



The Paisano

The official newspaper of
Big Bend National Park and the
Rio Grande Wild & Scenic River

Volume 27, number 2



Ranch foreman's home at Blue Creek

A Checkered Past

WELCOME TO BIG BEND NATIONAL PARK AND THE RIO GRANDE WILD and Scenic River! Big Bend is one of the largest and least visited of America's national parks. Over 800,000 acres await your exploration and enjoyment. From an elevation of less than 2,000 feet along the Rio Grande to nearly 8,000 feet in the Chisos Mountains, Big Bend includes massive canyons, vast desert expanses, and the entire Chisos Mountain range.

Here, you can explore one of the last remaining wild corners of the United States, and experience unmatched sights, sounds, and solitude.

This issue of the *Big Bend Paisano* explores the complex history of the Big Bend. This desert borderland brought people of different cultures and different countries together, an often volatile mixture in an often harsh environment. While most visitors come here to experience the recreational opportunities the Chihuahuan Desert provides, the history of the region is never far away—from decaying adobe homes, to remnants of ranch fences or roads. During your visit, take a soak in the historic and healing waters at Hot Springs, seek out the sites of ranchers and soldiers along the Ross Maxwell Scenic Drive, or wander the more remote corners of the park and be amazed at the traces of the human story that still persist.

Superintendent's Welcome

Welcome to Big Bend National Park and the Rio Grande Wild & Scenic River, two of THE most special places administered by the National Park Service. We trust that you will have a wonderful time as you explore and experience these great parks.

In the early years of Big Bend National Park, historic structures were either destroyed or allowed to deteriorate because they were not considered to belong as part of a natural landscape. Many of the tangible remnants of Big Bend's past were lost through this process. In recent years a more balanced approach to preserving all

of the natural and cultural resources of the park has been adopted, resulting in efforts to stabilize many historic structures and an increased emphasis on interpreting the often-overlooked stories of Big Bend's past. The exhibits at the Castolon visitor center provide an excellent introduction to the complex and often conflicting stories of the region.

National parks like Big Bend belong to us all, and as such we have a shared stewardship role. Please be mindful of that as you spend time in YOUR national park. Leave only footprints and take only memories.



William E. Wellman
Superintendent William E. Wellman

Visitor Information

8 What to See & Do

Find out how to make the most of your time in the park. Recommendations and suggested trip itineraries for one day, three day, or week long visits can be found here.

9 Day Hikes

Find descriptions of many of the most popular easy and moderate hiking trails here. Detailed descriptions of each trail include length, average time required, difficulty, and location.

16 Park Map

Don't know where you are? The park map can help. This page also includes a list of useful phone numbers for services both in and outside the park.

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What is a Paisano?

Paisano is a Spanish word meaning countryman or peasant that is used throughout the American southwest as a nickname for the greater roadrunner.



Remember:

- The speed limit on all park roads is 45 MPH, unless posted slower.
- Resource collecting is prohibited. Take only pictures, and leave only memories.

Big Bend on the Internet

Plan your next trip, or learn more about the fantastic resources of the Big Bend by visiting the *official* National Park websites. These are your best source of information for weather conditions, river levels, research, park news, trip planning, and more.

Big Bend National Park:

<http://www.nps.gov/bibe/>

Rio Grande Wild & Scenic River:

<http://www.nps.gov/igr/>

Got Water?

Carry and drink plenty of water—at least 1 gallon per person per day.

Emergencies

Call 911 or 432-477-2251
24-hours a day or contact a Park Ranger.

EXPERIENCE YOUR AMERICA™

Big Bend National Park
PO Box 129
Rio Grande Wild & Scenic River
Big Bend National Park
U.S. Department of the Interior
National Park Service



National Park Service
U.S. Department of the Interior

Big Bend National Park
Rio Grande Wild & Scenic River

The *Big Bend Paisano* is published by the National Park Service for the orientation and education of visitors to Big Bend National Park and the Rio Grande Wild & Scenic River.

National Park Service

Editor, Eric Leonard, Park Ranger
Chief Naturalist, David Elkowitz
Superintendent, William E. Wellman

The National Park Service was established on August 25, 1916. . . . “to conserve the scenery and the natural and historic objects and the wildlife. . . and to provide for the enjoyment of the same in such manner and by such means as will leave them unimpaired for the enjoyment of future generations.” Authorized by congress in 1935, and established in June 1944, Big Bend National Park preserves the most representative example of the Chihuahuan Desert ecosystem in the United States. As conservation educators, the park’s Division of Interpretation and Visitor Services provides guided walks, talks, evening slide programs, workshops, and other educational activities as well as written materials such as this newspaper.

Big Bend Natural History Association

Executive Director, Mike Boren



The Big Bend Natural History Association, established in 1956 as a private, non-profit organization, champions the mission of the National Park Service in facilitating popular interpretation of the scenic, scientific, and historic values of Big Bend and encourages research related to those values. The Association conducts seminars and publishes, prints, or otherwise provides books, maps, and interpretive materials on the Big Bend region. Proceeds fund exhibits, films, interpretive programs, seminars, museum activities, and research.

Photograph Credits

When possible *The Paisano* proudly uses photographs of the park taken by visitors and submitted to the website visitor photo gallery. These photographs bear the photographer’s name; all uncredited images are NPS photographs.

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www.nps.gov/rigr/

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

EXPERIENCE YOUR AMERICA™

Big Bend and the Border



D. Bennett

Viewing the sun set against the Sierra del Carmen mountains is a sublime Big Bend experience, underlined by the irony that the mountains aren’t a part of the National Park; in fact, they aren’t even located in the United States. In addition to defining the curve that forms the Big Bend, the Rio Grande also serves as the international boundary between the United States and Mexico. Throughout much of its history the border along the Rio Grande has often been fluid, allowing people of both countries to come and go as needed. However, the border is an artificial boundary imposed on the natural environment, and as such is subject to political and social pressures.

Increased border restrictions following the 2001 terrorist attacks have led to a number of important changes that affect the international boundary in Big Bend. A visit to Big Bend is a wonderful experience to learn about the park’s history and to experience a wide variety of natural history and recreation options. The park’s border with Mexico is part of our shared landscape and a chance to experience and learn about our neighbors. A few simple steps can help keep the park safe for everyone who is here.

When Visiting A Border Park

Big Bend National Park shares the border with Mexico for 118 miles. This is a remote region. *Visitors should be aware that drug smuggling routes pass through the park.*

If you see any activity which looks illegal, suspicious, or out of place, please do not intervene. Note your location. Call 911 or report it to a ranger as quickly as possible.

Each year hundreds of people travel north through the park seeking to enter the United States. It is possible you could encounter an individual or small group trying to walk through the park with little or no water. Please *do not stop*, but instead, note your location and immediately call 911 or contact a ranger as soon as possible. Lack of water is a life-threatening emergency in the desert.

Crossings Remain Closed

As a result of a 2002 US Customs and Border Protection decision, there are NO authorized crossings in Big Bend National Park. *Crossing at Boquillas, Santa Elena, or other locations along the Rio Grande is prohibited.* The closest legal ports of entry are Del Rio and Presidio, Texas.

The U.S. Attorney’s Office has indicated that it will prosecute any criminal violations regarding any illegal crossings. If you re-enter the United States at any point within Big Bend National Park, you may be liable for a fine of not more than \$5,000 or imprisonment for up to one year, or both.

Border Merchants

Mexican Nationals may approach you from across the river to purchase souvenir items (walking sticks, bracelets, crafts, etc.). If you agree to look at/or purchase their items and the Mexicans cross the river, they may be arrested for being in the U.S. illegally. They will be held until deported back to Mexico through Presidio (100 miles away). Mexican merchants will be arrested for illegal commercial operations which may result in a fine and/or additional incarceration while awaiting adjudication prior to deportation.

Items purchased will be considered contraband and seized by officers when encountered.

Rocks, minerals, archeological items, etc. cannot be purchased, imported, or possessed in the national park.

In addition, illegal trade impacts the resources of the park in a number of negative ways, including the creation of social trails, the cutting of cane along the river, erosion of riverbanks and an increased amount of garbage and contaminants along the Rio Grande watershed. Supporting this illegal activity contributes to continued damage of the natural resources along the Rio Grande, and jeopardizes the possibility of reopening the crossings in the future.

Sotol walking sticks and other handcrafted items made in Boquillas, Mexico can now be purchased legally at a number of sales outlets inside and outside of the park.



© NPS

Left: The former Boquillas Crossing and all other border crossings inside the park remain closed.

Park Partners



The concept of partnership is deeply embedded in the management philosophy of Big Bend National Park. As a result, the park has developed a number of effective partnerships to further the mission of the National Park Service at Big Bend.

Big Bend Natural History Association

The Big Bend Natural History Association (BBNHA) was established in 1956 as a private, non-profit organization. The Association's goal is to educate the public and increase their understanding and appreciation of the Big Bend area and what it represents in terms of our historical and natural heritage. BBNHA champions the mission of the National Park Service of interpreting the scenic, scientific, and historic values of Big Bend and encourages research related to those values. The Association conducts seminars and publishes, prints, or otherwise provides books, maps, and interpretive materials on the Big Bend region. Proceeds fund exhibits, films, interpretive programs, seminars, museum activities, and research.

The Association's past and present projects include:

- Operate book sales outlets in Big Bend National Park and Amistad National Recreation Area
- Publish trail guides and brochures and assist with the publication of *The Big Bend Paisano*
- Sponsor an on-going Seminar program
- Provide annual grants for research projects and administer grants and gifts received for the park
- Support the park's volunteer, Junior Ranger, and educational outreach programs

Fifty years of support

2006 marked the fiftieth anniversary of BBNHA's association with Big Bend National Park. To date, BBNHA has contributed over \$1.8 million to the parks it serves! This financial contribution has led to countless projects, research studies, programs, services, publications, and information being made available to park visitors.



Seminars

Spend some quality time with an expert on Big Bend birds, tracks, black bears, dinosaurs, geology, and much more with our Natural History Seminars Program. Now in its 18th year, the immensely popular program sponsored by BBNHA continues to grow and improve.

There are still slots available for the upcoming sessions. Sign up today!

Spring 2007 Seminars

February 3	Pioneer Reunion
February 4	Hot, Tired & Dusty
February 24	3600 Feet of Botany
February 25	Sketches & Blooms
March 31-April 1	Backpacking for Women
April 8	Birding for Dummies
April 14-15	The Big Ditch
April 14	Saddles & Hooves
April 15	Snakes, Lizards & etc.
April 21-22	Search for the Silver
April 27-29	Feathered Friends

Additional information on these seminar schedules is available on the BBNHA website, www.bigbendbookstore.org or call 877-839-5337.

Friends of Big Bend

Founded in 1996, the Friends of Big Bend National Park is a private not-for-profit organization with a mission to support, promote, and raise funds for Big Bend National Park in partnership with the National Park Service and other supporters who value the unique qualities of this natural resource on the Rio Grande. The Friends of Big Bend National Park has funded a range of critical projects, including wildlife research programs, the purchase of equipment to monitor air and water quality, and the construction and renovation of Park infrastructure.

The Friends of Big Bend National Park host a yearly membership event and in-park tour, which is an excellent opportunity to get to know the board of directors governing the organization and perhaps even to get more involved with the group. Also, several fund-raising events occur in the major Texas cities throughout the year and are another opportunity to get involved and help with the mission of the Friends Group. The group's website is a great place to look for upcoming events and current happenings.



PO Box 200
Big Bend National Park, TX 79834
432-477-2242

www.bigbendfriends.org

Volunteers in the Park

Volunteers are a valuable and valued part of our operation and our community. Last year over 150 volunteers contributed 41,419 hours of service to Big Bend National Park. Some service groups come for a few days, other volunteers stay for months. Some are students; others are retirees looking for adventure during their "golden years."

Most of these volunteers work in visitor centers and as campground hosts; however, volunteers also help in science and resource management, maintenance, and administration. Regardless of age or background, these folks share a desire to make a positive contribution to the preservation and management of Big Bend National Park.

