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ELSOLITARIO

TEXAS PARKS AND WILDLIFE DEPARTMENT

BIG BEND RANCH STATE PARK

Save Your Stars!

By Amber Harrison, Park Interpreter, Barton Warnock Visitor Center



The Milky Way as seen from the Hoodoos Trail on River Road. Courtesy of Calvin Croll.

Since the beginning of time people have been captivated by the night sky. Astronomy has driven human exploration, science, technology and art while inspiring cultures throughout the world.

We observe the night sky to reflect and gain perspective. The awe and wonder it creates deserves protection – not only for our own enjoyment, but for the health and wellbeing of the natural world.

Light pollution is negatively effecting the quality of the night sky around the world. It's caused by excessive and inappropriate lighting creating a glow that drowns out the light of the stars and planets. According to the World Atlas of Artificial Sky Brightness, artificial light now

hides the Milky Way from 80 percent of the population of the United States.

All living organisms need uninterrupted daytime and nighttime. Scientific studies show that too much artificial light at night negatively affects biological rhythms controlling hormones and regulating sleep. It also disrupts migration and reproduction in wildlife and plants.

The good news?

Thanks to the Dark-Sky Movement, an international campaign starting in the late 1980s, world-wide efforts are underway to combat light pollution.

Universities, astronomers, land management agencies, businesses, and conservation organizations across the globe have joined the campaign to raise awareness to protect the night sky.

The International Dark-Sky Association (IDA), established in 1988, is the leading dark skies advocacy organization. The IDA does not regulate lighting, rather they provide educational resources, conduct research, and produce easy-to-follow guidelines and resources to promote dark sky-friendly lighting.

What can I do to combat light pollution?

To reduce light pollution, the IDA recommends taking these easy steps:

- 1. Turn off unnecessary lights.
 This saves you money on
 your electric bill too!
- 2. Shield/direct light only on the area you need. For example, the ground right in front of your garage door.
- Use lights only as needed. Use a motion sensing light instead of one that's on all night.
- 4. Use warm-tone lights.

 Blue-tone lights mimic daylight and can be too bright.

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Save Your Stars!

(cont. from page 1)

What is appropriate lighting?

Take a look at the photo below. Glare is produced by unshielded light (left door). Properly shielded lights (right door) focus light where it's needed, making it easier to see and reducing light projection above the horizon.



Image courtesy of Bill Wren.

Where can I see the stars at Big Bend Ranch State Park?

One of the many treasures of the Big Bend is its dark night sky. Clear skies and little light pollution contribute to one of the darkest skies in the continental U.S. and definitely the darkest in Texas. Many people come to BBRSP for astrophotography and stargazing. The whole park is exceptional for night sky viewing, but the darkest parts of the park are along the River Road (FM 170). West Contrabando Trailhead, the Big Hill and the Hoodoos Trailhead are among the darkest areas in the park. Easily accessible by any vehicle, these sites offer stunning landscapes and views. For the more adventurous visitors, sites off of the unpaved Main Park Road of BBRSP's interior offer world-class views of the night sky in a more solitary and remote setting.

Visit the Dark Skies Program— TPWD website and the IDA website for more information on stargazing, dark sky conservation, light pollution and dark sky-friendly lighting.



Photo by Morteza Safataj from the Big Hill.

Thanks for supporting your Texas State Parks to continue the mission of conserving natural, cultural and night sky resources. www.tpwd.texas.gov/spdest/ programs/dark_skies/

www.darksky.org

Voyageur Outward Bound School Is Back! By Amber Harrison, Park Interpreter, Barton Warnock Visitor Center

by Amber Harrison, Fark interpreter, barton warnock visitor benter



Voyageur Outward Bound School (VOBS) specializes in outdoor education and experience-based leadership programs. Students learn backcountry skills, focusing on teamwork and communication. Participants also learn the value of being of service to one another as well as stewards of the land.

In the early 1980s VOBS started offering outdoor programs in the Big Bend. The program grew until 2009, when the Texas program was forced to close due to budgetary shortfalls.

