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ELSOLITARIO

TEXAS PARKS AND WILDLIFE DEPARTMENT

BIG BEND RANCH STATE PARK

Exploring the Mountains:

Kids Making Their Own Adventure in Big Bend Ranch

By Cassie Honolka

In spring 2015 seventh grade Spanish-English bilingual students from Magellan International School in Austin, TX, accomplished their Big Bend Challenge: a trip encompassing 1,126 road miles and spanning three nights and four days at the amazing Big Bend Ranch State Park!

This was the first time that Magellan students visited Big Bend Ranch as part of their service learning curriculum. The school's mission prepares children to thrive as global citizens and future leaders of the 21st century. Through Magellan's curriculum, students are equipped with the knowledge, skills and values to make informed decisions and become champions of sustainability.

The idea to visit the Big Bend of Texas first came when the

students participated in a Texas Parks and Wildlife Department's Texas Outdoor Family camping workshop. This program is designed to empower beginning campers with the skills to enjoy the outdoors safely. Park Rangers provide all the camping gear and lead activities like geocaching, kayaking, fishing and more. The program also introduces its participants to the wealth of adventure in Texas state parks.

During the students' trip to Big Bend Ranch State Park,



Eager students embark on their adventure at Hoodoos Trailhead on FM 170.

school staff wanted to offer an outdoor experience in which the students would engage in a unique learning environment and have direct contact with the nature they studied in class. Orlando Gonzalez, a bilingual elementary school teacher with Magellan, reflects on his skills as an accomplished Eagle Scout and realizes the importance of immersing yourself in nature. He states that "for many on the trip, it was a humbling experience. We were pushed out of our comfort zone and into a world in which we could only rely on each other. That was the lesson, we are not islands, sustainability and service-learning is a collaborative effort." Activities for the group included hiking, camping, bird-watching and a sensory trail hike with bare feet!

Sayuri Yamanaka, Community Outreach Sustainability/Food Manager for the school, felt that making the 27-mile trip on the rough roads leading to Big Bend Ranch's Sauceda Lodge Bunkhouse was a key ingredient for connecting students to the history of the area. Traveling and staying in the heart of the park also provided the opportunity to immerse themselves in science and ecology studies with Big Bend Ranch as their classroom. Students used their wilderness survival skills and participated in activities that facilitated the school's core values of global mindfulness, respect, diversity and collaboration.

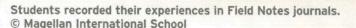
Simón Calderón, a student who attended the trip, says his

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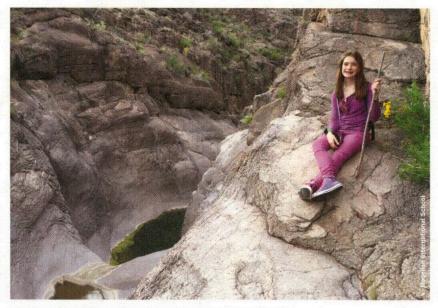
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biggest challenge was climbing down the mountain. In the end he realized it wasn't so hard and learned to overcome the obstacle. Another valuable lesson he shared was that by drinking too much cactus juice, you just might get a stomach ache. Sometimes you have to learn things the hard way. In the future he hopes to learn how to put up his own tent.

Sayuri, Orlando and other staff at Magellan plan to mentor these students as they use their experiences from the trip to create a Spanish-English bilingual guide for future students that visit Big Bend Ranch State Park.

Benjamin Johnson, a student on the trip, recalls his adventure: "I liked this trip because it

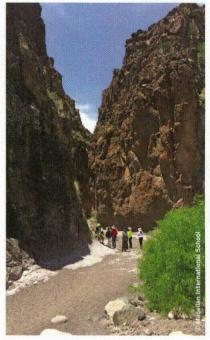
Exploring the Mountains



Student Anishka enjoys the view near Cinco Tinajas.

was a great opportunity of exploring and hiking the mountains. I learned more about team building, survival in the wilderness and a little more about my classmates. I want to learn more about the history of how these mountains formed. I want to explore more about the area's animals and the journey of Big Bend Ranch to becoming a state park."

No doubt these kids are forever changed by their experiences in Big Bend Ranch. They've seen the stars twinkle in some of the



Hiking to Closed Canyon provides new wonders with every turn.

darkest skies in the country, smelled the fresh spring creosote and embarked on an adventure that was surely more epic than they had ever imagined.

El Solitario: What's in a name?



Aerial view of Solitario looking north-northeast

El Solitario is obviously quite special to the park as the newsletter you hold in your hand bares its name. But what does it mean? Spanish for "hermit" or "loner," El Solitario is THE signature landscape feature of Big Bend Ranch State Park. Almost 10 miles across and nearly symmetrical, this collapsed and eroded volcanic dome straddles the Brewster and Presidio county line in the eastern portion of the park.

About 36 million years ago, magma from deep within the Earth pushed upward and displaced thousands of feet of overlying rock. This activity created a blister or dome-shaped bulge on the Earth's surface. Over millions of years, erosion collapsed the dome's older rocks. Subsequent volcanic activity further removed overlying rock, collapsed some of the lava chamber and formed a small caldera in the central-southeast Solitario.

The Solitario, as we see it today, emerged about 2 million years ago when the ancient Rio Grande began cutting its now famous canyons. Eons of erosion exposed some of the Earth's most ancient rocks including shales, sandstones and cherts in Solitario's core. These rocks are deformed, uplifted and eroded remains of the Ouachita Mountains, which predate the Rockies. Massive limestones that were seafloor deposits were uplifted during the Rocky Mountain building period of Earth's history.

