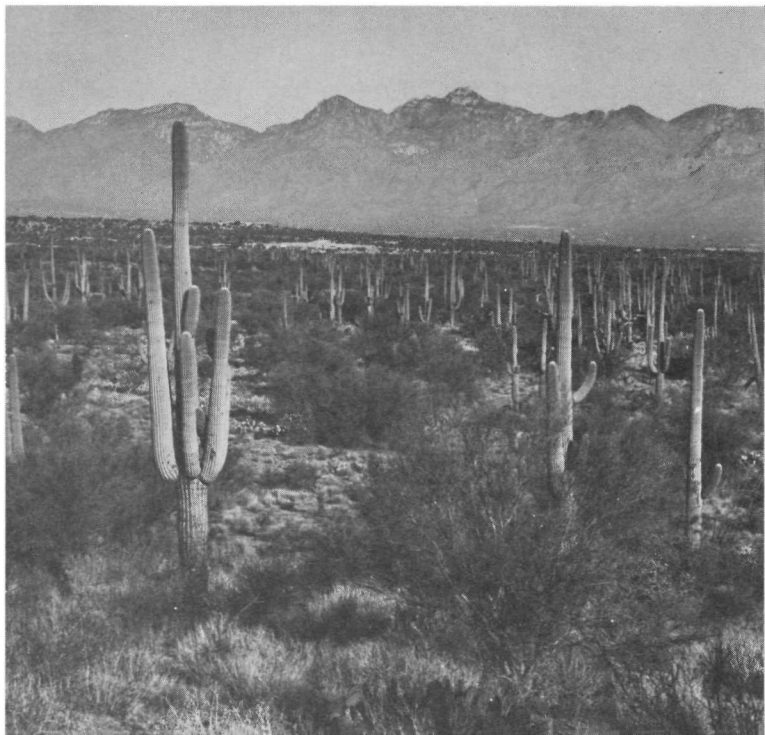
2 FORCES OF CHANGE

During the early part of the 19th century, favorable conditions existed in this cactus forest area for thousands of saguaro seedlings to become established. The seedlings thrived. Thirty years ago, this was one of the most spectacular stands of large saguaros known anywhere in the Sonoran Desert. Today, the scarcity of young plants assures gradual thinning of



Saguaro Forest — September 1942

Same Location — January 1974



this forest. However, fluctuations in plant populations are a natural occurrence, and this forest may recover its historical density sometime in the future. Some natural causes of death in saguaro seedlings are drought, freezing, erosion, eating by insects, and uprooting by rodents and birds. In addition to these natural factors, past grazing and wood-cutting activities destroyed seedlings and sensitive habitats within this forest. Theft of young plants and vandalism further reduce the population. Examples of vandalism are the scarred saguaros near many pullouts along the drive. Rocks thrown at the plants have caused most of the scars.

3 RODENT-PROOF ENCLOSURE

On the ridge approximately 200 yards (183 m) to your right, is a fenced rodent-proof enclosure, with an unfenced study plot of the same size next to it. The purpose of this project is to determine what effect rodents have on vegetation by periodically comparing the plants in both

White-throated Wood Rat



plots. There are other research projects currently in progress regarding ecology of the saguaro forest.

4 RINCON MOUNTAIN VIEW

The highest point in the Rincons, Mica Mountain 8666' (2643 m), is directly before you. This summit lies beyond and to the left of Tanque Verde Peak 7050' (2150 m) and ridge. The sequence of vegetation types begins here 2800' (854 m.) in the desert scrub, and ranges through the following biotic communities: desert grassland transition, oak woodland, oak-pine woodland, ponderosa pine



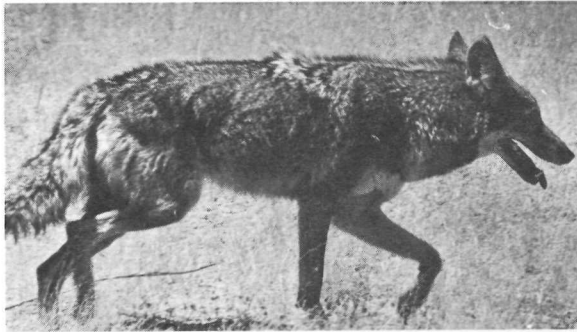
Oak Woodland

forest and fir forest. The 5800' (1769 m) elevational difference between your location and the mountaintop corresponds to the influence of latitude between northern Mexico and southern Canada. The

Rincones are one of the few mountain ranges remaining in the Southwest which are not penetrated by roads. Approximately 65 (105 km) miles of trails in these mountains offer ample opportunity for the hiker and horsebacker to experience the solitude and tranquility of this wilderness.

