



The Saguaro Sentinel

The official newspaper of Saguaro National Park



Maintaining A Resilient Ecosystem at Saguaro National Park

What might Saguaro National Park look like to future generations of visitors? If you were alive in 1000 years, do you think that you would recognize this place? The Organic Act of 1916, which established the National Park Service, states that the purpose of the National Park Service is “to conserve the scenery and the natural and historic objects and the wild life therein and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” In 1916, it may have seemed possible to keep a designated ecosystem unimpaired indefinitely.

However, nearly a hundred years later, scientists and land managers are beginning to understand the near impossibility of this task in light of all of the external



Buffelgrass crowding out a young saguaro

pressures on national parks, and the ecosystems they preserve. And while the Organic Act continues to serve as the guiding principle for the National Park Service, even the current director Jon Jarvis concedes “it is time for the agency, aided by scientists and public input, to address the current challenges to its fundamental tenet that the parks must preserve all their resources ‘unimpaired’ forever for the enjoyment of all (2010 in *Uncertain Path* by William C. Tweed).”

Ecosystems are always changing. These fluctuations may be natural or unnatural, the result of everything from seasonal changes, the impact of pollution, or the impacts of climate change. So rather than strive for the impossible and impractical goal of maintaining ecosystems in exactly the same condition forever, we can start to focus on a realistic

goal of building resilience in the ecosystems protected in National Parks.

What is a resilient ecosystem? What can we do to make the Sonoran Desert ecosystem protected in Saguaro National Park more resilient? No ecosystem is isolated from outside influences. A resilient ecosystem can absorb these impacts or bounce back from any damages and still remain essentially ecologically the same. At Saguaro National Park climate change and invasive species are two of the greatest forces that could potentially change the entire ecosystem into something other than the Sonoran Desert environment we know and love. So what can we do to help foster resilience in Saguaro National Park and in other natural places we care about?

“Resiliency” continued page 4

Welcome to Saguaro National Park!

As one of the 397 units of the National Park System, this park protects and manages 91,440 acres of cherished natural and cultural resources, flanking both the east and west sides of the bustling urban area of Tucson. Saguaro National Park was established in 1933 with the specific purpose of protecting and preserving one of the great icons of the American West: the saguaro cactus. In addition to the saguaro, the park boasts a great diversity of biotic communities, cultural features, scientific, scenic and wilderness areas.

For Saguaro National Park to be relevant 100 years from now, we need your help. The Director of the National Park Service (NPS) Jon Jarvis recently announced the NPS Call to Action: a united vision to help prepare for our centennial in 2016 and into our second century. One of the key themes and a top priority for Saguaro is to ensure the park remains relevant to the community and our visitors, so that people care about this special place for generations to come.

National Parks help produce healthy minds and bodies, and connect us to communities through trails and other means. How should Saguaro evolve to be accessible, increase our outreach to youth and diverse populations, nurture a stronger relationship with Tucson, and adapt to the changing needs of our visitors and communities?

What is it that brings YOU to Saguaro? The park offers recreation, learning, and spiritual renewal, in close proximity to a city of over one million Tucson residents. Enjoy your visit, and thank you for your stewardship of Saguaro National Park!

Darla Sidles
Superintendent



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Welcome to Saguaro



National Park Service
U.S. Department of the Interior

Saguaro National Park

Saguaro National Park preserves and protects thousands of acres of Sonoran Desert wilderness, offering recreation, learning, and spiritual renewal amid the impacts of an exploding urban center.

Superintendent

Darla Sidles

Headquarters Address (East)

Saguaro National Park
3693 South Old Spanish Trail
Tucson, AZ 85730

Park Information

(520) 733-5100

Fax

(520) 733-5183

E-mail

SAGU_Information@nps.gov

Website

www.nps.gov/sagu

The National Park Service cares for the special places saved by the American people so that all may experience our heritage.



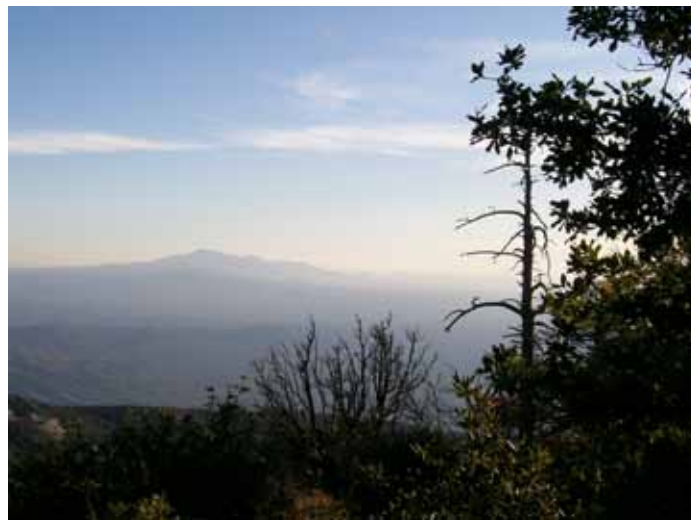
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SaguaroNationalPark

Saguaros Start Where Sidewalk Ends



above: Junior Rangers hiking through designated wilderness in the west district.

below: The Santa Rita Mountains from 8,000 feet in the Rincon Mountains.



Laura Bolyard photos

This northern edge of the Sonoran Desert is home to the most recognizable cactus in the world, the majestic saguaro cactus, *Carnegie gigantea*. Saguaro cacti provide their sweet fruits to hungry desert animals. They also provide homes to a variety of birds, such as the Harris's hawk, Gila woodpecker and the tiny elf owl. Young saguaros in turn require the shelter of desert trees such as the palo verde for its survival. Saguaro National Park protects not only the saguaro cactus but these interrelationships, the ecological webs of the Arizona Upland subdivision of the Sonoran Desert.

THE WILDERNESS WITH A CITY AT ITS CENTER

In the park, trails begin where city boulevards end. There are over 150 miles of hiking trails, from flat strolls to rugged hikes in green "sky islands." Two park districts bookend the city of Tucson, one of the southwest's fastest-growing cities. In spite of the automobiles, supermarkets and 1 million people at its edges, much of the park—78 percent—is protected as designated wilderness. These are wild lands in their natural state, meant as places where even humans are visitors who do not remain. In these forests of cactus, scrub oak and pine, we can find refuge, as we witness in all directions the changing landscape of the American southwest.

Plan Your Visit

In Case of an Emergency, call 911 or contact a ranger.

Cell phones have intermittent coverage and are not dependable in many park locations. To talk to a ranger, call the east district visitor center at **(520) 733-5153** or the west district visitor center at **(520) 733-5158**.

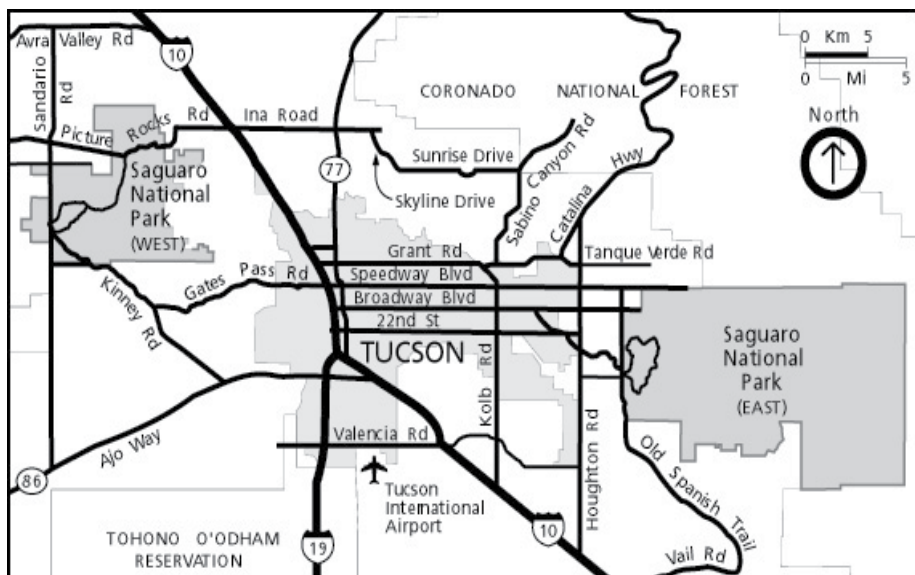
Dates and Hours of Operation

Both districts of the park are open daily from sunrise to sunset. Visitor centers are open 9:00 a.m. to 5:00 p.m. daily, year-round, except December 25.

