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EL SOLITARIO

TEXAS PARKS AND WILDLIFE DEPARTMENT | BIG BEND RANCH STATE PARK



To the Fort!

By Cassie Cox
Regional Interpretive Specialist
Fort Davis, TX

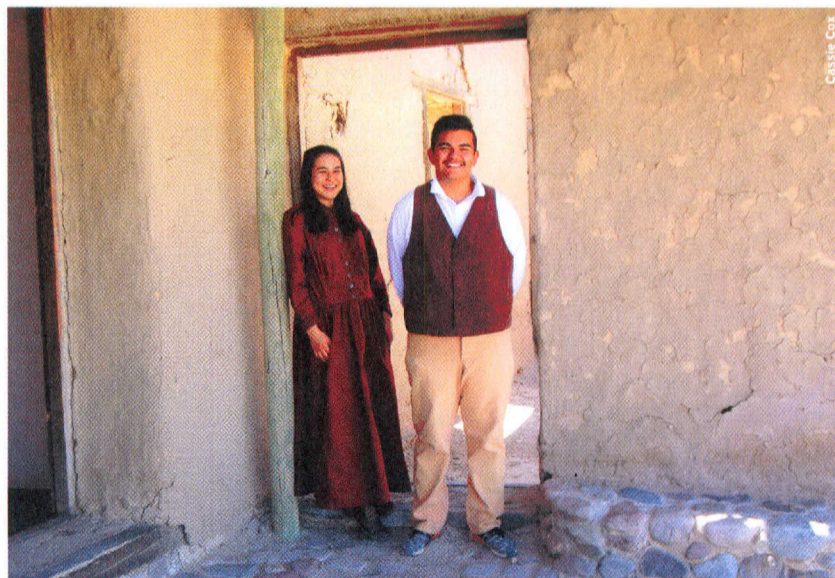
Since its 1848 founding, people have come and gone from Fort Leaton. Early on it was home to Ben Leaton, wife Juana Pedrasa and their children who also ran the fort as a trading post. Explorers, soldiers, traders, Native Americans, Mexicans and Anglo settlers sought the fort for business as well as a refuge from Native American raids and other borderland outlaws.

When available, student docents lead public tours at Fort Leaton State Historic Site.

Still today, people come and go from all over the world to Fort Leaton, now a State Historic Site and gateway to Big Bend Ranch State Park, looking to learn about the fascinating history of the area and recreational opportunities in the Big Bend. Should you visit the fort, some staff you might encounter include Presidio High School Student Docents.

These ambitious teenagers apply for paid positions that allow them to learn about the history of the fort, lead visitors on tours,

clean and maintain the fort and learn skills that will help them along their future career paths. They work on weekends and when out of school for breaks. As the only program of its type in Texas State Parks, we are so proud to have the students of Presidio represent their school and community to visitors from all over the world. Stop by and ask if a student docent is available to lead you on a tour. If not, there are self-guided tour brochures along with exhibits and knowledgeable staff.



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To the Fort!

(cont. from page 1)

We'd like to highlight two special Student Docents for this issue of *El Solitario*. Crystal and Omar were both Presidio High School seniors who graduated in May 2019. We interviewed them about what they gained from their time at Fort Leaton State Historic Site.



Crystal has learned a lot about the history of the area.

When asked about their favorite part of the job, they both mentioned enjoying telling the stories of the fort to visitors from all over world, including some visitors they met from Belgium and Iceland. They appreciate the reactions of visitors as they share the amazing history of the fort and Big Bend region.

Crystal exclaimed "It's the best job I've ever had!" Omar shared that this position has been a big boost in his confidence. Omar says that thanks to his time at the fort, he's less shy when meeting



Omar is more confident in public speaking.

new people, more knowledgeable for job interviews, and he understands what constitutes good customer service.

As a part of their jobs, they've both learned "pro tips" in cleaning skills, what invasive species have done to habitat in their region and how special it is to live on the border of the U.S. and Mexico. "The river unites us," Crystal declares. We discussed what the region would have looked like if invasive salt cedar (tamarisk) was not

planted for erosion control due to the loss of grasslands. The conversation also led to what they learned about wildlife in the area. Both docents have become very familiar with the Mexican free-tailed bats that call the fort home, as a part of their duties are to clean up after the squeaky little guests.

Park staff have greatly enjoyed working with these docents and wish them well as they move to El Paso, TX for college.

Beastly Bones

By Amber Harrison, Park Interpreter, Barton Warnock Visitor Center

When you enter the gift shop at the Barton Warnock Visitor Center, one of the first things you see is a fossil cast of *Tylosaurus napaolicus*. It's one of five recognized species of Mosasaur – a ferocious predatory marine reptile that lived in what was once a shallow sea covering West Texas millions of years ago.

Mosasaur's are most closely related to the modern-day monitor lizard. Like the monitor lizard, Mosasaurs were both hunters and scavengers. They survived on a diet of fish, sharks and other deep-sea creatures of the time. While Mosasaurs preferred deep sea environments, they were well-adapted to scavenging and hunting in shallow waters. The fossil cast we have dates to the Late Cretaceous period, roughly 100–66 million years ago.

