#### TEXAS PARKS AND WILDLIFE



TEXAS PARKS AND WILDLIFE DEPARTMENT | BIG BEND RANCH STATE PARK

# Discover Chorro Vista Loop on the West Fresno Rim

#### **By Barrett Durst**

The Chorro Vista Loop Hike is a great way to access some wild and rugged backcountry in Big Bend Ranch State Park, including exhilarating views of Chorro Canyon and glimpses of Madrid Falls as well as two historic ranch sites: Madrid House, built in 1887, and Crawford-Smith Ranch, established in 1915. The landscape around Chorro Canyon is typical Chihuahuan Desert landscape dominated by desert grasses, sotol, creosote bush and lechuquilla. You will have the opportunity to see for miles on end, all the way to the Chisos Mountains in Big Bend National Park: some of the most expansive views in all of the Big Bend Region.

Getting to the Mexicano Falls Trailhead is a rugged trip requiring a four-wheel drive high clearance vehicle (4WD), but the rewards are very much worth the effort. You will drive down old ranch roads that are very bumpy and rough; most of the time it will be slow going at 10 mph or less. Remember – you're on an adventure!

#### How do I get to the trailhead?

Drive time is approximately 1.5 hours. Travel west from the Sauceda Ranger Station and follow the Madrid Falls Road (two-wheel drive, high clearance at this point). Pass the Llano Loop turn in one mile. Proceed for another 3.8 miles and arrive at the intersection with Javelin Camp Road. Turn left (southeast) to continue following the Madrid Falls road. From here the route is quite rugged and becomes a 4WD high clearance road. You will definitely want to engage the 4WD! Continue on the main Madrid Falls road and climb the



Views abound from the top of Chorro Vista, with Contrabando Lowlands and Mexico in the distance.

steep Cuesta de los Mexicanos. Pass the Mexicano campsite road, then the Vista del Chisos campsite, the Los Hermanos campsite, and the Pila de los Muchachos campsite road, to finally arrive at the junction of Chorro Vista and Mexicano Falls trailheads. Here, turn left and travel to the Mexicano Falls Trailhead. From the Javelin intersection to the Mexicano Falls Trailhead is 5.1 miles. You have arrived!

#### I'm at the Mexicano Falls Trailhead ... now what?

This hike can be done the way it is written below, or followed in reverse. The route can also be accessed from the Chorro Vista Trailhead. It is a loop hike with a few backtracks.

Pack up your hiking gear (take plenty of food and water), your

camera, and be prepared to be inspired! This is more of a route than a trail. You will follow rock cairns (stacked rock in small piles) and need to be constantly on the lookout for the next one. The trail is faint, but it is still there, as much of it is in an old road bed.

The Mexicano Falls Trailhead area was used by ranchers as grazing land for sheep and goats. The trail that you are taking will be on your right, or the most southerly route leading toward the Crawford-Smith house. You will hike down the trail traversing several hilly descents. After hiking 0.8 miles you will come to an intersection. Continue down the trail to the east and through the arroyo (0.1 mile). Once on top of the mesa there is an intersection where you will go to the right (east).

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# Chorro Vista Loop Hike

Hike for another 0.2 miles and come to an intersection that could lead you down the mountainside to the Crawford-Smith house; but instead continue straight (east) and DO NOT turn right. You will come to an overlook into Fresno Canyon in about 100 yards and will be able to see the historic Crawford-Smith ranch complex below you in the canyon.

Crawford-Smith House, located on the Marfa–Terlingua Freight Road, was occupied from 1915 to 1946. The Crawfords planted citrus groves, grapes, and fig trees, and raised angora goats. They were a resourceful family and turned to other industries, including the operation of a candelilla wax factory. The Smiths continued ranching operations here and also delved into cinnabar mining for mercury production. Droughts, the Great Depression and the declining health of the rangeland caused an end to most family ranches in the area by the middle of the 20th century, including this one.

After pausing at the Crawford-Smith House Overlook, continue down the trail for 0.3 miles and come to another vista – this one of the **Crawford-Smith Spring**. This life-giving water source was harnessed by the Crawfords to afford them a living in this desert environment. The spring provided water for the house and livestock operations, and has never run dry.

