# Issue: **SPRING - SUMMER 2008** What's Inside [2] Rattlesnakes, Burros [3] SNPLMA, New Visitor Center, Fees and **Annual Passes** [4] Rock Climbing, Calico Tanks Trail [5] Red Rock Partners [6] Fire Ecology, Petroglyphs and Pictographs, Desert Safety Tips, Why are the Rocks Red [7] Hike Descriptions [8] Hiking Map, Contact Numbers Photo: Chia (Salvia columbariae)

# Red Rock

<u>Keystone Visitor Guide</u>

#### NATIONAL CONSERVATION AREA

#### Flower Power

DESERT PLANTS ARE RESILIENT AND THEIR ADAPTATIONS FOR SURVIVING DESERT CONDITIONS ARE DIVERSE AND AMAZING. A KEY TO PLANT SURVIVAL IS THE ABILITY TO REPRODUCE. THE REPRODUCTION OF MOST ANNUAL AND PERENNIAL SPECIES IS DEPENDENT ON THE POWER OF THE FLOWER!

The male parts of a flower are specialized to produce spores or pollen. Spores or pollen from the anther at the end of the stamen must find their way to the stigma. The female stigma is the surface on which spores or pollen must land (or be placed) during pollination. Here the spores germinate

and travel down the style of the pistil where fertilization takes place.

Pollen transfers from stamen to stigma in three ways: selfpollination, animal pollination and wind pollination. The process of self-pollination occurs when the pollen from an anther fertilizes an egg on the same flower. Wind pollination is a primitive

method and generally occurs among plants that live close together such as grasses and trees. Tremendous amounts of pollen are released to ensure that at least some wind borne spores make it to the correct stigma.

Spring flowers put on their annual show to attract animal pollinators from bees to hummingbirds. The colors and designs of flowers have developed over time to attract specific animals that fulfill their reproductive needs. Look into a Utah penstemon blossom and you will see patterns of

color called "nectar guides." These guides are essentially runways with landing lights that lead the pollinator right to the nectar. Some flowers are generalists and do not care which animal pollinates them, while others have reliable partnerships. The yucca moth pollinates the yucca flower while she lays her eggs. In turn for her good deed, the moth larva can feed on the developing seeds.

This spring, take a closer look at the attractive power of Red Rock Can-

> yon's desert flowers. From April to June, you may see desert marigolds and globe mallow throughout the area. Firecracker penstemon, small leaf amsonia and scarlet gaura will dress up Pine Creek Canyon. Lost **Creek and Willow Springs** will show off dune primrose, chia, prickly pear cactus, larkspur, and Fremont phacelia. Spring and early

summer are your best chances to experience the beauty of the Mojave Desert in bloom. So get out the camera, take a hike and watch the desert change before your very eyes through the power of flowers.

#### **Don't Trash Nevada**

Millions of visitors go to Southern Nevada's public lands to enjoy their beauty and recreational opportunities. However, the tremendous growth has had a negative impact on public lands, with littering and illegal dumping occurring more often.

What you can do: Do not engage the dumper in any way. Simply record the pertinent information and provide it to the appropriate authorities.

- Incident Date
- Incident Location
- Incident Time
- Violator's Description
- License Plate Number

- Material Dumped
- Vehicle Description
- Other Important Details

To learn more, visit www.DontTrashNevada.org

#### **Hours of Operation**

April 1 through September 30, 2008

- Visitor Center 8 a.m. to 4:30 p.m.
- ◆ 13-Mile Scenic Drive and Scenic Overlook on State Route 159





#### Yes, we have rattlesnakes.

AS TEMPERATURES BEGIN TO RISE AS WE HEAD INTO SPRING, YOU MAY BEGIN TO ENCOUNTER ANIMALS SLITHERING ACROSS THE TRAIL OR IN THE BUSHES, OR BASKING ON ROADS AND ROCKS. OUR COLD BLOODED REPTILE FRIENDS HAVE BECOME ACTIVE AGAIN.

#### **ARE ANY OF THEM POISONOUS?**

Red Rock Canyon is home to a number of poisonous rattlesnakes and one poisonous lizard, the Gila monster. Rattlesnakes are heavy-bodied, dangerously venomous snakes with a slender neck, broad triangular-shaped head, and a rattle at the end of their tail. They can be 6 inches long when young, but grow up to 52 inches in length. Two species you may encounter on your visit include the speckled rattlesnake (Crotalus mitchellii) and the Mojave rattlesnake (Crotalus scutulatus). Their venom is used to stun or kill their food which includes rodents and lizards. They serve an important role in the desert ecosystem, managing rodent populations, which can explode in number during years when vegetation and seeds are plentiful.