Entrance Fees

Private vehicles and motorcycles.....	\$10.00	Valid for 7 days
Bicyclists and pedestrians.....	\$5.00	Valid for 7 days
Saguaro Annual Pass	\$25.00	Valid for one year
Interagency Pass.....	\$80.00	Valid for one year
Interagency Senior Pass (U.S. citizen, 62 or older)....	\$10.00	Valid for lifetime
Interagency Access Pass (U.S. citizen, disabled).....	Free	Valid for lifetime

Travel Between East and West Districts



Saguaro's west and east districts are 30 miles apart, separated by the city of Tucson. Both districts are about 15 miles from downtown Tucson. Travel time between districts is approximately one hour.

Directions

To the East District

From I-10 coming from New Mexico, take Houghton Road (exit 275) north 8 miles to Escalante Road. Turn right (east) 2 miles to Old Spanish Trail. Turn left (north) and follow the signs .5 miles to the park entrance at 3693 S. Old Spanish Trail.

From I-10 coming from Phoenix or downtown Tucson, take Speedway Boulevard (exit 257) east 14 miles through the city to Freeman Road. Turn right (south) 3.6 miles to Old Spanish Trail. Turn left (east) following the signs .25 miles to the park entrance.

To the West District

From I-10 coming from Phoenix, take Avra Valley Road (exit 242) west 5 miles to Sandario Road (at the Marana Airport). Turn left (south) 6 miles to Kinney Road. Turn left (east) 2 miles to the visitor center at 2700 N. Kinney Road.

From I-10 coming from New Mexico or downtown Tucson, take Speedway Boulevard (exit 257) west. This will become Gates Pass Road. Continue 4.6 miles west through the Tucson Mountains to Kinney Road. Turn right (northwest) and follow Kinney Road 3.7 miles past the Desert Museum to the park entrance. Go 1 mile to the visitor center.

Over-sized Vehicles (West)

Vehicles exceeding 12,000 pounds GVWR are prohibited on Gates Pass Road and Picture Rocks Road through the park. From I-10 coming from Phoenix, take Avra Valley Road (exit 242) See above for directions. From I-10 coming from New Mexico, take I-19 (exit 260) south. From I-19 take Ajo Way/State Route 86 (exit 99) west 4.8 miles to Kinney Road. Turn right (north) 10 miles (past Old Tucson Studios and the Desert Museum) to the visitor center.

What's going on

(Tohono O'odham month)

January

Hi: 64° F
Lo: 40° F

Gakimdag Masad Masad
DEPEND ON STORED FOODS MONTH
Succulent plants, like cholla, are filling up with winter moisture.

February

Hi: 68° F
Lo: 40° F

U: walig Masad
DEER MATING MONTH

If the last months have been rainy, desert wildflowers (like **Mexican gold poppies**) start blooming this month.



Mexican gold poppies

March

Hi: 72° F
Lo: 44° F

Ce:dagi Masad
NEW PLANTS COME UP MONTH
When brittlebush is blooming, look for feeding iron-cross blister beetles. Beetles are black, red, and yellow with a black cross-like pattern on their backs.

(continued on page 11)

What You Need to Know

Information, regulations and tips—everything you need to make your visit safe and enjoyable.

Accessibility

Visitor centers are wheelchair-accessible, and offer accessible cactus gardens and nature trails. All picnic areas, excluding Mam-A-Gah, have accessible picnic tables and pit toilets.

Both visitor centers offer a captioned 15-minute audio/visual program. For the visually impaired, the west side offers a descriptive audio version of the slide program.

In the west district, guides to the Desert Discovery Nature Trail are available in Braille and on cassette.

TDD

Hearing-impaired please use state relay service, 1-800-352-8161.

Service Animals

Service animals are welcome anywhere their owners may legally go.

All-Terrain Vehicles

ATVs and off-road vehicle travel are not permitted in the park.

Amenities

No fuel, lodging, or food services are available in the park. Fuel and food is available 5 miles from either visitor center. Lodging is available within a 30-minute drive of either district. A list of local campgrounds is available from either visitor center.

Backpacking

Overnight backpacking is permitted only in the Rincon Mountain District at one of 6 designated campsites. A camping permit is required and must be obtained at the east district visitor center before noon the day of departure. Apply in person, by fax, or by mail. The fee for this permit is \$6.00 per campsite, per night. A park entrance fee is also required. The maximum number of people allowed per campsite is 6. (see "Headed into the Backcountry?," page 4).

Bicycling

Bicycling is permitted on all public roads and on the designated portion of the Cactus Forest Trail in the east district (see page 5). Bicycles are prohibited on all other trails. Bicycling is not recommended on Picture Rocks Road due to narrow road shoulders.

Helmets are required for all riders and passengers under 18 years of age.

Helmets, gloves and glasses are recommended for all riders. Always maintain a safe speed for road conditions and your own riding experience. Cyclists must obey all traffic regulations, including speed limits.

Bookstores

Western National Parks Association (WNPA) bookstores featuring books, maps, hiking guides and more is located at each visitor center. WNPA is a non-profit organization dedicated to preserving the heritage of our National Park System. See the WNPA article on page 11 of this newspaper.

Campfires

Campfires are permitted only in picnic areas where fire grates or fireplaces are provided. Fires must never be left unattended and must be completely extinguished upon departure. You must provide your own wood or charcoal. Collecting living or dead vegetation for firewood is prohibited.

Car Camping

There are no campgrounds or RV facilities in the park. A list of local campgrounds is available from either visitor center. Overnight backpacking is permitted in the east district only. See *Backpacking*. Overnight camping is prohibited anywhere else in the park.

Collecting

Removal or disturbance of any natural or cultural feature in the park is prohibited.

Differences Between East and West?

You can have a great time visiting just one district of the park. Each offers similar services. The east district, the Rincon Mountain District (RMD), is the larger district with 8,000 ft (2400 m) high mountains and a greater diversity of lifezones. RMD has 128 miles (206 km) of hiking trails, as well as back-country campsites. The west district, the Tucson Mountain District (TMD), has 4,600 ft (1400 m) high mountains and dense stands of saguaro cactus, with 43 miles (69 km) of trails. TMD has no campsites. Both districts offer visitor centers, scenic drives, picnic areas and nature trails. Park headquarters is located in the Rincon Mountain District.

Filming & Photography

When filming or photography involves advertising a product or service, or the use of models, sets or props, a film permit is generally required. See *Special Use Permits*.

Firearms

Federal law permits people who can legally possess firearms under federal and State of Arizona laws, to possess firearms in the park. It is the visitor's responsibility to understand and comply with all applicable state and federal firearms laws. Federal law prohibits firearms in certain facilities in the park such as visitor centers and administrative offices. Those facilities are signed at public entrances. **Use of firearms in the park is prohibited.**

Geocaching

Virtual geocaching is allowed in the park, subject to park regulations. No treasure items are permitted. Caches containing logbooks, treasure items, or any other materials are prohibited.

Horses

See *Livestock & Pack Animals*.

Lost and Found

Report lost or found items at a visitor center.

Mines

Numerous historic mine sites can be found within the park. Old mine workings are extremely dangerous. Stay out and stay alive.

Do not enter old mine workings!

Parking

The Red Hills Visitor Center parking lot can accommodate buses and trailers up to 40 feet long. Buses may park in the Rincon Mountain Visitor Center lot while passengers are loading or unloading. Buses may not idle in either visitor center parking lot. Overnight parking is not permitted.

Park roads are winding with narrow shoulders. There are many pullouts and parking areas throughout the park. Please wait until you get to one before stopping.

Pets

Pets are allowed only on roadways and at designated parking and picnic areas. They are not permitted in the West District's Mam-A-Gah picnic area as it is accessed by trail only.

Pets are not permitted on trails or inside either visitor center.

Pets must be leashed at all times. Leash length may not exceed 6 feet. Pets may not be left unattended anywhere in the park, including inside vehicles. **Temperatures in a car can quickly exceed 120 degrees and kill a pet within minutes!** Report all unattended pets to a ranger.

Phones

In an emergency, dial 911. Cell phones have intermittent coverage and are not dependable in many park locations. There are no payphones in the park.

Rincon Mountain Visitor Center (east)
(520) 733-5153

Red Hills Visitor Center (west)
(520) 733-5158

Saguaro Information Line
(520) 733-5100

As you drive through Arizona and would like information on Saguaro NP, or other National Park Service sites, just dial 511. You can also receive information on closures, construction, delays, public transit services, major airports, tourism, and weather. This service is provided by The Arizona Department of Transportation. Their website is www.az511.gov. To call outside of Arizona dial 1-888-411-ROAD.