Honor Roll

Join us in thanking the following individuals and organizations who have recently donated 100 or more hours in volunteer service to Big Bend:

- Reta and Dick Averill
- Barbara and Bill Baldwin
- Marty and Howard Benham
- Royann and Royce Brockett
- Marsha and Pete Coates
- Kay and Doug Combs
- Wanda and Mike Copeland
- Ed Davis
- Gary Dickson
- Bob Douat
- Sam and Erv Drabek
- Lynda and Bob Fanning
- Jillian Floyd
- Diane and Gary Frable
- Ruth and Ray Genuske
- Steve Harper
- Joan and Raymond Kane
- Mark Kirtley
- Allison Leavitt
- Eddie Napps
- Darla and Ed Piner
- Terry Purvis
- John Queen
- Dori Ramsey
- Christina Rinas
- Alice and Bob Schnebel
- Stephanie Steinhorst
- Steve Wick
- Bob Wirt



Join us and support your park!

Become a member and create a lasting relationship with Big Bend National Park.

Do more with your dues!

Purchase a dual annual membership in both BBNHA and the Friends of Big Bend National Park for only \$100.

Member Benefits

Membership benefits include a 15% discount in BBNHA bookstores; a 10% discount on most seminars; a subscription to the *Big Bend Paisano*; a current Big Bend calendar; discounts at many other association bookstores in other national park sites; and the opportunity to support scientific, educational and research programs in Big Bend.

Annual Dues

- Individual \$50
- Associate \$100
- Corporate \$200
- Joint Membership (W/ FBBNP)

Life Membership

- Individual/Family \$500
- Corporate \$1000
- Benefactor \$2500

- Renewal
- New Member

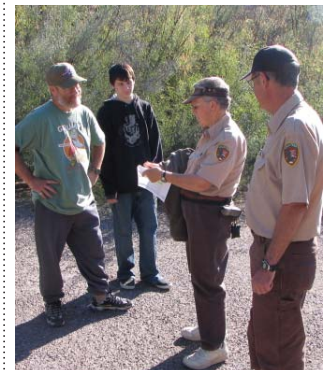
Name _____
Address _____
City _____ State _____ Zip _____
Make checks payable to BBNHA or charge to:
____ Visa ____ Mastercard ____ Discover
Card Number _____ Exp. Date _____
Signature _____

Detach and mail to: Big Bend Natural History Association,
PO Box 196, Big Bend National Park, Texas 79834
Telephone: 432-477-2236

You can also join online at www.bigbendbookstore.org

Get In On the \$30-Per-Plate Fund Raiser

Big Bend custom license plate are now available for your car, truck or motorcycle from the state of Texas and most of the cost will be used to help preserve and protect Big Bend National Park, one of the world's last great wildernesses. It may be the most fulfilling contribution you'll ever make.



Park volunteers Royann and Royce Brockett discuss campground regulations with visitors at the Rio Grande Village Campground.

Park News

Wellman named new Superintendent

In November 2006, William Wellman, a 36-year veteran of the National Park Service, assumed his responsibilities as the 15th superintendent of Big Bend National Park. He replaces former Superintendent John H. King, who retired earlier in the year. In his new role as superintendent of Big Bend National Park and the Rio Grande Wild and Scenic River, Wellman manages a combined total of approximately 801,763 acres, an annual operating budget of more than \$5,680,000 and a staff of approximately 97.

Backcountry Use Fees

Beginning February 1, 2007, Big Bend National Park will begin charging a fee for all overnight backcountry use permits. The backcountry and river use fee is a \$10.00 per permit charge with all revenue generated being used for backcountry-related projects, including river access improvements, trail rehabilitation and maintenance, and back-country campsite maintenance.

Project Updates

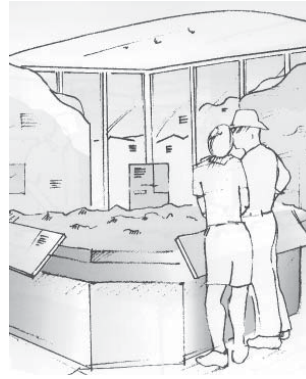
After several years of delays, a remodeling and expansion of the Panther Junction visitor center should get underway by mid-2007. New interpretive exhibits will be installed upon completion of the remodeled and expanded spaces. There will be some inconvenience to the public at several stages of demolition and construction associated with this project, but the results should carry on without interruption for several decades. A new Resource Management building will begin construction at the start of 2007. When complete, this building will replace the leased modular units, and will provide a secure and environmentally benign storage location for both collected artifacts, and those who care for them. Major water system maintenance continues via several contracts underway in the Chisos Basin. Slightly increased water storage capacity, and greatly increased water system reliability will result from these actions. An incidental benefit will be the return of some natural spring flow to a short portion of the drainage below Oak Springs, the water source for the Chisos Basin.

Backcountry Campsite Changes

In November 2006, a number of minor changes were made to backcountry campsites located along several primitive roads. The Ernst Tinaja #2 campsite, located over a mile to the south of the Tinaja, has been renamed Camp de Leon to reduce confusion over the location of the trailhead area. On the Juniper Canyon Road a new campsite, Robber's Roost, was developed, and the Juniper Canyon #1 campsite was redesignated Twisted Shoe.

Exotic Species

In the fall of 2006, the green tree frog was added to the list of exotic species inhabiting the park. It is native to the southeastern US, and had previously not been recorded for the park, county, or any adjacent counties. Initially documented during a five-year intensive amphibian study, the presence of the green tree frog was confirmed by the collection of a specimen by a park employee at the end of September. Through intentional and unintentional transfer from people and vehicles, it appears the green tree frog now joins the Mediterranean gecko, elegant slider, two species of palm, bullfrogs, and tilapia (a fish) as permanent exotic residents of the wetland environment at Rio Grande Village, and now have the opportunity to spread. Numerous other exotics are there also, but arrived by other means.



Top: The new Robber's Roost primitive campsite located along the Juniper Canyon Road.

Middle: Concept design of new exhibits for the Panther Junction Visitor Center.

Bottom: American green tree frog, now present in the Rio Grande Village wetland environment.

Entrance Fees at Big Bend National Park

Why Do Parks Charge A Fee?

Much of the funding for Big Bend and other national parks comes from American taxpayers. However, protecting this land and ensuring that you have a safe, enjoyable and educational experience costs more than this tax base provides. Therefore, the U.S. Congress determined that people who use federal lands should pay fees to help offset the difference.

Where Does Your Money Go?

Twenty percent of the money collected from entrance and campground fees is redistributed to units of the National Park System that do not charge fees to assist in their upkeep and to upgrade those areas. Eighty percent of the money collected here stays in Big Bend National Park.

How Is Your Money Used?

Your entrance and campground fees help Big Bend National Park complete important projects that directly benefit you and other park visitors.

Recent Projects at Big Bend Made Possible By Your Fees:

- Reconstruction of the Rio Grande Village nature trail boardwalk
- Installation of a toilet at Hot Springs
- Develop a visitor center at Castolon
- Improvements to river access boat ramps

Future Projects:

- Major expansion of the Panther Junction visitor center
- Castolon historic district exhibits

Inventory of Archeological Resources

Park Archeologist Tom Alex

The National Park Service is required by law to inventory all cultural resources on Park Service lands. This includes archeological, historical and ethnographic resources. Big Bend National Park is very large and a complete archeological survey of the entire park would be astronomically expensive and probably would take at least two decades to complete. To satisfy its legal requirements, we are sampling a portion of the park and will use that information to better understand where important prehistoric and historic sites may be located and what kinds of resources may be in those locations. This information is useful when new development is planned because knowing where important sites are likely to occur enables park planners to avoid negatively impacting them with new development.

To do this, the park is working under a cooperative agreement with the Sul Ross State University Center for Big Bend Studies. The park archeologist and the director of the Center for Big Bend Studies are concurrently directing this project. Information derived from the study is analyzed in the park's Geographic Information System. Some interesting insights are coming out of the study.

Humans have inhabited this area throughout the past 10,000 years, the period since the close of the last Ice Age. During this period the climate has fluctuated between cooler and warmer, wetter and drier. There has been a gradual trend toward today's warm and arid climate. Throughout this transition, the patterns of vegetation have changed drastically. At the end of the last Ice Age there was a woodland that covered the area between the Chisos Mountains and the Rio Grande. As the climate became more arid, the woodland could no longer survive at lower elevations and desert grasses, shrubs, and succulents took its place. Erosion began stripping away the soil at lower elevations and began migrating upward across the intermontane basins and deep arroyos and badlands formed.

People lived in this region throughout those changes and learned to adapt to different food sources and places to find shelter and water. The increasing scarcity of water presented problems that these people had to overcome by finding reliable water sources and by using the desert succulents for food and water. People also learned where to place their campsites at locations where they were able to gather food from the open

desert as well as in the higher mountain ranges. Campsites during the later prehistoric times were concentrated where food and water resources were richest. Campsites in the open desert tend to be short term hunting camps. These campsites are small and widely scattered. Long term campsites are located along water courses and near the base of mountain ranges at the ecotone between desert and mountain sources of food, water and shelter.

Archeological surveys have recorded over 1,800 sites but less than 5 percent of the park area has been sampled thus far. The survey will run through 2009 and is expected to gather much more information about how people have used the land and adapted to what the desert has to offer.



Top Right: Setting up the field campsite along the Talley Road.

Middle Right: Working a survey block west of Mariscal Mountain.

Bottom Right: Recording a site feature.

Story of a Badge

Ranger Mark Flippo

*A pistol shot, at five o'clock,
the bells of heaven ring,
tell me what you done it for,
No I won't tell you a thing.*

~Grateful Dead

In 1987, Fort Worth area police officer G.A. Couldron found an old Brewster County constable's badge for sale at a gun show. Stamped on the badge was the name "F.R. Valenzuela". Intrigued by his find, Couldron began a two-year search for the man who once wore the shield. In 1989, Couldron tracked down the descendants of one Felix Valenzuela in Alpine and learned the story of the man who played an important role in the mining boom years of the Big Bend and who died attempting to bring law and order to the frontier.

Felix Valenzuela was born in Julimes, Chihuahua, Mexico (about 130 miles south of Ojinaga) in 1882. He came into the Big Bend region sometime in the early 1900s during the time of the quicksilver boom. Many small communities grew up in the region in support of the mining operations, and a factor in their development and growth was the transport of critical supplies, materials and mail. The vast distances and rough roads between these many communities were tremendous obstacles to communication and transportation. It was here that Valenzuela made his first mark on the Big Bend and established himself as an influential and prominent member of the Hispanic community.

Valenzuela began purchasing Studebaker wagons, a sturdy, mule-drawn vehicle that could carry up to 4 tons across the rough roads and arroyos of the desert. He invested in a herd of 30-40 mules to pull the wagons, choosing a breed of "Spanish" mule that was smaller than a standard mule, but could withstand heat better, required less feed, and could go longer without water. Outfitted with four wagons and his herd of mules, Felix Valenzuela quickly became the largest freighter among eight Mexican contractors who handled the northward transport of quicksilver for William Perry's Chisos Mining Company. On the return trip the freighters carried equipment, supplies, mail and passengers to the mines, farms and ranches in the south county.

At a flat rate of 50 cents per one hundred pounds of freight, Valenzuela and his competitors realized great profits, especially when they exceeded the 4-ton capacity of their Studebakers. (Valenzuela once hauled a 22,500 pound gasoline engine for the Chisos Mine from Marathon to Terlingua using a special wagon and 40 mules—the trip took almost a month).

Within the Mexican community the teamsters were among the elite. They were all self-employed and obviously the most prosperous citizens. Valenzuela, being the largest contractor, had sufficient wealth to purchase his own land, the Rancho El Burro, just west of today's park along the lower end of Terlingua Creek. After a few years of successful business, Felix seldom drove the wagons himself, being able to afford to subcontract out to friends and family to drive the heavy transports. He continued using the mule drawn wagons through the twenties and early thirties until improvements to the roads and the availability of motorized transport signaled a change of the times. Valenzuela was among the first teamsters to sell off the mules and old Studebakers and to switch to motorized tandem transport trucks. Adapting to the times and the technology, Felix Valenzuela maintained his primacy in the Big Bend freighting trade.