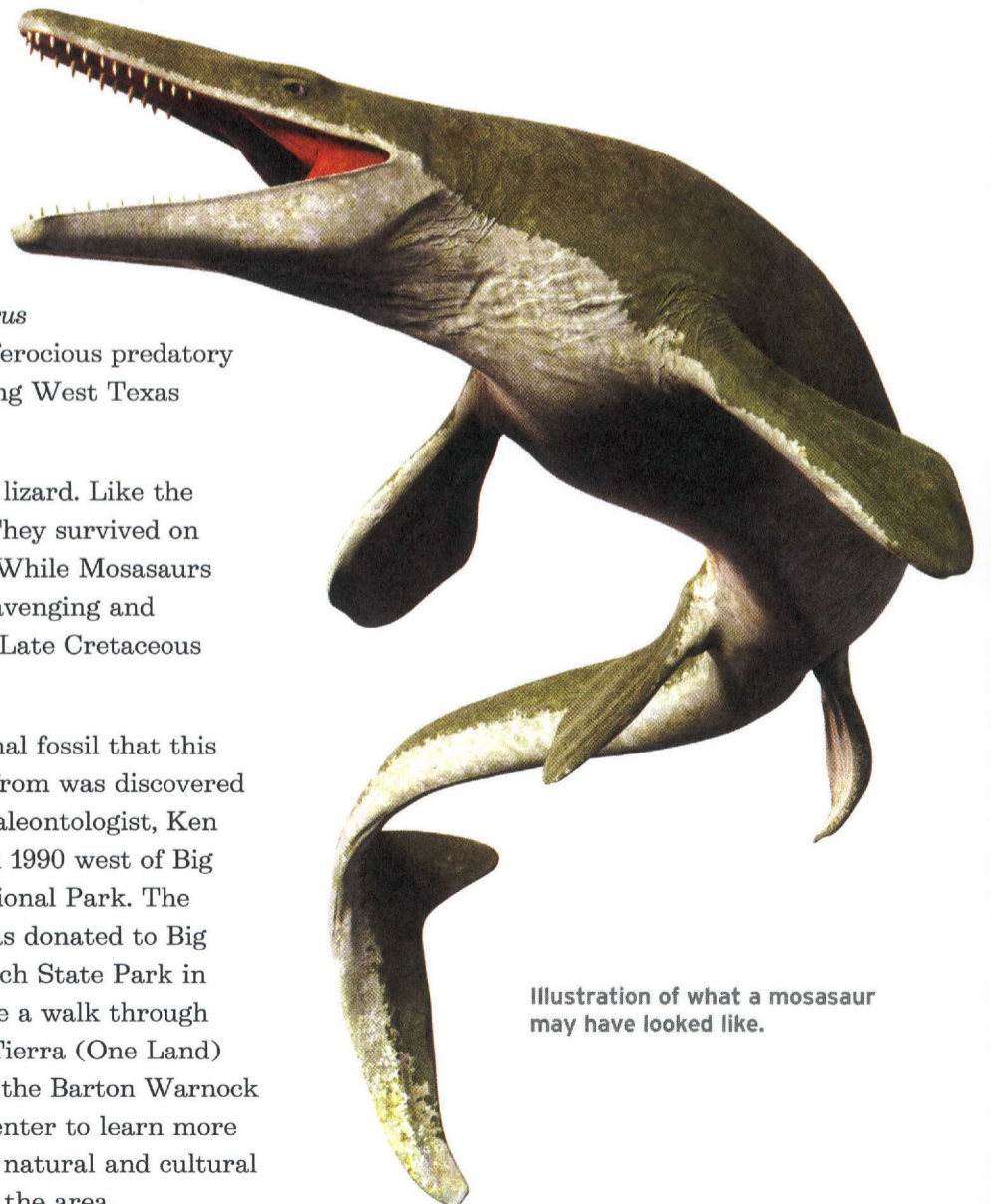


Illustration of what a mosasaur may have looked like.



The original fossil that this was cast from was discovered by local paleontologist, Ken Barnes, in 1990 west of Big Bend National Park. The replica was donated to Big Bend Ranch State Park in 2014. Take a walk through the Una Tierra (One Land) exhibit at the Barton Warnock Visitor Center to learn more about the natural and cultural history of the area.



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/bigbendbranch or inquire at one of the park visitor centers.

CERTIFIED COMMERCIAL GUIDES AND OUTFITTERS

Lajitas, 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

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 Saucedo Ranger Station. The road to Saucedo 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 Saucedo 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 Saucedo 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-Saucedo 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 Saucedo 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.

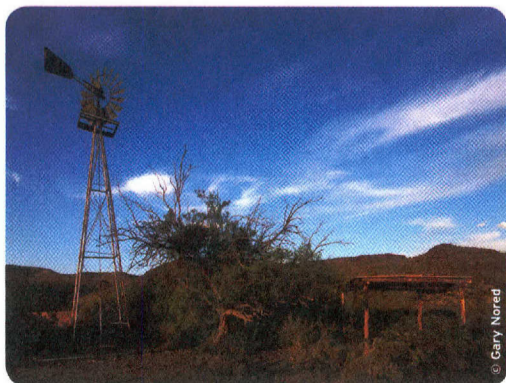
Backcountry: These sites are intended for self-supported hikers, bikepackers and equestrians. There are no designated campsites in the backcountry. Overnight visitors select their own site along the way. Sites must be at least 3/4 mile from any trailhead or active road. All water, food and supplies must 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.

Vehicle Accessible Campsites: 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.

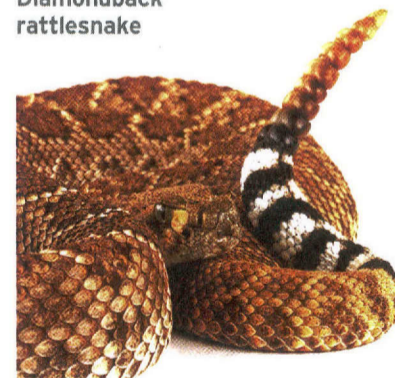
Keep children and pets under your control at all times.

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.