Although the VOBS headquarters is in northern Minnesota, in 2016 they decided that it was time to return to Texas!

Three vans full of backpacks and canoes made the trip south in September and the new staff set up shop in Redford, Texas. Big Bend Ranch State Park staff provided training on the resources of the area as well as how to get around in the park.

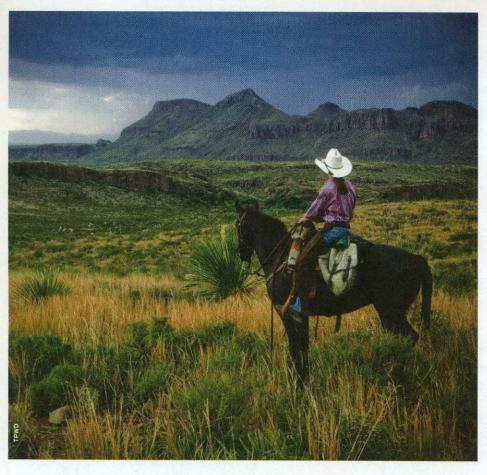
As part of their program, students and staff work with

the park on improvement projects. They assisted BBRSP staff in making progress on long-overdue cleanup projects near archeological sites as well as repaired trails on the Rancherias Loop. These services are invaluable in helping the park complete improvement projects.

VOBS also provided park staff with condition assessments for remote areas in the park. That information is then shared with park visitors.

Outward Bound school plans on returning each year and continue work in BBRSP.

Park staff would like to thank the VOBS teams and students for all their hard work!



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** OUTSITERS

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

Presidio, Redford Angell Expeditions 432-229-3713

Moab, UT Western Spirit Cycling 800-845-2453

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 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 wellmaintained 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 incredible 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 over 100 miles of trails and road for all skill levels. One popular venue is the Contrabando Multi-Use System (series of trails), which can be accessed from two trailheads in the Southeastern part of the park near the Barton Warnock Visitor Center on FM 170 in Lajitas, TX. 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 system. 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."

Your Home for the Night: **BBRSP Camping**

By Amber Harrison, Park Interpreter, Barton Warnock Visitor Center

Big Bend Ranch State Park offers many options for camping including backcountry, primitive, and equestrian sites. Primitive and equestrian sites are accessible with a motorized vehicle. Backcountry sites are not accessible with a motorized vehicle. Some roads require four-wheel drive and/or high clearance.

Because BBRSP is so large it is not always easy to know what type of site is best for you. The descriptions below provide a quick reference to help you choose the right site for your adventure.

Backcountry: These sites are intended for self-supported hikers, bikepackers and equestrians. There are no designated campsites in the backcountry. Overnight visitors select their own site along the way. Sites must be at least 3/4 mile from any trailhead or active road. All water, food and supplies must be carried in. Park orientation, Special Use Permits and trip itineraries are required from a park visitor center. Reservations are not required for a backcountry site.

Primitive Campsites (vehicle accessible): These are designated campsites along FM 170 and in the park interior. These are referred to as "primitive" because they have limited amenities. Most sites have a fire ring, picnic table and shade structure. These include single occupancy and group campgrounds. Group campgrounds have multiple sites in one large area with a composting toilet, but no

running water. Single occupancy sites only have one site and do not have a toilet. All waste must be packed out if a toilet is not available. Up to eight people and two vehicles are allowed at each site. Additional vehicles can be added for a small fee. None of the access to the sites in the interior are paved and some require four-wheel drive. A detailed campsite guide is available at our ranger stations or online at http://tpwd.texas. gov/publications/pwdpubs/ $media/pwd_bk_p4501_2059.pdf$

Equestrian Campsites (vehicle accessible): These sites have corrals, shade structures and fire rings. You must obtain the appropriate permit and bring your own feed. All equestrian sites are accessible via unpaved roads in the park interior. This rugged country is hard on horses - you and your horse must be physically fit. Call the park ahead of time to ask about the availability of water at your site.