#### **WILL THEY CHASE OR ATTACK ME?**

Like most wildlife, rattlesnakes are shy, avoiding humans. Rattlesnakes are often heard before they are seen and will usually move away from you before you ever see them. But, unwary pets and people may get bitten if they approach a snake and it feels threatened with harm. There are about 8,000 venomous snake bites reported each year in the U.S. Snakes bites are uncommon because the snake will usually give you a warning when you get too close. When alarmed, the rattles on the end of the snake's tail makes a sound resembling a sudden burst of steam. When only slightly disturbed, the sound is just a click of a rattle. If you hear this sound, there is a snake nearby, letting you know it's there. Heed its warning by moving away from the sound and it

should leave you alone. If the rattle is not enough or you get too close, the snake may strike at you from a coiled position. They can strike at you with a reach of approximately half their body length. To avoid conflicts, watch where you step while you hike, check around the area where you plan to stop for lunch to make sure you are not going to sit down next to one and avoid putting your hand beyond where you can see as you climb on rocks.

#### WHAT HAPPENS IF I GET BITTEN?

Call 911. Snake bites are extremely serious and treatment must take place in the hospital. About 12 deaths were reported each year from 1960-1990 as a result of poisonous snake bites, don't be one of them. Treatment is vital for your survival. Most rattlesnake bites contain hemotoxic elements that damage tissue and affect the circulatory system by destroying blood cells, skin tissues and causing internal hemorrhaging. Rattlesnake venom also contains neurotoxic components which stop the nervous system, affecting the victim's breathing.



**Photo:** Mojave rattlesnake (Crotalus scutulatus) by Kate Sorom

#### Wild Burros

Many visitors enjoy seeing the burros in Red Rock Canyon National Conservation Area. Burros are well adapted to the Mojave Desert and survive high temperatures and long periods of time without green forage by using shade under rocky cliffs and shrubs and by being most active in the early morning and late afternoon. They survive the apparent lack of water by seeking out the natural springs and hidden waterholes found throughout Red Rock Canyon. They eat grasses and shrubs. Burros are generally less than half the size of a horse. Males are called jacks and females are called jennies.

Feeding burros encourages these animals to congregate on

roadways where many have been killed and injured by vehicles. Each year people are injured by burros as they try to feed or pet these animals. Feeding burros also causes them to lose their natural fear of roads and cars. Every year both

burros and humans die from burro and automobile collisions due to this adaptation.

Burros are protected by the Wild and Free-Roaming Horses and Burros Act of 1971. People feeding, attempting to feed, riding, attempting to ride, handling, or otherwise harassing or disturbing wild horses or burros are subject to a citation.

#### TO OBSERVE THESE BEAUTIFUL WILD ANIMALS SAFELY:

- Pick a safe place to stop and pull completely off the
- Observe the burros from a distance. The safest place is from your car.
- Drive carefully and be cautious when you see animals on or near the road. Burros may step out in front of your car unexpectedly.
- Refrain from the temptation to feed or water these hardy desert creatures.
- If you have food in an open container, seal it if a burro approaches you.

#### as Vegas Valley Land Sales Fund/Improvements at Red Rock

Act was passed. This innovative act created a disposal boundary in the Las Vegas Valley that enabled the Bureau of Land Management to dispose of public lands. Funds generated from these sales are used to increase the quality of life of Southern Nevada and its visitors

by improving parks, trails and natural areas, supporting conservation initiatives, improving federally-managed

facilities, creating habitat conservation plans and

8, the Southern Nevada Public Lands Management

addition to providing funding for state education and, the Southern Nevada Water Authority.

acquiring environmentally sensitive lands in Nevada in

Red Rock Canyon National Conservation Area and its visitors has been the beneficiary of these funds on nine projects.

Four projects at Red Rock have been completed: Red Rock Fire Station, upgrading exhibits at the visitor

State Route 159 to keep wild horses and burros off the roadway. Projects underway include: expanding and providing utilities to the Red Rock Campground; adjusting the Cottonwood Valley trails network; creating an educational facility for school-aged children; creating a new visitor center at Red Rock and upgrading the scenic drive and paving a dirt road.

center, Red Spring Restoration and fencing along

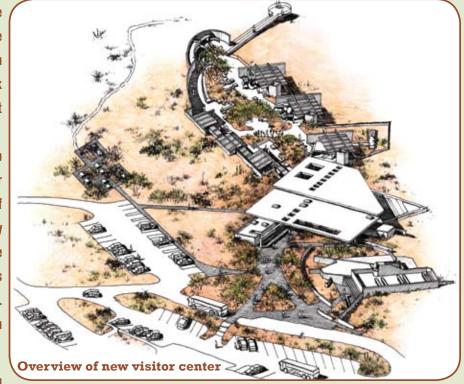
#### **Ground Broken for New Visitor Center**

On February 20, more than 170 guests attended the groundbreaking ceremony of the new visitor center at Red Rock Canyon National Conservation Area which will provide enhanced visitor services to the increasing number of people who visit the area each year. Completion of the project is expected in 2010. Secretary of the Interior Dirk Kempthorne also signed the Round 8 Southern Nevada Public Land Management Act package at the ceremony.

