Stop #5: Edge of Riparian Woodland
As you get to the edge of the riparian woodland and reenter the desert, you will notice the remains of an old road to the left of the trail. This road was used by the Smith Family and later the Kincaid Family to access Smith Spring. The spring provided opportunities for recreation, relaxation, picnicking, and exploration. The woodlands and the water provided for a convenient escape from the intense desert sun.

From here the trail will begin to traverse along the hillside. The broad canyon to the left of the trail once was filled with Apache campsites. The Mescalero Apaches used this area because of the water. They chose to camp well below the spring so as to not contaminate the water. Lookouts could be obtained from the top of the hill to your right. From this vantage point, military patrols could be easily spotted as they entered Guadalupe Pass.

The trail will eventually turn south, providing views of Frijole Ranch and later the cliff face of El Capitan. Watch for an area where there are lots of green colored rocks on the path. These green rocks are actually ash from a volcano that erupted approximately 265 million years ago. The ash fell into the sea that covered this area during the Permian Period, mixing with the sea water and forming the green colored clay that we see today. Please leave all rocks where they are so that others may enjoy them in the future.

Stop #6: Junction with Frijole Trail
At this point the trail intersects with the Frijole Trail, which heads southwest to Bear Canyon and then back to Pine Springs Campground. Bear Canyon, the large canyon to the southwest, was once the location used to pump water to the high country before this was a national park. Since there was no water in the high country, ranchers built a pipeline and began pumping water up the canyon in the 1930's. This water would be stored in a large tank at the top of the canyon, and then gravity fed to other tanks throughout the area known as the Bowl. This water made ranching possible at the higher elevations of the park.

If you look from here to the top of the escarpment, you will notice the tall pines that grow on the ridge top. Forests of ponderosa pine and Douglas fir can grow at the higher elevations due to cooler temperatures and a bit more moisture.

From here the Smith Spring Trail continues to the left.

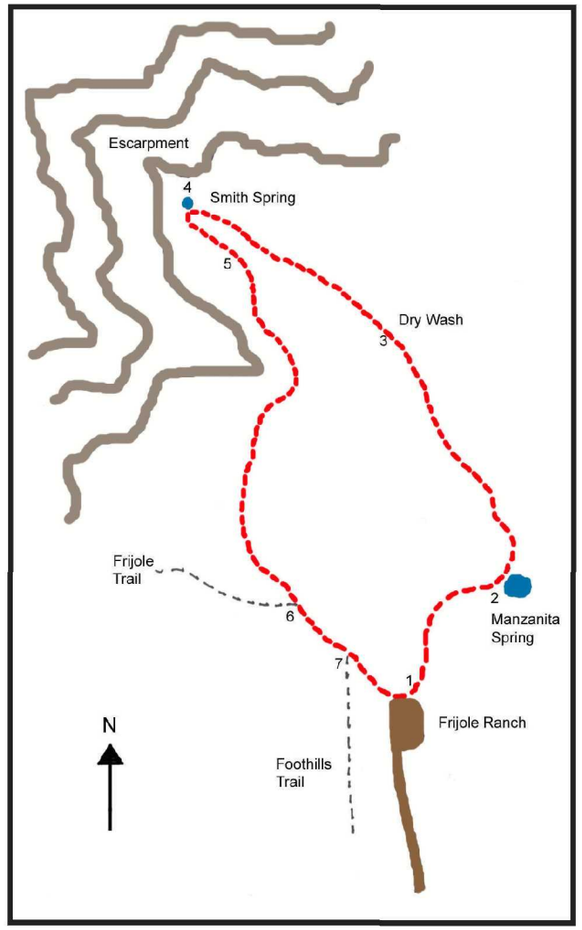
Stop #7: Junction with Foothills Trail
Here the trail intersects with the Foothills Trail, which runs parallel to the Frijole Ranch Road for ½ mile, before turning west and leading back to Pine Springs. This location affords great views of El Capitan and Guadalupe Peak to the southwest. At 8,749 feet, Guadalupe Peak is the highest point in the state of Texas.

Bear left at the junction, following the Smith Spring Trail back to Frijole Ranch.

On this short hike you have witnessed how water is the binding thread that holds together this fragile desert ecosystem. As you continue your explorations of Guadalupe Mountains National Park, look for further evidence of how water created and continues to create this unique landscape.

The Smith Springs Trail is just 2.3 miles of a trail system totaling nearly 85 miles. There are many more hikes in Guadalupe Mountains National Park for all levels of fitness and experience. Pick up a trail map and a day hikes brochure or talk to a park ranger to plan another hike in the park.

Smith Spring Trail Map

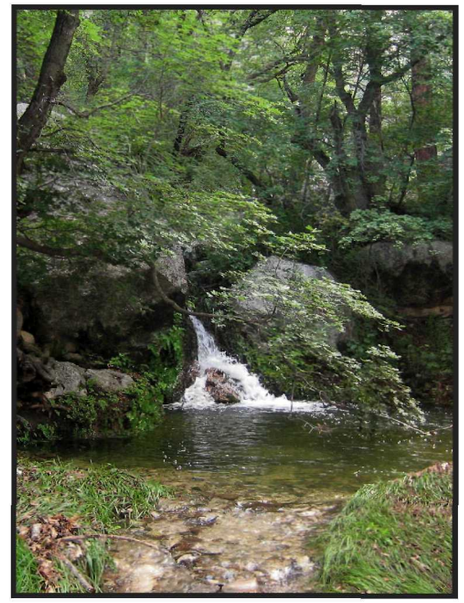


Keep this brochure if you would like, or return it for others to use.