Picnics

Both districts offer picnic grounds with picnic tables and grills, shaded ramadas, and pit toilets. Picnicking is not allowed at the visitor centers. Picnic groups larger than 20 must obtain a Special Use Permit. No reservations may be made and no area held for the exclusive use of any group. To locate picnic areas, see the district maps starting on page 7.

Special Use Permits

Permits are required for special events such as weddings, commercial filming, or any events which involve over 20 people, including picnics. Permits may be obtained by contacting the Division of Ranger Services. For west district permits call (520) 733-5116. For east district permits call (520) 733-5111.

Livestock & Pack Animals

Livestock, which includes horses, burros and mules, may be ridden on designated trails within the park. See hiking maps starting on page 5 for restricted trails. Check at visitor centers for other special requirements. Stock groups are limited to a maximum of 15 animals. Stock groups may not travel off-trail in the park. All other animals, including pets, are prohibited on park trails.

Translations

Translations of the park brochure in Spanish, French, Dutch, German, Italian, Chinese and Japanese are available at visitor centers and online at <http://www.nps.gov/saguoplanyourvisit/brochures.htm>.

Audio in German, French and Japanese is available for the west district audio/visual presentation.

Trash

Pack out all trash when hiking. Dispose of your trash in a responsible manner. Aluminum can recycling is available at visitor centers and many picnic areas.

Vehicles

Speed Limits

Motorists and bicyclists must obey all posted speed limits. Reduce speed in heavy rains and stay alert for pedestrians, bicyclists, and wildlife on the roadways. Use special care driving at dawn and at dusk, when wildlife is most active. Do not attempt to cross running washes (streambeds) in your car during rainstorms! State and federal vehicle laws apply within the park.

Vehicle Restrictions

Vehicles, including bicycles, are prohibited from leaving established roads.

Vehicles exceeding 12,000 GVWR are prohibited on Picture Rocks Road.

Vehicles wider than eight feet and trailers longer than 35 feet are prohibited from traveling on Kinney Road and the scenic loop drive of either district.

High clearance or four-wheel drive is not needed on park roads in either district.

Driving the Rincon Mountain District

The *Cactus Forest Drive Scenic Loop* is a winding, eight-mile, paved, combination one- and two-way road.

Driving the Tucson Mountain District

The west district has both paved and graded gravel roads. The district's scenic drive, the *Scenic Bajada Loop Drive*, is a 5 mile, graded, combination one- and two-way gravel road. This road contains many large dips and may be rough.

Visitor Centers

There are two visitor centers in the park: the Rincon Mountain Visitor Center in the East District and the Red Hills Visitor Center in the West District. Visitor centers are open year-round from 9 a.m. to 5 p.m., except December 25. They offer visitor information services, slide shows, cultural and natural history exhibits and nature trails, as well as books, videos, maps and other items for sale. First aid, restrooms, and drinking water are available at both visitor centers.

Water

Saguaro National Park is no longer providing bottled water or drinks in vending machines. Water fountains installed with new bottle fillers are available at both visitor centers. Water is available 24 hours a day in the west district, and to walk-ins and cyclists in the east district. The WNPA bookstore provides inexpensive, reusable water bottles.

Natural water sources in the park must be treated before use.

Wildflowers

Spring wildflower blooms vary with elevation, temperature, soil quality and accumulated seasonal rainfall. You can get current information by calling the park or checking the park's website. The wildflower hotline is www.dbg.org.

All plants, and all plant parts, are protected—leave them for the next visitor to enjoy as well.

Wildlife

Treat wildlife with respect. Do not use artificial lights for viewing animals or taped recordings to lure them near. View wildlife from a non-threatening distance. Leave enough space for wildlife to make an escape.

Don't feed wildlife. Protect wildlife, your food and yourself by storing food in sealed containers.

Headed into the Rincon backcountry?

Backpacking in the east district's higher elevations requires special preparation. These tips will get you started.

Backpacking and Camping

Overnight camping is permitted, with a backcountry permit, in designated campgrounds in the Rincon Mountain District. Campgrounds are accessible by foot and horseback only. There are six campgrounds located 6 to 12 miles from public access trailheads.

Backcountry Camping Permits

Backcountry camping permits are available on a first-come first-served basis at the Rincon Mountain Visitor Center. A permit costs \$6.00 per campsite, per night. The maximum number of people allowed per campsite is six. The maximum size of any one group is 18 persons. Permits must accompany the permittees into the backcountry and be openly displayed. Campground stays are limited to five consecutive days per camp and no more than 10 days in the park, with 10 days between

successive permits. Permittees must be at least 16 years of age.

Water

Backcountry water sources can be unpredictable, especially during a drought. Inquire at the visitor center for current water availability before beginning your trip. All natural water sources must be treated before use.

Bears

The Rincon Mountains have a small population of black bears. Proper food storage, in bear boxes located in all six backcountry campgrounds, is **required** for your safety and protection of the bears.

Backcountry Livestock Use

Stock animals are defined as horses, burros, and mules. All stock are required to stay on designated trails. In the Rincon Mountain District over-

night stock use is permitted at all campgrounds except Juniper Basin. Riders must carry in all horse feed; grazing is not permitted. "Weed-free" feed is recommended to prevent the introduction of exotic species. Stock animals are not allowed on the Tanque Verde Ridge Trail, Miller Creek Trail and the last half-mile of the Rincon Peak Trail.

Backcountry Safety Tips

- Treat all water before consuming.
- Carry plenty of water. On hot days, 1 gallon or more per person is a necessity.
- Use sunscreen and wear a hat with a full brim.
- Tell someone your travel plans.
- Practice proper food storage techniques to avoid attracting bears.

For a permit application, download the *Saguaro Wilderness Area* brochure from www.nps.gov/sagu/planyourvisit/brochures.htm



Laura Bolyard photos

Above 8,000' on Mica Mountain in the Rincon Mountain backcountry.



Ponderosa pines on the trail approaching Manning Camp Campground.

"Resiliency"

continued from page 1

The first step in building ecological resilience is to understand what the ecosystem currently looks like, so that when there are unnatural changes in the environment we can quickly identify them and intervene if necessary. Scientific research at Saguaro is vital to monitor for various long-term (like climate change) and short-term changes. In addition to the team of scientists we have on staff at Saguaro National Park, we also often call upon the public to help us with data collection. These volunteer citizen scientists patrol the park to help us map and remove invasive species, measure Saguaros to help learn about their growth patterns, and help us to count and identify species that we may not have previously known existed in the park.

Once we understand what a healthy Saguaro National Park should look like, we can then strive towards strengthening these ecosystems to make them more resilient. How can you help make ecosystems in your own communities that are important to you and future generations more resilient? Perhaps it'll be by volunteering as a citizen scientist, removing invasive species, educating yourself and others about landscaping with native plants, or sharing the joys of the natural environment with a child who is a member of the next generation of land stewards.

About the Author: Estee Rivera Murdock is Saguaro National Park's Outreach Coordinator and is a graduate student with the University of Arizona

Volunteers-In-Parks (VIP) are critical to many park functions.

We are grateful for the expertise, critical thinking, eyes and ears, and strong backs they generously give to the park. The Invasive Plant Management Program is one project that heavily depends on volunteers to help the park accomplish its goals. In 2009, volunteers donated over 4,000 hours to this program. The equivalent of almost \$81,000! Opportunities include a monthly buffelgrass pull with park staff and the Weed Free Trail volunteer program where VIPs are trained to keep the trails free of invasive non-native plants. Interested? Just attend our one day training event. If you think you see an invasive plant, please do not remove it. But, do let us know by providing the location, the name and number of plants, and a picture of the plant. Do you want to help? Check out volunteer opportunities on our website at www.nps.gov/sagu or send an email to Sagu_invasives@nps.org. For buffelgrass volunteer opportunities outside of the park, visit www.buffelgrass.org.

Desert Invasion

Buffelgrass Overpowers Native Species

The plant and animals at Saguaro National Park are increasingly threatened by buffelgrass (*Pennisetum ciliare*), an invasive grass from Africa. Buffelgrass was introduced primarily to increase forage for livestock and for erosion control. In a very few years buffelgrass has spread exponentially across southern Arizona.

Buffelgrass, listed as a state noxious weed in 2005, poses an immediate threat to the integrity of the Sonoran Desert ecosystem and has the potential to dominate the natural landscape by altering natural ecological processes. It competes with and excludes native plants, reduces critical habitat for unique desert wildlife, and introduces fire into an ecosystem not adapted to fire.