Western Diamondback rattlesnake



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 per person per
day for all visitors
13 years and older.

Standard Vehicle
Campsite:
\$12 per site/day

Backcountry
Camping:
\$10 per night/site

Dump station located at
Barton Warnock Visitor Center.

No hook-ups in park.

Lodging

The interior of the park offers
Sauceda Lodge Bunkhouse accom-
modations. 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
Closed Christmas Day

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



EMERGENCY SERVICES

Cell phone service in the park is
unreliable and limited.

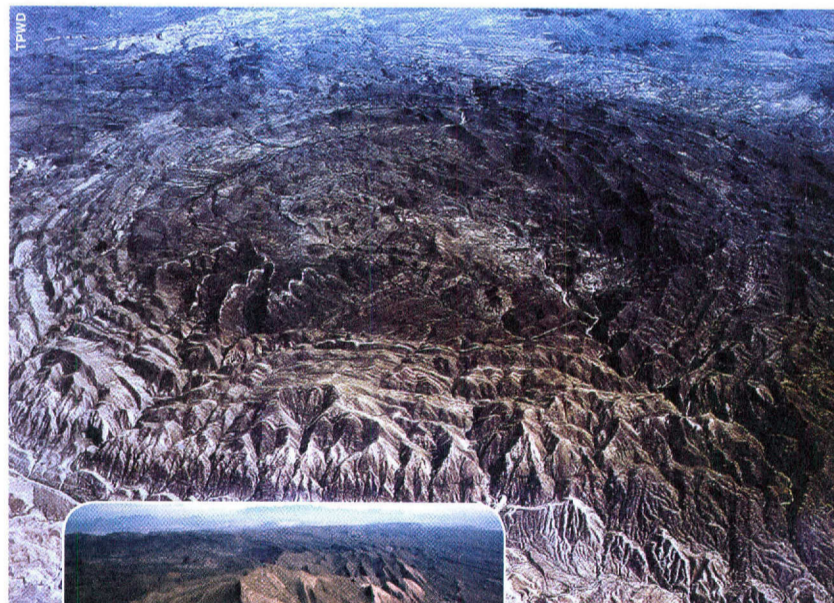
In the interior of the park 9-1-1 service may be
several hours away, but if you have cell phone
signal call 9-1-1 to alert the proper authorities.
Be sure to provide details of your location.

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?