5 DESERT PLANTS NATURE TRAIL

Taking this short walk will allow you to experience the desert on more intimate terms. Here you will find out how desert plants grow in greater abundance, variety and size due to availability of water along arroyos. Animals use these plants for both food and cover. This arroyo or "dry wash" drains a large portion of the cactus forest.



Coyote

As you proceed to Stop #6 after completing the nature walk, you will notice more young saguaros growing on the foothills of Tanque Verde Ridge. The growth rate of seedlings is highly variable, controlled primarily by availability of moisture. Studies in this saguaro forest indicate that a five year old plant may be only one inch (2.5 cm) high. A

plant first produces blossoms when it is 6 to 8 feet tall (1.8 m - 2.4 m) 35 years old. Initial branching occurs when it is about 12 to 15 feet tall (3.66 m - 4.57 m) 75 years old. Plants occasionally reach heights of over 40 (12.2 m) feet, with an estimated maximum age of 150 to 200 years. Waxy, white blossoms appear in April, May and June, and may be pollinated by birds, bats and insects. The bright red fruit matures in June and July.



White-winged Dove Drinking from Saguaro Bloom

6 ROCKS AND SURVIVAL

The abundance of small saguaros growing on these slopes provides a contrast to the older forest seen earlier on the drive. The rocky slopes aid young sa-

guaros in their struggle for survival, offering protection for seedlings from nighttime frosts as they re-radiate heat absorbed during the day. Rocks also provide protection from trampling hooves of cattle and provide good anchorage for shallow root systems.

7 TUCSON MOUNTAINS

The Tucson Mountains 25 miles (40 km.) distant are on the skyline to the right, west of the city of Tucson (metropolitan population over 400,000). Trending northwestward, they are basically a tilted pile of sedimentary rocks capped by volcanic rocks. The north end of the range and the highest peak, Wasson 4687' (1430 m), are in the 15,360 acre (6221 ha) Tucson Mountain Unit of the Monument—about a one hour drive from here. Dense stands of saguaros and the grey-green foliage of ironwood trees provide a contrast with this area.

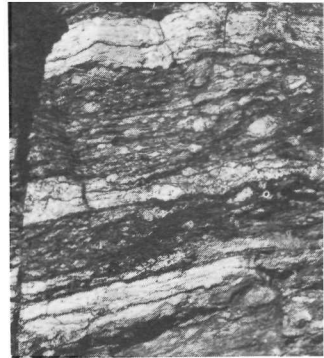
8 BANDED GNEISS BOULDERS

These rocks are composed of one of the three types of gneiss comprising the Rincon and Santa Catalina Mountains. This gneiss (pronounced "nice") was formed deep under the earth's surface by heat and pressure intense enough to cause the layering of different colored minerals in these rocks. The mountains were uplifted about 24 million years ago, and it was during this same period that most of the isolated mountain ranges, typical of the Sonoran Desert, were formed.

ADDITIONAL INFORMATION

A one mile (1.6 km) nature trail begins on the spur road to the picnic area (turn

left at the next junction). It will help explain many ecological relationships and gives added opportunity to experience the natural beauty of the Sonoran Desert. A trail leaflet is available at the Visitor Center. Water is not available on this trail or at the picnic area. We hope you have enjoyed your drive and will have the opportunity to visit the Tucson Mountain Unit of Saguaro National Monument. An information center and self-guiding nine mile (14 km) drive are located about two miles (3.2 km) west of the Arizona-Sonora Desert Museum. In addition to the impressive saguaro forest, some plants such as the ironwood tree, and animals common only to the western parts of the Sonoran Desert, are found in the Tucson Mountain Unit. Visitors wishing more information may purchase a natural history handbook at the Visitor Center.



Close-up of
Banded Rock



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