Continue hiking for another 0.3 miles until you come to an intersection (you just made a small counterclockwise loop). Follow the trail down and across the arroyo to the west. Once through the arroyo you will see the intersection you passed on your way down and will turn to the left (south).

Follow this trail for 0.5 miles. Once you come to the first intersection you will go to the left (southeast) and continue for 0.1 miles, coming to another intersection where you will take another left to continue moving southeast. Follow the trail for yet another 0.1 miles and take another left (southeast), following a 0.3 mile spur trail to a vista of the **Madrid House**. This structure was built in 1887.

The section of land was patented to Father Joseph Hoban for \$52.50 on May 19, 1880. Father Hoban operated a school for boys. The property was next occupied by C. H. "Ceferino" Madrid in 1904. By 1911, the property went up for auction since taxes had not been paid and sold to B.C. and Myrtle Cowan Thomas of Brewster County, and was then sold to George W. Martin in 1916. This site was desirable because of a nearby flowing spring, which provided water for household use and ranching.

Now that you have seen the Madrid House, backtrack for  $0.3\,$ miles, turning left (northwest) at the next intersection. Continue for 0.2 miles more and come to another intersection, where you will turn left (northwest) and follow the route for another 0.2 miles. Here you will find a trail intersection marked by an exceptionally large rock cairn. (While you are walking from the Madrid House vista to this intersection, concentrate vour eyes on Chorro Canyon and be sure to notice Madrid Falls



and its lush, green riparian vegetation.) At the intersection marked by the large cairn, turn left (southeast) to follow the trail 0.3 miles to the Madrid Falls Overlook for a spectacular view.

Now that you have seen Madrid Falls from a bird's eve view, turn around and head back to the large rock cairn that you just came from. Once there, turn left (north) and follow the trail up the steep ascent 0.15 miles to Chorro Vista Trailhead. At this point, turn left (northwest) and follow the road for 0.2 miles to an intersection. Turn right (northeast) and follow the jeep road to the Mexicano Falls Trailhead and your vehicle. Congratulations! You have just finished my favorite hike; I hope you enjoyed it as much as I do.

VARIATIONS: Trails lead from the mesa top to both Crawford-Smith Ranch and Madrid House. If you choose to visit these historic archeological sites, leave everything exactly as you find it. Be aware that the additional hiking distance and elevation gain/loss means a much more strenuous and time-consuming hike. Plan accordingly, and consult with a ranger for details.









Chorro Vista Loop Hike

Elevation: High point -4080'; Low point - 3670'

Hike Rating: Moderate to Difficult

Trail Surface: 0.6 miles jeep trail; 4.0 miles marked cross-country route

Terrain: Steep descents and ascents. Mesas have rolling terrain with loose rock in various spots. Low desert scrub and riparian areas.

Access: Mexicano Falls Trailhead (recommended) or Chorro Vista Trailhead

Vehicle Access to Trailhead: 4WD High Clearance



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

Presidio, Redford Angell Expeditions 432-229-3713

### 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.



# 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 Sauceda Road 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 FM 170 it is about 25 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 visitors wanting a serious four-wheel-drive adventure, the booklet entitled "Roads to Nowhere: A Guide to unmaintained 4X4 high-clearance roads in Big Bend Ranch State Park" is for you. This publication describes several 4X4 routes that traverse the park's numerous ranch and mining roads.

#### Hiking

Several short hikes are accessible from the Sauceda Road. The Ojito Adentro trail offers a moderate 1.4-mile round trip that traverses Chihuahuan Desert scrub into moist riparian woodland. Cottonwood and velvet ash trees await you here, with a dripping pour-off, pools of clear water and a hanging garden of maidenhair fern at the head of the canyon. This oasis-like area is prime habitat for a variety of birds, butterflies, dragonflies and other wildlife, and has welcomed many generations of people.

The Cinco Tinajas Trail offers a 0.9-mile round-trip option that is also accessible from the Sauceda Road. The trail provides views into a deep canyon containing a series of tinajas, which are naturally-formed or scoured rock pools that hold water even when many other sources are dry.