Buffelgrass and the ensuing threat of fire is a major concern to all levels of government in Southern Arizona as well as individual home owners. In addition to expanding into natural areas, buffelgrass has invaded Tucson and neighboring communities, carrying fires into the wildland-urban interface where it threatens lives, homes, and businesses.

Since the mid-1990s, Saguaro National Park has been managing buffelgrass through manual removal and herbicides. With vigilant and consistent control efforts, buffelgrass patches can be removed.

Other invasive plants that Park staff actively manage are fountain grass (a relative of buffelgrass), salt cedar, onion weed, African sumac, malta starthistle, African daisy, and Sahara mustard. Some invasive plants such as red brome, Lehmann's lovegrass, Bermuda grass, are so widespread in the park that control is nearly impossible.

To learn more about buffelgrass and how you can help, please see the article to the left, or visit www.buffelgrass.org.





Mexican spotted owl

Rincon Mountain District Hiking Trails In The East

Map on page 8

Trail Description

Times and distances are roundtrip.

Desert Ecology Trail

1 This trail offers an introduction to the rugged climate of the Sonoran Desert and the adaptations that allow plants and animals to thrive here. An easy and pleasant way to take a break from your automobile tour. Trail has interpretive signs, frequent benches, and is paved and wheelchair accessible.

easy

.25 mile/.4 km
no elevation gain

20 minutes

Freeman Homestead Trail

2 A scenic and historic path to the site of an early desert homestead. Full color interpretive signs along the trail explain the various aspects of human and animal lives in this rugged "Home in the Desert." The unpaved trail has wide rock stairways on some moderate grades.

easy to moderate

1 mile/1.6 km
100 ft./30 m.
elevation gain

1 hour

Mica View Picnic Area "Loop"

3 Begin this walk through a natural desert garden at the Mica View Picnic Area, off the Cactus Forest Loop Drive. The route follows the Mica View Trail north or south, connecting with the Cactus Forest Trail for the return trip. Use the trail map in this paper to follow the trails in this area. This is the easiest loop in this trail system; it may also be reached from the trailhead at the east end of Broadway Boulevard.

easy

2 miles/3.2 km
no elevation gain

1 hour

Loma Verde "Loop"

4 A scenic introduction to the Cactus Forest trail system. Begin at the Loma Verde trailhead on the Cactus Forest Drive. Follow the Loma Verde Trail past the site of a failed copper mine. From the Pink Hill Trail take the short spur to the hilltop overlook for a spectacular view of the cactus forest. Continue following the Pink Hill Trail to Squeeze Pen Trail, and turn right. The trail will take you along the base of the Rincon Mountains, back to Loma Verde Trail. Turn left to return to your car. Easy grades on unpaved trails.

easy

3.3 miles/5.5 km
70 ft./21 m.
elevation gain

2 hours

Douglas Spring Trail to Bridal Wreath Falls

5 This trail begins at the Douglas Spring Trailhead at the east end of Speedway Boulevard. This trip into the foothills of the Rincons provides good views of the Santa Catalina Mountains. Along the way seasonal water courses add interest to the scenery, which changes from saguaro stands to desert grasslands. Bridal Wreath Falls is a good lunchtime destination: the amount of water varies from a trickle to a torrent, depending on season and drought conditions. Steep and rocky.

strenuous

5.2 miles/8.4 km
1100 ft./335 m.
elevation gain

3-4 hours

Tanque Verde Ridge Trail

6 For the visitor looking for a more rugged trail, the Tanque Verde Ridge Trail is ideal. Day hikers may climb as high as time allows, remembering to return to their cars by sunset to exit the park before the road closes. Magnificent views of the Tucson Basin and Rincon Peak are the reward. This trail is also the closest access to the backcountry from the Visitor Center. Very steep and rocky. **A permit is required for overnight use of this trail.**

strenuous

18 mi./29 km to peak

14 mi./22.5 km to Juniper Basin
4000 ft./1219 m.
elevation gain

time varies according to destination

Hope Camp Trail

7 This trail heads east from the Loma Alta Trailhead, following a riparian, or streamside, area. It offers views of Tanque Verde Ridge and Rincon Peak. This trail passes by two abandoned line camps with windmills, water towers and storage tanks. (This trail connects to the Arizona Trail via the Quilter Connection trail. It also connects with Ruiz and Coyote Wash Trails.)

moderate

5.6 miles/9 km
300 ft./90 m.
elevation gain

3-4 hours

Rincon Mountain Backcountry

Use a topographic map when hiking in the Rincon Mountain backcountry. Maps are available at the Rincon Mountain Visitor Center.

east

Cactus Forest Loop Drive

Driving the Loop

The Cactus Forest Scenic Loop Drive (shown on inset map on page 8 highlighted in yellow) in the east district is a paved, combination one- and two-way road. The 8-mile (12.9 km) Loop Drive features several trailheads, scenic vistas and pullouts. Trailers longer than 35 feet or any vehicle wider than 8 feet are not permitted.



—35 Feet—



—8 Feet—

Biking

Always maintain a safe speed for road conditions and your own riding experience. The Loop Drive is narrow with many tight turns and steep hills. *Use extra caution when approaching the first steep downhill after passing the entrance station!* Bicyclists must obey all posted speed limits.

Mountain Biking

Trail riding is permitted only on the 2.5 mile (4.0 km) multi-use portion of the Cactus Forest Trail circled by the Cactus Forest Loop Drive. The trail may be ridden in either direction, but you may not ride against traffic on the one-way section of the Cactus Forest Loop Drive.

Restrictions

Hiking

Hiking off-trail in the Cactus Forest and Rincon Valley is prohibited. Above 4,500 feet, hiking off-trail is permitted. Limit hiking parties to 18 people on trails, 10 people while hiking off-trail.

Multi-use trail

The portion of the Cactus Forest Trail *inside* the Cactus Forest Loop Drive is open to horseback riding, bicycling and hiking. Bike riding is not permitted on any other portion of the Cactus Forest Trail. The Hope Camp trail is proposed to be multi-use. Check back summer of 2012 to see if that rule was accepted.

Stay Alert! Make your presence known to other trail users well in advance, particularly when approaching from behind. Cyclists yield to all other trail users and hikers yield to equestrians.

Stock and Pack Animals

Horseback riding off-trail is prohibited. Livestock is restricted from the Cactus Forest Loop Drive and these trails:

- Wildhorse Trail south of the Carrillo Trail
- Tanque Verde Ridge Trail
- Desert Ecology Trail
- Freeman Homestead Trail
- Miller Creek Trail
- Last half mile of the Rincon Peak Trail
- First quarter mile of the Douglas Springs Trail

Horse Trailer Parking

Use designated trailer parking. For trails in the Cactus Forest, use the Wildhorse Trailhead. In the Rincon Valley, trailer parking is available .4 mile (.6 km) south of the Loma Alta trailhead near Oro Escondido.

What can I do in the time I have?

East District

Walk the Cactus Garden Trail **0:10**

View the *A Home in the Desert* slideshow **0:15**
Explore the visitor center exhibits

Walk the Desert Ecology Nature Trail **half an hour**
Drive the Cactus Forest Loop Drive (no stops)

Hike the Freeman Homestead Trail **0:45**
Attend a ranger-led program

Stroll at sunset from the Javelina Picnic Area **1:00**

Hike to the Garwood Dam **1:30**
Enjoy a sunrise, sunset or moonrise

Picnic at Mica View or Javelina Picnic Areas **1:45**

Participate in the Junior Ranger Program **two hours**

Hike to the Little Wildhorse Tank **2:45**

Walk the Hope Camp Trail **3:00**

Hike to Bridal Wreath Falls **4:15**

Hike to Douglas Spring Campground and back **5:00**

Hike to Juniper Basin Campground **5:45**

West District

Walk the Javelina Wash Trail **0:10**
Walk the Cactus Garden Trail

View the *Voices of a Desert* slideshow **0:15**
Explore the visitor center exhibits

Walk the Desert Discovery Nature Trail **half an hour**
Drive the Bajada Loop Drive (no stops)

Hike the Signal Hill Petroglyph Trail **0:45**
Attend a ranger-led program

Hike Valley View Overlook Trail **1:00**

Picnic at a historic CCC picnic area **1:15**
Enjoy a sunrise, sunset or moonrise

Hike to the ridge on the Hugh Norris Trail **1:30**
Hike up King Canyon wash & down the trail

Participate in the Junior Ranger Program **two hours**

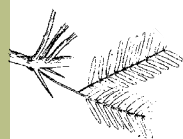
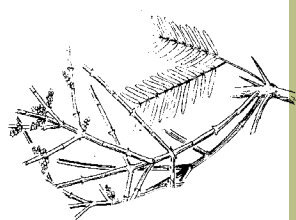
Hike the King Canyon Trail to the Sweetwater Trail **3:00**

Hike the Hugh Norris Trail to the bottom of the switchbacks beginning just west of Amole Peak **4:15**

Hike the Hugh Norris Trail to Wasson Peak **4:45**

Hike the Sweetwater Trail to Wasson Peak **5:15**

a whole day



desert mistletoe on mesquite branch

nectar feeding bat feeding from a saguaro cactus blossom

Tucson Mountain District Hiking Trails in the West

Trail Description

Times and distances are roundtrip.