Aerial view of Solitario
looking north-northeast



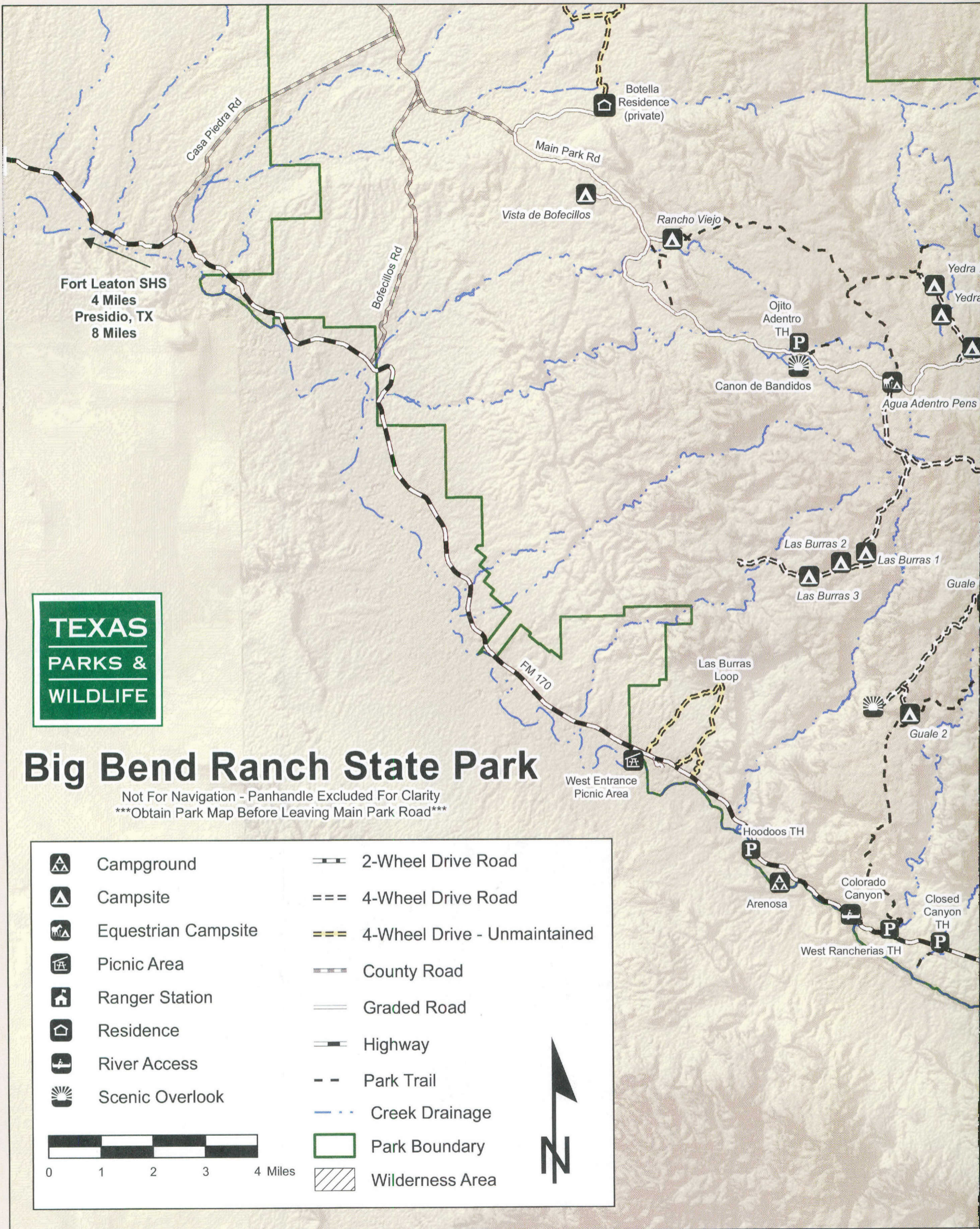
Flatirons

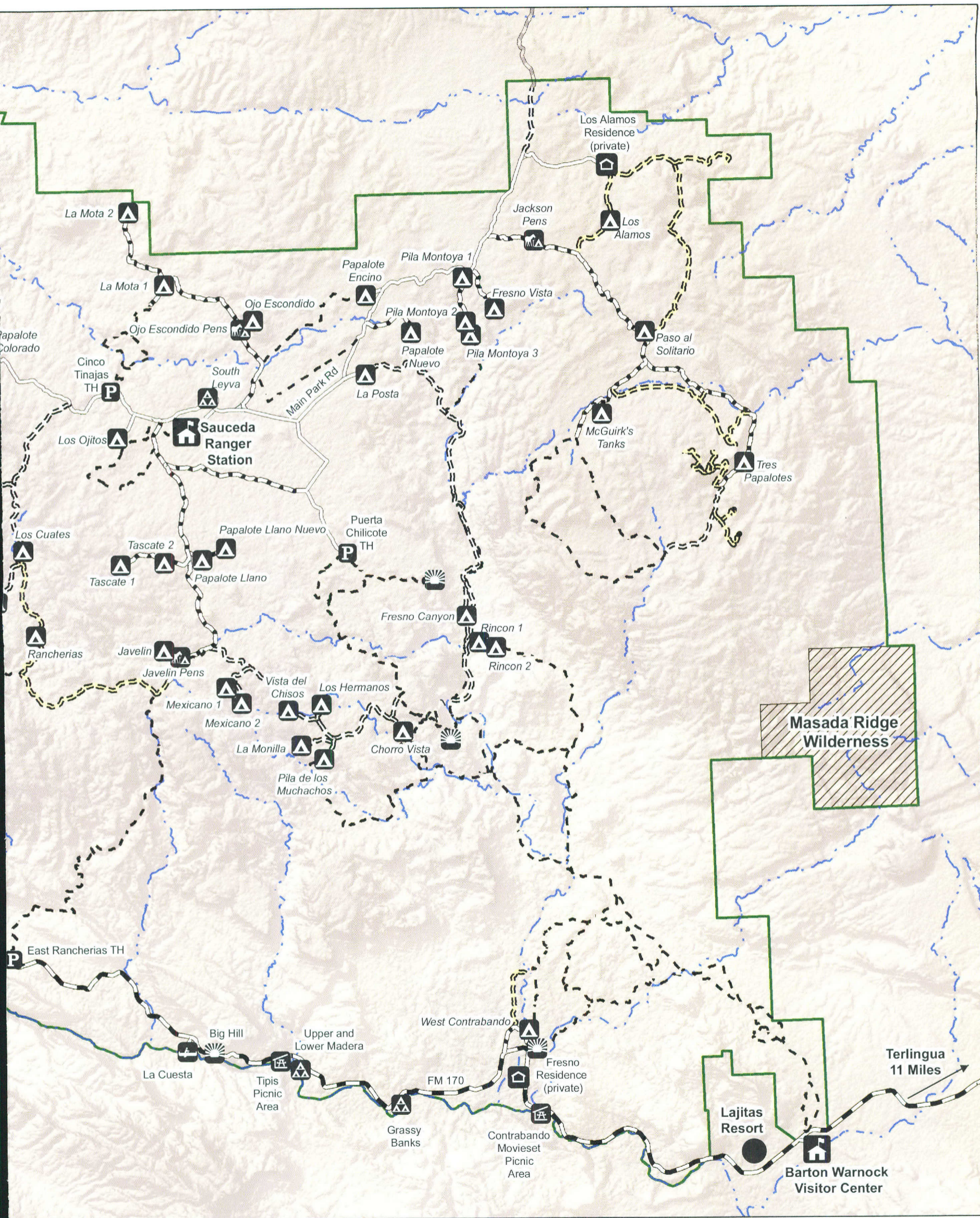
El Solitario is obviously quite special to the park as the newsletter you hold in your hand bares its name. But what does it mean? Spanish for "hermit" or "loner," El Solitario is THE signature landscape feature of Big Bend Ranch State Park. Almost 10 miles across and nearly symmetrical, this collapsed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

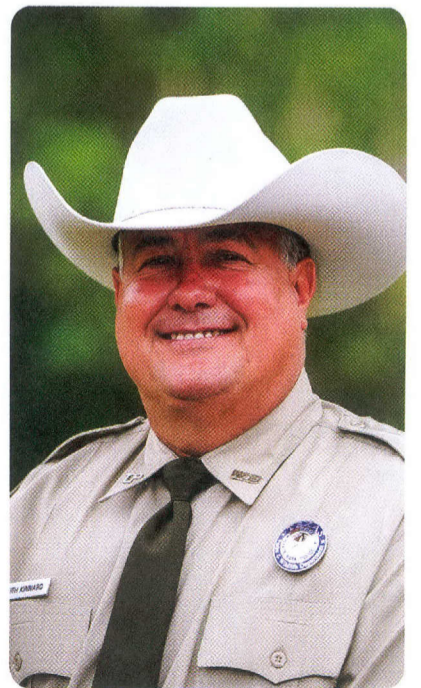
NOTE: Permits are required for travel on all BBRSP roads 2WDHC and beyond.