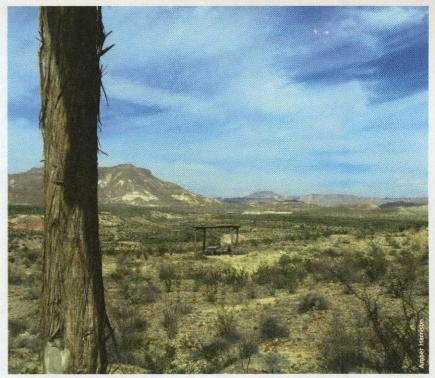
Rancho Viejo Campsite



Upper Madera Campsite



There are no self-pay options for camping at BBRSP. All sites need to be paid for at one of the ranger stations. Site reservations can be made in advance by calling (512) 389-8919 or in person the day of check-in at any of the ranger stations. While the park rarely fills, reservations are recommended. Allow additional time for completing Special Use Permits if needed.



West Contrabando Campsite

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 guest 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.

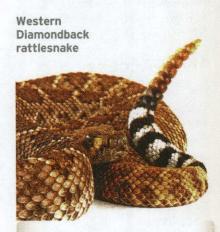
Keep children and pets under your control at all times.

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
- 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 vears and older

Standard Vehicle Campsite: \$8 per site/day Backcountry 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. For reservations or more information call (512) 389-8919 from 8 a.m. to 6 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 from the BBR complex park headquarters during the hours below.

Sauceda Ranger Station

Park interior (432) 358-4444 8 a.m. to 6 p.m. Closed Christmas Day

Barton Warnock Visitor Center

Lajitas (432) 424-3327 8 a.m. to 4:30 p.m. daily

Fort Leaton State Historic Site

Presidio (432) 229-3613 8 a.m. to 4:30 p.m. Closed Christmas Day

FOLLOW US!

Big Bend Ranch State Park

on Facebook and Instagram

Fort Leaton State Historic Site

on Facebook





EMERGENCY SERVICES

Cell phone service in the park is unreliable and limited.

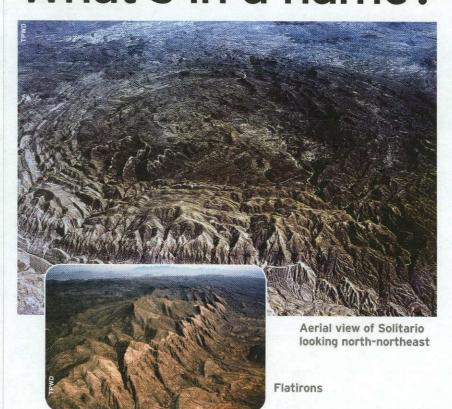
In the interior of the park 9-1-1 service may be several hours away, but if you have cell phone signal call 9-1-1 to alert the proper authorities. Be sure to provide details of your location.

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

No gas, diesel or groceries available in park.

El Solitario: What's in a name?