Desert Discovery Trail

1 You will find the trailhead to this self-guided nature walk on Kinney Road, one mile northwest of the Red Hills Visitor Center. Here you can familiarize yourself with the native plants, animals and ecology of the Sonoran Desert. An audio tour for the visually impaired is available at the visitor center.

easy
.5 mile/.8 km
no elevation gain
20 minutes

Valley View Overlook

2 This trail was built by the Civilian Conservation Corps (CCC) in the 1930s. The trailhead is located at 1.34 miles along the Bajada Loop Drive. While hiking this trail, you will pass through two washes and then gradually ascend stone steps to a ridge. The view from the ridge includes Avra Valley sprawled below and Picacho Peak to the north.

easy to moderate
.8 mile/1.3 km
100 ft./30 m. elevation gain
30 minutes

Signal Hill Trail

3 This short climb takes you to dozens of ancient petroglyphs more than 800 years old. The trail starts from the Signal Hill Picnic Area located off Golden Gate Road, at 3.3 miles along the Loop Drive. The trail climbs numerous stone steps, some of which have a large rise, through a wash and up a hill. For some, climbing these steps may be difficult.

easy
.5 mile/.8 km
approximately 30 ft./9 m. elevation gain
20 minutes

King Canyon Trail

4 The trailhead and parking area for this hike is directly across the road from the Arizona-Sonora Desert Museum. From the visitor center, travel two miles east on Kinney Road. The first section of the trail follows an old roadway constructed by the CCC in the 1930s. At .9 mile hikers pass the Sendero Esperanza trail junction at the Mam-A-Gah picnic area. The next 1.9 miles climbs to the Sweetwater Trail junction. The final .9 mile ascends a series of steep switchbacks to the Hugh Norris Trail. From here, continue .3 mile to reach the top of Wasson Peak, elevation 4,687 feet.

moderate/strenuous
7 miles/11.3 km
1839 ft./561 m. elevation gain
4-5 hours

Sendero Esperanza Trail

5 This trail begins 1.2 miles from the intersection of Golden Gate and Hohokam Roads, across from the Ez-Kim-In-Zin picnic area. The trail's first mile follows the sandy path of an old mine road. The next .7 mile climbs a series of steep switchbacks to the top of a scenic ridge, where it intersects the Hugh Norris Trail. The trail then descends 1.4 miles to the south, past the Gould Mine Trail junction, where it meets the King Canyon trail.

moderate
6.2 miles/10 km
700 ft./213 m. elevation gain
3-4 hours

Hugh Norris Trail

6 This is the longest trail in the Tucson Mountain District. The trailhead is .8 mile from the start of the Bajada Loop Drive. The trail begins with a series of switchbacks that climb to a ridge overlooking the cactus forest. From there, the trail follows the ridge-top through areas with unique welded tuff rock formations until it reaches Amole Peak, approximately 4.1 miles from the trailhead. From here, continue .8 mile up a series of switchbacks to the top of Wasson Peak, the highest point in the Tucson Mountains.

strenuous
10 miles/16 km
2087 ft./636 m. elevation gain
5-6 hours

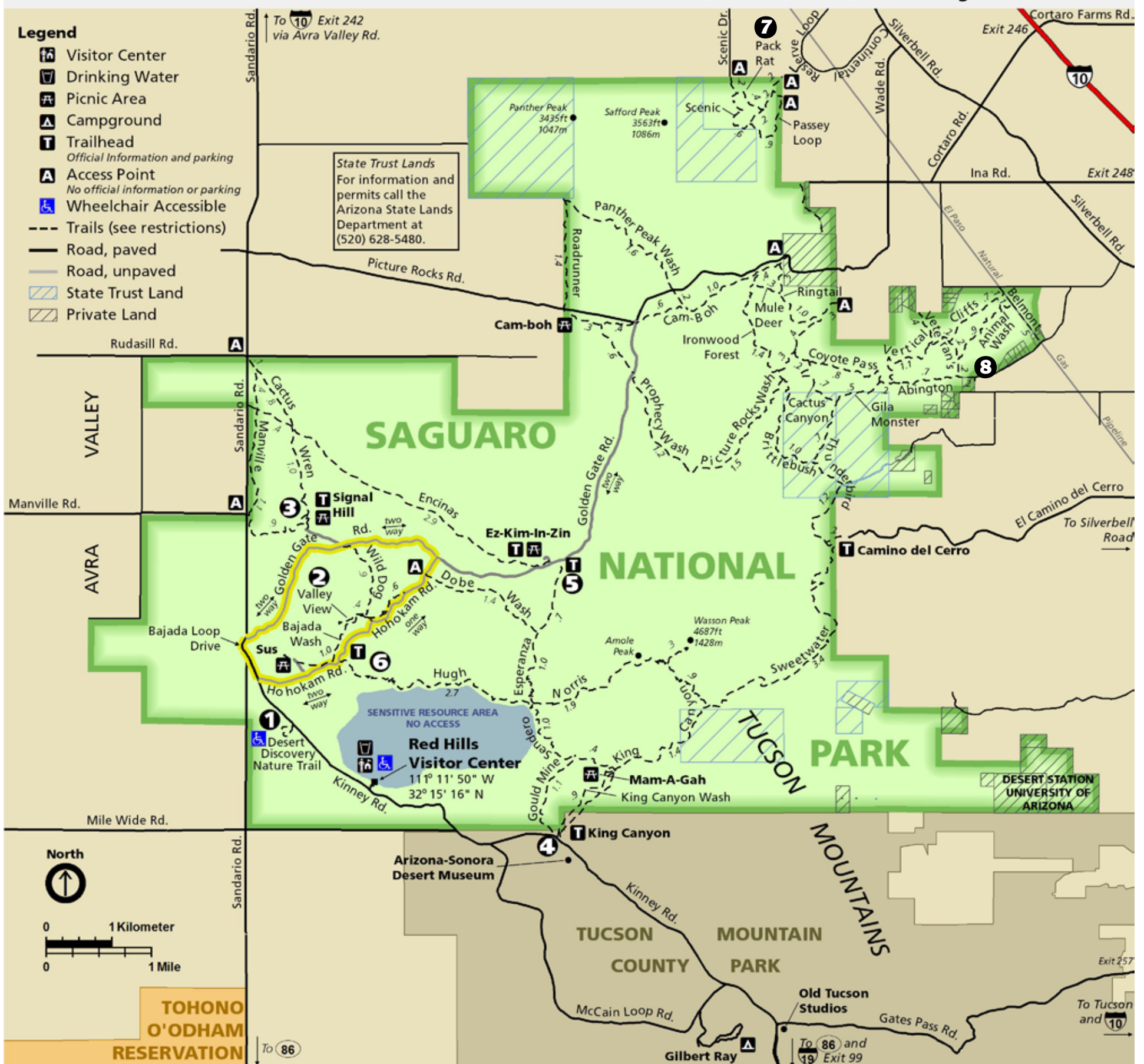
Scenic Loop and Belmont Area Trails

7 There is limited access and parking in these areas. Please contact the visitor center or visit the website for detailed information about where to park to access these areas.

8

West

Tucson Mountain District (West) Day Hikes



Scenic Bajada Loop Drive

Driving the Loop

The west district's Scenic Bajada Loop Drive (shown on map in yellow) is a popular way of exploring the Tucson Mountain District's foothills. This unpaved, combination one- and two-way graded dirt road offers scenic pullouts, picnic areas and hiking trailheads in a 5 mile (7.8 km) loop. High clearance or four-wheel drive is not needed.