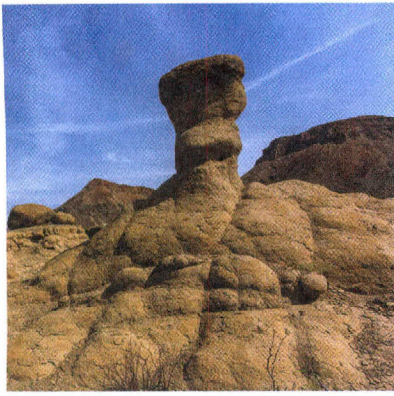
WELCOME, KEITH

Keith Kinnard is the new Superintendent for Saucedo Ranger Station of Big Bend Ranch State Park. After growing up in the diverse landscapes in the desert of Fort Stockton, Texas, Keith obtained his Criminal Justice degree from Midwestern State University.

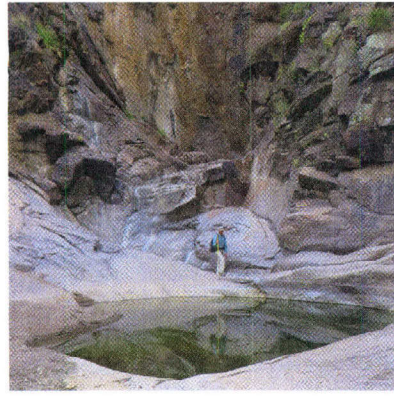
During his 25-year career as a Travis County Senior Sheriff's Deputy, Keith enjoyed working with the local students through the DARE program, regional environmental task force, as well as numerous community service events.

He joined the Texas Parks and Wildlife Department in 2016 as State Park Police Officer for Big Bend Ranch State Park, and has thoroughly enjoyed the vast lands, keeping our visitors safe, as well protecting the park's cultural and natural resources.





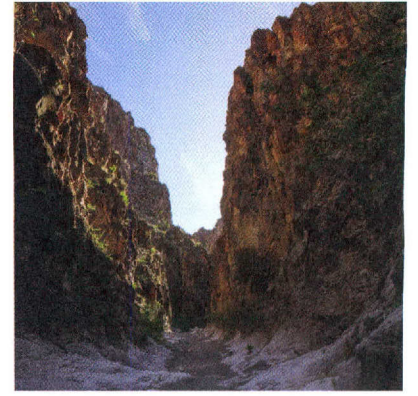
Hoodoos Trail



Cinco Tinajas



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 – Saucedá 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.

Trail Name	Trailhead Location	Approximate Round Trip Distance in Miles	Difficulty*	Recommended Use
Contrabando Multi-use System	FM 170	25+**	easy-difficult	hiking, mountain biking, horseback riding
Rancherías 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	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
Saucedá 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.
** 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.

Rancherías Loop Trail: Rancherías is a challenging, 21-mile-long loop. It begins at the East Rancherías Trailhead and ends at the West Rancherías 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 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.

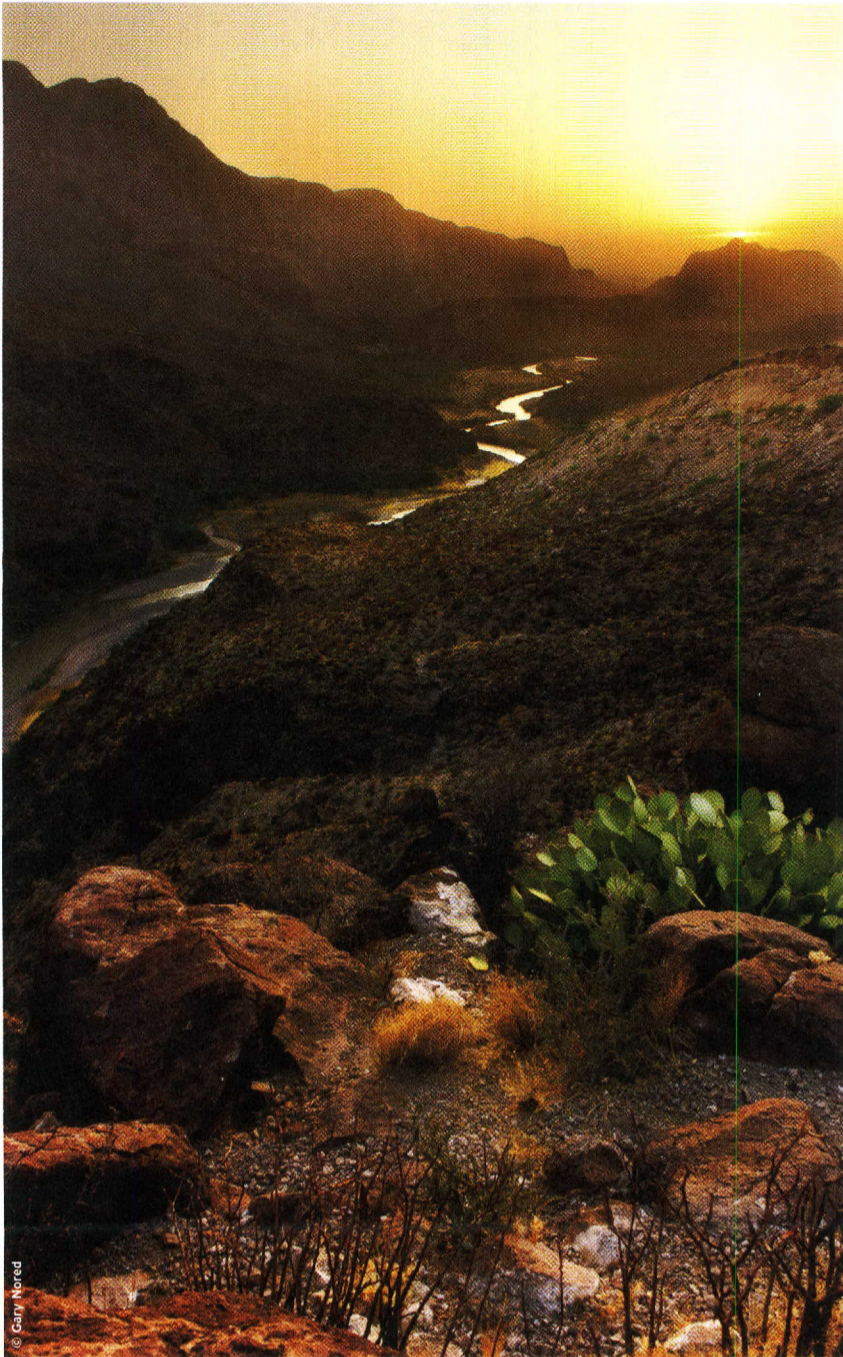
Saucedá Nature Trail: This trail passes through country that is typical of the Chihuahuan Desert and Llano area of the interior park. It traverses a ridge composed of lava like that found in the Bofecillos Mountains to the west. Signs along the way identify some of the plants common to the region. From the trail you will enjoy outstanding views of La Mota Mountain and the historic Saucedá 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 Saucedá 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 single-track trail that leads to a 700-foot cliff overlooking Fresno Canyon with views of the flatirons of the Solitario.