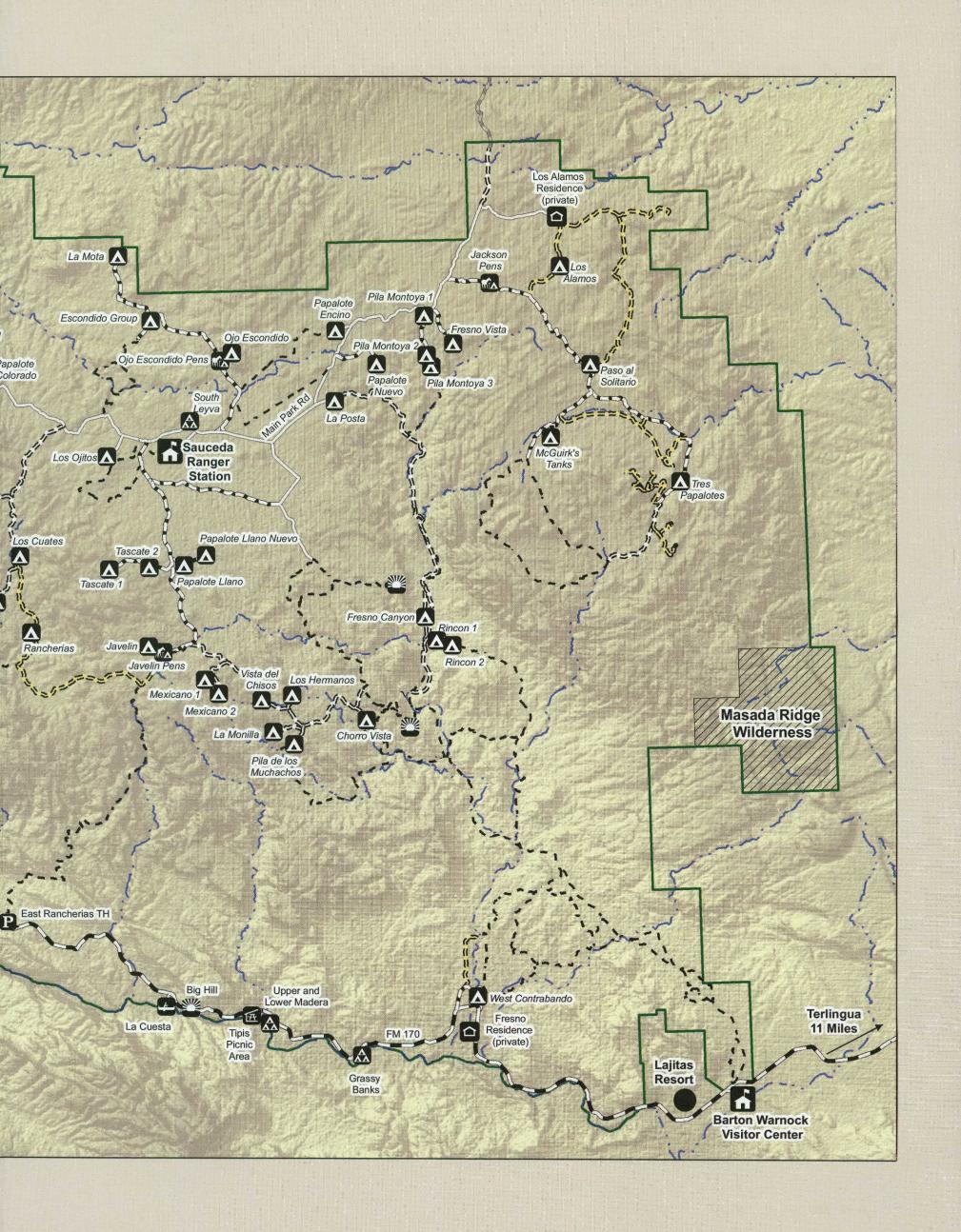
El Solitario is obviously quite special to the park as the newsletter you hold in your hand bares its name. But what does it mean? Spanish for "hermit" or "loner," El Solitario is THE signature landscape feature of Big Bend Ranch State Park. Almost 10 miles across and nearly symmetrical, this collapsed 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 creating 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 removed overlying rock, collapsed some of the lava chamber and formed a small caldera.

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 in Solitario's core. These rocks are remains of the Ouachita Mountains, which predate the Rockies. They now form the Solitario's outer rings. The entire southwest quadrant of the Solitario has steeply inclined inverted V-shaped rocks called "flatirons."

There are several places in the park to experience the full visual impact of the Solitario. One 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 using 4WD, chat with a Park Ranger about latest road conditions and obtain a more detailed map.





BIG BEND RANCH STATE PARK ACCESS AND VISITOR SERVICES

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.

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 and dryness can kill, plus sunburns hurt. Use sunscreen. Wear long-sleeved shirts, long pants and a broad-brimmed hat with sunglasses. Avoid strenuous outdoor activities during the hottest part of the day.

Water is life. If you wait until you're thirsty, you've waited too long. Each person should drink 1 gallon of water per day. Make sure to consume salt and electrolytes as well. Drinking water is available at all Ranger Stations.