These deposits now form the Solitario's outer rings. The entire southwest quadrant of the Solitario has steeply inclined inverted V-shaped rocks called "flatirons."



Flatirons

There are several places in the park to experience the full visual impact of the Solitario. Solitario Overlook is a few miles past Sauceda and is accessible by 2WD vehicles. Fresno Overlook on FM 170 between Lajitas and the Teepee Picnic Area offers a great view in late afternoon. For a closer look you'll need a 4WD high clearance vehicle, to reach the Mexicano Trailhead. A short hike will give you spectacular Solitario vistas. The interior of the Solitario can be accessed via a 4WD high clearance road to the Tres Papalotes Trailhead. Make sure to chat with a Park Ranger on latest road conditions and obtain a more detailed map.



What is there to do at Big Bend Ranch State Park? The sky's the limit! Whether you are seeking high adventure or some relaxation and solitude, the park has plenty to offer. Bring your own gear, or contact one of the outfitters listed. For print materials, go to www.tpwd.texas.gov/ bigbendranch or inquire at one of the park visitor centers.

CERTIFIED COMMERCIAL GUIDES AND OUTFITTERS

Laijtas, Terlingua

Big Bend River Tours 432-371-3033 • 800-545-4240

Desert Sports

432-371-2727 • 888-989-6900

Far Flung Outdoor Center 432-371-2489 • 800-839-7238

Lajitas Stables 432-371-2212 • 800-887-4331

El Paso

Western Spirit Cycling 800-845-2453

Presidio, Redford

Angell Expeditions
432-229-3713

Make the Most of Your Visit

Horseback Riding

Many of the park's trails and campsites are suitable for equestrian use, with corral facilities and water available. All pack and saddle stock users must obtain a backcountry use permit and bring their own weed-free feed. All horses are required to have documentation of a current Coggins test.

River Access

The Rio Grande provides opportunities for rafting, kayaking, canoeing and free bank fishing. Several river access points are found along FM 170. Colorado Canyon includes Class II and Class III rapids—not considered dangerous under normal flow conditions.

Vehicle Touring

The main entrance road into the interior of BBRSP takes you through the west entrance, "Botella Junction," and on to Sauceda Ranger Station.

The road to Sauceda is a well-maintained dirt and gravel thoroughfare that requires slow speeds and is suitable for 2WD vehicles. It is not recommended for large RVs or trailers. From River Road/FM 170 it is about 27 miles to Sauceda Ranger Station through world class scenery that you won't forget.

Various side roads within the park require high-clearance and/or four-wheel drive vehicles. Park staff can advise you where to travel, depending on your type of vehicle and interests.

For a pleasant paved driving experience, follow River Road/FM 170 from Barton Warnock Visitor Center to Ft. Leaton State Historic Site or vice versa. You'll encounter gorgeous vistas and short day hikes from this road.

Hiking

There are many, many miles of hiking for all skill levels in this over 300,000-acre park. Trails can be accessed from Sauceda Ranger Station in the interior of the park as well as off of FM 170. Different trails lead to amazing vistas, tinajas (rock basins that sometimes carry water), ancient rock art, cottonwood groves, waterfalls, desert springs, historic ranch homes, deep canyons and more.

With Big Bend Ranch's abundant wildlife and desert vegetation, interesting rock formations and geology and long history of use by humans, we know you will not be disappointed by your adventures on foot. Consult a Park Ranger for latest trail conditions and review the safety notes on page 8. For descriptions of some popular hiking trails, check out the article on page 9.

Mountain Biking

The park offers hundreds of miles of routes for all skill levels. One popular venue is the Contrabando System (series of trails), which is best accessed from the east side of the park near the Barton Warnock Visitor Center off of FM 170. Interpreted sites along the route include the remains of a candelilla wax camp, a cinnabar mine, and an historic ranch. Ask for the special map that covers this trail. Remember that a helmet is a must.

The International Mountain Biking Association (IMBA) has designated the Fresno-Sauceda Loop Trail as an "Epic" ride – one of fewer than 50 in the United States and Canada. Mountain Bike Hall of Fame inductee Hill Abel describes the trail as "a huge day in the saddle and super challenging." A highlight along the way is the historic Crawford-Smith Ranch. Ask a Park Ranger for an interpretive brochure about this site for more information.

The Horsetrap Bike-and-Hike Trail is easily accessible from Sauceda Ranger Station. The degree of difficulty ranges from moderate to downright challenging. A 200-yard portion of the trail is particularly sandy. Enjoy the solitude and the scenery "off the beaten path."



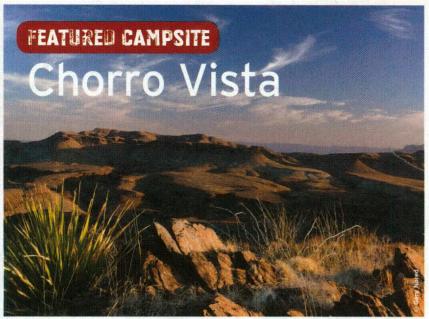
Backcountry Zone Camping



There are no designated campsites in the backcountry zone. Backcountry camping allows overnight visitors to select their own primitive campsite, based upon certain conditions:

- At least 1/4 mile from any other existing campsite
- At least 300 feet from water sources and prehistoric or historic cultural sites
- At least 3/4 mile from trailheads or roads

Backcountry campers may use the "cathole" method to dispose of human waste and must pack out all trash. No open fires are allowed due to resource impact; use of containerized fuel stoves is permitted. Permit and in-person orientation required.