During his association with the Chisos Mining Company, Felix became a close friend to Robert L. Cartledge, brother of Wayne Cartledge (manager of the La Harmonia store in Castolon) and right hand to William Perry, owner of the Chisos Mining Company. Robert Cartledge had joined the company in 1911 as a store manager, and then progressed to General Manager, a post he held from 1923 to 1940. The two men, from very different backgrounds, found common ground in their work and apparently in their views on the future of the Terlingua area. They entered together in a ranching venture in 1931 and Cartledge often supported Valenzuela financially in various business deals. In addition to his duties as general manager for the Chisos Mine, Cartledge also ran for and was elected Justice of the Peace of Precinct 2, Brewster County. A short time later Valenzuela, at Cartledge's urging ran for and was elected constable of Precinct 2 in 1929. Together the two men represented the precinct's only law enforcement, Cartledge as judge and jury and Valenzuela as arresting officer. For a period of nine years they worked together enforcing the law in the various towns within the precinct and closely guarding each other's backs. Their collaboration came to a violent end on the night of June 19, 1938.

**Terlingua Officer
Is Fatally Shot**

**MEXICAN ACCUSED OF KILLING
AT MINING TOWN MAKES
ESCAPE INTO MEXICO**

Felix Valenzuela, for a number of years constable at Terlingua, mining town in southern Brewster county, was fatally shot early last Sunday morning when he and R. L. Cartledge, justice of the peace and manager of the Chisos Mining Co.,

Top: Detail of Valenzuela's death certificate.

Bottom: Headline from the *Alpine Avalanche*, June 24, 1938.

Both images courtesy of the Archives of the Big Bend.

The violent death of Felix Valenzuela was recorded in the *Alpine* newspaper with a brief, single column that ended with "He is survived by a large family." Outside of his family and friends, the memory of this man who had played such an integral role in the history of the Big Bend quickly faded. Fifty years later, an old badge offered for sale brought Felix Valenzuela's story back to light. Sixty years after his death, Felix Valenzuela was officially recognized for his sacrifice in the line of duty. On September 14, 1998, the Brewster County Commissioners Court passed a resolution honoring Valenzuela. In addition, Valenzuela's name is now inscribed on the National Law Enforcement Officers Memorial in Washington D.C., alongside the names of other men and women of all cultures who have given their lives to maintain peace.

The Last Cottonwood

Ranger Rob Dean



It fell not long ago, unnoticed. Simply functional, neither large nor magnificent, it did not command attention. Time, weather, and climate change undercut its roots—it was the last of several to finally fall and, for some, it was the end of an era. Its obituary would personify the long full life of a surviving matriarch outlasting spouses, siblings, and offspring in stark contrast to its locale.

They were always there, offering a spot of green, a welcome and inviting grove refreshing a landscape. Naturally, it was a stop, a comfortable attraction offering cool water and shade or perhaps open arms and a sip of buttermilk or peaceful reflection. From a distance, the grove gave direction or allowed time enough for a decision as nearby road junctions beckoned travelers. The grove was reliable and in its youth, more abundant and verdant, such that its prominence in the landscape was noted and named Cottonwood Springs. It is perhaps by instinct that man connects a green grove of cottonwoods to water.

Forever irresistible to explorers, wanderers, and visitors, Big Bend's cottonwood groves are far less numerous than even 20 years ago. As surviving remnants of an onslaught that began more than a century past with the arrival of wood-seeking miners and homesteaders, the few remaining cottonwood groves reflect a tenacity that has exemplified local spirit. As mature trees die or fall, young shoots may sprout from the roots serving as replacements if conditions warrant. Often the young shoots are out-competed by exuberant exotics like salt cedar which can alter the fragile balance of water, soils, and plant resources.

Each grove harbors many tales, some imagined, some ingrained as local lore, and each, as at Dugout Wells, Buttrill Springs, Terlingua Abajo, and Cottonwood Springs share the cottonwood tree as its common denominator. Its value is not measured by gold weight but by water weight—tall, healthy trees must be near dependable water. Big trees are distantly recognizable, often live beyond centenarians, and await a bulky death; their rooted shoots are a persistent reminder of past giants.

From her deathbed in 1911, Nina Hannold planned her resting place under her cottonwoods overlooking Cottonwood Springs. It was and remains her favorite place in the world, representing joyous times with family and friends shaded by the big trees. Countless visitors, attracted solely to the trees, paid their respects at the Hannold gravesite and perhaps enjoyed the same peace that Nina felt. Today, the cottonwoods no longer shade her grave as the last cottonwood fell not long ago unnoticed.

You may visit the Hannold gravesite located four miles north of Panther Junction.

A Desert Sanctuary



Since this is an overpowering land, everyone who enters—if he plans to stay—involuntarily accepts the challenge of the environment. It is a tough land to settle, never changing. It is an unyielding land, giving up reluctantly whatever man, plant, or animal seeks from its crusty bosom. The Big Bend allows no winners; there are only survivors.

~Kenneth Baxter Ragsdale

Big Bend National Park is much more than just a recreational destination. It is a sanctuary of natural and cultural resources—a living museum for all the world. Conserving this heritage is a task the National Park Service cannot accomplish alone. All of us serve a critical role in maintaining Big Bend's sanctuary for the future.



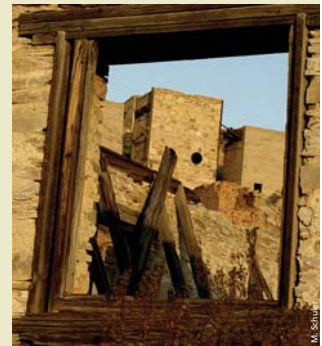
Keep wildlife wild. Human foods are not healthy for wildlife. Feeding wild animals is illegal and can cause injury or death to the animal. Keep food in a hard-sided vehicle or food storage locker where provided.



Please respect the peace and quiet of Big Bend's unique environment and protect the subtle sounds of nature by traveling quietly.



You are an important resource, too. Use common sense and good judgement to protect your own safety and take advantage of our educational programs to enhance your knowledge of Big Bend.



Collecting any natural or historical feature or object is strictly prohibited. Leave the park intact for others to enjoy. If you witness any collecting, report it to a park ranger as soon as possible.

Unexpected Consequences of Border Life

Ranger Angelina Yost

On the night of May 5, 1916, the nearly 80 residents of Glenn Springs prepared for the annual Cinco de Mayo celebrations. The revelers did not suspect that trouble was at hand. No alarm was raised by the arrival of a large party of men who blended in with family and friends congregating for the celebration. Late in the night, they launched their attack. Both Glenn Springs and Boquillas, Texas, were raided and looted. Buildings were burned, stores ransacked, two people kidnapped, and three American soldiers stationed at Glenn Springs and the child of the white store owner killed.

Some attributed the atrocities to Villistas, Pancho Villa supporters, linking the raid to Villa's attack on Columbus, New Mexico, two months earlier. The incident provoked an outcry and a call for federal response. On May 11, the US Army, under the command of Colonel Sibley and Major Langhorne, invaded Mexico with a force of eighty men. This second major US military intervention in the same year, occurring while Pershing was still in futile pursuit of Pancho Villa, nearly brought the two nations to war. Mexican troops had orders "to attack the American force unless it retired at once."¹

Ultimately, Langhorne's incursion was successful in freeing the hostages and

recovering some of the property, and tensions between the two nations took a back seat to the revolution itself. In addition, thousands of American troops were sent to the region to boost border security. Vulnerable to attack due to their isolation, West Texas residents were relieved to hear about the Army's response and thankful for the presence of the military. Another consequence of the raid however, was one that is often overlooked in the history books.

The incident led to discrimination against and persecution of the Hispanic community. Whether Tejano or Mexican, no distinction was made. The Anglo American community became deeply suspicious of all, despite the fact that these people were the backbone of the local work force. Hallie Stillwell wrote "Their impulse was to shoot all Mexicans on sight. The lead editorial written by W. J. Newsom, editor of the local paper, the *Marathon Hustler*, May 13, 1916, had this to say... 'there is only two words in every man's mind 'Kill and Revenge'."² As a result, Mexican workers needed identification papers if they wanted to work or stay on the Texas side of the river. There is a famous story about a Hispanic cowboy who carried a note from his employer that said "Juan is a good Mexican; don't bother him. When I finish with him, I will kill the old S.O.B.

myself".³

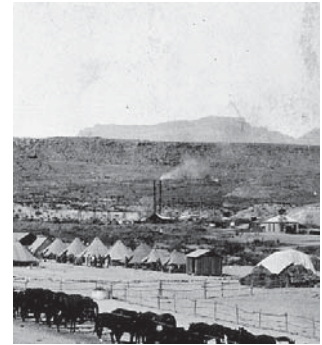
Today, border security has become a national priority after the events of 9/11. This has also had very unfortunate consequences for Mexicans and Americans who live along the border. When I first arrived in Big Bend in 1999, visitors could cross into the small towns of Boquillas and Santa Elena to eat an authentic northern Mexican meal, buy local handmade crafts or stay at a bed & breakfast. The National Park Service presented educational programs in the local schools, and conducted meetings in the towns with staff of the protected areas in Mexico. Some park and concession employees lived in and had families in Boquillas, San Vicente and/or Santa Elena. Since these towns were at least 100 miles from a paved road, it was more economical and convenient for them to cross the river and buy bread, eggs, fuel and other necessities from our park stores.

Before the border closed, my friends and I liked to plan our day so that, after a hike ...continued on page 14

Top: Cavalry Troopers ride in the Big Bend, ca. 1916.

Above Right: Sixth Cavalry camp at Glenn Springs, 1916.

Right: Hispanic residents of the Big Bend, 1930s.



What history is worth saving?

Park Archeologist Tom Alex

"Americans as a general rule build impermanently and as a result follow a practice of making sweeping changes from time to time. Thus many Historic sites are altered or wiped out altogether. An early log cabin, a dilapidated mansion, an Indian mound, fundamentally characteristic of the American scene, may seem to the persons with an individual point of view to stand in the way of progress. But, actually, such buildings may be an invaluable state or national asset, as real as a hundred square miles of forest and more completely irreplaceable when lost. Such structures provide us with a feeling of continuity in our development, as they recall to our minds our most valuable traditions, such as pioneer courage or the general social impulses of colonial days...they give us faith in our ancestry, and they provide us with visual symbols to join in our minds our past and future development."

~Arno Cammerer, mid-1930s

These perceptive words were written only a few years prior to the establishment of Big Bend National Park and should have guided the decisions for the development of the park. But as the record shows, the earliest decisions made about the park sometimes came from those who least knew how best to manage the park. I was fortunate to meet and become close friends with Dr. Ross A. Maxwell, first superintendent of the park, who was charged with returning the park to a "natural" landscape. Big Bend National Park was established because of its remarkable scenic and recreational opportunities, and the strategy for early development that was dictated to Ross Maxwell was to remove "those Mexican hovels" and make the park safe for tourists. This early attitude regarding the multitude of homesteads, fences, corrals, and farm sites scattered across the park landscape reflects the desire to remove human encumbrances to the wide open and unimpaird vistas typical of the wild western frontier. The feeling of the time was that these adobe huts and jacales were simply modern intrusions that should be removed so tourists could enjoy the natural environment.

The often unsubstantial construction of adobe buildings succumbed to natural forces of rain and wind that stripped off the protective mud coating on the walls and tore away the brush and mud roofs. The rock and adobe buildings thus damaged soon began crumbling back to the earth from which they came. Once a roof was gone,

the walls that were exposed to summer monsoon thunderstorms became unstable, and the park service considered them dangerous to anyone wandering amongst the ruins for fear that an adobe wall might come down upon the unsuspecting visitor. During the first half decade, numerous such sites were either leveled by bulldozer or the "offending" adobe walls were pushed over by park rangers. One jacal, however, was somehow neglected by Dr. Maxwell and it stands today along the Old Maverick Road.

I recall Dr. Maxwell recounting a visit by the Regional Director responsible for the dictum of destruction. The Old Maverick Road was under maintenance and when Maxwell was touring the director to Santa Elena Canyon the subject of the old jacal came up. "Did you tear down that hovel yet Ross?" said the director. "Well, sir..." says Dr. Maxwell, "...you see that maintainer sitting there on the side of the road? We were about to take down that hovel and the machine broke down. When we get that machine running again, we'll take care of that hovel for you." Somehow, that maintainer never made it all the way down to Gilberto Luna's jacal and it stands today as a reminder of days past.