Longer hikes and backpacking opportunities abound. Consult park staff for recommendations that will suit your ability and needs.

#### Mountain Biking

The park offers hundreds of miles of routes for all skill levels. The booklet "Big Bend Ranch Biking Guide: The Other Side of Nowhere" describes 28 routes and provides important safety information and gear requirements. Remember that a helmet is a must.

One popular venue is the Contrabando Trail, which is accessed from the east side of the park. 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.

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. Check out this site's interpretive brochure for more information.

The Horsetrap Bike-and-Hike Trail is easily accessible from Sauceda. 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."





Guale 2, toward La Guitarra and the blue ridges of Mexico (Sierra de Mataderos and Sierra Rica)

#### The Guale 1 and Guale 2

campsites are located in the southwestern part of the park and are accessible by the Guale Mesa Road. If you want a sense of remoteness and solitude, this is the place. Both are located on Upper Guale Mesa, but are markedly different. "Guale" is short for Guadalupe Carrasco, who ran sheep on the mesa in the early 20th century.

**Guale 1** lies at the beginning of Guale Mesa in an area sheltered by mountains on all four sides and is thus well protected from strong winds. Climb the slopes around the campsite to get spectacular views in all directions or wander up the canyon to see Alamito Dam, a beautiful stone structure built during the Fowlkes ranching period, to catch the run-off water following rains. The water caught by the "header dam," as these catchment dams are

Hillside above Guale 1, toward Aguja de la Colmena



known, was then distributed by pipelines to water troughs for the stock, like the old one at the campsite.

**Guale 2** is perched at the far southeastern edge of Upper Guale Mesa. The campsite is on open ground and can be very windy at times, but this inconvenience is easily overcome by magnificent vistas in all directions. Hike around. Enjoy the view into Rancherias Canyon and marvel at the erosive power of water in the desert. Walk to the edge of the mesa and trace out the ruts that were cut into the rock by wagon wheels as they switched back and forth down the steep grade to join the old track that you can still see on Lower Guale Mesa. Or investigate longer hiking options, including access to portions of the Rancherias Loop Trail.

## What's special about these sites?

- Remoteness and solitude
- Stunning views
- Great areas for hiking
- Excellent stargazing





oper Guale Mesa, across Lower Guale Mesa



#### Getting There

Sauceda to East Oso Loop: 2.4 miles East Oso Loop to Guale Mesa Road: 2.2 miles To Guale 1 turnoff: 2.6 miles; 0.2 miles to campsite Guale 1 turnoff to Guale 2 turnoff: 2.7 miles; 0.7 miles to campsite

GPS Coordinates, Guale 1		
UTM 13 Easting:	595800.5013	
UTM Northing:	3255101.511	
Longitude DD:	104.0124216	
Latitude DD:	29.42159719	
Longitude DMS:	104 00 44.74 W	
Latitude DMS:	29 25 17.75 N	

GPS Coordin	nates, Guale 2
UTM 13 Easting:	593374.2513
UTM Northing:	3251770.911
Longitude DD:	104.0377134
Latitude DD:	29.39172443
Longitude DMS:	104 02 15.68 W
Latitude DMS:	29 23 30.22 N

## 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 animals 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 wild animals** or allow them to get human or

pet food.

**Observe animals 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

Horses: \$2 per day/horse

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

#### Lodging

Lodging is available bunkhouse style or in the "Big House" at Sauceda. The bunkhouse has a community kitchen for guest use.

Call (512) 389-8919 between 9 a.m. and 6 p.m. Monday through Friday (except major holidays) for information and reservations.

#### Airstrip

Big Bend Ranch paved airstrip 3T9

103-56-11.7030 W 29-28-10.6840 N

Elevation: 4250 feet Length: 5500 feet

#### BBRSP's Friends Group Compadres del Rancho Grande





including the Barton Warnock Visitor Center, Big Bend Ranch State Park, Fort Leaton, and Chinati Mountains State Natural Area, through your volunteer

and financial support. Please join us today as a member or volunteer. Donations and/or contact

information can be sent to : Compadres del Rancho Grande P.O. Box 164 Fort Davis, Texas 79734

info@parkfriends.org



#### 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. daily at three locations:

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

Special-use permits are required for use of Primitive Road and all camping. Day Use visitors are required to obtain a free, 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.