View from Chorro Vista to the southeast with Mexico on the far horizon

By Blaine Hall

The Chorro Vista Campsite is located as far as you can drive into the remote southeastern highlands of the park. Climb up on the small ridge to the east, just above the campsite, and the view below you is filled by Fresno Canyon as it meanders to join the Rio Grande. Further to the east and southeast are the Contrabando Lowlands, with all its color variation and irregular landscape. Turn and look to the south and across Chorro Canyon. While to the west, you can peer back into the core of the Bofecillos Mountains and the way you came in. To the north is the imposing. dark Rincon Mountain and last but certainly not least, to the northeast is the flank of El Solitario with its triangular "flatirons" etched against the horizon. 360 degrees of incredible desert vistas.

If you want a closer view of the area, take off from the Chorro Vista trailhead just back up the road from the campsite parking area. This system of trails will

lead you to overlooks of Madrid Falls the second highest in Texas, the Madrid House at the bottom of Arroyo Primero, or across the lower mesa for a closer look into Fresno Canyon where segments of the old Marfa to Terilingua freight road passes by the historic adobe ruins of the Crawford-Smith House.

About 0.2 miles back up the road from the campsite, head off to the north and over to the Mexicano Falls Trailhead. From there you have access to additional trails, including a short 0.8 mile hike to the overlook of Mexicano Falls the third highest falls in Texas. Pick up a free copy of the Fresno West Rim map when you check in at Sauceda Ranger Station or any of the park's visitors centers.

What's special about this site?

- Remoteness and solitude
- Unbelievable views
- · Extensive hiking opportunities
- Darkest night skies in Texas

View the Crawford-Smith House and the Marfa to Terilingua freight road



View of the flatirons of El Solitario at sunset

Getting There

Pick up an Exploration Map for reference

South from Sauceda on Javelin Road to Madrid Falls Road: 4.7 miles

Follow Madrid Falls Road to all the way to Chorro Vista Campsite: 4.9 miles

Check with park staff on latest road conditions and more specific directions.

GPS Coordinates

UTM 13 Easting: 608347 UTM 13 Northing: 3251182

Latitude DD: +29.3852056 Longitude DD: -103.8834694

Latitude DMS: 29 23 06.74 N Longitude DMS: 103 53 00.49 W



View across near vertical walls of Chorro Canyon to the south of Chorro Vista

BE AWARE: For your safety and welfare

Many wonderful animals live here and play a vital role in the balance of nature. You are a quest in their home. By learning about the park's wildlife and observing the following tips, you can show them the respect they deserve while keeping yourself and your family safe.

Rattlesnakes are especially common at Big Bend Ranch.

Watch where you put your hands and feet. Never harass or attempt to handle a rattlesnake—this is when most bites occur. Rattlesnakes are protected in the park; do them no harm.

Never feed wildlife or allow them to get human or pet food.

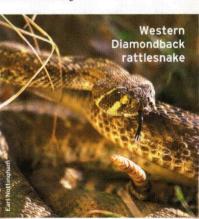
Observe wildlife from a safe distance; never approach or try to photograph them at close range.

Keep children and pets under your control at all times.

Clean up and store food and garbage immediately after meals; never keep food in your tent.

Enjoy the outdoors with others, not alone.

In the unlikely event that you encounter a black bear or mountain lion, do not run. Instead, face the animal, make noise and try to look as large as possible. Pick up small children. Back away slowly. If attacked, fight back. Report sightings to park staff immediately.



In the unlikely event that a snake bite occurs:

- · Remove jewelry and loosen tight-fitting clothing.
- · Wash the bite area with disinfectant.
- · Keep the person calm and quiet.
- · Limit movement if at all possible.
- Watch for symptoms of shock.
- Seek medical attention immediately.

BIG BEND RANCH STATE PARK FEES AND VISITOR SERVICES

Daily entry fee: \$5 (peak season) and \$3 (non-peak season) per person per day for all 13 years and older

Standard Vehicle Campsite: \$8 per site/day Backcountry

Zone Camping: \$5 per night/site Horse Entry Fee:

\$2 per day/horse

No dump station in park. No hook-ups in park.

Lodging

The interior of the park offers
Sauceda Lodge Bunkhouse accommodations as well as rooms in the
historic Sauceda Ranch House. For
reservations or more information
call (512) 389-8919 from 8:00 a.m.
to 6:00 p.m. Monday through Friday
except major holidays.

Airstrip

Big Bend Ranch paved airstrip 3T9 103-56-11.7030 W 29-28-10.6840 N

Elevation: 4250 feet Length: 5500 feet

Park Information and Permits

Park information and permits for day use and camping (subject to availability) may be obtained in person from 8:00 a.m. – 4:30 p.m. The BBR complex park headquarters are only open during these hours.

Sauceda Ranger Station

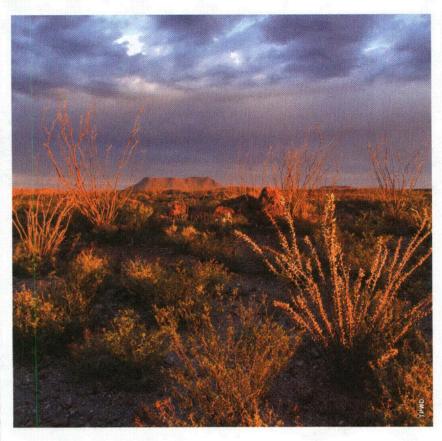
Park interior (432) 358-4444

Barton Warnock Visitor Center

Lajitas (432) 424-3327

Fort Leaton State Historic Site

Presidio (432) 229-3613



Park Information and Permits, continued

Special-use permits are required for use of Primitive Road and all camping. Day Use visitors are required to obtain a special-use permit for motorized use of primitive roads.