In 1935, the Historic Sites Act declared "a national policy to preserve for public use historic sites, buildings, and objects..." and authorized the NPS to "restore, reconstruct, rehabilitate, preserve, and maintain historic or prehistoric sites, buildings, objects, and properties of national historical or archaeological significance..." None of the old buildings in Big Bend National Park were considered to be of national significance and there was no justification under this piece of legislature dictating their preservation. However, the National Historic Preservation Act of 1966 declared a national policy of historic preservation on the state and private levels, and established the National Register of Historic Places within which state and locally significant sites and buildings could be listed, and funding could then be allocated for their preservation and protection. This landmark legislation came too late for many of the park's old "hovels" that are now seen to have unique vernacular architectural qualities worthy of preservation.

Those surviving remnants of the park's early history can be visited today. And, as long as the park can continue to receive funding to preserve them, they will hopefully be here for your descendants to enjoy.



Top: Gilberto Luna, circa 1940.

Middle: Luna's Jacal during its hey-day, circa late 1930s.

Bottom: A present-day photograph of Luna's Jacal. The park hopes to receive funding to rehabilitate the structure in the next several years.

What to See and Do



You've driven many miles to get here, and have finally arrived at your destination: Big Bend National Park. But now what? Now that you're here, how do you spend your time? Where should you go? What should you explore? The park is big, and often visitors have a limited amount of time to explore.

One Day

The visitor centers at Persimmon Gap, Panther Junction and the Chisos Basin are excellent places to begin your visit. Park staff there can answer your questions, and exhibits provide additional orientation. If time allows, drive to the **Chisos Basin** to take in spectacular views of the **Chisos Mountains**. Walk the 0.3-mile self-guiding **Window View Trail** to get a feel for the mountain scenery and one of the best sunset views in the park.

A trip along the **Ross Maxwell Scenic Drive** will give you a taste of the Chihuahuan Desert and will lead you to the Rio Grande. This drive highlights the geologic splendor and complexity that the Big Bend is famous for. There are many scenic overlooks and exhibits along the way. Sotol Vista, Mule Ears Overlook and Tuff Canyon are all worthwhile stops. The short walks to the Sam Nail Ranch and Homer Wilson (Blue Creek) Ranch and a visit to the Castolon Historic District will give you a glimpse into Big Bend's past.

A highlight is the short walk into **Santa Elena Canyon**—one of Big Bend's most scenic spots. Travel to the end of the Ross Maxwell Scenic Drive to access the trailhead. You may return to the main road by returning on the Ross Maxwell Drive or on the **Maverick Road**, a 13-mile gravel road linking the Ross Maxwell Drive to the Maverick (west) Entrance. Always check on road conditions first.



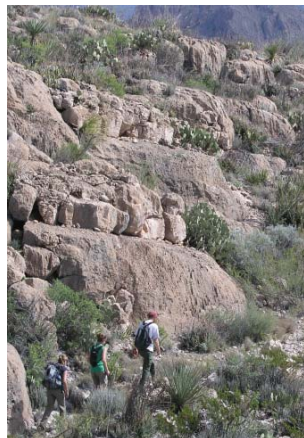
Biking to the Chisos Basin

Three Days

With three days to spend in the park, you can explore the major roads more thoroughly and still have time for hiking. In the Basin area, consider hiking the **Window Trail** (5 miles round trip) or the **Lost Mine Trail** (4.8 miles round trip); consult the *Hiker's Guide to Trails of Big Bend National Park*, for sale in park visitor centers, for trail descriptions.

In addition to the Basin and Ross Maxwell Scenic Drive (see suggestions for "one day") you can drive to **Rio Grande Village**, perhaps stopping at Dugout Wells along the way to walk the short Chihuahuan Desert Nature Trail. The Rio Grande Village Visitor Center offers a brief introductory slide program. Walk the **Rio Grande Village Nature Trail** which begins near site #18 in the campground. The bluff overlooking the Rio Grande at the end of the nature trail is a particularly beautiful spot at sunrise and sunset. The historic Hot Springs nearby can be reached via an improved dirt road or a three-mile (one way) hike from the Daniel's Ranch picnic area.

The Boquillas Canyon road will take you to several overlooks of the Rio Grande and the small village of Boquillas, Mexico. At the end of the road is the **Boquillas Canyon Trail**, which takes you into the entrance of this spectacular canyon.



Hiking in the Deadhorse Mountains

One Week

With a week or more to spend in Big Bend, endless possibilities are open to you. You'll have plenty of time to explore the roads mentioned in the previous sections, and will also have time to hike or to drive some of the "**unimproved**" dirt roads. For these, you'll need a high clearance or four-wheel drive vehicle; don't forget to check at visitor centers for current road conditions.

The River Road, Glenn Springs Road and Old Ore Road are some of the more popular primitive roads. A visit to Ernst Tinaja near the south end of the Old Ore Road is a Big Bend highlight. The Pine Canyon Trail, located at the end of the primitive Pine Canyon Road, is an excellent hike to experience firsthand the transition from desert to mountains.

If you don't have high clearance or four-wheel drive, gravel roads such as Dagger Flat, Grapevine Hills and Maverick will get you "off the beaten path." Hike the Chimneys Trail, Mule Ears Trail, or Grapevine Hills Trail for a closer look at the desert environment.

If you'd like to explore the Chisos Mountains, trails to Boot Canyon, Emory Peak and the South Rim offer good views of the park and take you into another world which seems far removed from the desert. There are plenty of opportunities for overnight backpacking along these trails. A backcountry use permit is required and can be obtained at park visitor centers.



At the Rockslide in Santa Elena Canyon

Floating the Rio Grande

If you have the time and a spirit of adventure, you may want to consider a river trip. Seeing the park's canyons from the middle of the Rio Grande is both fascinating and gratifying. There are many possibilities, from half-day floats to extended seven-day excursions. Park Rangers can recommend a trip that meets your abilities and interests. Outfitters and equipment rental companies are listed on page 16. See "Backcountry Planning" on page 13 for additional information.

Backcountry roads

If you have a high-clearance or four wheel drive vehicle, Big Bend's backcountry roads call for further exploration. There are over 200 miles of dirt roads in the park. Improved dirt roads like the Dagger Flat and Grapevine Hills roads are usually in good condition and accessible to normal passenger vehicles, except following rainstorms. Unimproved dirt roads, such as the Old Ore Road or River Road, generally require high-clearance vehicles and/or four wheel drive. Always check current road conditions at a visitor center before traveling any of the park's primitive roads.

Enjoying Your Visit

No matter how limited your time in Big Bend, remember that you will enjoy the park more if you stop your car and explore on foot. That doesn't mean that you have to hike miles on steep grades; there are many short, easy walks and roadside exhibits where you can stretch your legs and enjoy the sights, smells and sounds of the Chihuahuan Desert.

Hiker's guides and road guides are available at book sales areas throughout the park, and they offer more detailed information about Big Bend's trails and roads. Attending *ranger-led activities* and *evening programs* are also good ways to learn more about Big Bend; check at the visitor centers and park bulletin boards for current activities.

Remember, you will NOT be able to see everything on this trip. You will probably enjoy the park more if you choose a few spots and explore them thoroughly to get a taste of what Big Bend has to offer. Then, come back again sometime to see the rest!




Take a Hike on Big Bend Trails


From the 7,832 foot summit of Emory Peak, to the banks of the meandering Rio Grande, visitors will find over 200 miles of hiking trails in Big Bend National Park. Trails range from strenuous primitive routes through rugged desert backcountry to short handicapped-accessible pathways. Whatever your style of hiking, you can find it in abundance in Big Bend.

On this page are descriptions of many of the most popular easy and moderate hiking trails. Most of these trails are perfect for shorter day hikes of up to several hours. For information on longer, more difficult routes, or to plan an extended backpacking trip, stop by any park visitor center. A large selection of maps and trail guides are available and park rangers can assist you with trip preparations and backcountry permits.

Trail	Trailhead Location	Round Trip (mi/km)	(avg. time)	Elevation (ft/m)	Description
Eastside — Panther Junction and Rio Grande Village					
Boquillas Canyon	End of Boquillas Canyon Road	1.4/2.3	1 hour	40/12	Easy Begins with a short climb, then descends via a sandy path to the river. Ends near a huge sand "slide."
Chihuahuan Desert Nature Trail	Dugout Wells 6 miles south of Panther Junction	0.5/0.8	1/2 hour	0/0	Easy A flat desert path near a cottonwood oasis. Signs interpret Chihuahuan Desert plant life.
Dog Canyon	3.5 miles south of Persimmon Gap	5.0/8.0	2 hours	60/18	Moderate due to length. Informal hike to a prominent canyon. Requires some modest route-finding.
Grapevine Hills	Grapevine Hills Road mile 7 Usually passable to all vehicles.	2.2/3.5	1 hour	240/73	Easy Follows a sandy wash through boulder field. A short climb at the end takes you to a large balanced rock.
Hot Springs	End of Hot Springs Road. Unpaved and narrow road.	0.75/1.2	1/2 hour	0/0	Easy Walk past historic buildings to the riverside hot springs. 105°F water. <i>Take a bathing suit and soak a while.</i>
Rio Grande Village Nature Trail	Rio Grande Village Campground Opposite campsite 18	0.75/1.2	1/2 hour	130/40	Easy Cross a boardwalk to a great view of the river and distant mountains. Good birding and sunrise/sunset views.
The Chisos Mountains					
Basin Loop	Chisos Basin Trailhead (near the Basin Store)	1.6/2.6	1 hour	350/107	Moderate Connects the Laguna Meadow and Pinnacles Trails. Nice views of the Basin area.
Window View	Chisos Basin Trailhead (near the Basin Store)	0.3/0.5	1/4 hour	0/0	Easy Level, paved, handicapped accessible. Great mountain views. The best place in the Basin to catch sunset through the Window.
Lost Mine	Basin Road mile 5	4.8/7.7	3 hours	1100/335	Moderate but steep This trail provides excellent mountain and desert views. Go halfway for a shorter hike.
The Window	Chisos Basin Trailhead or Basin Campground	5.6/9.0 4.4/7.0	4 hours 3 hours	980/299 500/152	Moderate with steep return Descends to the top of the Window pouroff. Great scenery and wildlife viewing. For a shorter hike, start at the Basin campground. Note: Smoking is prohibited on the Window Trail.
Westside — Ross Maxwell Scenic Drive					
Blue Creek Ranch	Ross Maxwell Drive mile 8	0.5/0.8	1/2 hour	90/27	Easy Descends from overlook via old road to 1930s ranch buildings; connects with Blue Creek Canyon & Dodson trails.
Castolon Historic District	Castolon Historic District Ross Maxwell Drive mile 22	0.5/0.8	1/2 hour	20/6	Easy A short, self-guided walk highlighting the unique history of this border community. Guide booklet also includes a driving tour.
Lower Burro Mesa Pouroff	Ross Maxwell Drive mile 11	1.0/1.6	1/2 hour	60/18	Easy A flat, sandy trail up a canyon to the base of a dry pouroff. Interesting geology and desert plants.
Sam Nail Ranch	Ross Maxwell Drive mile 3	0.5/0.8	1/4 hour	0/0	Easy A loop walk through the remains of a fairly typical 1930s Big Bend area ranch.
Santa Elena Canyon	8 miles west of Castolon	1.6/2.6	1/2 hour	80/24	Easy Crosses creekbed, climbs stairs, then follows the river upstream into the mouth of the canyon. Flash flooding on Terlingua Creek can close this trail.
Tuff Canyon	Ross Maxwell Drive mile 19	0.75/1.2	1 hour	70/21	Easy Balconies overlook this scenic canyon. A short trail leads into and through the canyon itself.
The Chimneys	Ross Maxwell Drive mile 13	4.8/7.7	2 hours	400/122	Moderate due to length. Flat desert trail to prominent rock formations. Look for rock art. No shade.
Upper Burro Mesa Pouroff	Ross Maxwell Drive mile 6	3.6/5.8	3 hours	525/160	Moderate Requires some modest route-finding through washes and narrow gorges to top of the pouroff.
Mule Ears Spring	Ross Maxwell Drive mile 15	3.8/6.1	3 hours	20/6	Moderate A beautiful desert hike to a small spring. Spectacular geology and mountain/desert views.