9-1-1 service is 2 to 3 hours away.

Go to or call Sauceda Ranger Station at (432) 358-4444 for help.

After-hours emergency contact: (432) 358-4623

Presidio County Sheriff: (432) 729-4308













# OVERVIEW ONLY NOT FOR ON-TRAIL USE

To obtain a detailed Exploration Map (1: 48,000) of the entire park and to check on updates and current conditions, stop at Sauceda Ranger Station, Barton Warnock Visitor Center, or Fort Leaton State Historic Site.

Bandera

Piedra

Mesa



# **BIG BEND RANCH STATE PARK ACCESS AND VISITOR SERVICES**

#### Vehicle-accessible Camping

Forty-nine locations have been designated for vehicle-accessible camping. Permits are required. Each site includes a tent area, picnic table and fire ring. Some campsites also have shade ramadas.

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 highwayworthy 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 or routes harsher then 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 2WDHC and beyond.



#### **Medical Services**

Cell phone service in the park is unreliable and limited. No medical facilities are available in the park. The nearest hospital is located in Alpine, about three hours' drive from Sauceda. In event of emergency, contact or go to Sauceda Ranger Station for help.

#### Food and Lodging

The lodge at Sauceda is a bunkhouse with a community kitchen, so guests can prepare their own meals. Lodging is available bunkhouse style with men on one side and women on the other. The three-bedroom Main House sleeps ten. The Main House has a full kitchen. Pets are not allowed in either. For information, rates and reservations, call (512) 389-8919 between 9 a.m. and 6 p.m. Monday - Friday (except major holidays).

#### 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.

### FEATURED HIKE Puerta Chilicote Trailhead to Fresno Canyon/ Flatirons Vista



Los Portales

This hike is a relatively easy way to access some wild and rugged backcountry in Big Bend Ranch State Park, including an exciting 700-foot vertical view of Fresno Canyon and exceptional vistas of the famous Solitario "flatirons" and the mysterious Los Portales. The country around Chilicote Springs is stark desert landscape. There are historical ranch remains, hidden springs, striking volcanic rock formations, and beautiful desert vegetation.

The Puerta Chilicote Trailhead is the closest point that a 2WD lowclearance vehicle can reach.

#### How to get to the trailhead?

Travel east from the Sauceda Ranger Station on the Main Park Road for about 2.7 miles. Turn right (south) onto the Llano Loop road. Travel south and then southwest for about 1.7 miles. There will be a four-way junction (Chilicote Junction). Turn left (south) through the gate, and follow the road southward. Unless there has been a recent storm, the dirt road should be passable for a 2WD low-clearance vehicle (unless you have a really low-to-the-ground vehicle). At about 0.5 miles you will come to an easily crossable arroyo (dry creek bed). This should be passable, but if you don't feel comfortable crossing the arroyo, you can park off to the side of the road, just before the arroyo. From this arroyo, it is another 0.9 miles to Puerta Chilicote Trailhead on a fairly smooth dirt road.

#### I'm at the Puerta Chilicote Trailhead ... now what?

Once at the trailhead, pack up your hiking gear (take plenty of water) and continue hiking about 0.7 miles down the old jeep road to the southeast (if you are mountain-biking, you can continue down this road to its end). The old road dead-ends at Chilicote Springs.

Chilicote Springs: This area was used by ancient people and by the earliest Anglo ranch, called Chilicote. If you go down to the arroyo at the end of the jeep trail, staying to the left of the trees, you will see dozens of chiqueras (small rock shelters) above the creek bed that were used by early ranchers to protect baby goats and lambs from the sun.