Campsite and backcountry reservations may be made in advance by calling (512) 389-8919 between 9:00 a.m. and 6:00 p.m. Monday through Friday (except major holidays).

Use Zones

Front Country Zone is defined as those lands within approximately one-quarter mile either side of the designated 2WD roads. All street-legal and licensed vehicles are permitted in this zone. Overnight use may occur only at designated campsites, with the required, special-use permit.

Primitive Road Zone is defined as lands within one-quarter mile either side of designated 4WD or 2WD high-clearance roads. Motorized vehicle access to this zone is restricted to street-legal and licensed vehicles. Overnight use may occur only at designated campsites, with the required, special-use permit.

Backcountry Zones are defined as lands that are more than one-quarter mile from publicly accessible roads. Twenty separate zones have been defined. Only non-motorized travel is permitted. Visitors are encouraged, though not required, to use designated trails and routes until they are knowledgeable and confident enough in their familiarity with the park to travel cross-country.

Important: Orientation

Front Country Zone Day Use Only

Appropriate orientation materials will be provided, depending on the visitor's intended activities and areas of interest at the park.

Primitive Road or Backcountry Zone Day or Overnight Use

The viewing or reviewing of comprehensive orientation materials and information is required. This material will introduce the park, the Chihuahuan Desert, safety, water use, vehicle requirements, land ethics, etc. Orientation is required annually.

No gas, diesel or groceries available in park.

EMERGENCY SERVICES

Cell phone service in the park is unreliable and limited.

In the interior of the park 9-1-1 service may be several hours away, but if you have cell phone signal call 9-1-1 to alert the proper authorities. Be sure to provide details of your location.

If in the interior of the park go to or call Sauceda Ranger Station for help: (432) 358-4444

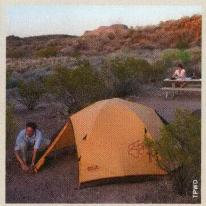
If camping along FM 170 go to or call Barton Warnock Visitor Center: (432) 424-3327







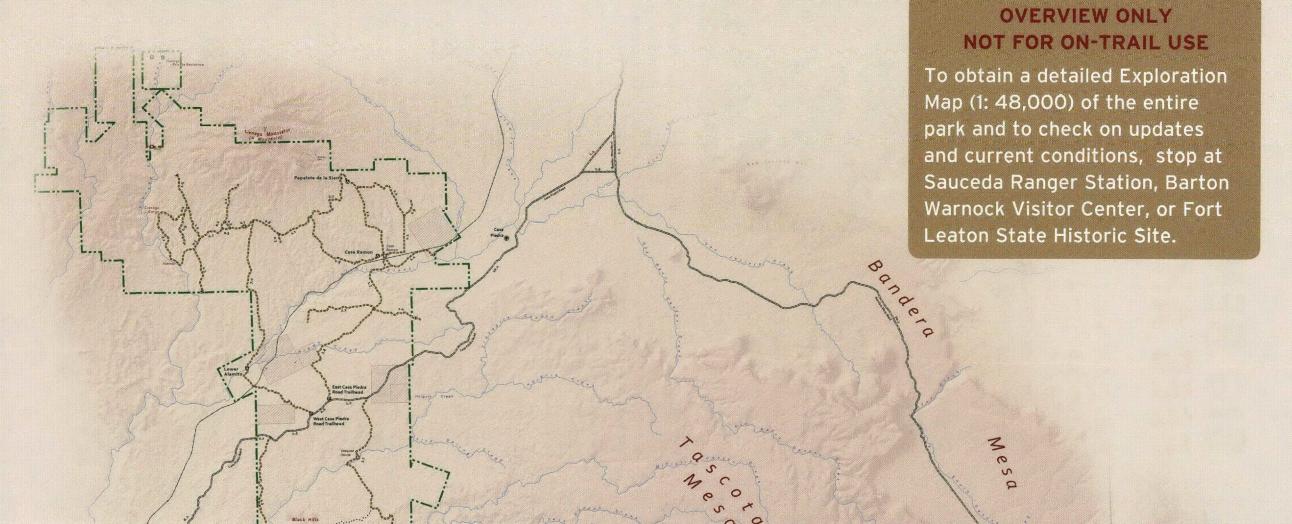








TEXAS PARKS & WILDLIFE STATE PARK





BIG BEND RANCH STATE PARK ACCESS AND VISITOR SERVICES

Vehicle-accessible Camping

The interior of Big Bend Ranch has over 40 campsites to choose from. They range from a few miles from the headquarters to the far reaches of the park. Along FM 170 there are 4 campgrounds with multiple sites.

Campers are required to place tents in designated areas only. Desert resources are fragile. Important: All visitors are required to haul out their human waste and pack out all trash.

Portable privies are available for purchase at all permit-issuing stations.

Downed wood is critical to desert ecology. Gathering firewood is prohibited, but visitors may bring their own. Charcoal cooking fires and containerized fuel stoves are allowed. Ashes must be packed out or deposited in the fire ring.

The maximum stay per permit is 14 nights.

Individual Campsites

- Up to 8-person occupancy
- 3-vehicle limit

Group Campsites

- Up to 12-person occupancy
- 5-vehicle limit

Equestrian Staging Campsites

- Up to 24-person occupancy
- 12-vehicle limit

Campsites at Campgrounds

• 3-vehicle limit

Pets

Pets are not allowed on hiking trails (except Closed Canyon Trail and Hoodoos Trail on FM 170), in the backcountry, or more than 1/4 mile from campsites or roads. Always keep pets on a leash and pick up after them. Never leave pets unattended or allow them to approach wild animals or livestock.