The Bajada Loop Drive begins at the intersection of Kinney Road and Hohokam Road. Exit the Red Hills Visitor Center, turn right onto Kinney Road, and continue northwest 1.6 miles (2.6 km) to the loop's entrance on the right.

The Loop Drive ends where Golden Gate Road meets Sandario Road. To return to the visitor center, turn left onto Sandario Road. Continue 0.2 mile (300 m) to the junction with Kinney Road. Turn left. The visitor center is 2 miles (3.2 km) ahead.

Hiking

The Tucson Mountain District offers more than 40 miles (64 km) of hiking trails. Check at the Red Hills Visitor Center for trail conditions and special notices before you leave.

Hiking Checklist

- Review park safety, regulations, fees and permit information.
- Pack a park map showing accurate trail information.
- Leave itinerary with a friend or relative.
- Pack breathable, long-sleeved clothes in light colors, a wide-brim hat, hiking boots with ankle support, raingear.
- Bring day packs with water (1 gallon per person in summer), salty snacks, watch, sunblock, comb or knife (to remove cactus spines), cell phone, pencil and notebook.
- Call for up-to-date road and weather information: (520) 733-5153 or (520) 733-5158.
- Check online for more trip planning advice: www.nps.gov/sagu/planyourvisit.htm

Restrictions

Driving Restrictions

Trailers longer than 35 feet or any vehicle wider than 8 feet are not allowed on the Loop Drive.



Horses & Pack Animals

Stock groups are limited to 15 animals. Stock animals are prohibited from traveling off-trail in the park. Stock are not permitted on any of the trails listed in the table below. Stock trailers should use Cam-boh, Camino del Cerro, and Sendero Esperanza trailheads.

Desert Discovery Trail	
Hugh Norris Trail	
Valley View Overlook Trail	
King Canyon Trail	from the Sweetwater Trail junction to the Hugh Norris Trail junction
Bajada Wash Trail	from Valley View Overlook Trail to Sus Picnic Area
Red Hills Visitor Center Area	including the Cactus Garden and Javelina Wash trails
Sus Picnic Area	
Signal Hill Picnic Area	
Wild Dog Trail	

State Trust Lands

State trust lands are parcels of land within the park held by the Arizona State Land Department. A State Land Recreational Permit is required to hike in these parcels. For more information and to obtain a permit, call (602) 542-4631 or visit www.land.state.az.us.

Hiking Restrictions

- Hiking groups are limited to a maximum of 18 persons when hiking on designated trails. Limit off-trail travel. When hiking off-trail, groups are limited to 10 people.
- Access is prohibited in the sensitive resource area (shown on map in blue) near the Red Hills Visitor Center.
- Bicycles are not permitted on any trails in the district. Bicycling along Picture Rocks Road is not recommended.

Rincon Mountain District (East) Day Hikes



Say it "sah·WAH·row"

Saguaro flowers are waxy and white, about three inches across. They open at night and are pollinated by Mexican long-tongued and lesser long-nosed bats. Flowers stay open until the following afternoon,



allowing birds and insects an opportunity to pollinate them.

Gila woodpeckers and gilded flickers make nest holes in the stems of saguaros. The cactus quickly produces a



thick material to heal and dry the wound.

This nest-lining structure sometimes survives after the saguaro dies and rots, and is called a saguaro "boot" because of its shape.

Woodpeckers build new nests each year, and older nests become homes for cactus wrens, elf owls, mice, snakes, spiders and other animals that appreciate the water-cooled cavities in the cactus.



Elf Owl

While the cause is not known, sometimes damage occurs to the growing tip of a saguaro, causing a fanlike growth. Crested, or *cristate*, saguaros are thought to occur once in every 200,000 plants.



Saguaros are fully protected by law, not only in Saguaro National Park, but throughout Arizona.

When ripe, saguaro fruits split open attracting birds, insects, and other desert dwellers. Each fruit may contain 2,000 seeds!

The saguaro blossom is Arizona's state flower.



The spines of a cactus not only protect it from animals that might eat it, they also shade the plant's skin.



In a 150 - 200 year lifetime, a saguaro might produce 40 million seeds. Dispersal, rainfall, and other factors result in about *one* of these seeds living to maturity to replace the parent plant!



Why grow "arms?" More arms equals more surface area for photosynthesis, and more places to grow flowers, thus increasing the number of seeds produced.

Saguaros must start life under a tree or shrub to protect them from drying out and be hidden from herbivores. Saguaros often outlive their "nurse" plants.

When a saguaro dies, the woody ribs that supported it in life soon become visible as the softer plant tissue dries up and crumbles away.

Saguaros grow slowly. In the most favorable conditions it may take 35 years for a plant to reach 6 feet; more commonly it takes 47 to 67 years.

Saguaros can grow to 50 feet tall and are the largest member of the cactus family in the United States (though not in the world).

Saguaro branches always grow upward. Occasionally frost or snow will freeze the tissue at the base of a limb and damage it, and the weight of the branch pulls it down.

If the branch survives, the growing tip will turn upward again.



Saguaro tissue may be 85% water; a large plant may weigh 8 tons or more!



Tortoises, Tents, and Trails: Kids Explore Nature



Junior Rangers at the Wilderness Day Camp learn how to set up a tent.



Junior Rangers discover ancient Hohokam potsherds.



Kids enjoy a great view.

Junior Ranger Discovery Pack Program

The Junior Ranger Discovery Pack program is designed for children of all ages who want to explore the plants, animals, and people of the Sonoran Desert. The Discovery Pack contains all the tools children need to complete the program including binoculars and field guides. There is no charge for the program.

Junior Ranger booklets, available for a variety of ages and abilities, offer a wide range of fun and exciting activities including field observations, animal identification and habits, scavenger hunts, crossword puzzles, art, and more. Every child that finishes the booklet will be awarded an official National Park Junior Ranger certificate and badge.

Please allow a minimum of 2-3 hours to complete the program. The Junior Ranger program may be started no later than 2:00 p.m. and children must check back into the visitor center no later than 4:30 p.m. to go over their booklets with a ranger.

Curriculum-Based Programs

Come for a Field Trip!

Saguaro National Park offers a variety of exciting curriculum-based, environmental education field trips throughout the year. A previsit to the classroom is provided before each field trip, preparing your students for the trip and providing them with a base knowledge which enhances their park experience. Programs cover the natural and cultural history of the Sonoran Desert and meet a wide range of science and social studies state standards.

Students will experience a memorable and educational field trip as our programs are interactive and hands-on. All programs are free and require advanced reservations. Contact information is in the yellow box on this page. For schools with restricted travel budgets, we have a limited number of travel grants available. This offer applies to schools who are attending one of our education programs with at least 50% of their students on a free or reduced lunch program. This grant is made possible by the the Friends of Saguaro National Park.



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Classroom Travel Trunks

Invite a ranger to your classroom! We bring the material and do the program. Teachers looking for a presentation to augment an existing science or desert unit may request one of our Traveling Trunk Programs. These programs are free.

These 60-minute presentations are designed to enhance your in-class teachings. These programs support many state curriculum standards. More information is available on our website which is in the yellow box on this page.

Junior Ranger Camps

The park offers a variety of Junior Ranger Camps throughout the year. All camps are day camps and range from 1-3 days. A large variety of activities include hiking and safety, how to pack a well equipped day pack, tracking desert tortoises, dissecting owl pellets, learning about plants and animals, wildlife protection, games, crafts, camp site selection and how to set up a tent, using a light weight cook stove, building a campfire, outdoor travel and survival skills, using a map and compass, orienteering and way finding, and what to do if they become lost. Camps vary between districts. Give us a call to see when the next camp is scheduled! Contact information is available in the yellow box on this page.



Laura Bolyard photo



Outreach Programs

The park offers a multifaceted outreach program to connect diverse communities throughout the greater Tucson area with the park. Outreach efforts are designed to expose groups and organizations to nature, our unique Sonoran Desert environment, and the mission of the park. We bring our message to fairs, expos, school fairs and events, and a variety of community events as well as to many after school/weekend programs for children. Our booth is staffed by friendly and outgoing professionals, offering exciting hands-on activities, valuable information about the park and its events, and contact information about other park related programs. To have us attend your event, or to schedule us to visit your organization for a program, contact information is in the yellow box to the right.



Be a Web Ranger

Now you can be a Junior Ranger even if you are not able to visit a national park. Become a member of a growing group of young people who are interested in the world around them and involved with their nation's heritage—the Web Rangers! Just print your membership card and start your journey. You're ready to explore your National Parks. Along the way, complete activities and earn rewards.