Weather the weather. Storms can pop up quickly despite what weather predictions are. In a lightning storm seek shelter inside a building or vehicle. Do not stand under trees or in shallow caves and avoid high ground.

Stay high and dry. Be mindful while traveling through slot canyons and arroyos as flash flooding does occur. Never cross rain-swollen creeks and washes. Temperatures can fluctuate and change quickly. Be prepared for all types of weather.

Don't go it alone. Tell someone your plans and estimated return time. Don't explore alone. Cell phone service is spotty so don't rely on it. Always have plenty of water and food in case you get stuck somewhere for a while.



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: Permits are required for travel on all BBRSP roads 2WDHC and beyond.

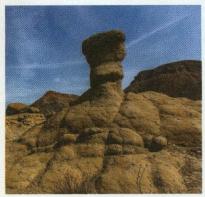
WELCOME, MANUELA AND KARL



Manuela Cataño is the new Site Superintendent for Fort Leaton State Historic Site. Manuela grew up in the foothills of the Chinati Mountains where she spent some of her best years in the outdoors. She graduated from Dallas Baptist University with a bachelor's in Business Management. Although new to her position, Manuela has been working for Texas Parks and Wildlife for more than 18 years. She visited the historic fort on a class trip when she was 10 years old not realizing that one day she would literally be "holding down the fort" many years later! She feels "blessed to be living and working in God's country."



Karl Flocke is the new Site Superintendent of Big Bend Ranch State Park. From an early age his interest in nature and history has led him to favor remote and rugged locations such as the Big Bend. A graduate of Texas A&M University, Karl originally joined the staff of Big Bend Ranch in 2012. He is happy to return to the wide open spaces of West Texas, and looks forward to the challenge of managing the state's premiere wilderness destination. He is also excited by this opportunity to explore and discover the wonders of the park for himself.



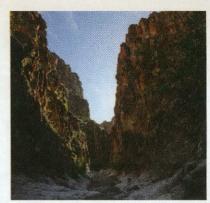
Hoodoos Trail



Cinco Tinaias



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 | 8.0 | easy | hiking | | |
| Cinco Tinajas | Main Park Road | 1 | 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 ridin | | |
| 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.

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

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 Bofecillos Mountains. Natural springs with fairly reliable water, riparian habitats and historicalperiod 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.

ceda 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 doubletrack 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.

Encino Loop: This is a combination of double-track, single-track and graded dirt road. Short stretches of park 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 singletrack trail that leads to a 700-foot cliff overlooking Fresno Canyon with views of the flatirons of the Solitario.

GET OUT!

Running and Mountain Biking in Big Bend Ranch State Park

By Leslie Hopper, Compadres del Rancho Grande



Bicycling and trail running enthusiasts visiting Big Bend Ranch State Park (BBRSP) to run, ride and "lose" themselves (although not literally!) in its wide-open spaces find it irresistible, alluring, and maybe even a little daunting. The prospect of hitting the trails all alone in a remote and rugged wilderness can be overwhelming. Fortunately, there are two events each year which help initiate new running and riding enthusiasts to miles of trails and like-minded new friends. These events serve to orient

and acquaint participants to trails they may not have tried, are reluctant to travel alone, or haven't explored recently. Both events are staffed by informed volunteers, friendly locals and helpful park staff. Each event features water and support stations.

The Big Bend 50 is a competitive trail run open to novice and professional athletes alike. The Big Bend 50 offers chip-timed 10K, 30K and 50K marked distances for runners who want to take on the trails through BBRSP's challenging topography

and inspiring landscape. The event is usually held over Martin Luther King Jr. Day Weekend in January and benefits Compadres del Rancho Grande (www. parkfriends.org), the Friends of Big Bend Ranch State Park. Aid stations are distributed at 5-mile distances throughout the course. Visit www.bigbend50.com to learn more, register or sign up as a volunteer.