Trail route to Fresno Canyon/ Flatirons Vista: From the end of the jeep trail at Chilicote Springs, follow the rock cairns eastward for about 2 miles until you come to the rim of Fresno Canyon. There is no prepared trail until you get to the canyon edge, but the route is relatively open. Pay attention to the rock cairn markers. If you are on the correct route, you should be able to see the next and the past cairn from the cairn where you are located. You will be hiking over ancient lava flows from the various Bofecillos volcanic events.

Fresno Canyon/Flatirons Vista: You will know when you have arrived at Fresno Canyon. You can't miss the 700-foot vertical drop into the canyon. If you do, you are in trouble. Look across the canvon and you will see the flatirons of the Solitario. Look down in the canyon and you will see Fresno Creek and the old 1890s-era stage road that connected Marfa and Terlingua/Lajitas. Look across and up canyon and you will see Los Portales on the west side of the Solitario. The low country to the right of the flatirons (ESE) is the valley of the Lower Shutup Arroyo.

This hike description ends here. If this is as far as you want to go, you should retrace your route back to the Puerta Chilicote Trailhead. If you want to continue on a longer and more arduous hike, travel south along the canyon rim for about a mile, where the trail steeply descends for 0.5 miles to the bottom of Fresno Canyon, some 700 vertical feet below. Use caution here, as the trail is rough with some unstable footing.

BE SURE to obtain a detailed West Fresno Rim map (1:24,000), available at Sauceda Ranger Station or www.tpwd. texas.gov/bigbendranch, before embarking on this hike. Carry a GPS unit if possible.

#### Distance: 6 miles round-trip

Hike Time: About 3 hours

Elevation: High point - 4190'; Low point - 4060'

Hike Rating: Moderate difficulty to rim

Trail Surface: 1.4 miles jeep trail; 4.6 miles cairn-marked route

Terrain: Mostly gently rolling with some short hills, some rocky sections, and some brush

Access: Puerta Chilicote Trailhead

Vehicle Access to Trailhead: 2WD Low-Clearance

# Watch the birdie

Over 300 species of birds reside in Big Bend Ranch State Park

Big Bend Ranch State Park offers the opportunity to explore Chihuahuan Desert habitats including grasslands, desert scrub, canyons, and riparian woodlands and thickets. The greatest diversity and abundance of birds is normally found near the numerous springs and along streams scattered around the park. Large springs normally are found in association with riparian woodlands (cottonwoodwillow-hackberry and shrub thickets).

One of the premier birding locations within the park is found at Ojito Adentro. The trail from the parking area traverses through desert scrub into riparian woodland. The song of the Bell's Vireo is a common sound of the thickets along arroyos and in the understory of riparian habitats and can hardly be missed between early March and September. In the spring and summer watch for the Zone-tailed Hawk, Vermilion Flycatcher, Summer Tanager, Blue Grosbeak and Varied Bunting. Canyon, Bewick's and Rock Wrens are present yearround and a wide variety of sparrows can be found here in winter. This area can be very productive during migration (late March through mid-May and late August through mid-October) when flycatchers, warblers and tanagers can be common. Migration in West Texas is not as spectacular as farther east, but surprises can be found. Some of the more interesting finds at Ojito Adentro include Painted Redstart and a variety of eastern warblers.

A walk along a dry arroyo in well-developed desert scrub will reveal a different group of birds. Say's Phoebe, Verdin, Curvebilled and Crissal Thrashers, and Black-tailed Gnatcatcher join more Bell's Vireos in this habitat.

lomente 11 An easily accessible place to find these birds is along the arroyo that passes along the west side of the Sauceda headquarters complex. Two of the most abundant birds on Big Bend Ranch can be encountered almost anywhere. They are the Scaled Quail and Black-throated Sparrow. Keep an eye out for them as you travel along the park's many roads. Be sure to pick up a copy of the park's bird checklist, Birds of Big Bend Ranch State Park, to record your sightings.