Road conditions are affected by rain and runoff and will vary widely. Check with a ranger for conditions on arrival.

Know Your Vehicle

Some roads are suitable only for high-clearance or four-wheel-drive vehicles. If you have any questions about the roads or the suitability of your vehicle, consult a park ranger.

- Two-wheel-drive (2WD): main road and some spurs that any highway-worthy vehicle, driven responsibly, can access.
- Two-wheel-drive, high-clearance (2WDHC): roads where extra clearance is required due to road conditions (rocks, steep dips, etc.).
- Four-wheel-drive (4WD): recommended where extra traction is required on steep, loose or soft ground. Includes all-wheel drive (AWD).
- Four-wheel-drive, high-clearance (4WDHC): primitive roads harsher than 4WD, where passage requires vehicles with extra traction, rigid suspension and high clearance.

High clearance is considered a minimum of 8 inches.

Rules for the Road Less Traveled

Park roads are dirt and may be narrow. Speed limit is 25 mph on primary park roads. Drive slowly to keep yourself, your passengers, your vehicle and the park's animals safe.

When should 4WD be engaged? Generally speaking, once you leave the maintained road, shift from 2WD into 4WD and leave it there until returning to the maintained road. Use 4WD low before you need to negotiate any really difficult obstacles.

Take care of your tires. On primitive roads, the number one trouble is tire failure, often sidewall punctures. Drive slowly and watch for sharp rocks, sticks and cactus. Carry fix-a-flat, a lug wrench, hydraulic jack and tow strap. A good spare is essential; two spares are recommended.

Always carry an extra 5 gallons of water.

Beware of brush. The woody bushes of the desert are extremely hard and can produce nasty scratches in your vehicle's paint.

NOTE: A special-use permit is required for travel on all BBRSP roads $\ensuremath{\mathsf{2WDHC}}$ and beyond.

Enjoy the Park (and live to tell about it)

The beauty of Big Bend Ranch lies in its rugged remoteness. You are responsible for your own personal safety while at the park. Stay alert, read posted materials and consult a ranger for advice.

Stay cool. Desert heat can kill, and sunburn is no fun. While enjoying the park, be sure to use sunscreen. Wear a long-sleeved shirt, long pants, a broad-brimmed hat and sunglasses. Avoid strenuous outdoor activities during the hottest part of the day. Always drink plenty of water.

Water is life. If you wait until you're thirsty to drink, you've waited too long. Carry and consume at least 1 gallon of water per person per day to avoid dehydration. Drinking water is available at the visitor center.

Weather the weather. In a lightning storm, seek shelter inside a building or a vehicle with a roof. Do not stand under trees or in shallow caves, and avoid high ground. Stay away from water, wire fences and metal railings, which can carry lightning from a distance.

Stay high and dry. Dry creek beds can quickly become raging torrents due to rainfall far upstream. Be cautious when hiking in streambeds. Never cross rain-swollen creeks or washes. Be aware that temperatures can fluctuate by 50 degrees per day at the park, and dress accordingly. Stay dry to prevent hypothermia.

Don't go it alone. Tell someone your plans and estimated return time. Avoid exploring alone. Cell phone service is spotty at best; do not rely upon it. Always have plenty of water and food with you.

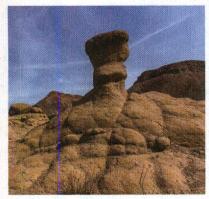
WELCOME, SEAN AND NATE



Sean Dugan is the new Site Superintendent for Big Bend Ranch State Park. He's always loved nature, learning about it and has a passion for sharing that excitement. Sean completed a bachelor's and master's in Environmental Science at Texas Christian University and Stephen F. Austin State University, respectively. Sean feels that what makes BBRSP so special is the multi-use approach to wilderness. It does not matter whether you are on foot, on horseback, on two or four tires. You are welcome. This makes the park unique and he's glad to be a part of bringing this experience to the public.



Nate Gold is the new Complex Superintendent of Big Bend Ranch State Park, Fort Leaton Sate Historic Site and Barton Warnock Visitor Center. He's originally from the Dallas area and his love for the outdoors started when he was young — camping, hiking, biking, hunting and fishing. He graduated from Texas State University. Nate is a sergeant in the Marine Corps (reserves now) and has worked in state and national parks for 7 years. Working at BBRSP has long been a dream of his! He and his wife Robyn are excited to get involved in the community.



Hoodoos Trail



Ojito Adentro Trail



On the Fresno Divide



Closed Canyon

FEATURED HIKES

The Trails of Big Bend Ranch

By Amber Harrison Photos: © Gary Nored

Big Bend Ranch State Park contains over 300,000 acres and boasts some of the most rugged and remote public land in the state. Multi-use trails open to hikers, equestrians and mountain bikers allow access to many remote areas within the park. Our mission is to capture the spirit of the land by offering trails that are scenic and peaceful, yet offer a natural and wild outdoor experience.

There are two options for accessing many of the trails. One option is for trails off of the paved highway River Road/FM 170. The other trails are off the unpaved Main Park Road into the interior of Big Bend Ranch – Sauceda Ranger Station.

Some of the park's trails are suitable for hiking only, while others are more appropriate for mountain biking and horseback riding. There are opportunities for everyone! Chat with a Park Ranger to develop an itinerary and refer to maps for the adventure that best suits your needs and abilities. The following are descriptions of the most popular trails in the park. See the quick reference table of trails at Big Bend Ranch State Park.