Looking for more hikes? *The Hiker's Guide to the Trails of Big Bend National Park* (\$1.95) contains detailed listings of longer duration hikes and additional trails throughout the park and is available at all visitor center bookstores. Additional guides describing the paved and backcountry roads and detailed maps are also available.

 = Self-guiding trail

 = Handicapped accessible trail



View of a standing tower from the Ore Terminal Trail.

Featured Hike

Walking back in time:

The Ore Terminal Trail

Distance: 8 mile (12.9 km) round trip
Elevation: 1000' (305 meters) gain

Hidden along the Boquillas canyon road is the trailhead for three of the most scenic trails in the park, Marufo Vega, Strawhouse and the Ore Terminal (our featured hike). The trailhead is located on the north side of the road just after the Boquillas Overlook heading towards Boquillas Canyon. Even for those not interested in the full hike, views experienced two miles out include long distance shots of the Sierra del Carmen, the Rio Grande and on a good day hundreds of miles into Mexico. The roundtrip hike is remote, rugged, and worth the time invested. Plan for 5 to 7 hours.

Remoteness and the hot spring and summer temperatures keep most visitors from exploring this trail most of the year. Ore Terminal provides you with great views and some insight to the challenges of conducting business in the Big Bend region. From 1909 to 1919 zinc, silver, and lead ore were transported overhead nearly 7 miles from their source on the Mexican side of the river by ore buckets to the terminal where the material would then be shipped by wagon train northward. The tramway was constructed to avoid this rugged section of mountain and desert country. As you make your way over limestone hills, old ore buckets, tram cable, and the occasional tram tower (some still stand) mark your way.

While the trail is well marked by cairns (rock piles) a good map should be used. The Ore Terminal signals the end of the 8 mile roundtrip. The terminal used to stand tall in this isolated section of land, though time and the forces of Mother Nature have brought it down. Examining the ground you will find old tin cans and spilled ore but remember to leave everything in place where you find it. There is no water found along this trail nor are there any shortcuts. Get out, explore, enjoy, and remember to protect your park!

Hike Safe!

- Wear hiking boots to protect your feet
- Wear sunscreen and a hat to protect your skin.
- *Always* carry and drink water.
- Do not cut switchbacks on trails.
- Do not feed the wildlife.
- Be respectful of others.

Remember, you are entering a wild setting. Ultimately, you are responsible for your safety and the safety of those around you. Take what you bring; leave what you find.

The Night Skies

Ranger Mary Kay Manning

Asked to name some of the resources protected by national parks like Big Bend, many people would quickly list natural resources such as plants, animals, and springs, or cultural resources such as arrowheads, adobe houses, and mining ruins. Some would add recreational resources, such as hiking trails, or aesthetic resources, such as scenic views. But how many would include a clear view of the night sky on this list?

The dark night sky over Big Bend National Park falls into all of the resource categories listed above. Unaffected by the light pollution that plagues so many other areas, the night sky we see is the same one that previous Big Bend inhabitants saw thousands of years ago, giving us a link to these earlier cultures. Researchers have recently become aware of the importance of dark night skies to many species of animals who rely on starlight for navigation and become disoriented by artificial light. And for many park visitors, Big Bend National Park remains one of the few places they can go to see a truly dark night sky full of twinkling stars.

Astronomers tell us that on a dark clear night we can see about 2,000 stars with the naked eye. Some visitors have commented that identifying the constellations is actually more difficult in the park than at home since they can see so many more stars here. "At home," they say, "we can pick out the constellations more easily because only the brightest stars are visible. Here, all the stars are visible, and they make it harder to pick out the brightest ones!"

The time of year certainly affects the quality of the night sky visible over the park. Cold winter nights provide perfect stargazing conditions here. Since cold air holds very little moisture, starlight appears more crisp and clear than on humid summer nights. Our trajectory has us facing the denser part of the Milky Way galaxy at this time of year, so we see more stars—and more bright stars—than on summer nights, when we face a sparser region of our galaxy. Prevailing north winds this time of year also assist stargazers here. There are few pollution sources to our north, so cold fronts tend to clean the air over Big Bend by blowing away airborne debris.

Summer stargazers in Big Bend may trade comfort for slightly poorer night sky viewing. Higher humidity, even in the desert, can make celestial objects appear hazy. Our rainy season begins in mid-summer, so cloudy skies are common. The prevailing summer winds blow in from the east-southeast, carrying pollution from industrial areas, metropolitan areas, and coal-burning power plants in east Texas, along the Texas Gulf Coast, and in northern Mexico.

The decreasing quality of night sky views throughout many of the national parks leads to another use for them, in addition to those mentioned above. Researchers now use the night skies to document how air pollution and light pollution steal our view of this resource.

The National Park Service's Night Sky Team was formed in 1999 to address the loss of night sky quality in national parks. The team developed special instruments and methods for measuring the brightness of the night sky and identifying light pollution sources at many western NPS areas.

The team visited Big Bend National Park in November 2005 and, using special camera equipment, took panoramic photos from a desert location and from the top of Emory Peak. Based on similar data collected from a number of western national parks, the team estimates that Big Bend ranks around third place in terms of national park areas with the darkest night skies. It is only the amount of airborne pollution blowing into the park that keeps Big Bend from ranking higher; in terms of total lack of human light pollution, this park has some of the clearest night skies of any park in the contiguous 48 states.

Our park staff are also working with the Night Sky Team for assistance with reducing light pollution in the park's developed areas. Specific projects include installing shields on outside light fixtures to direct light toward the ground instead of into the sky, and reducing the number of outside lights by using more efficient types of lighting and more effective installation of these lights. In addition to providing better views of our starry skies, these steps often save energy and money and protect wildlife habitat.

Birds and Birdwatching

Ranger Mark Flippo

For many people, Big Bend and birds are synonymous. With a list of 407 confirmed and an additional 43 hypothetical species, Big Bend National Park indeed offers birders of all levels of skill opportunities to find challenge and reward. Patience, a good field guide, and knowledge of where to look are the keys to locating the birds of Big Bend.

First and foremost are the riparian areas, including the corridor of the Rio Grande (Rio Grande Village and Cottonwood campgrounds), and the many desert springs (Dugout Wells and Sam Nail Ranch). Other productive areas include the pinyon-juniper-oak belt (Green Gulch and lower Lost Mine trail), the moist wooded canyons of the high Chisos (Boot Canyon), the grassland/shrub community along the lower slopes of the Chisos (Blue Creek Canyon), and the remaining lower desert areas. A checklist of birds is available for purchase at any visitor center and is a great aid in determining which species are likely to be present and the habitats where they are found. A visit to all these key habitats will provide the best opportunities to see birds and to build that "Big Bend List."

The timing of your visit will obviously dictate what birds you may be able to find in the park. If you are reading this during the winter, almost a third of the 407 documented species occur here during the winter months (late November – mid-February). Many of

these are waterfowl and sparrows; the former along the Rio Grande, the latter haunting grassy areas in the lower and mid-elevation desert. The challenge of identifying winter plumage ducks and sparrows is huge, but not to worry. There are other birds out there to lend diversity to your list.

Easily found permanent residents of the park, many of them unique to the desert southwest, include greater roadrunner, cactus wren, and black-throated sparrow. These are joined by species that spend only the winter in Big Bend, migrating here from breeding grounds farther north, including Anna's hummingbird, ruby-crowned kinglet, sage thrasher, orange-crowned warbler, green-tailed towhee, and sage sparrow. To tempt the avid birder, there is always the possibility of discovering a rare, out of range species. Last year at least two male variegated thrushes, a review species in Texas, were observed in the Boot Canyon area of the Chisos Mountains.

In terms of diversity, the spring season (late February – early May) offers the peak period for bird watching in the Big Bend. Through March and April the number of migrants increases steadily until peaking in the last two weeks of April and the first week of May. In this rush of birds are many neotropical migrants returning from wintering ranges in Latin America. Most pass through, but some remain the summer to nest and raise

their young. Among the expected passage migrants comes the occasional rare and accidental species that have wandered off their normal course or are pushing the extreme edge of their normal range. Last spring a new species was added to the park list (Bonaparte's gull), and several rarities made brief appearances: another male varied thrush at Cottonwood campground in March, a red-faced warbler on the Laguna Meadow Trail in April, and an extremely rare slate-throated redstart in Boot Canyon in May.

While "listing" is a legitimate and fun activity, keep in mind that many of the species that are the source of your enjoyment are members of populations in decline. Habitat destruction and degradation on both the wintering and breeding grounds are bringing many of these birds to the brink. You can help in several ways. Tread softly in fragile habitat areas, taking care not to damage water sources. Don't disturb birds with excessive noise or intrusive attempts at photography. Please share your observations with us, particularly of rare and accidental species. Your detailed reports become part of the record and can be an aid to researchers. Enjoy the birds of Big Bend, and do all that you can to ensure their return.

Top: Slate-throated redstart

Middle: Bonaparte's gull

Bottom: Varied Thrush



J. Webster



M. Flippo



A. Dickson

Keeping Wildlife Wild



It's no laughing matter. Javelina that become habituated to human food become more aggressive. Visitors or their pets are bitten by javelinas each year.

S. Weinstock

There really are no problem animals—only problem people. Carelessness can kill. Don't be responsible for the death of a wild animal. Your actions affect both Big Bend's wildlife and future park visitors. With your help, wildlife and humans CAN live safely together in Big Bend National Park.

Mountain Lions

If Big Bend National Park has a symbol, it might well be the mountain lion. Solitary and secretive, this mighty creature is Big Bend's top predator, and is vital in maintaining the park's biological diversity. Everywhere you go in Big Bend, you are in the territory of at least one lion. From mountain to desert, biologists estimate that the park has a stable population of approximately two dozen lions. Within the delicate habitats of the Chihuahuan Desert, mountain lions help balance herbivores and vegetation. Research shows that these large predators help keep deer and javelina within the limits of their food resources. Without lions, the complex network of life in Big Bend would certainly be changed.

Since the 1950s, there have been more than 2,700 recorded sightings of mountain lions by the visiting public within Big Bend National Park. While over 70 percent of these sightings were along park roadways, encounters along trails have also occurred. Since 1985, three lion and human encounters have resulted in attacks on people. In all cases, those attacked recovered from their injuries and the aggressive lions were killed. The more we know about lions, the better able we will be to make life easier for them and for us.



Javelinas

For many visitors to Big Bend National Park, seeing a javelina (hav-uh-LEE-nuh) is a new experience. These curious creatures, also known as collared peccaries, are only found in the United States in Texas, New Mexico, and Arizona. They are covered with black, bristly hairs and generally weigh between 40 and 60 pounds. They usually travel in groups called bands that consist of 10-25 individuals. Peccaries have a highly developed sense of smell, but very poor vision.

Physically, javelinas resemble pigs, but in reality, they are not closely related to pigs at all and have been genetically distinct from them for millions of years.

A javelina's diet includes prickly pear cactus, grasses, mesquite beans, pinyon pine nuts, fruits, berries, and seeds. Unfortunately however, many javelinas now include human food as part of their diet. Every year we are seeing more and more campsites in the park raided by javelina. Although normally not aggressive, they can be when food is involved. Protect yourselves and the javelina by properly storing all your food inside a vehicle or in the food storage lockers provided in the campgrounds. Do not leave coolers or food boxes unattended on picnic tables or in a tent. Flatten tents when you are away from your campsite. It is important that javelinas and all park animals eat their natural food sources to stay healthy and safe. With your help, these unique animals can continue to thrive and thrill park visitors for years to come.



Black Bears

The return of black bears to Big Bend National Park is a success story for both the bears and the park. Native to the Chisos Mountains, bears disappeared from this area during the pre-park settlement era. After an absence of several decades, bears began returning to the park from Mexico in the early 1990s. Today, wildlife biologists estimate that between 15-20 black bears may live in the park.

Black bears are omnivorous; their normal diet is comprised of large amounts of nuts, fruits, sotol and yucca hearts, and smaller quantities of small mammals, reptiles, and carrion.

Bears normally avoid humans, but bears that learn to get food from human sources often become aggressive in their attempts to get more "people" food. Rangers may have to kill bears that lose their fear of people and endanger humans in their attempts to get our food.