Vermilion

flycatcher



Black-throated sparrow



Zone-tailed hawk



Scaled guail

Deserts are known for their heat and dryness, and because of those factors, the paucity of vegetation. Although the Chihuahuan Desert is more heavily vegetated than most of the world's deserts, months and occasionally years with no rain create an arid environment where temperatures may rise to 120°F in June. Plants struggle to survive during these dry times, when very little green is seen in the desert. Yet when monsoonal rains do return, even in small amounts, the desert comes alive almost magically. Plants flourish: growing, flowering and producing seed. How can desert plants seeming wither into oblivion, only to spring back in abundance as if the dry periods never happened?

By Patt Sims

#### EVADING DESERT CONDITIONS

Some plants evade desert conditions by becoming inactive. The ocotillo is probably the most famous for this, only bearing leaves and flowers when there is enough rain. When conditions become dry, the leaves drop and the plant becomes dormant, looking like a clump of dead sticks blowing in the wind. Photosynthesis only occurs in the presence of chlorophyll, so a lack of leaves (where the chlorophyll is usually located) shuts down the plant's activities. Other plants may have leaves that are coated with oil or a thick wax to block out some of the sun's strength. Others may have thin hairs or spines to provide shade. Cactus spines may also help collect moisture from heavy morning dew or a light rain and then direct that moisture down toward the roots. Many shrubs and trees such as the mesquite overcome surface aridity by sending their tap root down to reach the water table.

#### ENDURING DESERT CONDITIONS

Other species have evolved ways to endure the heat and dryness. Desert plants that have been successful at collecting water must find ways to store that water for use during drier times. This is accomplished by having spongy cells in their leaves,

#### NATURAL HISTORY

# Desert Enigma: Where did all these plants come from?



Green threads, a spring annual that blooms on rocky hills

stems, and/or roots. As moisture becomes available the tissue swells with the moisture and as the dry, hot air returns, the tissue slowly shrinks as the water is used.

The water collected by all plants is used to cool the tissues and to carry out photosynthesis, where light from the sun, plus water and carbon dioxide from the atmosphere are used to store energy in organic molecules needed by the plant for energy and growth. Many desert plants, including cacti and agaves, have refined this process so that only one tenth of the water used by tropical plants is needed for photosynthesis. The process called Crassulacean Acid Metabolism (CAM) only requires that the stomata (pores) of the plant be open during the nighttime, when temperatures are lower and humidity higher. to further reduce moisture loss.

Some desert plants have modified leaves, resulting in a smaller surface area on which to collect heat. Since the leaves are typically the site of photosynthesis, leaf reduction may seem counterproductive. But CAM is so much more efficient that these plants are not compromised. Through the process of evolution, the cacti of the desert exhibit modified leaves known as spines, and the chlorophyll needed for photosynthesis is found in the stem of the plant instead. These modified leaves protect the plant





Lemoncillo sports small, oily leaves that minimize water loss.

from animals and provide shade to reduce the temperature of the plant stem.

Once a plant has stored water it must protect that store from animals seeking its life-saving moisture. There are basically three ways of doing this. A physical barrier of spines or thorns or stinging hairs may discourage an attack. For many plants this defense is sufficient. Yet others use chemical warfare, adding a bitter taste to the stored moisture. Sometimes the bitter taste is a clue that the plant is storing a poison that will make the attacker too sick to carry on or that will kill the organism outright. Finally, some plants inhabit areas where attackers cannot easily find or reach them. By growing on high canyon walls or being camouflaged in other desert vegetation, plants keep themselves out of harm's way.

#### SUCCUMBING TO DESERT CONDITIONS

As rain begins to fall in the Chihuahuan Desert, grasses and wildflowers appear, growing out of places that previously seemed devoid of anything living. These are the desert annuals that arise from dormant seeds lying buried in the desert soil, waiting for the return to good conditions so that they can quickly reproduce.

In seed form, desert plants are almost indestructible. Surrounded by a hard protein coat that protects the embryonic



The iconic bluebonnet, a spring annual

plant from heat and aridity the seed may stay viable for more than ten years. A late fall rain of over one inch will trigger the germination process in spring annuals by washing away the protective coating. Building the underground structures first, the plant reaches the point where it can support the above-ground stem and leaves - usually during late winter when the temperatures remain cool enough for the plant to avoid heat stress. An occasional shower at this point allows the plant to become more robust. With the approach of spring and its longer, warmer days, the seedling begins the process of producing flowering stalks and then flowers.