Help a baby sea turtle reach the sea ... Be a spy during the Revolutionary War ... drive your sled dog team on a wilderness patrol ... experience the life and death struggle of a puma ... and more! Choose your adventure and collect secret words each time you complete a puzzle, finish a game, solve a mystery, or take part in a story. For more information: <http://www.nps.gov/webrangers>



Teacher to Ranger to Teacher

The Teacher to Ranger to Teacher program provides opportunities for teachers to have exciting, well-rounded experiences in National Parks. The program focuses on teachers from schools that have diverse student populations and who have little experience or opportunity to connect to National Parks. At Saguaro National Park, Tucson teachers have participated in this exciting and innovative program since 2004.

During the school year, Teacher Rangers bring the parks into the classroom by presenting lessons that draw on their summer's experience. During National Park Week, Teacher Rangers wear their NPS uniforms to school, discuss their summer as a park ranger, and engage students and other teachers in activities that relate to America's national parks. Teachers receive a stipend for the 8-week commitment. Contact Chip Littlefield listed in the yellow box to the right.

Cactus Rangers: Teen Stewardship

There is a group of helpful, responsible teenagers in Saguaro National Park with a strong awareness for nature. Their goal is to learn about the environment and spread awareness about national parks and other special areas. They are called the Cactus Rangers and I am one of them. The west group is led by Ranger Chip Littlefield and the east group is led by Ranger Jeff Wallner. (See yellow box below)

Before someone can be a Cactus Ranger, they must demonstrate leadership skills and complete a Junior Ranger Camp. In my case, I did about four camps before I became a Cactus Ranger at twelve years old. Since then, everything I have done with this group has been rewarding. Hiking to a stone arch under Baboquivari Peak and summiting the round peak of "Sierra Ana" near the Red Hills Visitor Center are just two of the rewarding excursions I have experienced with this group. Being a four



year Cactus Ranger has given me loads of valuable wisdom. Leading Junior Ranger camps in the summer and Wilderness camps in the winter have given me plenty of know-how around younger children. The Wilderness camps have also helped me develop backcountry as well I am grateful to have the chance to be a part of this program. The other Cactus Rangers and their families are wonderful people to work with. I am thankful to all the Park Rangers, the Teacher Rangers, and volunteers, especially Ranger Chip, at Saguaro National Park for being so enjoyable to work with. I encourage anyone who gets the chance to become a Cactus Ranger in either district of the park, or get outside and get involved in some way.

by Jake Rochester, Cactus Ranger

For Information
Call, e-mail, or check our website!

- Education Programs

West
Chip Littlefield
520.733-5157
chip_littlefield@nps.gov

East
Melanie Florez
520.733.5151
melanie_florez@nps.gov

- Outreach Programs
Estee Rivera Murdock
520.733-8613
estee_rivera@nps.gov

- www.nps.gov/sagu



Since 1938, Western National Parks Association (WNPA) has promoted the educational and scientific activities of the National Park Service. As a nonprofit organization authorized by Congress, the association operates visitor center bookstores and produces park-related publications. All proceeds support more than 66 affiliated parks in 12 western states to fund educational, scientific, and research programs not supported by taxes. Saguaro National Park is among those parks that receive donations from WNPA.

Membership support allows us to continue much-needed aid to the parks. Members of WNPA receive valuable benefits, including:

- Discount privileges of 15 percent on bookstore purchases (Does not apply to craft items).
- 20 percent discount privileges on bookstore purchases for seniors 62 and older.
- Discount privileges of 15 percent on purchases from the WNPA web site at www.wnpa.org.

• Discount privileges may be honored by other National Park Service cooperating associations. Please check when visiting other park areas.

Membership Categories:

Individual Annual	\$25
Family Annual (two cards)	\$45
Individual Two Year	\$45
Family Two Year (two cards)	\$80
Life	\$1,000

By becoming a member of WNPA, you make a direct contribution to the parks we serve. Since 1938, WNPA has given over \$50 million in cash and in-kind donations to the National Park Service.

WNPA gratefully accepts tax-deductible contributions to further the goals of the National Park Service. These contributions can be designated to support a particular project or park served by WNPA.

For more information on WNPA, please call (520) 733.5159, or visit our website www.wnpa.org.



You can help assure that the incredible experience you enjoyed at Saguaro National Park will be available for your family, friends, and thousands of others for years to come. The **Friends of Saguaro National Park** has donated hundreds of thousands of dollars to our park for trail construction, new picnic tables and benches, educational materials, safety equipment, and funds for research on saguaros and the wildlife that lives in the cactus forests. They also fund the Gila Monster tracking, Saguaro Census programs and the innovative Teacher to Ranger to Teacher program, reaching under-served students throughout Tucson. Public funding no longer meets some of the most pressing needs of our parks. A non-profit organization, the **Friends of Saguaro** has a single purpose: to provide dollars for desperately needed projects at Saguaro National Park. Join us, and give something back to these stunning "sentinels of the desert" today. Call (520) 733-8610, visit us online at www.friendsofsaguaro.org, or find us on [facebook.com/friendsofsaguaro](https://www.facebook.com/friendsofsaguaro) to learn more.

YES! I want to support projects at Saguaro National Park by:

Becoming a member of the *Friends of Saguaro National Park* at the following level:

___\$35 ___\$50 ___\$100 ___\$250 ___\$500

Adopting a Saguaro (you'll receive a certificate and frameable photo):

___\$35 *Indiv.* ___\$50 *Family* ___\$100 *Guardian* ___\$10 *Student or Class*

Name
Address
City, State, Zip

Clip this form and mail with a check or money order payable to Friends of Saguaro National Park. Mail to: Friends of Saguaro National Park, 2700 N. Kinney Road, Tucson, Arizona 85743

Your Fee Dollars Make It Possible

HAVE YOU ENJOYED A PICNIC IN THE shade of a historic shelter at Signal Hill? Have you learned about the natural and human history of the saguaro from signs along the Freeman Homestead trail? Are you better informed by the new trailhead exhibits and maps found throughout Saguaro National Park? If so, you are enjoying facilities provided by park entrance fees, paid by you and other visitors to Saguaro National Park.

Like hundreds of recreation areas across the country, Saguaro National Park operates under the Federal Lands Recreation Enhancement Act of 2004. Under this program, 100% of all entrance and user fees are put to use within the National Park Service and at least 80% of the funds stay in the park where they are collected. Which means, the money you spend in Saguaro National Park, stays in Saguaro National Park. Your fees are not returned to the government's general fund.

The effects of time, use, and a rugged desert climate have been tough on the recreational facilities of the park. The picnic areas of the Tucson Mountain District were built in the 1930s by the Civilian Conservation Corps. The structures are wonderful, but historic saguaro rib ramadas

require special care. Facilities in the Rincon Mountain District were installed by the National Park Service in the 1950s, when visitation was a small fraction of what it is today.

Projects paid for by fee dollars at Saguaro cover a wide range of visitor needs. Recently completed projects include new trailhead signs at the Broadway and Loma Alta Trails in the Rincon Mountain District, rehabilitation of eleven historic fireplaces at picnic areas in the Tucson Mountains, and installation of traffic safety signs throughout the park. Projects you will see coming in 2012 and 2013 include updating of the Tucson Mountain District's audio/visual equipment for the popular Desert Speaks program and new exhibits for the Rincon Mountain visitor center. Your fee dollars make these important upgrades possible.

Whether you purchase a seven-day permit to the park, a Saguaro Annual Pass good for one year's worth of visits, or the Interagency Pass to be used anywhere in the USA, you can be happy knowing that your fee dollars are used for projects directly related to the facilities and resources of your Saguaro National Park.

What's going on

April

Hi: 81° F
Lo: 50° F

Uam Masad
DESERT IN BLOOM
MONTH

Snakes are coming out of hibernation. You may see them settled in rock crevices, near their dens—be careful where you place your hands and feet.

May

Hi: 89° F
Lo: 57° F

U'us Wihogdag Masad
MONTH TO GATHER BEANS;
TIME OF HUNGER

White fragrant nocturnally-blooming plants in the cactus family are flowering. Look for saguaro and **night-blooming** cereus flowers.

June

Hi: 99° F
Lo: 67° F

Ha:san Bak Masad
MONTH TO GATHER
SAGUARO FRUIT

New **saguaro fruit** is ripening and falling to the ground. This is the month the Tohono O'odham traditionally make trips to gather the cactus fruit, knocking it from the cactus with saguaro rib poles called a *kuipod*.