The Chihuahuan Desert Bike Fest is a non-competitive mountain biking event open to all ages and skill levels. The Chihuahuan Desert Bike Fest usually takes place Thursday through Sunday, Presidents Day Weekend in February. The event features guided rides of varying challenges and distances, and offers special rides, such as the Geology interpretive ride, kids' rides and the One-day Epic Loop: a 50-plus mile trail selected by the International Mountain Biking Association for its unique terrain and variety. The event benefits the Big Bend Trails Alliance which has developed and maintained "hand-built" trails in



the Big Bend region for decades. For more info visit www.bikefest. desertsportstx.com.

Proceeds from these events support programs and projects in the parks ranging from ongoing trail maintenance and improvement, publication of trailhead maps to keep visitors oriented and safe, and the underwriting of color printing costs for the award-winning El Solitario you hold in your

KNOW BEFORE YOU GO:

Both events are increasing in popularity. Register early to ensure your slot. Camping, lodging and RV sites are available in nearby Lajitas, Terlingua and Study Butte. Dry camping is available at BBRSP.

VOLUNTEER OPPORTUNITIES

Hey Compadre, Join Us!

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!

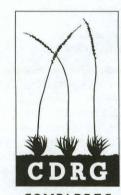
Since 2009, a hardy group of volunteers have worked to make the park even better.

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, nonprofit 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.



www.parkfriends.org

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.

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NATURAL HISTORY

Fire & Water: Ancient volcanos pave the way for springs in Big Bend Ranch State Park

By Leslie Hopper, Compadres del Rancho Grande

For an arid climate receiving approximately 8 to 10 inches of rainfall annually, Big Bend Ranch State Park (BBRSP) is sprinkled with a surprising number of cool canyons lined with cottonwood trees and fringed with fern-filled "hanging gardens."

Dynamic processes over millions of years have created the distinct landscapes of BBRSP. Within the past 47 million years, processes of volcanism, deposition, faulting and erosion created the peaks, plateaus, slopes and canyons of BBRSP. These features sustain remarkably diverse plant and wildlife populations and offer an outstanding place to visit and learn about geology and hydrology.

The Bofecillos Mountains define the western portion of the park and are visible off of the River Road (FM 170). These mountains make up the elevated region in the park's interior and were created as a result of at least eight distinct volcanos whose eruptions spanned 200,000 years, 32–27 million years ago.

Complex processes over time have created conditions which allow for surface water to penetrate the Earth's surface. Water travels through unconsolidated substrates, collects in aquifers and appears at the surface in the form of seeps and springs. The geology of the Bofecillos Mountains in particular contributes to hydrologic capture, recharge and release of water at the surface.

These water features are found throughout the park, especially in the northeastern "Cienega" region, the Bofecillos Mountains and Fresno Canyon.

As the sun constantly bakes the desert, the presence of shady canyons and surface water are critical habitats for plants and



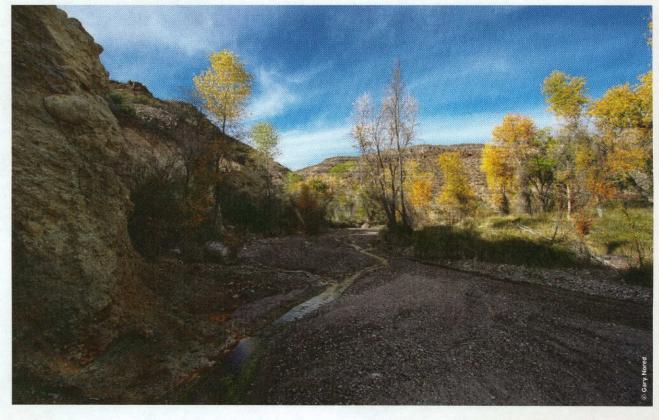
wildlife. They also create interesting and special places to visit, enjoy and learn about. Students often visit the park's ideal "outdoor laboratory" to study geology, hydrology and wildlife.

Researchers such as Sul Ross State University Graduate student Zack Weathers and Geology Professor Dr. Kevin Urbanczyk recently conducted water chemistry analyses as part of a BBRSP springs inventory and assessment. They found that rain travels fairly quickly to become seeps and springs and also discovered that the total dissolved solids in the water was pretty low, meaning that the water is ideal for wildlife.