This begins the final act in the life of an annual. With flowers come the pollinators that allow the ovules to be fertilized and mature into seeds. The plant then dries, dies and disappears, leaving its seeds to begin the life cycle all over again when conditions are right. Summer and autumn annuals follow similar paths that are triggered by slightly different conditions. Whatever the season, annuals can provide an amazing show during their brief existence. By completing their life cycle quickly, they manage to avoid the worst of the desert conditions and, for those lucky enough to survive into their blooming period, provide a display of stunning beauty in a land of oppressive conditions.

The verdant floodplains of La Junta's eastern reach fostered the adoption of agriculture.

# "How do I get to La Junta?"



By Tim Gibbs

La Junta is a Spanish term that literally refers to a junction, though it can also describe a union, gathering, or alliance. Within the context of this presentation, the term is a bit confusing as it functions in both uses where it simultaneously refers to a place, a time, and a people for whom we have no other name. The place signifies La Junta de los Rios, a verdant oasis at the confluence of the Rio Grande and Rio Conchos near modern day Presidio, Texas, along the United States-Mexican border: this is a land surrounded by rugged mountains, sheer canyons, and stark desert plains. The time period refers to the La Junta Phase, defined by J. Charles Kelley as lasting from around 1200 to 1450 AD and representing a period marked by the expansion of village life, trade, and increased social complexity. The people are the farmers, traders, and artisans who called this place in time home. The people of La Junta de los Rios were an outlier in a sea of nomads that stretched hundreds of miles in any direction. It is my contention that La Junta is a high water mark where the influence of the puebloan world washed up and rolled back.

from faraway lands were pouring into the region. Brightly painted polychrome pottery was introduced from the areas around modern-day El Paso, Northern Chihuahua, and as far as West-Central New Mexico. Shell beads and jewelry were traded to La Junta from as far as the Sea of Cortez and the Pacific Ocean. Obsidian, a black volcanic glass, was imported from Northern Mexico and Southwestern New Mexico. Even building styles featuring pit houses made of adobe blocks and multiple room construction were imported from the neighboring puebloan cultures to the West. The puebloan world had transformed La Junta, but it was not to last.

At some point between 1400 and 1450 AD the trade networks that had brought so much change to the region began to unravel and the flow of goods trickled to a halt. In La Junta, some of the population appears to have given up on village life and reverted back to their nomadic ways. Of course, some did not. Numerous villages remained along the rivers of La Junta and their inhabitants continued to construct pit houses, grow food crops, and make pottery, albeit in less elaborate



Artist's depiction of La Juntans above the confluence of the Rio Grande and Rio Conchos around 1400 A.D.

© Feather Radha

The earliest beginnings of village life and exotic trade can be traced to the introduction of a ceramic vessel type called Chihuahuan Brownware that was present sometime between 700 and 900 AD. The presence of pottery has been traced to the adoption of agriculture and the development of village life across the Southwest United States. By 1200 AD, farming villages had spread across La Junta and trade goods forms as they had before. At the very least, La Junta was populated by several small villages upon the arrival of the bedraggled Alvar Nuñez Cabeza de Vaca in 1535, who described its inhabitants as "the most obedient we found in this land, of the best disposition, and usually very healthy." This unique culture managed to persist here for another century and a half until the weight of Spanish Conquest and Apache raids had



destabilized the region and forced the La Juntans out.

Today, a mystery remains: who exactly were the La Juntans? While, at the height of their culture, they exhibited puebloan influence in their agricultural, architectural, and ceramic traditions, the rest of their stone tool kit was much more similar to surrounding nomadic tribes than to any of the farming cultures of the West. Further, the rock art that can be attributed to this culture is quite different from the more geometric and complex puebloan styles that can be viewed at places like Hueco Tanks State Park and Historic Site or Alamo Canyon near Fort Hancock. One theory states that the sedentary villages represented isolated colony of puebloans that occupied La Junta to procure goods such as minerals and buffalo products for trade. A competing theory suggests that they were local groups who changed as a result of cultural interaction and symbiotic trade with more complex puebloan cultures to the West. Unfortunately, we can only guess as modern scholarship has been highly limited and most field work was conducted prior to 1973. Today, most La Junta Phase components have either been lost to natural and human impacts

or remain in a highly reduced and threatened condition. This intensive resource loss underscores the protection efforts at Big Bend Ranch State Park to identify, document, and preserve the remaining sites that occur within its boundaries.