Big Bend has made it easy to keep edible items away from bears. Campers at the Chisos Basin Campground, at High Chisos backpacking sites, and at some primitive roadside campsites will find bearproof storage lockers for storing all edibles. Hard-sided vehicles are also suitable for storing edible items. All dumpsters throughout the park are bearproof, as well.



Do Not Feed the Animals.
Not even once. It's bad for them, they can hurt you, and it's against the law. Don't touch, don't feed.

Please Help

In Developed Campgrounds

- Store food, beverages, trash, toiletries, pet food, and dishes in the bearproof storage locker provided at your site.
- Keep your campsite clean. Take trash and food scraps to a dumpster.
- Dump liquids in restroom utility sinks, not on the ground.
- Ice chests and coolers are not bear-proof; store them in your vehicle.

Cyclists

- Use food storage lockers when provided.

At the Lodge

- Leave nothing outside your room, on the balcony, or on the porch.

In the Backcountry

- Never leave packs or food unattended.
- Avoid carrying odorous food and toiletries.
- Leave excess food and beverages in your trunk or food storage box.
- Carry out all trash, including orange peels, cigarette butts, and left-over food.
- Ice chests and coolers are not bear-proof; store them in your vehicle.

If you encounter a bear or mountain lion:

- Do not run (you may resemble prey).
- Watch children closely and never let them run ahead or lag behind.
- Try to look large. Wave your arms. Throw rocks or sticks at it.
- If attacked, fight back.
- Report any bear or mountain lion sightings or encounters to a park ranger as soon as possible.

Information and Services



Ranger Programs

Join a park ranger for a guided hike, evening slide show, talk, or workshop on Big Bend's natural and cultural history. These free programs are offered daily. Consult the Interpretive Activities Schedule posted on visitor center and campground bulletin boards for more information.

Camper Stores

Forever Resorts Inc., operates camper stores year-round at three locations in the park: Castolon, the Chisos Basin, and Rio Grande Village. Groceries, camping supplies and souvenirs are available in all locations. The gas station at Panther Junction also has a limited selection of groceries.

Banking

There are NO banking facilities in Big Bend National Park. The nearest banking/ATM services are located in Study Butte, 26 miles west of park headquarters. Most stores accept major credit cards; however, some local services accept only cash. It is advisable to have small bills (\$1, \$5, \$10, \$20) since larger bills are often difficult to change.

Lodging

The Chisos Mountains Lodge, operated by Forever Resorts Inc., is located in the Chisos Basin at 5,400 feet elevation. The lodge offers 72 rooms, plus a gift shop and dining room. For reservations or more information, please call (432) 477-2291 or visit their website at www.chisosmountainslodge.com

Gas Stations

Gasoline is available at two locations in the park operated by Forever Resorts Inc. The Panther Junction station offers 24-hour gas pumps with diesel, and can undertake minor repairs. The gas station at Rio Grande Village also provides propane.

Post Office

A full-service Post Office is located at the Panther Junction headquarters, across the porch from the visitor center entrance. A mail drop is also available in front of the Chisos Basin store.

Showers and Laundry

Public showers and laundry facilities are located at the Rio Grande Village store.

Fires

Ground fires and wood fires are prohibited throughout the park. Use only gas stoves or charcoal within a BBQ grill. Pack out all evidence of use, including ash. In the backcountry, charcoal fires are only allowed at roadside campsites and are prohibited in the High Chisos or zone camping areas.

Public Phones

Public phones are located at visitor centers, campgrounds, camper stores, and the Chisos Mountains Lodge.

Cell Phones

Limited cell phone coverage is available in the Big Bend area. *Do not* depend on your phone to work in the Chisos Basin or remote portions of the park.

Recycling

Please use the recycling cans provided in campgrounds, around stores, and near visitor centers. On average, the park recycles around 100,000 pounds of aluminum, cardboard, glass, plastic, metal and other materials each year. Every pound of material that can be recycled means one less pound buried in the park landfill. Please recycle!

Accessibility

All visitor centers are accessible. Wheelchair-accessible campsites and restrooms are located in the Chisos Basin and Rio Grande Village Campgrounds. The Chisos Mountains Lodge restaurant is accessible, as are some motel rooms. A Telecommunications Device for the Deaf is available at park headquarters. Employees with sign language abilities may be available. Some ranger-led programs are also accessible. The Window View Trail is paved and fairly level. A brochure on accessibility is available at all visitor centers.



The La Harmonia store in the Castolon Historic Area.

Camping



Tent Camping

The National Park Service operates campgrounds at Rio Grande Village, the Chisos Basin, and Castolon. The cost is \$14.00 per night for a site. Campsite fees can be paid in US currency, personal checks, or credit card. Camping is also available at primitive backcountry campsites in the Chisos Mountains and along backcountry roads. High-clearance or 4-wheel drive vehicles are necessary to reach most road sites. Backcountry permits are required and can be obtained in person at park visitor centers up to 24 hours in advance (see next page).

Camping areas are often full during the Thanksgiving and Christmas holidays, as well as during spring break in March or April.

Trailers & RVs

All park campgrounds can accommodate trailers and RVs, but vehicle lengths have a great deal to do with safely reaching the campground and finding a suitable space.

The only hookups available in Big Bend National Park are at Rio Grande Village in the 25-site, Rio Grande Village RV Park operated by Forever Resorts Inc. Although there is no size restriction, your vehicle must be equipped with water and electrical hookups as well as a three-inch sewer connection. Register at the store. No advance reservations.

Near the RV park is the 100-site Rio Grande Village Campground operated by the National Park Service. Although there are no hookups, water, flush toilets, and a dump station are available. Set in a large grove of cottonwoods, the campground is adjacent to the Rio Grande. Many of the sites are pull-throughs. Generator use is limited: from 8:00 am to 8:00 pm daily. A no-generator use area is also designated.

The 60-site Chisos Basin Campground is rugged and hilly. The sites are small and most are not suited to recreational vehicles or trailers. The road to the Basin is steep and curvy, especially at Panther Pass—the road's highest point. The road into the campground is a 15 percent grade. Trailers longer than 20 feet and RVs longer than 24 feet are not recommended.

Cottonwood Campground, near Castolon, offers pit toilets and potable water, but no hookups or dump station. *Cottonwood is a NO-generator campground.*

Big Bend's unpaved roads are generally unsuitable for RVs and trailers. Overnight camping in any primitive site requires a backcountry permit, which can be obtained in person at park visitor centers up to 24 hours in advance (see next page for more information).

Campsite Reservations

Forty-three (43) sites at Rio Grande Village campground and twenty-six (26) sites at the Chisos Basin campground are reservable from November 15 to April 15 each year. Visitors may make reservations for the period of November 15 through April 15 up to 180 days in advance. All remaining campsites in these two campgrounds and the entire Cottonwood campground remain on the first-come first-serve basis.

Campsite reservations may be made by calling 1-877-444-6777 or on-line at recreation.gov.



The Cottonwood Campground, near Castolon, provides a quiet atmosphere and easy access to the west side.

Developed Campgrounds at a Glance

	Elevation (ft/meters)	Sites	Nightly Fee	Facilities	Registration	Comments
Chisos Basin	5,401 / 1,646	60	\$14.00*	Flush toilets, dump station	Self-pay station	Surrounded by rocky cliffs; many hiking trails nearby
Cottonwood	2,169 / 661	31	\$14.00*	Pit toilets, <i>no generator use allowed</i>	Self-pay station	In a cottonwood grove along the river. Grassy sites.
Rio Grande Village	1,850 / 564	100	\$14.00*	Flush toilets, dump station	Self-pay station	Largest campground; shady sites. Laundry and showers nearby.
Rio Grande Village RV	1,850 / 564	25	\$21.00 and up	Full hookups	RGV Camper Store	Concession-operated; register at the RGV store.

* \$7.00 with an eligible Federal Recreation Pass

Backcountry Planning



Getting a Permit

A permit is required for all river use, horse use, and overnight backcountry camping, and can be obtained in person only up to 24 hours in advance of the trip. Permits can be written for as many as fourteen (14) consecutive nights in the backcountry. Park staff can assist you with trip planning based on your needs and current trail conditions. Permits can be obtained at all visitor centers during normal operating hours.

Overnight Use Fee

A \$10-per permit fee is now required for all overnight backcountry use permits, including multi-day river trips, and overnight backcountry camping. This fee is payable when the permit is issued, and all funds collected go to projects to improve or protect the backcountry experience, including hardening/improving river access points, backcountry campsite maintenance, and trail maintenance.

Plan Ahead

Detailed information on backcountry campsites in the Chisos Mountains and along the backcountry roads are available on the park's website at www.nps.gov/bibe. A wide variety of maps, books, hiking guides and river guides are available for purchase at park visitor centers. If you would like to order them in advance of your trip, call the Big Bend Natural History Association at (432) 477-2236 or visit their online bookstore at www.bigbendbookstore.org.

Leave No Trace in Big Bend National Park

Plan ahead and prepare

Big Bend is a land of extremes. Plan on high desert temperatures in the summer with little to no shade; in the winter freezing temperatures are possible in the Chisos Mountains. Schedule your visit to avoid peak season. Visit in small groups. Split larger parties into groups of 4-6. Use a map and compass to eliminate the use of marking paint, rock cairns or flagging.

Travel and Camp on Durable Surfaces

Durable surfaces include established trails and campsites, rock, and gravel. Protect riparian areas by camping at least 100 yards from springs, creek beds, and tinajas. Good campsites are found, not made. While on the trail, walk in single file in the middle of the trail, even when wet or muddy. Keep campsites small. Focus on areas where vegetation is absent.

Dispose of Waste Properly

Pack it in, pack it out. Inspect your campsite and rest areas for trash or spilled foods. Pack out all trash, leftover food, and litter. Deposit solid human waste in cat-holes dug 6 to 8 inches deep at least 1/4 mile from water, camp, and trails. Cover and disguise the cat-hole when finished. *Pack out toilet paper and hygiene products.*

Leave What You Find

Preserve the past. Examine, but do not touch, cultural or historic structures and artifacts. Leave rocks, wildflowers and other natural objects as you find them. Avoid introducing or transporting non-native species. Do not build structures, furniture, or dig trenches.

Minimize Campfire Impacts

Campfires are not allowed in Big Bend National Park. In order to cook foods you may use a backpacking stove, portable fuel stove or the barbecue grills in your campsite.

Respect Wildlife

Observe Big Bend's wildlife from a distance. Do not follow or approach them. Never feed wild animals. Feeding wild animals damages their health, alters natural behaviors, and exposes them to predators and other dangers. Protect wildlife and your food by storing rations and trash securely. Pets are not allowed in the backcountry or on trails. Pets should be on leash and under supervision at all times.

Be Considerate of Other Visitors

Respect other visitors and protect the quality of their experience. Be courteous. Yield to other users on the trail. Step to the downhill side of the trail when encountering pack stock. Take breaks and camp away from trails and other visitors. Let nature's sound prevail. Avoid loud voices and noises.

Hiking & Backpacking

Big Bend National Park offers over 200 miles of hiking trails in the Chisos Mountains and desert terrain. A permit is required for all overnight trips in the backcountry. Decide how much distance you want to cover and how much time you have. Desert hiking can be unpleasant or deadly in hotter months.

In the Chisos Mountains, the Southeast Rim Trail and a portion of the Northeast Rim Trail from the Boot Canyon/Southeast Rim junction are closed during the peregrine falcon nesting season (February 1 - May 31).

Zone camping permits are available for those who wish to camp outside of the Chisos Mountains. The park is divided into a number of zones ranging from areas along popular trails to extremely isolated areas.

Backcountry Water

The dry desert air quickly uses up the body's water reserves. Each hiker should carry and drink a minimum of one gallon of water for each day they are in the backcountry. Spigots for drinking water are available at all visitor centers. Big Bend is a desert environment. Springs and tinajas (depressions in rock where water collects) are rare and often unreliable and should be filtered. Every gallon removed from backcountry water sources is one less for the wildlife which depend on them. Please carry enough water to supply your own needs—don't risk your life by depending on desert springs. Caching water is recommended for extended hiking trips in the desert.