Although the total number of springs and seeps in the park fluctuates, numerous permanent locations exist where wildlife and park visitors can access water on the hottest, driest days. The reliability of these water sources make it possible to self-support on multi-day mountain bike, equestrian, or backpacking trips.

Fresh water in an arid land is essential for vegetation and wildlife, and one of the many natural treasures worthy of protection. Good water quality is important to maintaining a healthy environment. If you visit a spring or seep, please tread carefully. Do not enter the water as oils, sunscreens and perfumes can harm sensitive ecosystems. Please pack out all food and waste to prevent contaminating these precious water resources.

Most springs and seeps in the park are located off the beaten path and are difficult to get to, however, the West Contrabando, Ojito Adentro and Cinco Tinajas trailheads offer easy access to some of these spectacular features.





Looting damage at an historic site in BBRSP

Stewardship: We can't do it without you!

By Tim Gibbs, Park Archeologist

Texas state parks belong to all Texans. To many people they are extremely valuable places of refuge from the city, outdoor recreation hubs and keepers of the stories of the past. But oddly enough, some people don't hold that same opinion and choose to use and abuse your park land.

Over the last five years, Big Bend Ranch State Park has seen the impacts resulting from thoughtless activities of a few bad apples. Vandals have scratched their initials on the walls of historic ruins. Fourwheeled vehicles have ranged off road, leaving scars in this desert ecosystem that will last for decades. People have stolen artifacts from historic and prehistoric sites in the park, forever removing pages from the story of this region's ancestors. Rare desert plants that can takes years to grow were dug up along the main park road in the park's interior.

In most cases the perpetrators were long gone by the time park staff became aware of the damage. In a few cases park visitors alerted us quickly enough so that the offenders were held accountable for their actions. While state park law enforcement have numerous legal options to prevent the theft or destruction of natural or cultural resources, our best resource to protect the park is our visitors.

It's up to all of us to make sure that the beauty and wonder that you experience today remains intact for your children and grandchildren to enjoy as well. Practice Leave No Trace ethics. Take only pictures and memories of your adventures at Big Bend Ranch State Park. Please alert park staff if you see any illegal activity. Thanks for supporting your Texas state

CULTURAL HISTORY

Preserving West Texas Cultural History

By Cassie Honolka, Region 1 Interpretive Specialist

Fort Leaton State Historic Site is the western visitor center for Big Bend Ranch State Park as well as one of the largest preserved adobe structures in Texas. It's located four miles southeast of Presidio on the River Road (FM 170), one of the most scenic highway routes in Texas.

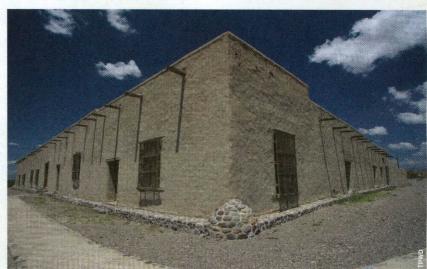
In the mid-1800s the fort served as a trading post for the Texas-Mexico border and is now an exhibit telling the stories of the people and cultures living around La Junta de los Rios, "the place where the rivers meet." Not surprisingly the confluence of the Rio Grande and Rio Conchos in the Chihuahuan desert provided life-giving water for crops and livestock, creating a sacred and special place for people to gather and live for thousands of years.

Park rangers and students from Presidio High School often lead guided tours of the fort with the option to grab a brochure for a self-guided tour. With over 20 rooms to explore, the \$5 per person entrance fee (\$3 per

person in the off-season) is a great deal, plus you're supporting your Texas state parks and historic sites. The park is open from 8 a.m to 4:30 p.m., seven days a week, closed Christmas

For more information, call (432) 229-3613. Address: FM 170 E. Presidio, TX 79845.





EL SOLITARIO

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Fort Leaton State Historic



Life's better outside.

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