		Approximate Round Trip		
Trail Name	Trailhead Location	Distance in Miles	Difficulty*	Recommended Use
Contrabando Multi-use System	FM 170	25+**	easy-difficult	hiking, mountain biking, horseback riding
Rancherias Loop	FM 170	21	difficult	hiking, horseback riding
Closed Canyon	FM 170	1.4	easy	hiking
Hoodoos	FM 170	1,1	easy	hiking
Ojito Adentro	Main Park Road	0.8	easy	hiking
Cinco Tinajas	Main Park Road		easy	hiking
Leyva Escondido Spring Loop	Main Park Road	4	moderate-difficult	hiking
Horse Trap	Main Park Road	4.3	easy-difficult	hiking, mountain biking, horseback riding
Sauceda Nature Trail	Main Park Road	0.9	easy-moderate	hiking
Encino Loop	Main Park Road	7.2	easy-moderate	hiking, mountain biking, horseback riding
Fresno Rim Overlook	Main Park Road (to Llano Loop Rd.)	5	easy-moderate	hiking, horseback riding

^{*} Difficulty ratings will vary for each user group. Always consult a Park Ranger or local outfitter about routes, trail and weather conditions and obtain appropriate maps and permits before heading into the park.

Trails Accessible via Paved Highway FM 170

Contrabando Multi-use System:

The East and West Contrabando
Trailheads are the two main access
points to this system. It is made of up
of over 25 miles of interconnected trails
of varying difficulty that expose you to
some spectacular natural and cultural
landscapes in the park. Educational
waysides interpret ruins you'll see on
the trail.

Rancherias Loop Trail: Rancherias is a challenging, 21-mile-long loop. It begins at the East Rancherias Trailhead and ends at the West Rancherias Trailhead. It ascends from lower elevations near the Rio Grande through the rugged canyons of the Bofeeillos Mountains. Natural springs with fairly reliable water, riparian habitats and historical-period ruins will be encountered along the way.

Closed Canyon: This is a short hike into a narrow slot canyon. The high walls of the canyon guide you along the way, progressively becoming narrower as the canyon trends towards the river. Because the canyon walls are so tall and narrow, little sunlight reaches the floor and the temperature in the canyon is substantially cooler than out in the exposed desert for most of the day. A great retreat from the summer heat and a perfect hike for a family. Be weather wise! Flash flooding may occur. Leashed dogs are allowed on this trail.

Hoodoos: This site is named for its unique geological features called "hoodoos." The word hoodoo originated in Africa and refers to what they believed were strange animal shapes in the rocks and embodied evil spirits. A short trail leads you to a series of hoodoos, along the bank of the Rio Grande. Another great hike for a family with children. Leashed dogs are allowed on this trail.

Trails Accessible via Unpaved Interior Main Park Road

Ojito Adentro: This short trail leads to lush springs and a seasonal waterfall that features a distinctive community of riparian plants and animals. The springs have been an important resource for people and wildlife throughout history. Ojito Adentro is one of the top birding sites in the park.

Cinco Tinajas: Tinaja is a Spanish word for a rock basin that usually holds water. At this site you will see five tinajas just a short hike from the trailhead. These pools contain water most of the year which makes them unusual features in the desert. These tinajas and nearby springs support many species of plants and animals and have been an important resource for people throughout history.

Leyva Escondido Spring Loop: This challenging trail takes you beyond Cinco Tinajas to Leyva Escondido Spring via Leyva Creek. This trail will take you past a Native American rock art site and up to a vista with 360-degree views of Leyva Canyon.

Sauceda Nature Trail: This trail passes through country that is typical of the Chihuahuan Desert and Llano area of the interior park. It traverses a ridge composed of lava like that found in the Bofecillos Mountains to the west. Signs along the way identify some of the plants common to the region. From the trail you will enjoy outstanding views of La Mota Mountain and the historic Sauceda complex.

Horse Trap Trail: This trail is a combination of decommissioned double-track and single-track with gentle grades and outstanding views of the rolling hills and low mesas of the central interior of the park.

It is named for its proximity to Horse Trap Springs, once used to supply the Sauceda complex with drinking water. The trail itself runs through an old pasture where horses were kept during the early years of the ranch.

Eneino Loop: This is a combination of double-track, single-track and graded dirt road. Short stretches of access roads connect the Encino and Powerline Trails to form a loop. The terrain consists of the low rolling hills and mesas that are characteristic of the central interior portion of the park.

Fresno Rim Overlook: This is a combination of double-track and single-track trail that leads to a 700-foot cliff overlooking Fresno Canyon with views of the flatirons of the Solitario. An extremely difficult trail descends down the cliff to Fresno Canyon Road, but should not be attempted as a day hike or by the inexperienced.

^{**} This is a system of trails with many routes both short and long. Consult a Park Ranger to plan your trek.

Archaic people baked the stems of sotol for food.

Today visitors to the Big
Bend of Texas travel great
distances to marvel in the
scenic vistas of deep canyons
and high mountains, but are
by no means the first people
to do so. This unforgiving
landscape is now Big Bend
Ranch State Park and has
been occupied for thousands
of years. In such a desolate,
dry, foreboding place, how did
they manage to survive?

ARCHEOLOGY, HISTORY AND CULTURE

Archaic People of the Big Bend: Desert Survivalists

Article, photos and illustration by Tim Gibbs

A single ancient technology transformed the prehistoric Chihuahuan Desert from a seemingly empty wasteland to a veritable supermarket with delicious edibles as far as the eye could see. Today archeologists refer to the physical remains that they left behind as earth ovens, mescal pits, roasters, and burned rock middens, but each is a variant of what we can collectively refer to as the "Archaic Adaptation."