The Marufo Vega Trail is a challenging 14-mile round trip hike that provides stunning views of the Sierra del Carmen and the Rio Grande. Take plenty of water and be prepared for steep terrain and a primitive trail.

Backcountry Roads

For those who wish to camp in the backcountry without having to backpack, Big Bend offers over seventy primitive campsites along backcountry roads. Most sites are located in the desert and along the River Road. There are no primitive roadside campsites in the Chisos Mountains. While some sites are accessible to most vehicles, a high clearance and/or four wheel drive vehicle is necessary to reach others. Other than a nice view, isolation, and a flat gravel space, these sites offer no amenities and no shade. A backcountry permit is required to use these sites.

Horses

Visitors are welcome to bring and use their horses in the park. A stock-use permit is required and may be obtained in person at any of the park's visitor centers up to 24 hours in advance of the trip. Every horse user should obtain a copy of the regulations regarding use of horses in the park.

While horses are not permitted on paved roads or road shoulders, all gravel roads are open to horses. Cross-country travel is permitted in the park, except in the Chisos Mountains where horse use is limited to the Laguna Meadow, Southwest Rim, and Blue Creek trails. Horses are not permitted in picnic areas, on nature trails, the Santa Elena and Boquillas Canyon Trails, or the Pine Canyon Trail. The Chisos Mountain and Burro Mesa trails are day-use only.

Grazing within the park is not permitted, so you must bring your own feed. Stock may be watered in the Rio Grande and at springs that are not used for domestic water supply. Be prepared to haul water for your stock as springs are unreliable, especially during winter months. Check current spring conditions at a visitor center when you arrive. All horse manure and feed remnants must be removed from the park, or deposited at a designated location near the NPS horse corral at Panther Junction (ask a ranger for directions).

You may camp with your horses at many of the park's primitive road campsites. The Government Springs campsite, located 3½ miles west of Panther Junction, is a primitive campsite with a corral large enough for 6 horses. If you plan to bring horses to the park, you may reserve this campsite up to 10 weeks in advance by calling (432) 477-1158.

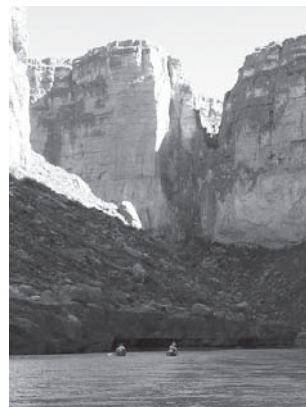
Floating the Rio Grande

The Rio Grande follows the southern boundary of Big Bend National Park for 118 miles. In this distance it has carved three major canyons, Santa Elena, Mariscal, and Boquillas, which have rapids varying in difficulty from Class I to Class IV. Between the canyons, the river is generally slower-paced. The Rio Grande Wild and Scenic River extends downstream beyond the park boundary for an additional 127 miles.

If you plan to take a river trip in Big Bend National Park, you may bring your own equipment, or you can hire a guide service. Three local companies (see page 16 for telephone listings) provide guide service in the park—you may reserve a trip by contacting them directly.

If you plan to use your own equipment, you must obtain a permit at a park visitor center. Stop by the Panther Junction Visitor Center for your permit and for current river condition information prior to your trip.

Permits for the Lower Canyons of the Rio Grande Wild and Scenic River may be obtained at the Persimmon Gap Visitor Center. Permits for floating Santa Elena Canyon may be obtained at the Barton Warnock Center in Lajitas. However, we encourage all parties to get their permits at a park visitor center when possible, to obtain the most up-to-date river information and conditions.



Santa Elena Canyon is the most popular float trip in the park. When river depths are below four feet, a half-day trip upstream from the mouth of the canyon is most practical.

Pets in the Park



What Not to Do

"I led a bird walk at Rio Grande Village this morning. A woman asked if she and her dog could join our hike. When I told her that she was welcome but the dog was not, she tied the poodle to a picnic table and joined the group. After the hike, as we approached the woman's campsite, instead of finding 'Fifi' yapping away at us, we discovered only its remains. A javelina was just completing a poodle-dinner."

- Ro Wauer
Chief Naturalist, 1970

Pets in a Wilderness Park

Having a pet with you will limit your activities and explorations in the park. In addition, desert temperatures and predators are a serious threat to your pet's well being. Please keep in mind the following points when bringing a pet to the park:

- A National Park is a refuge for the animals and plants living within it. Even if your pet doesn't chase animals, dogs present the image and scent of a historical predator. The result is stress on native wildlife.
- Keep your pet on a leash no longer than six feet in length (or in a cage) at all times. Pets are not allowed on park trails, or anywhere off established roadways. Pets may not be left unattended in the park.
- Pet etiquette and park regulations require that you always clean up after your pet and dispose of waste in trash receptacles.
- Predators such as owls, coyotes, javelina, and mountain lions CAN and DO kill pets here. Even large dogs cannot defend themselves against such predators.

Remember, desert heat is *deadly*. Do NOT leave your pet alone in a vehicle. Pets are not allowed on trails, off roads, or on the river.



Pets must be on a leash at all times.



Pets are not allowed on trails or in backcountry areas.



Kennels

The following kennel and veterinary services operate in the greater Big Bend area:

Terlingua Creek Kennels (Oct-April)
Terlingua, TX
(432) 371-2348

Red Woof Inn of the Big Bend
Alpine, Texas
(432) 837-7475

Alpine Veterinary Clinic
Alpine, Texas
(432) 837-3888

Alpine Small Animal Clinic
Alpine, Texas
(432) 837-5416

Big Bend is for Kids

Explore!

Big Bend's habitats range from the Chihuahuan Desert to the Rio Grande to the Chisos Mountains, and all are rich with plants, animals, and stories of human history, giving children plenty of opportunity to explore.

Kids visiting the park enjoy the exhibits and relief map of the park at the Panther Junction Visitor Center, the Fossil Bone Exhibit area, the Hot Springs, the sand dune in Boquillas Canyon, the mountain lion exhibit at the Chisos Basin Visitor Center, and the hands-on exhibits at the Castolon Visitor Center.

Get kids involved in ranger-led programs. These include guided hikes, slide programs, bird walks, and explorations of various park features. Check the schedule at any visitor center to make sure you take advantage of all the available programs. Stop by any visitor center for further suggestions.

Hike a Trail!

Many park trails are suitable for families. Consult the listing of Easy and Moderate Hikes on page 9. For children in strollers, consider the Window View Trail, a paved ¼-mile loop trail that begins at the Chisos Basin trailhead. Remember to watch children closely and never let them run ahead or lag behind.

Be Safe

Be sure to talk to your children about safe behavior before you begin hiking or exploring the park. Require children to walk with adults, rather than by themselves. Keep all your children with you and stand as a group. Desert vegetation can be sharp; have a first aid kit and tweezers handy. Please see page 15 for additional safety information.

Become a Junior Ranger!

Learn desert secrets, identify the parts of a cactus, and discover what javelina eat! The Big Bend Junior Ranger program is designed for kids of all ages. Through activities, games, and puzzles, kids can have fun as they learn about the park. They can also earn a badge or patch, a bookmark, and a certificate.



The Junior Ranger Activity Book costs \$2.00 and is available at all park visitor centers.



Proud Junior Rangers at Rio Grande Village.

Unintended Consequences-continued

continued from page 7

or after work, we could pay \$2 to be rowed across the Rio Grande and eat enchiladas, chicken mole or chili rellenos as the sun set on Santa Elena Canyon. Eight months after 9/11, the Department of Homeland Security closed these informal border crossings. This was incredibly disappointing to me because it was one of my favorite things to do in the park, and park visitors lost an opportunity to easily experience small town life in Mexico. Of course, closing the border had even more dramatic effects on the people living in Mexico.

The economy of these two towns had been developed over years to depend on the tourist traffic, supporting most of the families that lived there. Now, families are split and most houses abandoned. The losses from this friendly relationship are even more evident if you consider how crime and law enforcement problems have increased since there are few legal means of making a living in these isolated areas.

Although these policies have eliminated a viable living for many residents of these towns, it has not greatly affected the economy of US residents. Since the boundary is the deepest channel in the middle of the river, tourists cross into Mexico countless times if they are on a river trip. Yet it is illegal for Mexicans to cross and visit their mother or buy groceries in the US.

On Friday, October 12, some of my friends were hiking Boquillas Canyon. They saw a friend who they used to visit across the river. He asked them if the park was hosting Good Neighbor Day this year. This was a fun-filled annual event hosted by the park at Rio Grande Village with food, games and live music, sometimes with big names like Tish Hinojosa. People gathered from long distances on both sides of the river to renew acquaintances and celebrate the

unique border culture. The park provided transportation from San Vicente and Santa Elena so that everyone could attend. The last fiesta was held in October of 2001. The celebration of our neighbors has been replaced with an implication of suspicion.

Although living on the border is an exciting cultural experience, it unfortunately becomes the focus of national attention when US security becomes a concern. Some of the policies that are created and decisions made during turbulent times may seem reasonable on the surface. However, the unintended consequences of these actions may be the loss of relationships that actually fostered a more secure border.

Notes

- 1 Arthur R. Gómez, "A Most Singular Country," 147.
- 2 Virginia Madison and Hallie Stillwell, "How Come It's Called That", 42.
- 3 Ross A. Maxwell, "Big Bend Country," 31.

For further reading

The unique and complex history of the border communities of the Big Bend is explored in further detail in a number of books:

Gómez, Arthur R. [A Most Singular Country: A History of Occupation in the Big Bend](#). Provo, Utah: Brigham Young University, 1990.

Maxwell, Ross A. [Big Bend Country: A History of Big Bend National Park](#). Big Bend Natural History Association, 1985.

Morgenthaler, Jefferson. [The River Has Never Divided Us: A Border History of La Junta de los Rios](#). Austin: University of Texas Press, 2004.



Top: A boat ride across the Rio Grande from Boquillas, 1980s. This crossing was one of three in the park closed in May, 2002.

Bottom: Handmade sotol walking sticks from Boquillas, 2006. These walking sticks can now be purchased legally at the bookstore in the Panther Junction visitor center. A local organization is presently importing these walking sticks and other handcrafted items to support the economy of the Boquillas community.

Safety is *Your* Responsibility

Big Bend is unfamiliar country to most visitors yet it need not be dangerous. Whether hiking the highcountry, rafting the Rio Grande, observing wildlife, or simply driving the scenic roads of this wilderness park, let safety be your constant companion. Spend a moment reviewing these common safety concerns so that you may have an enjoyable visit.

Big Bend is wild country. In fact, many people visit precisely because it is so remote and rugged. But remember, as you enjoy the splendor of this great wilderness area, to make safety a priority. By giving forethought to your actions you can have a safe, exciting, and rewarding experience in Big Bend National Park.

Driving

Of the few accidental deaths in Big Bend that occur some years, most result from car accidents. Drive within the speed limit, 45 mph maximum in the park, and watch for javelina, deer, and rabbits grazing along road shoulders, especially at night. Federal regulations require that ALL occupants of a vehicle wear seats belts while in a national park. Remember, too, that you share the road with bicyclists and pedestrians. Some park roads, such as the road into the Chisos Basin, are steep and winding and require extra caution. The Basin Road is not recommended for RVs over 24 feet or trailers over 20 feet. Finally, always select a designated driver before drinking alcoholic beverages.

Heat

Desert heat can kill you. Carry and drink at least one gallon per person, per day. Wear a hat, long pants, long-sleeved shirt, and sun screen when hiking. Springs are unreliable and often dry up for much of the year. Travel in the early morning or late evening hours rather than during the heat of the day.

Mountain Lions

Big Bend is mountain lion country, especially the Chisos Mountains. While lion attacks are rare, three have occurred in the last twenty years. Should you encounter an aggressive mountain lion, hold your ground, wave your arms, throw stones, and shout. Never run. Keep groups together and consider hiking elsewhere with young children if you come across a special mountain lion warning sign posted at a trailhead.

Hiking

Exploring this desert and mountain country on foot requires both mental and physical preparation. Trails vary from well maintained in the Chisos to primitive and barely visible in the desert. Plan hikes within your ability. Take along a map and compass and know how to use them. Flash floods may occur following thunderstorms so avoid narrow canyons or dry washes. Stay low and avoid ridges during thunderstorms. Carry a flashlight and a first aid kit. Let someone know where you're going and when you expect to return. If you get hurt or lost, stay in one place to conserve water and energy.