The visitor center project, designed by Line and Space, LLC and constructed by Straub Construction, Inc., consists of four major components: construction of a new visitor center, redesign of the existing structure into an administration building, construction of a new fee booth area and construction of related infrastructure and site work. The facility is designed to encourage stewardship for public land by providing an outdoor experience that instills a sense of personal responsibility. The visitor center design encompasses several outdoor kiosks with an arrival building sheltered by a roof with ample overhangs. The roof will create thermal transition zones as it forms the collection plane for rain water harvesting that will be used for exhibits.

Both the visitor center and administration building components of the project will

undergo the U.S. Green Building Council's Leadership in Energy and Environmental Design certification process.



#### **Fees and Annual Passes**

Red Rock Canyon National Conservation Area began collecting fees in 1998. America the Beautiful Pass, which replaced the National Parks Pass, Golden Age, Golden Access and Golden Eagle began sales in 2007. Below is a list of all passes that are available at the Red Rock Canyon entrance station:

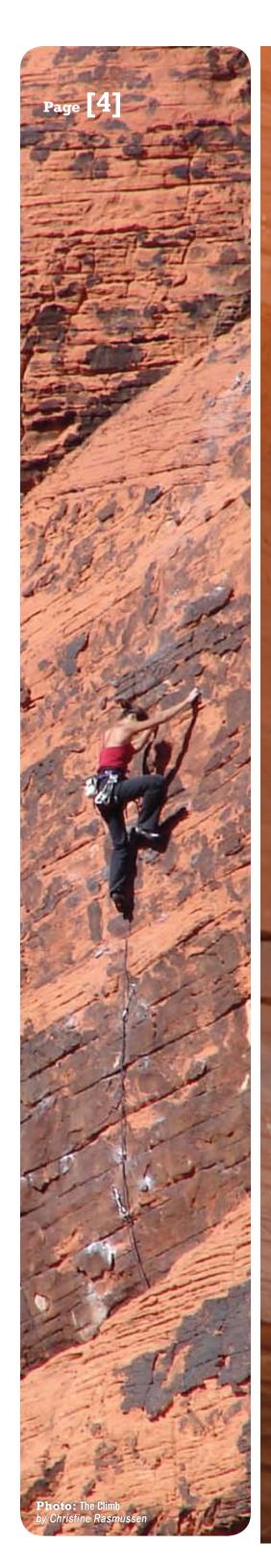
- **♦ DAILY FEE -\$5** 
  - Daily pass for Red Rock Canyon National Conservation Area. Does not include overnight stays in the developed campground.
- ♦ RED ROCK ANNUAL PASS \$20
  - Yearly pass for Red Rock Canyon National Conservation Area. Does not include overnight stays in the developed campground.
- **AMERICA THE BEAUTIFUL PASS \$80**

The America the Beautiful pass is an interagency pass that will be honored by the National Park Service, US Forest Service, Fish and Wildlife Service, Bureau of Land Management and Bureau of Reclamation.

- **♦ AMERICA THE BEAUTIFUL SENIOR PASS \$10 one time fee** 
  - Lifetime pass for U.S. citizens who are 62 and older to national parks, U.S. Fish & Wildlife Service National Wildlife Refuges, U.S. Forest Service, Bureau of Reclamation and Bureau of Land Management sites. Pass provides 50 percent discount on campground fees.
- ♦ AMERICA THE BEAUTIFUL ACCESS PASS FREE (obtain from ranger at the visitor center)

Lifetime pass for U.S. citizens with a permanent disability to national parks, U.S. Fish & Wildlife Service National Wildlife Refuges, U.S. Forest Service, Bureau of Reclamation and Bureau of Land Management sites. Pass provides 50 percent discount on campground fees.





#### **Rock Climbing at Red rock**

WITH MORE THAN 2,000 CLIMBING ROUTES, RED ROCK CANYON NATIONAL CONSERVATION AREA IS ONE OF THE TOP FIVE CLIMBING DESTINATIONS IN THE UNITED STATES.

THERE ARE TWO WILDERNESS AREAS IN THE CONSERVATION AREA: RAINBOW MOUNTAIN WILDERNESS AND LA MADRE MOUNTAIN WILDERNESS. NEW, BOLTED, FIXED ANCHORS AND/OR PROTECTION BOLTS CANNOT BE INSTALLED IN EITHER WILDERNESS AREA. ALL OF THE MAJOR CANYONS IN RED ROCK CANYON ARE IN THE RAINBOW MOUNTAIN WILDERNESS AND ALL OF THE CLIMBING ROUTES LOCATED ON WHITE ROCK MOUNTAIN ARE WITHIN THE LA MADRE MOUNTAIN WILDERNESS.