Without the influence of the puebloan cultures, La Junta would have likely not developed such a unique and vibrant culture. While it outlasted the trade networks that appear to have spurred it on, this culture could not ultimately weather the storms of conquest. Now, over 250 years later, there is little that we can definitively say about the ancient farming peoples of La Junta, Their fields have long since disappeared and their homes have melted back to the earth from which they were made. It is our hope that through continued preservation and scholarship we may one day better understand the puebloan influence on the people of La Junta, where they came from, and the nature of their relationship with the nomads with whom they shared this desert oasis.

For more information about La Junta, check out the Texas Beyond History website: www.texasbeyond history.net/junta/index.html.

# The River Road: Trail of Treasures





Fort Leaton State Historic Site

**Barton Warnock Visitor Center** 



Rio Grande vista from the Big Hill

The River Road (F.M. 170) between Lajitas and Presidio has been labeled one of the most scenic drives in all of the United States. But it is not a journey to be hurried. This 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.

If coming in from the west, first stop 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 West. If approaching from the east, visit 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. Speak with knowledgeable staff and pick up additional information at either site.

Once on your way, be sure to stop at the pullout just west of La Cuesta (Big Hill), which offers a spectacular view of the Rio Grande as it cuts its way through the surrounding Chihuahuan Desert. The rest stop is 500 feet above the river. It's a favorite stop for those wishing to watch an incredible sunrise or sunset.

#### Take a Break; Take a Hike

If you're interested in taking a hike, there's plenty of

opportunity on the River Road—over 60 miles of trails. The rugged, 19-mile Rancherias Loop Trail is a favorite with backpackers.

Day hikers have several opportunities. The multi-use Contrabando Trail is available for hiking, mountain-biking and horseback riding. Interpreted sites along the way include a candelilla wax camp, ruins of an historic homestead from the late 1800s, and relics from the region's cinnabar mining days.

Closed Canyon presents an easy 1.4-mile round trip through a slot canyon near the Rio Grande. There are some points where hikers can stretch out their arms and touch both canyon walls.

The Rancherias Canyon Trail leads to a waterfall that cascades over rock ledges into a refreshing pool. Take along a snack and enjoy the views along the way. Remember, desert animals rely on this water; it is not for bathing or drinking.

The Hoodoos Trail is a one-mile loop that follows part of the old

military road, where the U.S. Cavalry patrolled during the Mexican Revolution. "Hoodoos" are rocks that have been carved out by wind and water erosion to form spires and anvil-shaped monoliths; they are favorites for photographers.

#### Wet a Paddle; Drop a Hook; Camp Out

Several access points provide opportunities for fishing in the Rio Grande or putting in your kayak or canoe. Bring your own or rely on one of the local outfitters listed on page 3. Three designated campgrounds provide picnic tables and shelters for day use or overnight camping. Two designated group camping areas can support large groups.

### **Enjoy!**

Take your time and relish the spectacular scenery. The Trail of Treasures drive is a great way to spend the day and to get an introduction to Big Bend Ranch State Park.



### **El Solitario:** What's in a name?

Spanish for "hermit" or "loner," El Solitario is the signature landscape feature of the park. Almost 10 miles across, this collapsed and eroded volcanic dome may be viewed from Solitario Overlook, a few miles past Sauceda Ranger Station. For a closer look you'll need a high clearance vehicle. Ask a ranger for directions and current road conditions.

TEXAS PARKS AND WILDLIFE DEPARTMENT MISSION STATEMENT **Big Bend Ranch State Park** To manage and conserve the natural and cultural resources of Texas and to provide

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#### **EL SOLITARIO**



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