In its most simple form, the Archaic Adaptation involves the use of a pit lined with heated rocks to slowly cook the succulent stems of sotol and lechuguilla, which are very common in the Chihuahuan

Lechuguilla was also used for food.

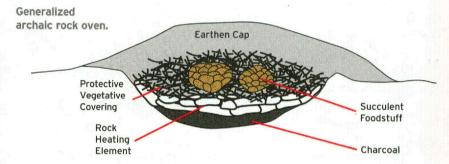


Desert, for upwards of 48 hours. By processing these plant resources in this way, what is bitter and toxic in its raw form is transformed into a carbohydrate rich staple.

Recent work conducted by the Center for Big Bend Studies on the neighboring O2 Ranch in Brewster County, suggests that the earliest use of this technology may date back to 11,000 years ago. These features were used to process desert succulents well into the late 19th century.

Since written word did not enter the Big Bend until the 16th century, we do not know the names of the people who left behind these piles of burned rock. Later groups that we suspect utilized this technology include the Chisos, the Jumanos, the Conchos, the Paterabuyes and the Apaches. Most notable of which were the Mescaleros who took their name from the mescal (agave) that they cooked in pits.

Plants cooked in this manner typically would not have provided enough calories to generate surplus so ancient groups had to keep moving to locate new sources of water, fuel for cooking and plants. We see evidence of these archaic people throughout the ranch. Help us to protect the evidence of the rich lives of these ancient peoples by respecting the artifacts that they left behind and leave them where you find them!



VOLUNTEER OPPORTUNITIES

Get Involved with the Park!

By Mike Slaton, Communications Chair, Compadres del Rancho Grande, Houston, Texas

Love what you see? Blown away by Big Bend Ranch?

We've all experienced the same. In fact, we never lost that feeling. You can do it too, through the park's official friends group.

Lots of things out here leave a mark – and we're not just talking about the sun, the prickly vegetation, or miles of rugged road and trail. Every turn of the scenic River Road and jagged fold of the Solitario flatirons leaves an imprint on your mind. A quiet pool of clear water in a shaded tinaja and the rustling of cottonwood trees can leave you breathless. The biggest state park in Texas will fill your heart and, if you are like us, mark you forever.

You may find yourself standing amidst all this magnificent beauty wondering, "how can I hold onto this feeling? How can I help preserve this special place?" Let us help you accomplish that!

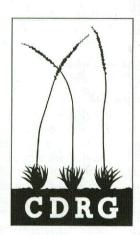
Since 2009, a hardy group of volunteers have worked to make the park even better.

You can see our handiwork everywhere — from trail maintenance to hosting extreme cross-country running and biking events. We also help publish the El Solitario newsletter that you hold in your hands. Our mission is to help improve park facilities and aide in restoration efforts.

We are the Compadres del Rancho Grande (CDRG), "Friends of the Big Ranch," and we're easy to spot by the great big smiles on our faces. As the official, non-profit group supporting the Big Bend Ranch State Park complex, which includes Barton Warnock Visitor Center and Fort Leaton State Historic Site, we help the Texas Parks and Wildlife Department complete projects on this great big chunk of landscape by acquiring donations and our boots-on-the-ground efforts. That my friends, is a tall order!

Due to the vastness of this country, there's always work to be done. We need your help!

Join us. Connect with us. Friend us. Donate your time or money. Be a part of it all.



COMPADRES
DEL RANCHO GRANDE

Every step you take to support CDRG moves us forward, and builds a little place in your heart for the wind to blow, the sun to shine, and the birds to sing. Big Bend Ranch SP belongs to you!

HOW TO GET INVOLVED:

Donate your dollars, time, and love. Become a member at the CDRG website at www.parkfriends.org. Friend us on Facebook at Friends of Big Bend Ranch State Park. Or call us at 432-386-6929.

ART AND HISTORY

Sauceda Unicorn

By Mike Slaton, Compadres del Rancho Grande

Several people have spotted the Sauceda unicorn and we can guarantee that many more will. See it for yourself. It can be found in the middle of the ranch, a mystery lost in time.

Hanging on the dining room wall in Sauceda Ranch House is the mythical horse with a spiral horn. The unicorn is depicted in an 80 x 50-inch oil painting based on a 1490s Dutch tapestry named The Hunt of the Unicorn which is displayed in the Metropolitan Museum of Art in New York.

When exactly the replica, The Unicorn Defends Itself, came to hang at Sauceda and who painted it is unknown. With raised hooves, surrounded by hunters it is impressively faithful to the original, but has new scenery added to each side to widen the painting. Over the years many



The Unicorn Defends Itself

guests seated at the long dining table have likely pondered its

Although the exact date of the house's construction is unknown, the first recorded landowner, George A. Howard, probably built a structure in this area between 1905 and 1908. In 1915 the Bogel Brothers acquired the property. When Gus and Maude Bogel lived here, the house had only two bedrooms, a bathroom, and one fireplace located in the living room.

Manny and Patricia Fowlkes occupied the house in the late 1930s and filled it with furnishings that Patricia's father, Maco

Stewart, provided as a wedding gift. The couple had six children and expanded the main house during 1950 and 1951 to make room for the large family.

During the mid-1970s Robert Anderson planted palm trees and encircled the house and yard with low adobe walls. When used as a hunting lodge during the 1980s, the house emphasized leisured outdoor living: screens enclosed the porch, colorful tiles from Chihuahua City, Mexico covered the porch floor and a grape arbor provided shade and decoration on the east side of the house.