#### **RAIN, RAIN GO AWAY**

The sandstone becomes very brittle when it rains and should not be climbed for at least 24 hours. By allowing the sandstone to dry out, hand and footholds will not be broken and gear will be less likely to pull out during a fall. If it rains during your visit to Red Rock Canyon and the sandstone is unclimbable, consider the limestone sport crags that are found in Red Rock and other climbing sites around Las Vegas.

#### **CLIMBING PERMITS**

Late Exit permits (LE) provide an additional three hours of climbing time after the normal closure of the scenic drive. These permits are for multi-pitch routes and are only available for the following areas: Angel Food Wall, Ice Box Canyon, Juniper Canyon, Pine Creek Canyon and Oak Creek Canyon.

Overnight permits (ON) are only available for routes on the following walls: Mt. Wilson (1-2 nights), Levitation Wall (1 night), Rainbow Wall (1-2 nights), Buffalo Wall (1-3 nights), Hidden Wall (1-3 nights) and Bridge Mountain (1 night). Camping is not permitted at the base of any route. To obtain a permit, call (702) 515-5050 seven days in advance or as late as the day of your climb. If your message is not clear, you will not receive a permit and you may receive a citation. Same-day permits are not issued after 4:30 p.m. For your safety and to receive a permit, the following information must be included in your message:

- Name and address
- **♦ Type of permit, LE or ON, and climbing date(s)**
- ♦ Vehicle plate number and state
- **Vehicle description**
- Climbing destination and where you will park
- **Emergency contact name and phone number**

Additional information on limestone climbing and the classic crags of Red Rock is available at the visitor center. For more detailed information on specific climbs, contact the climbing rangers at (702) 515-5138 or (702) 515-5042.

#### Calico Tanks Trail

THIS TRAIL STARTS AS A FLAT, WELL-MARKED GRAVEL PATH. AS YOU BEGIN THE TRAIL, YOU ARE TREATED TO SOME LOCAL HISTORY IN THE FORM OF A SANDSTONE QUARRY. SOME REMNANT LARGE BLOCKS OF SANDSTONE ARE EVIDENCE OF THE COMMERCIAL OPERATION OF ONE CENTURY AGO. A SHORT DISTANCE UP THE TRAIL, YOU'LL CROSS A NARROW WASH ON A SHORT, STEPPING STONE BRIDGE AND THE TRAIL BECOMES SLIGHTLY STEEPER. TURN RIGHT FOR AN INVIGORATING HIKE TO CALICO TANKS.

Just ahead, you'll enter a scene of the prehistoric era as you come upon an agave roasting pit to the left of the trail.

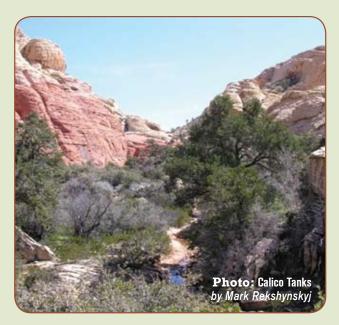
Continuing on the trail and around a bend, you'll enter a small canyon with huge sandstone boulder walls and the plant life changes to willow and evergreen trees. The shade here provides relief from the heat in summertime. The pathway becomes mostly sandy as it departs the canyon. At the end of the wash, the sandy trail turns upward as you'll climb a series of alternating stone staircases and level stretches. Some of the staircases blend in very well with the surrounding rocks so if you come to a point where you appear to have lost the trail, just stop and look carefully to right and left and you'll spot a staircase to take you further up the ravine.

After the first two or three staircases, the trail and stair steps are more easily spotted. The climb becomes a little more strenuous and you may find yourself putting down a hand or two to keep balance, but the extra effort is well worth the delight that waits. Look up and you can see your goal ahead just a short distance away. At the end of the trail, you suddenly come upon the tank. Take some time to wonder at the relatively large body

of water in the middle of a desert, but there is even more to come for those who venture past the tank to the top of the ravine just beyond.

As you top the ridge, a spectacular view of the valley below is your reward. It is a great place to stop and marvel at this creation, both man-made ahead and to your left and natural all around. Do some rock scrambling if you're up to it and find the great variety of plants hiding in the cracks and crevices, observe the beautiful rock formations, or just sit and enjoy the view or maybe a bite to eat to replenish your energy for the return trip, which is a relatively easy walk back down the way you came.

Although this is a relatively short hike of just over two miles round trip, it is packed with things to do and see and is a hike for all ages.