VOLUNTEER OPPORTUNITIES

Be Our Friend

By Amber Harrison, Big Bend Ranch State Park and
Mike Slaton, Compadres del Rancho Grande

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. Our mission is to help improve park facilities, aide in restoration efforts and inspire stewardship.

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, Fort Leaton State Historic Site and the Saucedo Headquarters, we help the Texas Parks and Wildlife Department complete projects and conduct programs by acquiring donations, supplying labor and having a presence.

There's always a way to help. Join us. Connect with us. Friend us. Donate your time or money. Be a part of it all.

HERE IS JUST A SAMPLE OF WHAT THE COMPADRES HAVE BEEN UP TO LATELY...

APRIL 2018

International Dark Sky Association Dark Sky Week

Compadres purchased food for the event and assisted in promoting Big Bend's dark skies while staff from BBRSP and partners from the Big Bend Conservation Alliance and the McDonald Observatory did programs and dark sky-friendly lighting demos.

SUMMER 2018

Summer Arts in the Parks program

Three years in a row, Compadres purchased supplies for a 6-week community art program in collaboration with local artist, Crystal Allbright. The program is a mix of science, nature and art inspired by the natural and cultural resources of BBRSP.

FALL-SPRING 2018

New Bird Blind

Compadres funded and constructed a bird blind and wildlife viewing area at Papalote Escondido near the Saucedo Ranger Station in the park's interior. Check it out!

DECEMBER 2018

Dark Sky community event at the Terlingua baseball field

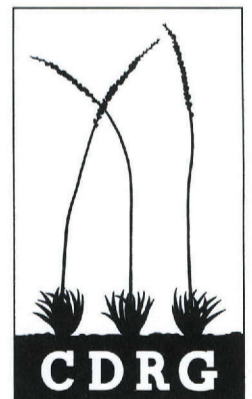
Compadres supported the event promoting dark skies in Big Bend. Staff from BBRSP and partners from Big Bend National Park gave programs on astronomy and light pollution for their first program partnership ever! Astronomy volunteers provided telescopes for stargazing.



Compadres complete their Big Bend Ranch SP bird blind.



Local artist Crystal Allbright leads summer art programs with help from the Compadres.



**COMPADRES
DEL RANCHO GRANDE**
www.parkfriends.org

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 432-229-3229.

What's Up?