National Park Service
U.S. Department of the Interior

Guadalupe Mountains National Park

Smith Spring Trail Guide



Water: Sustainer of Life in a Parched Land

The Guadalupe Mountains have often been described as an island in the desert. The mountains rise up out of the surrounding desert, providing habitat for a variety of unique plants and animals that are not found anywhere in the surrounding arid lands. The riparian woodland surrounding Smith Spring is one of the unique ecosystems found within the Guadalupe Mountains.

The Smith Spring Trail provides access to a beautiful oasis in the desert. It is a 2.3 mile loop with a 400 foot elevation gain. Allow from one to one and a half hours to complete the loop. Be sure to bring plenty of water, a trail map, and comfortable hiking shoes.

The trail is a loop that can be hiked from either direction. For the purposes of this guide, we will be hiking the loop in a counter-clockwise fashion. Take your time and remember to stop frequently to look around.

Stop #1: Frijole Ranch

It is not hard to imagine why Frijole Ranch was constructed at this site. Frijole Spring provided the water that was essential to survival here in the desert. Because of this water, the area is a great place to find a variety of birds and other wildlife. Scrub jays, chipping sparrows, house finches, Say's phoebes, white-winged doves, and ladder-backed woodpeckers are year round residents. In winter watch for pyrrhuloxia, phainopeplas, cedar waxwings, and western bluebirds. In spring and summer, look for summer and western tanagers, plumbeous vireos, Cassin's kingbird, blue grosbeak, and a variety of warblers.

Before starting out on the trail, take some time to explore around Frijole Ranch. Interpretive signs will tell you about the history of the Smith Family and later the Kincaid Family who called this place home. If the museum is open, there are exhibits inside that chronicle over 10,000 years of human history in the Guadalupe Mountains.

After visiting the ranch begin hiking on the paved path that starts behind the schoolhouse. As you are walking along the paved path you will have views of a conical shaped hill to the right of the trail. This is Nipple Hill. It is not a volcanic cinder cone as one might think, but rather composed of the same limestone and sandstone as the surrounding landscape. It is an erosional remnant of two river valleys eroding into a ridge.

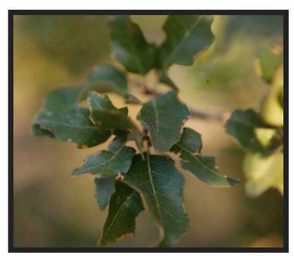
Stop #2: Manzanita Spring

Manzanita Spring did not always look as it does today. The Smith Family periodically dredged the spring and used it to help irrigate crops. Before the arrival of the Smiths, a bog surrounded the spring. Maps from the 1870's and 1880's call it Cienaga (Bog), Tule (Rush), and Escondido (Hidden) Spring.

Manzanita Spring is a good place to observe some of the region's unique wildlife. Watch for mule deer, elk, javelina, gray fox, and birds like violet-green swallows and white-throated swifts.


Agave

As you continue along the Smith Spring Trail, notice how the desert plants are well adapted for survival in an arid land. The leaves of agaves and yuccas form a circular pattern allowing rainwater to flow down the grooves in the leaves straight to the heart and root system of the plant.


Gray Oak

Other plants like the gray oak have very small leaves that don't collect as much sunlight as larger leaves would. This helps prevent the tree from losing too much moisture. Some desert plants don't have any leaves, while others will drop their leaves during dry periods in order to conserve water.


Prickly Pear Cactus

Cacti can store water collected during rain events to rely on later during periods of drought. These plants are also eaten by animals like javelina or deer, which rely on the moisture contained in cactus pads to survive in the arid desert environment.

As you are walking along the trail, look at the mountains ahead of you. Although dry today, water is the creator of this landscape. An ancient sea sustained the creatures which would create the reef that we now know as the Guadalupe Mountains. Algaes and sponges living in an ancient sea that covered this area over 250 million years ago helped form what is now one of the best examples of an exposed fossil reef anywhere in the world.

Stop #3: Dry Wash

After approximately ½ mile from Manzanita Spring the trail drops into a dry wash, immediately passing through a small grove of gray oaks. These oaks may look smaller than species of oaks found in wetter environments. Lack of water limits the growth of desert trees. These oaks can grow in the canyon bottom because this is a place that collects water when it does occasionally rain here. This small amount of extra water is enough to let trees grow in the wash that would not get enough water to survive in the open desert.

After several hundred yards the trail climbs back out of the wash and heads towards a cluster of green trees at the base of the escarpment. Why would these green trees all be growing in one area in the middle of a mostly treeless desert?

Stop #4: Smith Spring

At this point you have entered a lush riparian (streamside) woodland. This beautiful oasis is made possible by the water emerging from the spring. Because of this abundant water, trees can survive here that could not live in the open desert.

Look for tall, long-needled pines with orange-colored bark. These are Ponderosa Pines.


Texas Madrone

See if you can locate a tree with peeling red bark and green leaves (even in winter). This is the Texas Madrone. In the fall The Texas Madrone may have red berries on it, and in the spring look for white flowers.


Big-toothed Maple

Try to find a deciduous tree with small maple-like leaves. This will be much easier in the fall when the leaves have turned brilliant reds and oranges. This tree is the big-toothed maple.

Smith Spring is one of several springs along the base of the escarpment. There is no water in the high country above the escarpment. When it rains, water quickly enters a series of cracks and joints in the limestone, later emerging in springs like this below the escarpment. The water from Smith Spring goes underground just a short ways below the spring, later reemerging at Manzanita Spring.