#### **Bureau of Land Management**

THE BUREAU OF LAND MANAGEMENT (BLM) MISSION IS TO SUSTAIN THE HEALTH, DIVERSITY AND PRODUCTIVITY OF PUBLIC LANDS FOR THE USE AND ENJOYMENT OF PRESENT AND FUTURE GENERATIONS.

for almost 262 million
acres of public land located
primarily in the 12 Western
states. BLM manages a variety of
resources on these lands including

energy and minerals; timber; wild horse and burro populations; fish and wildlife habitat; wilderness areas; and archaeological, paleontological and historical sites.

National Conservation Areas are designated by Congress to conserve, protect, enhance and manage public land areas for the enjoyment of present and future generations.

BLM manages 13 National Conservation Areas nationwide. Red Rock is the most visited conservation area with more than one million visitors annually. The Red Rock Canyon National Conservation Area includes 195,819 acres.

Nevada features two other national conservation areas: Sloan Canyon in Southern Nevada and Black Rock Desert-High Rock Canyon Emigrant Trails in Northeastern Nevada.

FOR INFORMATION ON PUBLIC LAND AND NATIONAL CONSERVATION AREAS, VISIT WWW.BLM.GOV. FOR MORE INFORMATION ABOUT RED ROCK CANYON, VISIT WWW.NV.BLM.GOV/REDROCKCANYON.

#### Friends of Red Rock Canyon

THE MISSION OF FRIENDS OF RED ROCK CANYON (FRIENDS) IS TO SUPPORT THE BUREAU OF LAND MANAGEMENT IN THE PROTECTION AND ENRICHMENT OF RED ROCK CANYON NATIONAL CONSERVATION AREA.

Friends members have been active and productive partners at Red Rock Canyon since 1984. The all volunteer organization, with members in 25 states and two countries, has contributed more than 350,000 volunteer hours and almost \$1,000,000 in financial support that directly benefits Red Rock Canyon National Conservation Area.

Friends of Red Rock Canyon are comprised of environmentally concerned individuals who care deeply about the conservation area. Some members join to financially support the programs and services at Red Rock Canyon; other members join for the camaraderie, special 'members-only' events, and the satisfaction of making a lasting difference in an extraordinary place.

Friends of Red Rock Canyon members donate thousands of hours annually to both preserve and conserve Red Rock Canyon as well as to enrich your experience in this unique and rare place.

TO FIND OUT MORE ABOUT FRIENDS OF RED ROCK CANYON, PLEASE VISIT THE WEBSITE AT: WWW. FRIENDSOFREDROCKCANYON.ORG.



"We're working today to protect tomorrow"

Friends of Red Rock Canyon is a nonprofit 501(c)(3) corporation.

#### **Red Rock Canyon Interpretive Association**

THE MISSION OF RED ROCK CANYON INTERPRETIVE ASSOCIATION (THE INTERPRETIVE ASSOCIATION) IS TO ENHANCE THE RECREATIONAL, EDUCATIONAL AND INTERPRETIVE PROGRAMS OF THE BUREAU OF LAND MANAGEMENT (BLM) BY PROVIDING MATERIALS AND SERVICES THAT PROMOTE AN UNDERSTANDING AND APPRECIATION OF THE NATURAL HISTORY, AND SCIENCES OF RED ROCK CANYON NATIONAL CONSERVATION AREA.

The Interpretive Association was founded in 1988, at the request of the BLM, to provide fund-raising capabilities for the support of outreach programs. The organization began with two employees operating a tiny retail space at the visitor center. Today, The Interpretive Association has more than 50 employees serving three federal agencies.

Leading interpretive hikes and programs, managing the scenic drive wayside sign project, operating the Red Rock Canyon Gift and Book Store, administering the fee collection program and offering the highly successful "Desert Fossils" interpretive program for local seniors are some of the services provided by The Interpretive Association.

The Interpretive Association continues to increase its commitment to the BLM by facilitating special projects such as Red Springs restoration and creating new exhibits for the visitor center. The Interpretive Association also coordinates the award winning Mojave Max desert tortoise education program.

TO LEARN MORE ABOUT RED ROCK CANYON
INTERPRETIVE ASSOCIATION VISIT OUR WEBSITE:
WWW.REDROCKCANYONLV.ORG.

The Interpretive Association is a nonprofit 501(c)(3) corporation.