By Laird Considine,
Retired Site Superintendent
Barton Warnock Visitor Center

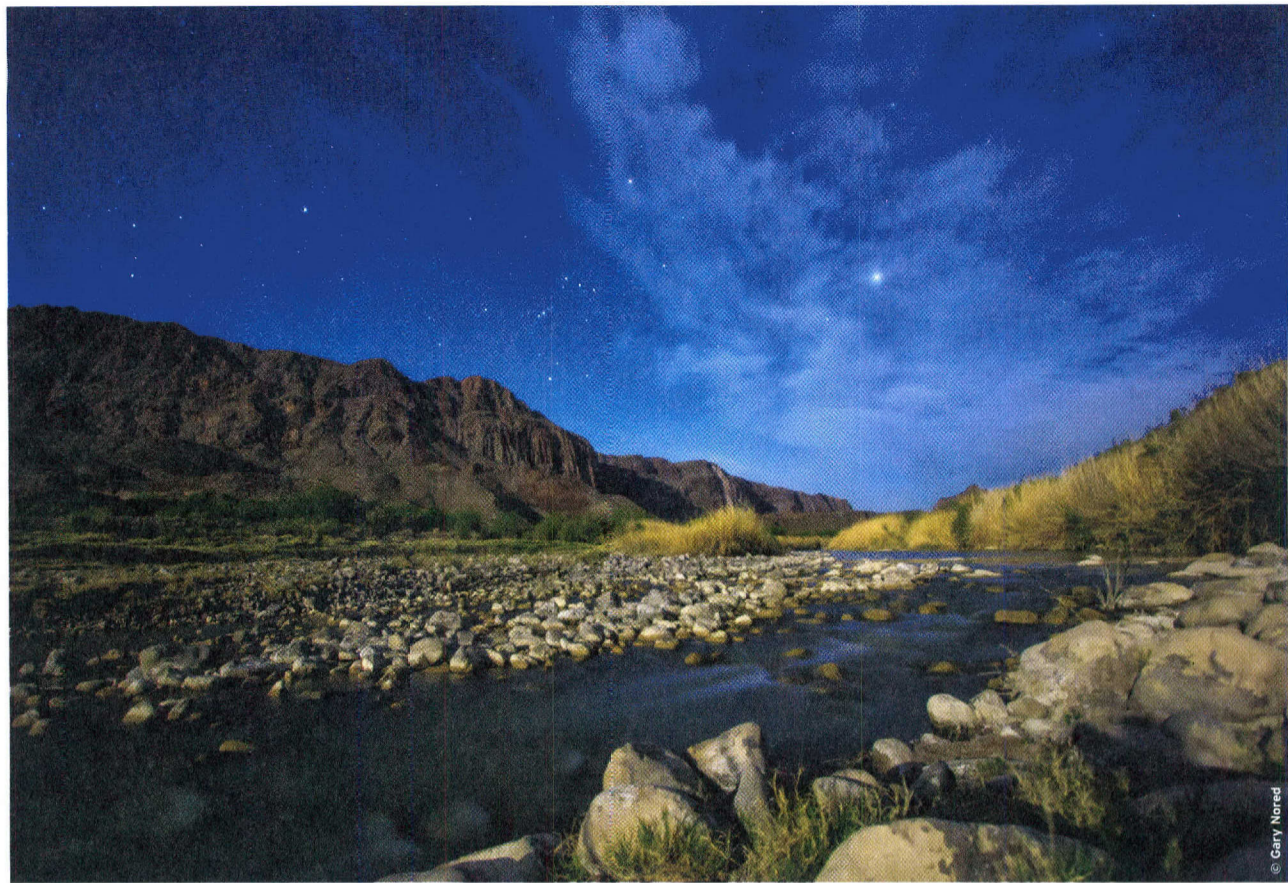
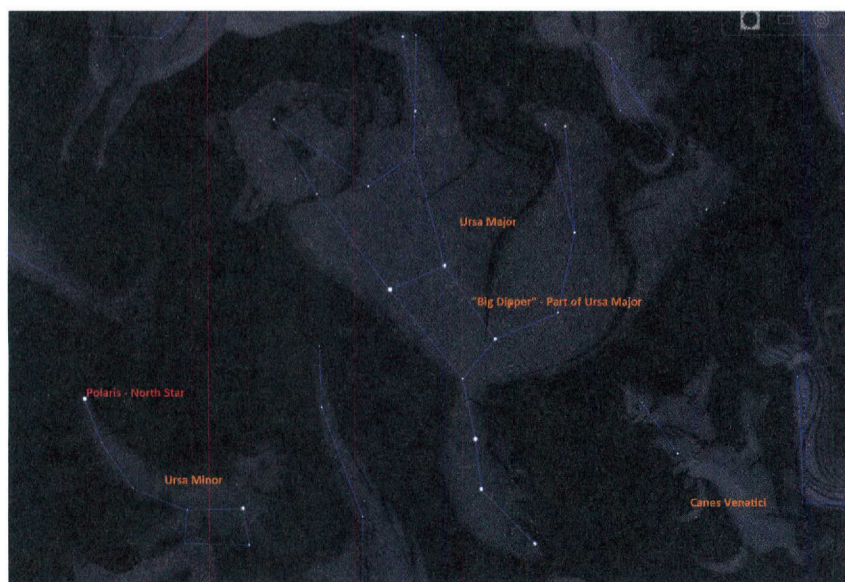
So, what's up? At night, a lot of stars! Big Bend Ranch State Park is now designated as a Gold Tier International Dark Sky Park with the darkest skies remaining in the continental United States.

If you're a beginner star-gazer, it can be overwhelming. In urban areas the brightest stars are visible, and some constellations are easy to find. Out here those constellations are surrounded by many stars and can be harder to locate.

Star charts are helpful as well as stargazing apps for your smart devices. Red lens flashlights or headlamps help maintain your night vision for soaking in all you can see of the Milky Way galaxy above your head. Don't have a telescope? Binoculars are great at helping spot night sky objects like star clusters.

As the earth rotates on its axis and around the sun, the night sky changes with each minute and each season. If you look at the sky at 10 p.m. and then again at midnight, constellations will shift. If you're looking in January and then again in July, new constellations have

Image from www.stellarium.org



Can you spot Orion in this star-scape above the Rio Grande in Big Bend Ranch SP?

slowly danced their way into the night sky.

Some visitors may want to learn the constellations of the Zodiac. At any time of night you should be able to see half of them. But be forewarned: several of the Zodiac constellations are easier to find (Scorpio, Leo, Gemini, Sagittarius, Capricorn, Taurus) while others are more difficult. The Zodiac constellations follow the same path across the sky as the sun and planets, known as the ecliptic.

Much of the year you can spot the Big Dipper, part of the constellation Ursa Major (Big Bear). Not sure which one it is? Look to the north. Ursa Major is one of five circumpolar constellations that circle around

the North Star. See the image below to help you find Polaris, which is also the tip of the tail of Ursa Minor (Little Bear), another circumpolar constellation. The three remaining are Queen Cassiopeia and her husband King Cepheus, and Draco the Dragon. Locating these five constellations throughout the year as well as their major stars, will help you navigate the night sky to other nearby constellations. Or you can "cheat" by using that handy app you downloaded. Simply point your device in any direction and learn what's up above you.