Because we don't know when The Unicorn Defends Itself arrived on the ranch, we can only imagine which of these families brought it to rest here. But we can be sure that with its multiple bedrooms, a full kitchen, and screened porch with views, Sauceda is an oasis of luxury in its desert environment available for rent by park visitors.

Ask the Ranger at the front desk for details, read more at www.tpwd.texas.gov/ bigbendranch/ and make reservations by calling 512-389-8919.

Reported Dinosaur Sightings By Mike Slaton,

Compadres del Rancho Grande



Ranger Blaine Hall talks to a park visitor about the sotol cutter.

If on the way to Guale (pronounced wah-le) Mesa, which is short for Guadalupe Carrasco who ran sheep in the area in the early 20th century, you may encounter a perplexing sight.

Its long, graceful neck peers above the surrounding sotol and creosote, head turned almost inquisitively, as if startled by your approach. Perhaps you'll do a double take, clear the sweat from your eyes and squint at it again, a dinosaur! Reaching this section of Big Bend Ranch surely feels like a trip back in time, so perhaps you are seeing one.

On closer inspection—and once your heart slows down a bit-the reality is almost as strange. Out here in the desert is a modified forage chopper. And if it moves, it's really time to rehydrate. That rusting machinery likely arrived

at the ranch in the 1950s during a period of drought. The mechanical monstrosity is referred to as a silage cutter and is a remnant of the ingenious ranchers, likely of the Fowlkes family era, who used them to prepare sotol to feed their livestock during the great drought that brought ranching in the Big Bend to its knees. The sotol would have been hand harvested, chopped into smaller pieces with a "talache" or axe and fed into the choppers to make a finer grade feed for cattle on the ranch.

Stop and take a cool drink to ponder a while on this interesting artifact, one of many historical items that dot the ranch.

Enjoy the rest of your drive to Guale Mesa!



Starry sky time lapse at Contrabando Movie Set off FM 170

Starry Night

By Cassie Honolka

"I know nothing with any certainty, but the sight of the stars makes me dream." - Vincent van Gogh

Welcome to the darkest skies in Texas! On a clear night at Big Bend Ranch you will encounter breathtaking views of the Milky Way and many other celestial bodies with the un-aided eye. Texas Parks and Wildlife Department has partnered with the McDonald Observatory located in Ft Davis, TX, and the International Dark Sky Association (IDA) to save the universe! Or at least your view of it from within a Texas state park. By reducing the numbers of and choosing better lighting fixtures we're making a big difference in how the night sky shines in our parks.

Our night skies are fading fast, at the speed of light really, as natural darkness is disappearing. An estimated 80 percent of Americans have never seen the Milky Way. The culprit: the growing glow of artificial lights. Lucky for you Big Bend Ranch has been designated a 1 on the Bortle Scale, meaning it is an excellent dark sky site and the only Texas state park with this rating!

Following what was likely a gorgeous sunset, try these tips for stargazing at Big Bend Ranch:

- 1) Use a star chart or tap into the free public Wifi at Barton Warnock, Sauceda Ranger Station or Ft Leaton to download a stargazing app. Most apps don't require a cell or Wifi signal to work once downloaded.
- 2) Travel to a darker area of the park or turn off any lights in your camp.
- 3) Let your eyes adjust to the dark for several minutes.
- 4) If you do need a light, consider using a red light and point it at the ground.
- 5) Be careful where you stand, sit and put your hands and feet! Prickly vegetation and wildlife live here too!

Ask a Park Ranger when the next night sky program is so you can learn a little more about our universe. Research how you can help reduce light pollution in your home or city. Thanks for supporting YOUR Texas state parks!

Road Trip!

By Cassie Honolka

The Camino del Rio or River Road/FM 170 between Laitas and Presidio has been labeled one of the most scenic drives in all of the United States. This 47.7-mile road is a roller coaster of 20-mile-per-hour turns, steep grades, and numerous ups and downs. Take time to enjoy the trip through millions of years of geologic time. A kaleidoscope of natural wonders awaits you on this trail of treasures.

Stop on the west side of the road at Fort Leaton State Historic Site near Presidio to learn more about the history and culture of the area during the 1800s when the Big Bend truly was the Wild

On the east side check out the Barton Warnock Visitor Center, where you can tour exhibits and a desert garden to learn more about the human and natural history of the borderlands. Ask about scheduled interpretive programs.

Along the road are many places to pull off for a picnic or scenic view. Be sure to stop at the pullout just east of La Cuesta, which offers a spectacular view of the Rio Grande as it cuts its way through the surrounding Chihuahuan Desert creating Madera Canyon. You'll be 500

feet above the river! It's a great stop for those wishing to watch an incredible sunrise or sunset. A little further east you'll find the picnic teepees which are a shady spot to rest.

Contrabando Movie Set gives you a glimpse into the filmmaking that goes on in the Big Bend. This particular set was used in several Western films.

Four campgrounds are accessible from FM 170 as well as several miles of hiking and biking trails. For a short hike consider the Closed Canyon or Hoodoos. Page 9 has more information on these and other trails.

Make sure to gas up in Presidio or Study-Butte; there are no facilities located on this portion of FM 170. This is a road trip you won't soon forget!

Rio Grande vista from the Big Hill



EL SOLITARIO

Cassie Honolka Regional Director



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Nate Gold Big Bend Ranch State Park – Sean Dugan Barton Warnock Visitor Center - David Long Fort Leaton State Historic Site – Tony Gallego



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