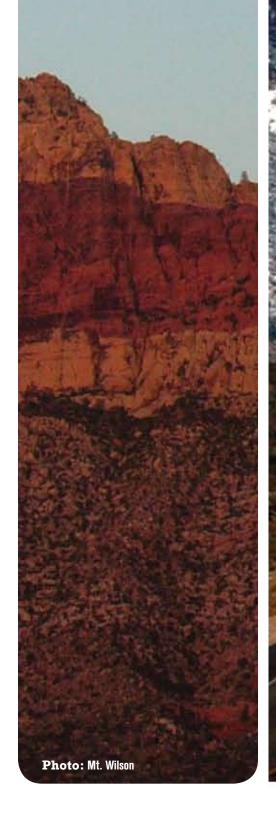


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### Why

#### are the Rocks Red?

More than 600 million years ago, the land that would become Red Rock Canyon was the bottom of a deep ocean basin. Over time, changing land and sea levels resulted in the deposition of both ocean and continental sediments that became the gray limestone found at Red Rock Canyon today. About 180 million years ago, a giant sand dune field formed over what became the Western United States. Powerful winds shifted the sands back and forth, forming angled lines in the sand. Over time, the sheer weight of the layers of sand compressed into stone. This formation, locally known as Aztec Sandstone, is quite hard and forms the cliffs of Red Rock Canyon. Exposure to the elements caused some of the ironbearing minerals to oxidize. This oxidizing process can be more easily thought of as a "rusting of the sand," which resulted in red, orange and tan colored rocks.



#### **Petroglyphs and Pictographs**

AS YOU HIKE THE TRAILS AND EXPLORE RED ROCK CANYON, YOU MAY SEE IMAGES CARVED OR PAINTED ON THE CANYON WALLS OR ON BOULDERS ALONG THE ESCARPMENT. THESE IMAGES ARE CALLED PETROGLYPHS AND PICTOGRAPHS AND SOME OF THEM MAY BE THOUSANDS OF YEARS OLD. THE PRIMARY DIFFERENCE BETWEEN THE TYPES, AS DESCRIBED BY ARCHEOLOGISTS, IS THE MANNER IN WHICH THEY WERE CREATED.

Petroglyphs were pecked (scraped and ground) onto the surface of the rock. Usually the dark layer that covers the rock, called the patina or varnish, was broken away to allow the lighter unweathered rock to show through. Artists also used non-varnished rock, soft sedimentary rocks where elements were cut or incised. The reasons for selecting unvarnished rocks are unknown, but these types of petroglyphs are often found in association with rock shelters.

Pictographs, or paintings and drawings on rocks, are less common since these images have a greater likelihood of fading or weathering away. The paint used for pictographs consisted of pigment, a binder and a vehicle. The pigment was the paint's color. In the Southwest, red, white, orange and black are the most common colors, but other colors

such as blue, green, purple and pink occasionally occur.

Unfortunately, no detailed studies of paint composition have taken place; indeed, few have been completed elsewhere. Consequently, the materials used for binding also are largely unknown. Without compositional studies the answers to these questions will remain a mystery.

Both pictographs and petroglyphs are a fragile part of the past and are easily damaged. Because we know very little about the composition of the paints, preservation is critical. The numbers of pictographs are decreasing each year, spurring the need for their study and conservation. To keep petroglyphs and pictographs pristine, please do not touch the rock art because contact with the oils in skin will damage them. Freely take photographs and make sketches, but rubbings are forbidden. Individuals witnessing vandalism are urged to report their observations to the BLM at the visitor center. Provide with a description of the individuals and their license plate number, if possible. All of us share a concern for protecting these cultural resources, and we here in southern Nevada can be proud of having one of the most successful public programs for fostering the preservation of rock art sites.

#### **Desert Safety Tips**

TO SAFELY ENJOY RED ROCK CANYON NATIONAL CONSERVATION AREA, PLEASE RESPECT YOURSELVES AND OTHERS BY RECOGNIZING THE CHALLENGES THAT VISITING THE MOJAVE DESERT PRESENTS.

**WATER** 

Drink at least one gallon (four liters) per day if you are hiking, the day is hot or the trail is exposed to direct sunlight. Carry at least one gallon of extra water per person in your vehicle. Bottled water is available for purchase at the visitor center. This is the only location where drinking water is available in the national conservation area.

HEAT

Temperatures in Red Rock Canyon can average more than 100 degrees Fahrenheit during the summer months. The best protection against heat is drinking plenty of water and limiting exposure to the sun during the hottest parts of the day. If you feel dizzy, nauseous or get a headache, immediately get out of the sun and drink plenty of water. Dampen your clothing to lower your body temperature.

PROTECTIVE GEAR

For hiking, select shoes that will provide a comfortable fit,

ankle stability and protection against cactus spines. Wear clothes that provide protection against the sun (i.e. hats, long sleeves, long pants, etc.) and apply sunscreen.

#### **FLASH FLOODS**

When hiking, avoid canyons during rainstorms and be prepared to move to higher ground. While driving, be alert for water running in the normally dry desert washes and across road dips. Do not walk or drive through flood water flowing across a road.

#### LIGHTNING

Lightning storms frequently occur in the afternoon during the summer months. To prevent lightning from striking you, avoid high places and seek cover in buildings or in vehicles with the windows rolled up. If caught outdoors, crouch down on both feet with your arms wrapped around your knees and wait out the storm.