Fire

Fire danger is always an important safety consideration in Big Bend. *Wood or ground fires are not permitted in the park*, and you must exercise caution in the use of gas stoves, charcoal grills, and cigarettes. During drought conditions some restrictions may apply to the use of these heat sources. Check with a ranger for the latest information about fire safety in the park.

Poisonous Animals

Venomous snakes, scorpions, spiders, and centipedes are all active during the warmer months. Wear shoes or boots at night instead of sandals. Inspect shoes and sleeping bags or bedding before use and always carry a flashlight at night. While snake bites are rare, they usually occur below the knee or elbow. Pay attention to where you walk and place your hands.

Desert Wildlife

Black bears, javelinas, skunks, coyotes, and raccoons frequent Big Bend's campgrounds. Although they sometimes appear tame, all of the animals in the park are wild, and could pose a threat to your health and safety if you attempt to approach or feed them. *Never feed any of Big Bend's wildlife.* To prevent these creatures from becoming habituated to people, store all food, coolers, cooking utensils, and toiletries in a hard-sided vehicle, preferably in the trunk of your car. Food storage lockers are available for hikers and campers in the Chisos Mountains. Dispose of garbage properly in the special animal-proof dumpsters and trash cans provided.

Remember to report all bear or lion sightings to a ranger.

Swimming

Hot weather makes the muddy Rio Grande look very inviting, but swimming is not recommended. Water-borne micro-organisms and other waste materials can occur in the river and cause serious illness. The river can be hazardous, even in calm-looking water. Strong undercurrents, deep holes, and shallow areas with sharp rocks and large tree limbs are common and make the Rio Grande unsafe for swimming. If you do choose to swim, wear a life jacket and avoid alcohol.

If you really want to swim, Balmorhea State Park (three hours north of Big Bend) boasts the "world's largest spring-fed swimming pool." Contact Balmorhea State Park at 432-375-2370 for more information.



Share the Road

Every year park rangers investigate an increasing number of motorcycle accidents. Unfortunately, a significant number involve serious injuries.

Be alert

Animals may dart out from road edges. Other drivers may pay too much attention to the scenery and cross over the center line into your travel lane or may suddenly stop their vehicles in the middle of the road to observe wildlife. These and other unforeseen conditions can lead to motorcycle accidents.

Suggestions for Motorcycle Riding

- Watch for vehicles straying over the center line.
- Stay alert for sudden stops or traffic slow-downs, especially around scenic pullouts or other congested areas.
- Wear brightly colored clothing or jackets to increase visibility to other motorists.
- Be aware of road surfaces as you ride. Never over-ride the road conditions.
- Watch for wildlife at the road edge.
- Secure your motorcycle and valuables when you are away from your bike.
- Ride with headlights on.

Survive the Sun

In all seasons, whether walking, backpacking, or day hiking, follow these tips to conserve your internal water reserves:

REDUCE YOUR ACTIVITY

During the warmest days, generally from May through August, avoid hiking in the lower elevations during the heat of the day—generally from 10:00 am to 6:00 pm.

FIND SHADE

Shade in the desert means the difference between excessive heat gain from the radiant sun and sheer comfort. In an emergency, a person resting in the shade will survive longer than someone exposed to the sun.

DRINK YOUR WATER

Don't try to conserve the drinking water you have. Whether strolling in the Basin, or hiking the South Rim Trail, you must DRINK your available water. Carry plenty of drinking water—at least 1 gallon per person per day. Balance your food and water intake. Eat a salty snack every time you take a drink of water.

REDUCE ALCOHOL & CAFFEINE INTAKE

Water is the best remedy for dehydration and listlessness. The diuretic effects of caffeine and alcohol can result in an accelerated loss of body water.

PROTECT YOUR BODY

Our sensitive skin burns easily; it needs shade, sunscreen, sunglasses, a widebrimmed hat, and proper footwear. Dehydration is accelerated by exposed skin, so keep your clothing on. Wear long-sleeved, loose-fitting, light-colored clothes.

Weather and Climate

Weather

Elevational differences in Big Bend mean that temperatures can be vastly different in different areas of the park. The lower areas along the Rio Grande are very hot during the summer months, while the Chisos Mountains are considerably cooler. Winter weather generally occurs between November and February, with temperatures dropping dramatically as cold fronts move through the area. Between June and October thunderstorms and flash floods may occur. Bring clothing for both warm and cool weather, as well as rain gear, when visiting Big Bend any time of the year.

Winter and Spring

Winters are generally mild, although periods of cold weather are possible. Fronts and storms can blow in quickly, lowering temperatures throughout the park.

Spring brings warmer temperatures; the river tends to be the warmest place in the park. Plan your activities with the weather in mind; visit the river in the morning, and always carry plenty of water.

How Hot Is It?

Average temperatures and rainfall at Panther Junction elevation 3,750 feet

	Avg. High/Low	Avg. Rainfall"
January	61/35	.46
February	66/34	.34
March	77/45	.31
April	81/52	.70
May	88/59	1.50
June	94/66	1.93
July	93/68	2.09
August	91/66	2.35
September	86/62	2.12
October	79/53	2.27
November	66/42	.70
December	62/36	.57
Yearly Avg.	79/47	15.34"

Temperatures in the Chisos Basin vary 5-10 degrees below these readings, while daytime temperatures along the Rio Grande average 5-10 degrees warmer.

Area Phone Numbers

Services inside the Park

EMERGENCY

Call 911

National Park Service
General Information 432-477-2251

Big Bend Natural History Association
Booksales & Seminars 432-477-2236

Visitor Centers

Castolon 432-477-2666
Chisos Basin 432-477-2264
Panther Junction 432-477-1158
Persimmon Gap 432-477-2393
Rio Grande Village 432-477-2271

U.S. Post Office

Panther Junction 432-477-2238

Lodging / Restaurant

Chisos Mountains Lodge 432-477-2291

Park Gasoline Service

Panther Junction (diesel) 432-477-2294
Rio Grande Village 432-477-2293

Campground Stores

Rio Grande Village 432-477-2293
Chisos Basin 432-477-2291
Castolon 432-477-2222

Services outside the Park

Lodging

Lajitas
Lajitas Resort 877-525-4827

Marathon

Gage Hotel 432-386-4205
Marathon Motel 432-386-4241

Study Butte/Terlingua area

Big Bend Motor Inn 800-848-2363
Easter Egg Valley Motel 432-371-2254
El Dorado Motel 432-371-2111
Longhorn Ranch Hotel 432-371-2541
Ten Bits Ranch 866-371-3110
Terlingua Ranch Resort 432-371-2416

Camping

Big Bend Motor Inn 800-848-2363
Big Bend Ranch State Park 432-424-3327
Big Bend Travel Park 432-371-2250
Heath Canyon Ranch 432-376-2235
Longhorn Ranch 432-371-2541
Stillwell's Trailer Camp 432-376-2244
Study Butte RV Park 432-371-2468
Terlingua Ranch Resort 432-371-2416

Convenience Stores/Gasoline

Big Bend Motor Inn 800-848-2363
Lajitas Trading Post 432-424-3234
Study Butte Store 432-371-2231
Stillwell Store & Station 432-376-2244

Medical Services

Terlingua Medics 432-371-2536
Lajitas Infirmary 432-424-5111
Big Bend Medical Center 432-837-3447

Banks

Quicksilver Bank/ATM 432-371-2211

Float Trip Outfitters/Rentals/Guide Services

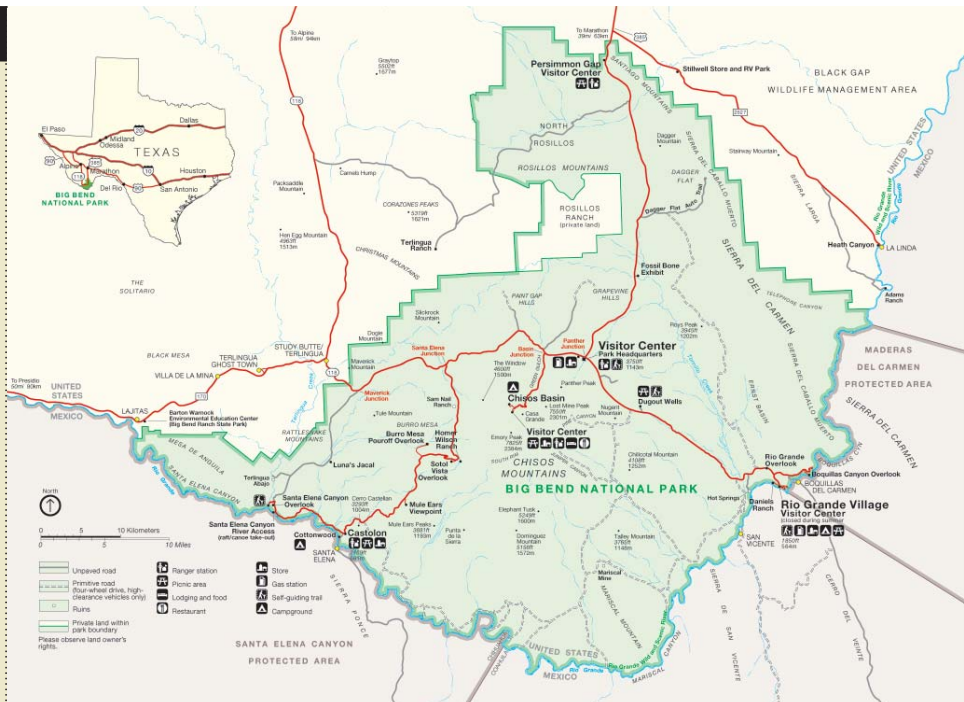
Big Bend River Tours 800-545-4240
Desert Sports 888-989-6900
Far Flung Outdoor Center 800-839-7238

Horseback Riding

Big Bend Stables 800-887-4331

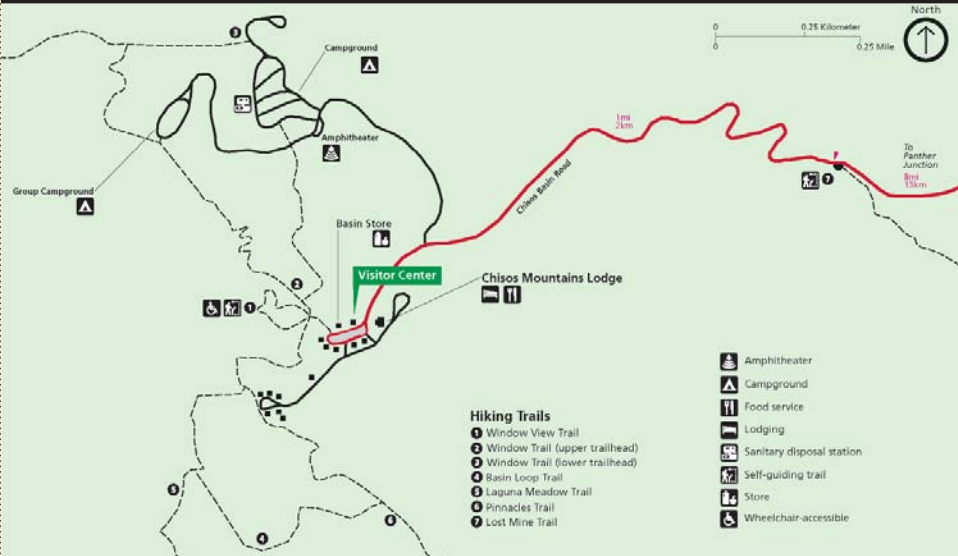
The facilities and services listed here are located within the greater Big Bend area, and vary from 30 to 100 miles from Big Bend National Park. The communities of Terlingua/Study Butte (30 miles west) and Marathon (70 miles north) offer basic services, including gas stations, restaurants, lodging, and campgrounds. Alpine, 100 miles to the northwest of the park, offers the greatest number of services.

This listing of local services is a courtesy to our visitors and implies no endorsement by the National Park Service or Big Bend National Park



Chisos Basin

5401ft 1646m



Rio Grande Village

1850ft 564m