Another main constellation you might know is Orion the Hunter. Most of the visitors to the Big Bend are here in late fall to early spring, in those seasons Orion can't be missed. The three stars of his "belt" with his sword hanging from it will catch your attention even if you don't know anything about Orion! As the sky rotates into spring be looking for Leo, Virgo, Corona Borealis, and Bootes.

Summer showcases an incredible night sky show! There's the "Summer Triangle" of three stars in three constellations: Altair in Aquila, Deneb in Cygnus, and a very bright star named Vega in Lyra. Cygnus, the Swan, is flying right down the middle of the Milky Way! And you can't possibly miss Scorpio, either.

It's one of the few constellations that actually looks like what it is named for.

As we move into fall be looking for the "Great Square" of Pegasus. It really is a very large square, and hanging off the square is Andromeda. If you have good eyes you can find the Andromeda galaxy. This is the only object outside of our galaxy that is visible with the unaided eye from the northern hemisphere. Try to locate it with those binoculars and star chart or app.

Hopefully now you're more excited about the "game" of hunting for stars in the night sky. Many of those constellations' names come from the Greek myths. With a quick internet search, you can find their stories, handed down for thousands of years, entertaining and interesting for sure.

To do your part in protecting our night sky from encroaching light pollution, visit www.darksky.org to learn about the simple changes you can make to keep your light out of the sky.



NATURAL HISTORY

The return of Black Bears to Big Bend Ranch State Park

By Price Rumbelow, Habitat Conservation Specialist,
Texas Parks and Wildlife Department

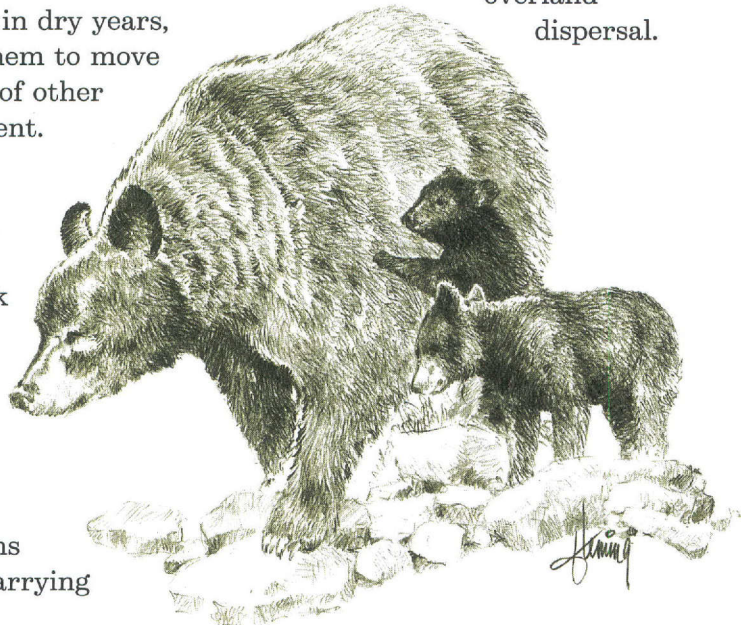
When you spot a black bear in Big Bend Ranch State Park you witness the rewriting of history. By 1945 black bears were extirpated, becoming extinct in Texas.

Beginning around 1988, Mexican black bears began to recolonize the Chisos Mountains in Big Bend National Park and the population of Texas-born bears continues to increase.

They first came back to the high quality habitat of the Chisos Mountains via nearby Mexican populations. Weather and climate may also affect their movement. Foods they rely on like acorns, pinyon seeds, and juniper berries are less abundant in dry years, causing them to move in search of other nourishment.

The migration of black bears back to Texas may have been spurred on by populations nearing carrying

capacity — too many bears and not enough resources. This type of a migration bodes better for bears because it typically coincides with consecutive years of abundance across a given area. Habitats that are in good condition are more accommodating of bears ignorant to the location of perineal food and water sources, then the bears, in turn, are often healthier and more resilient to the stress that accompanies long overland dispersal.



Chihuahuan Desert black bear

CAMPING IN BLACK BEAR COUNTRY

Keep a clean campsite at all times! Bears use their sense of smell to find food. Cook, clean, and store all cooking utensils 100 yards away from camp. Food scraps should be put with your trash and stored in a bear proof canister or out of reach of bears.

Practice Leave No Trace camping. When you leave, pack out all trash. Once a bear learns that campsites are a potential food source it can develop behavior that is dangerous to visitors and the bear. Remember, a fed bear is a dead bear!

If a black bear does come into your camp, don't allow it to stay. Yell, honk your horn, make noise, but remember to keep a safe distance. YOUR SAFETY ALWAYS COMES FIRST.

HIKING IN BLACK BEAR COUNTRY

Be aware of your surroundings. Bears seek shade and water to avoid the heat. When approaching a spring, a stand of thick vegetation or trees, or a shaded canyon, be extra cautious and make noise.

Know before you go. Ask a ranger about recent bear sightings. Take extra caution early in the morning and late in the evening when bears are usually active. If you encounter a bear, stay at least 100 yards away and slowly back away and leave the area. Respect the bear's space for your safety. If a bear approaches you, stand your ground. Raise your arms, backpack or jacket to appear larger, speak in a loud, firm voice. If you have bear spray, get it out and use it if the bear gets too close. DO NOT RUN! This may trigger a bear's chase instinct. If a bear does attack, fight back. DO NOT PLAY DEAD!

Report all black bear encounters to a ranger as soon as possible.

EL SOLITARIO

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