#### **DESERT DWELLERS**

Watch where you put your hands and feet. Rattlesnakes, scorpions or venomous spiders may be sheltered behind boulders or under rocks and shrubs. Do not touch, collect or try to kill theses animals.

#### Fire Ecology in Red Rock Canyon

Burned landscapes aren't beautiful, but fire is a part of the natural world, just like the wind, the rain, and other natural forces. In fact, wildland fire is an essential feature of ecosystems that regenerates some plant communities to provide better forage for wildlife over time. Some plants and animals are adapted to fire and benefit from the changes it brings, but wildland fire is not helpful to all wildlife and plant communities. The Mojave Desert is one ecosystem that is not generally benefited by wildland fire.

Several wildland fires have burned in Red Rock Canyon over the past years, destroying habitat for Mojave Desert plants and wildlife by removing nutrient rich vegetation and shade for wildlife. Mojave Desert lands burned by wildland fire are more vulnerable to new wildland fires because they become overgrown with invasive annual grasses. Native plants must compete with the invasive annual grasses for water, soil nutrients and sunlight. Invasive annual grasses regenerate more quickly than native vegetation, creating the potential for new wildland fires, and decreasing the ability of native

vegetation to become dominate in the plant community.

Rehabilitation efforts including seed and planting native vegetation are ongoing. In addition, monitoring regrowth and weed treatments will continue.

Visitors to Red Rock Canyon can help reduce the spread of non-native annual grasses by following a few guidelines for recreation within burned areas:

- Stay on the designated roads and trails. Seeds of invasive grasses and weeds can "catch a ride" in your shoes, socks and car tires. Staying on trails allows the BLM to monitor invasive grasses and weeds and apply treatment to protect the native vegetation.
- Stay out of burned areas. The soil is extremely fragile after a fire has occurred. The roots of the vegetation have lost their integrity and hillsides are more susceptible to erosion. The desert crust that has formed before the fire will slowly erode unless the crust is broken by foot or vehicle traffic.



#### **Hiking Trail** ROUND-TRYP TIME AND DISTANCE RAIL NAME Easy 300 ft [90 m] 1.5 hours • 2 mi [3.2 km] MOENKOP est of the visitor center near This trail starts to the ers panoramic views of the Calico Hills, the Spring Mountains and La Madre Mountains 1.5 - 3.5 hours • 2 - 6 mi [3.2-9.6km]

This trail can be accessed by parking at either Calico I, Calico II or near the entrance station. This trail offers access to sport climbing areas and the best close-up views of the Calico Hills.

Easy - Moderate 400 ft [120 m]

3. CALICO TANKS Moderate 450 ft [140 m] 2 hours • 2.5 mi [4 km]

This trail starts at the Sandstone Quarry parking lot. It winds through a wash and there may be seasonal water present in a natural tank [tinaja] at the end.

**CALICO HILLS** 

Strenuous 2,000 ft [600 m] 3.5 - 4.5 hours • 5 mi [8 km] **TURTLEHEAD PEAK** 

This trail starts at the Sandstone Quarry parking lot and follows the shoulder of the peak to the top [6,324 ft / 1,927 m]. The trail is intermittent and composed of loose rock.

Moderate 400 ft [120m] 1.5 hours • 2.2 mi [3.5 km] **KEYSTONE THRUST** 

This trail is accessed from the upper White Rock Spring parking lot. It takes you to the most significant geologic feature of Red Rock Canyon - the Keystone Thrust.

2.5 hours • 4.4 mi [7 km] 6. WHITE ROCK - WILLOW SPRINGS Easy-Moderate 200 ft [60 m]

This trail starts at either the upper White Rock Spring parking lot or at the Willow Springs Picnic Area. Watch for wildlife that rely on these year-round springs.

Moderate 890 ft [270 m] 3.5 hours • 6 mi [9.6 km] 7. WHITE ROCK / LA MADRE SPRING LOOP

This trail can be started at three places: the upper White Rock Spring parking lot, the Lost Creek Trail parking lot or Willow Springs Picnic Area. The north side of White Rock is one of the best areas for viewing bighorn sheep. You can connect to the La Madre Spring Trail to see a year-round spring.

Easy - Moderate 200 ft [60 m] 55 minutes • 0.75 mi [1.2 km] 8. LOST CREEK - CHILDREN'S DISCOVERY

This moderately easy trail is a wonderful place to explore because of the variety of plant life and a number of cultural sites. Depending on the season, there may be a waterfall [January - March.] Also look for a pictograph and an agave roasting pit site. [Combination rocky, uneven terrain and boardwalk trail.]

9. WILLOW SPRINGS LOOP Easy 200 ft [60 m] 1.25 hours • 1.5 [2.4 km]

This trail can be started at either the Willow Springs Picnic Area or Lost Creek Trail parking lot. The trail passes several pictograph and agave roasting pit sites.