July

Hi: 98° F
Lo: 74° F

Jukiabig Masad
MONTH OF RAIN

Male Sonoran desert toads, Red-spotted toads, and spadefoot toads croak to attract mates throughout the night.

August

Hi: 97° F
Lo: 72° F

Sopol Esabig Masad
SHORT MONTH OF PLANTING

Barrel cactus, aster, trailing four-o'clock, devil's claw, buffalo gourds, summer poppies, and morning glories are all flowering.

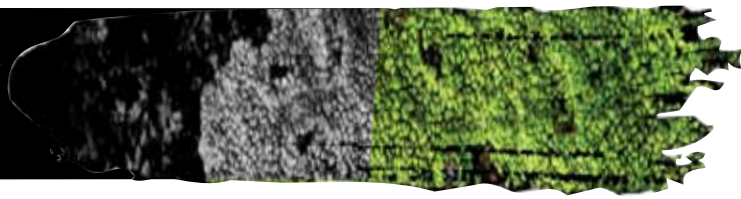


Hi: 94° F
Lo: 67° F

September

Wasai Gakidaj Masad
MONTH OF DRY GRASS

Bats and hummingbirds are preparing for early October migrations—activity increases this month. First-year juveniles must gain strength for their first long flights to wintering grounds in the south.



National Park Service / U.S. Department of the Interior
Saguaro National Park

Rincon Mountain District (East)
3693 South Old Spanish Trail
Tucson, AZ 85730
520.733.5153 (9:00-5:00 PM)

Tucson Mountain District (West)
2700 North Kinney Road
Tucson, AZ 85743
520.733.5158 (9:00-5:00 PM)



Arizona Department of Transportation
511 Traveler Information Service

Average Maximum / Minimum Temperature

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Max	64° F	68° F	72° F	81° F	89° F	99° F	98° F	97° F	94° F	84° F	73° F	65° F
Min	38° F	40° F	44° F	50° F	57° F	67° F	74° F	72° F	67° F	57° F	45° F	39° F

Sunrise/Sunset Times for Tucson, Arizona (Mountain Standard Time, GMT -7)

	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
1st	7:25/5:30	7:17/5:57	6:51/6:21	6:12/6:43	5:38/7:04	5:18/7:25	5:21/7:34	5:39/7:21	5:59/6:49	6:18/6:10	6:41/5:35	7:07/5:19
5th	7:25/5:33	7:14/6:00	6:46/6:24	6:07/6:46	5:35/7:07	5:17/7:27	5:23/7:34	5:42/7:18	6:01/6:44	6:20/6:05	6:44/5:31	7:10/5:19
10th	7:25/5:37	7:10/6:05	6:40/6:28	6:02/6:48	5:30/7:10	5:17/7:29	5:25/7:33	5:45/7:13	6:05/6:37	6:24/5:58	6:48/5:28	7:14/5:19
15th	7:25/5:41	7:06/6:09	6:34/6:31	5:55/6:53	5:26/7:14	5:17/7:31	5:28/7:31	5:48/7:08	6:08/6:31	6:27/5:52	6:53/5:24	7:17/5:21
20th	7:23/5:46	7:01/6:13	6:27/6:35	5:49/6:56	5:23/7:17	5:18/7:33	5:31/7:29	5:51/7:03	6:11/6:24	6:31/5:47	6:57/5:22	7:20/5:23
25th	7:21/5:50	6:55/6:18	6:21/6:38	5:40/7:00	5:21/7:21	5:19/7:34	5:34/7:26	5:55/6:57	6:14/6:17	6:35/5:41	7:02/5:20	7:22/5:25
30th	7:10/5:55		6:14/6:42	5:39/7:03	5:19/7:24	5:21/7:34	5:38/7:23	5:58/6:51	6:17/6:11	6:39/5:36	7:06/5:19	7:24/5:28

Arizona, except for the Navajo Nation, does not observe Daylight Savings Time. Please note that sunrise and sunset times are approximate will vary slightly from year to year.

EXPERIENCE YOUR AMERICA

The *Saguaro Sentinel* is published by Saguaro National Park with assistance from Western National Parks Association (WNPA).
Printed by Western Web and Graphics, Tucson, Arizona. Publication Coordinator: Chip Littlefield.
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Safety in the Park

Snakes Six species of rattlesnakes are found at Saguaro National Park. They seek shelter in the shade of bushes or rock crevices in the heat of the day. Avoid placing your hands or feet in hidden areas. **Treatment:** If you are bitten by a snake, remain calm. Immobilize the limb and get to a doctor as soon as possible. Report any bites to a ranger.

Bees Africanized honey bees ("killer" bees) are found throughout the park. These bees will attack only when they feel their hive is threatened. Stay alert for sounds of bee activity and watch for them entering or exiting a colony. Near a colony, individual bees may "bump" you, without stinging, as warning. If you are attacked, run away as fast as you can. If possible, cover your head and face with clothing. Africanized bees will usually cease attacking once you are ¼ to ½ mile away from their hive. **Treatment:** If you are stung, scrape away embedded stingers with your fingernail or a credit card. Call 911 and get to a doctor as soon as you can. Report any incident to a ranger.

Heat Hike within your ability and rest often when hiking in the heat. Know the symptoms and treatment for heat exhaustion, and life-threatening heat stroke.

Heat exhaustion: This is the result of dehydration due to intense sweating. Symptoms: pale face, nausea, cool and moist skin, headache, and cramps. **Treatment:** drink water, eat high-energy foods, rest in the shade, and cool the body, especially around the neck, head and groin.

Heat stroke: If left untreated, heat exhaustion can turn into heat stroke. This is a life-threatening emergency where the body's heat-regulating mechanisms become overwhelmed. Symptoms: flushed face, dry skin, weak and rapid pulse, high body temperature, poor judgment or confusion, unconsciousness. **Treatment:** find shade, cool the victim with water, call 911 and seek help immediately.

Water During the summer, drink at least one gallon of water per person, per day, even if you don't feel thirsty. In the winter, carry at least two quarts per day. Don't ration your water when hiking—turn back when half your

supply is gone. **Hyponatremia:** Drinking *too much* water over a short time can lead to hyponatremia, where sodium electrolyte levels in the body become dangerously low. Symptoms of hyponatremia are similar to those of heat exhaustion. **Treatment:** Drink both water and sports drinks and eat salty snacks to keep electrolytes balanced.

Flooding During the summer rainy season, the desert is prone to flash flooding. Avoid hiking in washes (dry riverbeds) during thunderstorms. Do not try to cross a flooded road in your vehicle under any circumstances!

Lightning Be prepared for rain even on sunny days. If you see lightning, move quickly to the nearest safe place. Avoid hill tops, ridges, and flat open areas. If you can't find shelter, do the "lightning crouch": put your feet together, squat low, tuck your head, and cover your ears.

Mountain Lions Mountain lions—also known as pumas, or cougars—are found in both districts of the park. Human-lion encounters are rare, but possible. **What to do if you encounter a mountain lion:** Most lions will avoid confrontation—give the lion a way to escape. Stay calm and speak loudly and firmly. Do not run from a mountain lion—rather, stand and face it. Make eye contact. Appear as large as you can: raise your arms and open your jacket if you are wearing one. Throw stones or whatever you can reach without crouching or turning your back. Wave your arms slowly. Protect small children so they won't panic and run. Finally, fight back if you are attacked. Use whatever you have to defend yourself: rocks, sticks, caps, or your bare hands. Since a mountain lion usually tries to bite the head or neck, try to remain standing and face the animal.

Cacti Many desert plants are spiny or thorny. Some species of cactus, such as cholla, have barbed spines which detach easily and embed in skin. Carry a comb and tweezers to flick off cactus segments and remove spines.

What's going on

October

Al Ju:big Masad
MONTH OF PLANTING
FROST-WITHSTANDING SQUASH

Hi: 84° F
Lo: 57° F



Cactus wrens begin to build **winter nests** in cholla cactus.

November

S-ke:g S-he pjig Masad
MONTH OF PLEASANT COLD

Hi: 73° F
Lo: 45° F

Ocotillo, *Fouqueria splendens*, produces new leaves within five days of winter rainfall.

December

Ge'e S-he:pjig Masad
MONTH OF BIG COLD

Hi: 65° F
Lo: 39° F

Desert Mistletoe is bearing fruit, as is desert Christmas cactus. Look for mistletoe in dark green clumps in tree branches. Look for Christmas cactus in shady spots under trees.



(This feature adapted in part from *Southern Arizona Nature Almanac*, by Roseann Beggy Hanson and Jonathan Hanson.)