Moderate 400 ft [120 m] 2 hours • 3.3 mi [5.2 km] 10. LA MADRE SPRING

This trail starts at the Willow Springs Picnic Area. The first segment involves walking up part of the 4x4 Rocky Gap Road. These springs are a good place to watch for wildlife, including desert bighorn sheep.

11. SMYC Moderate 300 ft [90 m] 2 hours • 2.2 mi [3.5 km]

This trail can be accessed from either the Lost Creek or Ice Box Canyon trails. It follows the terrain at the base of the escarpment and connects the two trails.

2 hours • 2.6 mi [4.1 km] Moderate 300 ft [90 m] 12. ICE BOX CANYON

The parking lot for this trail is at mile 8 on the 13-Mile Scenic Drive. This trail crosses open desert then enters the canyon. Unimproved trails in the canyon require some tricky rock scrambling where there may be seasonal waterfalls [January - March].

2.5 hours • 4.4 mi [7 km] Moderate 300 ft [90 m] 13. DALE'S

This trail can be accessed from either the Ice Box Canyon or Pine Creek Canyon trails. It follows the terrain at the base of the escarpment and connects the two trails.

14. PINE CREEK CANYON Easy - Moderate 300 ft [90 m] 2 hours • 3 mi [4.8 km]

This trail takes you across the open desert, past an old homestead site and into the canyon. You may find seasonal waterfalls. Unimproved trails in the canyon require some tricky rock scrambling.

Easy 200 ft [60 m] 15. FIRE ECOLOGY 55 minutes • 0.75 mi [1.2 km]

This trail branches off the Pine Creek Canyon Trail. It is a short, figure eight trail that goes through a stand of Ponderosa Pine where a controlled burn took place.

Easy - Moderate 200 ft [60 m] 1.5 hours • 2 mi [3.2 km] **16. OAK CREEK CANYON** 

To access this trailhead, take the Oak Creek turnoff from the scenic drive onto a dirt road. The trail then heads through open desert to the mouth of the canyon. Unimproved trails lead deeper into the canyon. Oak Creek is also accessible from State Route 159.

Moderate 300 ft [90 m] 1.5 hours • 2.4 mi [3.8 km] 17. ARNIGHT

This trail can be started at the Oak Creek Canyon parking lot or by hiking the Pine Creek Canyon Trail. It connects the Oak Creek parking lot with the end loop of the Pine Creek Canyon Trail.

Moderate 300 ft [90 m] 2.5 hours • 3.5 mi [5.6 km] 18. KNOLL

The shortest and easiest way to access this trail is by taking the Oak Creek Canyon Trail. This trail links the upper section of the Arnight Trail with the Oak Creek Canyon Trail, following the base of the escarpment.

2 hours • 3 mi [4.8 km] Easy - Moderate 300 ft [90 m] 19. FIRST CREEK CANYON

This trailhead is on State Route 159 [W. Charleston Blvd.] 2.6 miles [4.1 km] southwest of the exit to the 13-Mile Scenic Drive. The trail leads to the mouth of the canyon. Seasonal streams and waterfalls can be found deep in the canyon on unimproved trails [January - March.]

## Page [8] Red Rock Canyon **Contact Information Emergency or Fire** [702] 293-8932 or 911 **BLM Las Vegas Field Office** [702] 515-5000 **Red Rock Visitor Center** [702] 515-5350 Climbing Permits [702] 515-5050 Gift & Book Store [702] 515-5361 Friends of Red Rock Canyon [702] 255-8743 **Red Rock Canyon Interpretive Association** Organized Hikes [702] 515-5367 This publication was made available through a partnership with Bureau of Land Management, Friends of Red Rock Canyon and Red Rock Canyon Interpretive Association. BLM/NV/LV-GI-07/11+8300 Photo: Muilla Coronata by Athena Sparks

#### **Hiking Map**



Emergency Call Box



Picnic Area

Parking Area

and/or difficult terrain and rock scrambling.

**b** Wheelchair Access

#### **Hike Ratings**

Ratings are based on the general ability of a person who hikes frequently. Your ability may differ from the ratings standard used at Red Rock Canyon. Your ability may also be affected by weather, the condition and steepness of the trail, having enough water and physical condition on a given day, among other things.







#### Moderate:

Strenuous:

Uphill sections include up to 1,000 feet of elevation gain; single digit mileage; uneven terrain and some rock scrambling.

Generally, lots of uphill sections (and later downhill); possibly

more than 1,000 feet of elevation gain; double digit mileage

#### Easy:

Like a walk in the city, but on uneven terrain. (Not guaranteed to seem easy if you are not used to trail hiking.)

#### Combinations:

Listed as easy-moderate, moderate-strenuous and so on.